MONITORING REPORT FOR 2008
STREAMSIDE TAILINGS OPERABLE UNIT
SILVER BOW CREEK/BUTTE AREA NPL SITE

Prepared for:

Montana Department of Environmental Quality
Mine Waste Cleanup Bureau
1100 North Last Chance Gulch
P.O. Box 200901
Helena, MT 59620-0901

Montana Department of Justice
Natural Resource Damage Program
1301 E. Lockey
P.O. Box 201425
Helena, MT 59620-1425

And

U.S. Environmental Protection Agency
Federal Building
10 West 14th Street
Helena, MT 59626

Prepared By:

Bighorn Environmental
610 Monroe Avenue
Dillon, MT 59725

Montana Fish, Wildlife, and Parks
P.O. Box 200701
Helena, MT 59620-0701

Confluence Consulting, Inc.
P.O. Box 1133
Bozeman, MT 59771-1133

CDM Inc.
50 West 14th Street, Suite 200
Helena, MT 59601

TABLE OF CONTENTS

EXECUTIVE SUMMARY ES-1

1.0 SURFACE WATER MONITORING 1
1.1 Methods 2
1.2 Results and Discussion 5
1.2.1 Primary Contaminants of Concern 5
1.2.1.1 Arsenic 6
1.2.1.2 Cadmium 9
1.2.1.3 Copper 12
1.2.1.4 Lead 15
1.2.1.5 Zinc 18
1.2.1.6 Mercury 20
1.2.1.7 Manganese 22
1.2.2 Nutrient Analyses 24
1.2.2.1 Ammonia 24
1.2.2.2 Total Nitrogen 26
1.2.2.3 Nitrates + Nitrites 27
1.2.2.4 Total Phosphorous 28
1.2.3 Common Ions and Miscellaneous Measurements 29
1.2.3.1 Temperature 29
1.2.3.2 pH 30
1.2.3.3 Dissolved Oxygen 31
1.2.3.4 Hardness 32
1.2.3.5 Chloride 33
1.2.3.6 Sulfate 34
1.2.3.7 Alkalinity 35
1.2.3.8 Electrical conductivity 36

2.0 GROUNDWATER MONITORING 37
2.1 Methods 37
2.2 Results and Discussion 40
2.2.1 Standard Monitoring 41
2.2.1.1 Metals 41
Arsenic 41
Cadmium 42
Copper 43
Lead 44
Zinc 45
Mercury 46
Uranium 47
Manganese 48
2.2.1.2 Common Ions 49
Alkalinity 49
Chloride & Sulfate 50
Calcium & Manganese 51
Potassium & Sodium 52
2.2.2 Supplemental Groundwater Sampling 53
2.2.2.1 Well MW-10 53
2.2.2.2 Well 1GW-1038 54
2.2.2.3 Well 1GW-1004A 54
2.2.2.4 Well PT-37A 55

TABLE OF CONTENTS (Continued)

2.3 Conclusions 55
2.3.1 Colorado Tailings 55
2.3.2 MWRR 55
2.3.3 Rocker 55
2.3.4 Nissler 56
2.3.5 Silver Bow Creek 56
2.3.6 Additional Analytes and Common Ions in all Well Clusters 56

3.0 VADOSE ZONE MONITORING 57
3.1 Methods 57
3.2 Results 59
3.2.1 Metals 59
3.2.2 Common Ions 62
3.2.3 Summary 64

4.0 STREAM SEDIMENT MONITORING 65
4.1 Methods 66
4.2 Results and Discussion 68
4.2.1 Arsenic 68
4.2.2 Cadmium 69
4.2.3 Copper 70
4.2.4 Lead 71
4.2.5 Zinc 72

5.0 MACROINVERTEBRATES AND PERIPHYTON 73
5.1 Introduction 73
5.2 Sampling sites 74
5.3 Methods 76
5.3.1 Macroinvertebrate Analysis 76
5.3.2 Periphyton Analysis 79
5.4 Results and Discussion 83
5.4.1 Macroinvertebrates 83
5.4.2 Periphyton 111
5.5 Summary 133

6.0 FISH POPULATION MONITORING 135
6.1 Introduction 135
6.2 Methods 135
6.3 Results 136
6.3.1 Fish Sampling Results in 2002 137
6.3.2 Fish Sampling Results in 2003 138
6.3.3 Fish Sampling Results in 2004 138
6.3.4 Fish Sampling Results in 2005 139
6.3.5 Fish Sampling Results in 2006 140
6.3.6 Fish Sampling Results in 2007 140
6.3.7 Fish Sampling Results in 2008 142

TABLE OF CONTENTS (Continued)

6.3.8 Trends in Fish Abundance 2002 to 2008 144
6.3.9 Long Term Sections 146
6.3.9.1 Rocker Section 146
6.3.9.2 Ramsey Section 147
6.3.9.3 Below German Gulch Section 148
6.3.9.4 Lower Area One Section 149
6.3.9.5 Father Sheehan Section 149
6.3.9.6 Above Highway 1 Crossing 150
6.4 Discussion 150
6.5 Recommendations 153

7.0 FACTORS AFFECTING FISH SURVIVAL IN SILVER BOW CREEK 154
7.1 Introduction 154
7.2 Methods 154
7.3 Results 156
7.4 Discussion 157

8.0 VEGETATION MONITORING REPORT 166
8.1 Introduction 166
8.2 Precipitation Affects 166
8.3 Methods 167
8.4 Data Analysis 168
8.5 Discussion 169
8.5.1 Reach F 169
8.5.2 Reach G 171
8.5.3 Reach H 174
8.5.4 Subarea 4 176

9.0 BIRD INVENTORY 181
9.1 Methods 181
9.2 Results 181
9.3 Bird Species in Subareas 1 and 2 182
9.4 Recommendations 182

10.0 CONCLUSION 186
10.1 Summary of Site Characteristics 186
10.1.1 SS-06G Silver Bow Creek above WWTP 186
10.1.2 SS-07 Silver Bow Creek below WWTP 187
10.1.3 SS-08 Silver Bow Creek at Rocker 188
10.1.4 SS-10A Silver Bow Creek above Sand Creek 189
10.1.5 SS-10B Silver Bow Creek below Sand Creek 190
10.1.6 SS-11C Silver Bow Creek above Browns Gulch 191
10.1.7 SS-11D Silver Bow Creek below Browns Gulch 192
10.1.8 SS-15A Silver Bow Creek above German Gulch 193
10.1.9 SS-15G German Gulch near mouth 194
10.1.10 SS-15B Silver Bow Creek below German Gulch 195
10.1.11 SS-17D Silver Bow Creek near Opportunity 196

11.0 REFERENCES 197

APPENDICES

EXECUTIVE SUMMARY

The comprehensive, long-term monitoring plan for the Silver Bow Creek Streamside Tailings Operable Unit (SSTOU) was developed to determine progress toward the established remediation and restoration goals. The components monitored in 2008 included surface water, groundwater, vadose zone water, stream sediment, and biological indicators. Biological indicators pertaining to water quality included macroinvertebrates, periphyton and fish. Terrestrial vegetation and birds were monitored to gauge the success of habitat restoration in the floodplain along remediated areas of the stream channel.

Surface water monitoring indicated concentrations of "contaminants of concern" (total recoverable arsenic, cadmium, copper, lead, mercury and zinc, as well as manganese) met remediation goals at each of the monitoring sites on Silver Bow Creek during at least some quarter(s) of 2008. Goals generally were based on threshold values for aquatic life toxicity, and were achieved more frequently in channel reaches remediated prior to 2006. Reaches completed after 2006, or yet to be remediated as in the reach through Durant Canyon, failed more frequently to meet remediation goals. While the metals concentrations in surface waters generally were highest downstream of recently remediated or unremediated areas, occasionally elevated levels at sites completed between 2000 and 2003 indicated the continued potential threat to biological integrity within the SSTOU. Aquatic life standards for copper were regularly exceeded, and remediation goals not met, at several stations in the SSTOU during all four quarters of 2008.

Nutrient concentrations remained a major source of impairment within the SSTOU in 2008. Nitrogen and phosphorus concentrations exceeded targets established for the Clark Fork River, both above and especially below the Butte wastewater treatment plant (WWTP) outfall. The one Silver Bow Creek site above the WWTP outfall is outside the SSTOU, while all nine sites within the SSTOU are below the WWTP. This facility was previously identified as a major source of nutrients (ammonia, nitrate + nitrite and total nitrogen, and total phosphorus), which was again verified during the 2008 monitoring.

Groundwater was monitored at 18 wells located along remediated Subarea 1 within the SSTOU during June and September of 2008. Samples were collected for the same metals as for the surface water monitoring, plus uranium. Six of the eighteen wells sampled in 2008 had "contaminant of concern" concentrations which exceeded groundwater standards. The human health standard for arsenic, cadmium and lead were exceeded at a small number of wells, while groundwater standards for zinc, mercury and uranium were exceeded at several well locations. Copper did not exceed the groundwater standard in any of the monitoring wells in 2008.

Vadose zone monitoring was attempted utilizing soil lysimiters to detect the migration of "contaminants of concern" and common ion constituents from the Mine Waste Relocation Repository (MWRR) through the unsaturated soil column. As was the case in 2007, low soil moisture precluded collection all but one sample in 2008. Concentrations of all contaminants of concern were well below surface and groundwater human health standards, further reducing risk of detrimental effects to aquatic life resulting from vadose zone water.

Sediment metals sampling throughout the SSTOU indicated virtually no exceedence of remediation goals for arsenic, cadmium, copper and lead in 2008, both within and downstream of remediated areas. Zinc concentrations in sediment from unremediated reaches at the lower end of the SSTOU did exceed remediation goals in 2008. While remediation goals for most metals of concern in stream sediments were

met in 2008, threshold and probable effects concentrations often were exceeded, indicating a continued potential for biological impairment due to metals at most sites in the SSTOU.

Biological sampling included the collection of macroinvertebrates and periphyton at each of the surface water/sediment sites sampled in 2008, and was consistent with the previous years sampling event. Metrics for both macroinvertebrates and periphyton indicated impairment of the biota at the site above the Butte WWTP, attributable to both elevated nutrients and metals, and remediation goals we not met. At SSTOU sites downstream of the WWTP outfall, elevated nutrients rather than metals were largely responsible for severe impairment of the aquatic biota in the remediated reaches from Rocker to below Browns Gulch. While severe impairment improved to moderate levels with distance downstream, remediation goals for the aquatic biota generally were not met at any of the remediated sites. Through Durant Canyon, elevated metals originating from the unremediated stream channel contributed to severe impairment, despite the influx of high quality water from German Gulch. Overall, elevated nutrients are the greatest cause of stress to the biota at remediated sites in the SSTOU, although metals contribute significantly to impairment in unremediated reaches and likely will continue to do so, at least at chronic levels, post-remediation.

Vegetation monitoring in 2008 examined Reaches F, G, and H within Subarea 2 and most permanently seeded portions of Subarea 4. Perennial plant cover in Reach F was generally adequate to high, and vegetation in Reach F is overwhelmingly herbaceous despite the major expense and effort expended to establish woody plants through transplanting. Average shrub density in 2008 was low. Reach G was sampled for canopy coverage and shrub density in 2008. Compared to Reach F, Reach G has less plant cover and more bare soil due to the prevalence of saline soils and younger vegetation overall. Mean shrub density was nearly 3 times that at Reach F, most of them from seeding, but salinity no doubt limited both transplanted and seeded shrubs. All transects of Reach H except one showed good seedling density, with fewer legumes than Reach F but similar numbers to Reach G. Shrubs were rather few in number, possibly due to a lack of sample transects in transplanting areas.

In Subarea 4, none of the 17-acre area north of Highway 1 that resembled a gravel pit was transplanted as of 2008. The only two transects that were sampled for canopy coverage and shrubs in SA 4 in 2008 were in this area north of MT Hwy 1. Total plant cover in 2008 was just 46%, and almost all of the shrubs are less than four inches tall, probably limited by the droughty substrate. Seedling densities in 2008 were generally adequate but hardly impressive. All but one transect lacked legumes, and grasses comprised the only important growth-form. For the most part, the NRD-funded “enhanced seed” component applied did poorly, as most substrates other than sand and gravel in SA 4 are acidic or contaminated, or both. The northern wetland of SA 4 area was not sampled prior to 2008. Plant cover was good, but diversity was surprisingly low, considering the splendid richness of the wetland complex. Tufted hairgrass accounted for half of the cover in the northern wetland area, and while tolerant of low pH and metals on contaminated sites, it is also an important grass in clean wetland locations in Montana.

1.0 SURFACE WATER MONITORING

Remediation and restoration goals for Silver Bow Creek, set forth by the Department of Environmental Quality (DEQ) and the Natural Resource Damages Program (NRDP) of the Department of Justice, include goals specific to surface water quality. Essentially, these call for the contaminants of concern to meet the most restrictive water quality standard for each pollutant (Table 1-1). By meeting state standards, Silver Bow Creek will be fully supporting its beneficial uses with respect to water quality.

Table 1-1: ***Applicable numeric water quality standards (DEQ Circular WQB-7, updated 2/08)***

Parameter	Primary Contaminant	Water Quality Standards (mg/L)		
			Aquatic Life	
		Human Health	Chronic	Acute
Aluminum as Al		---	0.087	0.75
Antimony as Sb		0.0056	---	---
Arsenic as As	X	0.01	0.15	0.34
Barium as Ba		2	---	---
Beryllium as Be		0.004	---	---
Boron as B		---	---	---
Cadmium as Cd	X	0.005	0.00032 [1]	0.0027 [1]
Chromium as Cr		0.1	0.103 [1]	2.165 [1]
Cobalt as Co		---	---	---
Copper as Cu	X	1.3	0.011 [1]	0.017 [1]
Iron as Fe		0.33 [2]	---	---
Lead as Pb	X	0.005	0.004 [1]	0.108 [1]
Manganese as Mn		0.05 [2]	---	---
Mercury as Hg	X	0.00005	0.00091	0.0017
Molybdenum as Mo		---	---	---
Nickel as Ni		0.1	0.06 [1]	0.57 [1]
Selenium as Se		0.05	0.005	0.02
Silver as Ag		0.1	---	0.006 [1]
Uranium as Ur		0.03	---	---
Vanadium as V		---	---	---
Zinc as Zn	X	2	0.144 [1]	0.144 [1]

1 Based on 125 mg/L hardness (typical value for Silver Bow Creek in SSTOU)

2 Secondary maximum contaminant level, based on aesthetic properties (color, taste, odor)

Although unrelated to tailings remediation, nutrient concentrations present a major constraint precluding attainment of remediation and restoration goals for aquatic life (macroinvertebrates and periphyton) throughout the SSTOU. Agricultural and urban sources contribute nutrients to Silver Bow Creek above and within the SSTOU (NRDP et al. 2005). The most significant of these is likely the Butte wastewater treatment plant (WWTP), which discharges treated effluent immediately upstream of the SSTOU. This monitoring plan includes evaluation and interpretation of nutrient loading as a supplement to assist in evaluating additional limiting factors that may influence attainment of goals.

Narrative standards apply to most nutrients in most waters in Montana. Specifically:

> "State surface waters must be free from substances attributable to municipal, industrial, agricultural practices or other discharges that will…create conditions which produce undesirable aquatic life" (Administrative Rules of Montana [ARM] 17.30.637[e]).

Periphyton and macroinvertebrate monitoring addressed in Section 6 focuses on issues surrounding production of undesirable aquatic life. In brief, prevalence of organisms with tolerance or affinity for increased nutrients, at the expense of sensitive organisms adapted to lower nutrient concentrations, provide the basis for evaluating this standard.

Numeric standards for nutrients include a calculable standard for ammonia, which protects fish from ammonia toxicity. In addition, numeric standards exist for two streams in Montana, the Clark Fork River, and the lower Blackfoot River. In most cases, these standards have limited applicability to smaller streams, which tend to be more oligotrophic, or nutrient poor, compared to larger rivers (Vannote et al. 1980). As a result, they are less protective in small streams than narrative standards, which address natural loading in streams with a greater tendency towards being oligotrophic or nutrient poor. As a major tributary to the Clark Fork River, application of these values to Silver Bow Creek is a valid approach to evaluating nutrient concentrations (Table 1-2); however, full restoration of water quality in this stream may result in establishment of more stringent values that reflect the stream's potential.

Distributional statistics for nutrient concentrations within an ecoregion provide a supplement in evaluating nutrient concentrations (Table 1-2). Montana DEQ has recently released distributive statistics for nutrients in reference streams across the state (DEQ, 2008), which propose new standards for wadeable streams within various ecoregions found in Montana. Comparing nutrient concentrations from Silver Bow Creek with data from other streams in the region allows identification of the relative magnitude of these parameters.

Table 1-2: ***Nutrient guideline values based on regional references and nutrient standards developed for the Clark Fork River.***

Location	Criteria/Reference	TN (mg/L)	NO_{2+3} (mg/L)	TP (mg/L)
Upper Clark Fork River	DEQ Standards	0.300	-	0.020
Middle Rockies Ecoregion	25th percentile of ecoregion	0.070	0.005	0.007
Middle Rockies Ecoregion	50th percentile of ecoregion	0.110	0.010	0.010
Middle Rockies Ecoregion	75th percentile of ecoregion	0.179	0.033	0.018
Middle Rockies Ecoregion	DEQ recommended numeric nutrient criteria (2008) [1]	0.320	0.100	0.048

[1] Criteria apply July 1 – Sept. 30

In addition to primary pollutant categories, nutrients and metals, surface water parameters include a suite of common ions, physicochemical parameters, and miscellaneous measures such as pH. These data support interpretation of water quality results or relate to requirement within the ROD (DEQ, EPA Nov 1995)).

1.1 Methods

Sampling followed standard operating procedures (SOPs) developed for the Clark Fork River superfund sites (ARCO 1992), which include numerous provisions for quality assurance and quality control. Grab samples were collected quarterly at established sampling stations prescribed in the Long Term Monitoring Plan for Silver Bow Creek, Streamside Tailing Operable Unit (DEQ & NRDP, 2007) along Silver Bow Creek (Figure 1-1). Beginning in 2006, addition of a site above the Butte WWTP outfall (SS-06G) allowed

evaluation of the influence of this point source on water entering the SSTOU. In 2007, four additional sites were included to expand the scope of investigation. SS-11C was added above the confluence of Browns Gulch. Three sites were added in Durant Canyon and situated at the mouth of German Gulch (SS-15G), and on Silver Bow Creek above (SS-15A) and below (SS-15B) this confluence. No sample sites were added in 2008. A Horiba U-10 water quality meter provided field readings of electrical conductivity, pH, dissolved oxygen, and water temperature during the first and second quarter sample events in March and June. A YSI 556 multi-parameter meter was used to take each of these measurements during the third and fourth quarter events in September and December. Stream flow was measured at each sampling station using a Swoffer flow meter.

Northern Analytical Labs in Billings, MT conducted laboratory analyses during quarters 1, 2, and 3; Pace Analytical Services (formerly Northern Analytical Labs) conducted laboratory analyses during the fourth quarter event. Laboratory analyses were conducted according to the Clark Fork SOPs and EPA methods, including all applicable quality assurance and quality control measures. Analytes included total recoverable and dissolved metals, major nutrients, and a suite of common ions (Table 1-3). Contaminants of concern included metals commonly associated with tailings and other mine operations in the Butte area (arsenic, cadmium, copper, lead, mercury, and zinc).

Table 1-3: ***Constituents analyzed in grab samples at Northern Analytical Labs/Pace Analytical.***

Parameter	Category	EPA Analytical Method
Arsenic as As (Dissolved)	Contaminant of concern	200.8
Arsenic as As (Total Recoverable)		200.8
Cadmium as Cd (Dissolved)		200.8
Cadmium as Cd (Total Recoverable)		200.8
Copper as Cu (Dissolved)		200.8
Copper as Cu (Total Recoverable)		200.8
Lead as Pb (Dissolved)		200.8
Lead as Pb (Total Recoverable)		200.8
Manganese as Mn (Dissolved)		200.7
Manganese as Mn (Total Recoverable)		200.7
Mercury as Hg (Dissolved)		200.8
Mercury as Hg (Total Recoverable)		200.8
Zinc as Zn (Dissolved)		200.7
Zinc as Zn (Total Recoverable)		200.7
Ammonia (Undistilled) as N	Nutrients	350.1
Nitrate + Nitrite as N		353.2
Total Kjeldahl Nitrogen as N		351.2
Total Phosphorous as P		4500-P-E
Calcium as Ca (Dissolved)	Common Ions	200.7
Chloride as Cl		300
Magnesium as Mg (Dissolved)		200.7
Potassium as K (Dissolved)		200.7
Sodium as Na (Dissolved)		200.7
Sulfate as SO4		300

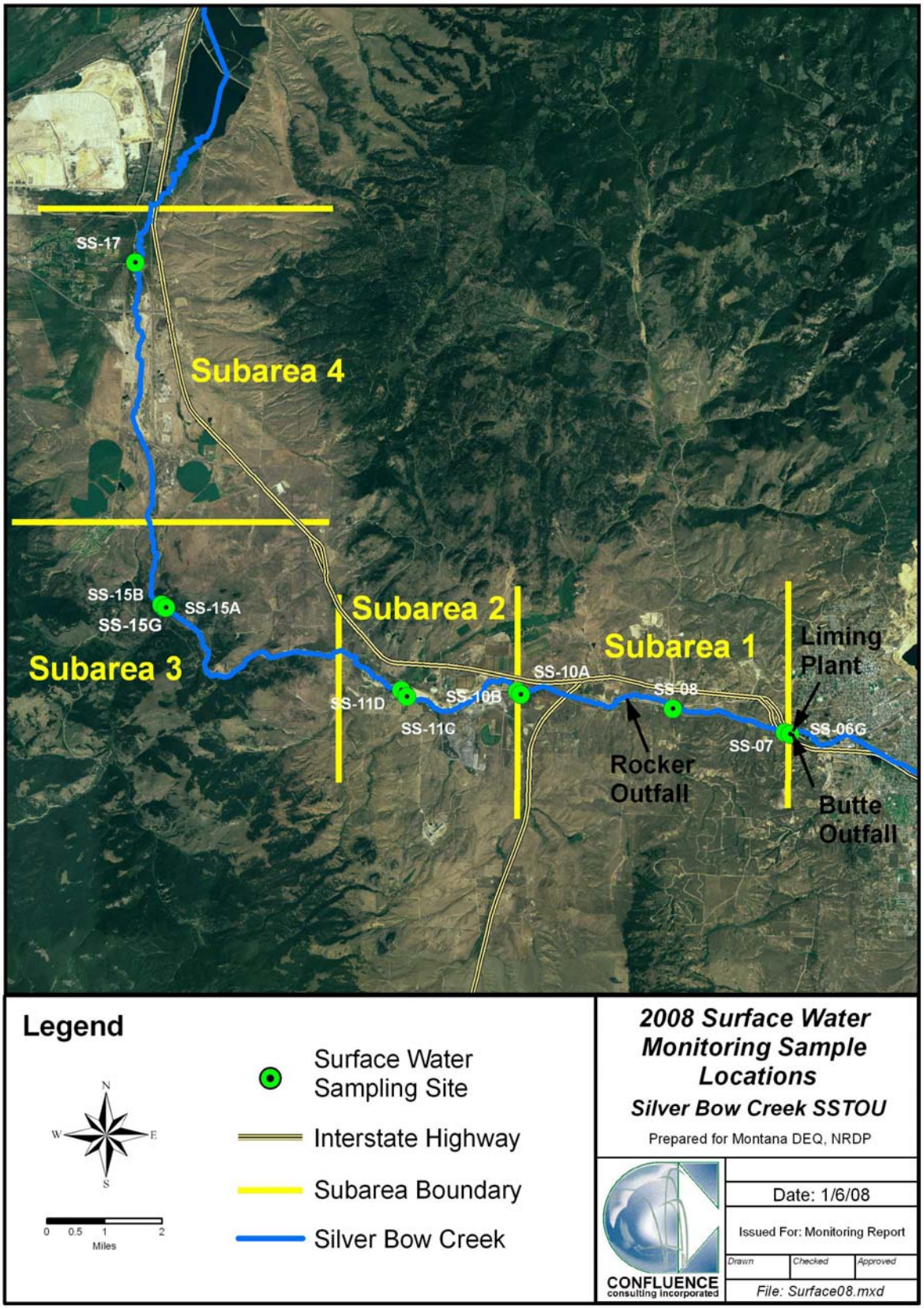


Figure 1-1. ***2008 surface water monitoring locations.***

Several analyses allowed inference on water quality status above and within the SSTOU. These included comparisons of concentrations of water quality parameters among stations to determine spatial trends. In addition, comparisons of water chemistry results among sampling dates allowed inference on seasonality and other factors on water quality in Silver Bow Creek. Finally, comparison of concentrations to state water quality standards (Table 1-1) allowed evaluation of attainment of remediation goals. Note that correct application of standards for chronic toxicity requires these concentrations be sustained for 96 hours. Although no data are available to evaluate short-term variability in concentrations of various metals, the following analyses assume measured concentrations were stable over a 96-hour period.

Comparison of results to long-term monitoring data housed in the Clark Fork database provided the means to evaluate the influence of remediation on water quality in Silver Bow Creek. Data available for established sampling stations varied among stations and parameters. For most sampling stations, a considerable number of samples were collected during the 1980s and 1990s, which represent pre-remediation conditions. Comparison of these values to samples collected in the current decade provided a means to evaluate the influence of remediation on metals concentrations in Silver Bow Creek.

1.2 Results and Discussions

1.2.1 Primary Contaminants of Concern

The following results and discussion focus on total recoverable metals, which reflect dissolved, precipitated, and adsorbed forms. Dissolved metals were typically a relatively small fraction of the total metals for copper, lead, mercury, and zinc. The dissolved form of arsenic composed a greater percentage of the total amount, due to arsenic's tendency to concentrate in dissolved forms as pH levels rise (e.g. after remediation efforts remove metals). Reporting total concentrations offers a conservative perspective in determining the potential effects of metals on biological communities. Results are presented for each contaminant of concern specified in the monitoring plan at all sample stations within the SSTOU. Comparisons to historic concentrations are provided if data were available for analysis.

1.2.1.1 Arsenic

In 2007, human health standards for arsenic in surface water decreased from 0.018 to 0.010 mg/L. In 2008, peak concentrations of arsenic were found during the second quarter sampling event, during which time human health (HH) standards were exceeded at the upper and lower extents of remediation (Figure 1-2). Remaining quarterly sample results were around 50% of the peak arsenic concentration in June, and remained well below the human health standard within remediated areas. Downstream of remediation, arsenic concentrations continued to rise, exceeding the HH standard during Q1, Q2, and Q3. Fourth quarter results were below the HH standard at all sample stations. All sample stations recorded arsenic concentrations well below chronic aquatic life (0.15 mg/L) and acute aquatic life (0.34 mg/L) limits, which are not presented in Figure 1-2 as they are 5-10x higher than the concentrations found at all sample sites.

Results in both 2006 and 2007 showed similar spatial results, with arsenic concentrations slightly dipping at SS-07 and rising near the downstream extent of remediation. These results indicate the possibility that the Butte Wastewater Treatment Plant (WWTP) acts to dilute arsenic concentrations. Additionally, these data support the conclusion that arsenic in surface waters is affected by contaminated soils in unremediated portions of the floodplain. Elevated arsenic concentrations near the downstream extent of remediation may be due to excavation activities occurring in that portion of the SSTOU.

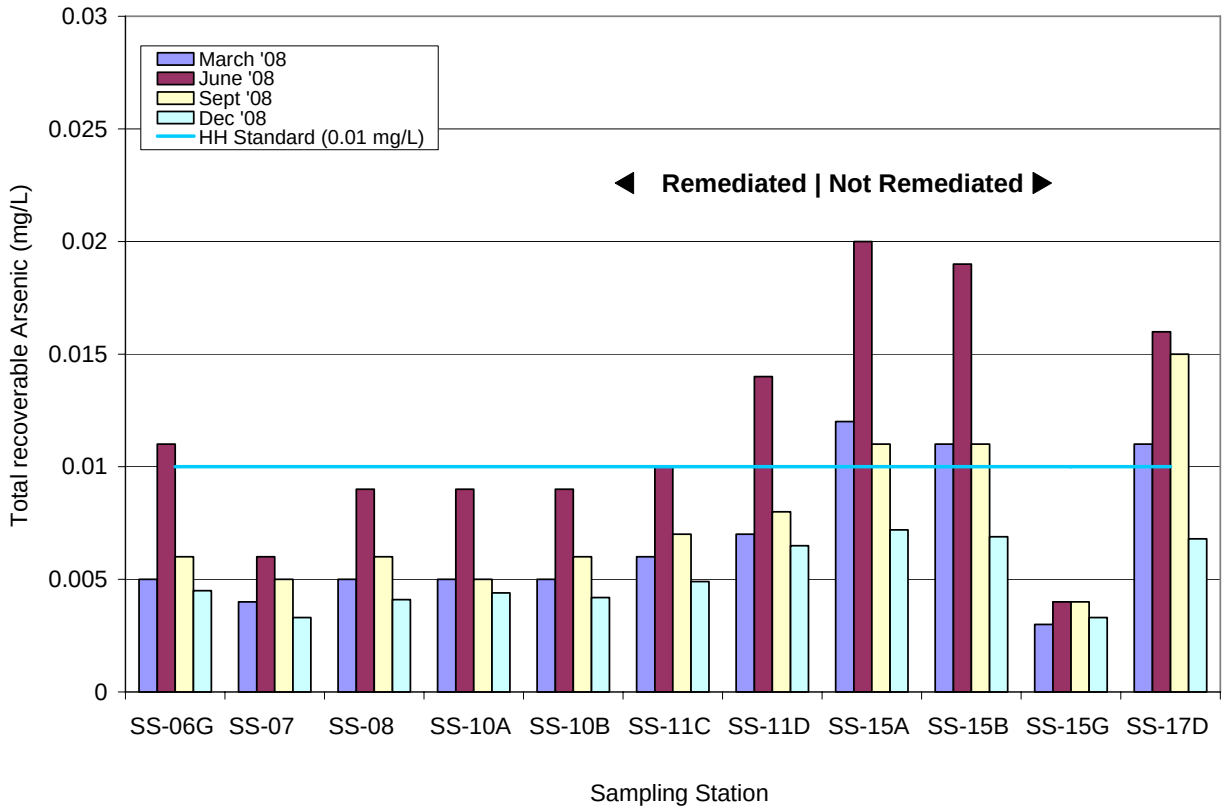


Figure 1-2. ***Total recoverable arsenic in Silver Bow Creek, 2008.***

Sample sites generally indicate a gradual decrease in arsenic concentration following remedial actions to remove contaminated sediments from the floodplain and stream bed (Figure 1-3). Exceptions to this trend were seen in 2006, when an increase in arsenic concentration was evident both within remediated and non-remediated sites. Following this uptick in 2006, mean arsenic concentrations have shown declines at all sample stations, although these may be attributed to the inherent sampling variability. With respect to arsenic concentrations, these results show progress toward improving water quality and a reduction in threats to human health and biological communities in remediated portions of the SSTOU.

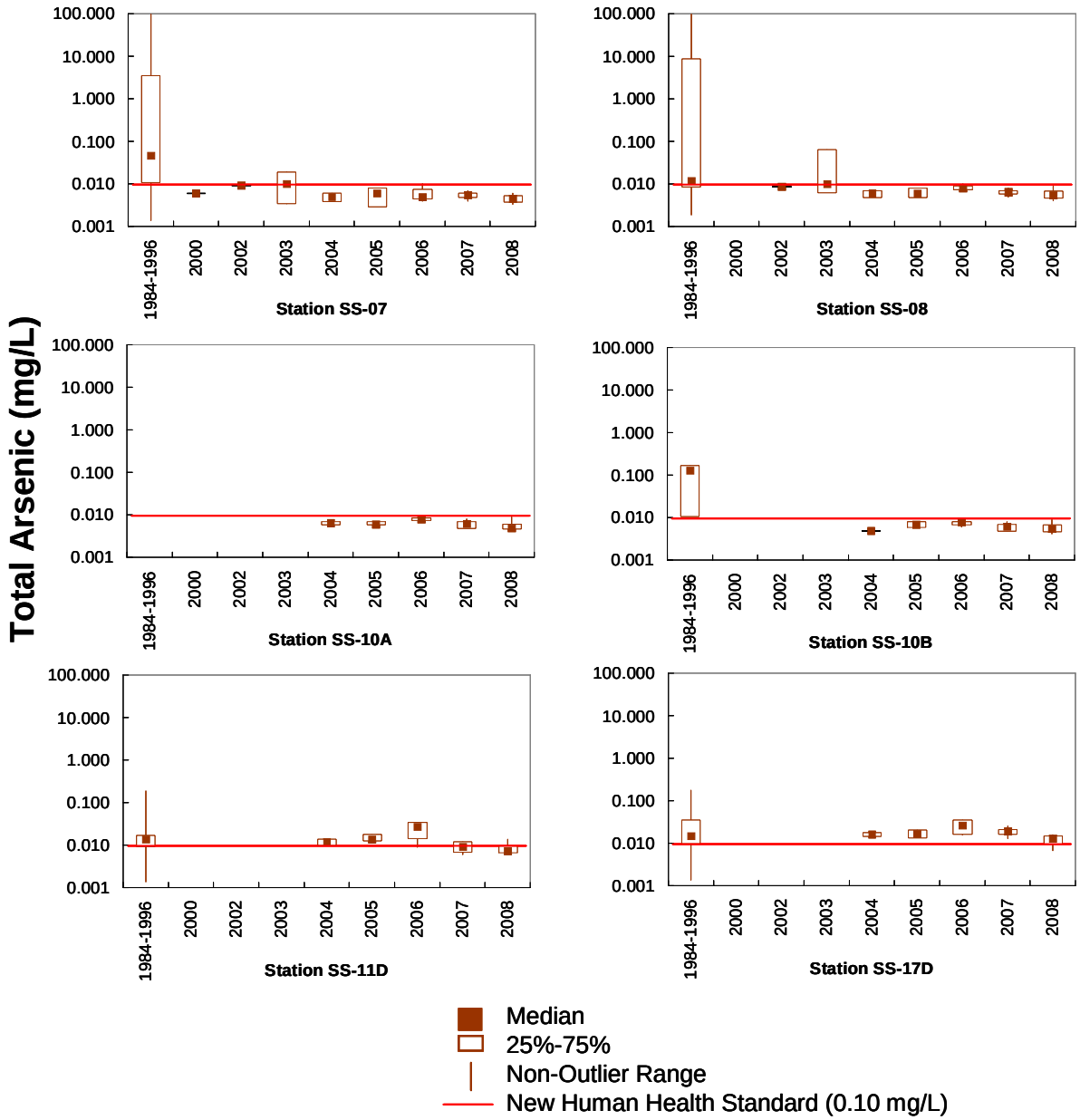


Figure 1-3. ***Historic arsenic concentrations at established sampling stations from the 1980s through 2008.***

Remediation goals for arsenic were met during all quarters in the upper extent of the SSTOU, while also meeting these goals during at least one quarter in the lower extent of the SSTOU (Table 1-4).

Table 1-4: ***Results of 2008 monitoring for arsenic compared to remediation goals for the SSTOU.***

Parameter	2008 Remedy Goal (mg/L)	SS-07	SS-08	SS-10A	SS-10B	SS-11C	SS-11D	SS-15A	SS-15B	SS-17D
Arsenic	**0.01**									

Remedy goal met in all quarters in 2008
Remedy goal met in some quarters in 2008
Remedy goal not met in any quarters in 2008

1.2.1.2 Cadmium

Cadmium in surface water followed a very similar spatial trend and range of concentrations as in 2007. Concentrations remained below the upper chronic aquatic life threshold at nearly all remediated sites (Figure 1-4). Cadmium concentrations slightly rose at the lower extent of remediated sites, continuing this trend through non-remediated sites. Peak concentrations of cadmium were found during the first quarter of 2008 at SS-15A, but remained below the lower threshold of acute aquatic life and the human health standard of 0.005 mg/L. The continuance of relatively low concentrations throughout the SSTOU indicates cadmium concentrations, while hovering around the chronic aquatic life limit, is likely of lesser relevance in affecting the health of aquatic life than other contaminants of concern.

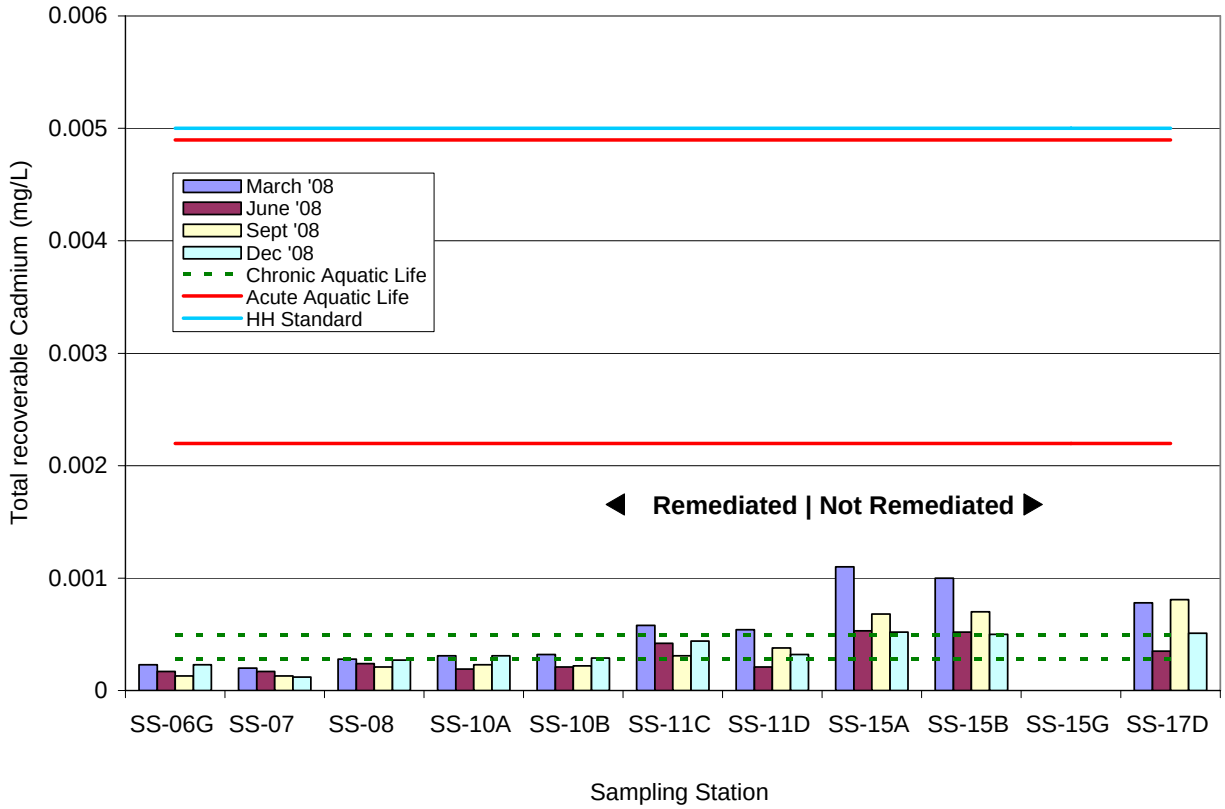


Figure 1-4. ***Total recoverable cadmium in Silver Bow Creek, 2008.***

Overall, cadmium concentrations were substantially lower throughout the SSTOU beginning in 2007 and extending through 2008 as compared to the period between 2000 and 2006 (Figure 1-5). Mean cadmium concentrations entering the SSTOU at station SS-07 were much lower in 2007 and 2008 as compared to baseline data from the 80s and 90s, indicating improvements in metals entering the SSTOU. Too few data were available from the baseline period to allow much inference at station SS-11D, although this station also indicated a drastic drop in cadmium concentrations following 2006. Although mean cadmium concentrations indicate a slight drop from 2007 to 2008, these are likely within the inherent variability in sampling.

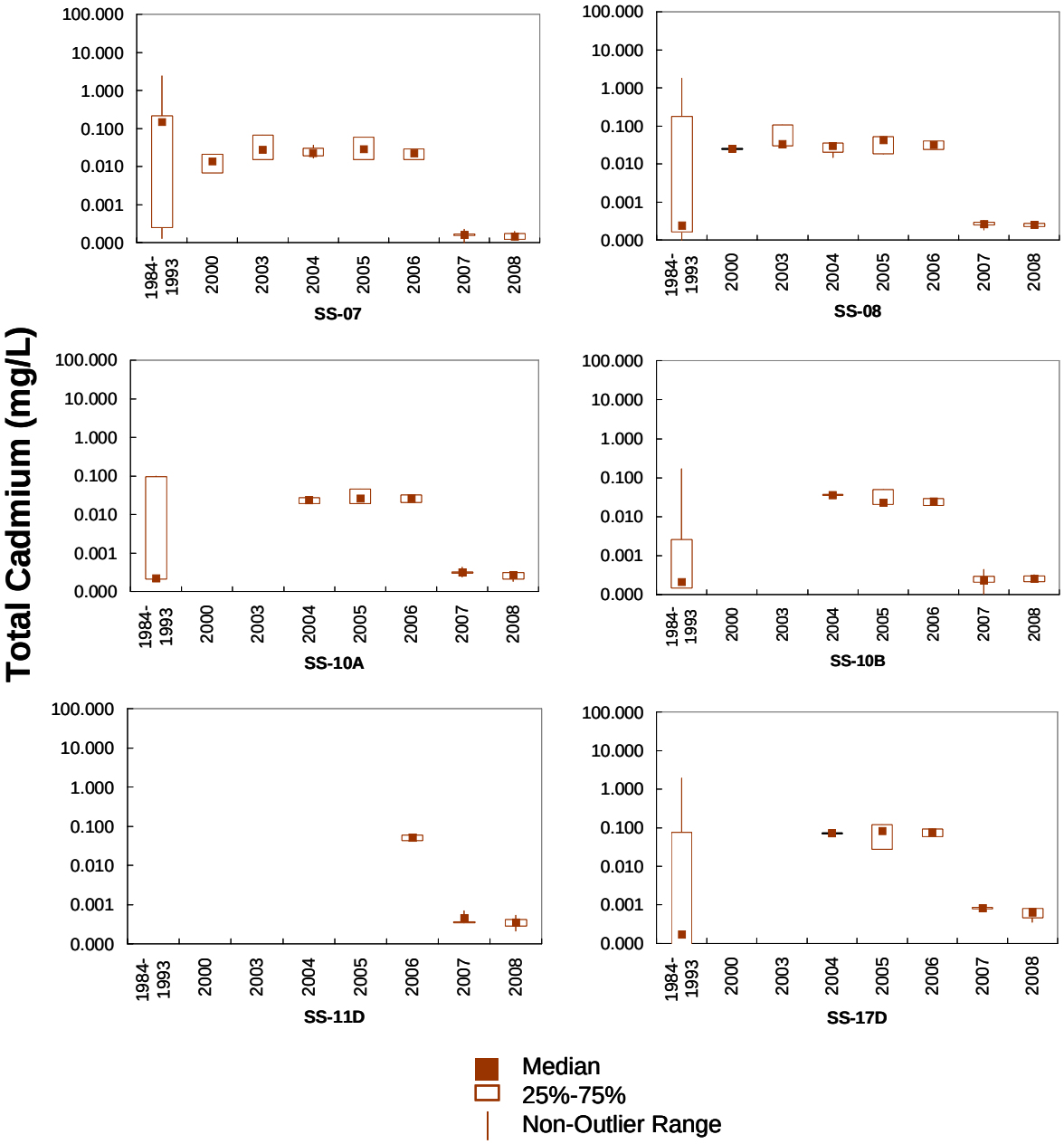


Figure 1-5. ***Historic cadmium concentrations at established sampling stations from the 1980s through 2008.***

In 2008, remediation goals established for cadmium were met during all quarters in the upper extent, intermittently met in middle portions of the SSTOU, and not met during any quarters in lower reaches of the SSTOU (Table 1-5).

Table 1-5: ***Results of 2008 monitoring for cadmium compared to remediation goals for the SSTOU.***

Parameter	2008 Remedy Goal (mg/L)	SS-07	SS-08	SS-10A	SS-10B	SS-11C	SS-11D	SS-15A	SS-15B	SS-17D
Cadmium	**0.00027**									

Remedy goal met in all quarters in 2008
Remedy goal met in some quarters in 2008
Remedy goal not met in any quarters in 2008

1.2.1.3 Copper

As in 2007, the range of hardness values in 2008 resulted in an overlap of acute and chronic aquatic life limits. Copper concentrations generally fell between the upper and lower acute limits for aquatic life within remediated areas of the SSTOU (Figure 1-6). Downstream of remediation, copper concentrations elevate to levels which exceed the upper limit of acute aquatic life, but remain well below the human health standard for copper (1.3 mg/L). The HH standard has not been included on Figure 1-6, as it is more than an order of magnitude higher than the maximum concentration found in surface waters in 2008. These data continue to imply that unremediated mine tailings in Subareas 3 and 4 are the main source of copper in surface waters.

Spatial results of copper concentrations in 2008 are very similar to those shown in 2007 with fairly constant concentrations found within remediated areas, and more elevated concentrations in non-remediated areas. 2006 results implicated the WWTP as a potential source of copper due to a rise shown during Q1. While this trend was not noted during any quarterly sampling events in 2007, monitoring in 2008 indicated another rise in copper during Q2 below the WWTP. This rise in copper below the WWTP provides additional support of the WWTP as a potential source of copper to surface water in the SSTOU.

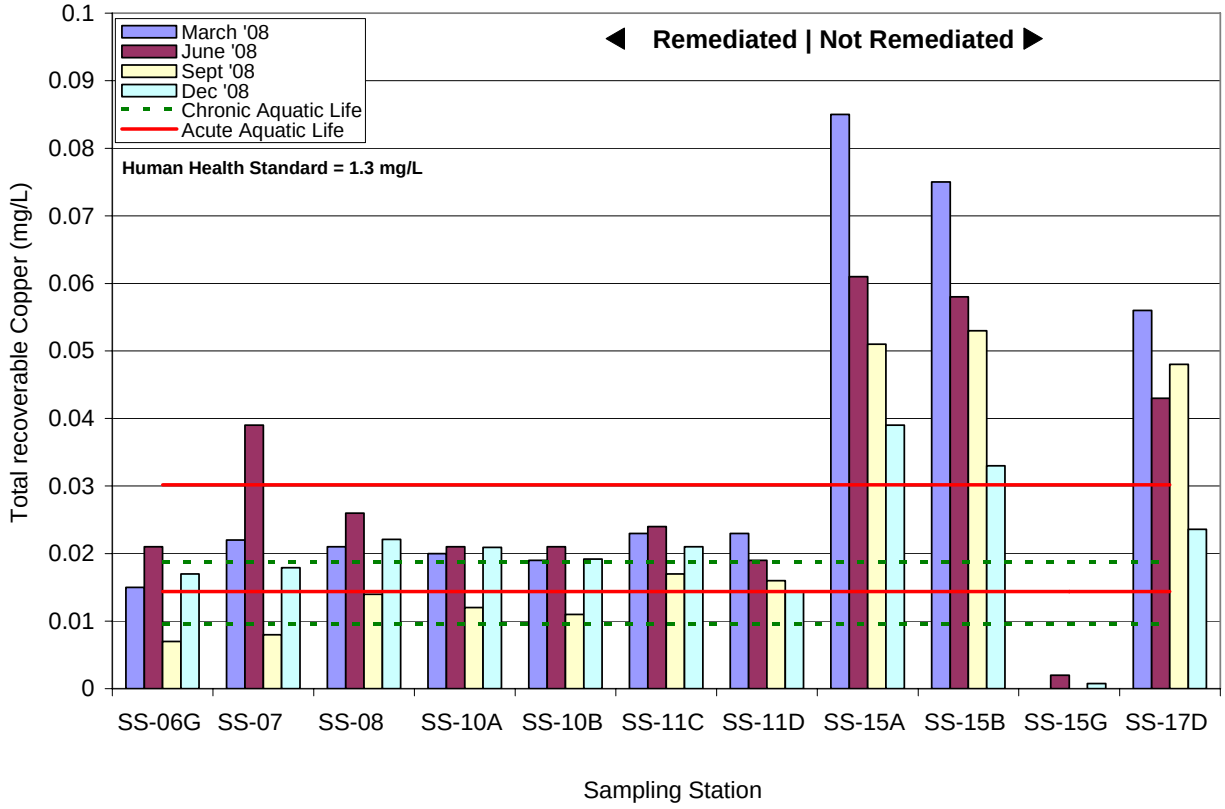


Figure 1-6. ***Total recoverable copper concentrations in Silver Bow Creek, 2008.***

Comparisons of copper concentration between baseline and 2000s data, and among sampling stations once again indicated contributions from the watershed above the SSTOU, although variable, were a major part of the incoming copper load (Figure 1-7). Mean copper concentrations at station SS-07 show very gradual decreases since 2005, although these changes may be due to sampling variability. Decreases in copper concentrations at SS-07 since the 1990s indicates a potential reduction in loading from the watershed above the SSTOU in more recent years. Mean concentrations at SS-08, SS-10A, and SS-10B were very similar in 2008 as in 2007, while Stations SS-11D and SS-17D showed decreases in copper concentrations during these same years.

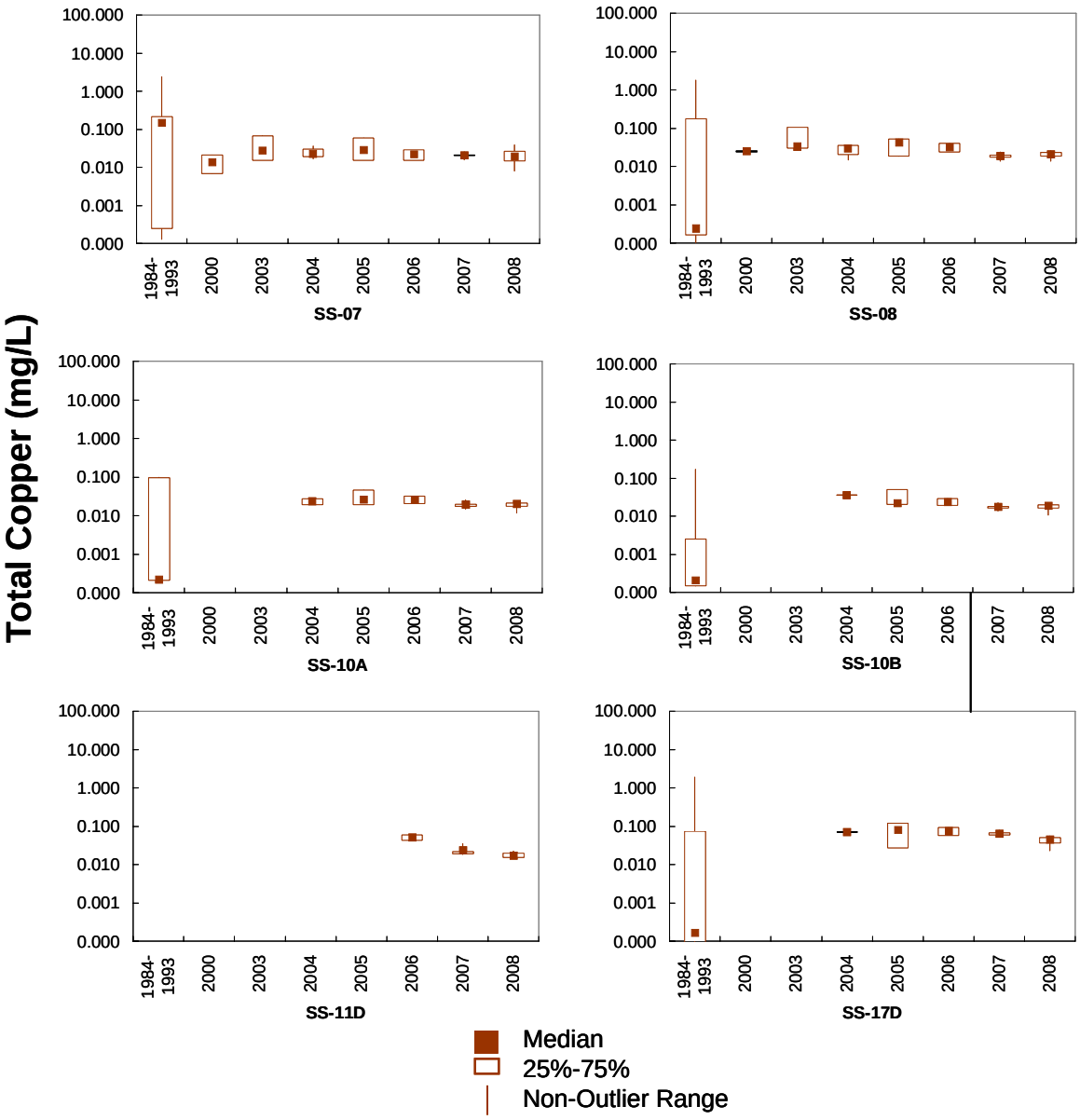


Figure 1-7. ***Historic copper concentrations at established sampling stations from the 1980s through 2008.***

These data suggest a relatively constant concentration of copper within remediated areas of the SSTOU, with slight improvements in reaches further downstream over the past five years. Improvements in copper concentration within non-remediated sites may potentially be attributed to cleanup efforts further upstream in the watershed. Baseline data at sites SS-08, SS-10A, SS-10B, and SS-17D indicate historically very low mean copper concentrations as compared to data from the current decade. Although this trend may appear disturbing, mean concentrations from more recent sampling events remain well below the human health standard of 1.3 mg/L.

Remediation goals established for copper require concentrations to be below the lower threshold of chronic aquatic life. Results from 2008 indicated this goal was met during some quarters at station SS-07 in the upper extent of the SSTOU; however, this goal was not met at any other station during any quarter in 2008 (Table 1-6).

Table 1-6: ***Results of 2008 monitoring for copper compared to remediation goals for the SSTOU.***

Parameter	2008 Remedy Goal (mg/L)	SS-07	SS-08	SS-10A	SS-10B	SS-11C	SS-11D	SS-15A	SS-15B	SS-17D
Copper	**0.0095**									

Remedy goal met in all quarters in 2008
Remedy goal met in some quarters in 2008
Remedy goal not met in any quarters in 2008

1.2.1.4 Lead

Concentrations of lead in surface waters generally fell below both chronic aquatic life and human health limits in remediated portions of the SSTOU (Figure 1-8). Downstream of remediation, lead concentrations increased to levels exceeding limits of chronic aquatic life. The human health standard for lead was also exceeded during the March sampling period at stations SS-15A and SS-15B. Sample station SS-17D also met human health standards for lead during all quarters, indicating relatively lower lead concentrations in surface water at the downstream end of the SSTOU. All samples during all quarters were well below the acute aquatic life limits of 0.08 – 0.23 mg/L, which are not illustrated in Figure 1-8 as they are more than three times the maximum lead concentrations recorded in 2008. These results imply that in 2008, lead in surface water met water quality standards within remediated portions of the SSTOU and have minimal effect on the health of aquatic organisms. Downstream of remediated areas, consistently elevated lead concentrations imply unremediated mine tailings in Subareas 3 and 4 are likely the main contributors of lead in surface waters.

Results in 2006 and 2007 also implicated the WWTP as a potential source of lead to the SSTOU due to elevated results occurring at station SS-07 at some point during the year. This trend was not observed in 2008.

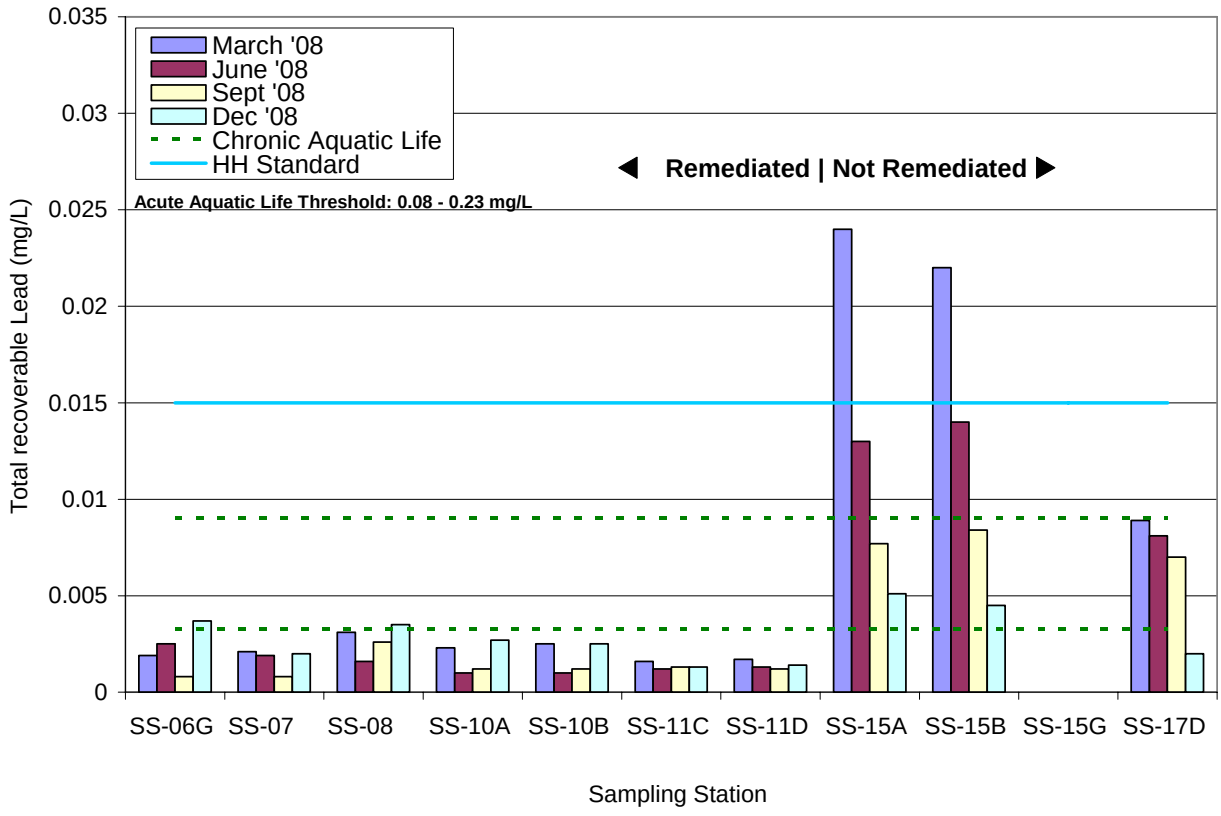


Figure 1-8. ***Total recoverable lead concentrations in Silver Bow Creek, 2008.***

Evaluations of baseline lead data indicate the watershed above the SSTOU was a major source of this pollutant with contributions sometimes exceeding 500 mg/L (Figure 1-9). Mean lead concentrations at SS-07 are variable, with mean concentrations both above and below baseline mean lead concentration. 2008 marked the lowest mean concentration of lead at the upstream end of the SSTOU since 2000. Within the SSTOU, mean lead concentrations are below baseline, indicating remediation work within the SSTOU is having a positive influence on water quality and influences on biological health. All established monitoring locations indicate a decline in lead mean lead concentration over the past five years and are well below the human health standard of 0.015 mg/L.

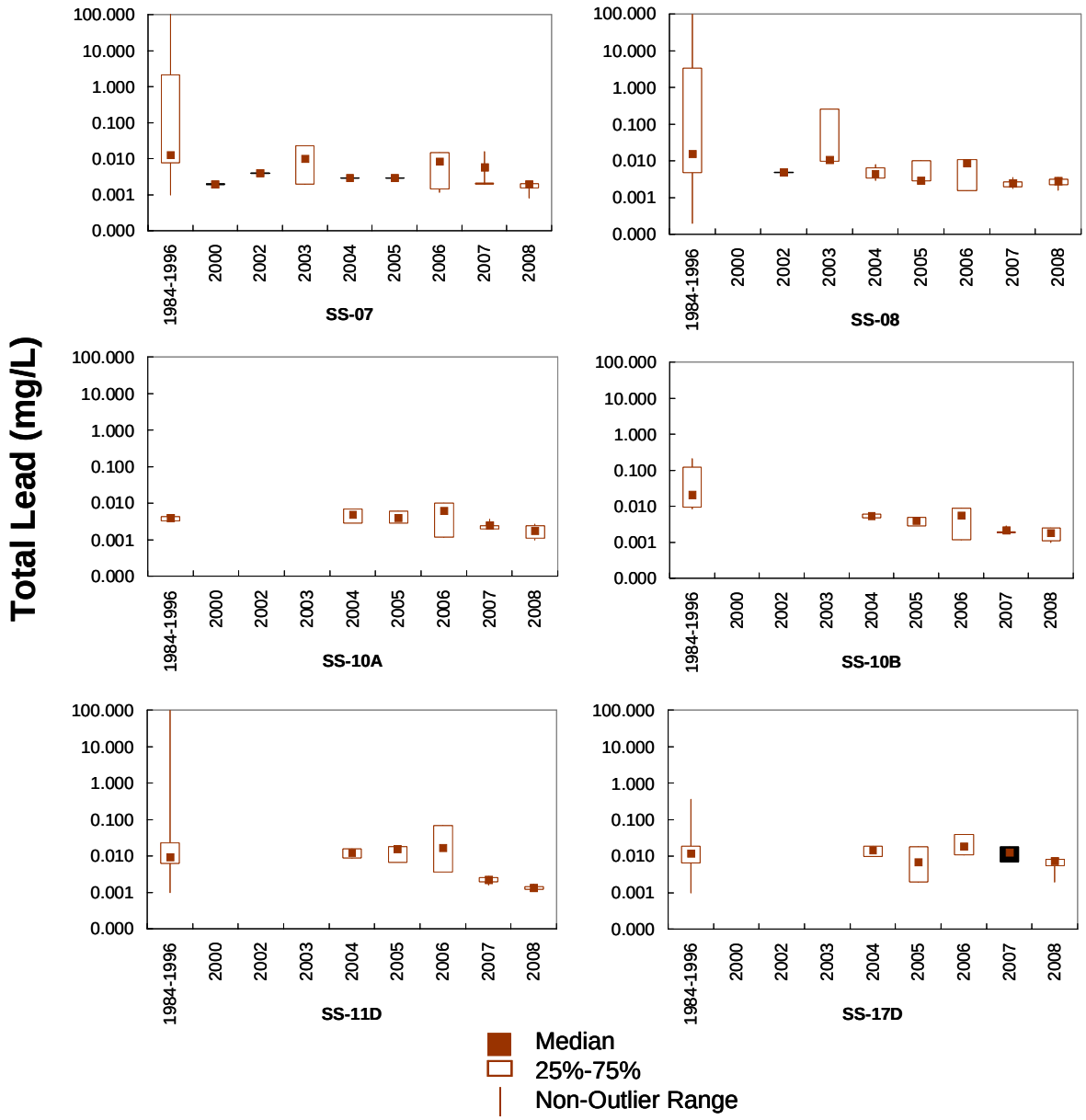


Figure 1-9. ***Historic lead concentrations at established sampling stations from the 1980s through 2008.***

Remediation goals for lead require concentrations to fall below the lower limit of acute aquatic life. This goal was met at all but one sample station (SS-08) within remediated areas of the SSTOU (Table 1-7).

Table 1-7: ***Results of 2008 monitoring for lead compared to remediation goals for the SSTOU.***

Parameter	2008 Remedy Goal (mg/L)	SS-07	SS-08	SS-10A	SS-10B	SS-11C	SS-11D	SS-15A	SS-15B	SS-17D
Lead	**0.0033**									

Remedy goal met in all quarters in 2008
Remedy goal met in some quarters in 2008
Remedy goal not met in any quarters in 2008

1.2.1.5 Zinc

Numeric water quality standards for zinc use the same formula for determining chronic and acute levels of zinc; therefore they are depicted simultaneously on Figure 1-10. Zinc concentrations in surface waters fell below the human health standard (2 mg/L) at all sample stations during all quarters in 2008. Although zinc concentrations very gradually rise throughout remediated portions of the SSTOU, all concentrations within these areas fell below the chronic and acute thresholds. Unremediated portions of the SSTOU indicated only slightly higher zinc concentrations, indicating the contaminated tailings have less of an influence on zinc levels in surface waters.

A gradual rise in zinc concentrations throughout the length of the SSTOU was also found in both 2006 and 2007. 2006 monitoring indicated elevated zinc during Q1 at SS-07, further implicating the WWTP as a source of metals. This trend was not observed in 2008. Data pertaining to baseline concentrations of zinc are not available to compare with recent monitoring efforts.

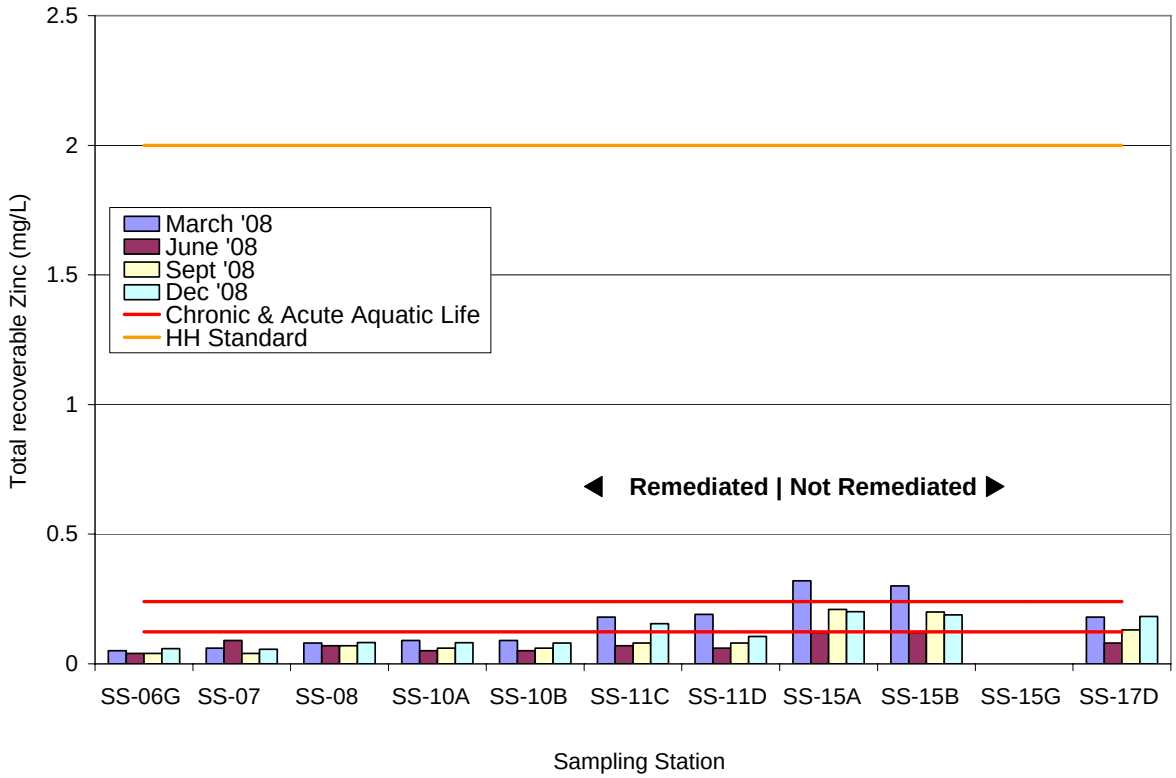


Figure 1-10. ***Total recoverable zinc concentrations in Silver Bow Creek, 2008.***

Remediation goals established for zinc require concentrations to fall below the lower limit for chronic aquatic life. In 2008, upper reaches of remediated areas met the remedy goal for zinc while the more recently remediated areas met the goal only during portions of the year (Table 1-8). Remedy goals were not met in non-remediated portions of the SSTOU at sites SS-15A and SS-15B, although they were met during portions of the year further downstream at SS-17D.

Table 1-8: ***Results of 2008 monitoring for zinc compared to remediation goals for the SSTOU.***

Parameter	2008 Remedy Goal (mg/L)	SS-07	SS-08	SS-10A	SS-10B	SS-11C	SS-11D	SS-15A	SS-15B	SS-17D
Zinc	**0.12**									

Remedy goal met in all quarters in 2008
Remedy goal met in some quarters in 2008
Remedy goal not met in any quarters in 2008

1.2.1.6 Mercury

Mercury concentration within surface waters has not been included in recent annual reports, as it has typically fallen below detection limits or fallen well below human health standards throughout the SSTOU sample area. Investigation revealed laboratory detection limits in 2007 were as high as 0.0002 mg/L, well above the surface water human health standard of 0.00005 mg/L. Current laboratory detection limits are 0.00001 mg/L, which fall below human health standards. As a result, mercury concentrations reported in 2008 are not necessarily higher than those that reported below detection limits in 2007.

Mercury concentrations were found in detectable levels at 8 of the 11 sample locations, all of which occurred either in March, June, or both (Figure 1-11). Human health standards for mercury (0.00005 mg/L) were exceeded in June at station SS-07, indicating the WWTP is a potential source of mercury contamination. Mercury levels remained relatively low or below detection throughout the remainder of remedied sites; however, concentrations again exceeded human health standards below remediation at sites SS-15A, SS-15B, and SS-17D in both March and June. All samples were well below the acute and chronic levels for aquatic life, which are not present in Figure 1-11 as they are much higher than all recorded values. Figure 1-11. Total recoverable mercury concentrations in Silver Bow Creek, 2008. These data indicate mine tailings within unremediated portions of the floodplain are likely the primary cause for mercury loading in Silver Bow Creek.

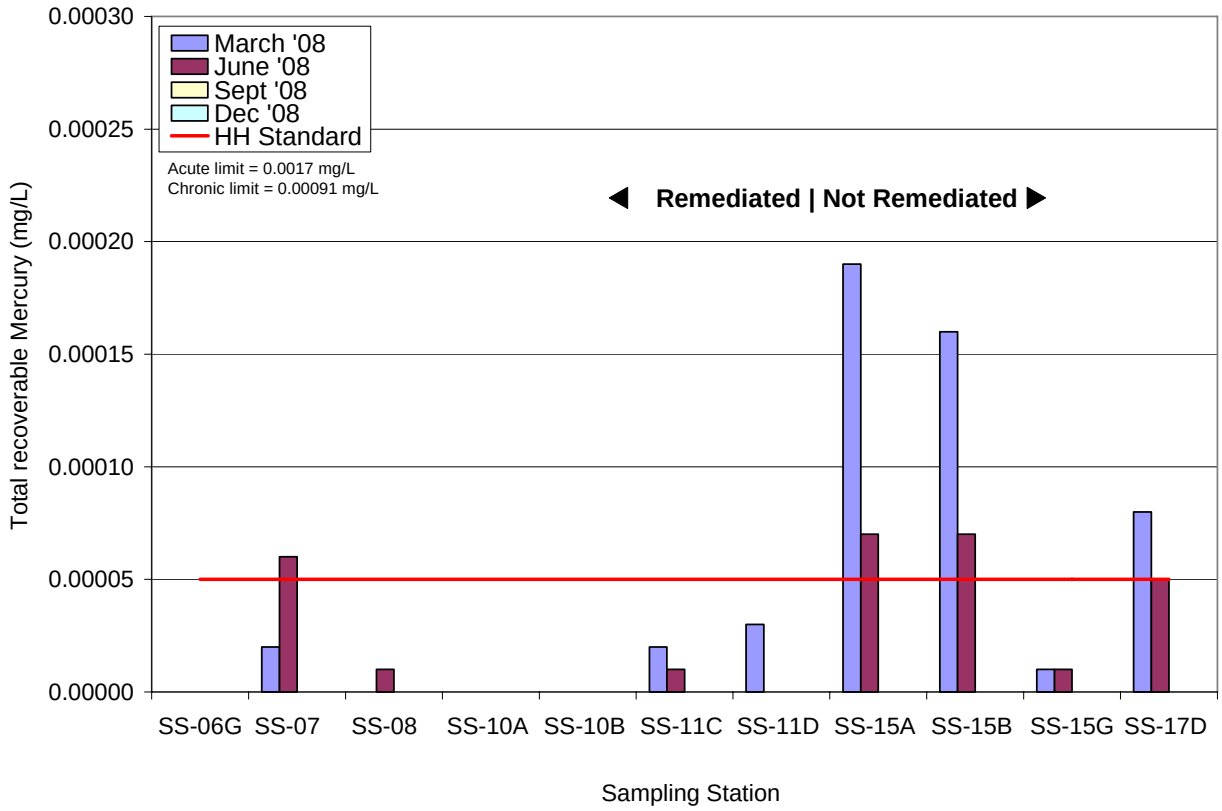


Figure 1-11. ***Total recoverable mercury concentrations in Silver Bow Creek, 2008.***

Remediation goals for mercury call for concentrations to fall below 0.00005 mg/L. In 2008, this goal was met within remediated portions of the SSTOU with the exception of site SS-07 at the upstream extent of remediation (Table 1-9). All other sample sites intermittently met the remediation goal.

Table 1-9: ***Results of 2008 monitoring for mercury compared to remediation goals for the SSTOU.***

Parameter	2008 Remedy Goal (mg/L)	SS-07	SS-08	SS-10A	SS-10B	SS-11C	SS-11D	SS-15A	SS-15B	SS-17D
Mercury	**0.00005**									

Remedy goal met in all quarters in 2008
Remedy goal met in some quarters in 2008
Remedy goal not met in any quarters in 2008

1.2.1.7 Manganese

Although not a contaminant of concern, manganese affects drinking water properties including odor, taste, and color. Manganese concentrations in surface waters consistently exceeded the secondary maximum contaminant level of 0.05 mg/L at all sample stations within the SSTOU (Figure 1-12). Manganese concentrations were generally highest in March. Overall, manganese concentrations were similar to those found in 2006 and 2007.

Silver Bow Creek's watershed is highly mineralized, hence the multitude of mining operations in the area. Highly mineralized streams often display elevated levels of manganese and iron; therefore, these results may be due to the natural geological setting of Silver Bow Creek. If so, these results do not constitute a violation of state water quality standards, as elevated concentrations of minerals are expected.

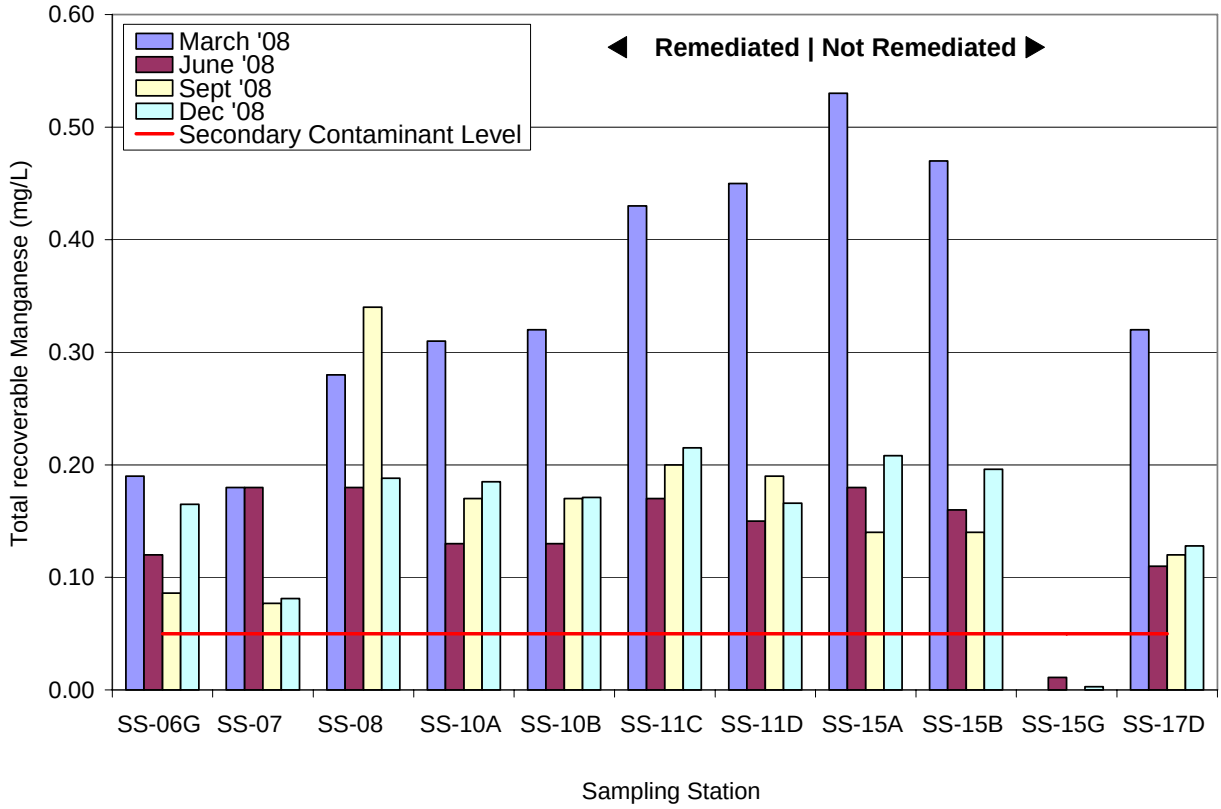


Figure 1-12. ***Total recoverable manganese concentrations in Silver Bow Creek, 2008.***

Remediation goals established for manganese require concentrations to fall below the secondary contaminant level of 0.05 mg/L. No stations met this goal during any quarter of 2008 (Table 1-10).

Table 1-10: ***Results of 2008 monitoring for manganese compared to remediation goals for the SSTOU.***

Parameter	2008 Remedy Goal (mg/L)	SS-07	SS-08	SS-10A	SS-10B	SS-11C	SS-11D	SS-15A	SS-15B	SS-17D
Manganese	**0.05**									

Remedy goal met in all quarters in 2008
Remedy goal met in some quarters in 2008
Remedy goal not met in any quarters in 2008

1.2.2 Nutrient Analyses

Monitoring efforts for nutrients in Silver Bow Creek include concentrations of ammonia, nitrates + nitrites as nitrogen, total nitrogen, and total phosphorous. Analysis of nutrient concentrations concludes both nitrogen and phosphorous levels in Silver Bow Creek continue to severely limit biological and chemical integrity.

1.2.2.1 Ammonia

2008 sampling indicates a continuation of elevated ammonia concentrations within the SSTOU, particularly downstream of the Butte Wastewater Treatment Plant (WWTP) which lies immediately upstream of station SS-07 (Figure 1-13). Comparing ammonia concentrations to numeric standards requires calculating toxicity based on water temperature and pH. Results of toxicity standards are included in Figure 1-13. Ammonia concentrations spiked from non-detectable levels at SS-06 to levels exceeding chronic aquatic life thresholds during three of four quarters at SS-07 (Samples exceeding chronic thresholds are shown with bold borders in Figure 1-13). The Q4 sample at SS-07 also exceeded acute thresholds for aquatic life. Ammonia concentrations consistently dropped downstream of SS-07 throughout the sample area. Although ammonia concentrations decreased, chronic toxicity levels were exceeded by up to 300% at SS-08 in March and at nearly all sample stations in December. These results show a very similar spatial relationship and toxicity levels to those shown in 2006 and 2007.

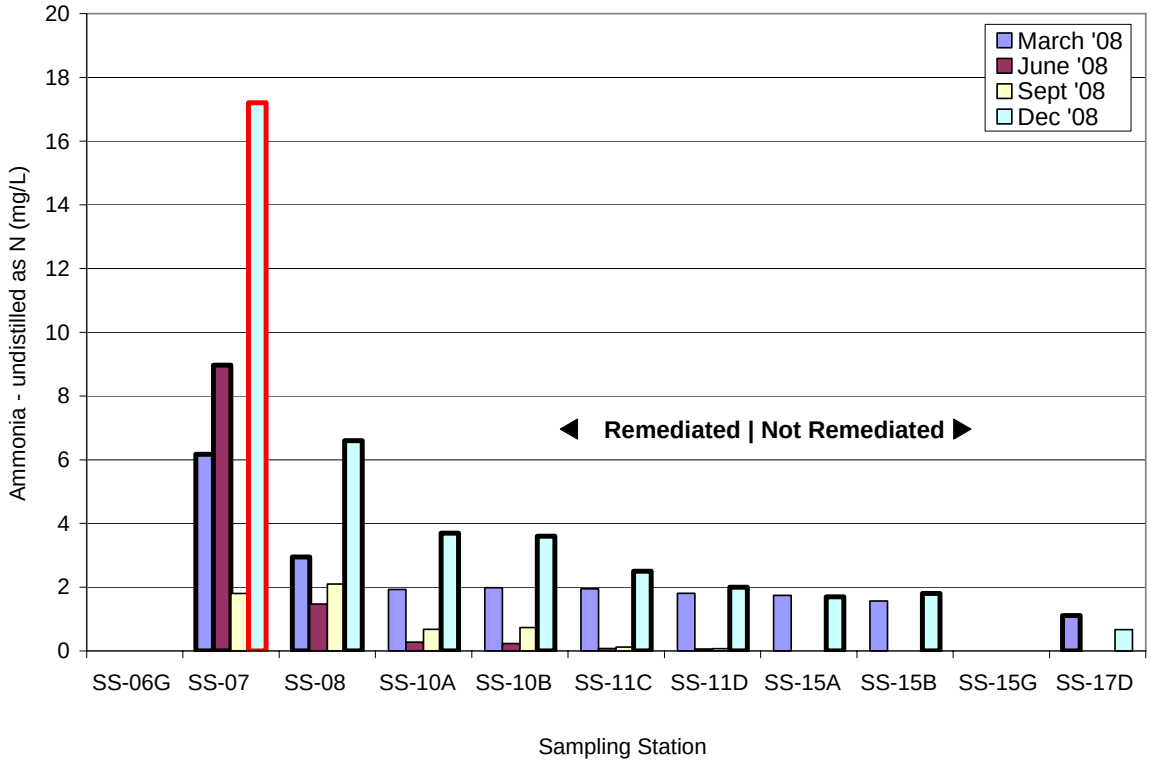


Figure 1-13. ***Ammonia concentrations in Silver Bow Creek, 2008. Concentrations which exceed chronic criteria have black bold outlines. Concentrations which exceed acute criteria have red bold outlines.***

Table 1-11: ***Chronic and acute criterion for ammonia based on temperature and pH.***

Station	Date	Temp (deg C)	pH	Ammonia (mg/L)	Chronic Criterion (mg/l)	Chronic Criterion Exceeded ?	Percent of Chronic Criteria	Acute Criterion (mg/l)	Acute Criterion Exceeded ?
SS-06G	3/24/08	3.4	7.27	0	2.38	no	0%	17.72	no
	6/30/08	16.6	8.49	0	0.40	no	0%	1.94	no
	9/16/08	9.66	7.84	0	1.76	no	0%	7.74	no
	12/9/08	4.16	7.86	0	1.80	no	0%	7.92	no
SS-07	**3/24/08**	**8.2**	**7.04**	**6.17**	**2.25**	**yes**	**274%**	20.30	no
	6/30/08	**15.3**	**7.61**	**8.97**	**2.10**	**yes**	**428%**	10.59	no
	9/16/08	14.62	6.93	1.8	2.13	no	84%	20.63	no
	12/9/08	**9.66**	**7.27**	**17.2**	**2.22**	**yes**	**775%**	**16.54**	**yes**
SS-08	**3/24/08**	**3.7**	**7.45**	**2.95**	**2.37**	**yes**	**124%**	14.50	no
	6/30/08	17.4	7.48	1.47	1.79	no	82%	12.43	no
	9/16/08	11.39	7.63	2.1	2.20	no	96%	10.56	no
	12/9/08	**5.67**	**7.73**	**6.6**	**2.19**	**yes**	**301%**	9.61	no
SS-10A	3/24/08	4	7.65	1.93	2.37	no	81%	11.06	no
	6/30/08	18.6	7.53	0.28	1.64	no	17%	11.61	no
	9/16/08	13.29	7.77	0.68	1.92	no	35%	8.44	no
	12/9/08	**4.34**	**8**	**3.7**	**1.41**	**yes**	**263%**	6.18	no
SS-10B	3/24/08	3.8	7.62	1.98	2.37	no	83%	11.57	no
	6/30/08	18.5	7.54	0.23	1.65	no	14%	11.46	no
	9/16/08	12.2	7.71	0.73	2.13	no	34%	9.33	no
	12/9/08	**4.08**	**8.05**	**3.6**	**1.26**	**yes**	**285%**	5.54	no
SS-11C	3/24/08	4.5	7.75	1.95	2.15	no	91%	9.44	no
	6/30/08	20	7.46	0.08	1.48	no	5%	12.61	no
	9/16/08	17.41	8.19	0.12	0.71	no	17%	3.69	no
	12/9/08	**2.27**	**7.7**	**2.5**	**2.42**	**yes**	**103%**	10.49	no
SS-11D	3/24/08	2	7.67	1.81	2.43	no	74%	11.02	no
	6/30/08	18.2	7.48	0.06	1.69	no	4%	12.39	no
	9/16/08	18.01	8.3	0.07	0.54	no	13%	2.91	no
	12/9/08	**1.32**	**7.87**	**2**	**1.84**	**yes**	**109%**	8.07	no
SS-15A	3/24/08	6.1	7.8	1.74	1.95	no	89%	8.56	no
	6/30/08	22.5	7.42	0	1.23	no	0%	5.54	no
	9/16/08	10.62	8.21	0	0.83	no	0%	3.64	no
	12/9/08	**0**	**8.31**	**1.7**	**0.74**	**yes**	**231%**	3.23	no
SS-15B	3/24/08	5.6	7.69	1.57	2.33	no	68%	10.22	no
	6/30/08	22.3	7.5	0	1.26	no	0%	5.10	no
	9/16/08	10.41	8.21	0	0.83	no	0%	3.64	no
	12/9/08	**0.02**	**8.21**	**1.8**	**0.92**	**yes**	**195%**	4.06	no
SS-15G	3/24/08	2.5	7.83	0	1.94	no	0%	8.50	no
	6/30/08	15.9	7.45	0	2.00	no	0%	12.99	no
	9/16/08	5.94	8.12	0	1.06	no	0%	4.63	no
	12/9/08	0.01	8.2	0	0.95	no	0%	4.15	no
SS-17D	**3/24/08**	**7.1**	**8.22**	**1.11**	**0.83**	**yes**	**133%**	3.65	no
	6/30/08	21	7.38	0	1.37	no	0%	6.45	no
	9/16/08	16.62	8.72	0	0.25	no	0%	1.21	no
	12/9/08	0.03	7.77	0.67	2.21	no	30%	9.70	no

1.2.2.2 Total Nitrogen

Total nitrogen concentrations also spiked downstream of the WWTP (Figure 1-14). Although nitrogen concentrations consistently decreased downstream of the wastewater facility, all samples on Silver Bow Creek exceeded total nitrogen targets established for the Clark Fork River (0.3 mg/L). Site SS-06 also exceeded this standard, indicating surface waters contain elevated nitrogen levels even prior to entering the SSTOU. Of particular note is the maximum nitrogen concentration of 18.35 mg/L at SS-07, which was over double the maximum concentration found at this site in 2007 and nearly 50% higher than the maximum concentration at this site in 2006. Overall, these results indicate surface water entering the SSTOU contains elevated levels of nitrogen due to unknown upstream sources, while the wastewater facility remains a significant source of nitrogen loading to Silver Bow Creek. Additional sources upstream of the SSTOU may be agricultural, residential, and golf course fertilizers. A rendering plant lies between SS-06 and SS-07, which may contribute sources of nitrogen to Silver Bow Creek via groundwater connectivity. Combined, the elevated nitrogen concentrations throughout the SSTOU severely limit biological integrity. These results are consistent with highly elevated nitrogen concentrations found across all stations in 2006 and 2007.

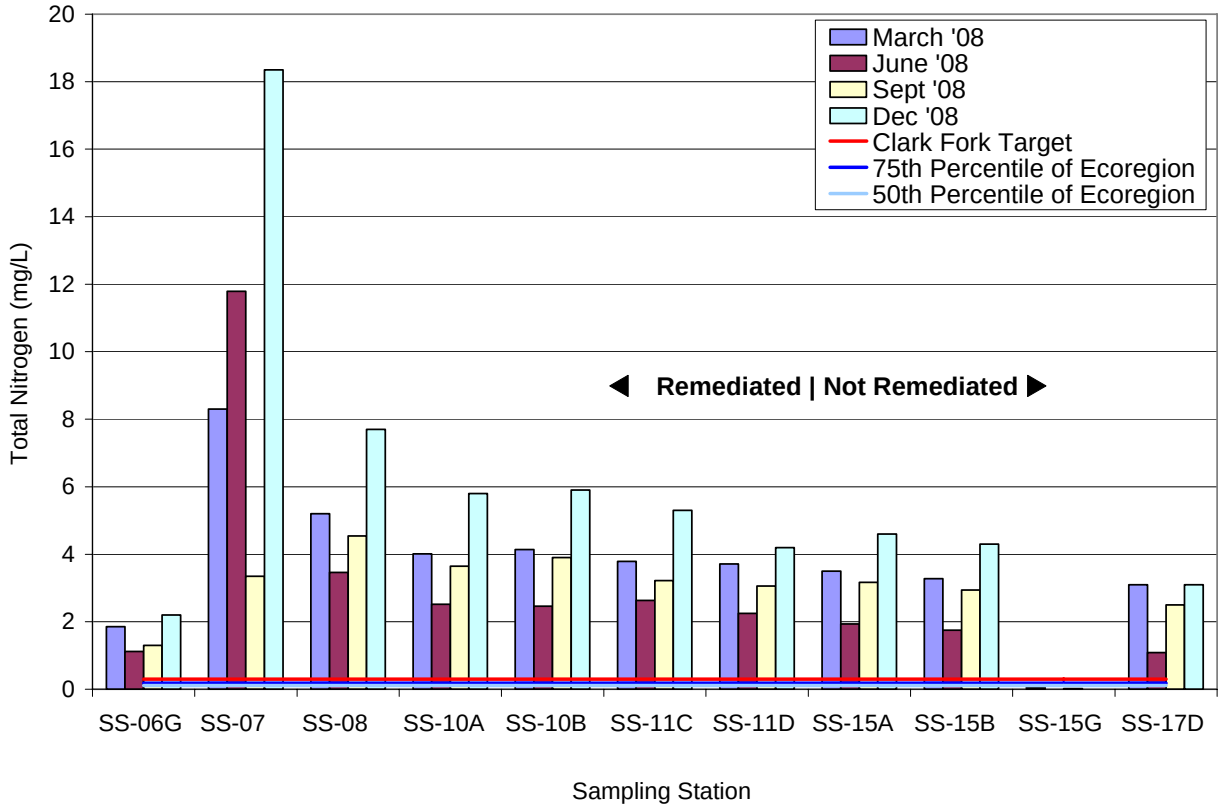


Figure 1-14. ***Total nitrogen concentrations in Silver Bow Creek, 2008.***

1.2.2.3 Nitrates + Nitrites

Comparing nitrogen in the form of nitrates (NO3) and nitrites (NO2) against ecoregional values of the Middle Rockies indicates continued, highly elevated concentrations at all sample sites along Silver Bow Creek (Figure 1-15). No numeric targets currently exist for NO3 + NO2 as N for the Clark Fork River. The spatial trend of nitrates and nitrites in 2008 follows a pattern predicted by bioconversion of nitrogen released by the WWTP from ammonia to NO3 and NO2. Concentrations entering the SSTOU are highly elevated and slightly drop due to the input of ammonia above SS-07. As aquatic organisms metabolize nitrogen, NO2 + NO3 concentrations elevate through station SS-10A, then slowly dissipate throughout the remainder of the SSTOU. No unusual spikes in NO2 + NO3 concentrations were evident in 2008, as was the case in Q3 of 2007, where spikes occurred at SS-07 and SS-11D.

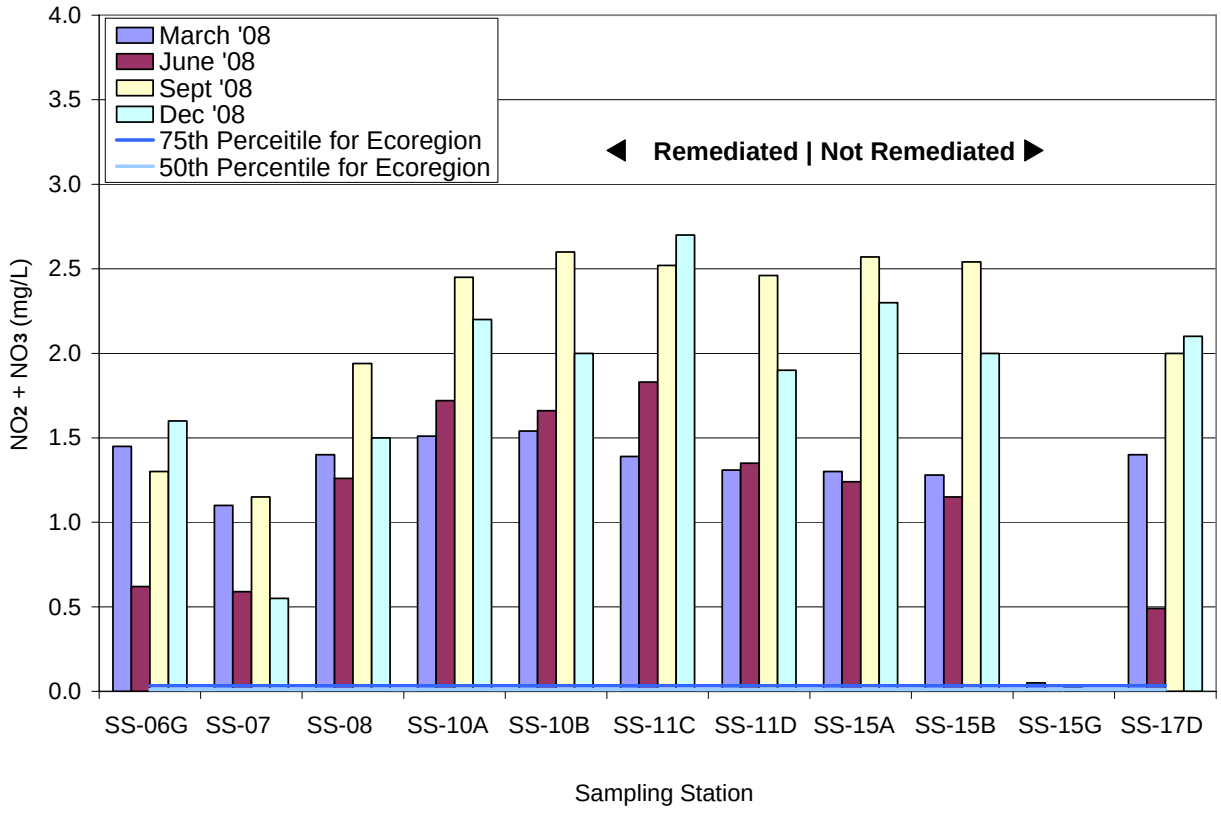


Figure 1-15. ***Nitrate and Nitrite as N concentrations in Silver Bow Creek, 2008.***

1.2.2.4 Total Phosphorous

As in the case for total nitrogen, total phosphorous concentrations in Silver Bow Creek were well in exceedence of the Clark Fork target of 0.02 mg/L and ecoregional values of the Middle Rockies at all sample stations (Figure 1-16). A spike in phosphorous occurred at SS-07, immediately downstream of the WWTP during Q1 and Q4 of 2008; however, maximum concentrations of phosphorous concentrations during Q2 and Q3 were not realized until further downstream as SS-08. The Q4 phosphorous concentration at SS-07 was 2.3 mg/L, which is 115x, or over two orders of magnitude, in excess of the target set for the Clark Fork River. Surface waters entering the SSTOU at SS-06 contain elevated levels of phosphorous, prior to the influence of the WWTP, indicating a potential source of elevated nutrients further upstream. The spatial trend of phosphorous throughout the SSTOU in 2008 follows similar patterns shown in 2006 and 2007, and identifies phosphorous as a limiting factor in the biological integrity of Silver Bow Creek. Potential sources of phosphorous upstream of the SSTOU are residential, agricultural, and golf course fertilizers. The rendering plant immediately north of Silver Bow Creek lies between SS-06 and SS-07 and may contribute considerable nutrients via groundwater connectivity.

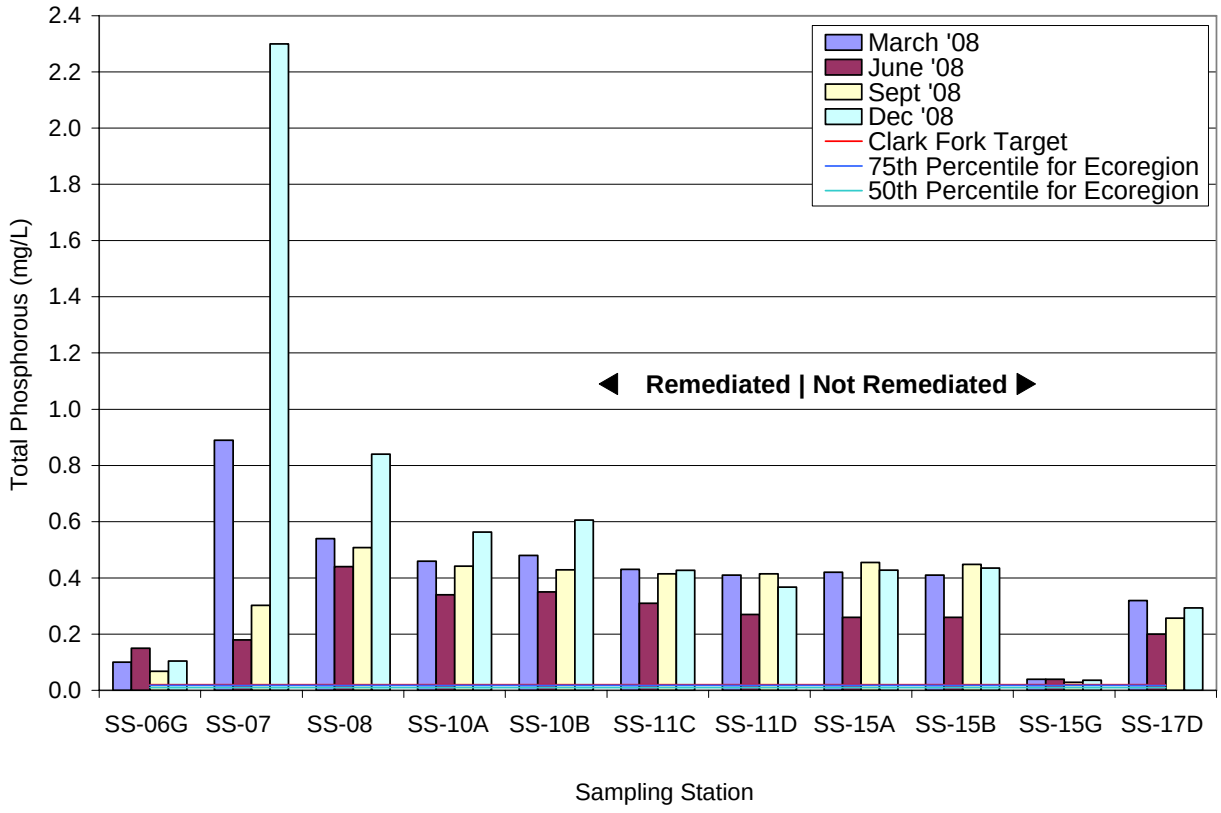


Figure 1-16. ***Total phosphorous concentrations in Silver Bow Creek, 2008.***

1.2.3 Common Ions and Miscellaneous Measurements

1.2.3.1 Temperature

Surface water temperature plays a key role in the establishment of aquatic communities, most notably fish. Temperature results from 2008 indicated seasonal and spatial variation within the sampled reach of Silver Bow Creek (Figure 1-17). The March, September, and December sampling events noted a rise in water temperature at station SS-07, indicating the WWTP is a source of warmer water to Silver Bow Creek during these periods of the year. June sampling occurred during the falling limb of the hydrograph and displayed an overall rise in temperature in the downstream direction. Maximum temperatures exceeded the ideal temperature for salmonids (18° C) at all but the upper three sampling stations in June, despite the shade afforded the creek by the confines of Durant canyon and the generally cooler water contribution of German Gulch. Maximum recorded temperatures within remediated reaches exceeded 18° C, indicating potentially negative effects to aquatic life due to thermal pollution during this time of year.

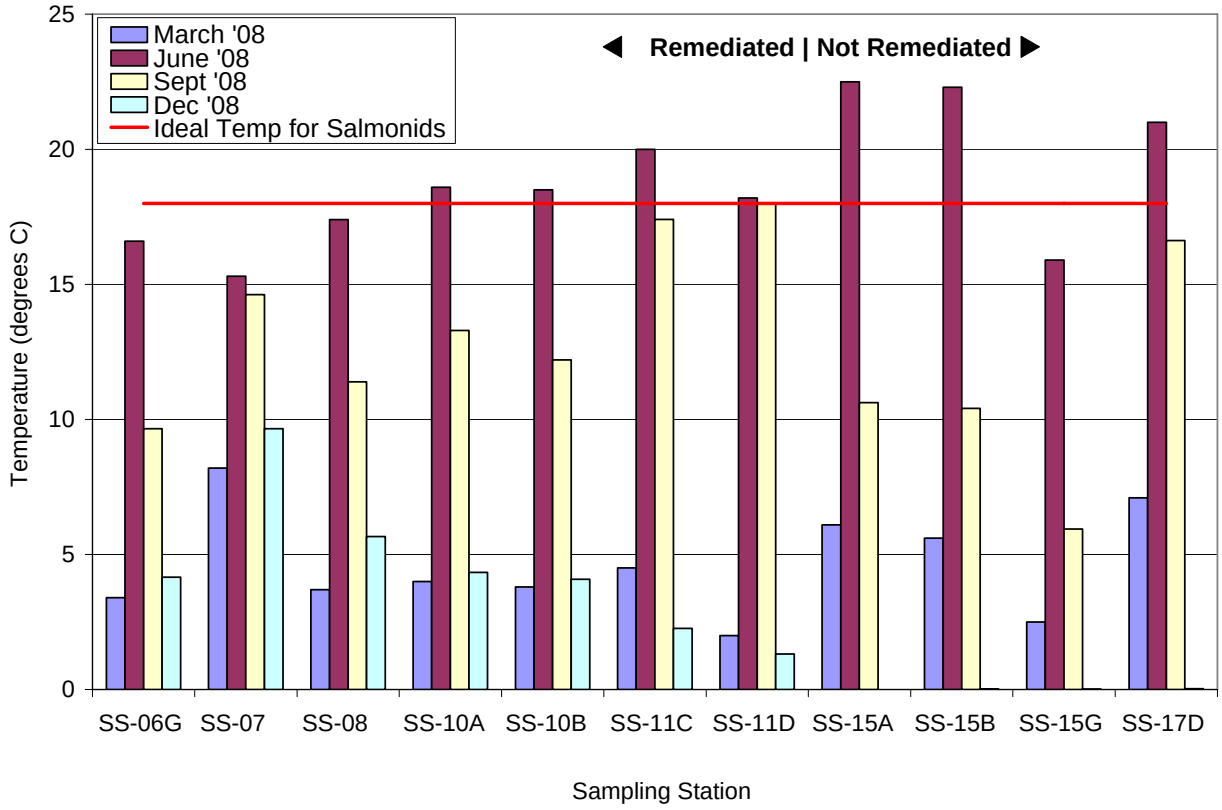


Figure 1-17. ***Surface water temperatures recorded in Silver Bow Creek, 2008.***

1.2.3.2 pH

Quarterly measurements indicated relatively neutral to slightly basic pH at all sample stations. Station SS-07 indicated the only pH measurement below 7 during the third quarter. The pH likely remains relatively constant and on the basic side of the scale due to the influence of the liming plant upstream of the SSTOU.

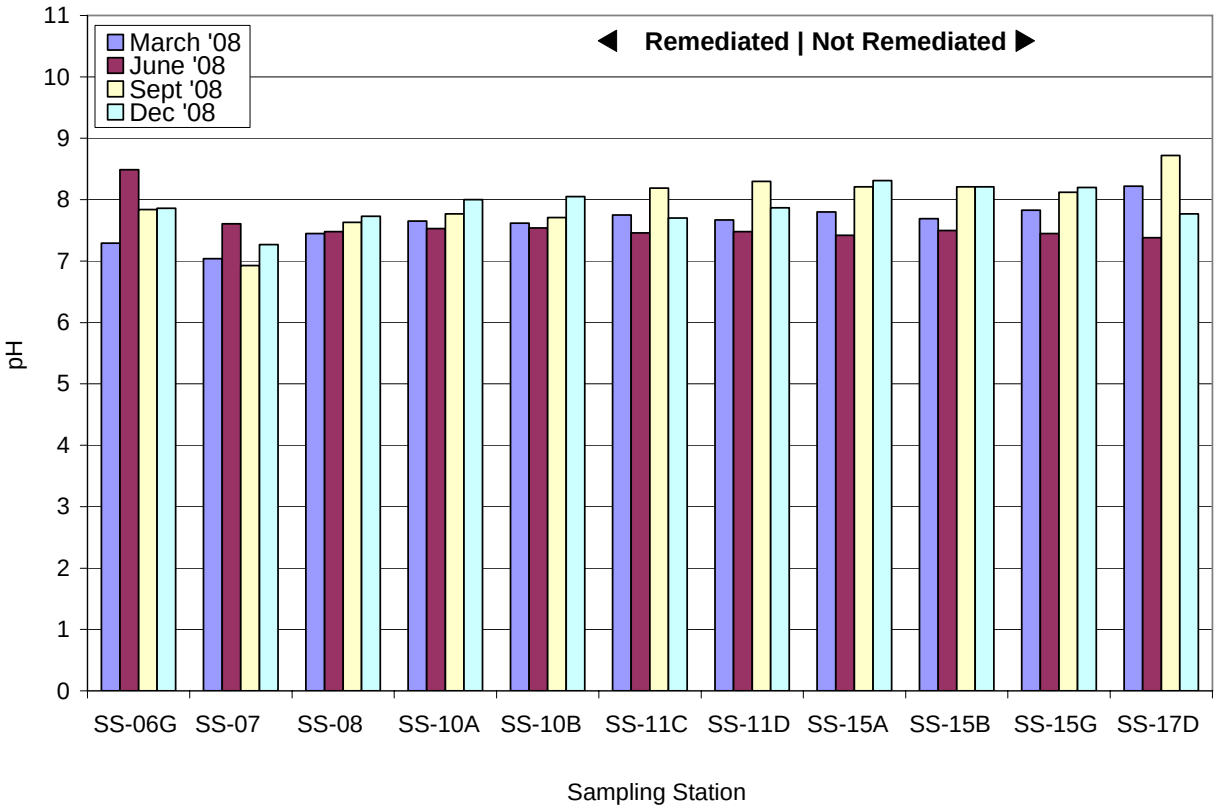


Figure 1-18. ***pH values recorded in Silver Bow Creek, 2008.***

1.2.3.3 Dissolved Oxygen

Dissolved oxygen (DO) is an important surface water quality parameter, in that it represents oxygen available for use by aerobic organisms from microbes to fish. Dissolved oxygen varies with several factors including turbulence, photosynthetic activity, time of day, and water temperature. In general, higher concentrations of dissolved oxygen are biologically favorable, and a threshold of 5 mg/L is considered adequate to support aquatic life.

Failure of the DO meter during Q4 sampling precluded data analysis during this sampling event. Typically, dissolved gasses such as oxygen are higher when liquids are colder; therefore, December DO concentrations should be relatively close to those found in March. Dissolved oxygen concentration was above 5 mg/L during all other sample events with the exception of site SS-07 in March (Figure 1-19). Site SS-07 displayed lower DO concentrations than all other sites during each of the past 3 years, likely a result from biological oxygen demand stemming from highly elevated nutrient-laden water downstream of the WWTP. Overall, Silver Bow Creek exhibits favorable levels of dissolved oxygen to support aquatic life.

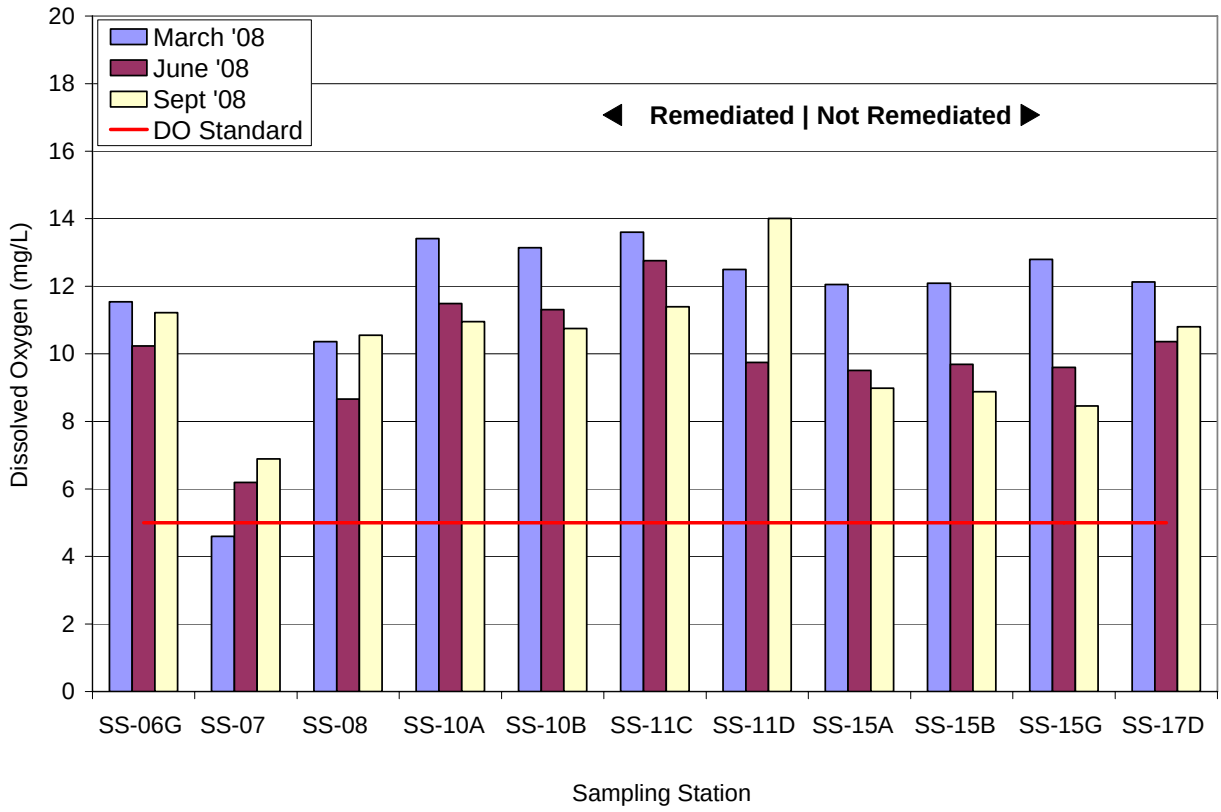


Figure 1-19. ***Dissolved oxygen concentration in Silver Bow Creek, 2008.***

1.2.3.4 Hardness

Water hardness measures calcium and magnesium content and provides a means for determining the toxicity of numerous metals. Hardness mitigates metals contamination by preventing fish from absorbing certain constituents such as cadmium, copper, lead, nickel, and zinc into their bloodstream. In an attempt to reduce the effects of metal contamination, the Butte Treatment Lagoon System above the SSTOU adds lime to collected groundwater which precipitates metals out before wastewater is discharged into Silver Bow Creek.

Hardness results in 2008 were fairly similar to those shown in both 2006 and 2007. Hardness values were generally considered hard or very hard as determined by the USGS classification for water hardness. All samples resulted in hardness values above 100 mg/L, which is considered favorable to the mitigation of metals exposure.

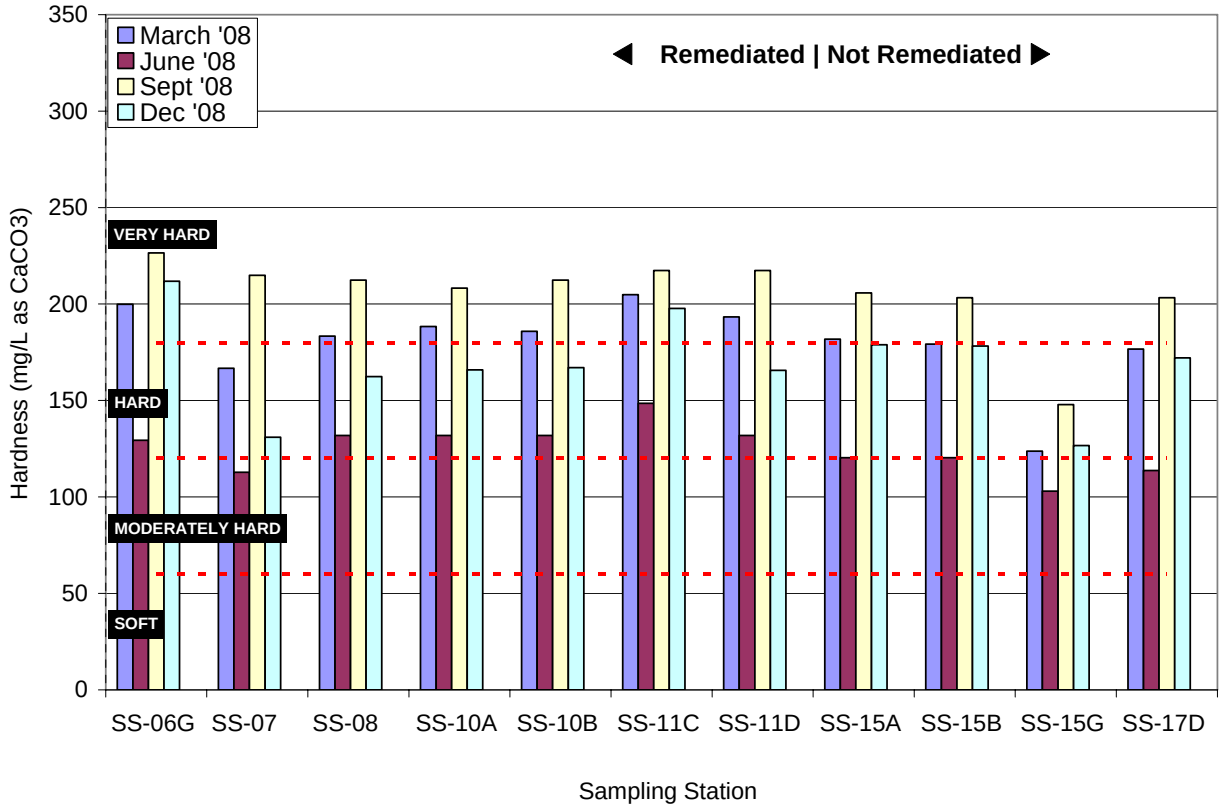


Figure 1-20. ***Hardness expressed as mg/L of $CaCO_3$ in Silver Bow Creek, 2008.***

1.2.3.5 Chloride

Chloride concentrations varied slightly among sample sites and spatially within the sampled reach of Silver Bow Creek (Figure 1-21). Maximum chloride concentrations were typically found in December, while minimum concentrations were found in June. Spatially, chloride concentrations were typically lowest at the upstream end of the sampled reach, peaked at the downstream extent of remediation, and decreased through Durant Canyon to the downstream extent of sampling. All chloride concentrations sampled in 2008 were more than an order of magnitude below threshold concentrations considered toxic to fish (1500 – 4300 mg/L) (Mount et al. 1997). Chloride concentrations recorded in 2008 were relatively similar to those found in 2006 and 2007, and do not pose a threat to biological integrity in Silver Bow Creek above or within the SSTOU.

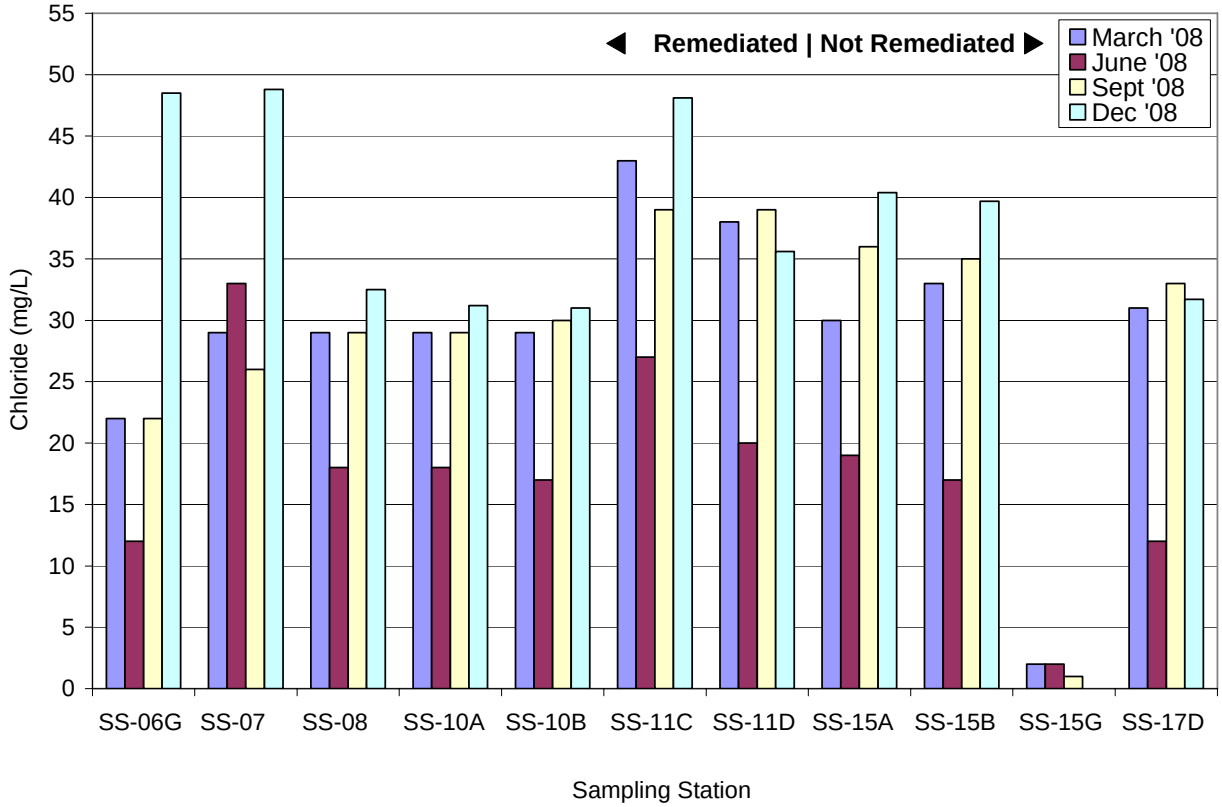


Figure 1-21. ***Chloride concentrations in Silver Bow Creek, 2008.***

1.2.3.6 Sulfate

Although seasonally variable, sulfate concentrations remained fairly consistent along the length of the sample reach, falling between 40-140 mg/L. As in 2007, sulfate concentrations were higher than chloride concentrations; however, sulfates are the least toxic of the common ions to aquatic life. All samples in 2008 fell at least an order of magnitude under the threshold of toxicity levels (Mount et al. 1997). As a result, sulfates are not limiting the biological health of Silver Bow Creek.

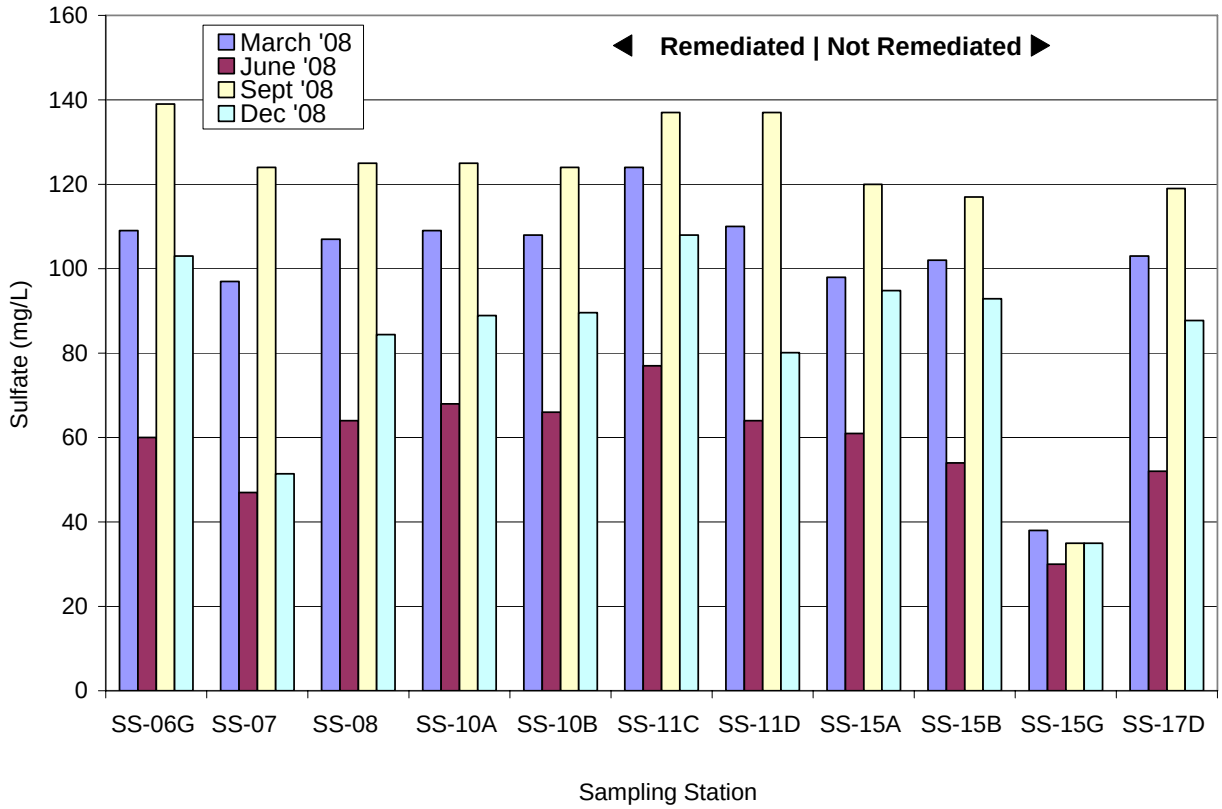


Figure 1-22. ***Sulfate concentrations in Silver Bow Creek, 2008.***

1.2.3.7 Alkalinity

Carbonate and bicarbonate are the other major anions present in freshwater systems, and the relatively stable moderate alkalinity of Silver Bow Creek ensures that bicarbonate constitutes the primary contributor to the buffering capacity of this stream. Buffering capacity is defined as the reduction of the sensitivity of the stream pH to acidic inputs, and is important in that it helps maintain the stream pH at a level that reduces metals toxicity to fish and invertebrates. Total alkalinity is expressed as mg/l CaCO3 equivalent. Western freshwater fisheries typically present values of 100-200 mg/l, with a value of 75 mg/l considered the minimum necessary for trout.

Bicarbonate alkalinity concentrations in 2008 were slightly higher to those sampled in 2007 (Figure 1-23). Most samples fell between 100-140 mg/L throughout the year, whereas they generally fell between 80-120 mg/L in 2007. The overall site average of 120 mg/L was higher in 2008 by 20 mg/L from 2007, indicating an improvement in the ability to maintain pH.

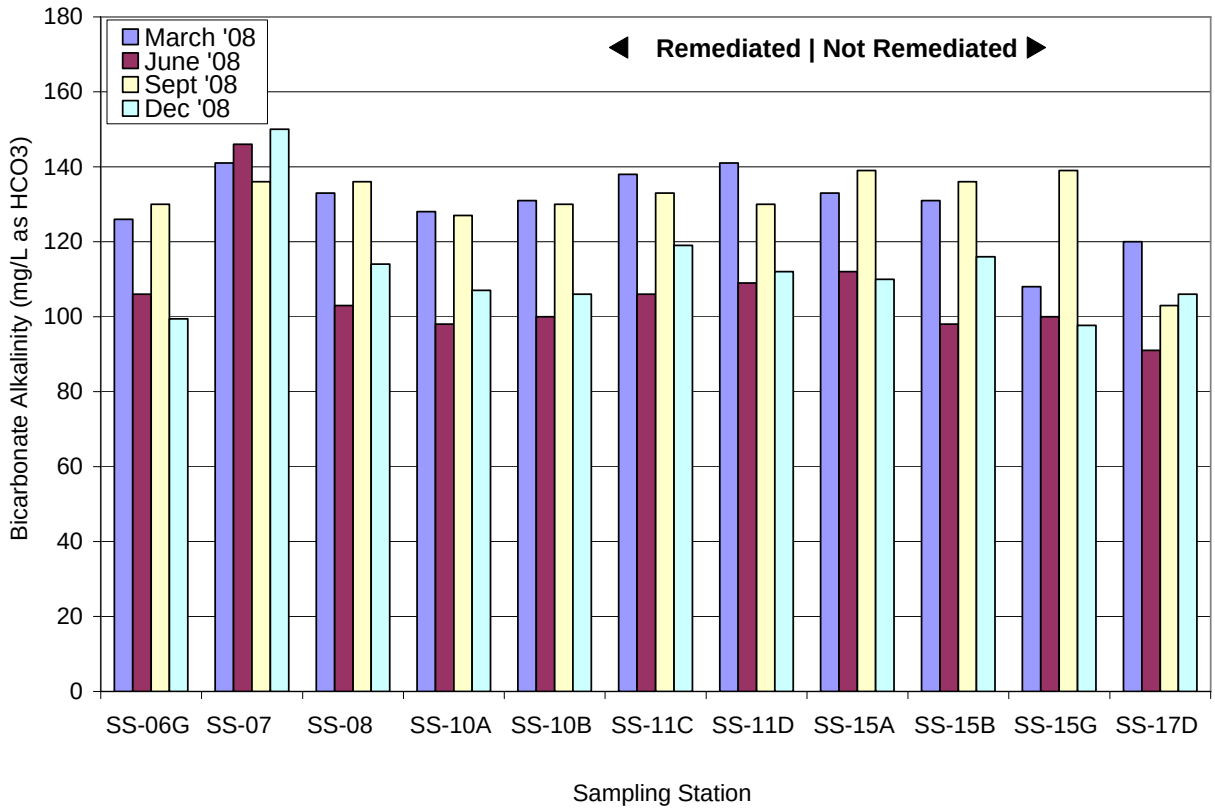


Figure 1-23. ***Bicarbonate alkalinity in Silver Bow Creek, 2008.***

1.2.3.8 Electrical conductivity

Electrical conductivity is a quantitative measure of the ability of an aqueous solution to convey an electrical current and reflects the amount of dissolved solids present, including sodium, calcium, magnesium, carbonate, bicarbonate, chloride, and sulfate. Conductivity has been shown to affect aquatic life between 1.0 and 2.0 mS (DEQ, 2003). Conductivity in surface water varied between 0.2 and 0.65 mS/cm in 2008 with the maximum recorded at station SS-11C in September. Overall, these conductivity levels remain below levels considered harmful to aquatic life.

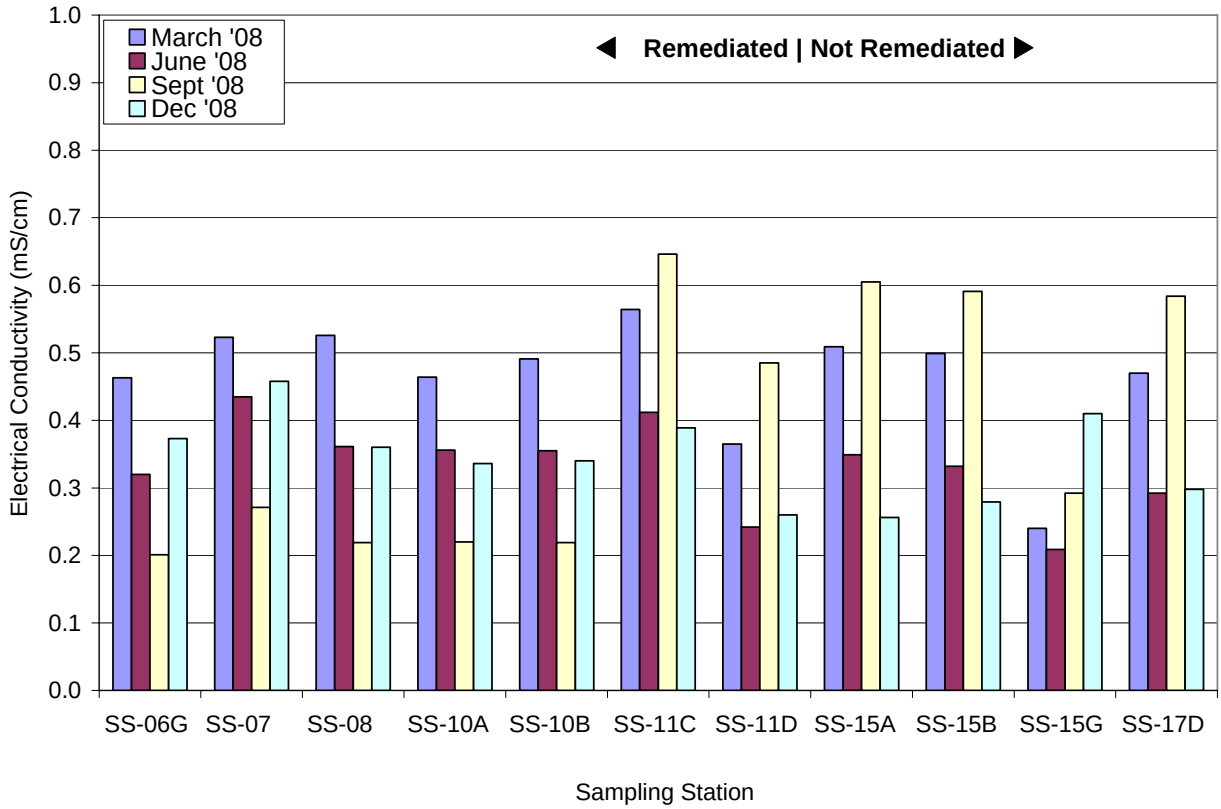


Figure 1-24. ***Electrical conductivity in Silver Bow Creek, 2008.***

2.0 GROUNDWATER MONITORING

Groundwater contamination related to the presence of contaminated tailings is among the environmental concerns for Silver Bow Creek and may pose a threat to human health and the environment. An objective of removing hazardous materials in the SSTOU was to reduce loading of contaminants to groundwater and surface water. Remediation and restoration goals for groundwater call for concentrations of contaminants of concern to meet state water quality standards, federal maximum contaminant levels (MCLs), and federal nonzero maximum contaminant level goals (MCLGs) through natural attenuation. All of these standards and levels apply to human health considerations. These goals additionally require that no groundwater discharges occur that would prevent attainment of ambient Circular DEQ-7 standards in the Silver Bow Creek operable unit or instream sediment remediation goals.

2.1 Methods

Sampling followed the monitoring schedule and sampling sites as prescribed in the Long-Term Monitoring Plan for Silver Bow Creek, Streamside Tailing Operable Unit (DEQ & NRDP, 2007). Wells in Subarea 1 continue to be the current focus for groundwater monitoring efforts (Table 2-1). Four of the wells produced potentially anomalous results in 2007 and were subsequently sampled each quarter of 2008 to verify the validity of these results. Second quarter sampling continued to focus on additional wells within the Mine Waste Relocation Repository (MWRR sites). Third quarter sampling efforts were the most comprehensive and included all wells in Subarea 1 (Figure 2-1). Well purging, sample collection and preservation, and laboratory analysis followed SOPs developed for the Clark Fork (ARCO 1992).

Table 2-1. ***Groundwater sampling schedule for wells in the SSTOU, 2008.***

Reach	Well ID	Site Description	Q1 Mar*	Q2 June	Q3 Sept	Q4 Dec*
A	MW-1010R	Colorado Tailings			X	
A	P-06A	Colorado Tailings			X	
A	MW-1052R	Colorado Tailings			X	
A	MW-2A	MWRR		X	X	
A	MW-2B	MWRR		X	X	
A	MW-2C	MWRR		X	X	
A	LYP-07	MWRR		X	X	
A	MW-2D	MWRR		X	X	
A	1GW-1056	MWRR		X	X	
B	MW-10	Rocker	X	X	X	X
B	1GW-1038	Rocker	X	X	X	X
B	MW-6R	Rocker			X	
C	MWGW-1003R	Nissler			X	
C	1GW-1004A	Nissler	X	X	X	X
C	P-58A	Nissler			X	
E	P-114	Silver Bow			X	
E	P-37A	Silver Bow	X	X	X	X
E	P-39R	Silver Bow			X	

*** These sample events are not part of the annual monitoring plan, and were conducted to verify anomalous results found in 2007.**

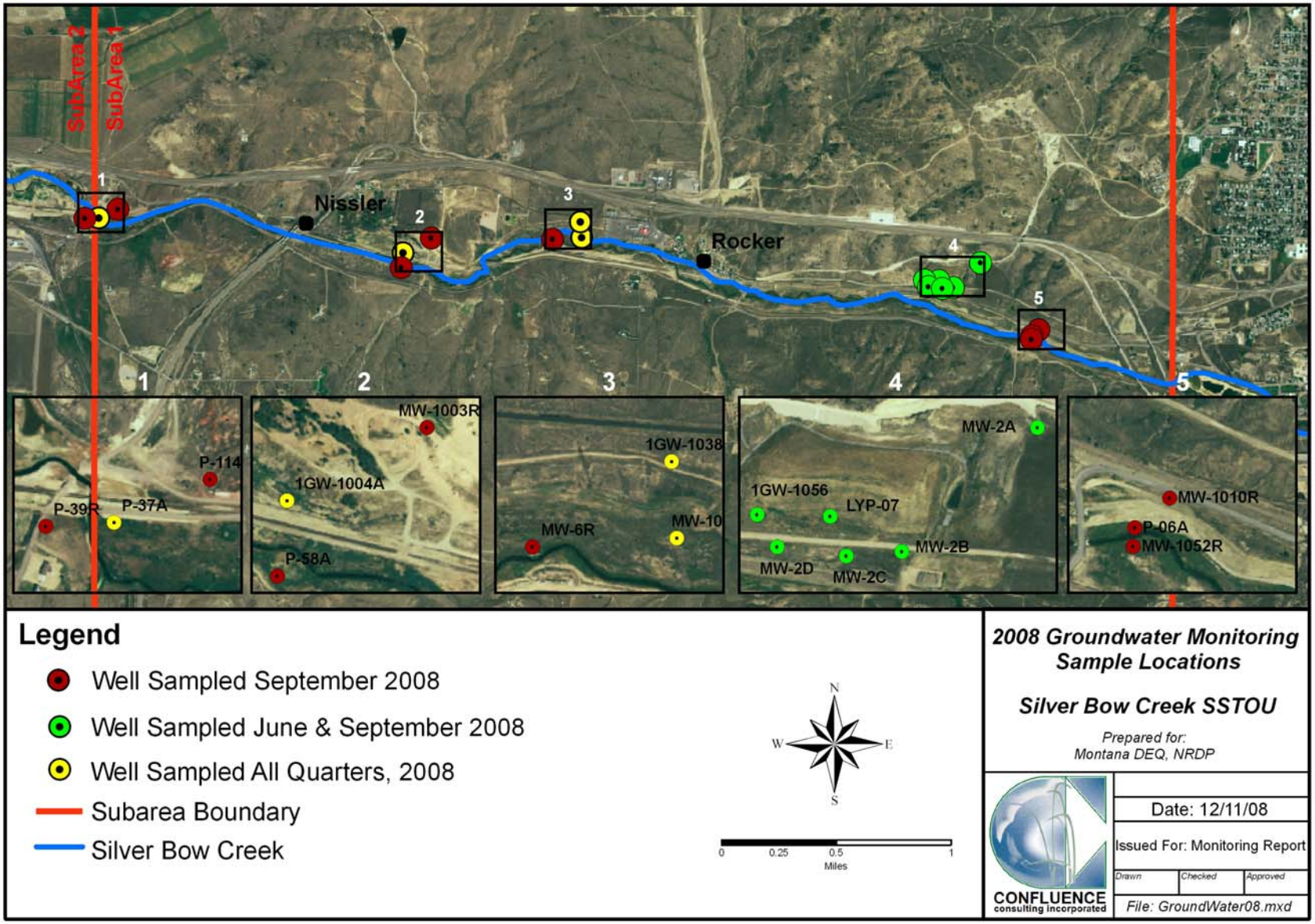


Figure 2-1: Wells sampled in 2008 within Subarea 1 of the SSTOU.

Northern Analytical Labs in Billings conducted laboratory analyses for all analytes for the first three quarters of 2008. Pace Analytical Services in Minneapolis, Minnesota acquired Northern Analytical Labs, and subsequently conducted the laboratory analysis for all analytes in the fourth quarter samples. Analyses were performed according to the Clark Fork SOPs and EPA methods, including all applicable quality assurance and quality control measures. Analytes included dissolved metals and a suite of common ions (Table 2-2). Contaminants of concern included metals commonly associated with tailings and other mine operations in the Butte area (arsenic, cadmium, copper, lead, mercury, and zinc). The remaining metals comprised the group of additional analytes that are to be evaluated to determine their relevance to SSTOU water quality.

Table 2-2. ***Constituents analyzed in groundwater samples, 2008.***

Parameter	*Category*
Arsenic as As (Dissolved)	Contaminant of concern
Cadmium as Cd (Dissolved)	Contaminant of concern
Copper as Cu (Dissolved)	Contaminant of concern
Lead as Pb (Dissolved)	Contaminant of concern
Mercury as Hg (Dissolved)	Contaminant of concern
Zinc as Zn (Dissolved)	Contaminant of concern
Alkalinity Bicarbonate as HCO3	Common ion
Alkalinity Carbonate as CO3	Common ion
Alkalinity Total as CaCO3	Common ion
Calcium as Ca (Dissolved)	Common ion
Chloride as Cl	Common ion
Magnesium as Mg (Dissolved)	Common ion
Potassium as K (Dissolved)	Common ion
Sodium as Na (Dissolved)	Common ion
Sulfate as SO4	Common ion
Aluminum as Al (Dissolved)	Additional analyte
Antimony as Sb (Dissolved)	Additional analyte
Barium as Ba (Dissolved)	Additional analyte
Beryllium as Be (Dissolved)	Additional analyte
Boron as B (Dissolved)	Additional analyte
Chromium as Cr (Dissolved)	Additional analyte
Cobalt as Co (Dissolved)	Additional analyte
Iron as Fe (Dissolved)	Additional analyte
Manganese as Mn (Dissolved)	Additional analyte
Molybdenum as Mo (Dissolved)	Additional analyte
Nickel as Ni (Dissolved)	Additional analyte
Selenium as Se (Dissolved)	Additional analyte
Silver as Ag (Dissolved)	Additional analyte
Uranium as U (Dissolved)	Additional analyte
Vanadium as V (Dissolved)	Additional analyte

Interpretation of analytical results involved several comparisons. A background well, located immediately outside of the SSTOU, was associated with each cluster of wells and allowed evaluation of the contribution of dissolved constituents from the basin geology. Additionally, comparison of results to groundwater standards and surface water standards allowed determination of threats to human health and the environment (Table 2-3). These analyses allow evaluation of progress towards remediation and restoration goals.

Table 2-3. ***Montana's numeric groundwater and surface water standards (Montana Circular DEQ-7)***

Parameter	***Groundwater Standard***	***Surface Water***		
		Human Health	***Acute Aquatic Life***	***Chronic Aquatic Life***
Aluminum			0.75	0.087
Antimony	0.006	0.006		
Arsenic	0.02	0.010	0.34	0.15
Barium	2	2		
Barium			2	
Beryllium	0.004	0.004		
Cadmium	0.005	0.005	0.003[1]	0.001[1]
Chromium	0.1	0.1		
Copper	1.3	1.3	0.017[1]	0.015[1]
Iron	0.3	0.3		1
Lead	0.005	0.005	0.11[1]	0.09[1]
Manganese	0.05	0.05		
Mercury	0.00005	0.00005	0.0017	0.00091
Nickel	0.1	0.1	0.57[1]	0.06[1]
Selenium	0.05	0.05	0.02	0.005
Silver	0.1	0.1	0.006[1]	
Uranium	0.02	0.02		
Zinc	2	2	0.13[1]	

[1] At 125 mg/L hardness (typical value for Silver Bow Creek in SSTOU)

2.2 Results and Discussion

Several wells were replaced in 2007 due to low water volume, infiltration by sand, improper casing materials, or the inability to bail due to well misalignment. All wells replaced in 2007 produced adequate samples during all 2008 sample events. No wells are in need of replacement or repair at this time. Results are presented for each parameter sampled in the standard monitoring plan, followed by results for each individual well during supplemental sampling in 2008.

2.2.1 Standard Monitoring

2.2.1.1 Metals

Arsenic

In 2007, the human health standard for arsenic decreased from 0.018 mg/L to 0.010 mg/L for both surface and groundwater. Four of the wells sampled in 2008 met or exceeded the HH standard, including MW-2A, 1GW-1038, MWGW-1003R, and P-39R (Figure 2-2). In September, well 1GW-1038 recorded a result of 0.04 mg/L, four times the HH standard. This well also produced very high arsenic concentrations during 2007 (0.1 mg/L), and continues to be anomalous with respect to all other wells in Subarea 1 of the SSTOU.

The distribution of wells meeting or exceeding the HH standard falls across four of the five well clusters illustrated in Figure 2-1. Arsenic concentrations were lower in June than in September at the wells sampled within the Mine Waste Relocation Repository (MWRR).

Overall, arsenic concentrations in groundwater in 2008 were similar to those found in 2007. 2006 groundwater monitoring found no exceedence of human health standards (using the 2008 standards), although data for three of the four wells which exceeded HH standards in 2008 were not available in 2006 due to compromised well conditions.

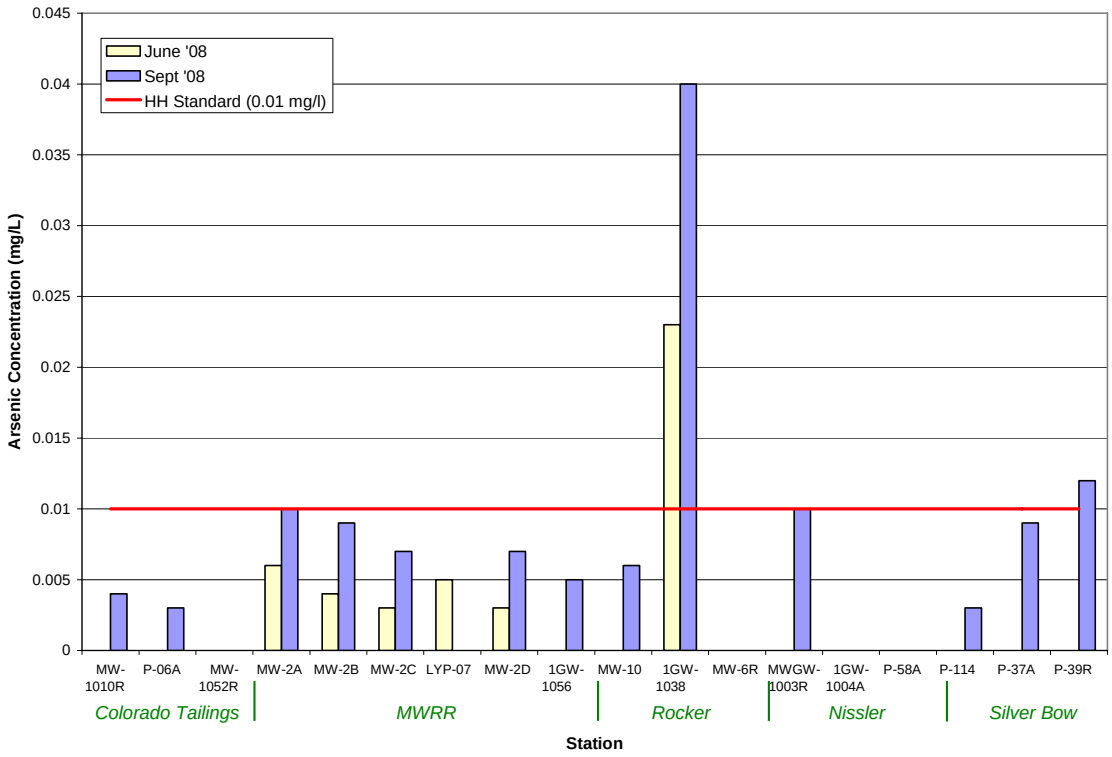


Figure 2-2: ***Dissolved arsenic concentrations in groundwater, 2008.***

Cadmium

Cadmium was present at detectable levels in four of the 6 wells sampled within the MWRR during Q2 of 2008. Two of these four wells exceeded the groundwater standard of 0.005 mg/L. Nine of the 17 wells sampled in Q3 reported detectable cadmium levels (Figure 2-3).

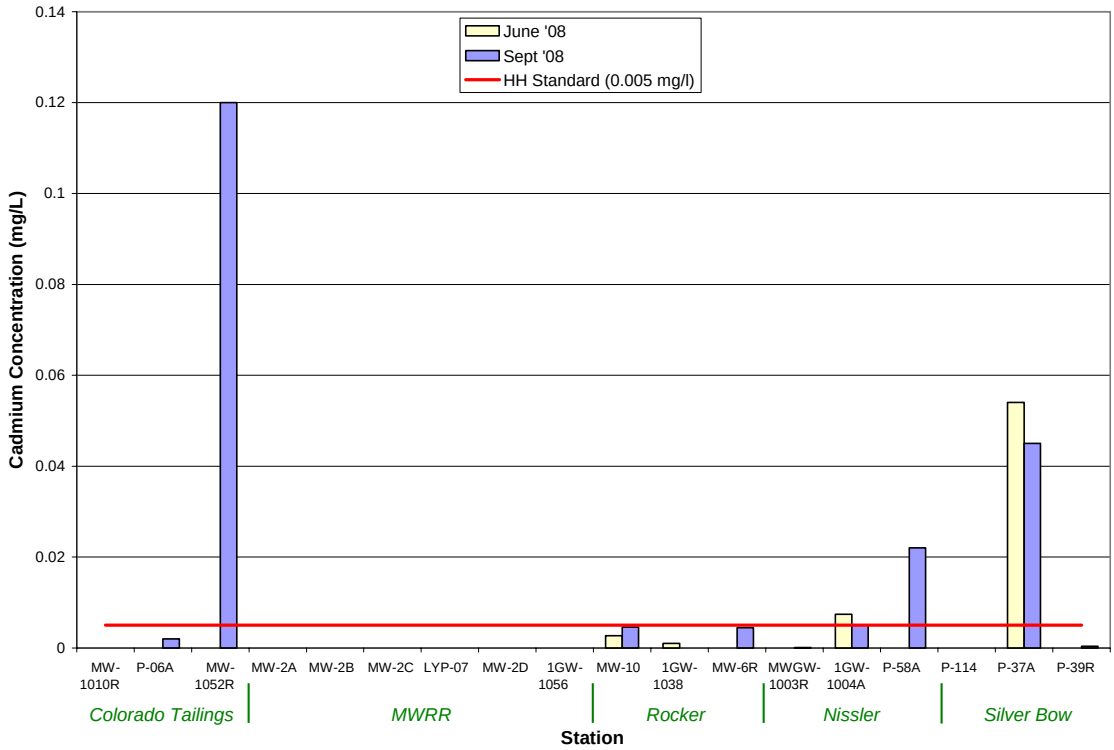


Figure 2-3: ***Dissolved cadmium concentrations in groundwater, 2008.***

Of the nine wells found to have detectable levels of cadmium in September, four met or exceeded the groundwater standard. Well MW-1052R indicated an extremely high concentration of 0.12 mg/L, or 24 times the groundwater standard of 0.005 mg/L. This well did not produce anomalous results in 2007, when it fell well below the groundwater HH standard. Additional wells exceeding the groundwater standard included well 1GW-1004A, P-58A and P-39A. Well 1GW-1004A also exceeded the GW standard in 2007. Well P-58A indicated a much higher Cd concentration in 2008 (0.022 mg/L) as compared to 2007 results (0.0043 mg/L). Well P-37A continued to indicate elevated levels of cadmium in 2008, (0.045 mg/L); very similar to concentrations found in this well in 2006 and 2007.

Of additional concern are wells MW-10 and MW-6R, which showed cadmium concentrations just below the groundwater standard (0.0046 and 0.0045 mg/L, respectively). Combined, the 2008 results indicate a distribution of groundwater wells which approached or exceeded groundwater standards in four of the five clusters illustrated in Figure 2-1. The distribution of exceedences in 2008 was more widely spread than in 2007 (3 of five clusters), as well as 2006, when all well results were well below groundwater standards.

Copper

Copper concentrations in the second quarter of 2008 were found above detection limits at one of the six sample sites within the MWRR (1GW-1056), two of the three Rocker sites (1GW-1056 & MW-10), and one of the two Nissler groundwater sampling locations (1GW-1004A). Copper was found in detectable levels of the third quarter groundwater samples in 13 of the 18 wells (Figure 2-4). Dissolved copper concentrations were consistently the highest in well MW-10 (0.29 mg/L). Well MW-10 also indicated a much higher concentration of copper as compared to other wells in 2007. Overall in 2008, Q3 concentrations were generally higher than values at the same wells for Q2 with the exception of two wells at the Rocker site MW-10 and 1GW-1038. As in both 2006 and 2007, all samples were below the groundwater standard of 1.3 mg/L. These results indicate that copper concentrations within the localized groundwater of the sampling wells do not pose a threat to environmental or human health.

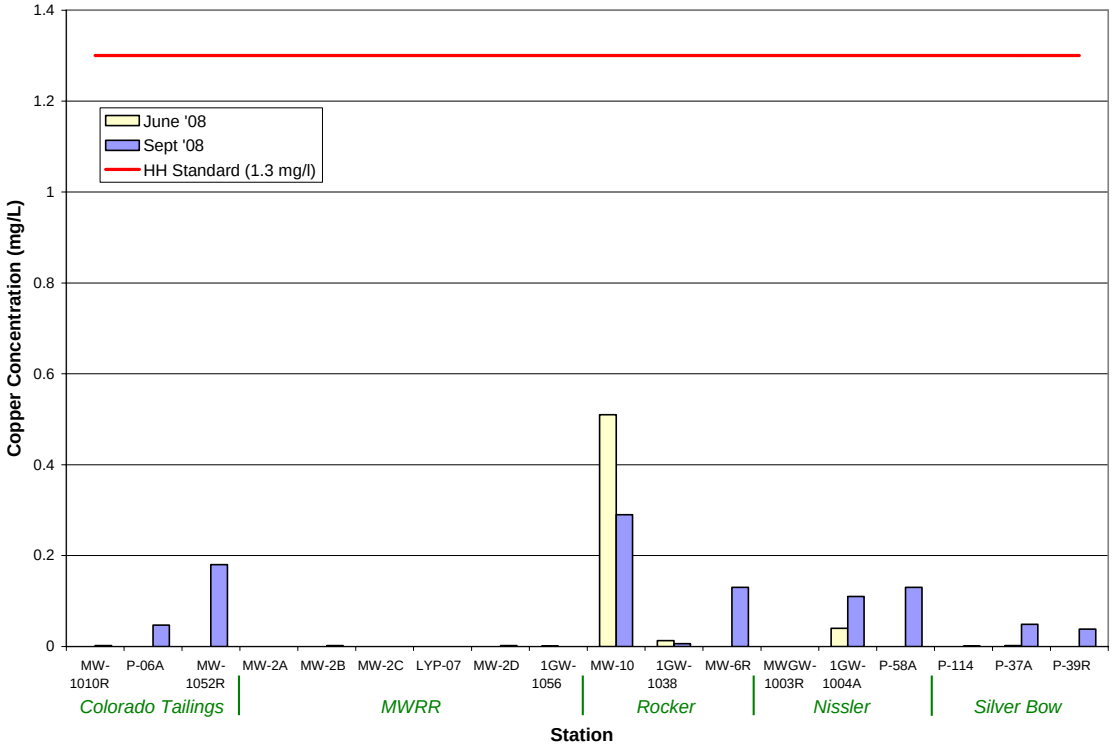


Figure 2-4: ***Dissolved copper concentrations in groundwater, 2008.***

Lead

All six wells sampled within the MWRR fell below detection limits for lead in Q2 and Q3 of 2008. Two of the six wells sampled within the MWRR in Q2 of 2008 and five of the 18 wells sampled in Q3 of 2008 resulted in detectable levels of lead (Figure 2-5). Of these, two wells exceeded the groundwater human health standard of 0.005 mg/L, including MW-10 and 1GW-1004A. While the latter well had lead concentrations below this standard in Q2 of 2008, well MW-10 showed similar lead concentrations between the September 2007 sample and the June 2008 sample (0.037mg/L & 0.035mg/L, respectively). Lead concentration in well MW-10 dropped in Q3 of 2008 to 0.0077 mg/L. Well 1GW-1004A remained at similar levels as found during 2007. Well P-06A exceeded the groundwater human health standard in 2007, but dropped below this standard in 2008.

The annual monitoring report in 2006 found no exceedence of lead standards, leading to the conclusion that lead concentrations in groundwater did not pose a threat to human health in Subarea 1 of the SSTOU. However, results from 2007 and 2008 dispute these conclusions based on elevated lead concentrations in two well locations across two well clusters as shown in Figure 2-1.

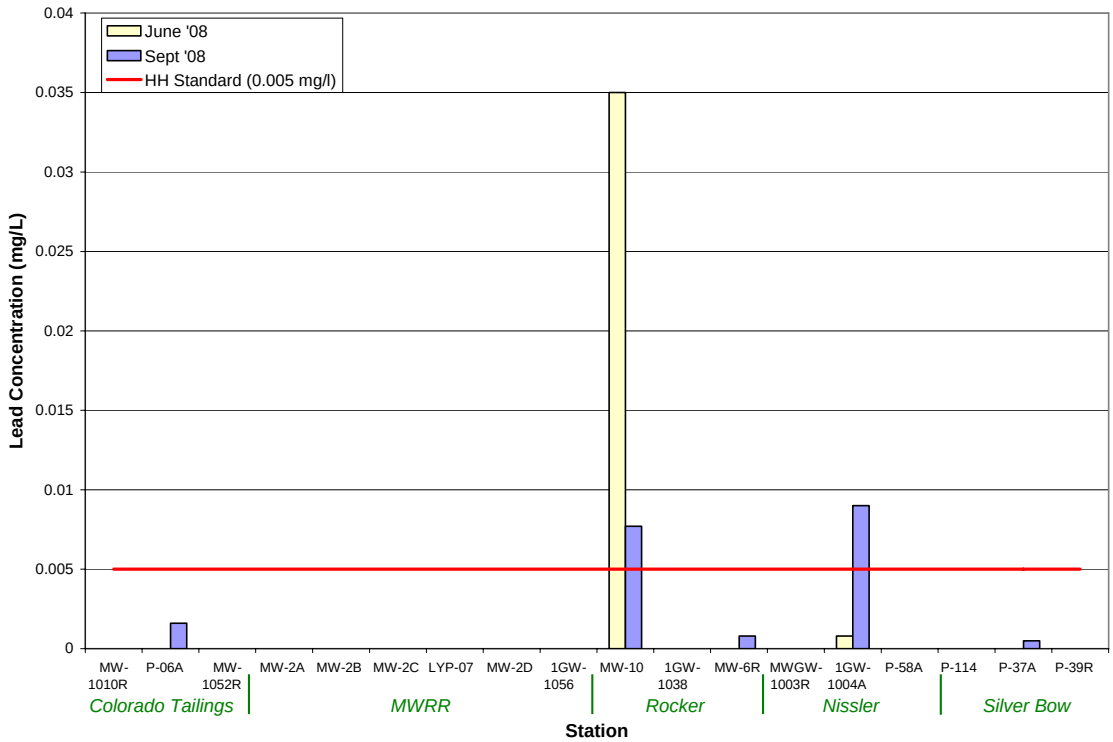


Figure 2-5: ***Dissolved lead concentrations in groundwater, 2008.***

Zinc

As in 2007, zinc concentrations did not exceed detectable limits in any of the six wells sampled within the MWRR in Q2 or Q3 of 2008. Nine of the wells sampled in Q3 recorded detectable levels of zinc, four of which exceeded the groundwater standard of 2 mg/L, including MW-1052R, MW-10, 1GW-1004A, and P-58A (Figure 2-6). With the exception of MW-1052R, each of these wells also exceeded 2 mg/L in 2007, suggesting continuous GW standard exceedences at these locations. Well 1GW-1004A maintained the highest concentration of zinc relative to all other wells with a concentration of 9.66 mg/L in Q3, almost 5x the groundwater standard. No other wells approach the GW standard within the sampled area.

Although 2006 groundwater monitoring results indicated no exceedence of the groundwater human health standard for zinc, both 2007 and 2008 monitoring indicates zinc is of concern for human health and the environment within select areas in Subarea 1 of the SSTOU. Specifically, these areas include clusters 2 and 3 as shown in Figure 2-1.

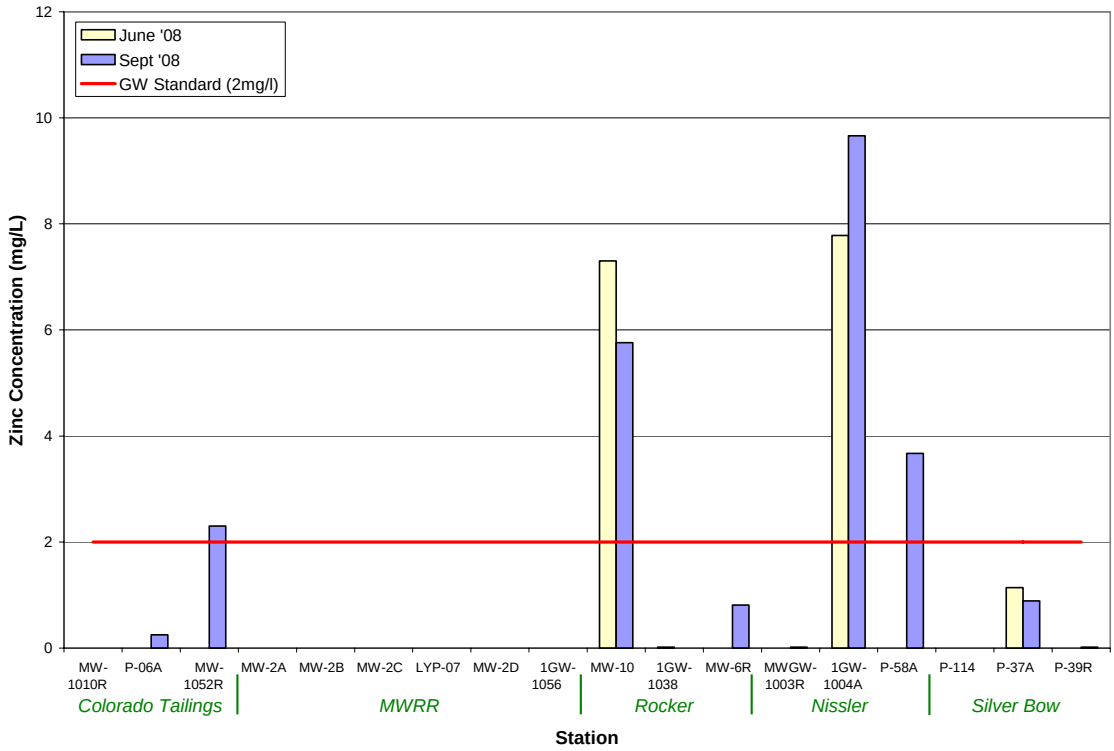


Figure 2-6: ***Dissolved zinc concentrations in groundwater, 2008.***

Mercury

Mercury was found in detectable levels in three of the six wells sampled within the MWRR in Q2 of 2008. All of these samples fell below the groundwater standard of 0.00005 mg/L, indicating mercury levels within the MWRR are not a significant concern at this time. Three of the 18 wells sampled in Q3 of 2008 indicated concentrations which exceed GW standards, including MW-10, 1GW-1038, and MWGW-1003R (Figure 2-7). Two of these wells (1GW-1038 and MWGW-1003R) are background wells. Dissolved mercury was highest in background well 1GW-1038 (0.00025 mg/L), five times the GW standard. This well also displayed a high mercury concentration during 2007, indicating continued elevated Hg levels in this area.

Monitoring efforts in 2006 indicated no exceedence of the GW standard for mercury at any groundwater wells. However, annual monitoring efforts in 2007 and 2008 contrast with 2006 results, indicating mercury concentrations may pose a threat to human health and the environment in select locations within Subarea 1 of the SSTOU.

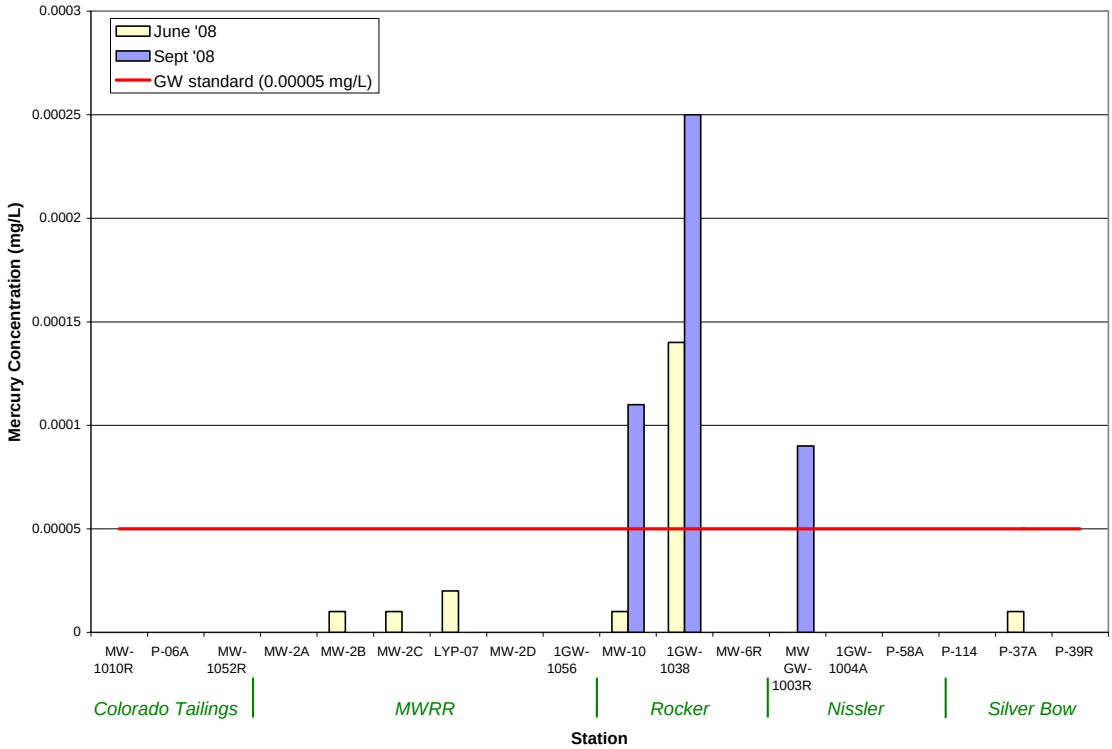


Figure 2-7: ***Dissolved mercury concentrations in groundwater, 2008.***

Uranium

Uranium was sampled only during Q3 of 2008, and was found above detection at 15 of the 18 wells (Figure 2-8). Five of the wells resulted in dissolved uranium concentrations above the groundwater standard of 0.02 mg/L, four of which are within the MWRR area. Well MW-1010R, a background well, also indicated elevated uranium, and was over twice the groundwater standard. All other wells contained relatively low concentrations of uranium.

Maximum uranium concentrations within the MWRR have increased in both of the past 2 years. Maximum uranium concentrations in 2008 fell between 0.08 and 0.09, whereas they fell between 0.05 and 0.06 in 2007 and 0.04 and 0.05 in 2006. Background well MW-2A results show a concentration of 0.05 mg/L, indicating a potentially natural source of uranium in the tertiary granitic geology of the basin.

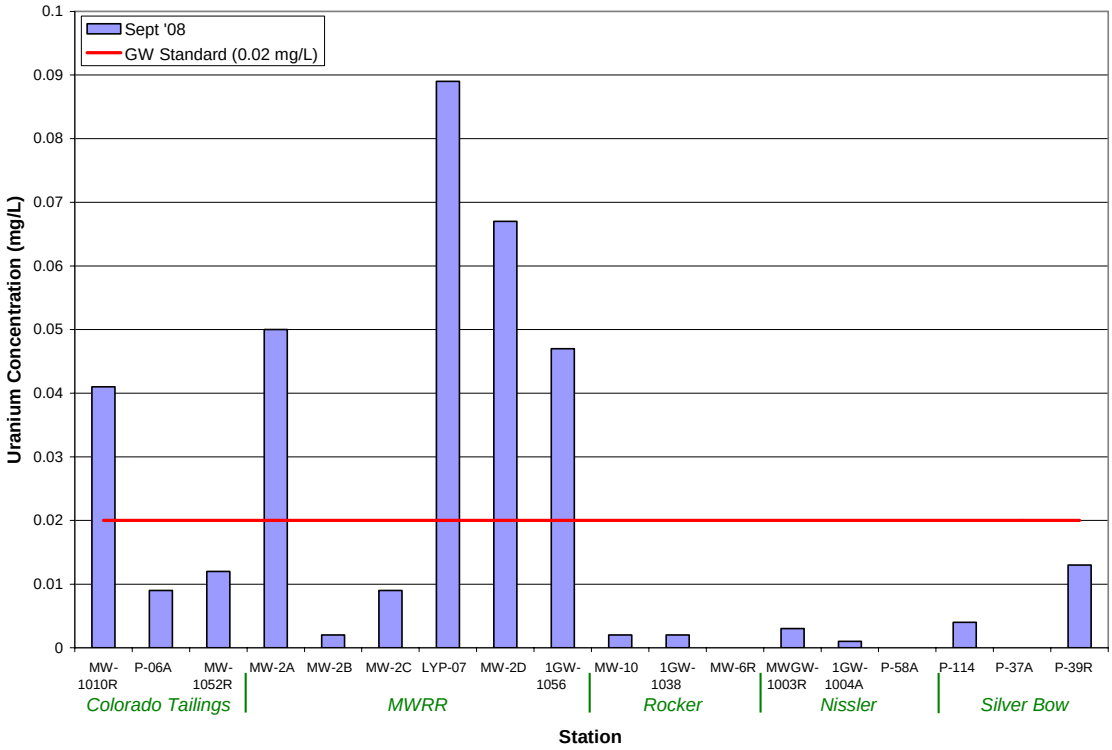


Figure 2-8: ***Dissolved uranium in groundwater, 2008.***

Manganese

Manganese was found in detectable concentrations at only one of the six wells sampled in within the MWRR in Q2 and none in Q3. Five of the 18 wells sampled in Q2 of 2008 and ten of the wells sampled in Q3 of 2008 had detectable levels of manganese. All but one of the detectable hits fell above the secondary contaminant level of 0.05 mg/L (Figure 2-9). Manganese concentrations in groundwater were highest in well 1GW-1004A and ranged from 0.048 mg/L to 22.9 mg/L. These results were similar to those found during 2007 monitoring. 2006 groundwater monitoring also observed several exceedences of the groundwater standard for manganese.

The secondary maximum contaminant level is not a measure of toxicity, but addresses aesthetic properties for drinking water such as taste, odor, and staining. As in 2007, manganese concentration in background wells MW-2A and P-114 showed no detection in Q2 or Q3 sample events, indicating introduced soils may be the source of manganese in groundwater wells along Silver Bow Creek.

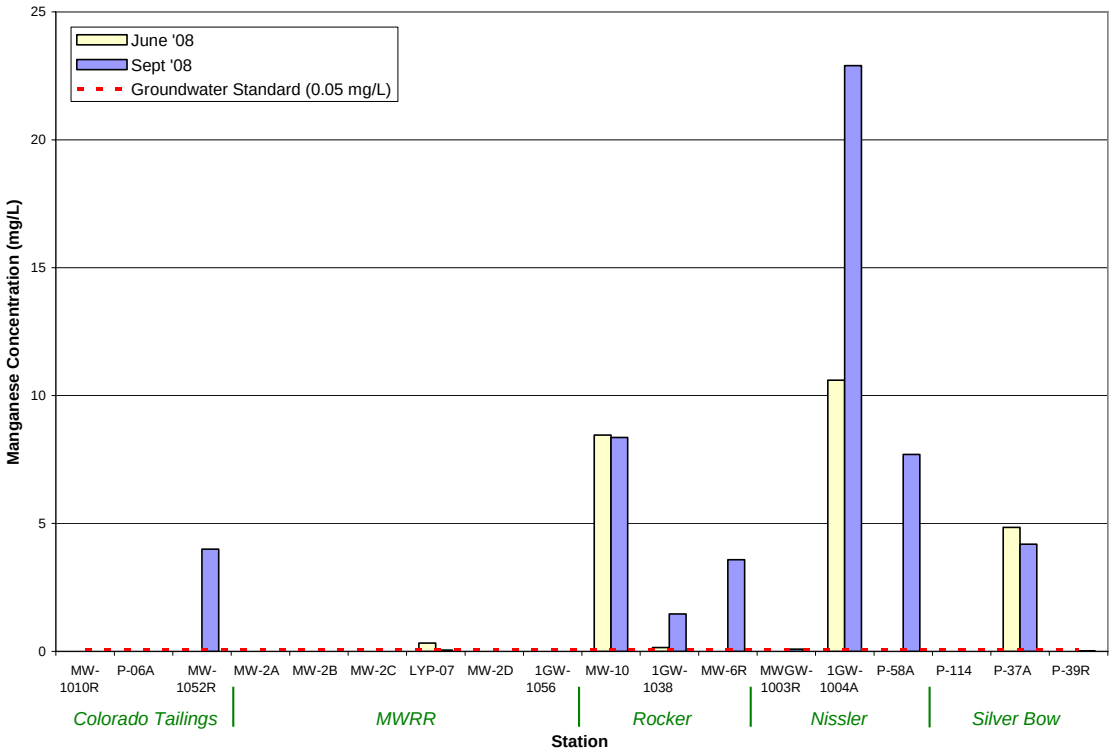


Figure 2-9. ***Dissolved manganese concentration in groundwater, 2008.***

2.2.1.2 Common Ions

Common ions consist of dissolved constituents or salts, which dissociate into positively charged ions (cations) and negatively charged particles (anions) when in solution. Measures of alkalinity allow evaluation of concentrations of carbonate and bicarbonate, common anions in surface and groundwater.

Alkalinity

Total alkalinity was measured in eight wells in Q2 and 18 wells in Q3 (Figure 2-10). As in both 2006 and 2007, well LYP-07 indicated the highest total alkalinity for all wells sampled during both sample events. Overall, these values remained within the normal range for groundwater in the region. Bicarbonate alkalinity continued to dominate all wells sampled in 2007. This was expected based on groundwater pH values ranging from 5.5 to 7.5 within the sampled reach of Silver Bow Creek. Bicarbonate typically dominates over carbonate in solutions with a pH below 8.3.

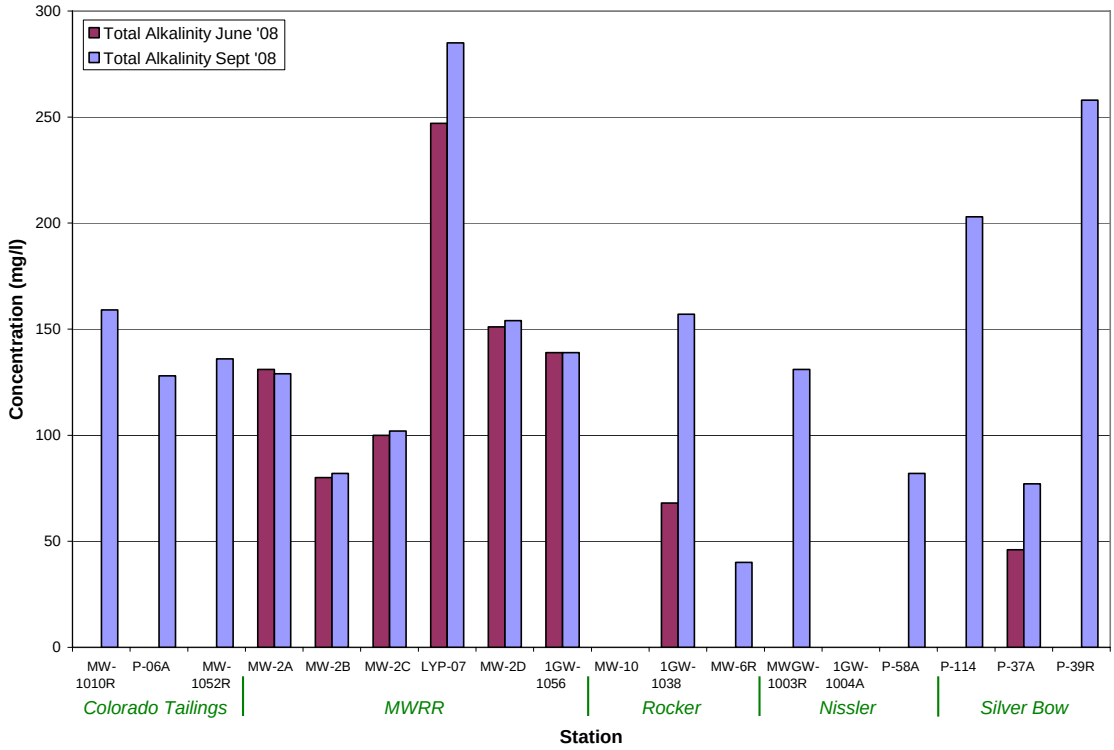


Figure 2-10: ***Total alkalinity in groundwater, 2008.***

Chloride and Sulfate

Other common ions include chloride and sulfate. Wells sampled in 2008 remained well below the range of toxic levels for fish and aquatic life for sulfates (2800-4300 mg/l) (Mount et al. 1997), with a maximum concentration of 560 mg/L found in well 1GW-1004A. Chloride concentrations for all wells sampled in 2007 were well below the range of toxic threshold concentrations for fish and aquatic life (1500-4300 mg/l) (Figure 2-11). Both sulfate and chloride concentrations within the SSTOU were similar to those found during 2007. Sulfate concentrations in 2006 were lower than those recorded in 2008; however, recent sulfate concentrations observed in groundwater are not considered deleterious to surface waters in Silver Bow Creek.

Threshold concentrations for chloride and sulfate have not been included in Figure 1-11 because they are nearly an order of magnitude higher than the highest concentrations of well results.

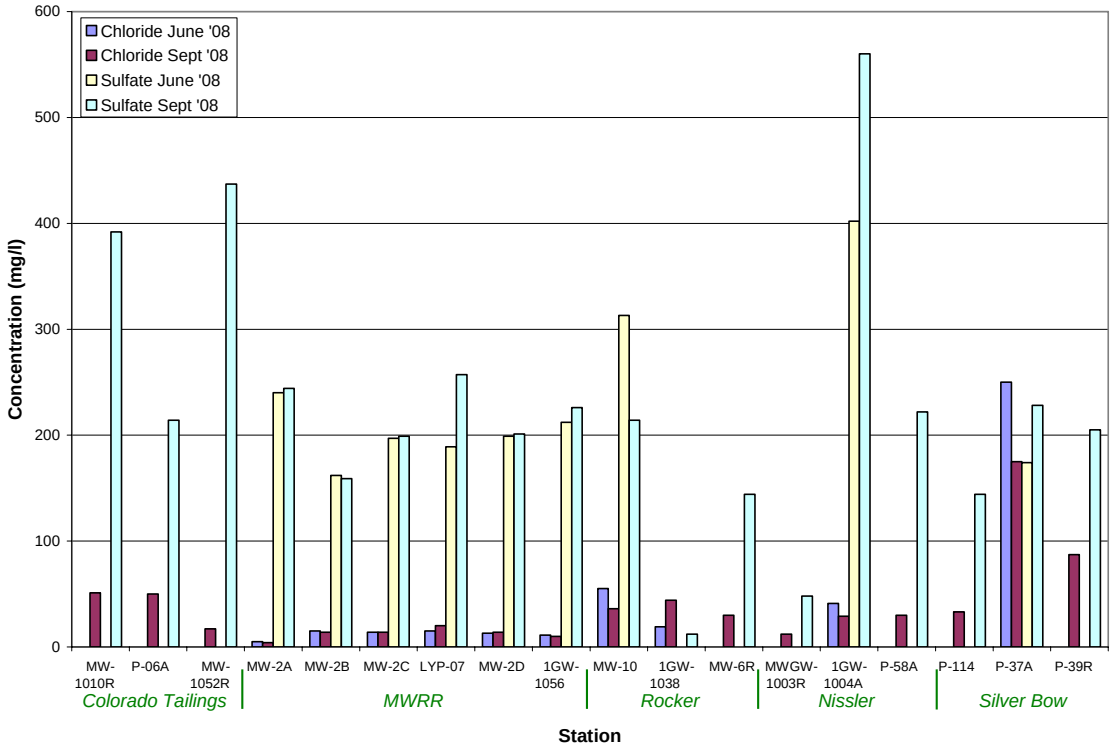


Figure 2-11: ***Chloride and sulfate in groundwater, 2008.***

Calcium and Magnesium

As in 2007, calcium was the dominant cation sampled in groundwater wells in both Q2 and Q3 of 2008 (Figure 2-12 and Figure 2-13; note these figures are on same vertical scale). Magnesium remained at low concentrations in all sample wells as compared to the estimated toxicity threshold for aquatic life (~1050-1800 mg/L) (Mount et al. 1997). Results suggest calcium and magnesium in remediated soils are near or below background levels.

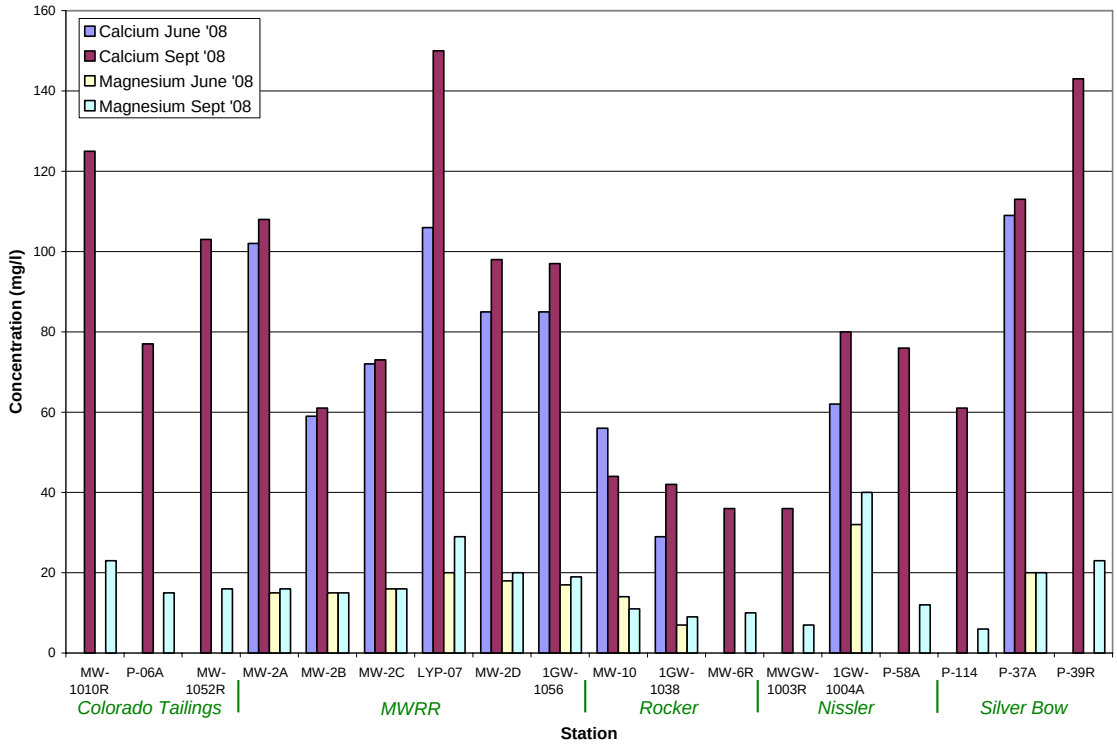


Figure 2-12: ***Calcium and magnesium in groundwater, 2008.***

Potassium and Sodium

In 2008, potassium remained well below concentrations toxic to fish and aquatic life in all groundwater samples (~400mg/l) (Mount et al. 1997). The approximate threshold concentration for potassium is not included in Figure 2-13, because it is on the order of 400% higher than the highest value recorded in 2008. Sodium concentrations ranged from 22 to 122 mg/L and were generally lower in remediated areas as compared to background wells. No toxicity values are available which are specific to sodium.

The overall higher concentrations of calcium, combined with low concentrations of potassium are favorable for aquatic life and are unlikely to contribute detrimentally to surface waters in Silver Bow Creek. These results suggest the remediated portion of the SSTOU contributes dissolved constituents similar to background and these levels are within a normal and non-detrimental range.

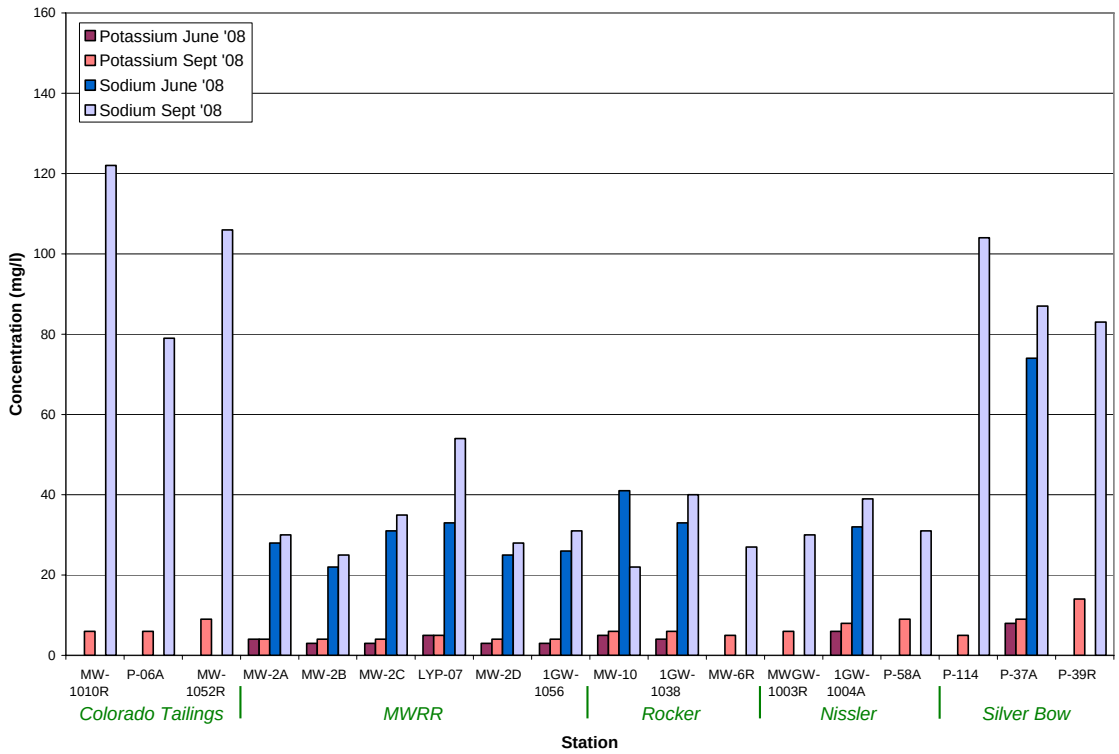


Figure 2-13: ***Potassium and sodium in groundwater, 2008.***

2.2.2 Supplemental Groundwater Sampling

Groundwater sampling in 2007 returned anomalous results at four wells. Wells MW-10, 1GW-1038, 1GW-1004A, and P-37A indicated high concentrations of one or more contaminants of concern which appeared anomalous compared to all other sampling wells in 2007 and for those specific wells in previous years' sample events. Each of these four wells was sampled quarterly in 2008 to investigate the potential for sampling errors, laboratory analysis errors, or to confirm the results found in 2007.

Table 2-4 provides the results for each contaminant of concern during supplemental well sampling in 2008. Results indicate continuous exceedence of groundwater human health standards for one or more metals.

Table 2-4. ***Groundwater sampling results from 4 wells supplementally sampled in 2008. Values in bold exceed groundwater human health standards.***

Well	*Parameter*	*Human Health Standard*	*Q3 2007*	*Q1 2008*	*Q2 2008*	*Q3 2008*	*Q4 2008*
MW10	Arsenic	0.01	0.0060	ND	ND	0.0060	0.0026
1GW-1038			**0.1000**	**0.0410**	**0.0230**	**0.0400**	**0.0411**
1GW-1004A			ND	ND	ND	ND	0.0008
P37A			0.0070	ND	ND	0.0090	0.0016
MW10	Cadmium	0.005	**0.0058**	**0.0069**	0.0027	0.0046	0.0048
1GW-1038			0.0002	0.0004	0.0010	ND	0.0011
1GW-1004A			**0.0092**	0.0043	**0.0074**	**0.0050**	0.0010
P37A			**0.0430**	0.0009	**0.0540**	**0.0450**	**0.0319**
MW10	Copper	1.3	1.1100	**2.1000**	0.5100	0.2900	0.2140
1GW-1038			0.0320	0.0280	0.0130	0.0060	0.0095
1GW-1004A			0.1600	0.0460	0.0400	0.1100	0.0130
P37A			0.0330	0.0220	0.0020	0.0490	0.0383
MW10	Lead	0.005	**0.0370**	**0.0550**	**0.0350**	**0.0077**	0.0005
1GW-1038			0.0013	0.0010	ND	ND	0.0002
1GW-1004A			**0.0083**	0.0018	0.0008	**0.0090**	ND
P37A			0.0016	0.0008	ND	0.0005	ND
MW10	Zinc	2	**6.2700**	**9.3100**	**7.3000**	**5.7600**	**4.8600**
1GW-1038			0.0000	0.0200	0.0200	ND	0.0322
1GW-1004A			**10.8000**	**5.0000**	**7.7800**	**9.6600**	**6.2000**
P37A			1.0700	0.3200	1.1400	0.8900	0.7160

2.2.2.1 Well MW-10

In 2007, well MW-10 recorded elevated concentrations of cadmium, lead, and zinc (Table 2-4). Supplemental sampling in 2008 indicated cadmium concentrations exceeded the groundwater standard during Q1 and were just below the standard in Q3 and Q4.

Well MW-10 did not exceed the groundwater standard for copper in 2007, but supplemental sampling in 2008 indicated an exceedence during Q1.

In 2007, well MW-10 recorded a lead concentration 7.5 times the groundwater standard. Supplemental sampling in 2008 indicated continuous exceedence of the groundwater standard during Q1, Q2, and Q3. Second quarter sampling in 2008 at this well recorded a lead concentration of 0.0550, eleven times the lead standard.

Well MW-10 also indicated highly elevated levels of zinc in 2007. Supplemental sampling in 2008 indicated continuous, highly elevated zinc concentrations ranging from 4.8 to 9.3 mg/L. Peak zinc concentrations in this well were over 4 times the groundwater human health standard of 2 mg/L.

Although well MW-10 showed exceedences for groundwater standards for several contaminants, supplemental sampling in 2008 indicated decreasing concentrations of each contaminant throughout the year. This may indicate an episodic event of contamination passing through the groundwater in the vicinity of this well throughout the year. Continuous sampling at this well will determine if this episode was an isolated event, or if contamination is repetitive.

2.2.2.2 Well 1GW-1038

Well 1GW-1038 results in 2007 showed extremely high levels of arsenic. Arsenic concentrations in this well were ten times the groundwater standard, much higher than any other well in the SSTOU. Supplemental sampling in 2008 indicated continuously high concentrations of arsenic ranging from 0.02 to 0.04 mg/L, or between 2 and 4 times the groundwater standard for arsenic (Table 2-4). These results imply a more continuous supply of contaminated groundwater in the vicinity of this monitoring well. Further monitoring will determine if arsenic concentrations remain elevated at this site. No other contaminants of concern were noted at elevated concentrations at well 1GW-1038 in 2006, 2007, or 2008.

2.2.2.3 Well 1GW-1004A

2007 monitoring revealed exceedences of groundwater standards for cadmium, lead, and zinc at well 1GW-1004A. Supplemental sampling in 2008 revealed cadmium concentrations at or above the groundwater standard during two of the four quarters, and just below the standard during a third quarter.

Lead concentrations in 2008 exceeded the groundwater standard during the third quarter only. All other quarters indicated relatively low or below detection levels of lead in well 1GW-1004A.

In 2007, well 1GW-1004A had the highest concentration of zinc of all wells, registering 10.8 mg/L, or nearly six times the groundwater standard of 2 mg/L. Supplemental sampling of this well in 2008 indicated continuous, very high zinc concentrations which were at least 2.5 times higher than the groundwater standard (Table 2-4).

Arsenic and copper concentrations in well 1GW-1004A do not appear to be of concern based on monitoring from 2006 – 2008. However, cadmium, lead, and zinc concentrations are of concern at this well location, and show continuous contamination throughout the past 2 monitoring years.

2.2.2.4 Well P-37A

2007 monitoring indicated highly elevated concentrations of cadmium at well P-37A. The concentration of 0.04 mg/L in 2007 was over eight times the groundwater standard for cadmium, and was much higher than all other wells during this sample year. Supplemental sampling in 2008 indicated relatively low concentrations of cadmium in the first quarter, but highly elevated cadmium concentrations in quarters 2, 3, and 4. No other contaminants of concern were noted at elevated levels during 2007 or 2008 at this well.

2.3 Conclusions

In 2008, groundwater monitoring within Subarea 1 of the SSTOU indicated the majority of wells met groundwater standards for contaminants of concern. Six of the eighteen wells sampled in 2008 indicated COC concentrations which exceeded groundwater standards. Groundwater wells have been placed for monitoring in one of five well clusters, including the Colorado Tailings, MWRR, Rocker, Nissler, and Silver Bow Creek. Each cluster of wells performed to varying degrees of conformance with the goals established in the monitoring plan, and are therefore discussed separately.

2.3.1 Colorado Tailings

This well cluster includes well MW-1010R (background well), P-06A, and MW-1052R. Well MW-1052R showed a spike in cadmium during the third quarter of 2008, which was not evident in 2007. The Q3 2008 concentration of 0.12 mg/L is somewhat alarming, in that it is 24x the groundwater standard. Future monitoring efforts will assist in determining if this result is anomalous, or if this well remains elevated for cadmium. The other two wells in this cluster met groundwater human health standards for all contaminants of concern and did not show any deviations in trends during 2008.

2.3.2 MWRR

Wells installed for monitoring the Mine Waste Relocation Repository resulted in no exceedence of any contaminants of concern. 2008 sampling indicates the MWRR continues to have elevated concentrations of uranium both within the SSTOU and in background wells. This may indicate a natural presence of uranium in the granitic geology of the MWRR site. Sample results from 2008 suggest the MWRR is functioning as intended.

2.3.3 Rocker

This cluster includes wells 1GW-1038 (background), MW-10, and MW-6R. Two of three wells in this cluster exceeded groundwater standards for one or more contaminants of concern. Well MW-6R met all groundwater human health standards for all contaminants of concern and did not show any deviation in trends in 2008.

Well 1-GW-1038 remains the only well which consistently indicates exceedence of arsenic groundwater standards. This well also indicated high concentrations of mercury in 2008, exceeding the groundwater standard five-fold.

Well MW-10 exceeded groundwater standards for both cadmium and copper during the first quarter, lead during the first three quarters, and zinc for all four quarters of 2008. Results for this well indicated a peak

in concentration, followed by attenuation for each metal which exceeded standards, indicating the possibility of an episodic event of metals leaching to groundwater. This well also indicated elevated mercury concentrations, and was the only non-background well to exceed groundwater standards for this contaminant.

2.3.4 Nissler

This cluster included wells MW-1003R (background), 1GW-1004A, and P-58A. All three of these wells showed an exceedence of at least one contaminant of concern.

Monitoring well MW-GW-1003R indicated an elevated concentration of mercury, and exceeded the groundwater standard in 2008. This is the second background well (well 1GW-1038 is the other) to show an exceedence of mercury standards within the SSTOU.

Well 1GW-1004A indicated elevated concentrations of cadmium, lead, and zinc in 2008. The timing of peak metal concentrations and lack of attenuation at this well does not imply a single episode of contamination. Rather, these data indicate the possibility of multiple sources contributing metals to groundwater during various times of the year. Future monitoring will determine if elevated metal concentrations at this well may be identified temporally.

Well P-58A indicated a rising concentration of cadmium, and exceeded the groundwater standard for this contaminant of concern in 2008. The concentration of zinc in this well also continued to exceed groundwater standards in 2008. Future monitoring will determine if this well continues to exceed groundwater standards for these contaminants.

2.3.5 Silver Bow Creek

This cluster includes wells P-114 (background), P-37A and P-39R. Well P-37A was the only well in this cluster identified as exceeding groundwater standards, and showed consistently elevated concentrations of cadmium in both 2007 and 2008. Cadmium concentration was similar for both years, indicating the potential for a constant source of cadmium contamination. Future monitoring will determine if cadmium concentrations remain elevated at this well.

2.3.6 Additional Analytes and Common Ions in all Well Clusters

Concentrations of additional analytes in 2008 were typically low and well below numeric standards in all wells and all clusters with the exception of manganese and uranium. Manganese exceeded the secondary maximum contaminant level in multiple wells, which may influence the drinking water properties including taste, odor, and color. Background well manganese concentrations were below detection limits, indicating the use of introduced soils within the SSTOU is likely the source. Elevated concentrations of uranium within wells in the MWRR were likely the result of natural, geologic sources.

Analyses of common ions within the groundwater suggested remediated areas were not a significant contributor of salts to Silver Bow Creek. Chloride, sulfate, magnesium, and potassium concentrations fell well below levels considered toxic to aquatic life. Common ion analysis concludes the remediated portion of the SSTOU contributes dissolved constituents similar to concentrations found in background wells, which are within a normal and non-detrimental range.

3.0 VADOSE ZONE MONITORING

The vadose zone comprises the area between the soil surface and the groundwater table. Water present in the vadose zone is soil moisture and has the ability to transport colloidal and dissolved nutrients, minerals, and/or contaminants through the soil column. Movement of water through the vadose zone presents a potential route for contamination of groundwater and/or surface water.

The remediation and restoration goal for vadose zone monitoring is to determine if any contaminants of concern are migrating from the mine waste repository toward the Silver Bow Creek alluvial aquifer. Typically, constituent concentrations are higher in vadose zone water than groundwater. This general increase in concentration within the soil pore water makes existing numeric standards for surface and groundwater inapplicable. As a result, determination of background levels and concentrations is important to evaluate any increase in migrating contaminants within the vadose zone.

3.1 Methods

Lysimeters were used to collect water samples from the vadose zone in the soil. Lysimeter locations were chosen to provide a background for native pore water (LYS-06) and monitoring for transport of contaminant from the Mine Waste Relocation Repository (MWRR) through the unsaturated soil column (Figure 3-1). Lysimeters with greater concentrations of dissolved metals or common ions may indicate contaminants leached from the repository. As numeric water quality standards for either groundwater or surface water are inappropriate to apply to vadose zone water, comparison with background is the sole evaluation.

Vadose zone monitoring followed the schedule presented in the Long-Term Monitoring Plan for Silver Bow Creek, Streamside Tailing Operable Unit (DEQ and NRDP 2007), with sample collection in Q2 and Q3 at lysimeters installed at the MWRR in Reach A. Sampling, preservation, and handling of samples followed Clark Fork standard operating procedures or SOPs (ARCO 1992). Sample analysis included contaminants of concern, common ions, and additional analytes (Table 3-1). Analysis of substances in the ‘additional analytes’ category constitutes an initial screen to evaluate concentrations of metals typically unrelated to mining activities surrounding Butte. Unless found to be contributing to impairment within the SSTOU, analysis of this category may be phased out.

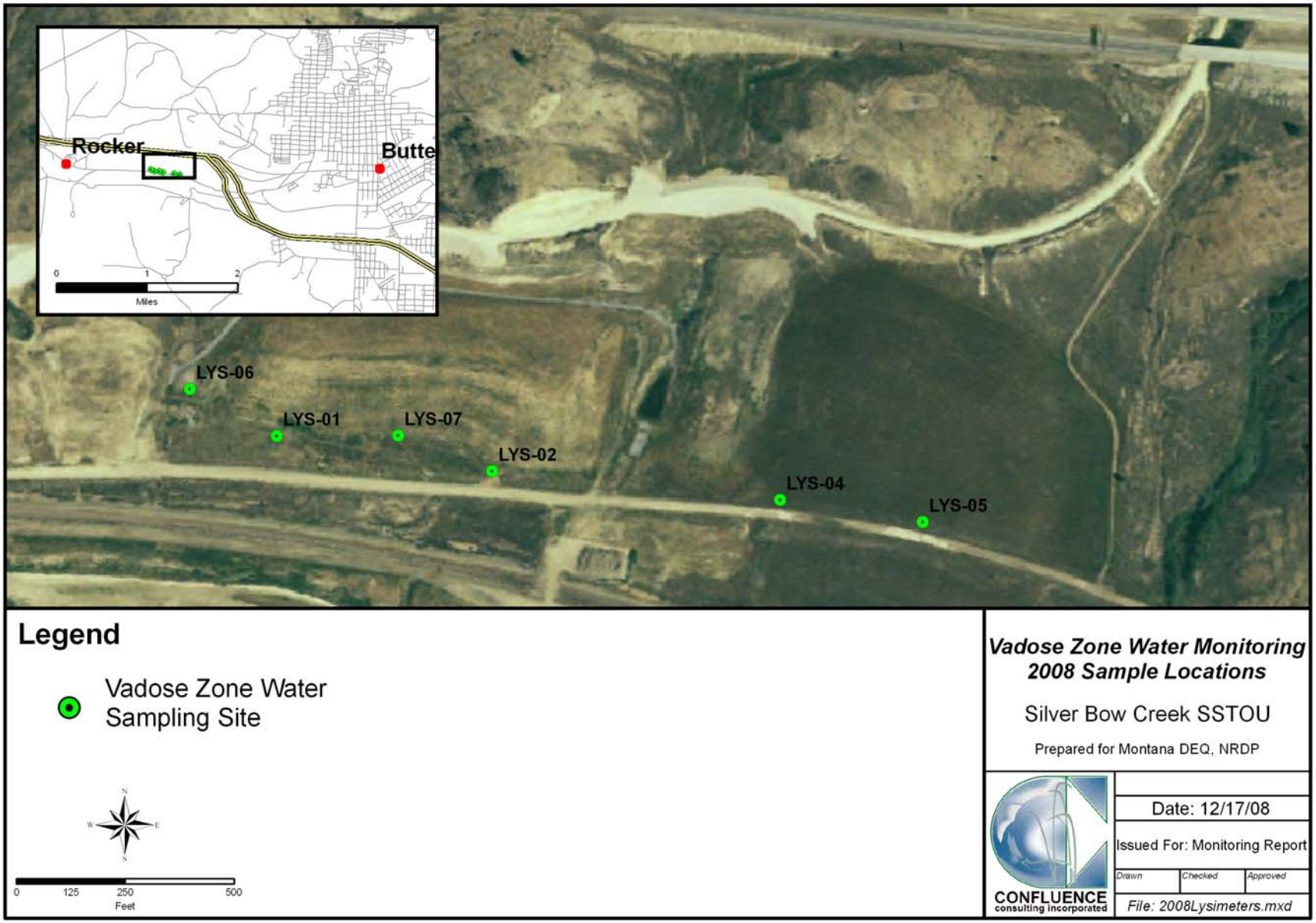


Figure 3-1. Lysimeters sampled in Q2 2008 within the MWRR.

Table 3-1: ***Constituents analyzed in vadose samples at Northern Analytical Labs***

Parameter	Category
Arsenic as As (Dissolved)	Contaminant of concern
Cadmium as Cd (Dissolved)	Contaminant of concern
Copper as Cu (Dissolved)	Contaminant of concern
Lead as Pb (Dissolved)	Contaminant of concern
Zinc as Zn (Dissolved)	Contaminant of concern
Mercury as Hg (Dissolved)	Contaminant of concern
Manganese as Mn (Dissolved)	Additional analyte
Calcium as Ca (Dissolved)	Common ion
Magnesium as Mg (Dissolved)	Common ion
Potassium as K (Dissolved)	Common ion
Sodium as Na (Dissolved)	Common ion
Sulfate as SO4	Common ion
Chloride as Cl	Common ion

3.2 Results

As was the case in 2007, low soil moisture was a major finding during both Q2 and Q3 sampling events in 2008. Although lysimeters were left under vacuum for more than three hours, all but one lysimeter produced little to no sample water. One site (LYS-01) produced enough water to collect a sample during the June sampling event. Insufficient soil moisture precluded collection of pore water in the remaining 5 lysimeters in June and all lysimeters in September.

Northern Analytical Labs prioritized metals followed by common ions for the available water. No analytical results were possible for the remaining sites in June or any in September. Because there was not sufficient soil moisture to collect a sample at the background lysimeter in 2008, comparisons for this report will be relative to background well LYS-06 data from 2006.

3.2.1 Metals

Analyses of metals within vadose water from the one sampled site found three parameters below detection limits, including arsenic, cadmium, and lead. Copper, mercury, zinc, and manganese were present at detectable levels for the sample collected from LYS-01 in June (Table 3-2).

Table 3-2: ***Metals concentrations for LYS-01 in June, 2008.***

Parameter	LYS-01 (mg/L)
Arsenic*	ND
Cadmium*	ND
Copper*	0.005
Lead*	ND
Mercury*	0.00001
Zinc*	0.07
Manganese	0.07

*Contaminants of concern

Arsenic was found in detectible levels in LYS-01 in both 2006 and 2007. However, arsenic was not found in the background lysimeter in detectible levels to allow for a comparison. Given the lack of detectible arsenic in LYS-01 in 2008 and previous samples falling below the surface water human health standard of 0.01 mg/L, the release of arsenic does not appear to be of concern at this time within the MWRR.

Cadmium concentrations have not appeared in detectible concentrations in either of the LYS-01 samples in 2007 or 2008.

Dissolved copper concentrations for the LYS-01 sample indicated an increase from both 2006 and 2007 (Figure 3-2). This metal was found in concentrations above the detection limit in the 2006 background data (LYS-06), registering a concentration of 0.002 mg/L. The 2008 result for LYS-01 was 0.005 mg/L, or 2.5 times the concentration of the background well result from 2006. This result may indicate leaching of copper from the repository or the possibility of movement of contaminated vadose water toward the alluvial aquifer. Given the lack of water available to sample the majority of lysimeters, the probability of this water posing a risk to the aquifer remains limited. This conclusion is further supported by copper results for all lysimeters falling well below the groundwater and surface water human health standard of 1.3 mg/L.

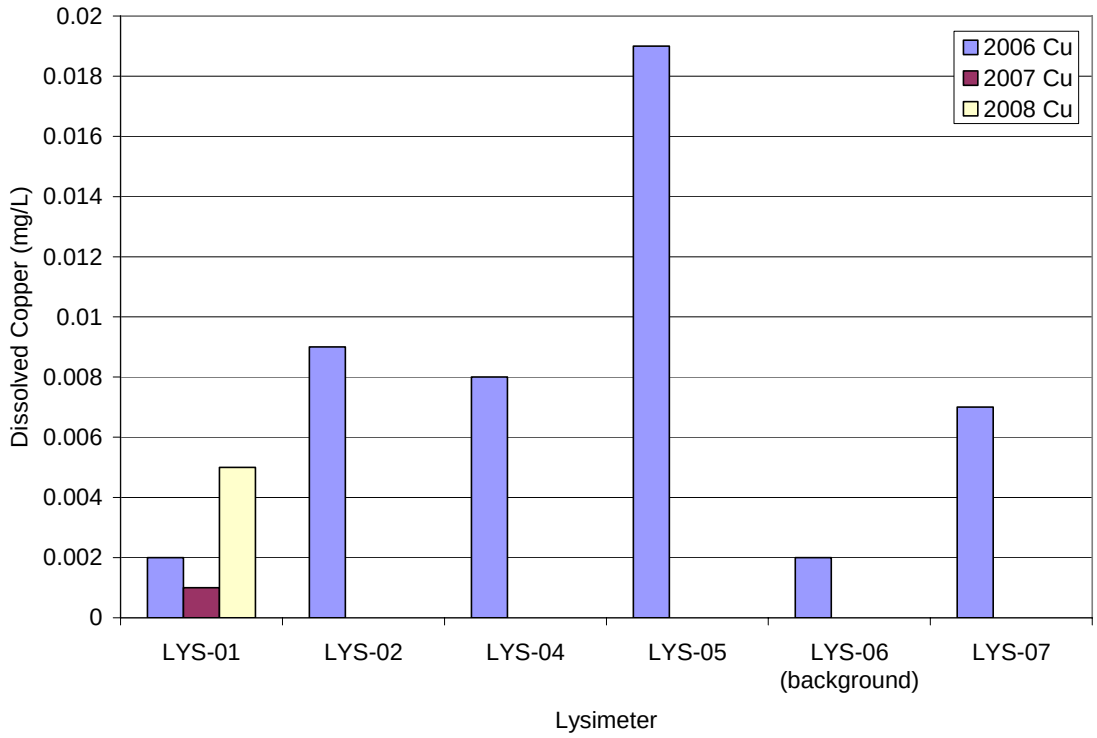


Figure 3-2. ***Dissolved copper concentrations measured in vadose zone samples collected from 2006-2008. Groundwater and surface water human health standard is 1.3 mg/L.***

Lead was not found in detectible levels in LYS-01 in either 2007 or 2008. As such, this metal does not pose a concern within the vadose zone of the MWRR at this time.

Mercury was found in detectible levels in LYS-01 during 2008, with a concentration of 0.00001 mg/L. Background well LYS-06 registered a concentration of 0.0004 mg/L in 2006, but has not produced a sample for analysis since. Given the 2008 concentration is below the background level found in 2006, this contaminant does not appear to be of concern at this point. This is further supported by the mercury concentrations falling below the surface water human health standard of 0.00005 mg/L.

Zinc was found in detectable levels in LYS-01 in 2008, registering a concentration of 0.07 mg/L. 2007 results for this lysimeter were below detection limits, although 2006 data indicated zinc concentrations at or above 0.01 mg/L at all sites (Figure 3-3). The background lysimeter (LYS-06) indicated a concentration of 0.01 mg/L in 2006, and provides the only comparative value for vadose zone zinc in the MWRR. In 2006, all other lysimeters indicated concentrations at or above the background concentration, indicating the potential for leaching of vadose zone water from the repository toward the alluvial aquifer. The result of 0.07 mg/L at LYS-01 in 2008 is the highest level of zinc found in any lysimeter to date, and is 7x the background concentration found in 2006. Although this evidence indicates increasing zinc in LYS-01, concentrations remain well below the surface water human health standard of 2 mg/L for zinc.

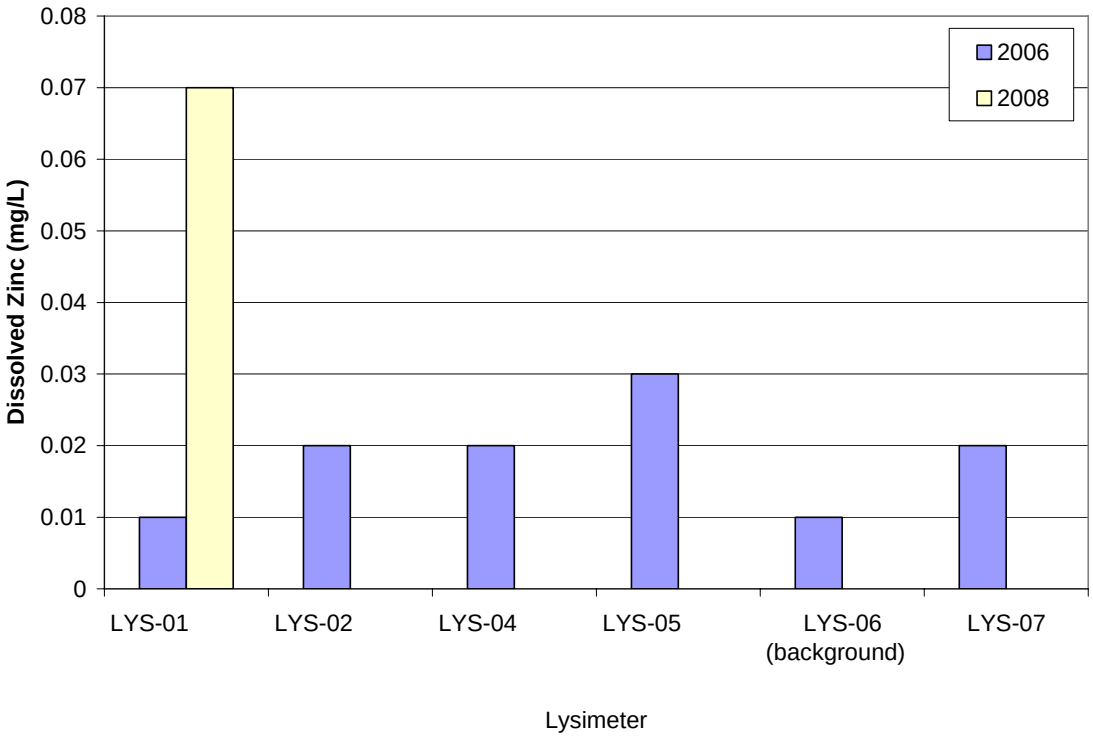


Figure 3-3. ***Dissolved zinc concentrations measured in vadose zone samples collected in 2006 and 2008. Groundwater and surface water human health standard is 2 mg/L.***

Manganese was the only other metal above detection limits during 2008 sampling. 2006 and 2007 sampling produced non-detectable levels of manganese in all available samples. As a result, no background data is available to compare manganese concentrations at LYS-01. This lysimeter recorded a concentration of 0.07 mg/L of manganese during Q2 of 2008.

Future monitoring will continue to evaluate variability of these constituents among lysimeters and across time, and the associated risk, to facilitate management decisions and attainment of remediation goals.

3.2.2 Common Ions

Common anion concentrations within the 2008 sample were very comparable to the 2006 and 2007 results (Figure 3-4). As in 2007, these values were higher than observed in surface water and reflect the general increase of constituent concentrations within pore water. Likewise, common cation concentrations reflected the 2006 and 2007 lysimeter results (Figure 3-5). Common ions are a natural and abundant component of geologic minerals that have weathered to produce the soil horizon. As geologic minerals breakdown, these ions are commonly released. Dissolution in water allow for migration and transformation of these elements. Examples of the natural release of anions into vadose water may provide an understanding of the concentrations observed in the SSTOU samples. As the sedimentary rock calcite weathers, carbonates are released into pore water and effect alkalinity. Increased sulfate concentrations may be observed by the dissolution of gypsum Ca sulfate, common in mud, coals, wetlands, and shales. Likewise, common cations may display increased concentrations as a result of the geologic origin of the

soils. Calcium, manganese, potassium, and sodium are each common in many rocks and are a major constituent of many minerals, including feldspars, olivine, mica, smectite, and kaolinite to name a few. As the parent material weathers and dissolves, secondary minerals form from precipitation in solution. An increased understanding of the parent material and secondary minerals within the clean fill material surrounding the MWRR will allow greater inference from the results of the samples collected within the SSTOU lysimeters.

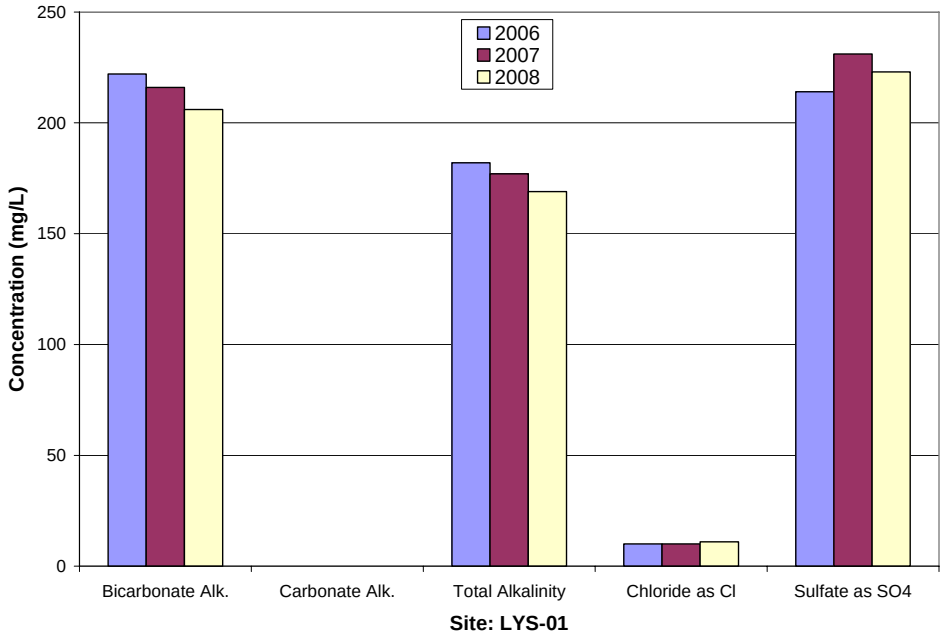


Figure 3-4. ***Common anions in lysimeter samples from LYS-01 (Q2 in 2006-2008).***

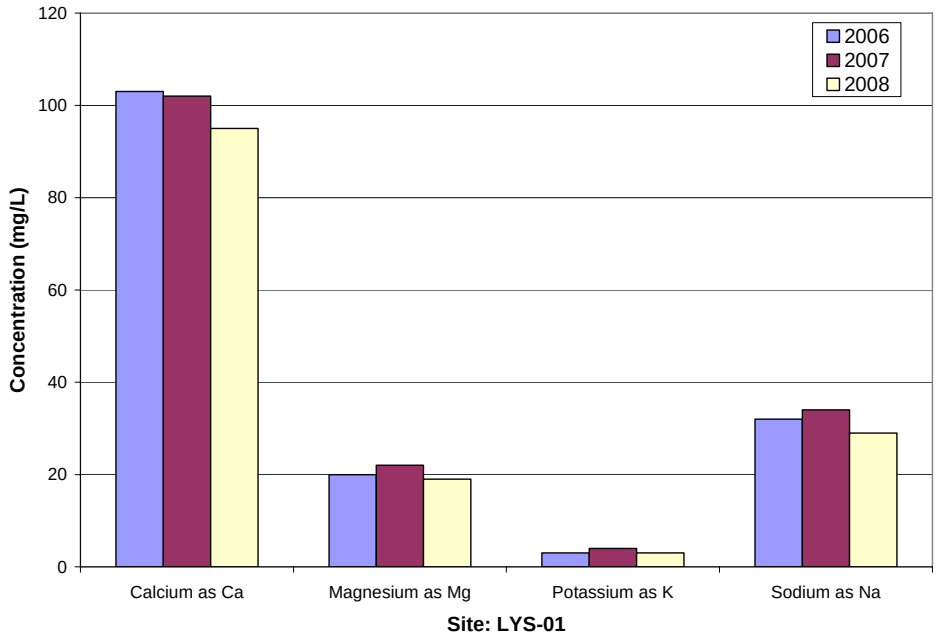


Figure 3-5. ***Common cations in lysimeter samples from LYS-01 (Q2 of 2006-2008).***

3.3 Summary

For the second year in a row, low soil moisture was a constraint in evaluating the quality of vadose zone water; however, the available samples collected in 2006 and the single samples collected in 2007 and 2008 allow some inference.

In 2008, concentrations of copper and zinc in lysimeter LYS-01 exceeded those from the background lysimeter in 2006. In 2007, arsenic and cadmium also measured higher at LYS-01 than the background well in 2006. While the lack of soil moisture and the inability to extract pore water continues to be a significant constraint in detecting the mobilization of contamination from the MWRR, it also likely represents a decreased risk of such mobilization. Concentrations of all contaminants of concern were well below surface and groundwater human health standards, further reducing risk of detrimental effects to aquatic life resulting from vadose zone water.

Above average precipitation during the spring of 2008 did not improve the ability to obtain adequate lysimeter samples during Q2 sampling. All lysimeters should be tested to determine whether they are functioning properly and replace any necessary to ensure data quality objectives are met for vadose zone monitoring.

4.0 STREAM SEDIMENT MONITORING

From a regulatory standpoint, stream sediments are unlike surface water in that numeric standards have not been developed for metals contamination. Currently, the Silver Bow Creek remediation goal for instream sediments matches the cleanup standards for tailings and impacted soils throughout the floodplain. Subsequent to the cleanup standards being set for Silver Bow Creek, consensus based sediment quality guidelines were developed by freshwater ecologists (MacDonald et al, 2000) which may provide alternative guidance for restoration goals on Silver Bow Creek. These sediment quality guidelines include Threshold Effect Concentrations (TECs) and Probable Effect Concentrations (PECs). Both potential alternative standards reference the effect of metals on sediment dwelling organisms, and thus provide a basis for predicting the effect of metals concentration on aquatic life. TECs are concentrations below which no effect on sediment dwelling organisms are expected, whereas PECs are the concentrations at which negative effects on sediment dwelling organisms are judged more likely than not. Table 4-1 presents the potential metal and metalloid contaminants on Silver Bow Creek, along with the relevant standards.

Table 4-1: ***Contaminants of concern and potential/applicable sediment quality standards.***

Parameter	*Primary Contaminant*	*Potential Standards*		
		TEC[1]	*PEC[2]*	*SBC Goal[3]*
Aluminum		---	---	---
Antimony		---	---	---
Arsenic	X	9.79	33.0	200
Barium		---	---	---
Beryllium		---	---	---
Boron		---	---	---
Cadmium	X	0.99	4.98	20
Chromium		43.4	111	---
Cobalt		---	---	---
Copper	X	31.6	149	1000
Iron		---	---	---
Lead	X	35.8	128	1000
Manganese		---	---	---
Mercury	X	0.18	1.06	10
Molybdenum		---	---	---
Nickel		22.7	48.6	---
Selenium		---	---	---
Silver		---	---	---
Uranium		---	---	---
Vanadium		---	---	---
Zinc	X	---	---	---

[1] Threshold Effect Concentration per MacDonald et al 2000

[2] Probable Effect Concentration per MacDonald et al 2000

[3] Current Silver Bow Creek Remediation Goal

All standard concentrations presented in mg/kg dry weight basis

From a management standpoint stream sediments are unlike surface water in that they typically have longer residence time. Water moves into and out of the remediation reach of Silver Bow Creek fairly rapidly. This can cause wide variation in water quality over short time periods. Sediment moves much more slowly, and contamination in sediment can have lasting effects on water quality and aquatic life.

4.1 Methods

Instream sediment was collected from eleven locations on Silver Bow Creek in 2008. These locations are the same eleven stations sampled for surface water monitoring described in Section 1, and shown in Figure 1.1. These stations were sampled for benthic sediments during the four quarterly sampling events during the months of March, June, September, and December.

Sample collection was by composite sample across the width of the stream of sediments from the surface of the stream bed. Sediment samples were analyzed by Northern Analytical Labs in quarters 1, 2, and 3, and Pace Analytical Labs in quarter 4 according to the methods presented in Table 4-2.

Table 4-2: ***Stream sediment analytes and methods, 2008.***

Parameter	***Category***	***EPA Analytical Method***	
		Q1 – Q3	***Q4***
Arsenic	Contaminants of concern	6010B	6020
Cadmium		6010B	6020
Copper		6010B	6020
Lead		6010B	6020
Mercury		7471B	7471
Zinc		6010B	6020
Aluminum	Additional analytes	6010B	6020
Antimony		6020	6020
Barium		6010B	6020
Beryllium		6010B	6020
Boron		6010B	6020
Chromium		6010B	6020
Cobalt		6010B	6020
Iron		6010B	6020
Manganese		6010B	6020
Molybdenum		6010B	6020
Nickel		6010B	6020
Selenium		6010B	6020
Silver		6010B	6020
Uranium		6020	6020
Vanadium		6010B	6020

Each sediment sample was analyzed for the concentration of these constituents present in each of three particle size fractions: silts and clays (<.063mm), fine sands (0.063-1mm) and coarse sands (1-2mm). These fractions were separated by wet sieving methods, and the relative proportion by weight of each of these three fractions (i.e. the sediment gradation) was reported for each stream sediment sample collected in 2008.

Sediment concentrations reported in this document are weighted composites for the sediment sizes less than 2mm. This method is used for the purposes of comparison to standards and goals, and is consistent with the reporting methodology adopted in 2007. Weighted composites are determined by a) calculating the weighted concentration for each size class by multiplying the reported value by the reported fraction <2mm, followed by b) summing the weighted concentrations for each of the three size classes for a given sample. The relationship of the percent of sediment which is less than 2mm as compared to the whole sample in 2008 samples is included in Table 4-3. Samples which contain a higher percentage of sediments <2mm may be more susceptible to metals contamination due to the affinity of metals to smaller particle sizes.

Table 4-3: ***Percent of total sediment sample <2mm in 2008.***

Station	*Q1*	*Q2*	*Q3*	*Q4*	*Average %*
SS-06G	94.6	87.4	80.5	-	87.5
SS-07	51.6	75.8	59.7	54.5	60.4
SS-08	19.9	18.1	19.2	17.4	18.7
SS-10A	27.9	18.9	6.6	2.2	13.9
SS-10B	85.7	94.6	30.4	91.9	75.7
SS-11C	45.2	31.1	27.2	32.5	34.0
SS-11D	30.6	5.3	44.0	42.6	30.6
SS-15A	76.3	75.7	73.9	74.1	75.0
SS-15B	75.9	89.7	61.2	50.5	69.3
SS-15G	20.5	72.6	80.1	25.9	49.8
SS-17D	66.7	68.2	31.6	51.0	54.4

Variability in sediment concentrations were analyzed by the collection of one duplicate sample per quarter. The ratio of duplicate value to reported value ranged from 0 - 551%, indicating a high level of variability in sediment samples. Variability in metals concentrations found within stream sediment can be attributed to spatial differences in stream sediments at a particular sample area as a result of complex depositional processes. Table 4-3 illustrates a wide range of percent fines (<2mm size classes) observed at each sample location throughout 2008, which plays an additional role in metal concentrations.

4.2 Results and Discussion

4.2.1 Arsenic

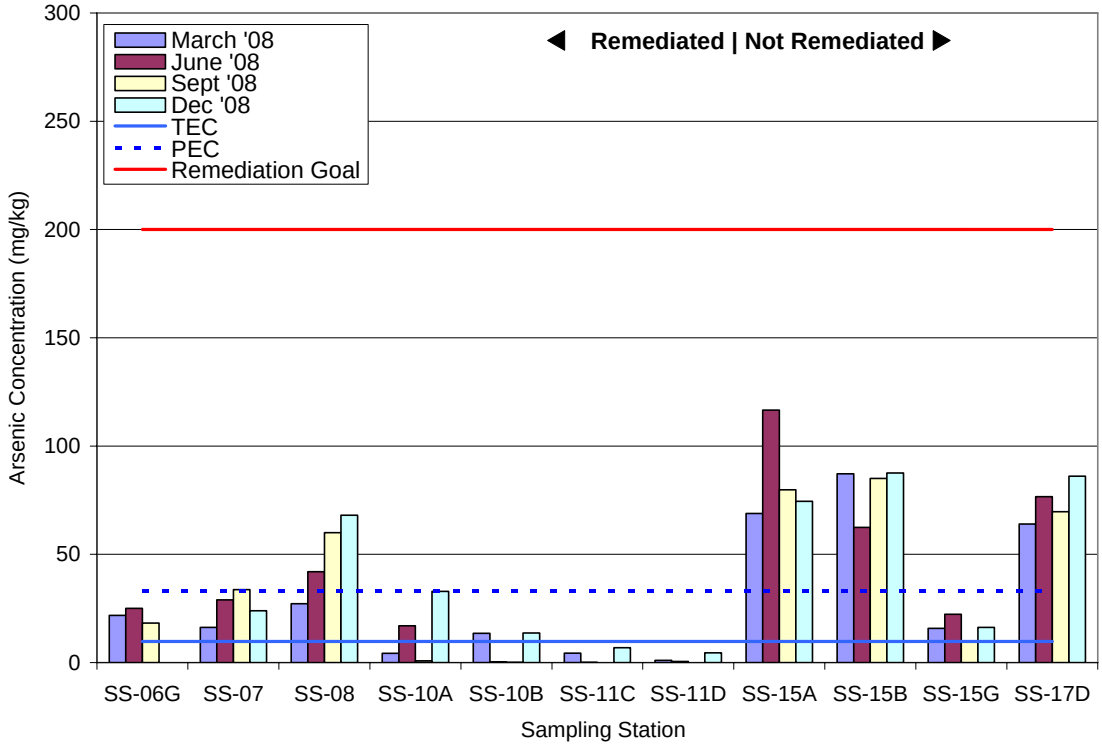


Figure 4-1. Arsenic *concentration in Silver Bow Creek stream sediments, 2008.*

Arsenic concentrations in sediment peaked at sample stations downstream of remedial activity; however, all sample sites met the remediation goal of 200 mg/kg in all quarters (Figure 4-1). Concentrations of arsenic generally rose between the upstream extent of the SSTOU and station SS-08 before dropping in more recently remediated areas in Subarea 2. Concentrations entering the SSTOU were between TEC and PEC limits. Peak arsenic concentrations within remediated areas are at SS-08, which fell above the PEC limit during the latter three quarters of 2008. All arsenic results between SS-08 and SS-11D were below the PEC limit, most of which were below the TEC limit as well.

2007 results also showed slightly higher concentrations of arsenic in the upper reaches of the SSTOU as compared to recently remediated reaches, and elevated concentrations downstream of station SS-11D. 2006 monitoring indicated the potential for a contaminated slug of sediment at station SS-08 which exceeded the human health standard for arsenic. If a slug of contaminated material in fact existed in 2006, it has since dissipated and has not been evident for the past two monitoring years.

4.2.2 Cadmium

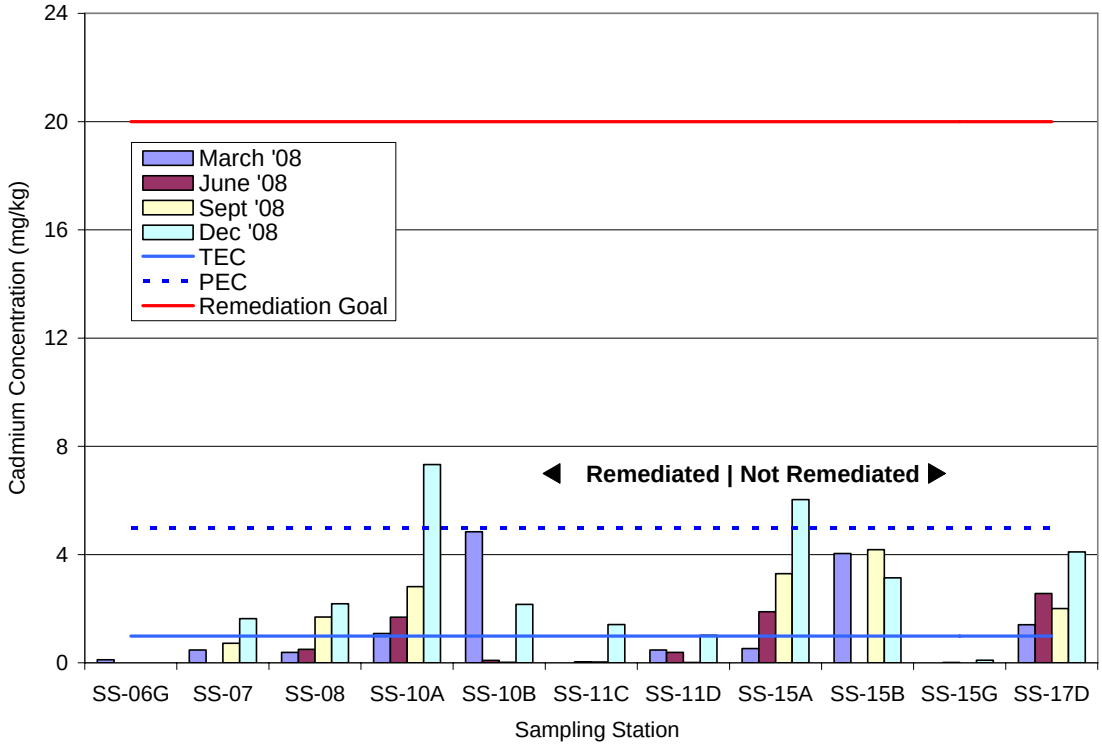


Figure 4-2. ***Cadmium concentrations in Silver Bow Creek stream sediments, 2008.***

Cadmium concentrations in stream sediments fell well below the remediation goal of 20 mg/kg for all sample stations and all quarters (Figure 4-2). Concentrations generally rose between the upper extent of the SSTOU at station SS-06G and SS-10A before dropping within more recently remediated sites. Cadmium in sediment again rose downstream of remediated sites. Concentrations of cadmium throughout the SSTOU generally fell between the PEC and TEC limits, indicating cadmium may pose less of a threat to aquatic life than other contaminants of concern in the SSTOU.

2008 results were similar to those found in 2007, when relatively low concentrations of cadmium were evident both within and downstream of remediation. Results from the past two years are an improvement over 2006, which indicated rising peaks through remediated portions of the SSTOU and evidence of a contaminated slug of material. While evidence of a bump in cadmium exists in 2008 at station SS-10A, it is relatively minor in comparison with the peak concentrations documented at the same site in 2006.

4.2.3 Copper

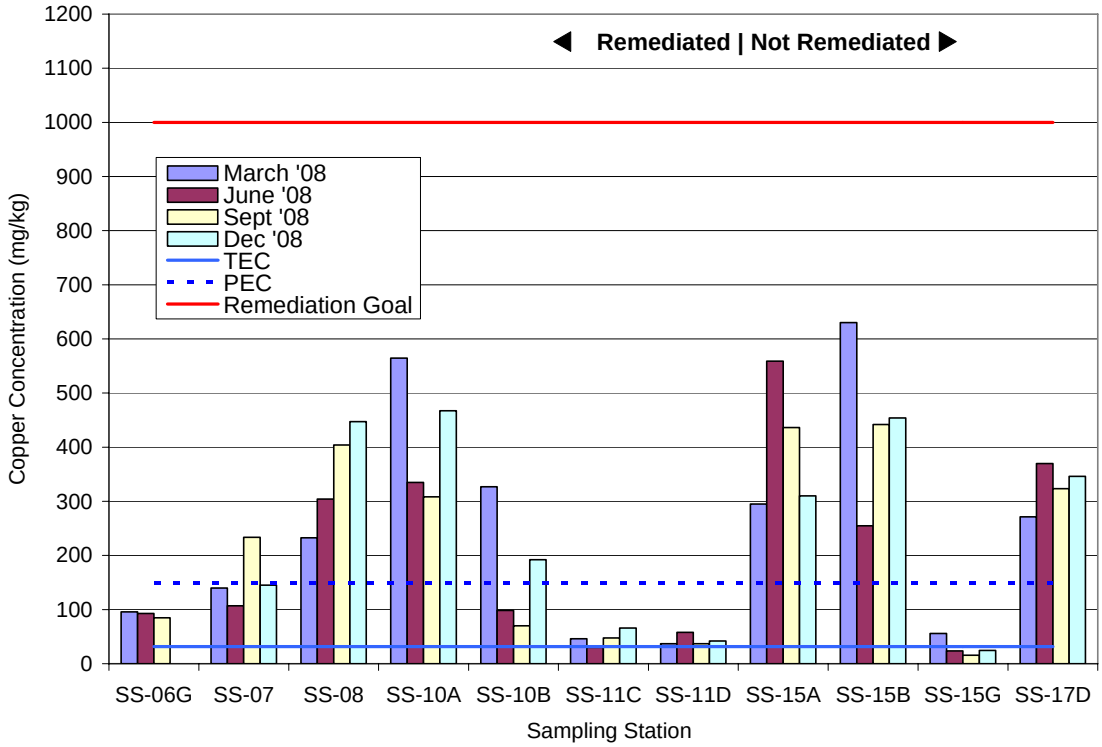


Figure 4-3. ***Copper concentrations in Silver Bow Creek stream sediments, 2008.***

Copper concentrations in stream sediments met the remediation goal of 1000 mg/kg at all sample sites during all quarters in 2008 (Figure 4-3). Within remediated areas of the SSTOU, copper concentrations generally rose between station SS-06G and SS-10A, which corresponds with the pattern indicated by cadmium concentrations. Downstream of SS-10A, copper concentrations attenuate throughout recently remediated sites prior to spiking at SS-15A. Concentrations remain elevated downstream of the remediated areas. Copper in sediments falls below the PEC limit at the upstream extent of the SSTOU and within recently remediated sites; however, it exceeds this limit at stations SS-08, SS-10A and the majority of samples taken at SS-07 and SS-10B. All samples fell above the TEC limit for aquatic life, indicating potential harm to benthic organisms and negative effects on aquatic life forms as a result from copper in stream sediments.

Copper concentrations were also slightly higher at station SS-08 and SS-10A in 2007 as compared to upstream and downstream of these stations. Monitoring in 2006 indicated elevated copper concentrations at the same sites, with maximum concentrations over 3,000 mg/kg. Although these sites continue to show elevated copper concentrations as compared to sites upstream and downstream in 2008, peak concentrations within remediated portions of the SSTOU are well below those found in 2006. These trends indicate a potential concern with respect to biological integrity in the upper reaches of the SSTOU over the past three years.

4.2.4 Lead

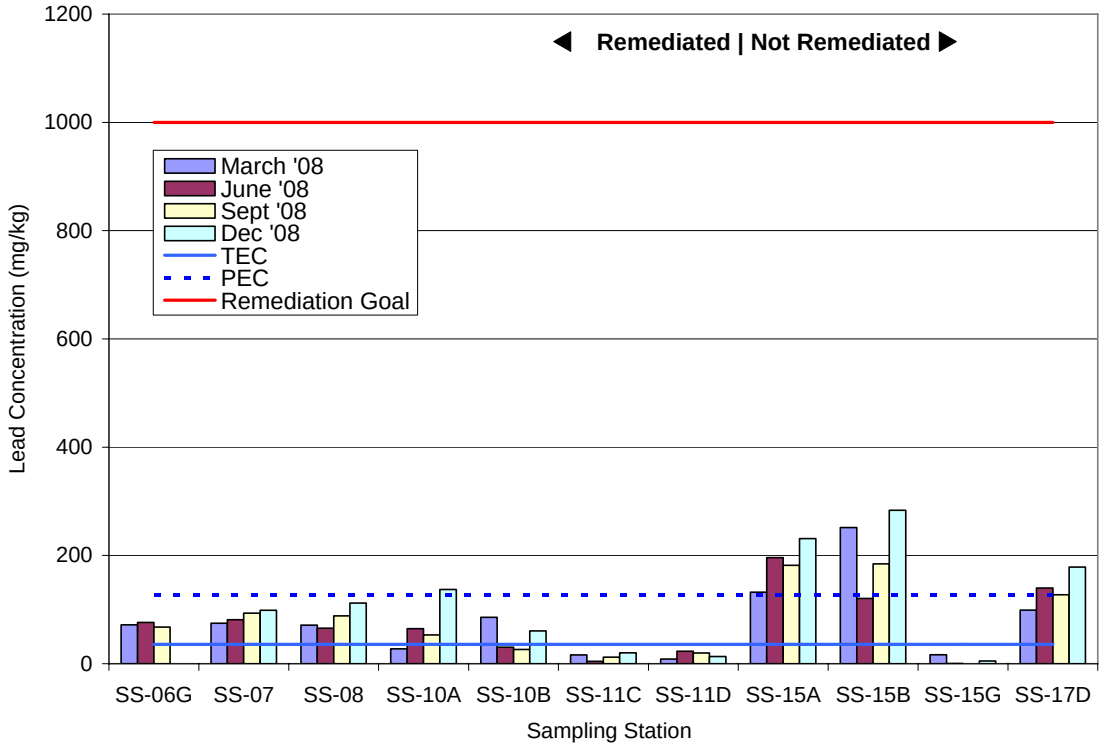


Figure 4-4. ***Lead concentrations in Silver Bow Creek stream sediments, 2008.***

All results for lead in stream sediments fell well below the remediation goal of 1000 mg/kg during all quarters (Figure 4-4). Within remediated areas of the SSTOU, lead concentrations fell below the PEC limit at nearly all sample sites, indicating lead concentrations are potentially less harmful to aquatic life than other contaminants. Lead concentrations peaked in non-remediated areas downstream of SS-11D, but remained well below remediation goals.

This trend of slightly higher lead concentrations in upper reaches of the SSTOU as compared to recently remediated areas was also apparent in 2007. 2006 monitoring identified elevated lead concentrations at SS-08; however, this bump in lead has not been recorded in the past two years. Results from the past three years' monitoring show consistently lower concentrations of lead than found during 2003-2005.

4.2.5 Zinc

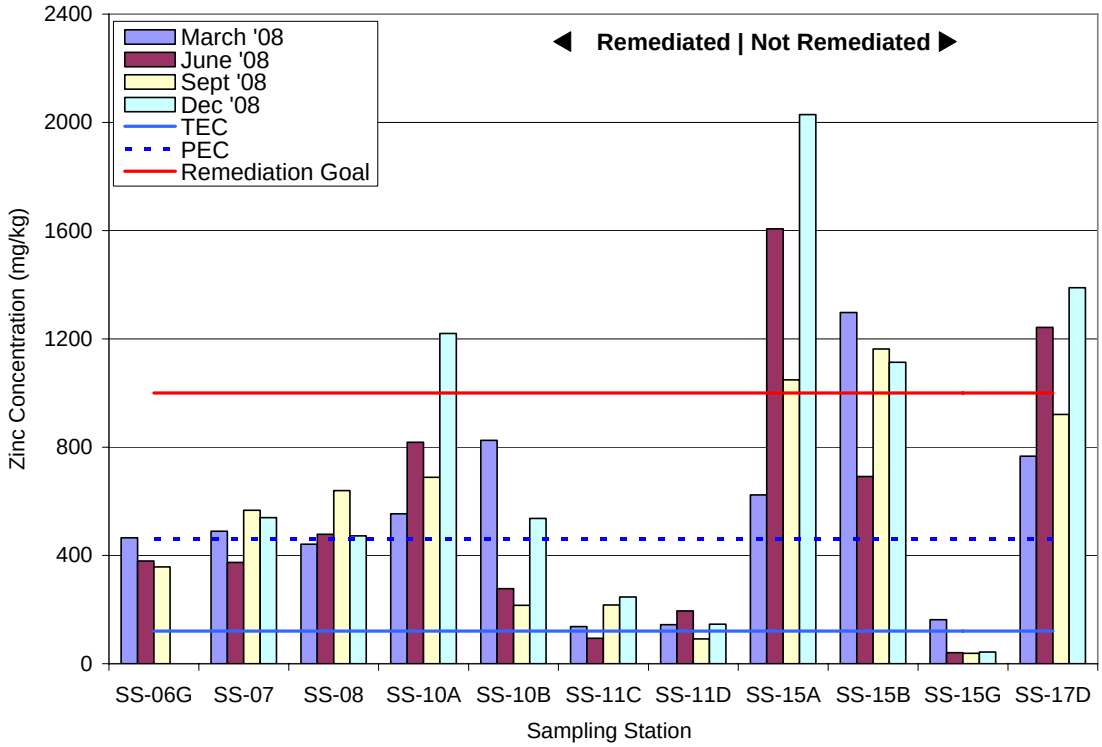


Figure 4-5. ***Zinc concentrations in Silver Bow Creek stream sediments, 2008.***

Zinc in stream sediments followed a similar trend shown by cadmium and copper, indicating a rise in concentration between the upper extent of the SSTOU at SS-06G and station SS-10A (Figure 4-5). Within remediated areas, zinc concentrations peaked at SS-10A in December. This sample event exceeded the remediation goal of 1000 mg/kg for zinc, and was the only sample taken within remediated areas to exceed remediation goals for any of the contaminants of concern. Zinc concentrations attenuated downstream of SS-10A throughout recently remediated sites before rising again at SS-15A. Concentrations downstream of remediation regularly exceeded zinc remediation goals.

The bump in zinc concentrations observed downstream of SS-08 is consistent with other contaminants in 2008, including arsenic, cadmium, and copper. 2007 results indicated only slightly rising concentrations of zinc at stations SS-08 and SS-10. Monitoring efforts in 2006 noted large increases of zinc at these stations, with peak concentrations ranging from near 2000 to over 3000 mg/kg. These results, although varied, indicate continual improvement from results in 2003 and 2004, when the majority of samples were 150-400% of the remediation goal.

5.0 MACROINVERTEBRATES AND PERIPHYTON

5.1 Introduction

Silver Bow Creek, a tributary at the head of the Clark Fork of the Columbia River, has been adversely affected by historic metal mining activity and municipal wastewater from the city of Butte and the Butte mining district. This stream carried untreated mining and milling wastes and municipal wastes for nearly 100 years. In 1908, an extensive flood swept tailing piles laden with metals from Butte and deposited this contaminated material throughout the Silver Bow floodplain. Improvements in mine wastewater treatment in 1972 subsequently resulted in improved discharge quality entering Silver Bow Creek (Chadwick, 1986), however, impact from the contaminated floodplain and stream channel continued to impair the aquatic biological integrity of Silver Bow Creek. Extensive remediation efforts initiated in 1999 have resulted in the removal of much of the contaminated material from the channel and floodplain of Silver Bow Creek. Monitoring of the benthic community has allowed for documentation of the improved aquatic environmental conditions as a result of wastewater improvements and remediation efforts.

Macroinvertebrates within Silver Bow Creek were sampled yearly from 1972 to 1984 to monitor recovery of benthic invertebrate communities following improved metal mine wastewater treatment (Canton, 1985). No invertebrates were detected within Silver Bow Creek until 1975 (Canton, 1985). Recovery of the macroinvertebrate community began at the furthest downstream sampling stations and included colonization primarily by chironomids (Canton, 1985). Since 1975, steady increases in density and number of species were recorded throughout the Silver Bow Creek sampling stations. Composition of the invertebrate community has changed over the years, reflecting continued improvement of the aquatic environment (McGuire, 2000). Degradation of the benthic community from metals and organic pollution continued to be a limiting constraint from 1986-1988 (McGuire, 2000). As toxic metal levels in the water column have decreased as a result of water treatment put in place in the 1950's and 1970's and subsequent remediation efforts, eutrophication has promoted colonization of algal growth throughout Silver Bow Creek. The results of continued macroinvertebrate and periphyton monitoring efforts following remediation of the upper Silver Bow Creek channel and floodplain are presented in this chapter.

Restoration and remediation goals for Silver Bow Creek include defined objectives for macroinvertebrate and periphyton communities (DEQ and NRDP 2007). For both assemblages, the goal is for community composition to reflect a balanced, integrated, and adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of the natural habitat of the region (Karr and Dudley 1981). Targets reflecting these goals include progressive increase of biological integrity substantiated by indices developed to rate the health of Montana streams (Bahls 1993, Bollman 1998, Bukantis 1998, MDEQ 2006). Specific goals for the macroinvertebrate community include the attainment of a total metric score of 75% of the total possible score in the Good category for two consecutive years. Specific goals for the periphyton community include the attainment of a score within Excellent to Good biological integrity for all metrics for two consecutive years. Due to biased qualifiers related to the efficiency of certain taxa at taking up nutrients, and the subsequent over estimation of stream health, Cladophora or other algal taxa associated with sewage inputs can not rank as dominant soft-bodied algae. In addition to evaluating attainment of specified goals for Silver Bow Creek, these assemblages provide useful tools in evaluating environmental conditions such as the presence of toxic chemicals, excess nutrients, and other types of environmental stress. Moreover, these assemblages provide a direct measure of aquatic life, a designated beneficial use of Montana's waters. Together, these applications

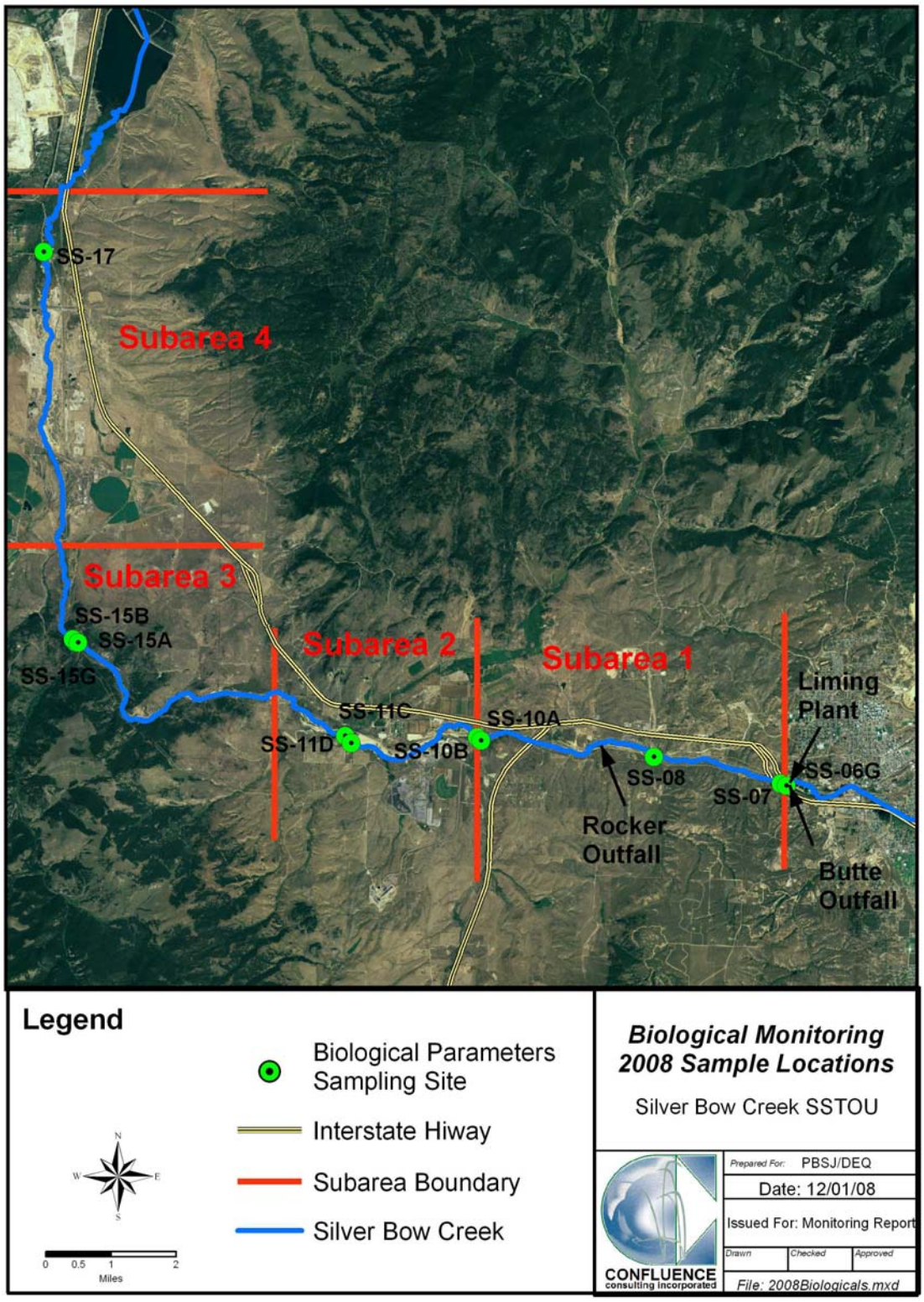
make biological monitoring a useful tool in evaluating the recovery of Silver Bow Creek following remediation and restoration efforts.

5.2 Sampling Sites

Sampling station selections followed prescriptions in the Comprehensive Long-Term Monitoring Plan for Silver Bow Creek Streamside Tailings Operable Unit (SSTOU) (DEQ and NRDP 2007) (Figure 5-1). Spatial coverage capturing potential sources of contamination and effects of remediation activities was a primary factor influencing site selection. The uppermost station (SS-06G, directly above the Butte wastewater treatment plant [WWTP]) lies upstream the SSTOU and a chief nutrient source to Silver Bow Creek. The remaining sites correspond to reaches with completed, ongoing, or future remediation. The farthest downstream location is station SS-17 and is situated near the USGS gage 12323600 at Opportunity. The project reach extends approximately 25 stream miles from station SS-06G downstream to SS-17D. Silver Bow Creek flows through a broad alluvial valley for the majority of the project reach. In Subarea 3, Silver Bow Creek sees a change in overall channel geomorphology through the approximate five mile Durant Canyon reach. The slope of both the valley and the stream increases from upstream. Stream grade decreases again at the mouth of this canyon. The project area is located in the Middle Rockies Ecoregion (Level III). The upper sites (SS-06G to SS-11D) are located in the Dry Intermontane Sagebrush Valleys Level 4 Ecoregion; the lower sites are situated in the Intermontane Hills and Valleys.

All 2008 sampling sites were consistent with the stations sampled during the 2007 macroinvertebrate and periphyton sampling event. These stations are also consistent with the surface water and sediment sampling sites. Quality assurance checks of the 2005 sampling event detected inconsistencies between biological and chemical sampling efforts and discrepancies in labeling stations within the Clark Fork database and other sampling efforts. To allow integration of baseline water chemistry data into results, several of these monitoring stations are established sampling stations recorded in the Clark Fork River Data Management System, a database maintained by DEQ. In 2006, station identifications were changed from SS07AB to SS-06G to correspond with ARCO/EPA station names, with the sampling station located at the USGS gage 12323250 remaining SS-07. Monitoring efforts in 2007 included the addition of four sampling sites. SS-11C was included on Silver Bow Creek above the mouth of Brown's Gulch and is coupled with SS-11D, located just downstream of Brown's Gulch, to better examine the influence of this tributary stream and drainage on the Silver Bow channel. Likewise, sampling at the mouth of German Gulch and along Silver Bow Creek directly above and below this confluence was included in the 2007 monitoring efforts due to an increase of interest in the health and influence of the German Gulch watershed. Such changes have remained an on-going trend to improve sampling efforts as sites are added or excluded to account for modifications in remediation efforts and goals.

Figure 5-1. ***Biological sampling stations on Silver Bow Creek***



5.3 Methods

Macroinvertebrate and periphyton sample collection and processing followed standard operating procedures used by the Montana Department of Environmental Quality (Bahls 1993, Bukantis 1998). Macroinvertebrates were collected using the traveling kick net method and preserved with 95% ethanol. Periphyton sampling involved collection of macroalgae in proportion to its occurrence at the sampling site. Diatoms were sampled from rocks with a toothbrush and the resulting biofilm was flushed into a collecting jar with distilled water. Periphyton samples were preserved with 10% buffered formalin.

Sample processing and sub-sampling followed DEQ's standard operating procedures. Macroinvertebrates were identified to the lowest possible taxonomic resolution. Soft-bodied algae were identified to genus and diatoms to species. Proportional counts of identified taxa permitted a series of analyses that allowed inference on limiting factors and the role of various pollutants in shaping biotic assemblages. See *Analysis of biological samples: Technical summary of methods and quality assurance procedures* located in Appendix M. Taxa lists and metric summaries for macroinvertebrates and periphyton also are included in Appendix M.

As biological assemblages integrate the influences of their chemical and physical environment over time, examination of water and sediment chemistry provides supplemental information on the factors that shape aquatic communities. Water quality parameters analyzed included metals and nutrients, the primary pollutants of concern in Silver Bow Creek. In addition, parameters such as water hardness and metals in benthic sediments allow inference on the extent to which metals contamination may be influencing aquatic life. The results and discussion for each sampling station include synthesis of water chemistry information to assist in the interpretation of the existing biological assemblage as a reflection of the aquatic benthic environment.

5.3.1 Macroinvertebrate Analyses

Analysis of macroinvertebrate communities allowed for the assessment of metals and organic pollution as well as cumulative environmental stress in the Silver Bow Creek drainage. An index provides an overall score of biological integrity based on performance on a series of metrics. Metrics are quantitative measures of community composition that are sensitive to a variety of environmental stressors. Macroinvertebrate proportional counts allowed for calculation of four indexes of biological integrity. Relevant metrics to macroinvertebrate analysis are listed in Table 5-1. The approach developed by Bollman (1998) for evaluating biological integrity in Montana foothill and valley streams is the index prescribed in the monitoring plan (DEQ and NRDP 2007) and provides the targets for successful remediation and restoration (Table 5-2). A second index (Bukantis 1998, Table 5-3), predates the index developed by Bollman and has been applied extensively in foothills streams in Montana. Inclusion of this index provides supplemental information on status of macroinvertebrate communities (Table 5-4). Two additional metrics have been included in the 2008 monitoring report to allow integration of recent MDEQ Standard Operating Procedure changes into the Silver Bow Creek monitoring. These indices include the Multi-Metric Index (MMI) and the Observed/Expected (O/E) ratio. These two benthic macroinvertebrate indicators are 'calibrated' to streams across the state and give a locally adjusted measure for operational taxonomic units (OTUs). Both MMI and O/E models utilize predictor variables that are explicit and distinct site classes. Predictor variables associated with each sampling station for calculating MMI and O/E metrics are located in Table 5.5

Table 5-1: ***Macroinvertebrate community metrics used in evaluating the biological integrity of Silver Bow Creek (modified from Barbour et al. 1999).***

Metric	Definition	Description	Response to Environmental Stress
EPT richness	Number of taxa in the insect orders Ephemeroptera (mayflies), Plecoptera (stoneflies), and Trichoptera (caddisflies).	Richness of these organisms reflects diversity of the benthic community. In addition, these tend to be relatively sensitive taxa that are intolerant of a number of stresses such as metals, siltation, and thermal alterations	Decrease
Number of sensitive taxa	Taxa richness of organisms considered to be sensitive to perturbations	Sensitive or intolerant taxa respond to a range of environmental stressors including metals, siltation, thermal alteration, and habitat degradation	Decrease
% Filterers	Percent of organisms that filter fine particulate organic matter from the water column.	Filterers are generalist feeders that consume a wide variety of food sources transported by flow. Preponderance of generalists suggests specialists, which are more sensitive, are limited by environmental stress. Their abundance can be indicative of presence high levels of organic material or nutrient enrichment.	Increase
% tolerant	Percent of organisms considered tolerant to a range of perturbations.	Proportion of tolerant organisms allows inference on overall stress to the aquatic community	Increase
Taxa richness	Number of distinct taxa	This is a measure of the diversity within the sample	Decrease
Hilsenhoff biotic index (HBI)	A weighted measure of percent of organism in the sample within 10 categories of tolerance to organic pollution	The HBI, or biotic index, allows inference on the influence of nutrients on stream health.	Increase
% dominant	Measure of the percent of the sample comprised of the most abundant taxon.	This is another measure of diversity within the sample. Polluted waters promote dominance by one or more tolerant taxon or taxa. Healthy streams have more balance among taxa present.	Increase
% collectors	Percent of sample comprised of organisms that gather fine particulate organic matter from streambed surfaces	These are generalist feeders consuming organic matter from a range of potential sources. Their relative abundance can reflect nutrient pollution, a lack of riparian vegetation to support leaf detritivores, and overall food web imbalance	Increase
% scrapers + shredders	Percent of organisms that graze periphyton (scrapers) or consume leaf litter or other coarse, particulate organic matter.	These groups are trophic specialists, as opposed to the generalists (gatherers and filterers). Usually, specialists are more sensitive to disturbance than generalists. Scrapers are sensitive to pollutants that promote soft-bodied algae over diatoms (nutrients) and siltation. Shredders have multiple sensitivities and require leaf litter contributed from surrounding riparian stands.	Decrease
% Hydropsychidae of Trichoptera	Percent of caddisflies comprised of the sub-family Hydropsychidae	These are pollution tolerant members of the caddisfly order and are indicative of increases in organic pollution or nutrient loading.	Increase

Table 5-2: ***Biocriteria for macroinvertebrate assemblages used in assessing samples collected on Silver Bow Creek (Bollman, 1998).***

SOURCE AND METRIC	3 Excellent/ full support	2 Slight impairment/ partial support	1 Moderate impairment/ partial support	0 Severe impairment/ nonsupport
Bollman (1998)				
Ephemeroptera taxa richness	>5	5-4	3-2	<2
Plecoptera taxa richness	>3	3-2	1	0
Trichoptera taxa richness	>4	4-3	2	<2
Sensitive taxa richness	>3	3-2	1	0
Percent filterers	0-5	5.01-10	10.01-25	>25
Percent tolerant taxa	0-5	5.01-10	10.01-35	>35

*The overall score is based on percent of possible score of 18 (> 75% = full support, 25% to 75% = partial support, < 25% = nonsupport). Metals tolerance index is scored from 1 (severe impairment) to 5 (no impairment).

Table 5-3: ***Biocriteria for intermountain valley and foothills streams developed by Bukantis (1998).***

Metric	Biological Integrity/Score			
	Excellent/3	Good/2	Fair/1	Poor/0
Taxa Richness	>28	28-21	21-14	<14
EPT Richness	>14	14-13	12-11	<11
Hilsenhoff Biotic Index	<4	4-5	5-6	>6
% Dominant	<30	30-40	40-50	>50
% collectors (gatherers+filterers)	<60	60-75	75-90	>90
% Scrapers + Shredders	>30	30-20	20-10	<10
% Hydropsychinae of Trichoptera	<75	75-85	85-95	>95
% EPT	>70	70-55	55-40	<40

Table 5-4: ***Water quality use support/standards thresholds (Bukantis, 1998).***

Classification	Biological integrity score (% of Max)		
	>75	75-25	<25
Impairment	Slight	Moderate	Severe
Use-support	Full support	Partial support	Non-support

Table 5-5: ***Predictive variables associated with each sampling station.***

Variable (EDAS Name)	Description	Model[1]	Data Source
Latitude (GIS_Lat)	Latitude (decimal), confirmed during delineation	RIVPACS	GIS or map
Longitude (GIS_LONG)	Longitude (decimal), confirmed during delineation	RIVPACS	GIS or map
Area (SQ _KM)	Catchment area (km^2)	RIVPACS	GIS or map
Basin (CRB)	Within the Columbia River Basin (1 = yes, 0 = no)	RIVPACS	GIS or map
Air Temperature (TMAX_PT)	Annual mean of daily maximum temperatures at the site (C x 10, e.g., 14.4C = 144)	MMI, RIVPACS	PRISM database[2]
Ecoregion (L3_1_ECO)	Dominant Level 3 Ecoregion within catchment (ecoregion number)	MMI	GIS or map
Elevation (ELEV)	Elevation at the site (meters)	MMI	GIS or map
Precipitation (PRCP_PT)	Annual precipitation at the site (mm)	MMI	PRISM database[2]

[1] Model in which the predictive variable is required to determine site class
[2] Prism: Parameter-elevation Regressions on Independent Slopes Model (Daly et al. 2004)

The metals tolerance index, a weighted measure of organisms assigned categories of tolerance to toxic metals, allows inference on the influence of metals on benthic invertebrates (Table 5-6). Taxa and EPT richness, or the number of species present, also provide indications of general stream health and may provide an indication for the level of impact of toxic conditions from heavy metal pollution. Since macroinvertebrates exhibit different responses to various types of environmental stress, some measures were better estimators of organic enrichment while others were more sensitive to toxic pollutants or sediment deposition. The relative abundance of filter feeding insects provides measures of organic and nutrient enrichment. Filterers typically comprise a major component (25-50%) of the summer macroinvertebrate fauna in Montana rivers; however, relative abundances of greater than about 50% indicate organic/nutrient enrichment (Ingman, 1990). The culmination of the results from surveys along Silver Bow Creek provides a general assessment of pollution impacts and environmental conditions and allows evaluation of the integrity of the indigenous macroinvertebrate assemblages.

Table 5-6: ***Metals tolerance index developed for streams in the upper Clark Fork basin (McGuire 2001).***

METRIC AND SOURCE	(no impact) →						(severe impact)
Metals Tolerance Index McGuire (2001)	<4.0	4.0-4.9	5.0-5.9	6-6.9	7.0-7.9	8.0-8.9	>8.9

5.3.2 Periphyton Analyses

Proportional counts for diatom species present within each sample allowed calculation of an assortment of metrics that provide a rating of the biological integrity of sampled sites (Table 5-7). Metrics most applicable to Silver Bow Creek include the pollution tolerance index and percent abnormal cells, and provide a measure of organic pollution and a metric sensitive to metals or other toxic chemicals, respectively. Additional metrics have been incorporated as refined indicators of various pollutants on water quality have been developed and corroborated (Confluence, 2004). These metrics include percent

eutraphentic diatoms and the metals tolerance index. Eutraphentic diatoms prefer high levels of inorganic nutrients (i.e., nitrogen and phosphorus). The percent eutraphentic diatoms metric differs from the pollution tolerance index in that the pollution tolerance index is a measure of diatoms tolerant of loading of organic, or carbon based pollutants; eutraphentic diatoms thrive in the presence of inorganic, bioavailable compounds comprised of nitrogen and phosphorus. Sewage effluent often carries high levels of organic compounds, in addition to inorganic phosphorus and nitrogen based nutrients. Both metrics have utility for Silver Bow Creek, which receives organic wastes and high levels of nitrogen and phosphorus from the Butte municipal wastewater treatment plant and the surrounding watershed.

The metals tolerance index shows promise as an indicator of metals contamination in Silver Bow Creek. Dr. Loren Bahls has worked to develop this metric using periphyton data from metals impaired streams throughout the Intermountain West and includes a measure of the proportion of diatoms observed to tolerate high concentrations of metals is surface water and benthic sediment (Table 5-8). An advantage of this metric over the percent abnormal cells is that it works in buffered waters. Silver Bow Creek rates as “well buffered”, as alkalinity is on average considerably greater than 20 mg/L. Addition of lime to reduce metal toxicity at the Butte Treatment Lagoon System contributes to the alkaline nature of Silver Bow Creek. Waters with a high buffering capacity inhibit metals induced abnormalities in diatoms compared to more acidic waters (Dr. Loren Bahls, personal communication). A constraint with the metric in its current form is the tendency of metals tolerant diatoms to be tolerant to a variety of pollutants, including nutrients and siltation (Dr. Loren Bahls, personal communication). Therefore, this metric should be applied cautiously with an understanding of the confounding factors influencing abundance of metals tolerant diatoms. In other words, a high metals tolerance index may reflect pronounced nutrient enrichment or siltation, and be unrelated to metals contamination.

Other metrics provide a supplemental means to evaluate water quality status of sites on Silver Bow Creek. These metrics include measures of oxygen demand, nitrogen uptake, and saprobity (reliance on decaying organic matter). Similar to percent eutraphentic diatoms and the metals tolerance index, these metrics have not yet been calibrated to streams in Montana. Nevertheless, they relate directly to a pollutant of concern in Silver Bow Creek, influence response of the algal community to a pollutant, or allow inference on some other ecological condition of the site.

Table 5-7: ***Diatom association metrics used by the State of Montana to rate levels of biological integrity, environmental impairment or natural stress, and aquatic life support in wadeable mountain streams (Bahls 1993). The lowest rating for any one metric is the overall rating for the entire study site.***

Biological Integrity/ Impairment or Stress/ Use Support	No. of Species Counted[1]	Diversity Index[2] (Shannon)	Pollution Index[3]	Siltation Index[4]	Disturbance Index[5]	% Dominant Species[6]	% Abnormal Cells[7]	Similarity Index[8]
Excellent/None/ Full Support	>29	>2.99	>2.50	<20.0	<25.0	<25.0	0	>59.9
Good/Minor/ Full Support	20-29	2.00-2.99	2.01-2.50	20.0-39.9	25.0-49.9	25.0-49.9	>0.0, <3.0	40.0-59.9
Fair/Moderate/ Partial Support	19-10	1.00-1.99	1.50-2.00	40.0-59.9	50.0-74.9	50.0-74.9	3.0-9.9	20.0-39.9
Poor/Severe/Nonsupport	<10	<1.00	<1.50	>59.9	>74.9	>74.9	>9.9	<20.0
References	Bahls 1979 Bahls 1993	Bahls 1979	Bahls 1993	Bahls 1993	Barbour et al. 1999	Barbour et al. 1999	McFarland et al. 1997	Whittaker 1952
Range of Values	0-100+	0.00-5.00+	1.00-3.00	0.0-90.0+	0.0-100.0	~5.0-100.0	0.0-30.0+	0.0-100.0
Expected Response	**Decrease[9]**	**Decrease[9]**	**Decrease**	**Increase**	**Increase**	**Increase**	**Increase**	**Decrease**

[1]Based on a proportional count of 400 cells (800 valves)

[2]Base 2 [bits] (Weber 1973)

[3]Composite numeric expression of the pollution tolerances assigned by Lange-Bertalot (1979) to the common diatom species

[4]Sum of the percent abundances of all species in the genera *Navicula*, *Nitzschia* and *Surirella*

[5]Percent abundance of *Achnanthidium minutissimum* (synonym: *Achnanthes minutissima*)

[6]Percent abundance of the species with the largest number of cells in the proportional count

[7]Cells with an irregular outline or with abnormal ornamentation, or both

[8]Percent Community Similarity (Whittaker 1952)

[9]Species richness and diversity may increase somewhat in mountain streams in response to slight to moderate increases in nutrients or sediment

Table 5-8: ***Refined metals index (presumptive): % abundance of cells in the following species.[1]***

Species	Synonyms
Adlafia minuscula	*Navicula minuscula*
Encyonema minutum	*Cymbella minuta*
Encyonema silesiacum	*Cymbella silesiaca*
Fragilaria capucina	
Fragilaria vaucheriae	*Fragilaria capucina var. vaucheriae*
Gomphonema parvulum	
Mayamaea atomus[2]	*Navicula atomus*[2]
Navicula arvensis	
Navicula minima[2]	*Eolimna minima*[2]
Navicula permitis	*Mayamaea atomus var. permitis*
Navicula seminulum[2]	*Sellaphora seminulum*[2]
Nitzschia palea	
Planothidium dubium	*Achnanthes lanceolata var. dubia*
Planothidium lanceolatum	*Achnanthes lanceolata*
Surirella angusta	
Surirella minuta	*Surirella ovata*
Synedra rumpens	*Fragilaria capucina var. rumpens*
Synedra ulna	*Fragilaria ulna*

[1]All of these species appear to tolerate elevated concentrations of heavy metals.

[2]These species, when present in large numbers, appear to confirm elevated concentrations of heavy metals.

Table 5-9: ***Miscellaneous diatom metrics that provide inference on loading of organic and inorganic nutrients.***

Metric	Description
Low dissolved oxygen	Proportion of diatoms tolerant of low dissolved oxygen, which may reflect biochemical oxygen demand and hypereutrophic waters
Polysaprobous diatoms	Proportion of diatoms relying on decaying organic matter
% Rhopalodiales (formerly % Epithemiaceae	Proportion of diatoms of the family Rhopalodiales, which harbor nitrogen-fixing bacteria. An abundance suggests nitrogen is limiting.
Eutraphentic diatoms	Diatoms with a preference for nutrient-enriched, eutrophic waters; expect an increase in eutraphentic species with increasing nutrient and organic enrichment
Nitrogen heterotrophs	Proportion of species whose growth is enhanced by presence of complex, organic sources of nitrogen.

5.4 Results and Discussion

5.4.1 Macroinvertebrates

There were no distinct longitudinal trends within macroinvertebrate metrics along the Silver Bow Creek sampling stations in 2008. Bioassessment scores for the ten Silver Bow Creek sites ranged from moderate to severe impairment and are presented in Table 5-10 and Table 5-11. Taxa richness ranged from 18 to 38 organisms per site with SS-11C, near the center of the evaluated reach, exhibiting the greatest value. EPT richness ranged from 0 to 9 with the highest value again present at station SS-11C. One sensitive taxon was identified within Silver Bow Creek at station SS-11D. Dominant taxon percent ranged from 18.69 at SS-11D to 62.35 at SS-06G. In general, there was a high percentage of collectors, ranging from 44.65 to 86.98. Scrappers and shredders typically occupied a lower percentage of the macroinvertebrate sample and ranged from 9.97 to 41.16. All eleven sites failed the RIVPACS model test, which indicated that the Silver Bow Creek sites are outside of the experience of the model. As such, the O/E value is unreliable and the MMI should be viewed critically because the type of site as found along Silver Bow Creek was not present in the data used to calibrate either model. The results from both MMI and RIVPACS outputs are presented in Figure 5-2 and Figure 5-3. Only one SSTOU site, SS-17D, had a Hilsenhoff biotic index indicating slight impairment (Figure 5-4). Three sites, SS-07, SS-08, and SS-11C, had HBI values indicating severe impairment; HBI values at all other sites rated as moderately impaired. The metals tolerant index for the 2008 samples generally suggested none to minor impairment of the aquatic environment from metals (Figure 5-5). Figure 5-6 represents results of five metrics for each of the sites that provide supplemental data generally used to assess the health and integrity of the macroinvertebrate community.

Table 5-10: ***Bioassessment scores for macroinvertebrate samples collected on Silver Bow Creek on September 15 & 16, 2008 using the index developed by Bollman for Valleys/Foothills (1998).***

SITE ID	SS-06G	SS-07	SS-08	SS-10A	SS-10B	SS-11C	SS-11D	SS-15G	SS-15A	SS-15B	SS-17D
METRIC VALUES											
Ephemeroptera richness	1	1	0	1	1	3	2	8	1	1	3
Plecoptera richness	0	0	0	0	0	0	0	5	1	0	0
Trichoptera richness	4	4	0	3	1	6	4	3	1	2	5
Number of sensitive taxa	0	0	0	0	0	0	1	4	0	0	0
Percent filterers	68.21%	18.87%	7.55%	3.86%	1.82%	8.48%	17.76%	6.73%	68.57%	56.67%	35.67%
Percent tolerant taxa	20.99%	26.73%	25.47%	9.82%	20.91%	16.36%	9.97%	9.62%	6.67%	17.88%	43.60%
METRIC SCORES											
Ephemeroptera richness	0	0	0	0	0	1	1	3	0	0	1
Plecoptera richness	0	0	0	0	0	0	0	3	1	0	0
Trichoptera richness	2	2	0	2	0	3	2	2	0	1	3
Number of sensitive taxa	0	0	0	0	0	0	1	3	0	0	0
Percent filterers	0	1	2	3	3	2	1	2	0	0	0
Percent tolerant taxa	1	1	1	2	1	1	2	2	2	1	0
SITE SCORE	3	4	3	7	4	7	7	15	3	2	4
Percent of max	**16.7%**	**22.2%**	**16.7%**	**38.9%**	**22.2%**	**38.9%**	**38.9%**	**83.3%**	**16.7%**	**11.1%**	**22.2%**
Impairment classification	Severe	Moderate	Severe	Moderate	Moderate	Moderate	Moderate	None	Severe	Severe	Moderate
Use-support classification	Non	Partial	Non	Partial	Partial	Partial	Partial	Full	Non	Non	Partial

Table 5-11: ***Bioassessment scores for macroinvertebrate samples collected on Silver Bow Creek on September 15 & 16, 2008 using the index developed by Bukantis for Intermountain Valley and Foothills (1998).***

SITE ID	SS-06G	SS-07	SS-08	SS-10A	SS-10B	SS-11C	SS-11D	SS-15G	SS-15A	SS-15B	SS-17D
METRIC VALUES											
Taxa Richness	20	24	18	31	29	38	32	47	20	23	32
EPT Richness	5	5	0	4	2	9	6	16	3	3	8
Hilsenhoff Biotic Index (HBI)	5.161	7.117	7.703	5.485	5.89	6.248	5.594	4.337	5.498	5.291	4.477
Dominant Taxon Percent	62.35	28.3	22.33	49.82	51.82	23.33	18.69	12.5	50.16	53.33	38.11
Collectors Percent	73.77	77.36	44.65	78.25	79.7	59.09	72.59	65.71	86.98	71.82	55.79
EPT Percent	66.67	12.26	0	3.51	7.88	10.61	18.69	34.29	56.51	53.94	74.09
Scrapper + Shredder Percent	24.69	19.81	28.3	11.58	8.79	23.33	9.97	23.72	3.17	6.36	41.16
% Hydropsychinae of Trichoptera	97.6	91.9	0	66.7	100	82.1	96.5	91.7	100	99.4	41.3
METRIC SCORES											
Taxa Richness	1	2	0	3	3	3	3	3	1	1	3
EPT Richness	0	0	0	0	0	0	0	1	0	0	0
Hilsenhoff Biotic Index (HBI)	0	0	0	0	0	0	0	1	0	0	1
Dominant Taxon Percent	0	2	3	0	0	3	3	3	0	0	1
Collectors Percent	1	1	3	1	1	3	1	2	0	1	3
EPT Percent	2	0	0	0	0	0	0	0	2	1	3
Scrapper + Shredder Percent	0	0	1	0	0	0	0	0	0	0	2
% Hydropsychinae of Trichoptera	0	1	0	3	0	2	0	1	0	0	3
SITE SCORE	4	6	7	7	4	11	7	11	3	3	16
Percent of max	16.7%	25.0%	29.2%	29.2%	16.7%	45.8%	29.2%	45.8%	12.5%	12.5%	66.7%
Impairment classification	severe	moderate	moderate	moderate	severe	moderate	moderate	moderate	severe	severe	moderate
Use-support classification	non	partial	partial	partial	non	partial	partial	partial	non	non	partial

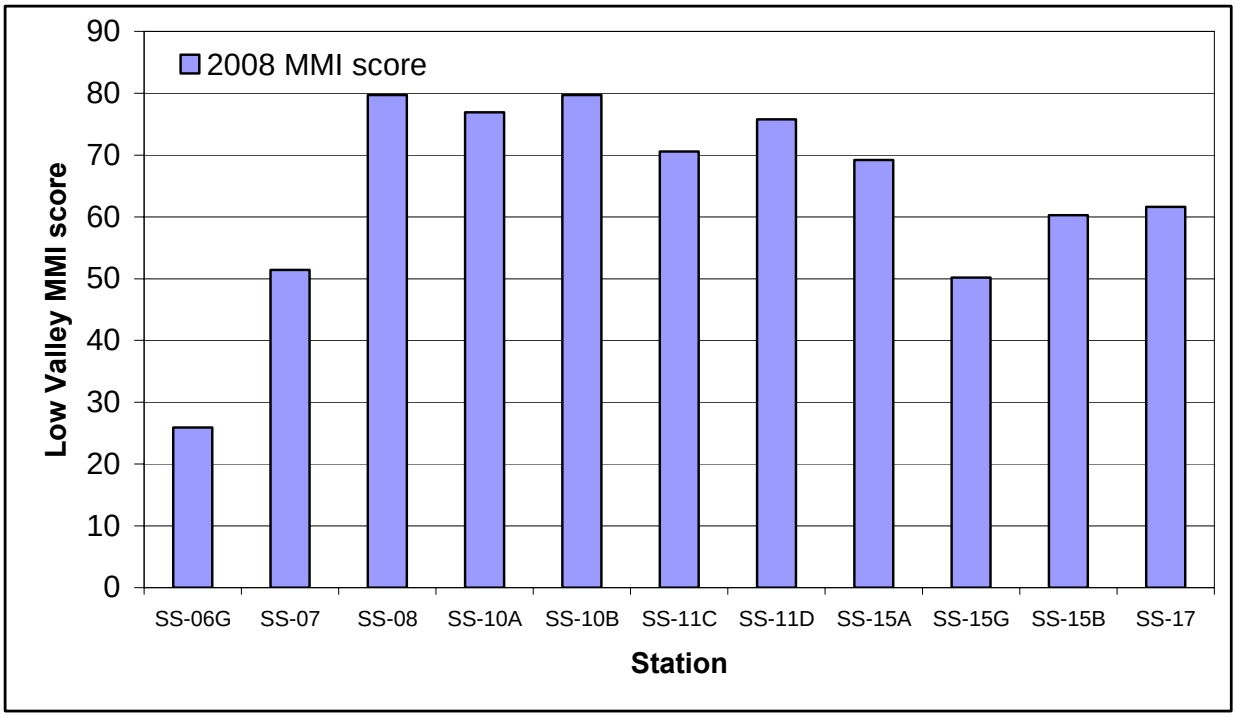


Figure 5-2. ***Calculated Multi-Metric Index (MMI) for all 2008 SSTOU sampling sites.***

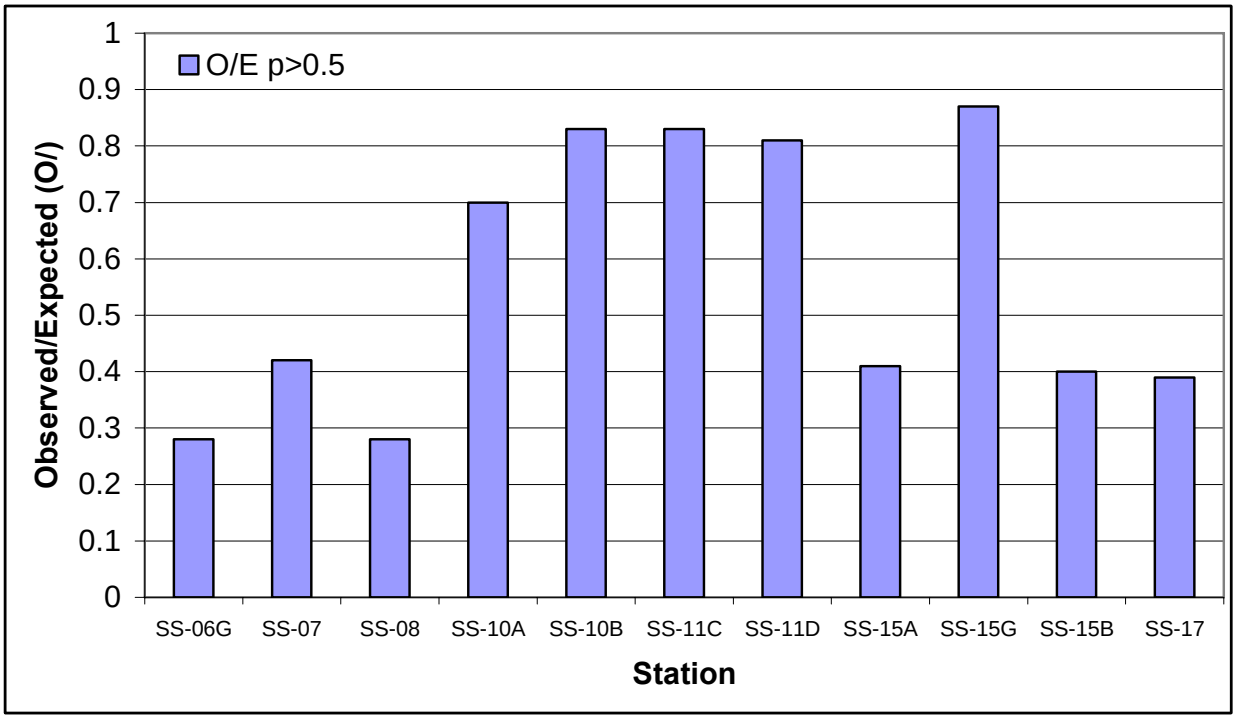


Figure 5-3. ***Results of RIVPACS model, calculated as the ratio of the number of taxa observed (O) in the collected sample to the number of expected (E) in site type (Low Valleys).***

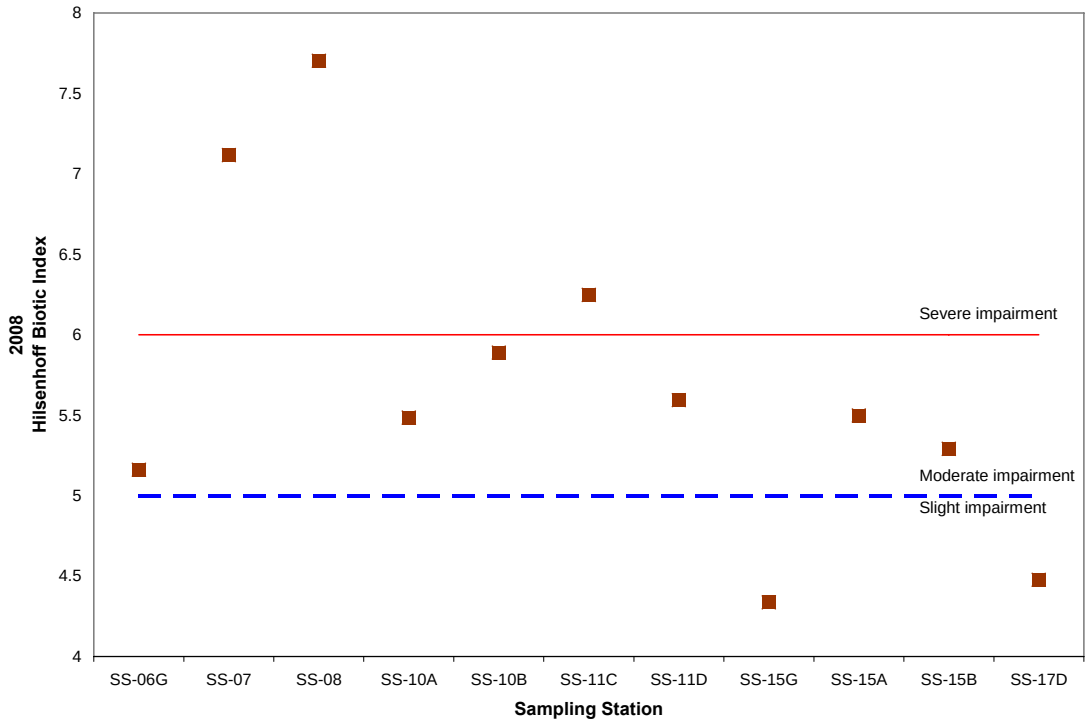


Figure 5-4. ***Hilsenhoff Biotic index for macroinvertebrate samples collected from Silver Bow Creek, 2008. The horizontal blue line denotes the threshold between slight and moderate impairment; the red line indicates threshold between moderate and severe impairment.***

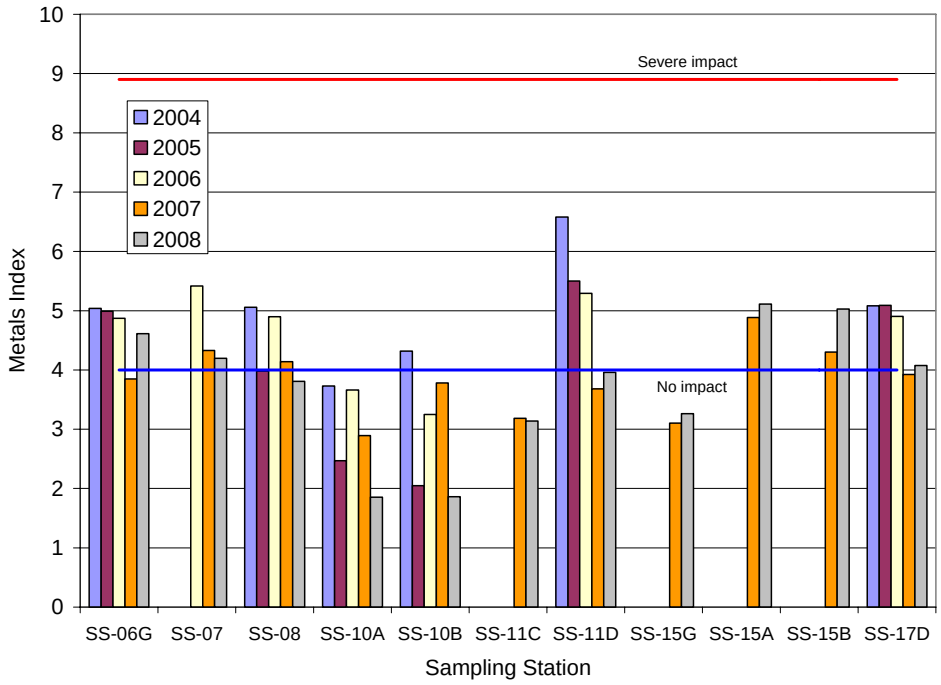


Figure 5-5. ***Metals tolerance index for macroinvertebrate samples collected from Silver Bow Creek, 2008. The horizontal blue line denotes the threshold between slight and moderate impact; the red line indicates threshold between moderate and severe impact from metals***

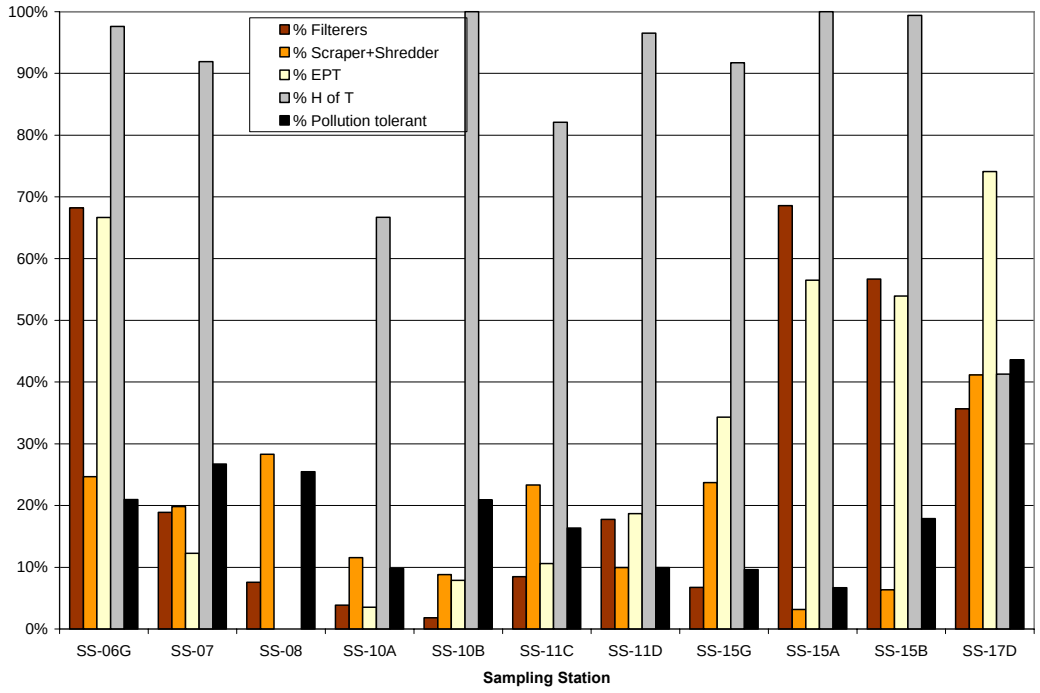


Figure 5-6. ***Percentage of "specialized/indicator" macroinvertebrates in samples collected from Silver Bow Creek, 2008***

Silver Bow Creek above the WWTP (SS-06G)

This site lies upstream of the SSTOU and reflects water quality influenced by the watershed above the SSTOU and Butte's WWTP. The stream is approximately 17 feet wide at this sampling station, with a gravel-cobble/rubble substrate. The stream gradient through this station is slightly higher than the average of Silver Bow Creek (0.019) and includes a few boulder grade controls. Algal growth (predominantly *Nitzschia* sp.) and rooted submerged vegetation (*Catabrosa* sp.) were present. Streambanks are well-vegetated with established willow and vigorous hydrophytic riparian vegetation providing moderate shading of the stream channel. SS-06G provides a baseline for water quality from the Butte watershed and represents the upstream control for the SSTOU.

Trichoptera (caddisfly) was the dominant insect order collected at this site. *Hydropsyche* (spotted sedges) represented the dominant family within this order and comprised 97.6% of the caddisfly population and 62.35% of the overall sample. *Hydropsyche* was also the most abundant insect collected in the 2007 sample. An increase of this caddisfly genus increases metric ratings, yet alone does not indicate an overall improvement of sediment or water quality as these filter-feeding insect taxa are considered pollution-tolerant and have been historically identified in some of the more contaminated sites along Silver Bow Creek. However, the inclusion of the Ephemeroptera (mayfly) species *Baetis tricaudatus* (blue-winged olive), and the caddisflies *Brachycentrus americanus* (American Grannom), *Cheumatopsyche* sp.(Little Sister Sedge), and *Oecetis* sp. (longhorned casemakers) within the dominant taxa represent the colonization of less tolerant species that provide a positive indication of increase stream health and recovery. The non-insect *Stagnicola* (fat-whorled pondsnail) comprised 12.96% of the sampled invertebrates and displayed a decrease of 11.11% from the 2007 sample. This change is witness of an increase in the spotted sedges population, displacing the fat-whorled snail as the dominant

organism at this site and may be the result of sampling variability. Other non-insects collected at this station included Acari (aquatic mite), *Enchytraeus* sp. (annelid worms), Naididae (oligochaete worms), and Sphaeriidae (bivalve mollusk) and represent 2.47% of the sampled population. The Diptera (true fly) genus *Tipula* sp. (crane fly) and *Simulium* sp (black fly) larva represented 6.17% and 2.78% of the identified sample, respectively.

Community composition at this site was dominated by insects classified in the filterer functional feeding group (68.21%), indicating the abundance of fine particulate organic matter. Filterers are generalist consuming a wide range of organic material and indicate the presence of high level of organic material and nutrients. The abundance of *Hydropsyche* substantially contributed the dominant presence of this functional feeding group. Scrapers comprised 18.21% of the sampled population and included the fat-whorled pond snail and *Optioservus* sp (riffle beetle). The presence of abundant algae aids in the support of the scraper/grazer population.

The biotic indices indicate severe impairment of the aquatic community at this station. The Bollman index has remained consistently poor since 2005; the Bukantis index has displayed a steady decline since 2004, breaching the threshold from moderate to severe impairment in 2008 (Figure 5-7). This decrease in the Bukantis rating may be attributed to a decrease in the percent of shredders and collectors within the sampled population. The metals tolerant index displayed an improvement from the 2007 sample and signifies slight impairment of the benthic community (Figure 5-8). The Hilsenhoff biotic index improved from severe to moderate impairment rating with a change in rating from 6.383 in 2007 to 5.161 in 2008.

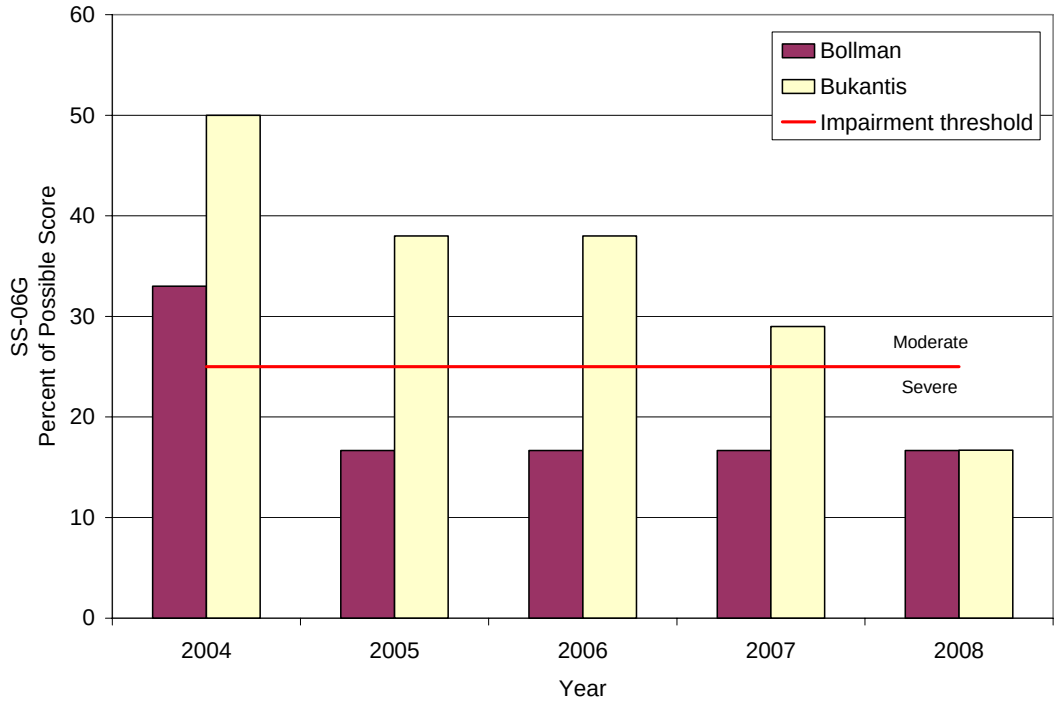


Figure 5-7. ***Bioassessment scores calculated for macroinvertebrate samples collected from 2004 to 2008 at site SS-06G, using Bollman and Bukantis bioassessment metrics. Horizontal line denotes the threshold between severe and moderate impairment.***

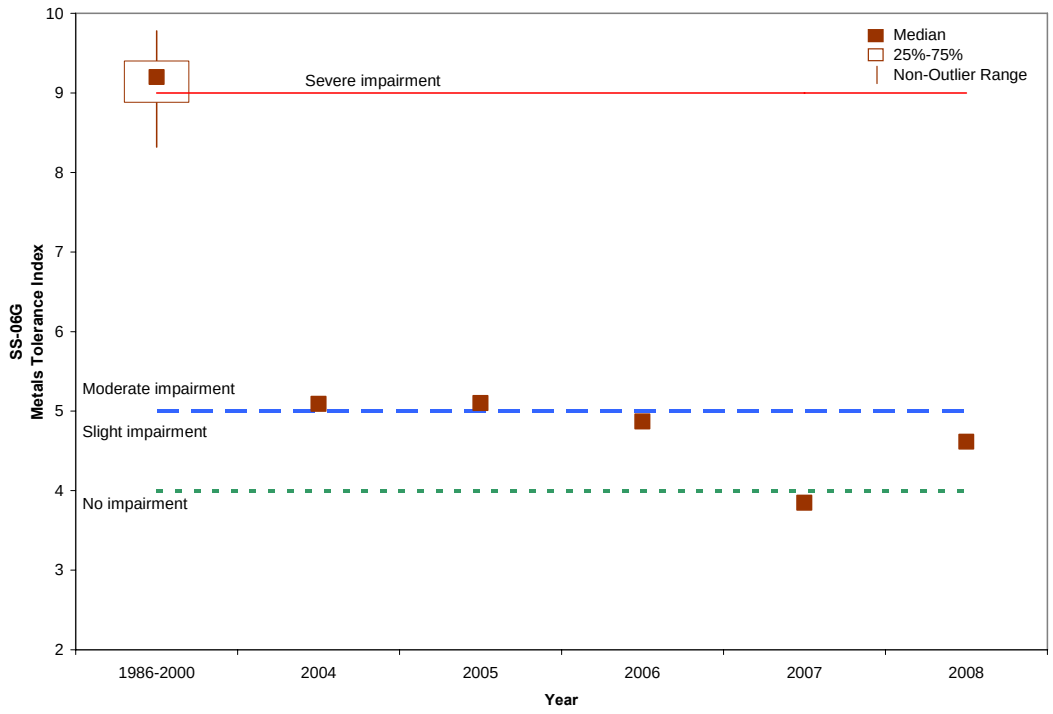


Figure 5-8. ***Macroinvertebrate metals tolerance index scores for samples collected at SS-06G over period of record (1986-2008).***

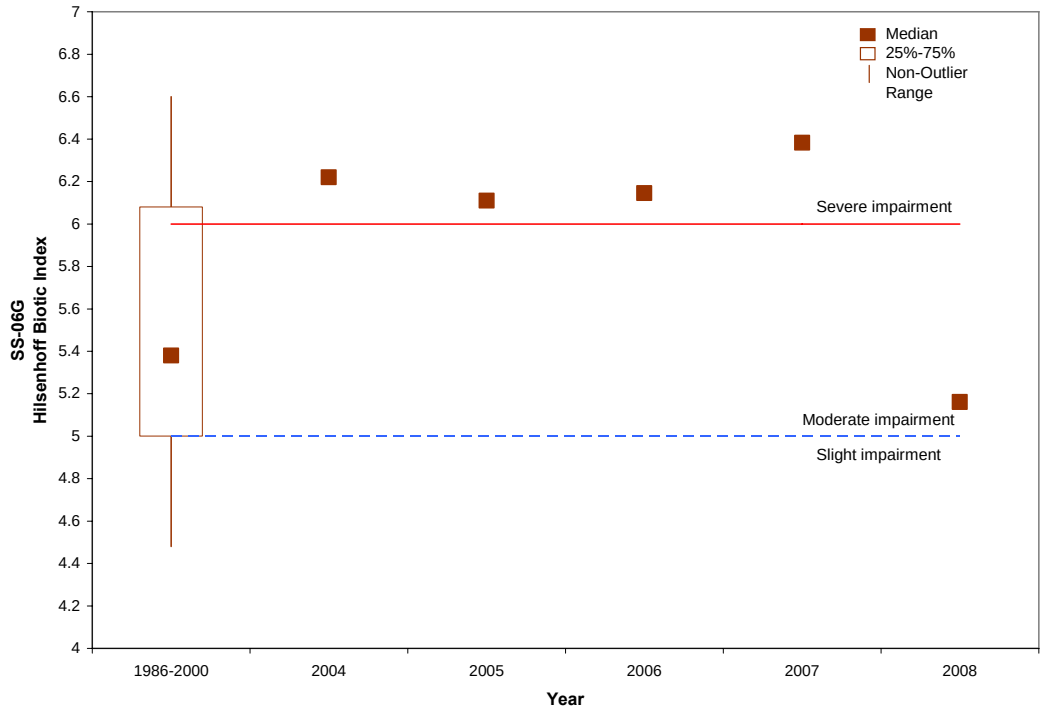


Figure 5-9. ***Hilsenhoff Biotic Index scores for samples collected at SS-06G over period of record (1986-2008).***

Evaluation of temporal trends, beginning with baseline data collected in the 1980s and 1990s, and continuing with data collected in the current decade indicate shifting changes in the aquatic environment (Figure 5-8; Figure 5-9). The metals tolerance index consistently displayed severe impairment between 1986 through 2000. This impact may the result of residual metal deposition and accumulation within the streambed sediments from the extended (100 years) use of this stream as a discharge channel for mining wastewater from Butte. Improved water quality and subsequent high flow events may have encouraged the mobilization and flushing of the streambed sediment downstream, allowing for the improvements of the metal index observed from 2004 to 2008. A slight increase in the metals index between 2007 and 2008 may be the result of increased number of *Hydropsyche* within the collected sample. Improvements in the HBI value in 2008 from the 2004-2007 samples may well reflect a decrease of thermal, inorganic or organic pollution and a subsequent increase in taxa with a decreased tolerance to these pollutants.

Performance against remedy goals at SS-06G

Station SS-06G is located outside of the Streamside Tailings Operable Unit and is outside the scope of remediation efforts. This station has been included as a reference for upstream environmental conditions and water quality entering the SSTOU. Applying the remediation goal for the attainment of 75% of the total possible score in the Good category for two consecutive years and continued temporal improvement of the bioassessment scores to this site shows that baseline conditions are not favorable within Silver Bow Creek to achieving this target. The Bollman index suggest steady baseline conditions are severely impaired above the SSTOU, scoring 16.67% of total possible metric scores and only 33.33% of the goal (Figure 5-10).

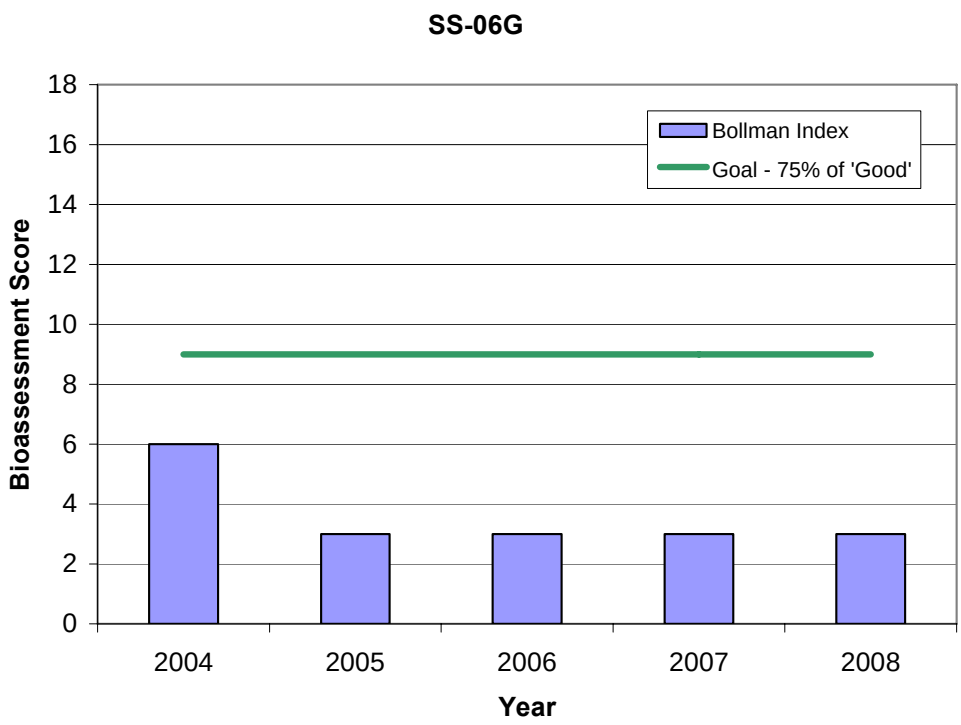


Figure 5-10. ***Bollman bioassessment scores for SS-06G as related to remediation goals (2007).***

Silver Bow Creek below the WWTP (SS-07)

This station is located below the mixing zone of the Butte wastewater treatment plant outfall and Silver Bow Creek. An increase in periphytic and filamentous algal growth, and rooted vegetation (*Catabrosa* sp.) was observed at this site. The width of the channel at this station is approximately 23 feet, with an average gradient of approximately 0.2%. The streambed substrate is predominately gravel, with interspersed cobbles and areas of sand deposition. Riparian vegetation consist primarily of herbaceous species and sparse willows that provide little to no canopy for this reach. Organisms collected at this site integrate the influences of human activities in the watershed above the SSTOU and effluent contributed from the Butte WWTP.

Chironomidae (midges) and Naididae (tubificid worms) were the dominant macroinvertebrates collected at this site, comprising just over 60% of the identified sample. These hemoglobin-bearing organisms provide indication of anaerobic conditions and are consistent with the observations of rank, black, anaerobic sediment covering much of the streambed substrate. Pollution tolerant organisms account for 26.73 % of the sampled population, a significant decrease from 79.47% observed in 2007. *Hydropsyche*, *Stagnicola* sp., and *Simulin* sp. were also dominant taxa at this site, suggesting impaired conditions at this station as these organisms have moderately high tolerance of metals, nutrients, and anaerobic conditions. No intolerant species were observed at this site. The increase in EPT richness at this station provides a measure of improving conditions within the aquatic environment with an increase from 2 to 5 between 2007 and 2008, although relatively low-tolerant mayflies and caddisflies account for a very small percentage of the sample population.

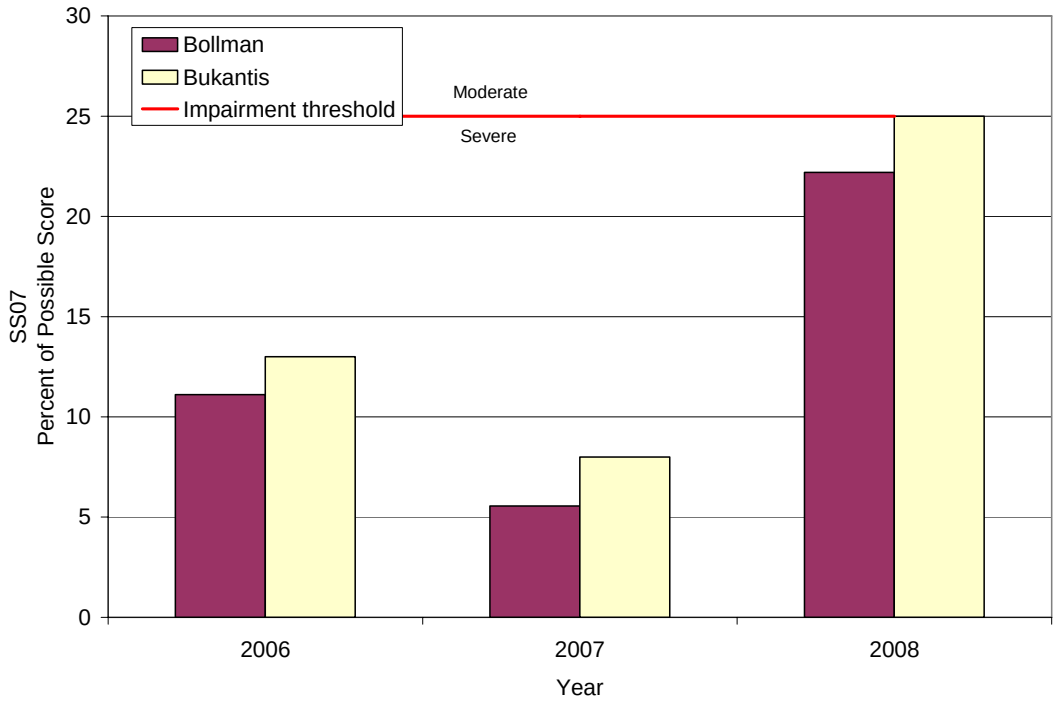


Figure 5-11. ***Bioassessment scores calculated for macroinvertebrate samples collected between 2006 and 2008 at station SS-07, using Bollman and Bukantis bioassessment metrics. Horizontal line denotes the threshold between severe and moderate impairment.***

The Hilsenhoff biotic index value of 7.117 indicated a high proportion of tolerant species at this site. Both Bollman and Bukantis metrics indicate an improvement at station SS-07, yet still exhibit impaired conditions (Figure 5-11). Both metric scores improved as a result of the increased presence of mayflies and caddisflies. Increased taxa richness (24 taxa), a low dominant taxon percent (28.3), and a decrease in percentage Hydropsychidae of Trichoptera (91.9) led to improved impairment classification (moderate) for the Bukantis metric. Increased Trichoptera richness and a decrease in pollution tolerant taxa aided in the increase of the Bollman metric, yet maintained a severe impairment classification. The metals index for the macrobenthic community continued to show improvement, nearing the no impact threshold. Presumably, high concentrations of metals masked the influence of nutrients, which then emerged as the most notable constraint following remediation.

Performance against remedy goals at SS-07

Station SS-07 does not meet remediation goals for 2008, scoring less than 50% of the success target (Figure 5-12). This site did show a slight improvement in the bioassessment for 2008 following a decrease in this value in 2007 from the 2006 sample. Substantial and continued improvement will be necessary before remediation goals are achieved at this site.

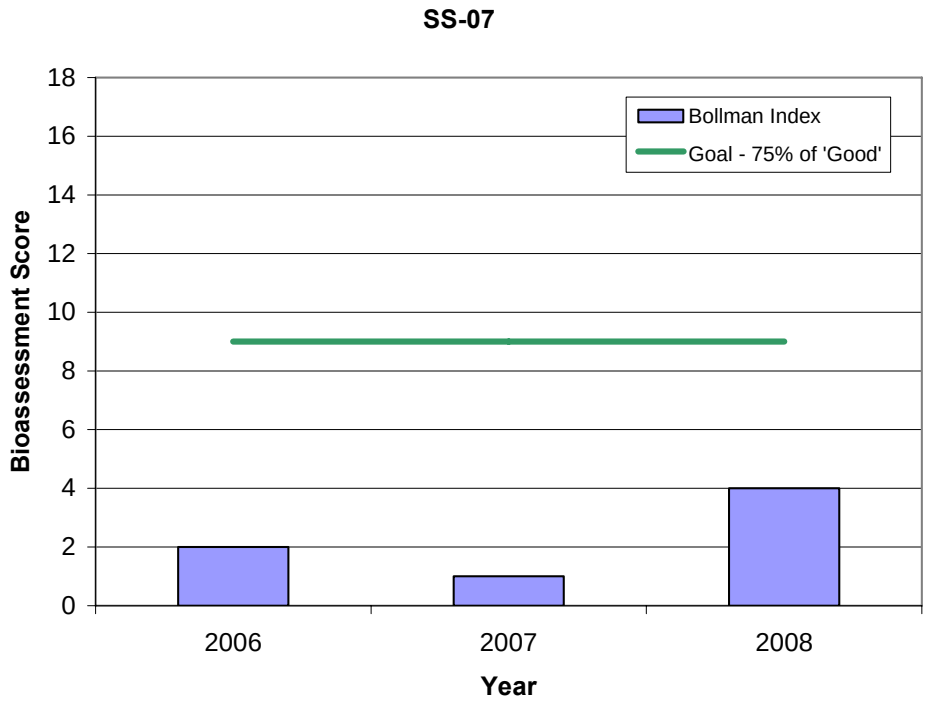


Figure 5-12*. Bollman bioassessment scores for SS-07 as related to remediation goals (2007).*

Silver Bow Creek at Rocker (SS-08A)

This site is situated near Rocker approximately 1 mile downstream from SS-07 and the Butte wastewater outfall. A geomorphic assessment conducted at this site in 2007, five years post-remediation efforts, showed a sinuosity of 1.13 and a resulting channel slope of 0.3%. Coarse gravel dominates the streambed substrate. Riparian vegetation includes vigorous cover of herbaceous species, predominantly canary reedgrass, with scattered clumps of willow providing modest shading of the streambanks. Aquatic vegetation was observed and included sporadic growths of algae and sparse rooted macrophytes. Since

there is no significant surface water contribution into Silver Bow Creek between SS-07 and this site, water quality improvements may be the result of sediment deposition, assimilation into the environment, or modification of pollutants through chemical or biological processes.

The macroinvertebrate community at this station indicated continued impairment of aquatic life. *Helobdella* (a freshwater leach) continues to be the dominant taxa (22.33%), indicating continued anaerobic conditions. This species is highly tolerant to environmental stressors. Coupled with the high percentage of Chironomids present, the assemblage suggested nutrient enrichment and toxicity. No EPT taxa were indentified at this site, which was further evidence of a toxic aquatic environment. Taxa richness at SS-08 (18 taxa) was considerably lower than any other station within this study.

Overall bioassessment results show an increase in both the Bollman and Bukantis indices between 2007 and 2008, with a long-term trend indicating minimal improvement since remediation (Figure 5-13). An increase in the Bollman index between the 2007 and 2008 sampling events was realized by a decrease in percent filterers and a decrease in percent tolerant taxa. No sensitive species have been recorded at this site. An increase in the Bukantis index was the result of a decrease in dominant taxon percent. The Hilsenhoff biotic index continued to rate the macrobenthic community at this station as severely impaired and the poorest of all sampling site in 2008 (Table 5-11; Figure 5-15). The metals index improved, dropping below the impact threshold. Evaluation of key metrics suggests continued reductions in metals, with a concomitant increase in the influence of nutrients on invertebrates. In general, the assemblage suggested toxicity from nutrient enrichment. Reduction in metals contaminated floodplain and streambed substrate through remediation efforts appear to be masked by the general poor water quality entering the SSTOU, as indicated by metric values calculated at SS-06G.

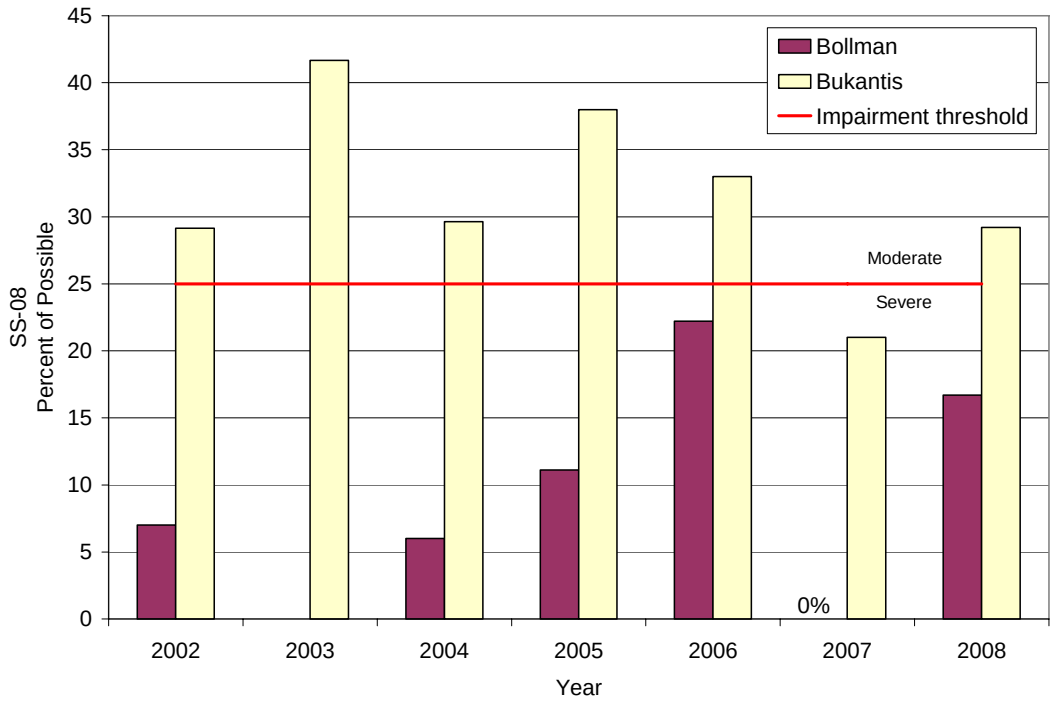


Figure 5-13. ***Bioassessment scores for site SS-08 using the Bollman and Bukantis bioassessment metrics (Confluence 2002, 2003, 2005). Horizontal line denotes threshold between severe impairment and moderate impairment.***

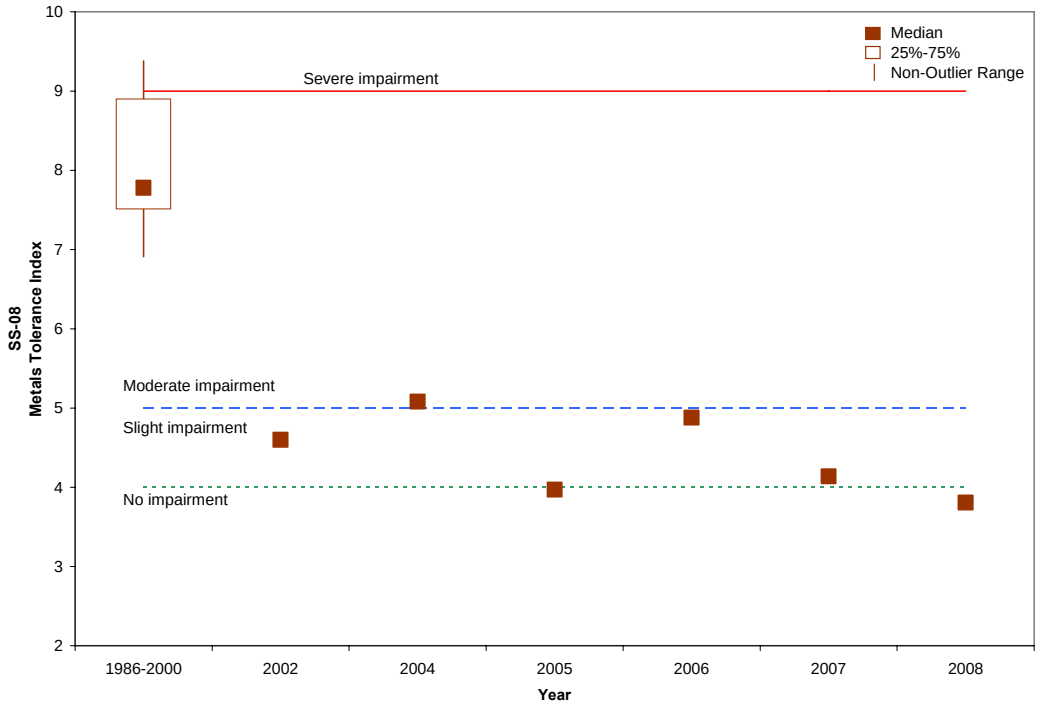


Figure 5-14. ***Macroinvertebrate metals tolerance index scores for samples collected at SS-08 over period of record (1986-2008).***

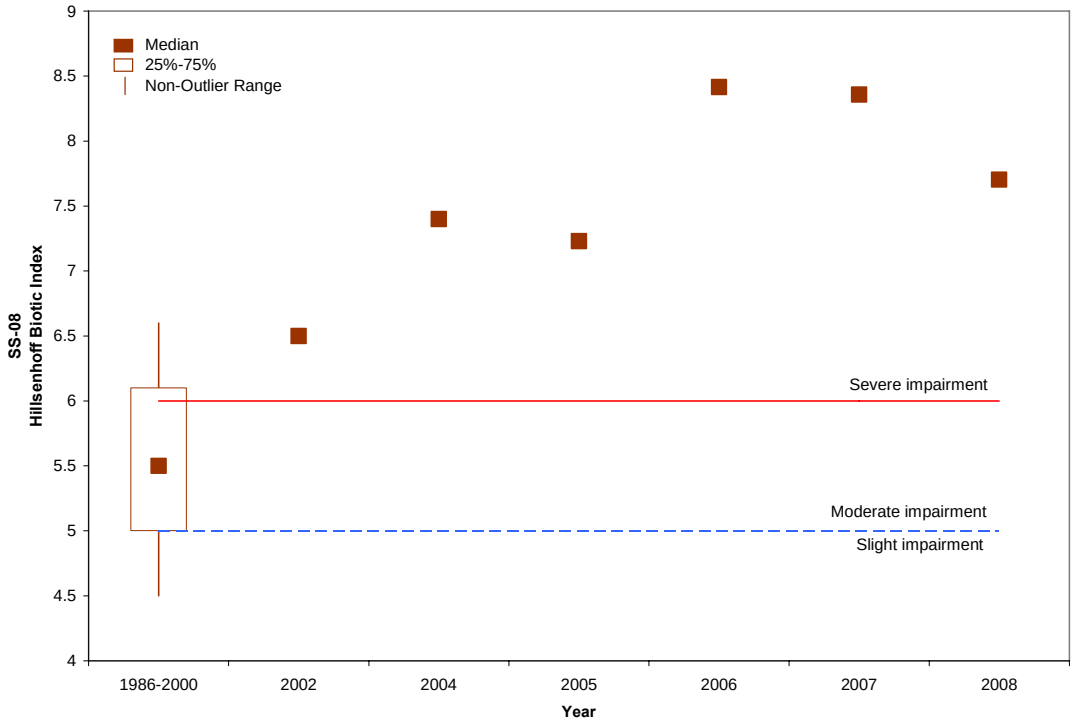


Figure 5-15. ***Historic Hilsenhoff Biotic Index for macroinvertebrate samples at SS-08 over period of record (1986-2008).***

Performance against remedy goals at SS-08

Station SS-08 has not displayed positive progress toward the attainment of macrobenthic remediation goals over the past two years (Figure 5-16). Between 2004 and 2006, the trend in bioassessment scores showed a steady increase and positive indication for improved conditions within the aquatic environment; however, a marked reduction in 2007 (0% of total) and slight increase in 2008 (16.7%) negated this positive trend.

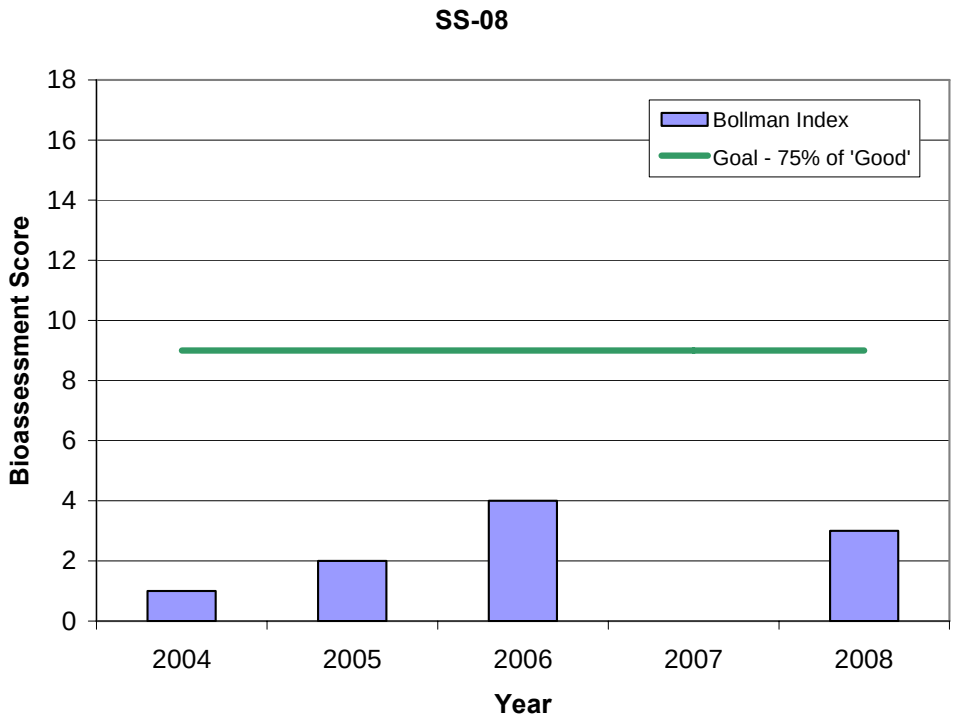


Figure 5-16. ***Bollman bioassessment scores for SS-08 as related to remediation goals (2007).***

Silver Bow Creek above and below Sand Creek (SS-10A & SS-10B)

Stations SS-10A and SS-10B are situated above and below the mouth of Sand Creek, respectively. The SS-10 sites are roughly five miles downstream of the upper SSTOU station SS-07. An abundance of aquatic vegetation was present at this site and consisted primarily of the macrophyte *Myriophyllum* sp. and the diatom algae *Eolimma minima* and *Staurosira consturens.* The substrate is dominated by coarse gravel and nearly 100% covered by organic detritus and algae bloom. The low gradient (~0.18%) channel through the SS-10 reach varies from 25 to 30 feet in width. Shrubs were limited in size and quantity along the streambank and included willow plantings. Canary reedgrass dominated the riparian vegetation, with a moderate inclusion of upland grass species along the stream margin. The geomorphology at the confluence of Sand Creek and Silver Bow Creek causes the lower extent of Sand Creek to backwater for approximately 250 feet. The intermittent flow of Sand Creek combined with relatively slow velocities due to the low gradient of both Sand Creek and Silver Bow Creek result in an array of macroinvertebrates typical of larger river systems and backwater conditions. A thick layer of organic detritus has accumulated at this mouth due to the lack of a flushing stream flow through Sand Creek. Anaerobic conditions have been observed (sulfur odor) during each sampling event.

Macroinvertebrate biotic indices for Silver Bow Creek upstream of the confluence with Sand Creek (SS-10A) and directly downstream (SS-10B) indicate impairment of the benthic environment from nutrients.

Station SS-10A displayed an improvement from severe to moderate impairment in both the Bukantis and Bollman bioassessment indices for 2008 (Figure 5-17) due to an increase in taxa richness (31), a decrease in percentage of filterers, a substantial decrease in percentage of tolerant taxa, and a low percentage of Hydropsychidae of Trichoptera. Biometrics at station SS-10B continued to indicate severe impairment, with an improvement in the Bollman index and a slight decrease in the Bukantis index from the 2007 sampling event (Figure 5-18). The Hilsenhoff biotic index values for both sites dropped below the severe impairment threshold in the 2008 sample (Figure 5-19), with both sites also exhibiting a substantial decrease in the percentage of pollution tolerant taxa between 2007 and 2008. The collector-gatherer feeding group comprised nearly 80% of the sampled population at each site and supports the observation of an over-abundance of fine particulate organic matter covering the streambed substrate. The metals index at both sites SS-10A & B showed continued improvement, rated as no impact from metals, and ranked as the least impacted from metals of all 2008 Silver Bow Creek/German Gulch sampling sites (Figure 5-5). These results suggest that as the impacts from metals are mitigated in the surface water and stream sediments, excessive nutrients emerge as a limiting factor adversely affecting the benthic health of Silver Bow Creek.

The Chironomid *Micropsectra* sp dominated the taxa at both SS-10 sampling stations along Silver Bow Creek at Sand Creek. The abundance of this midge larvae, which represented approximately 50% of the sampled population, suggest the aquatic environment at the Sand Creek stations reflect conditions more commonly found in larger river systems such as lower gradient, low riffle habitat, and low velocity backwater habitat (River Continuum Concept). Other macroinvertebrates present and prolific at both sites include additional midge taxa (*Cricoptus, Phaenopsectra, Parametriocnemus*) and the non-insect leach *Helobdella stagnalis* and *Naididae* (tubificid worms). Overall community assemblage suggests low-oxygen conditions within the benthic substrate, which appears to be the result of excess organic material, likely enhanced by nutrient enrichment of Silver Bow Creek observed below the WWTP.

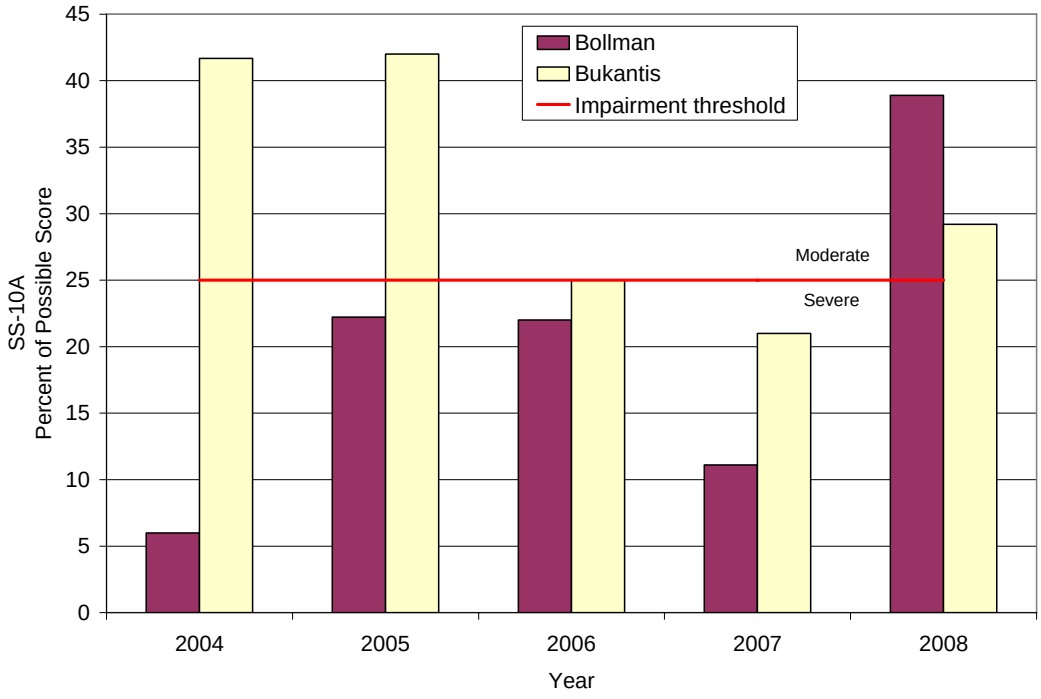


Figure 5-17. ***Bioassessment scores for site SS-10A using Bollman and Bukantis bioassessment metrics. Horizontal line denotes the threshold between severe and moderate impairment.***

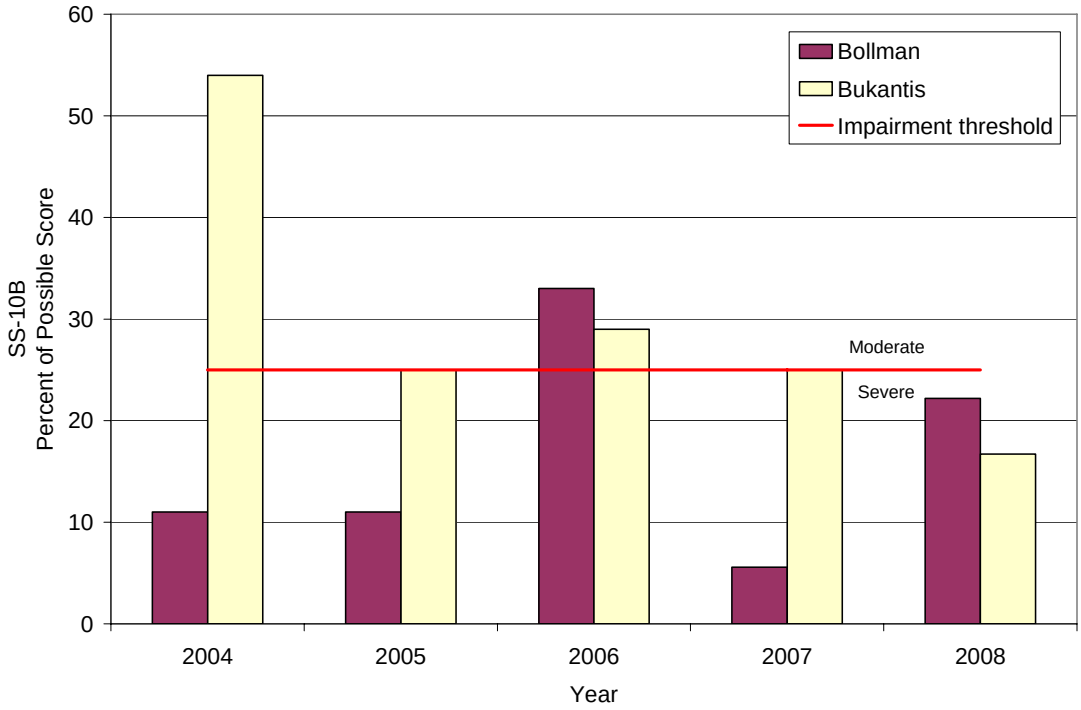


Figure 5-18. ***Bioassessment scores for site SS-10B using Bollman and Bukantis bioassessment metrics. Horizontal line denotes the threshold between severe and moderate impairment.***

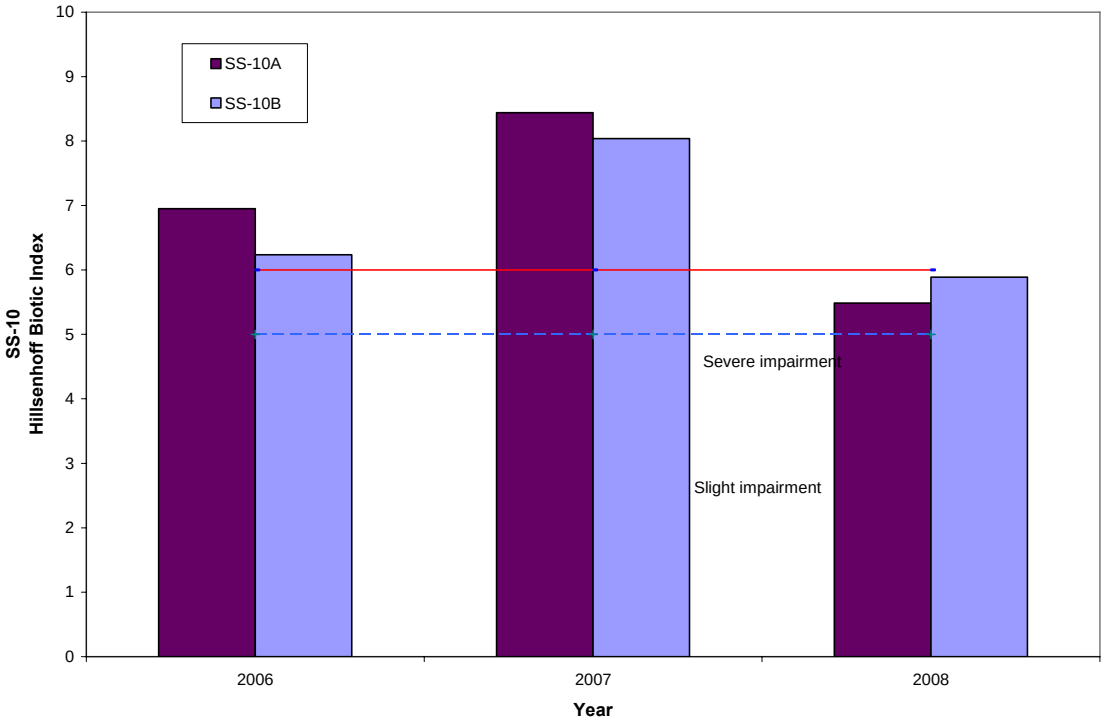


Figure 5-19. Hilsenhoff Biotic Index values for SS-10A & SS-10B. Horizontal red line denotes threshold for severe impairment.

SS-10A and SS-10B had the lowest metals index among all sites sampled in 2008 and displayed an improvement from 2007 (Figure 5-5). Overall, the Sand Creek stations suggest discernible improvements in metals tolerant index since the sites were remediated in late 2003 and early 2004, SS-10A & B respectively. Since the metals index for these stations rate these sites with no impact from metals, moderate impairment ratings of the aquatic community appears to be more the result of low EPT richness, high dominant taxon percent, and a lack of sensitive species.

Performance against remedy goals at SS-10A & SS-10B

Station SS-10A displayed positive progress toward remediation goals, scoring 7 of the necessary 9 points in the Bollman bioassessment rating (Figure 5-20). The 2008 Bollman score at SS-10A was the highest recorded at this site and imply site conditions are showing a positive trend. Station SS-10B, directly below the confluence of Sand Creek, displayed a slight decrease in metric values from SS-10A. There is an obvious trend in the upstream stations of a significant decrease in metric scores in 2007, suggesting a possible episodic event that impacted aquatic organisms. This trend is evident at SS-10B, decreasing the Bollman value from six in 2006 to one in 2007 (Figure 5-20). Recovery in 2008 is apparent at the affected sites. SS-10B scored less than 50% of the remediation target and necessitates improved future conditions to reach the defined target.

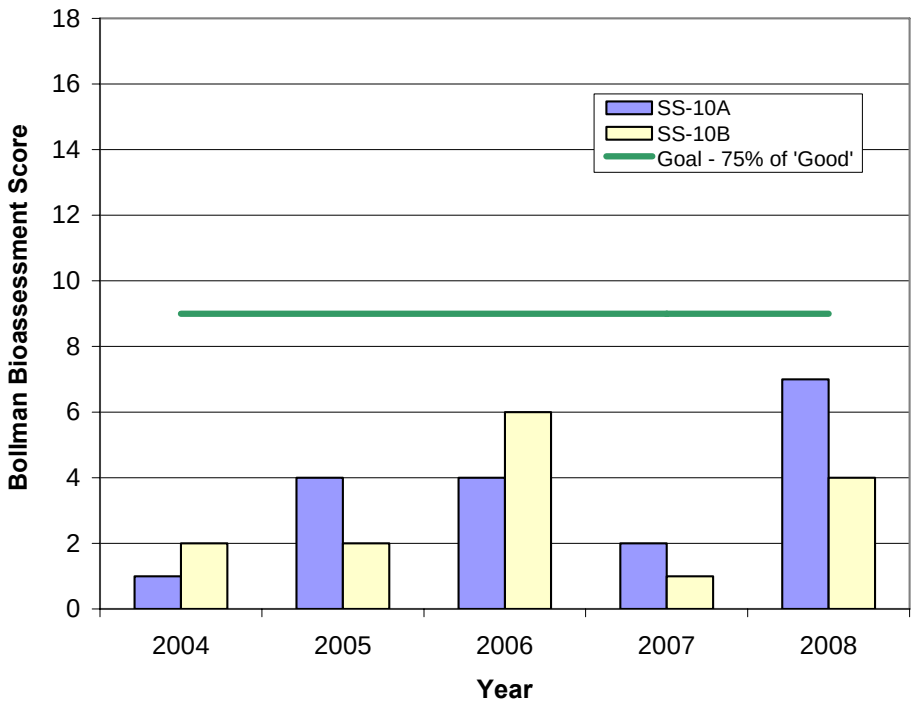


Figure 5-20. ***Bollman bioassessment scores for SS-10A & B as related to remediation goals (2007).***

Silver Bow Creek above and below Browns Gulch (SS-11C and SS-11D)

The Browns Gulch sampling stations lie approximately 7½ miles downstream of station SS-07. These stations are the most recently remediated reach in the SSTOU sampling stations, with completion of SS-11C (directly upstream of the Silver Bow Creek confluence with Browns Gulch) and SS-11D (below the Browns Gulch mixing zone) in the fall of 2006 and spring 2007, respectively. These stations are located in Subarea 2 of the SSTOU. Stream gradient through this reach is around 0. 2% and has an engineered sinuosity of 1.38. Stream width through this reach is approximately 22 to 24 feet. Streambed substrate is predominantly coarse gravel, with an abundant coverage of algae (*Encyonema* sp. & *Staurosira* sp.) and water milfoil (*Myriophyllum* sp.). Riparian vegetation has sparsely developed in the short time following remediation. Although shrub species have been planted and appear to be surviving, no established shrubs were present to provide stream shading, which was limited to the narrow canopy provided by the relatively sparse herbaceous riparian vegetation.

The dominant macroinvertebrate at both SS-11 sites, as with both SS-10 sites, is the Chironomid *Micropsectra*. Midge larvae comprise approximately 67% and 59% of the sampled taxa at SS-11C and SS-11D, respectively. Other taxa significant at both sites include the arachnid *Acari* (ticks/mites), *Hydropsyche*, *Tipula*, and the midges *Orthocladius* and *Eukiefferiella*. The leach *Helobdella* was a dominant taxa observed at SS-11C yet absent in the SS-11D sample, possibly attributed to the high quality riffle present along the SS-11D sampling station. A similar level of organic pollution (excess biomass) was observed at both sites.

A noticeable improvement was observed in the EPT population at both SS-11 stations between 2007 and 2008 with an increase in EPT richness and a decrease in the %H of T. Inclusion of the mayfly *Plauditus* (Blue wing olive) offers indication that the aquatic environment may be improving for less tolerant genera.

The Bollman and Bukantis bioassessment scores for each site showed improvement from the 2007 samples and indicate moderate impairment along the recently remediated reach of Silver Bow Creek around Browns Gulch (Figure 5-221 and Figure 5-252). Hilsenhoff biotic values for the SS-11 stations furthermore signal improvements of the benthic environment; however still indicate severe to moderate impairment in the SS-11C and SS-11D samples, respectively (Figure 5-23). No significant change was observed in the metals index between the 2007 and 2008 sampling events, continuing to show no impairment from metals since the completion of remediation efforts (Figure 5-5). Overall, macroinvertebrate indices indicate a positive response to the rehabilitation of the aquatic environment following the removal of mine tailings from the stream channel and floodplain of Silver Bow Creek.

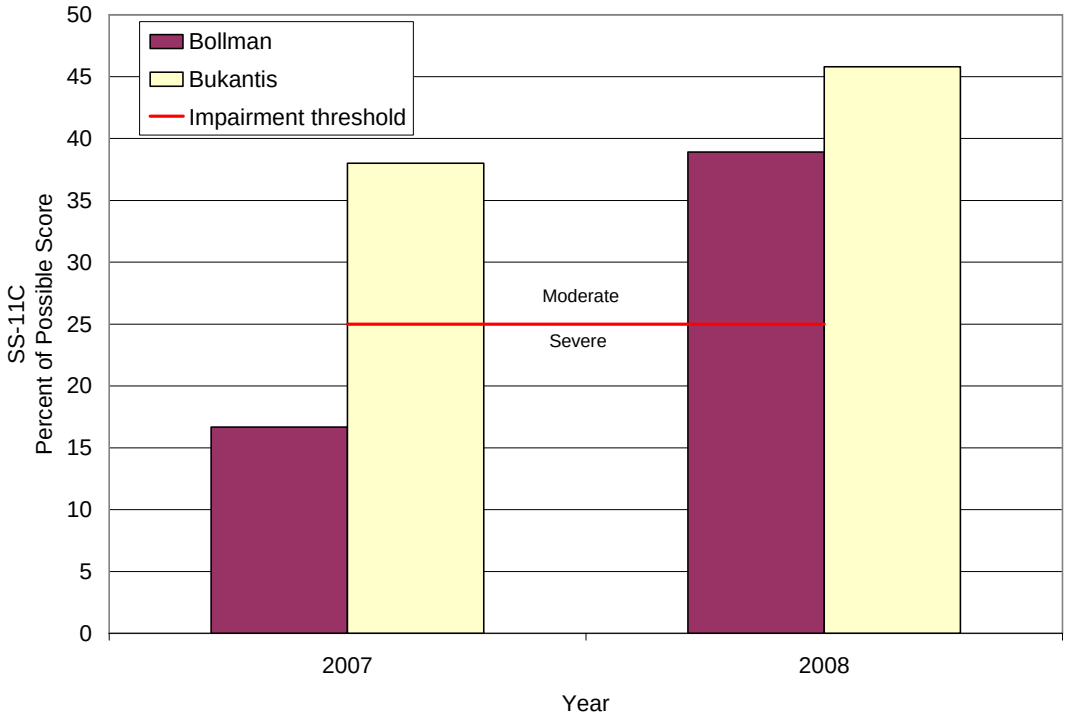


Figure 5-21. ***Bioassessment scores for site SS-11C using Bollman and Bukantis bioassessment metrics. Horizontal line denotes the threshold between severe and moderate impairment.***

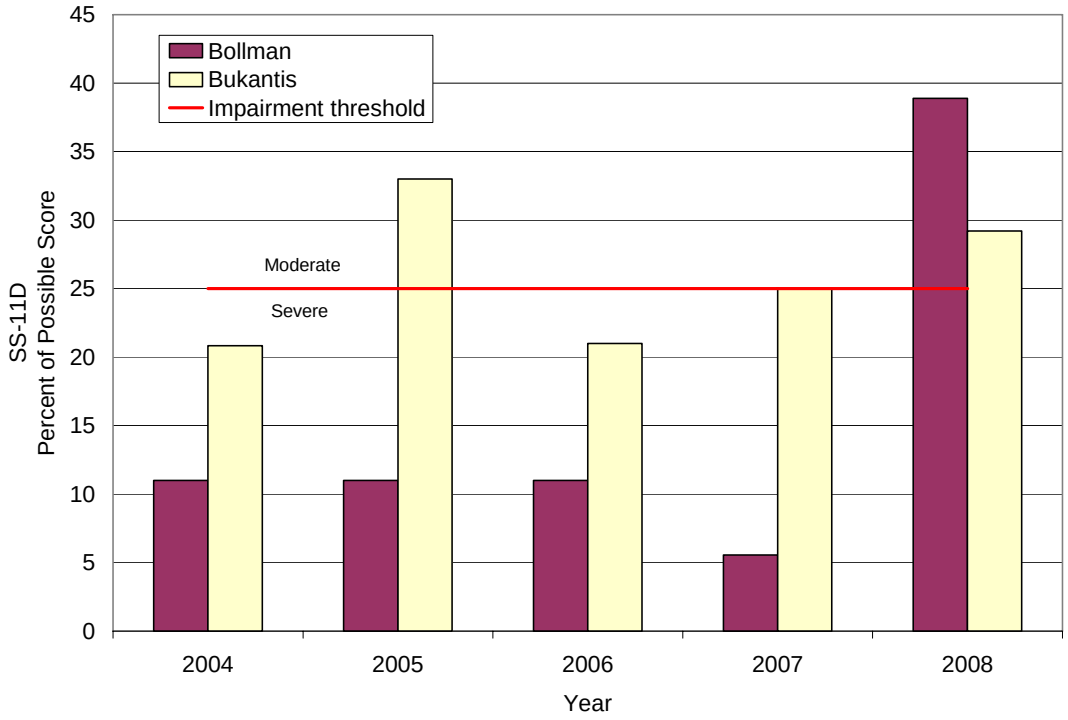


Figure 5-22. ***Bioassessment scores for station SS-11D located downstream of Brown's Gulch, using Bollman and Bukantis bioassessment metrics.***

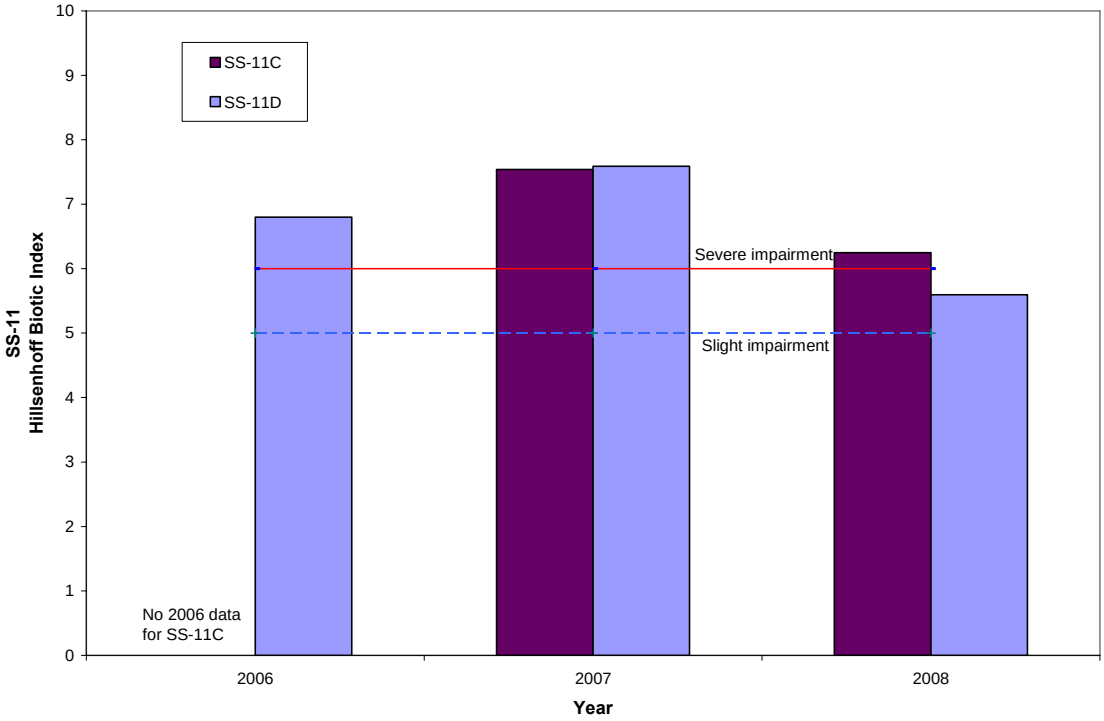


Figure 5-23. ***Hilsenhoff Biotic Index values for SS-11C & SS-11D. Horizontal red line denotes threshold for severe impairment.***

Performance against remedy goals at SS-11C & SS-11D

Aquatic organisms have exhibited a positive response to remediation efforts at both SS-11C and SS-11D (Figure 5-24). Two years following remediation, it appears a diverse assemblage of macroinvertebrates is successfully colonizing the streambed substrate. Both Browns Gulch sites scored seven of the possible 18 points and show a favorable increase toward obtaining the remediation target; however, both sites did not attain the success goal in 2008.

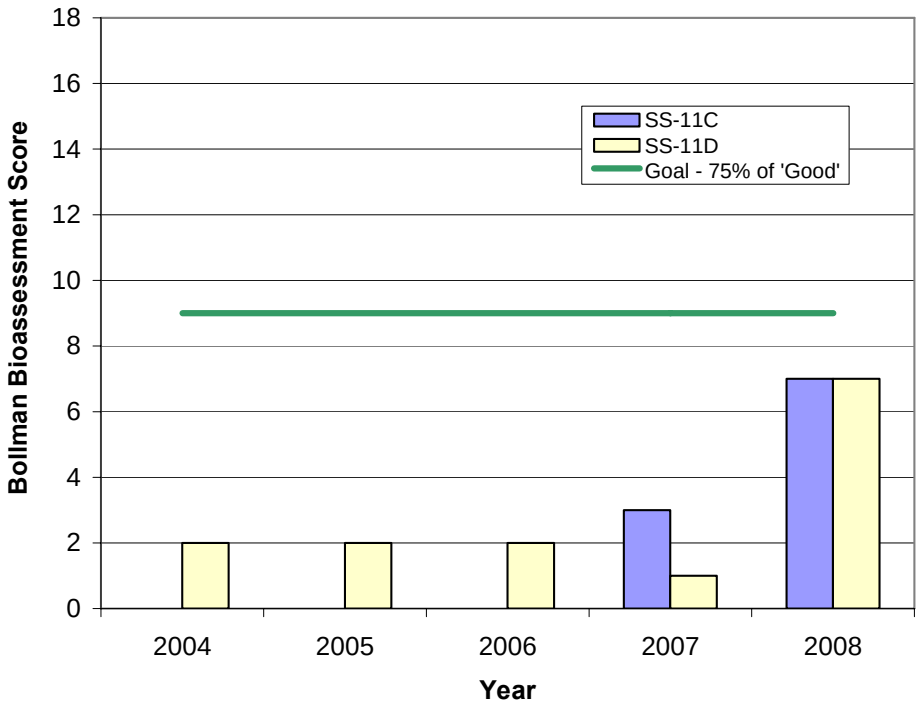


Figure 5-24. ***Bollman bioassessment scores for SS-11C & D as related to remediation goals (2007.)***

German Gulch near mouth (SS-15G); Silver Bow Creek above and below German Gulch (SS-15A & SS-15B)

The valley and stream gradients increase as Silver Bow Creek flows through Durant Canyon, reaching an approximate 1% slope at the mouth of German Gulch approximately 13½ miles downstream from SS-07. Three sampling sites associated with this significant tributary were sampled in 2008. German Gulch contributes runoff from an approximate 51 square mile heavily forested watershed with historic impacts to the channel and adjacent riparian zones from placer mining. Silver Bow Creek is roughly 20-25 feet in width through the SS-15A (upstream) and SS-15B (downstream) sampling stations, with German Gulch approximately 16 feet in width at the mouth. The abundant riparian vegetation (mainly shrubs) at the mouth of German Gulch provides adequate shading of the stream. Riparian vegetation along SS-15A & B offers limited stream cover. Streambed substrate in both channels consists primarily of cobbles and boulders.

The macroinvertebrate population within German Gulch (SS-15G), located outside the SSTOU, exhibited the highest taxa (47) and EPT (16) richness, the lowest dominant taxon percent (12.5), the highest number of sensitive (4) and cold stenotherm (4) taxa, the lowest HBI (4.337), and the highest Bollman (83.3%) and Bukantis (45.8%) bioindex values of any other 2008 sample. Cold stenotherm species are capable of surviving over only a narrow range of cold temperature. No cold stenotherm species were identified in any of the Silver Bow Creek samples.

Stations SS-15A and B displayed similar taxon composition and metric values. *Hydropsyche* was the dominant taxon (50.16%/53.33%) at SS-15A/B, respectively, with *Atherix*, *Tipula*, *Simulin*, and *Orthocladius* common in both samples. The metals index (5.11/5.03), HBI (5.49/5.29), %EPT

(56.51/53.94), %H of T (100/99.4), % filterers (68.57/56.67), % scraper+shredder (3.17/6.36), Bollman (16.7%/11.1%), and Bukantis (12.5%/12.5%) indicate similar macroinvertebrate community assemblage and severe impairment status at both SS-15A & B sites. These two sites held the lowest Bollman and Bukantis bioassessment scores in this study. The HBI and metals index suggest moderate impairment of the benthic community. The German Gulch station rated as excellent for biointegrity with minimal impairment.

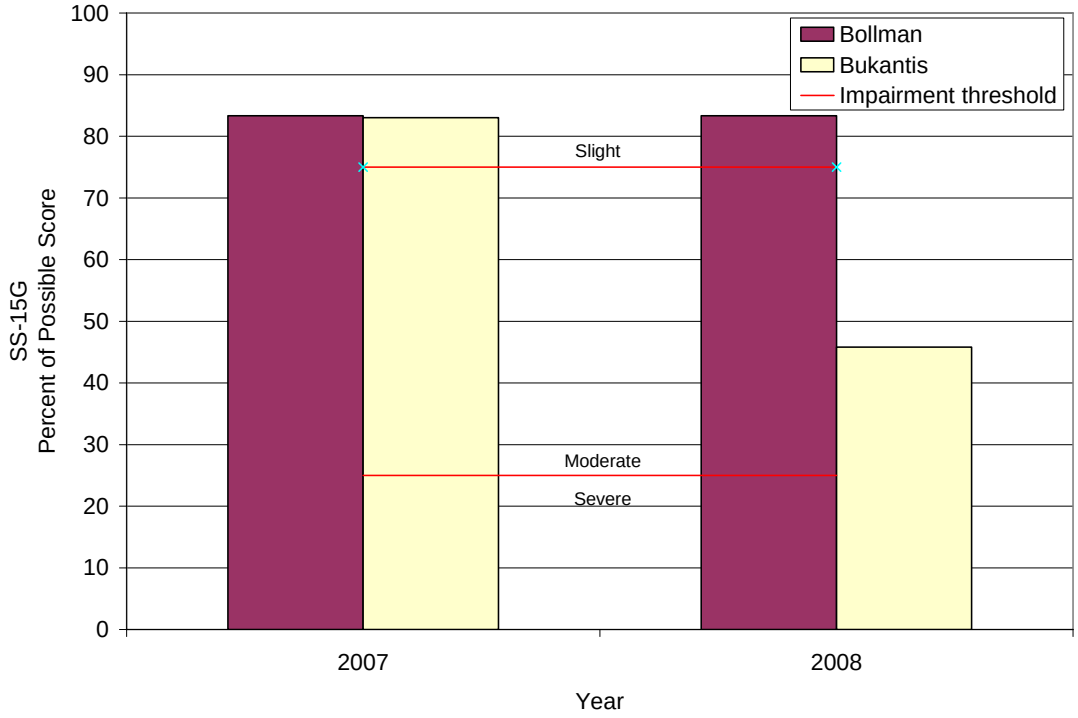


Figure 5-25. ***Bioassessment scores for station SS-15G, located on German Gulch at the confluence with Silver Bow Creek, using Bollman and Bukantis bioassessment metrics. Horizontal lines denote thresholds between severe, moderate and slight impairment.***

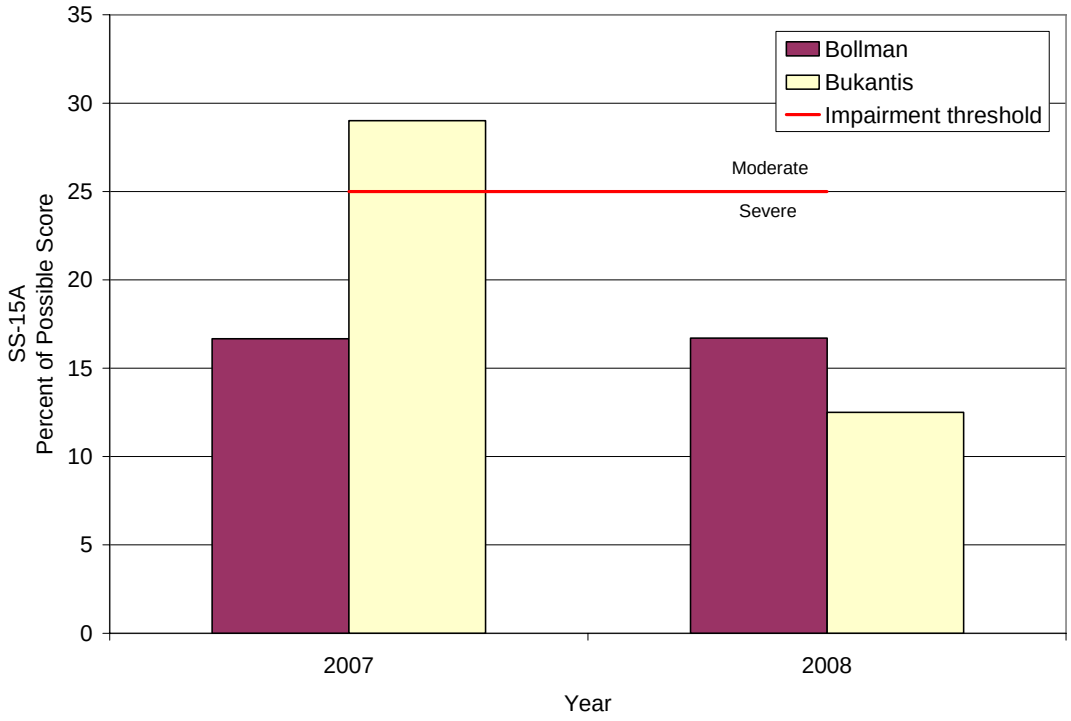


Figure 5-26. ***Bioassessment scores for station SS-15A located above the mouth of German Gulch.***

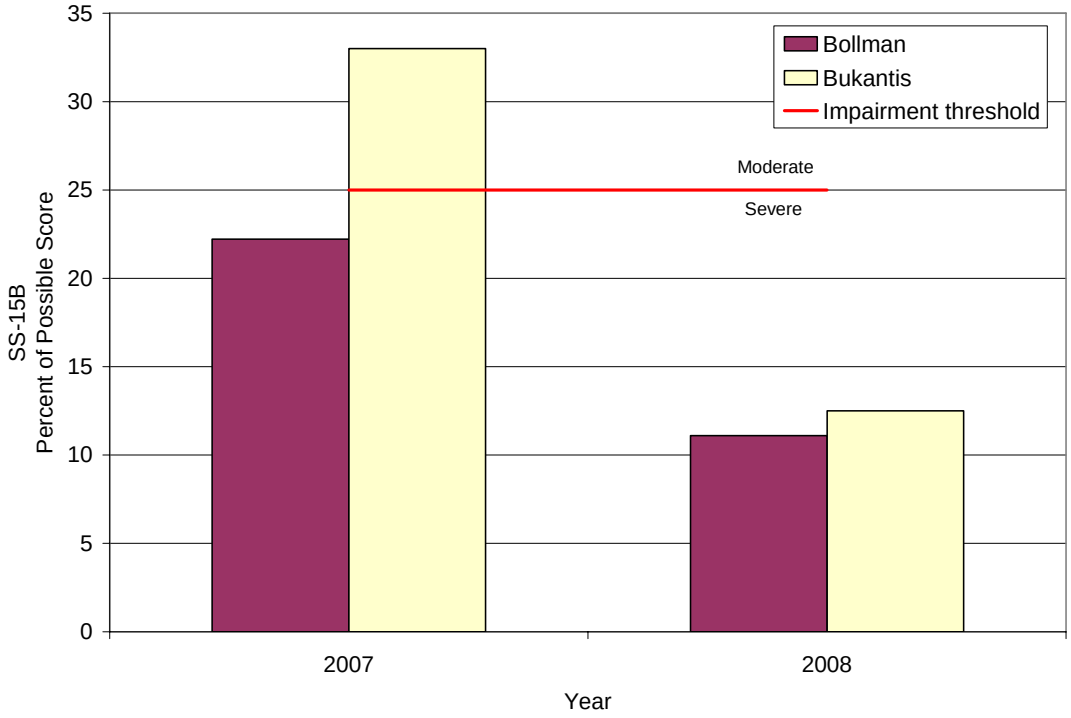


Figure 5-27. ***Bioassessment scores for station SS-15B located below the mouth of German Gulch.***

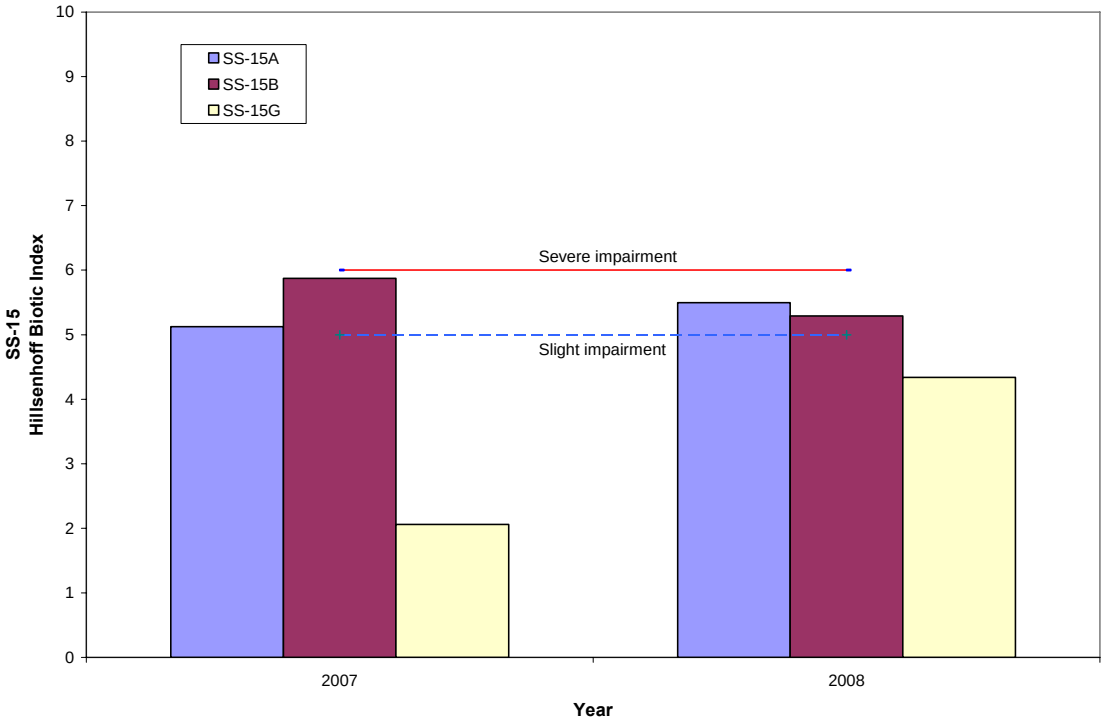


Figure 5-28. ***Hilsenhoff Biotic Index values for SS-15A, SS-15B, & SS-15G. Horizontal red line denotes threshold for severe impairment.***

Performance against remedy goals at SS-15A, SS-15B & SS-15G

The unremediated stations SS-15A and SS-15B on Silver Bow Creek in Durant Canyon fall well below the target goal for the bioassessment metrics (Figure 5-29). Both scored within the lower quartile of all SSTOU sampling stations in 2008. Neither site show a positive trend toward improving metric values. In contrast, station SS-15B displays a decrease in metric values. A substantial improvement in the aquatic environment will be necessary to achieve remediation goals at the Durant Canyon sites.

Station SS-15G is not situated within the SSTOU, and was included in this analysis to provide additional baseline information for water entering Silver Bow Creek through Subarea 3. This station scored the highest of all evaluated sites in both 2007 and 2008 and easily reached the target goal of nine (Figure 5-29).

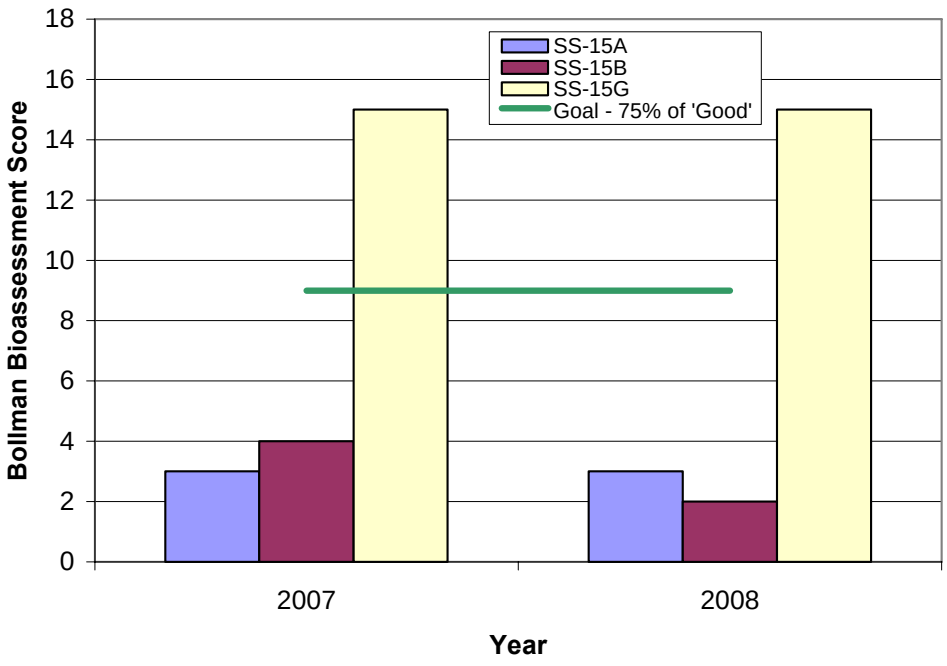


Figure 5-29. Bollman bioassessment scores for SS-15A, B, & G as related to remediation goals (2007).

Silver Bow Creek near Opportunity (SS-17D)

Station SS-17D is the farthest downstream sampling site on Silver Bow Creek, roughly 24 miles downstream of SS-07. The station is situated near Opportunity and the USGS stream gauge. Silver Bow Creek shows a decrease in channel gradient in the downstream direction as the creek flows away from the mouth of Duran Canyon and has a gradient of roughly 0.6% through the SS-17D station. Channel width is approximately 30 feet, with a dominant streambed substrate of fine to coarse gravel covered by an accumulation of fine sediment. Algae were common but did not appear as prolific as at the sampling stations above Durant Canyon. A healthy riparian community was present and included herbaceous hydrophytes and willow shrubs. This reach contained some excellent riffle habitat.

The macroinvertebrate community at site SS-17D near Opportunity contained the highest percentage of EPT (74) and the lowest % *Hydropsyche* of Trichoptera (41.3%) of the 2008 sample sites. The Trichoptera *Helicopsyche borealis* (Speckled Peter) was the dominant taxon at this site and is an important food for trout when present. This site had the highest percentage of pollution tolerant taxa (43.6) although the dominant taxon has a relatively low biotic index. The Hilsenhoff biotic index indicates minimal impairment at SS-17D. The Bollman and Bukantis indices offer conflicting results, suggesting severe and moderate impairment, respectively. Since the 2004 samples, this site has consistently achieved roughly 20% of the possible Bollman metrics score. Consistent with 2007, SS-17 achieved the highest Bukantis bioassessment rating of all sampling stations on Silver Bow Creek. The Bukantis metrics have shown an improvement over the last two years, scoring 66.7% in both 2007 and 2008. The improvement of this rating is the result of an increase in taxa richness (32), percent collectors, and percent shredders and a decrease in dominant taxon percent and %H of T. The functional feeding groups appear to be evenly distributed at this site. SS-17D also exhibited the lowest Hilsenhoff biotic index of all Silver Bow Creek samples. The metals index is near the threshold for slight impairment. These results suggest that although this site shows moderate to severe impairment from nutrient loading, the macroinvertebrate community at this site is viable with proper function.

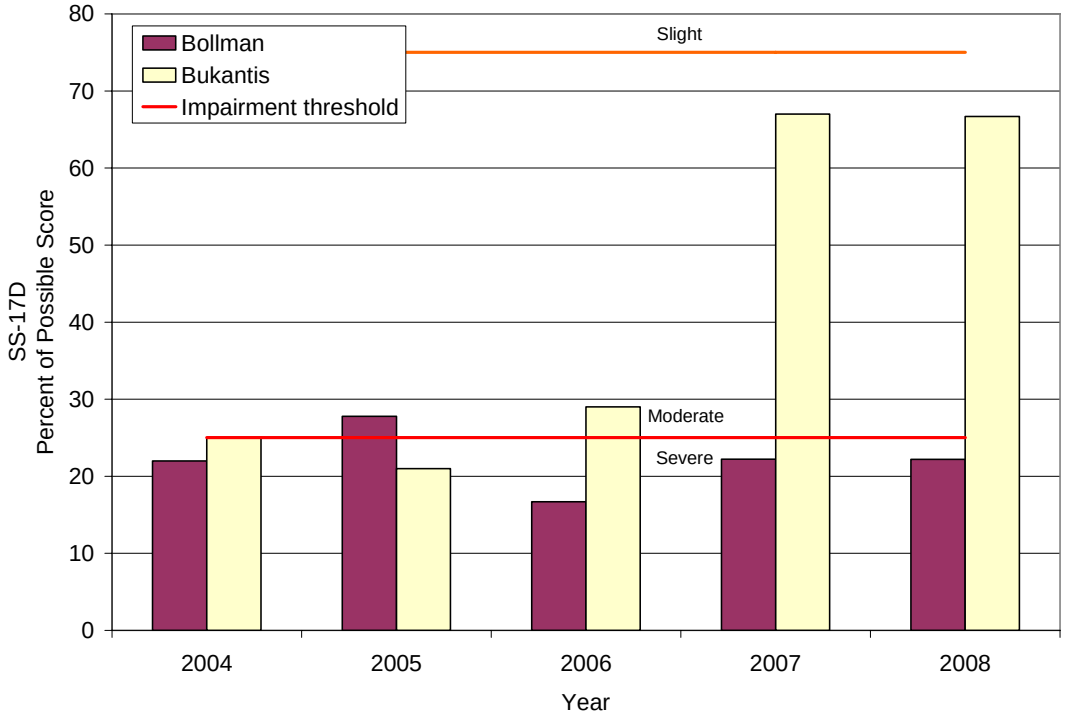


Figure 5-30. ***Bioassessment scores for station SS-17D at Opportunity, using Bollman and Bukantis bioassessment metrics. Horizontal lines denote thresholds between severe, moderate and slight impairment.***

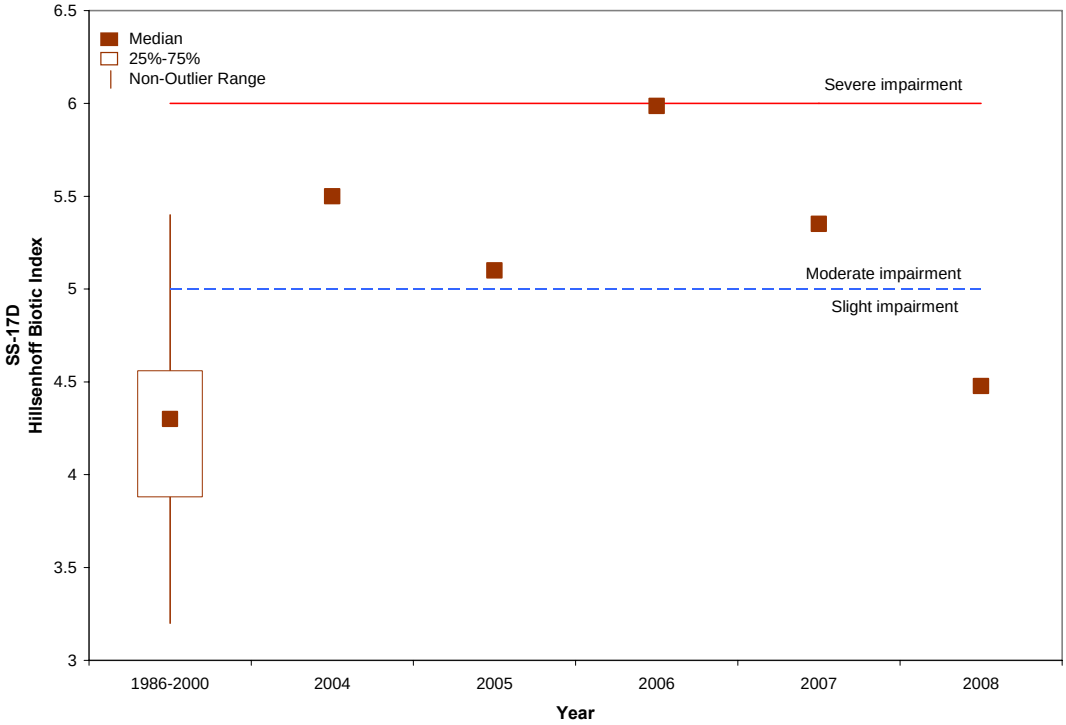


Figure 5-31. ***Hilsenhoff Biotic Index for macroinvertebrate samples collected from station SS-17D.***

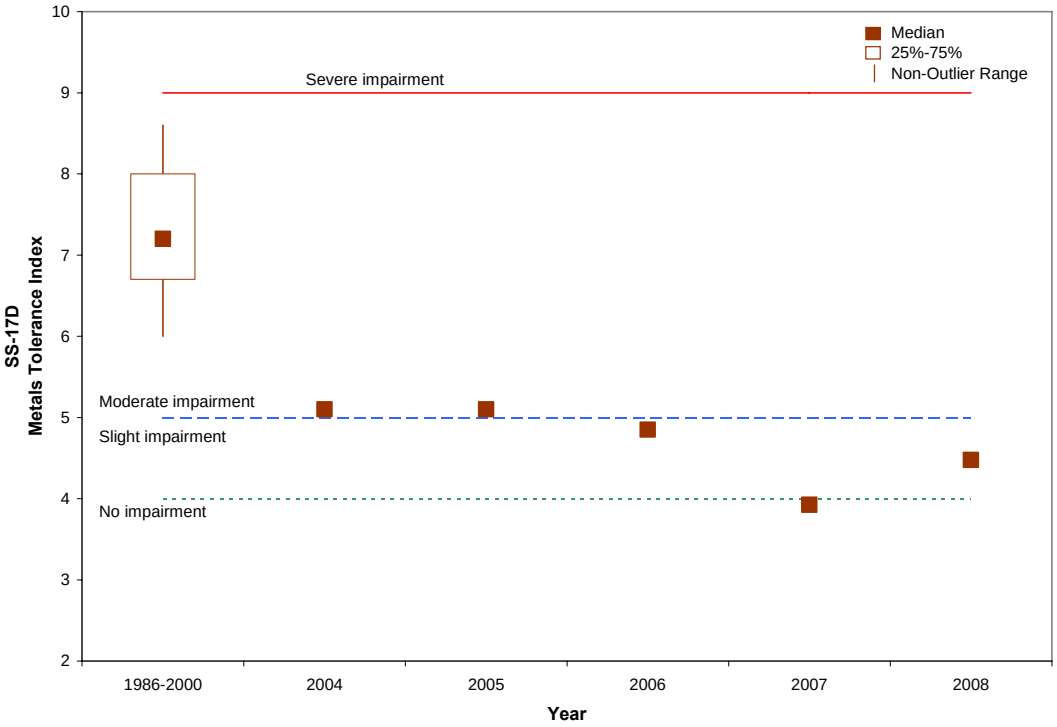


Figure 5-32. ***Metals tolerance index for macroinvertebrate samples collected from 1986 through 2008 for station SS-17D at Opportunity.***

Performance against remedy goals at SS-17D

Station SS-17D is one of the three unremediated SSTOU stations sampled in 2008. The Bollman index indicates a relative steady level of impairment at this site since 2004 (Figure 5-33). There is no discernible trend suggesting that aquatic conditions in this reach will improve to target conditions without remediation efforts.

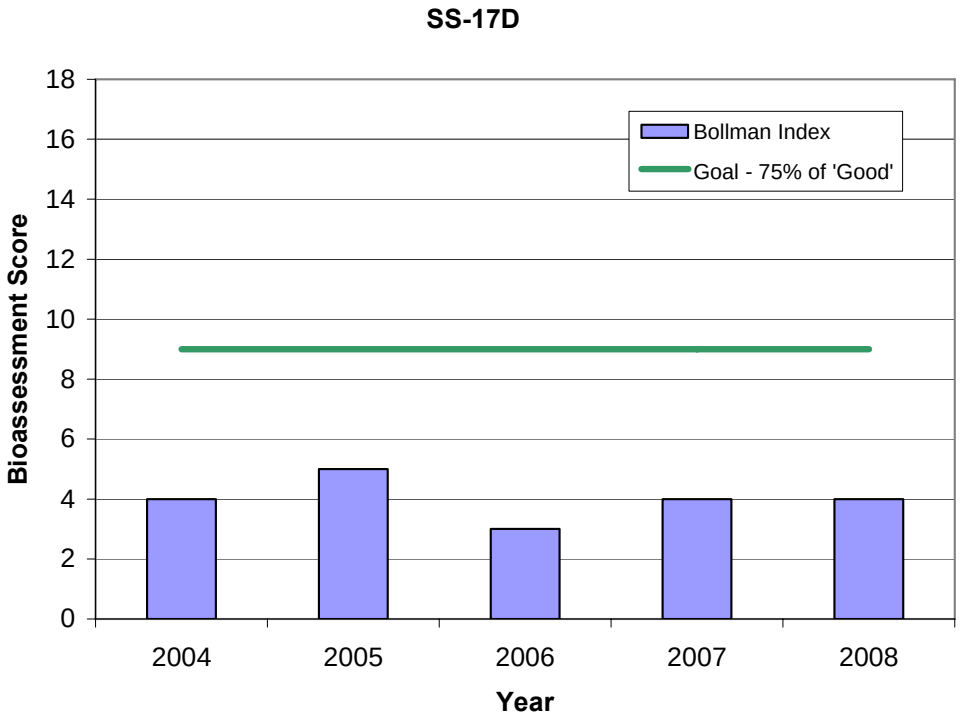


Figure 5-33. ***Bollman bioassessment scores for SS-17 as related to remediation goals (2007)***

5.4.2 Periphyton

Periphyton is composed of algae, cyanobacteria, heterotrophic microbes, and particulate organic material, and is abundant throughout the evaluated SSTOU reaches. Most submerged surfaces of Silver Bow Creek, including the gravel-cobble substrate, underwater logs/branches, and aquatic vegetation, were covered in a green film of filamentous algae. The sensitivity of these organisms to certain pollutants allows measures of the structure of algal associations and inference into the integrity of the stream system. Analysis of the community assemblage of these photosynthesizing microbes suggests ample nutrients are available in the Silver Bow Creek water column and substrate for these primary producers. Diatoms were among the dominant periphytic algae collected from benthic surfaces at each of the Silver Bow Creek and German Gulch sampling reaches. Diatoms ranked highest in biomass at all sites except SS-07, where the filamentous green alga *Cladophora* was the most abundant. The diatom taxa list for 2008 included 91 species (Table 5-12), 10 more than were identified in 2007, and an increase of 45 species over the 2006 samples. All 2008 sampling stations were consistent with the 2007 stations, while the 2007 sampling event included the addition of stations SS-11C and SS-15A, B, & G. Other organisms common within Silver Bow Creek included the blue green alga/cyanobacterium *Oscillatoria* (Cyanophyta) and the filamentous green algae *Cladophora* and *Stigeoclonium* (Chlorophyta). These genera include species that are very tolerant of organic pollution. The filamentous red alga *Audouinella* was present at six of the eleven stations.

Diatom association metrics indicate that metals tolerant microflora comprise a significant percentage of the community assemblage (Figure 5-34). Sites with the highest metals values include SS-08 below the WWTP outfall and the three unremediated stations (SS-15A & B, SS-17D). With the exceptions of SS-06G and SS-15B, the percentage of metals tolerant diatoms decreased in 2008 from 2007. Eutraphentic diatoms were also a significant component of the periphyton samples, suggesting a prevalence of species with a preference for nutrient-enriched, eutrophic waters (Figure 5-35). No diatoms of the family Rhopalodiales (which can ‘fix’ atmospheric nitrogen under low-N conditions) were indentified in any sample taken from the main stem of Silver Bow Creek, indicating that nitrogen is not a limiting nutrient in this system. An extremely small proportion (<0.2%) of diatoms in this family were identified in the German Gulch sample. Nitrogen heterotrophs were common in all samples along Silver Bow Creek, displaying a peak (70%) at station SS-08 and generally decreasing with distance from the WWTP outfall. The presence of these species, whose growth is enhanced by the presence of complex, organic sources of nitrogen, is an expected environmental response to the organic-rich discharge of the WWTP outfall. No abnormal cells were identified in any of the 2008 samples. The addition of lime to reduce metal toxicity at the Butte Lagoon System contributes to the alkaline nature of Silver Bow Creek, which creates a ‘well-buffered’ aquatic environment and retards metals induced abnormalities in diatoms compared to more acidic waters. Diatoms that rely on decaying organic matter (polysaprobous forms) are abundant (>50%) at all stations except SS-15G (10%), and correlated with the observation of an excess of detritus and fine particulate organic matter along the substrate of Silver Bow Creek. The proportion of diatoms tolerant of low dissolved oxygen increased substantially below SS-06G and then decreased with distance from the outfall, reflecting the increased biochemical oxygen demand and hypereutrophic waters as a result of the nutrient input from the WWTP outfall. These values displayed a second peak in Durant Canyon, suggesting additional impairment through the unremediated reaches. Overall, Silver Bow Creek had fair to poor biological integrity at the upstream sites, good biological integrity at the Browns Gulch and German Gulch sites, and fair to poor integrity at the downstream sites.

Table 5-12: ***Diatom taxa present in 2008 Silver Bow Creek periphyton samples.***

Taxon	SS-06G	SS-07	SS-08	SS-10A	SS-10B	SS-11C	SS-11D	SS-15G	SS-15A	SS-15B	SS-17
Achnanthidium minutissimum	9	16	4	2	2			10	23	40	2
Adlafia minuscula				10	2	2	1	1	6	4	3
Amphora pediculus								7			
Amphora veneta	2	1				1			1	1	
Caloneis bacillum	1									2	
Caloneis tenuis										2	
Chamaepinnularia bremensis				2	1						
Cocconeis pediculus								89			
Cocconeis placentula	2	1					4	213	2	3	1
Cyclostephanos invisitatus	1										
Cymbella excisa								1			
Denticula valida							1				
Diatoma mesodon								2			
Diatoma moniliformis							1	8			
Diatoma vulgaris							1				
Encyonema minutum							3				
Encyonema prostratum							2				
Encyonema silesiacum	22	14	33	61	62	110	118	12	273	113	192
Eolimna minima	50	97	251	135	208	87	23	7	95	112	61
Epithemia sorex								1			
Fragilaria bicapitata					4						
Fragilaria capucina									1		
Fragilaria vaucheriae	12	2	13	16	4	6	14	1	6	13	32
Frustulia vulgaris			1								
Geissleria acceptata		3		1				4			
Geissleria decussis	4	6	1			2	1		2		
Gomphoneis minuta								2			
Gomphonema affine	2										

Table 5-12 (continued). ***Diatom taxa present in 2008 Silver Bow Creek periphyton samples.***

Taxon	SS-06G	SS-07	SS-08	SS-10A	SS-10B	SS-11C	SS-11D	SS-15G	SS-15A	SS-15B	SS-17
Gomphonema kobayasii								26			
Gomphonema minusculum								9			
Gomphonema minutum								21			
Gomphonema olivaceum							2	4			
Gomphonema parvulum	16	153	34	17	3	2	4	2	5	2	5
Gomphonema pumilum								10			
Gomphonema rhombicum								7			
Gomphonema subclavatum								8			
Hantzschia amphioxys				2							
Hippodonta capitata							1				
Luticola							1				
Mayamaea atomus	9	13	13		13	10	2		1	42	12
Melosira varians	8	5	10	11	7	11	25				1
Meridion circulare			1	3	1					1	
Navicula capitatoradiata		2					2				
Navicula cryptocephala											4
Navicula cryptotenelloides								2			
Navicula gregaria					2			1			
Navicula lanceolata	1	2					1				
Navicula libonensis				2				1			
Navicula menisculus								2			
Navicula reichardtiana	2							6			
Navicula tripunctata								21			
Navicula trivialis	6	2	4	3				2			
Navicula veneta									2		
Nitzschia amphibia	5	3	5	11	9	7	6				
Nitzschia dissipata	18	1	2	3	2	4	7	4		2	1
Nitzschia dissipata v. media	4										
Nitzschia fonticola	21		2	2	4	5					3
Nitzschia frustulum	23	17	4	2	1	2	2	2			10

Table 5-12 (continued). ***Diatom taxa present in 2008 Silver Bow Creek periphyton samples.***

Taxon	SS-06G	SS-07	SS-08	SS-10A	SS-10B	SS-11C	SS-11D	SS-15G	SS-15A	SS-15B	SS-17
Nitzschia inconspicua	130	62	10	23	27	17	6	4	3		1
Nitzschia linearis	3	4		1	1	5	5	3	8	4	1
Nitzschia palea	108	17	60	23	9	31	33	1	104	141	84
Nitzschia paleacea	2				2	18	2			9	15
Nitzschia perminuta				3	2			2	1		
Pinnularia					2						
Pinnularia borealis								1			
Pinnularia brebissonii			2								
Pinnularia obscura											3
Placoneis exigua					1						
Planothidium frequentissimum	14	7	18	19	8	10	13	3	2		4
Planothidium lanceolatum	11	13	4	2	2			11	1	2	1
Planothidium rostratum	1				2			3			
Pseudostaurosira brevistriata	22	6	28	16	28	30	39	3			32
Pseudostaurosira parasitica	2			2		2					
Reimeria sinuata	8	8	2				1	6			
Rhoicosphenia abbreviata	16	20	2	6	40		2	93			
Sellaphora laevissima			2								
Sellaphora pupula	1	6	2	2		3		2	1		1
Sellaphora seminulum		21	47	22	41	2	8		30	40	19
Stauroneis kriegeri					1						
Staurosira construens	11	18	10	39	18	67	14	1	5		6
Staurosira construens v. binodis		15		1	3						
Staurosira construens v. venter	53	72	29	88	91	95	165		27	13	20
Staurosirella leptostauron	3	4		2	4	4		7			
Staurosirella pinnata	2	2	8	16		8	2	2	1	20	9
Stephanocyclus meneghiniana	12	6	7	54	15	76	93		23	34	33
Surirella angusta							5		10	18	17
Surirella ovalis							1		8	13	53
Synedra rumpens					1	3	3				

Table 5-12 (continued). ***Diatom taxa present in 2008 Silver Bow Creek periphyton samples.***

Taxon	SS-06G	SS-07	SS-08	SS-10A	SS-10B	SS-11C	SS-11D	SS-15G	SS-15A	SS-15B	SS-17
Synedra ulna	1		18	14	3	4	7				1
Synedra ulna v. contracta				1		2	2			3	1
Tabellaria flocculosa				1							
TOTAL	618	619	627	618	626	626	623	628	641	634	628
Metrics											
Abnormal Cells Percent	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Acidophilous Taxa Percent	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Cosmopolitan Taxa Percent	98%	97%	99%	95%	96%	98%	96%	88%	96%	93%	88%
Disturbance Taxa Percent	1%	3%	1%	0%	0%	0%	0%	2%	4%	6%	0%
Dominant Taxon Percent	21%	25%	40%	22%	33%	18%	26%	34%	43%	22%	31%
Eutraphentic Taxa Percent	67%	71%	74%	53%	62%	43%	38%	79%	45%	68%	55%
Low DO Taxa Percent	30%	47%	64%	41%	44%	32%	26%	2%	42%	54%	41%
Metals Tolerant Taxa Percent	37%	53%	75%	49%	56%	44%	36%	6%	83%	79%	71%
Motile Taxa Percent	64%	43%	65%	40%	52%	31%	17%	13%	42%	62%	46%
Mountains Brackish Taxa Percent	54%	83%	86%	82%	91%	77%	77%	80%	78%	69%	69%
Mountains Rare Taxa Percent	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Native Taxa Percent	0%	0%	0%	0%	0%	0%	0%	6%	0%	0%	0%
Nitrogen Autotroph Taxa Percent	40%	36%	29%	49%	46%	57%	66%	83%	58%	39%	61%
Nitrogen Heterotroph Taxa Percent	59%	64%	70%	48%	54%	42%	33%	3%	41%	60%	38%
Plains Brackish Taxa Percent	0%	0%	0%	2%	0%	0%	0%	1%	1%	1%	0%
Plains Rare Taxa Percent	0%	0%	0%	0%	0%	0%	0%	4%	0%	0%	0%
Pollution Index	1.98	1.79	1.50	1.98	1.89	2.13	2.27	2.85	1.71	1.57	1.81
Polysaprobous Taxa Percent	67%	69%	85%	67%	67%	63%	59%	10%	87%	83%	83%
Rhopalodiales Percent	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Shannon H (log2)	4.08	3.81	3.43	3.98	3.53	3.71	3.59	3.65	2.83	3.42	3.56
Siltation Taxa Percent	63%	41%	64%	40%	52%	31%	17%	10%	42%	61%	45%
Species Richness	39	33	31	37	37	30	40	46	26	24	31

Table 5-13: ***Values of selected diatom association metrics for periphyton samples collected at stations on Silver Bow Creek in 2008.***

Metrics	SS-06G	SS-07	SS-08	SS-10A	SS-10B	SS-11C	SS-11D	SS-15G	SS-15A	SS-15B	SS-17
Species Richness	39	33	31	37	37	30	40	46	26	24	31
Shannon H (log2)	4.08	3.81	3.43	3.98	3.53	3.71	3.59	3.65	2.83	3.42	3.56
Pollution Index	**1.98**	**1.79**	**1.50**	**1.98**	**1.89**	2.13	2.27	2.85	**1.71**	**1.57**	**1.81**
Siltation Taxa Percent	**62.62%**	**41.36%**	**64.27%**	39.64%	**51.92%**	31.15%	17.17%	10.35%	**42.28%**	**60.73%**	**45.38%**
Disturbance Taxa Percent	1.46%	2.58%	0.64%	0.32%	0.32%	0.00%	0.00%	1.59%	3.59%	6.31%	0.32%
Dominant Taxon Percent	21.04%	24.72%	40.03%	21.84%	33.23%	17.57%	26.48%	33.92%	42.59%	22.24%	30.57%
Abnormal Cells Percent	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Underlined values indicate minor stress; **bold** values indicate moderate stress; **underlined and bold values** indicate severe stress, all other values indicate no stress and full support of aquatic life uses when compared to biocriteria thresholds, as given in Bahls 2004. Stress may be natural or anthropogenic in origin.

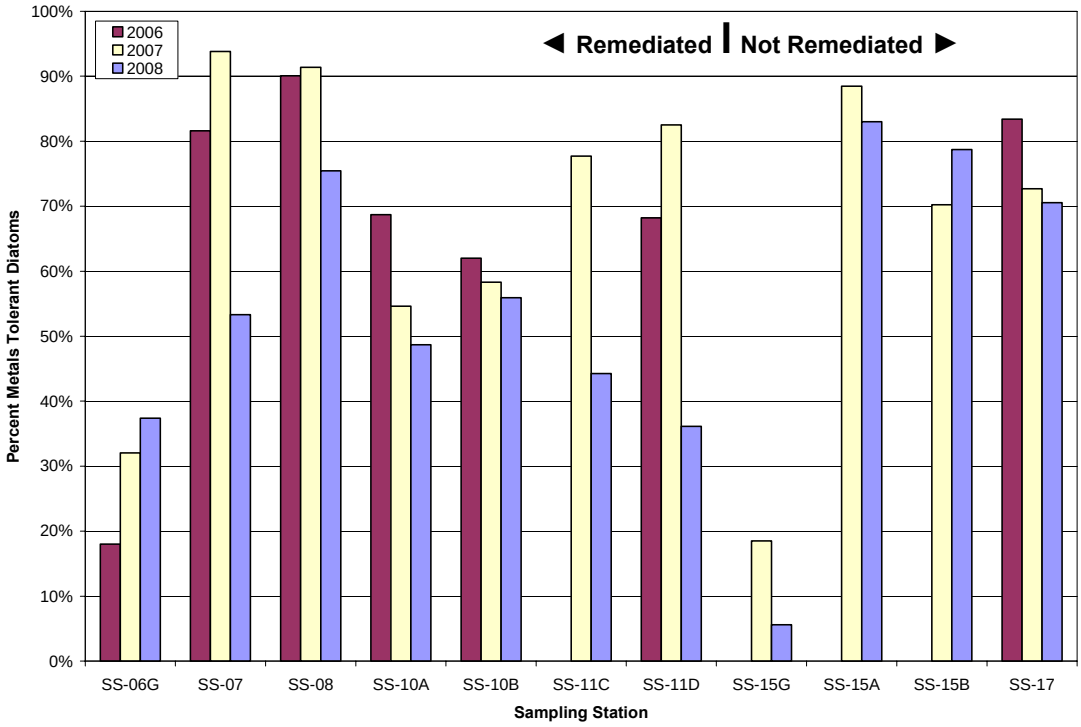


Figure 5-34. ***Percent of metals tolerant diatoms sampled at each station between 2006 and 2008.***

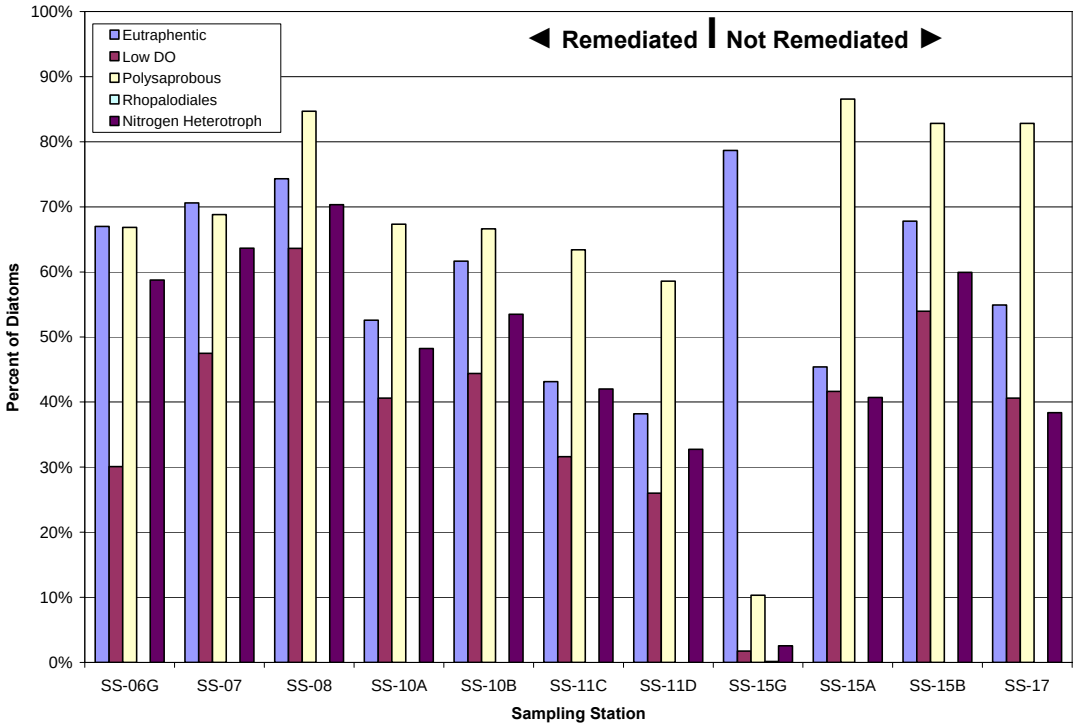


Figure 5-35. ***Percent of diatoms within supplemental categories allowing evaluation of nutrient loading at each station in 2008.***

Silver Bow Creek above the WWTP (SS-06G)

The microflora at station SS-06, located above the SSTOU and Butte WWTP outfall consisted of diatoms, green algae (Chlorophyta), red algae (Rhodophyta), and blue-green algae (Cyanophyta) (Table 5-14). Diatoms dominated in both abundance and biovolume. The chlorophyte *Cladophora* was widespread and ranked 2nd in biovolume, with *Protoderma, Chamaesiphon,* and *Oscillatoria* also common among the collected sample. Overall, the community assemblage includes periphyton algae that are generally tolerant of organic pollution and are common in waters polluted with excessive nutrients.

Table 5-14: ***Relative abundance of cells and ordinal rank by biovolume of diatoms and genera of non-diatom algae in periphyton collected from station SS-06G in 2008.***

Taxon	Division	Relative Abundance*	Biovolume Rank
Diatoms	Bacillariophyta	D	1
Cladophora	Chlorophyta	C	2
Protoderma	Chlorophyta	C	3
Chamaesiphon	Cyanophyta	C	4
Oscillatoria	Cyanophyta	C	5
Stigeoclonium	Chlorophyta	O	6
Audouinella	Rhodophyta	R	7

*D = dominant; A = abundant; F = frequent; C = common; O = occasional; R = rare

The diatom assemblage at this site included 39 taxa, an increase of one from the 2007 sample. This station exhibited an excellent diversity index (Table 5-13), with a continued trend of decreasing dominant taxon percent. The disturbance taxa percent (21%) also displayed a decrease from 2007 (27%). The pollution index declined in 2008, breaching the threshold from minor to moderate impairment. An abundance of the genus *Nitzschia*, which includes several species tolerant of extreme environments, supports the decline of the pollution index. A significant increase in siltation taxa percent from 2007 (43%) to 2008 (62%) also contributes to the decreased pollution index value. Eutraphentic diatoms indicate elevated concentrations of macronutrients that are important for diatom growth, including nitrogen, phosphorus, inorganic carbon, and silica. The percentage of eutraphentic diatoms increases as concentrations of these nutrients increase, commonly due to human disturbance. As this site provides a baseline of conditions from the headwaters of Silver Bow Creek prior to entering the SSTOU, indications of impairment may be the result of contaminated runoff and pollution contribution from the urban and mining-impacted Butte watershed. An abundance of polysaprobous diatoms at Station SS-06G suggest waters with heavy loads of organic matter. Even though the diatom community suggests impairment from siltation and excessive nutrients, this site rates as one of the “best” sites assessed on Silver Bow Creek according to species richness, Shannon diversity index, and dominant taxon metrics.

Long-term monitoring of diatom associations allows evaluation of the influence of metals and nutrients on the biological integrity at this station. Proportions of metals tolerant diatoms were relatively consistent from the 1980s and 1990s through 2004; however, these values dropped dramatically in 2005 and 2006 (Figure 5-36). The improvements in diatom association metrics in 2005 and 2006 coincided with clean up of the Metro Storm Drain and routing of all storm water to the treatment plant, with an apparent positive effect on diatom associations with reductions in metals and nutrients. A slight increase in the percentage of metals tolerant diatoms in 2007 and 2008 suggest continued contribution of metals and pollutants from the Butte watershed, yet do not indicate impairment of the aquatic environment.

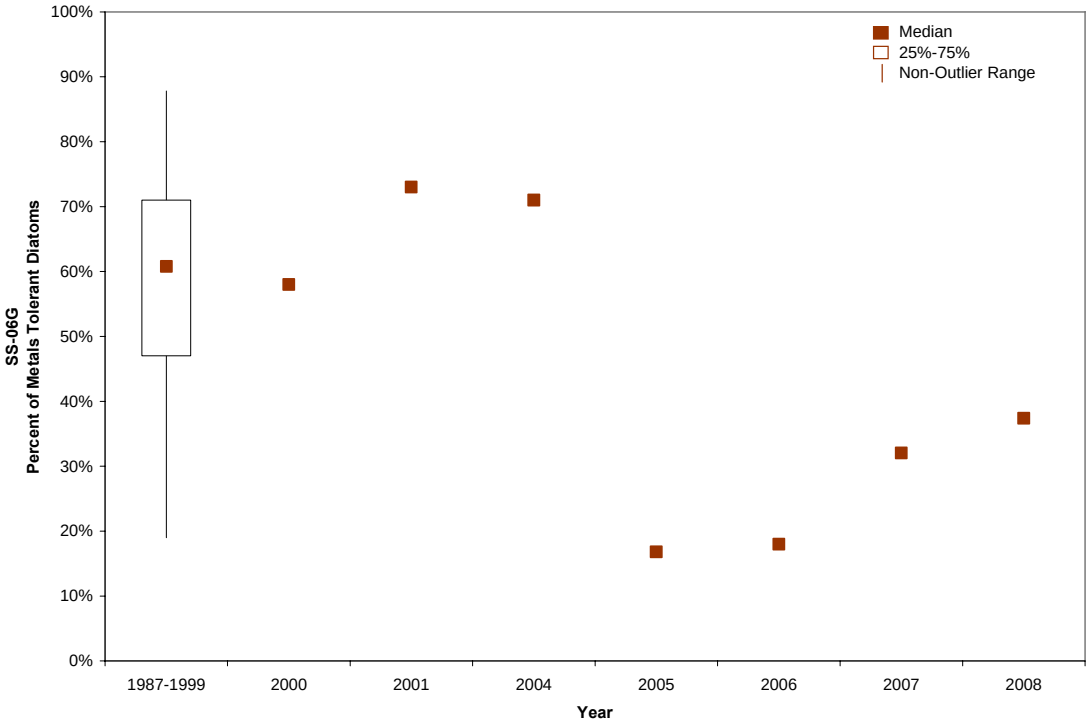


Figure 5-36. ***Comparison of the historic proportion metals tolerant diatoms for station SS-06G***

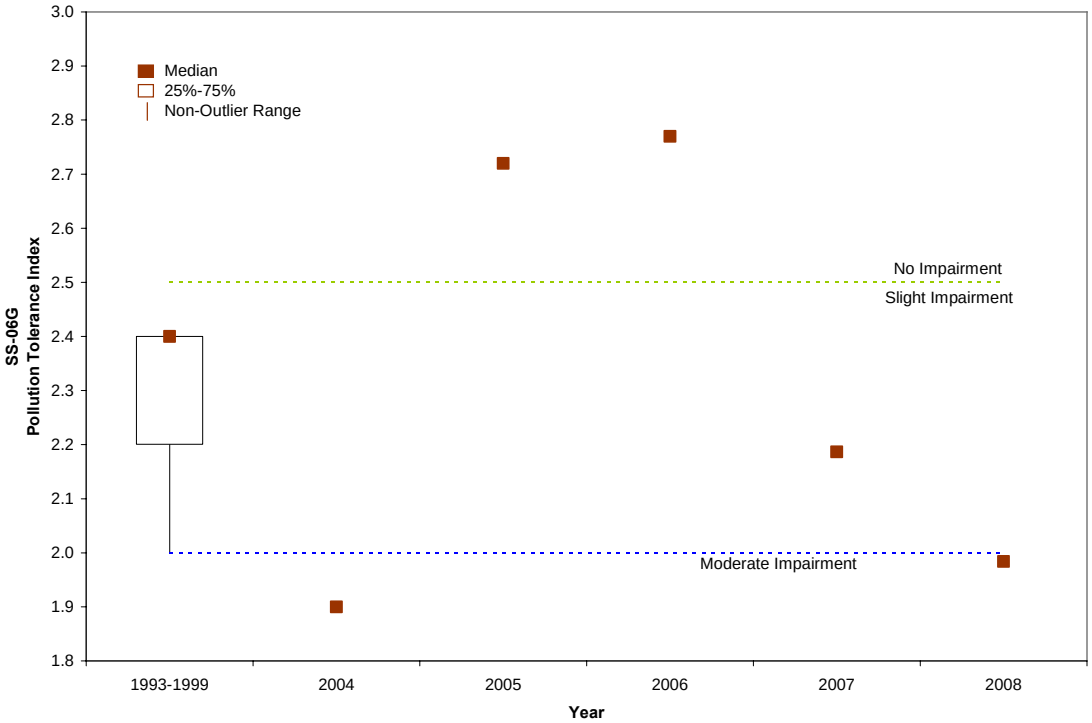


Figure 5-37. ***Comparison of the pollution tolerance index from 1993 through 2008 for station SS-06G***

Performance against remedy goals at SS-06G

Although this site ranks 'excellent' in four of the seven metrics used in defining the periphyton goal, one 'poor' rating from a high number of siltation taxa present dictates the 'poor' rating applied to this site in 2008 (Table 5-15). Since SS-06G is just above the SSTOU, remediation goals do not apply to this station.

Table 5-15: ***Summary of metric ratings for SS-06G in 2008.***

Metric	Value	Biointegrity Rating
Species Richness	39	excellent
Shannon Diversity Index	4.08	excellent
Pollution Index	1.98	good
Siltation Taxa Percent	62.62%	poor
Disturbance Taxa Percent	1.46%	excellent
Dominant Taxon Percent	21.04%	good
Abnormal Cells Percent	0.00%	excellent
Lowest integrity rating		**poor**

Silver Bow Creek below the WWTP (SS-07)

This station supported 33 taxa of green algae and diatoms (Table 5-13), and exhibited a considerable increase of taxa from the 2007 samples. This increase in species richness contributed to the improvement of the Shannon diversity metric from fair, with moderate stress levels indicated in 2007, to excellent biological integrity in 2008. However, high percentages of eutraphentic and polysaprobous diatoms indicate high levels of nutrients and organic material. The dominance of *Cladophora* in periphyton biovolume from Station SS-07 further suggests an excess of nutrients, such as nitrogen and phosphorus from sewage. Diatoms were a dominant component of the periphyton community and ranked 2nd in biovolume at this site. *Nitzschia* was a prominent diatom collected at this site and are generally tolerant to heavy metals, excessive nutrients, and low levels of dissolved oxygen. *Stigeoclonium*, a green alga typical of a nutrient enriched environment, was common in both the 2007 and 2008 samples. The non-diatom genera *Protoderma*, *Oscillatoria*, and *Scenedesmus*, each containing pollution-tolerant species, also were present at this station in 2008.

Diatom association metrics at Station SS-007 show an increased level of impairment from the upstream station SS-06G. At the same level, these metrics show temporal improvement over the 2007 sampling event with increased species richness and Shannon diversity index, decreased dominant taxon percentage and percent abnormal cells, and an improvement in the pollution index. Moderate stress on the aquatic environment was indicated by the pollution index and percent siltation taxa. Observation of this site did not reveal an excess of silt along the stream substrate, which was dominated by coarse gravel. High percentages of eutraphentic, polysaprobous, and metals tolerant diatoms at this station suggest impairment by excessive nutrients or metals. Further evidence of nutrient enrichment is reflected in the high number of nitrogen heterotrophs and is an expected response of the aquatic community to nutrient loading below the WWTP outfall.

Table 5-16: ***Relative abundance of cells and ordinal rank by biovolume of diatoms and genera of non-diatom algae in periphyton collected from station SS-07 in 2008.***

Taxon	Division	Relative Abundance*	Biovolume Rank
Cladophora	Chlorophyta	D	1
Diatoms	Bacillariophyta	D	2
Stigeoclonium	Chlorophyta	C	3
Protoderma	Chlorophyta	C	4
Oscillatoria	Cyanophyta	O	5
Scenedesmus	Chlorophyta	O	6

*D = dominant; A = abundant; F = frequent; C = common; O = occasional; R = rare

Performance against remedy goals at SS-07

The lowest integrity rating obtained at SS-07 was 'poor' and is the result of a high percentage of the dominant taxon (Table 5-17). This station does not meet the goal of excellent to good integrity of the periphyton community.

Table 5-17: ***Summary of metric ratings for SS-07 in 2008.***

Metric	Value	Biointegrity Rating
Species Richness	33	excellent
Shannon Diversity Index	3.81	excellent
Pollution Index	1.79	fair
Siltation Taxa Percent	41.36%	fair
Disturbance Taxa Percent	2.58%	excellent
Dominant Taxon Percent	24.72%	excellent
Abnormal Cells Percent	0.00%	excellent
Lowest integrity rating		**fair**

Silver Bow Creek at Rocker (SS-08A)

The microflora at station SS-08 included a mix of golden-algae (diatoms), red algae, blue-green algae, and yellow-green algae (Xanthophyta). Diatoms dominated the periphyton sample collected at this site in both abundance and biovolume. *Eolimna minima* dominated the diatom taxa present at this site for the third consecutive sampling event, comprising 40% of the identified sample. The abundance of this motile diatom aided in the high percentage of siltation taxa (64%). This diatom can maintain its position in depositional environments and is exceptionally tolerant of both nutrients and metals. The genus *Nitzschia* was the next most prevalent diatom (13%) identified at this site. This genus is comprised largely of highly motile, biraphidean diatoms adapted to existence on unstable substrate and further contribute to the high siltation taxa percent at this site. The filamentous red alga *Audouinella* was a frequent phylum at this site. Although frequent in western Montana in relatively pristine waters, recent studies have shown this taxon to be tolerant of high levels of pollution, thriving on dissolved phosphate and nitrates. Non-diatom taxa richness in station SS-08 was eight, above average for mountain streams in Montana. The abundance of

Chlorophyta suggests ample concentrations of algal nutrients are available. The non diatom genus *Oscillatoria,* a member of the blue-green algae (phylum Cyanophyta), is a typical co-dominant in streams of Montana Valley and Foothills with a relatively broad water quality tolerance. It was occasionally present and ranked eighth in biovolume at this station.

Biointegrity of Silver Bow Creek at station SS-08 in September of 2008 was rated as poor, with severe impairment of aquatic life indicated by diatom metrics. The diatom assemblage at station SS-08 included 31 taxa, a substantial increase from 16 observed in 2007. This relatively high number of taxa is near the mean value of 33 diatom species counted in reference streams in mountain and foothills ecoregions of Montana (Bahls et al. 1992) and provides a positive indication of improving conditions within Silver Bow Creek. A subsequent increase in the Shannon diversity index also was observed, from 2.52 in 2007 (indicating minor stress), to 3.43 with little stress indicated in 2008. Although the percent composition of the siltation taxa decreased from 85% in 2007 to 64% in 2008, this high percentage was responsible for the severe impairment rating. Additional impairment (minor) of the aquatic environment was indicated by the pollution index. This station exhibited a high percentage of polysaprobous diatoms (85%) and eutraphentic diatoms (74%). This reflects the observed conditions of algal bloom and excessive accumulation of biomass along the streambed substrate and water column, the result of excess nutrients. This site had the highest number of diatoms adapted to low dissolved oxygen (64%) and nitrogen heterotrophs (70%), further substantiating that excess nutrients are the primary cause of impairment of Silver Bow Creek at this site. A high percentage of metals tolerant diatoms (75%) also suggest impairment of the aquatic environment from metals, although many diatoms exhibit multiple tolerances to both excess nutrients and metals within impaired habitats. Long-term monitoring of diatom associations at this site indicate a decrease in metals tolerant diatoms in 2008 (figure 5-38). This value has displayed a fluctuating trend temporally, possibly due to irregular pollutant loading from the watershed.

Table 5-18: ***Relative abundance of cells and ordinal rank by biovolume of diatoms and genera of non-diatom algae in periphyton collected from station SS-08 in 2008.***

Taxon	Division	Relative Abundance*	Biovolume Rank
Diatoms	Bacillariophyta	D	1
Audouinella	Rhodophyta	F	2
Stigeoclonium	Chlorophyta	C	3
Ulothrix	Chlorophyta	O	4
Cladophora	Chlorophyta	C	5
Zygnema	Chlorophyta	O	6
Tribonema	Xanthophyta	C	7
Oscillatoria	Cyanophyta	O	8
Cosmarium	Chlorophyta	O	9

*D = dominant; A = abundant; F = frequent; C = common; O = occasional; R = rare

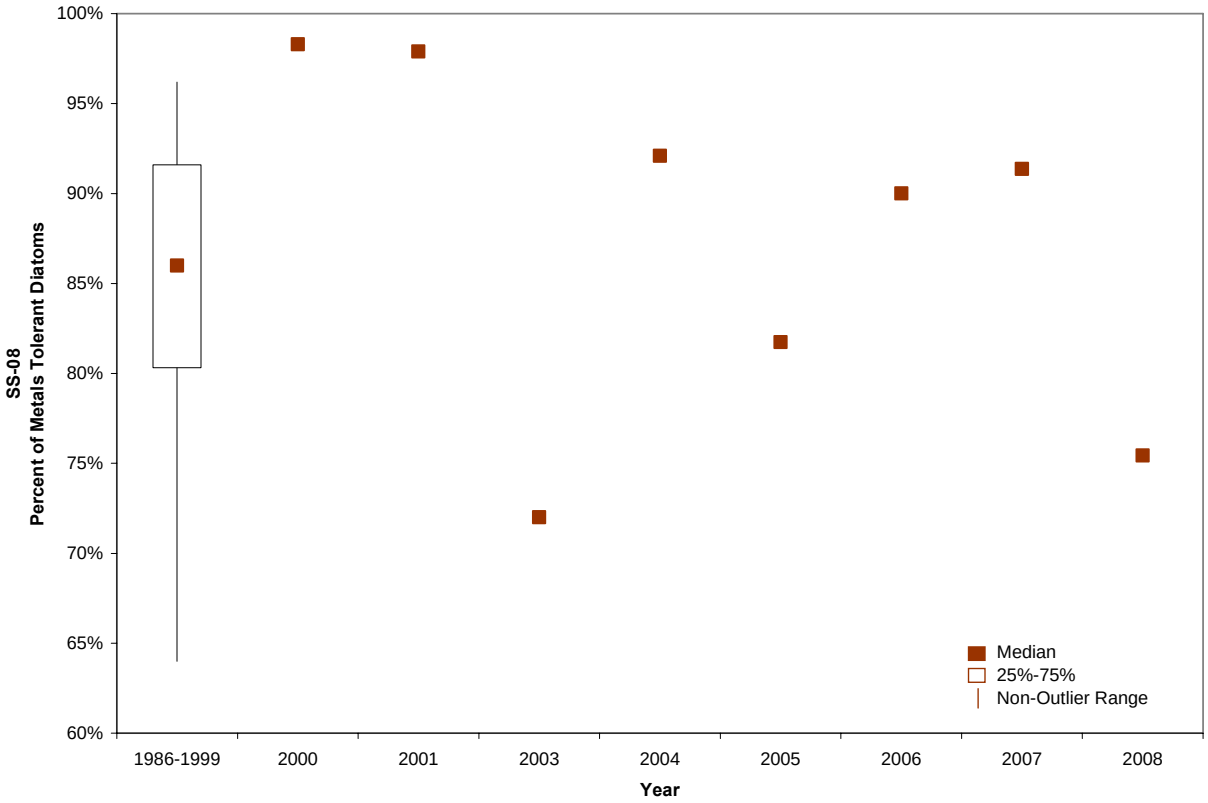


Figure 5-38. ***Comparison of the proportion metals tolerant diatoms from 1986 through 2008 for station SS-08 at Rocker***

Performance against remedy goals at SS-08

According to remediation goals (2007), a high percentage of siltation taxa (85%) classify the biological integrity at site SS-08 as poor and is the overall rating assigned for assessing the attainment of diatom remediation goals.

Table 5-19: ***Summary of metric ratings for SS-08 in 2008.***

Metric	Value	Biointegrity Rating
Species Richness	31	excellent
Shannon Diversity Index	3.43	excellent
Pollution Index	1.50	fair
Siltation Taxa Percent	64.27%	poor
Disturbance Taxa Percent	0.64%	excellent
Dominant Taxon Percent	40.03%	good
Abnormal Cells Percent	0.00%	excellent
Lowest integrity rating		**fair**

Silver Bow Creek above and below Sand Creek (SS-10A & SS-10B)

Diatoms dominated the samples collected at both station SS-10A and SS-10B in 2008 (Table 5-20 and Table 5-21). Station SS-10A had eight non-diatom taxa present, a relatively high number for Silver Bow Creek, while station SS-10B had a non-diatom taxa richness of 2, the lowest of all SSTOU sampling sites. The rhodophyte *Audouinella* was present in the periphyton samples from both stations, ranking second in biovolume at SS-10A and third at SS-10B. The cyanophyte *Oscillatoria* was occasionally seen at both stations, and ranked second in biovolume at SS-10B. Three common genera of filamentous green algae, *Cladophora*, *Ulothrix*, and *Stigeoclonium*, were occasionally observed at Station SS-10A. *Cladophora* is commonly associated with elevated nutrients. The filamentous alga *Ulothrix,* not identified in any 2007 SSTOU samples, also prefers moderately rich waters. Likewise, *Stigeoclonium* is typically found in waters receiving wastewater inputs and nutrient loading at the levels occurring in Silver Bow Creek.

Diatom algae were important constituents at both SS-10 stations, ranking first in biovolume at each site. Thirty-seven taxa were recorded in both samples, and each exhibited excellent biological integrity based on the Shannon diversity index. However, both sites had an overall impairment rating of moderate, driven by the pollution index values. Siltation taxa percent was slightly lower at the upstream site (SS-10A) indicating minor impairment, while the 52% siltation taxa at the lower site indicated moderate impairment. The dominant diatom taxon comprised only 22% at SS-10A above Sand Creek and 33% at SS-10B, below Sand Creek. At both sites, the metals tolerant species *Eolimna minima* was the dominant diatom. *Staurosira construens* v.*venter* was the second most prevalent diatom at SS-10A and SS-10B, suggesting hypereutrophic conditions present at both sites. A decrease in the percentage of eutraphentic and nitrogen heterotrophic diatoms from the upstream sites was observed, and could be an indication of decreasing effects of nutrient loading from the WWTP outfall as nitrogen and phosphorus is assimilated into the environment; however, these values continue to indicate impacts from elevated nutrient concentrations. Metals tolerant diatoms accounted for 49% and 56% at SS-10A & B, respectively. These values suggest a decrease in metals impairment from the upstream SSTOU sites, and likely indicate an improvement in the benthic environment through the remediated reach.

Table 5-20: ***Relative abundance of cells and ordinal rank by biovolume of diatoms and genera of non-diatom algae in periphyton collected from station SS-10A in 2008.***

Taxon	Division	Relative Abundance*	Biovolume Rank
Diatoms	Bacillariophyta	D	1
Audouinella	Rhodophyta	C	2
Cladophora	Chlorophyta	O	3
Ulothrix	Chlorophyta	O	4
Stigeoclonium	Chlorophyta	O	5
Tribonema	Xanthophyta	O	6
Oscillatoria	Cyanophyta	O	7
Scenedesmus	Chlorophyta	C	8
Cosmarium	Chlorophyta	O	9

*D = dominant; A = abundant; F = frequent; C = common; O = occasional; R = rare

Table 5-21: ***Relative abundance of cells and ordinal rank by biovolume of diatoms and genera of non-diatom algae in periphyton collected from station SS-10B in 2008.***

Taxon	Division	Relative Abundance*	Biovolume Rank
Diatoms	Bacillariophyta	A	1
Oscillatoria	Cyanophyta	O	2
Audouinella	Rhodophyta	O	3
Unknown Bluegreen Filament	Cyanophyta	O	4

*D = dominant; A = abundant; F = frequent; C = common; O = occasional; R = rare

Performance against remedy goals at SS-10A & B

Biological integrity at Silver Bow Creek sites above and below Sand Creek was rated as 'fair' as a result of the moderately low pollution index and a high percentage of siltation taxa. Theses stations did rate excellent in four categories, including a high species richness, high Shannon diversity index, low dominant taxon percent, and low percentage of abnormal cells.

Table 5-22: ***Summary of metric ratings for SS-10A & B in 2008.***

Metric	SS-10A		SS-10B	
	Value	Biointegrity Rating	Value	Biointegrity Rating
Species Richness	37	excellent	37	excellent
Shannon Diversity Index	3.98	excellent	3.53	excellent
Pollution Index	1.98	fair	1.89	fair
Siltation Taxa Percent	39.64%	good	51.92%	fair
Disturbance Taxa Percent	0.32%	excellent	0.32%	excellent
Dominant Taxon Percent	21.84%	excellent	33.23%	good
Abnormal Cells Percent	0.00%	excellent	0.00%	excellent
Lowest integrity rating		**fair**		**fair**

Silver Bow Creek above and below Browns Gulch (SS-11C & SS-11D)

Both SS-11C & SS-11D supported the greatest diversity of non-diatom taxon (11) of all Silver Bow Creek stations sampled in 2008, an interesting distinction as both stations are within the most recently remediated reach of the SSTOU, and typically a period of time is required for algal re-colonization. The improvement of non-diatom taxa richness over the 2007 sampling event suggests favorable conditions existed for the establishment of the algal community. Diatoms were the dominant component of the periphyton community at both stations SS-11C & D, ranking first in biovolume rank and relative abundance (Table 5-23 & Table 5-24). The filamentous green alga *Ulothrix* ranked second at both SS-11 sites. Six green algae (Chlorophyta) and one blue-green alga (Cyanophyta) were common to both sites.

Table 5-23: ***Relative abundance of cells and ordinal rank by biovolume of diatoms and genera of non-diatom algae in periphyton collected from station SS-11C in 2008.***

Taxon	Division	Relative Abundance*	Biovolume Rank
Diatoms	Bacillariophyta	D	1
Ulothrix	Chlorophyta	C	2
Cladophora	Chlorophyta	C	3
Oscillatoria	Cyanophyta	C	4
Phormidium	Cyanophyta	O	5
Stigeoclonium	Chlorophyta	O	6
Cosmarium	Chlorophyta	C	7
Closterium	Chlorophyta	O	8
Scenedesmus	Chlorophyta	C	9
Unknown Bluegreen Filament	Cyanophyta	O	10
Anabaena	Cyanophyta	O	11
Ankistrodesmus	Chlorophyta	O	12
Pediastrum	Chlorophyta	R	13

*D = dominant; A = abundant; F = frequent; C = common; O = occasional; R = rare

Table 5-24: ***Relative abundance of cells and ordinal rank by biovolume of diatoms and genera of non-diatom algae in periphyton collected from station SS-11D in 2008.***

Taxon	Division	Relative Abundance*	Biovolume Rank
Diatoms	Bacillariophyta	D	1
Ulothrix	Chlorophyta	F	2
Enteromorpha	Chlorophyta	F	3
Cosmarium	Chlorophyta	O	4
Oscillatoria	Cyanophyta	O	5
Cladophora	Chlorophyta	O	6
Stigeoclonium	Chlorophyta	O	7
Protoderma	Chlorophyta	O	8
Tribonema	Xanthophyta	O	9
Audouinella	Rhodophyta	R	10
Closterium	Chlorophyta	R	11
Scenedesmus	Chlorophyta	R	12

*D = dominant; A = abundant; F = frequent; C = common; O = occasional; R = rare

Diatom association metrics calculated for this station from samples collected in September 2008 suggest good biological integrity with minor impairment from pollution, including silt. Observations at these sites near the mouth of Browns Gulch show an excess of fine particulate organic material covering the substrate and the abundant aquatic vegetation present through this reach of Silver Bow Creek. The profuse growth of aquatic vegetation and periphyton at the stations above and below Browns Gulch is the result of adequate nutrients and possibly warmer water during the growing season. Continued discharge

of nutrient-rich waters, runoff from the freshly excavated and fertilized floodplain, and lack of an established canopy may be the cause of this algal bloom. As the riparian community matures and nutrient uptake and shading along Silver Bow Creek increases, the impact on the aquatic community from the overload of fine particulate organic material may diminish and result in a lower percentage of siltation taxa. Both sites exhibited excellent Shannon diversity index values, with 30 and 40 taxa present at Stations SS-11C & D, respectively. The percent dominant taxon at SS-11D (26%) was responsible for a slightly lower diversity index value (3.59) than was observed at the upstream station (3.71), although ten additional taxa were observed below the confluence of Browns Gulch. *Staurosira construens* v.*venter* and *Encyonema silesiacum* were the dominant diatoms at both SS-11A & D. The percentage of metals tolerant diatoms along the Browns Gulch reach of Silver Bow Creek continued to decrease with increased distance from SS-08, and also decreased significantly from the 2007 sampling event (Figure 5-34). The measured levels of metals within sediment samples from Silver Bow Creek sites (Section 4) displayed a substantial decrease through the remediated Browns Gulch reach, indicating an increased capacity for the clean floodplain and channel substrate to attenuate metals contributed from the water column. This has resulted in a marked improvement of the benthic community, reflecting positive change in both the periphyton and macroinvertebrate composition at these stations. An overall decreasing trend in the percentage of eutraphentic, polysaprobous, and nitrogen heterotroph diatoms with increased distance from the Butte urban watershed and the municipal WWTP outfall suggests abatement of excessive nutrients. However, water quality data from September 2008 show a surplus of available nitrogen and phosphorus in the water column (see Section 1).

Performance against remedy goals at SS-11C & D

Diatom metrics at Silver Bow Creek sites above and below the mouth of Browns Gulch indicated good biological integrity, with only minor stress on the biota indicated at both sites in 2008. Slightly depressed pollution index values at both sites, and slightly elevated percentages of silt-tolerant diatom taxa above, and the dominant diatom taxon below Browns Gulch, respectively, were the only indications of minor impairment. The remedy goal for the periphyton community is for a biointegrity rating of good or excellent for all metrics for two consecutive years. This has yet to be achieved, as both sites had severe impairment indicated due to sediment during the previous year (2007 Monitoring Report).

Table 5-25: ***Summary of metric ratings for SS-11C & D in 2008.***

Metric	SS-11C		SS-11D	
	Value	Biointegrity Rating	Value	Biointegrity Rating
Species Richness	30	excellent	40	excellent
Shannon Diversity Index	3.71	excellent	3.59	excellent
Pollution Index	2.13	good	2.27	good
Siltation Taxa Percent	31.15%	good	17.17%	excellent
Disturbance Taxa Percent	0.00%	excellent	0.00%	excellent
Dominant Taxon Percent	17.57%	excellent	26.48%	good
Abnormal Cells Percent	0.00%	excellent	0.00%	excellent
Lowest integrity rating		**good**		**good**

German Gulch (SS-15G); Silver Bow Creek above and below German Gulch (SS-15A & SS-15B)

Two sampling sites on Silver Bow Creek within Durant Canyon, above and below the mouth of German Gulch, and a site on German Gulch above the mouth, were included in the 2008 sampling event. German Gulch is a significant watershed draining into Silver Bow Creek approximately 13½ miles below

the head of the SSTOU. A large portion of this primarily forested drainage lies within the Deerlodge National Forest. Historic placer mining near the headwaters of German Gulch impacted a significant length of the upper drainage. Even with this historic impact, the German Gulch station SS-15G was rated as the healthiest stream of those sampled in 2008. Six non-diatom taxa were identified at SS-15G in 2008. This was near the average number for reference streams in mountain ecoregions in Montana, including relatively sterile, 'pristine' streams (Bahls 1993). *Nostoc,* a genus of Cyanophyta that is commonly found in cold, nutrient-poor mountain streams, was the dominate non-diatom taxon present at site SS-15G. The relatively pollution-indifferent red alga *Audouinella* ranked third in biovolume, while the green algae *Stigeoclonium*, *Mougeotia*, and *Protoderma* were less numerous in the German Gulch periphyton community. Diatom metrics in German Gulch indicated good biological integrity and favorable habitat conditions. SS-15G had the highest species richness of all sites sampled in 2008, with 46 diatom taxa identified. The dominant taxon (*Cocconeis placentula*) accounted for 34% of the analyzed sample and suggested minor impairment of the aquatic habitat along the mouth of German Gulch. This station had the highest pollution index, indicating excellent biological integrity, as well as the lowest percentage of metals tolerant diatoms (5.6%) of all sites in 2008. Overall diatom metrics provide evidence that German Gulch is a high-quality cold-water stream.

Eight non-diatom taxa were recorded at stations SS-15A & B, an above average number for mountain streams in Montana (Table 5-27 & Table 5-28). Diatoms were the dominant algal form at each of these sites with the green alga *Protoderma* ranking second. Three other Chlorophyta were identified at both stations SS-15A & B: *Stigeoclonium*, *Scenedesmus*, and *Cosmarium*. The blue-green alga *Oscillatoria* was absent at SS-15A, rare at German Gulch station SS-15G, but common in Silver Bow Creek at SS-15B directly below the confluence. *Oscillatoria* is a cosmopolitan genus with broad autecological tolerances, but seems to prefer cool, high-quality water with moderate levels of nutrients.

The diatom metrics for stations SS-15A & B suggest moderate to severe impairment of this community. The upstream site SS-15A contained 42% siltation taxa, which increased to 60% at downstream site SS-15B. Both sites also exhibited a high proportion of metals tolerant diatoms, with 79% and 83% at stations SS-15A & B, respectively. The relatively fast flowing water and steeper grade of Silver Bow Creek through Durant Canyon is not conducive to the accumulation of silt along the thalweg or riffle reaches of this creek. Impairment of the biota, indicated by the high percentage of both siltation and metals tolerant taxa, is likely due to metals and sediment contributed from the unremediated channel and floodplain. A slight decrease in the percentage of metals tolerant taxa directly below the confluence with German Gulch indicates possible dilution of metal concentrations in Silver Bow Creek by higher-quality water from the tributary. The dominant diatoms at each site were the metals tolerant *Encyonema silesiacum*, *Nitschia palea*, amd *Eolimna minima*, which further suggest impairment by metals. The pollution indexes suggest moderate impairment at both SS-15A & B. High percentages of polysaprobous diatoms at Stations 15A & B suggest accumulation of fine particulate organic material along the streambed substrate of Silver Bow Creek near the mouth of German Gulch; however, visual observations did not support this conclusion, as the streambed was dominated by coarse gravel and cobbles through this reach.

Table 5-26: ***Relative abundance of cells and ordinal rank by biovolume of diatoms and genera of non-diatom algae in periphyton collected from station SS-15G.***

Taxon	Division	Relative Abundance*	Biovolume Rank
Diatoms	Bacillariophyta	D	1
Nostoc	Cyanophyta	A	2
Audouinella	Rhodophyta	O	3
Stigeoclonium	Chlorophyta	O	4
Unknown Bluegreen Filament	Cyanophyta	C	5
Mougeotia	Chlorophyta	R	6
Protoderma	Chlorophyta	C	7
Oscillatoria	Cyanophyta	R	8

*D = dominant; A = abundant; F = frequent; C = common; O = occasional; R = rare

Table 5-27: ***Relative abundance of cells and ordinal rank by biovolume of diatoms and genera of non-diatom algae in periphyton collected from station SS-15A.***

Taxon	Division	Relative Abundance*	Biovolume Rank
Diatoms	Bacillariophyta	D	1
Protoderma	Chlorophyta	F	2
Oedogonium	Chlorophyta	C	3
Phormidium	Cyanophyta	O	4
Scenedesmus	Chlorophyta	C	5
Stigeoclonium	Chlorophyta	O	6
Cosmarium	Chlorophyta	O	7
Ankistrodesmus	Chlorophyta	O	8
Mougeotia	Chlorophyta	R	9

*D = dominant; A = abundant; F = frequent; C = common; O = occasional; R = rare

Table 5-28: ***Relative abundance of cells and ordinal rank by biovolume of diatoms and genera of non-diatom algae in periphyton collected from station SS-15B.***

Taxon	Division	Relative Abundance*	Biovolume Rank
Diatoms	Bacillariophyta	D	1
Protoderma	Chlorophyta	D	2
Oscillatoria	Cyanophyta	C	3
Cladophora	Chlorophyta	O	4
Ulothrix	Chlorophyta	O	5
Stigeoclonium	Chlorophyta	O	6
Cosmarium	Chlorophyta	O	7
Scenedesmus	Chlorophyta	O	8
Tribonema	Xanthophyta	R	9

*D = dominant; A = abundant; F = frequent; C = common; O = occasional; R = rare

Performance against remedy goals at SS-15A, B, & G

Station SS-15A was rated as having fair biointegrity due to a depressed pollution index value and elevated siltation taxa. Station SS-15B achieved a 'poor' overall rating from a high percentage of siltation taxa. Both sites did achieve 'excellent' ratings for low percentage of disturbance taxa and number of abnormal cells present, while SS-15B also was rated excellent for Shannon Diversity index. Outside of the SSTOU, SS-15G is the only site in the 2008 monitoring that rated 'good' for overall biointegrity. Neither station on Silver Bow Creek met remediation goals for the periphyton community.

Table 5-29: ***Summary of metric ratings for SS-15A, B, & G in 2008.***

Metric	SS-15G		SS-15A		SS-15B	
	Value	Biointegrity	Value	Biointegrity	Value	Biointegrity
Species Richness	46	excellent	26	good	24	good
Shannon Diversity Index	3.65	excellent	2.83	good	3.42	excellent
Pollution Index	2.85	excellent	1.71	fair	1.57	fair
Siltation Taxa Percent	10.35%	excellent	42.28%	fair	60.73%	poor
Disturbance Taxa Percent	1.59%	excellent	3.59%	excellent	6.31%	excellent
Dominant Taxon Percent	33.92%	good	42.59%	fair	22.24%	excellent
Abnormal Cells Percent	0.00%	excellent	0.00%	excellent	0.00%	excellent
Lowest integrity rating		**good**		**fair**		**poor**

Silver Bow Creek near Opportunity (SS-17D)

The periphyton sampled at SS-17 near Opportunity suggests fair biological integrity and is driven by a moderately high percentage of siltation taxa (45%) and a pollution index of 1.81. Although the percentage of metals tolerant diatoms has displayed a decreasing trend with the past two sampling events, this value (70%) continues to indicate impairment from metals. The dominant diatoms at this site were *Encyonema silesiacum*, *Eolimna minima*, and *Nitzschia palea* and have been a common component of the periphyton sample at this site for the past three years. The abundance of these organisms suggest circumneutral conditions with moderately low salinity, continued elevated nitrogen levels (hypereutrophic), elevated heavy metals concentrations, and moderate oxygenation. The dominant diatom taxon comprised 30% of the analyzed sample, suggesting minor stress. Diatom species richness at station SS-17D was 31 with a Shannon diversity index of 3.56, both improving from the 2007 sample and indicating excellent biological integrity.

Non-diatom taxa richness at station SS-17D was average for mountain streams in Montana with five taxa present (Table 5-30). Diatoms dominated the periphyton sample in both relative abundance and biovolume. The phylum Chlorophyta was well represented at SS-17D, and included the dominant taxa *Protoderma*. Other important green algae were *Scenedesmus* and the filamentous form *Stigeoclonium*. Of the blue-green algae, *Oscillatoria* ranked third in biovolume, while *Homeothrix* ranked sixth. Both genera include species that are very tolerant of organic pollution.

Table 5-30: ***Relative abundance of cells and ordinal rank by biovolume of diatoms and genera of non-diatom algae in periphyton collected from station SS-17 in 2008.***

Taxon	Division	Relative Abundance*	Biovolume Rank
Diatoms	Bacillariophyta	D	1
Protoderma	Chlorophyta	D	2
Oscillatoria	Cyanophyta	C	3
Scenedesmus	Chlorophyta	C	4
Homeothrix	Cyanophyta	O	5
Stigeoclonium	Chlorophyta	O	6

*D = dominant; A = abundant; F = frequent; C = common; O = occasional; R = rare

Comparison of key diatom metrics collected at station SS-17D (mean, 1993 through 1999; annually 2000 through 2008) allows evaluation of long-term trends. During the 1990s, the proportion of metals tolerant diatoms was somewhat variable with a median value about 60% (Figure 5-38). Subsequent sampling in the 2000s showed comparatively greater proportions of metals tolerant diatoms, which has consistently exceed the 1990s baseline. Although the recent trend has shown a decrease in metals tolerant diatoms, it is unlikely this metric will improve without remedial action to remove metals contamination from the floodplain and stream channel. Conversely, the pollution index has shown improvement for the past three years and exceeds the value calculated for baseline conditions through the 1990's (Figure 5-39). This may be a general indication of improved water quality at SS-17D as more upstream sites are remediated, and mining, urban, and wastewater impacts are reduced through improved treatment.

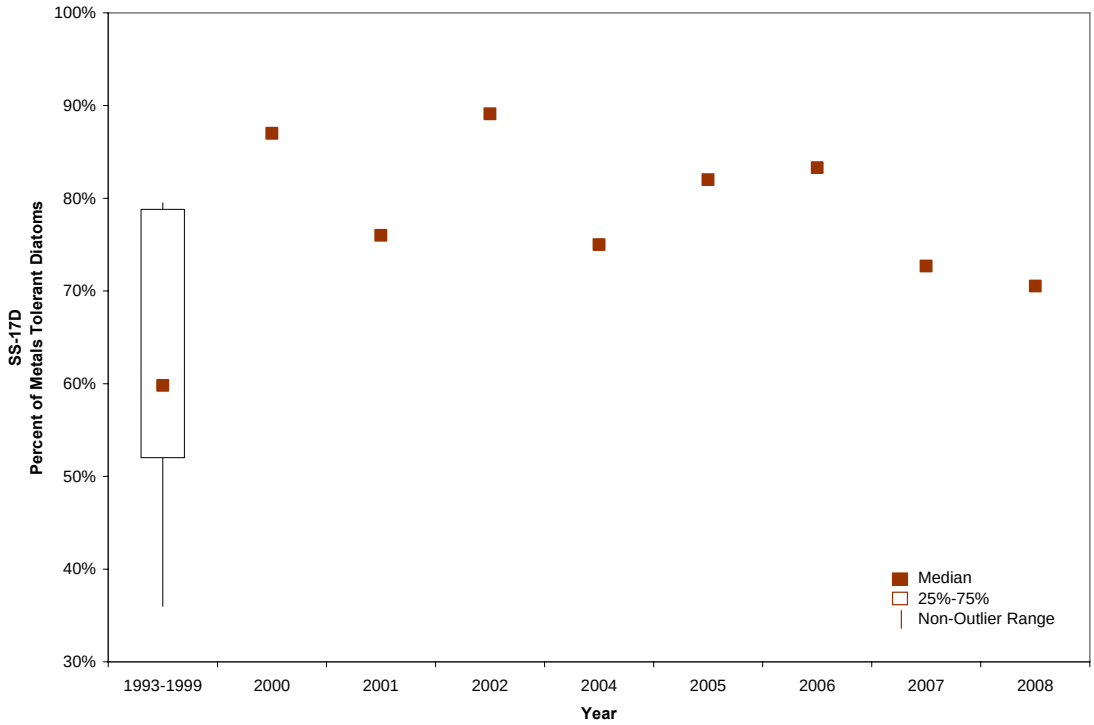


Figure 5-38. ***Proportions of metals tolerant diatoms in baseline samples (1993-1999) and the current decade***

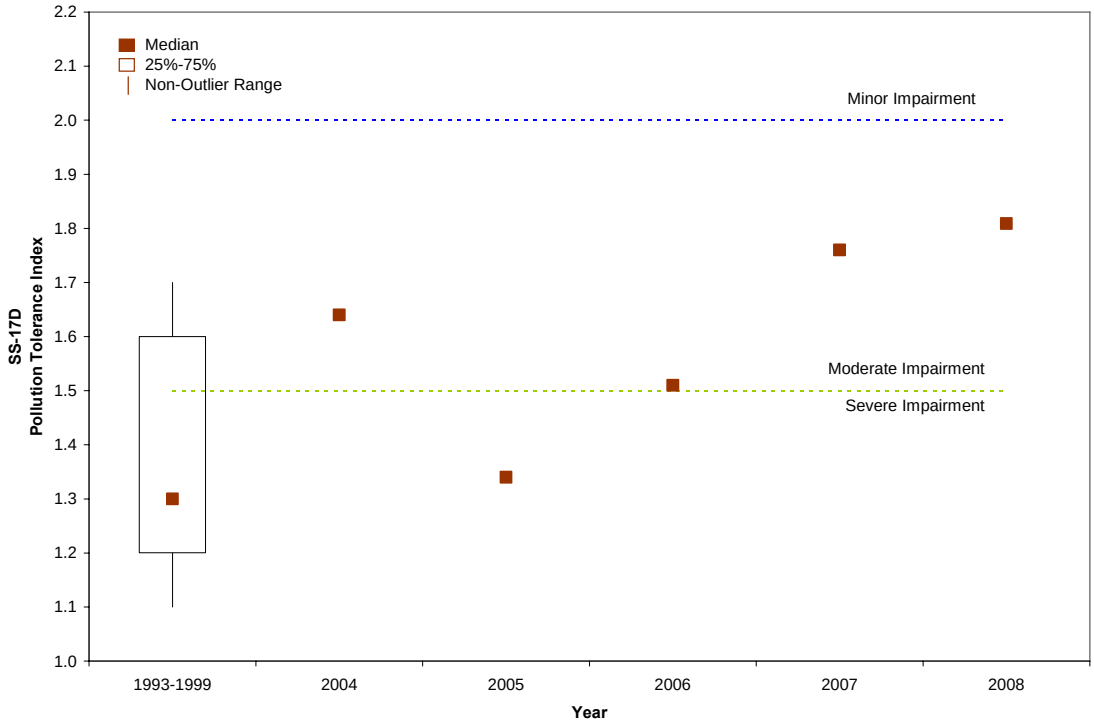


Figure 5-39. ***Comparison of pollution tolerance index in baseline samples (1993-1999) and the current decade***

Performance against remedy goals at SS-17D

The 'fair' biological integrity rating for station SS-17D is the result of the moderately high percentage of siltation taxa, and a somewhat depressed pollution index value (Table 5-31). Good and excellent ratings in five of the seven metrics suggest a relatively unimpaired aquatic biota at SS-17D in 2008.

Table 5-31: ***Summary of metric ratings for SS-17D in 2008.***

Metric	Value	Biointegrity Rating
Species Richness	31	excellent
Shannon Diversity Index	3.56	excellent
Pollution Index	1.81	fair
Siltation Taxa Percent	45.38%	fair
Disturbance Taxa Percent	0.32%	excellent
Dominant Taxon Percent	30.57%	good
Abnormal Cells Percent	0.00%	excellent
Lowest integrity rating		**fair**

5.5 Summary

Analysis of macroinvertebrate metrics for samples collected from Silver Bow Creek in September 2008 indicated continued impairment overall of Silver Bow Creek through the reach sampled. Impairment ranged from moderate to severe, and depended on both the bioassessment method employed and station location along the study area. Using biocriteria developed by Bollman (Table 5-10), four of the ten sampling sites on Silver Bow Creek were classified as severely impaired (SS-06G, SS-08, and SS-15A & B). Bioassessment ratings developed by Bukantis (Table 5-11) indicated severe impairment at stations SS-06G, SS-10B, and SS15A & B. All other sites (with the exception of station SS-15G which is not located on Silver Bow Creek) moderate impairment of the aquatic environment was indicated by macroinvertebrate metrics according to both bioassessment methods. Station SS-15G, located at the mouth of German Gulch and monitored at the request of NRDP, received the highest Bollman rating (83.3%) and the second highest Bukantis rating (45.8%). Station SS-17D obtained the highest Bukantis rating (66.7%), but a much lower Bollman score (22.2%). Sampling stations directly upstream of SS-17D in Durant Canyon (SS-15A & B) ranked lowest in both ratings. Overall, the Bollman rating indicated an improvement in benthic conditions at six stations (SS-07 through SS-11D), while four stations (SS-06G, SS-15G, SS-15A, & SS-17D) scored the same as the 2007 results, and one station (SS-15B) scored lower. The Bukantis rating showed improvement at five sites (SS-07, SS-08, SS-10A, SS-11C & D), a decline at five sites (SS-06G, SS-10B, SS-15A, B & G), and one site (SS-17D) unchanged from the 2007 results.

All eleven Silver Bow Creek sites failed the RIVPACS model test, which indicated that the sites are outside of the experience of the model. As such, the Observed/Expected value is unreliable and the Multi-Metrics Index should be viewed critically because the type of sites found along Silver Bow Creek was not present in the data used to calibrate either model (Figure 5-2; Figure 5-3).

All Silver Bow Creek stations (with the exception of SS-15A) displayed an improvement (decrease) in the Hilsenhoff biotic index (HBI) in 2008. The HBI demonstrated an increase in the abundance of less tolerant species and a marked decrease in percent tolerant taxa throughout the study reach of Silver Bow Creek, when compared to the 2007 data, suggesting improved health and rehabilitation of the aquatic habitat within Silver Bow Creek. According to the HBI, two of the sites (SS-15G & SS-17D) were rated as slightly impaired, six sites were rated as moderately impaired, and three sites (SS-07, SS-8, and SS-11C) were rated as severely impaired (Figure 5-4). In general, the metal indexes from the 2008 samples were similar to the 2007 results (Figure 5-5). Only sites SS-10A & B had a significant change in this index, both showing a decrease in impacts from metals on the benthic community.

EPT richness values showed a general increase in the number of mayflies and caddisflies in Silver Bow Creek, further indicating improvement of stream health within Silver Bow Creek (Figure 5-6). Although only one sensitive taxon was identified from Silver Bow Creek main stem (station SS-11D), this was an improvement over the 2007 sample results. No cold stenotherm species were identified in any sample obtained from Silver Bow Creek, which has a low gradient stream with minimal canopy coverage. Four cold stenotherm species were identified in the German Gulch sample. Macroinvertebrate metrics indicate the continued impairment of Silver Bow Creek by nutrient loading as the impacts from metals are decreased. Suspended algae and aquatic plants are abundant throughout Silver Bow Creek with evidence of organic enrichment of until Durant Canyon. The presence of filter feeders, including filter-feeding hydropsychid caddis flies and black flies, suggest an abundance of fine particulate organic matter within the water column and along the benthic substrate.

In general, the aquatic environment above the SSTOU (station SS-06G) is classified as severely impaired and non-use support, indicated by bioassessment indices suggesting excess nutrients and metals within the runoff of the mine-impacted urban Butte watershed. Improvements in water quality have been documented as both mining discharge and urban effluent have been held to improved standards; however, continued impairment of the water quality entering the SSTOU remains a limiting factor in the recovery of the biological community in remediated stream reaches downstream of Butte. Station SS-07, at the head of the SSTOU, is impacted by both the urban runoff from the Butte metropolitan area and the effluent discharged to Silver Bow Creek from Butte's Waste Water Treatment Plant (WWTP). Macroinvertebrate indices at this station, however, indicate moderate impairment with partial use-support classification and exhibit improved condition from the upstream site. Periphyton analysis confirmed this trend, exhibiting severe stress above the WWTP and moderate stress below this outfall. Although these results seem contradictory, the addition of lime to control acidity and promote precipitation of metals from the water column may account for the improved biometrics. This discharge of nutrients and warmer water may have also contributed to the increase in the bioindex values. As nutrients and metals were assimilated by the stream below station SS-07, algal growth increased, accounting for a substantial increase in fine particulate organic matter within the stream, and organic sediment along the stream substrate. Macroinvertebrate and periphyton siltation taxa showed a general increase as the accumulation of organic matter limited habitat quality. From the peak in impairment seen at SS-08, near the head of the SSTOU, a general trend of improved aquatic conditions was observed downstream as the stream system recuperated. This trend of improving aquatic habitat was consistent throughout the remediated areas, particularly the most recently remediated stations above and below Browns Gulch which exhibited the highest biological integrity of all Silver Bow Creek stations. Overall, these results suggest improvement in the remediated reaches Silver Bow Creek through removal of metal contaminants. However, poor water quality entering the SSTOU, particularly in the form of elevated nutrients from the Butte WWTP discharge, remains as the factor strongly limiting full recovery of the biological community. As Silver Bow Creek flows through the Durant Canyon reach, water quality is diminished as metals from the unremediated channel and floodplain enter the water column. Stations SS-15A & B displayed the lowest overall biological integrity of all Silver Bow Creek sampling sites. Station SS-15G, located on German Gulch near the confluence with Silver Bow Creek and outside of the SSTOU, consistently is rated as the least impaired site sampled in this study, and supported a community assemblage of pollution intolerant, metals sensitive taxa. Station SS-17D, the lowest site on Silver Bow Creek sampled in 2008, continued to show impaired biological integrity from excess nutrients, metals, and silt.

Evaluation of spatial and temporal trends within macroinvertebrate assessment results allows for inference of the relative roles of nutrients and metals in shaping these communities. Removal of tailings and associated metals from the floodplain, and reconstruction of the stream channel between stations SS-08 and SS-11D has had an apparent positive influence on biological integrity at these sites. A sustained reduction in metals-tolerant taxa coincided with the removal of metals sources; however, the biotic index, a measure of nutrient-tolerant invertebrates, has risen. These results suggest that, following the reduction of metals levels, elevated nutrients have emerged as a primary constraint on aquatic life. Thus, despite extensive tailings removal efforts, only modest increases in overall biological integrity have been realized. It appears unlikely that restoration and remediation goals for the SSTOU can be met without reductions in all pollutant loading, including nutrients, throughout the Silver Bow Creek watershed.

6.0 FISH POPULATION MONITORING

6.1 Introduction

Historically, sampling of fish in Silver Bow Creek has been very limited because of the extremely harsh environment and the perceived absence of fish. In 2002, Montana Fish, Wildlife and Parks (FWP), Montana Department of Environmental Quality (DEQ), and the Montana Natural Resource Damage Program (NRDP) believed it was important to initiate fish sampling because of the potential for improved water quality associated with remediation and restoration activities of the Streamside Tailings Operable Unit (SSTOU) in Silver Bow Creek. Presumably, improved water quality resulting from tailings removal along Silver Bow Creek will provide conditions that will allow fish to survive and complete life-history cycles to sustain a fishery. Fish Sampling began in 2002 to monitor and document fish response to ongoing remediation activities. The sampling effort was expanded by adding new electrofishing sections during 2005 and 2008 to provide better understanding of fishery trends observed during previous sampling years.

6.2 Methods

Two electrofishing study sections were sampled in Silver Bow Creek during 2002 to determine the presence or absence of fish in Silver Bow Creek near Butte, Montana. One section was located upstream of Rocker and one section was located immediately upstream of Montana Avenue in Butte. During 2003 and 2004, three electrofishing study sections were sampled in Silver Bow Creek. The sections were located near Rocker, Ramsay and below the confluence of German Gulch. The upper-most electrofishing section above Montana Street in Butte was not repeated after 2002.

Due to stream channel remediation activities in the Ramsay Area during 2005, the Ramsay Section was replaced with two sections: Reach F (above Ramsay) and Miles Crossing (below Ramsay). The Rocker Section and Below German Gulch Sections were not changed from previous years. Two additional sections were added in 2005 upstream of the sewage treatment outfall near Butte to provide an improved perspective of the longitudinal distribution of fish species in the upper Silver Bow Creek drainage. One section was located in Lower Area One (LAO) and the uppermost section was located near Father Sheehan Park.

During 2006, four of the previously established electrofishing sections were sampled. These included the LAO Section, Rocker Section, Ramsay Section, and Below German Gulch Section. These sites were also sampled in 2007, but in addition, the Father Sheehan Section was also surveyed. In 2008, all of the sections sampled in 2007 were again surveyed, and an additional section was added upstream of the Highway 1 crossing near Opportunity. Figure 6-1 shows a map of the study area including locations of current fish sampling sections. Appendix N-1 provides a description of all sites sampled in Silver Bow Creek from 2002 through 2008.

At all sections during all years, catch-per-unit-effort sampling of fish was conducted using a backpack electrofishing unit (LR-24 Electrofisher, manufactured by Smith Root, Inc.). Generally, a single upstream pass was conducted by a two or three-person crew. At a few sites, multiple upstream passes were made to obtain an estimate of capture efficiency. The entire channel was sampled at all sections and one or two netters captured all observable fish. Fish were held until each pass was completed and all fish were measured to the nearest millimeter and released. Section lengths were documented and time of

electrofishing was recorded from the internal timer of the LR-24 electrofisher to provide measures of sampling effort.

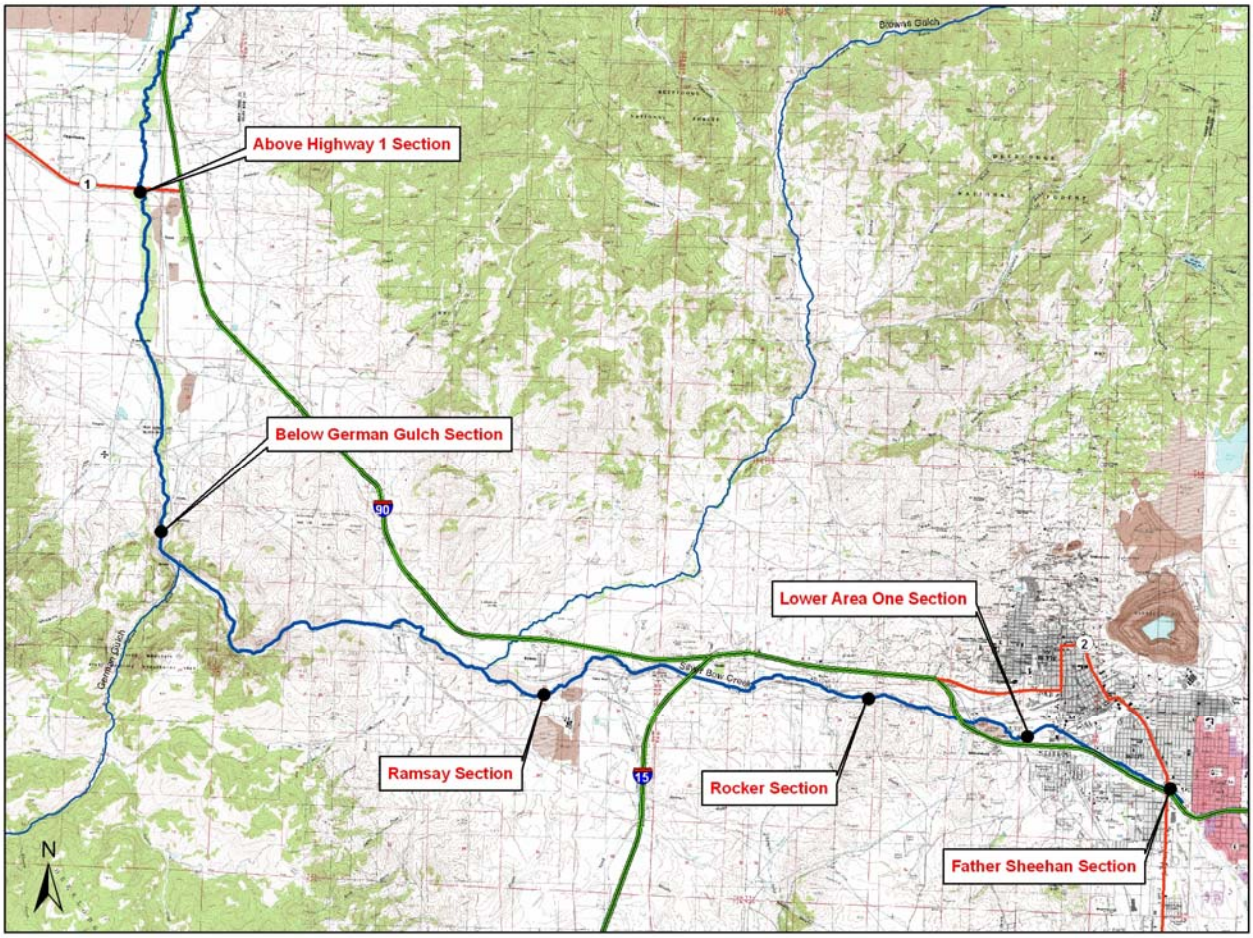


Figure 6-1. ***Map of the Silver Bow Creek study area.***

6.3 Results

Fish sampling results from 2002 through 2008 have primarily consisted of determining the presence or absence of a fish species, an estimate of number of fish per 100 seconds of electrofishing effort (also known as Catch-Per-Unit-Effort (CPUE), and basic size structure of fish captured. This level of effort appears appropriate for determining fishery trends relating water quality issues to fishery levels, and assessing fishery improvements due to ongoing remediation and restoration activities. Appendix N-2 contains a table of catch-per-unit-effort values for all sample sections from 2002-2008.

Fish species composition and abundance in Silver Bow Creek varies throughout the sections sampled from 2002 through 2008. Table 6-1 shows species presence and general abundance in various portions of the watershed as of 2008 for westslope cutthroat trout (*Oncorhynchus clarki lewisi*), brook trout (*Salvelinus fontinalis*), rainbow trout (*Oncorhynchus mykiss*), longnose sucker (*Catostomus catostomus*), slimy sculpin (*Cottus cognatus*), and central mudminnow (*Umbra limi*). These represent all of the species that are known to occur in Silver Bow Creek. Westslope cutthroat trout, longnose sucker and slimy sculpin are native to the watershed while brook trout, rainbow trout, and central mudminnow are present

due to introductions. Brown trout (*Salmo trutta*) (introduced species) occur downstream of Silver Bow Creek at the Warm Springs Ponds. However, to date, this species has not been captured during routine sampling efforts in the survey reaches of Silver Bow Creek.

Table 6-1: ***Fish species presence/absence and general rating of abundance in the upper Silver Bow Creek watershed as of 2008. A = abundant, C = common, P = present, R = rare, NP = not present. Species abbreviations: WCT = Westslope Cutthroat Trout, EB = Brook Trout, RB = Rainbow Trout (or phenotypic hybrid), LN SU = Longnose Sucker, SL COT = Slimy Sculpin, CM MN = Central Mudminnow.***

Location	Fish Species					
	WCT	EB	RB	LN SU	SL COT	CM MN
Headwater Tributaries	C	C	NP	R	R	R
Silver Bow Creek – Butte Area (Father Sheehan Park)	R	C	NP	C	C	C
Silver Bow Creek- Remediated Area Above Sewage Outfall (LAO)	NP	R	NP	C	A	P
Silver Bow Creek – Remediated Area Below Sewage Outfall (Rocker)	NP	NP	NP	A	R	R
Silver Bow Creek – Remediated Area Near Ramsay/Miles Crossing	R	R	NP	C	R	R
Silver Bow Creek – Below Remediated Area Downstream of German Gulch **(Spring Sampling)**	R	P	NP	P	R	NP
Silver Bow Creek – Below Remediated Area Downstream of German Gulch **(Fall Sampling)**	R	P	R	C	P	NP
Silver Bow Creek – Below Remediated Area above Hwy 1 Near Opportunity	NP	NP	R	P	P	NP

A general trend in fish species composition indicates that trout species are mostly limited to upstream reaches of Silver Bow Creek and tributaries of Silver Bow Creek (Table 6-1). Based on fall sampling, trout do not appear to be very tolerant of poor water quality in Silver Bow Creek from approximately Butte to Warm Springs Ponds based on the limited number captured. However, fall sampling in 2007 and 2008 did find limited numbers of trout in places where they previously had not been documented (e.g. Lower Area One and Ramsay sections). Trout were also found to be more abundant below German Gulch during fall 2007 than in previous sample years. This is a section where brook trout and westslope cutthroat trout have been commonly observed during spring sampling, but had previously been rare or absent during fall sampling.

More tolerant species such as longnose sucker and slimy sculpin are present in most electrofishing sections of Silver Bow Creek at variable densities (Table 6-1). Suckers tend to be most abundant near the Rocker Section but are still fairly common both up and downstream from this site. Sculpin tend to be most abundant near Butte and become less abundant at downstream sites. Central mudminnow are dispersed throughout Silver Bow Creek from approximately Butte to Ramsay, but are most abundant near Butte.

6.3.1 Fish Sampling Results in 2002

Sampling conducted in Silver Bow Creek on November 6, 2002 found longnose suckers, slimy sculpin, and a central mudminnow. The fish assemblage in the Rocker Section was primarily comprised of longnose suckers. We captured 75 longnose suckers and two slimy sculpin during 1529 seconds of

electrofishing. The study section length was approximately 1000 ft. A brief electrofishing run was conducted upstream of Montana Avenue in Butte to compare species composition in the area upstream of Rocker. While longnose suckers appeared to be less abundant, slimy sculpin were found to be more plentiful near Montana Avenue, compared to the Rocker Section (Table 6-2).

Streamflow in Silver Bow Creek during the date of sampling in 2002 was 15 cfs at the USGS gauge station below Blacktail Creek, and was 22 cfs at the USGS gauge station at Opportunity. Additionally, mean monthly flow below Blacktail Creek was highest during June at 20.2 cfs and lowest during July at 13.3 cfs. At Opportunity, mean monthly flow was highest during June at 67.3 cfs and lowest during August at 19.4 cfs.

Table 6-2: ***Comparison of fish abundance in two sections of Silver Bow Creek during CPUE sampling on November 6, 2002.***

Section	Species	# Fish/100 Sec. (CPUE)
Rocker	Sucker	4.9
	Sculpin	0.1
	Mudminnow	-
Montana Ave.	Sucker	2.6
	Sculpin	3.5
	Mudminnow	0.002

6.3.2 Fish Sampling Results in 2003

Fish sampling on October 10, 2003 was conducted at three electrofishing sections to include a section in the previously remediated reach of Silver Bow Creek near Rocker, and two sections downstream of remediation activities (near Ramsay and German Gulch). Sampling of the Rocker Section showed similar results to the sampling conducted in 2002. We captured 48 longnose suckers and one slimy sculpin during 1580 seconds of electrofishing in the Rocker Section. No fish were captured in the Ramsay Section in 1622 seconds of electrofishing, and no fish were captured in the Below German Gulch Section during 1412 seconds of electrofishing. See Appendix N-2 for a summary of catch-per-unit-effort for all sections sampled.

Streamflow in Silver Bow Creek during the date of sampling was 14 cfs at the USGS gauge station below Blacktail Creek, and was 19 cfs at the USGS gauge station at Opportunity. Additionally, mean monthly flow below Blacktail Creek was highest during March at 30.4 cfs, and lowest during July at 12.4 cfs. At Opportunity, mean monthly flow was highest during May at 88.5 cfs, and lowest during August at 16.0 cfs.

6.3.3 Fish Sampling Results in 2004

Fish sampling on October 1, 2004 was conducted again at the three standard electrofishing sections near Rocker, Ramsay and Below German Gulch. Once again, no fish were observed during fall sampling of the Ramsay Section and the Below German Gulch Section during 2004. As in previous years, longnose suckers and slimy sculpin were captured in the Rocker Section during the fall sampling. Sculpin continued to be rare with only one individual captured in 2004. Based on catch per effort sampling, abundance of longnose suckers declined between 2002 and 2004. See Appendix N-2 for a summary of catch-per-unit-effort for all sections sampled.

Streamflow in Silver Bow Creek during fall sampling in 2004 was 16 cfs at the USGS gauge station below Blacktail Creek, and was 20 cfs at the USGS gauge station at Opportunity. Additionally, mean monthly flow below Blacktail Creek was highest during March at 18.5 cfs, and lowest during July at 14.2 cfs. At Opportunity, mean monthly flow was highest during May at 39.4 cfs and lowest during August at 16.4 cfs.

During spring 2004, the Below German Gulch Section was sampled to determine whether fish were able to persist seasonally in a section of Silver Bow Creek downstream of German Gulch. It was suspected that fish occasionally migrated downstream from German Gulch into Silver Bow Creek. The sampling in May 2004 was to determine the potential for Silver Bow Creek to support fish during the spring when water quality may be improved by dilution due to rainfall and snowmelt. On May 19, 2004 the standard 1000 ft section below German Gulch was sampled with three electrofishing passes. Three species of fish were observed during this sampling (Table 6-3). Streamflow in Silver Bow Creek during the date of sampling was 22 cfs at the USGS gauge station below Blacktail Creek, and was 49 cfs at the USGS gauge station at Opportunity.

Table 6-3: ***Results of multiple pass electrofishing in the section below German Gulch in Silver Bow Creek on May 19, 2004.***

Pass #	Species	Total Length (mm)	Effort (seconds)
1	Brook Trout	290	1890
	Cutthroat Trout	198	
	Longnose Sucker	51	
	Longnose Sucker	48	
2	Cutthroat Trout	76	1120
3	no fish	-	-

6.3.4 Fish Sampling Results in 2005

From 2002 through 2004, three sections were sampled to determine trends in fish abundance. In 2005, the Rocker and Below German Gulch sections were surveyed as usual, but the Ramsay Section was under construction and was replaced with two electrofishing sections (above Ramsay Section/Reach F) and below Ramsay Section/Miles Crossing). In addition, two new sections were added above the sewage treatment plant near Butte. The added sections were the Lower Area One Section and the Father Sheehan Park Section.

Fish abundance trends from 2005 indicate similar findings to previous years where sucker and sculpin abundance decline between Rocker and the unremediated section below Ramsay. Fish were observed in the Below German Gulch Section during spring sampling, which is similar to past years; however, a few fish were also observed during fall sampling at this location for the first time since this evaluation began. Fish sampling of two new sections upstream of the sewage treatment outfall in 2005 provided an improved perspective of the longitudinal distribution of fish species in the upper Silver Bow Drainage. See Appendix N-2 for a summary of catch-per-unit-effort for all sections sampled.

Streamflow in Silver Bow Creek during 2005 fall sampling was 17 cfs (10/18/2005) and 24 cfs (11/3/2005) at the USGS gauge station below Blacktail Creek, and was 33 cfs (10/18/2005) and 44 cfs (11/3/2005) at the USGS gauge station at Opportunity. During spring sampling (6/27/2005), flow was 25 cfs at the

USGS gauge station below Blacktail Creek, and was 70 cfs at the USGS gauge station at Opportunity. Additionally, mean monthly flow in Silver Bow Creek below Blacktail Creek was highest during May at 33 cfs, and lowest during July at 15.3 cfs. At Opportunity, mean monthly flow was highest during May at 97.0 cfs, and lowest during August at 20.0 cfs.

6.3.5 Fish Sampling Results in 2006

Four electrofishing sections were surveyed during early October 2006. Fish population surveys were conducted at the following sections: LAO Section (above sewage inflow), Rocker Section, Ramsay Section, and Below German Gulch Section. No spring sampling was conducted in 2006.

New sampling information collected during 2006 included pH and ammonia samples collected at the Rocker and Ramsay Sections, and tissue samples collected from suckers also at Rocker and Ramsay.

The most notable finding during fall 2006 was the capture of a single brook trout (112 mm in TL) at the Below German Gulch Section, which represents the first trout observed at this site during fall sampling. Previously, trout were only observed during spring sampling. Fish composition at the Lower Area One section changed between 2005 and 2006. Suckers dominated the catch in 2005 and sculpin were most abundant in 2006. It is not known whether changes in sampling efficiency or an actual change in species composition was responsible for the varying observations in 2005 and 2006. Sucker abundance appeared to increase at the Rocker Section between 2005 and 2006, and sucker abundance increased at the Ramsay Section between 2004 (pre-remediation, no fish) and 2006 (post-remediation, 144 suckers in 1987 seconds of sampling). Sampling of the Ramsay Section was modified in 2005 due to construction activities and results are not included in this summary. See Appendix N-2 for a summary of catch-per-unit-effort for all sections sampled in 2006.

Streamflow in Silver Bow Creek during 2006 fall sampling was 16 cfs (10/3/2006) and 20 cfs (10/6/2006) at the USGS gauge station below Blacktail Creek, and was 23 cfs (10/3/2006) and 31 cfs (10/6/2006) at the USGS gauge station at Opportunity. Additionally, mean monthly flow below Blacktail Creek was highest during April at 46.9 cfs, and lowest during August at 14.1 cfs. At Opportunity, mean monthly flow was highest during April at 113.7 cfs, and lowest during August at 14.8 cfs.

6.3.6 Fish Sampling Results in 2007

Five electrofishing sections were surveyed on October 10, 2007. Sections sampled included the Father Sheehan Section, Lower Area One Section, Rocker Section, Ramsay Section, and the section below German Gulch. The section below German Gulch was also sampled in the spring on June 1, 2007. At the time of the fall sample, crews discovered that a bridge was being replaced at the site of the previously sampled section below German Gulch. Because of this, the bottom of the section was moved upstream 1000 feet (to the top of the standard section). The standard section below German Gulch was sampled during the spring.

There were several notable findings during fall 2007. At the section below German Gulch, four westslope cutthroat trout (Mean Length: 121 mm, Range: 57-184 mm) were captured in one and a half electrofishing passes (two westslope cutthroat trout were captured during 2584 seconds of sampling on the first pass, and two westslope cutthroat trout were captured during 1036 seconds of sampling on the partial, second pass). These fish represent the first westslope cutthroat trout observed at this site during fall sampling. In addition to the westslope cutthroat trout, 49 brook trout (39 on the first pass, and 10 on the partial

second pass, Mean Length: 116 mm, Range: 85-148 mm), 51 longnose suckers (46 on the first pass, and 5 on the partial second pass, Mean Length: 100 mm, Range: 53-157 mm), and 23 slimy sculpin (18 on the first pass, and 5 on the partial second pass) were also captured at the below German Gulch section. This represents the highest number of brook trout ever captured at this site during fall sampling, as well as the greatest abundance of longnose suckers and slimy sculpin at the site since sampling began in 2003 (both fall or spring). On June 1, 2007, the standard 1000 ft section was sampled with two passes. On the first pass, two westslope cutthroat trout (75 and 195 mm), four brook trout (Length Range: 185 to 295 mm), 15 suckers, three sculpin, and one central mudminnow were captured during 3030 seconds of electrofishing, and one westslope cutthroat trout (67 mm) and six brook trout (Mean Length: 56 mm, Range: 30-180mm) were captured during 2552 seconds of electrofishing on the second pass.

Another notable finding during fall 2007 was the documented presence of a single brook trout (Length: 104 mm) at the Ramsay Section. This represents the first trout observed at this site since sampling was initiated in 2003 as well as the first trout in the remediated SSTOU. In addition to the one brook trout, 42 longnose suckers (Mean Length: 75 mm, Range: 43-213 mm) and three slimy sculpin were also captured during the 2092 seconds of electrofishing. While sucker abundance was down from 2006, sculpin abundance was approximately the same.

At the Rocker Section, only longnose suckers and slimy sculpin were collected during fall 2007. These are the only two species that have been collected at this site since sampling was initiated in 2002. In total, 109 longnose suckers (Mean Length: 121 mm, Range: 53-228 mm) and five slimy sculpin were captured during 2506 seconds of electrofishing. While longnose sucker abundance was down from 2006, it was approximately equal to 2005. Slimy sculpin abundance was similar to past years when sculpin were found.

Another finding of interest from fall 2007 was the presence of three brook trout (Mean Length: 206 mm, Range: 232-277 mm) in the section at Lower Area One. These fish represent the first trout collected at the site since sampling was initiated in 2005. In addition to the three brook trout, 42 longnose suckers (Mean Length: 76 mm, Range: 39-172 mm), 231 slimy sculpin, and 10 central mudminnow were captured during 2971 seconds of electrofishing. Like 2006, sculpin were much more abundant at the Lower Area One site than suckers, which for the third year in row, continued to decline in abundance. Mudminnow abundance was up from past years.

At the Father Sheehan Section, two passes were made through the section during fall 2007. During the first pass, 64 brook trout (Mean Length: 170 mm, Range: 69-308 mm), 59 longnose suckers (Mean Length: 129 mm, Range: 103-203 mm), 133 slimy sculpin, and 39 central mudminnow were captured during 2744 seconds of electrofishing. On the second pass, 11 brook trout (Mean Length: 150 mm, Range: 103-240 mm), 29 longnose suckers (Mean Length: 125 mm, Range: 102-181 mm), 58 slimy sculpin, and 15 central mudminnow were captured during 1610 seconds of electrofishing. All species sampled during fall 2007showed an increase in abundance from 2005. Table 6-4 contains catch-per-unit-effort values from all the sections sampled during fall 2007. See Appendix N-2 for a summary of catch-per-unit-effort for all sections sampled from 2002-2007.

Streamflow in Silver Bow Creek during the 2007 fall sampling was 22 cfs at the USGS gauge station below Blacktail Creek, and was 35 cfs at the USGS gauge station at Opportunity. During spring sampling, flow was 32 cfs at the USGS gauge station below Blacktail Creek, and was 90 cfs at the USGS gauge station at Opportunity. Additionally, mean monthly flow in Silver Bow Creek below Blacktail Creek was highest during June at 36.4 cfs and lowest during August at 15.8 cfs. At Opportunity, mean monthly flow was highest during June at 87.2 cfs and lowest during August at 17.3 cfs.

Fish were collected from five sections of Silver Bow Creek in 2007 for liver metal analysis. See Appendix N-3 for a summary of liver results.

Table 6-4: ***Catch-per-unit-effort for species sampled in five sections of Silver Bow Creek, October 2007. In sections where multiple electrofishing passes were made (Father Sheehan and Below German Gulch sections) only data from the first pass is summarized for comparison purposes.***

Section	Species	# Fish/100 Sec. (CPUE)
Father Sheehan	Brook Trout	2.33
	Longnose Sucker	2.15
	Sculpin	4.85
	Central Mudminnow	1.42
Lower Area One	Brook Trout	0.10
	Longnose Sucker	1.41
	Sculpin	7.78
	Central Mudminnow	0.34
Rocker	Longnose Sucker	4.35
	Sculpin	0.20
Ramsay	Brook Trout	0.05
	Longnose Sucker	2.01
	Sculpin	0.14
Below German Gulch	Westslope Cutthroat Trout	0.08
	Brook Trout	1.51
	Longnose Sucker	1.78
	Sculpin	0.70

6.3.7 Fish Sampling Results in 2008

Six electrofishing sections were surveyed on October 6 and 7, 2008. Sections sampled included the Father Sheehan Section, Lower Area One Section, Rocker Section, Ramsay Section, Below German Gulch Section, and a newly added section above the Highway 1 crossing near Opportunity.

At the Father Sheehan Section, two passes were made through the 500-foot section. During the first pass, 84 brook trout (Mean Length: 150 mm, Range: 69-358 mm), 12 longnose suckers (Mean Length: 137 mm, Range: 69-262 mm), 84 slimy sculpin, and 16 central mudminnow were captured during 2339 seconds of electrofishing. On the second pass, 26 brook trout (Mean Length: 121 mm, Range: 73-253 mm), 4 longnose suckers (Mean Length: 163 mm, Range: 132-190 mm), 69 slimy sculpin, and 9 central mudminnow were captured during 1839 seconds of electrofishing. Brook trout showed an increase in density in the section compared to 2007, while the remaining three species all showed declines in relative abundance with longnose sucker showing the most notable drop. Table 5 contains catch-per-unit-effort values from all the sections sampled during fall 2008. See Appendix N-2 for a summary of catch-per-unit-effort for all sections sampled from 2002-2008.

At Lower Area One, one 2467 second electrofishing pass was made through the sample section. This sampling effort yielded 41 longnose suckers, 114 slimy sculpin, and six central mudminnow. Longnose sucker and central mudminnow appeared to be at similar densities to 2007, while slimy sculpin appeared to drop in relative abundance (Table 6-5; Appendix N-2). No trout were observed at the Lower Area One Section in 2008 despite the presence of three brook trout in 2007.

At the Rocker Section, one 2108 second electrofishing pass turned up 188 longnose suckers but no other species. During past sampling efforts low numbers of slimy sculpin had been found in the section. Trout have remained absent from the Rocker Section since sampling was initiated in 2002.

Perhaps one of the most notable findings during 2008 sampling was the discovery of two westslope cutthroat trout at the Ramsay Section. These fish were captured during one 1584 second electrofishing pass through the survey site. These two trout were relatively large ranging in size from 300 to 450 mm in total length, and represent the fist native trout documented in this now remediated reach of stream. In addition, 2008 sampling also turned up one brook trout (137 mm total length), 32 longnose suckers (Mean Length: 52 mm, Range: 37-227 mm), and five slimy sculpin. All but one of the longnose suckers captured appeared to be young-of-the-year. Densities of species captured in the Ramsay Section in 2008 (excluding westslope cutthroat trout) were similar to 2007.

Other findings of interest in 2008 were the documentation of rainbow trout at the sections below German Gulch and above the Highway 1 crossing near Opportunity. At the section below German Gulch, one large (455 mm total length) rainbow trout and one phenotypic rainbow trout-westslope cutthroat trout hybrid (250 mm total length) were captured during 1865 seconds of electrofishing. Additionally, two brook trout (Mean Length: 83 mm, Range: 51-115 mm), 35 longnose suckers, and four slimy sculpin were also noted in the section. At the section above the Highway 1 crossing near Opportunity, four rainbow trout, 23 longnose suckers, and 29 slimy sculpin were captured during 3269 seconds of electrofishing. The documentation of rainbow trout in these two sections is the first record of the species in Silver Bow Creek since sampling was initiated in 2002.

Streamflow in Silver Bow Creek during the 2008 fall sampling was 18 cfs at the USGS gauge station below Blacktail Creek, and was 30 cfs at the USGS gauge station at Opportunity. Mean monthly flow in Silver Bow Creek below Blacktail Creek was highest in 2008 during June at 75.1 cfs, which was over 40 cfs higher than the period-of-record (POR) average for the same month (POR = 31.1 CFS). Mean monthly flow was lowest at the USGS gauge station below Blacktail Creek during January at 14.3 cfs, with August similarly low at 15.2 cfs. At Opportunity, mean monthly flow was highest in Silver Bow Creek also during June, at 194.3 cfs (POR = 96.8 cfs), and lowest during August at 20.2 cfs (POR = 27.1 cfs).

Table 6-5: ***Catch-per-unit-effort for species sampled in six sections of Silver Bow Creek, October 2008. In sections where multiple electrofishing passes were made (Father Sheehan) only data from the first pass is summarized for comparison purposes.***

Section	Species	# Fish/100 Sec. (CPUE)
Father Sheehan	Brook Trout	3.59
	Longnose Sucker	0.51
	Sculpin	3.59
	Central Mudminnow	0.68
Lower Area One	Longnose Sucker	1.66
	Sculpin	4.62
	Central Mudminnow	0.24
Rocker	Longnose Sucker	8.92
Ramsay	Westslope Cutthroat Trout	0.13
	Brook Trout	0.06
	Longnose Sucker	2.02
	Sculpin	0.32
Below German Gulch	Rainbow / W. Cutthroat Trout	0.11
	Brook Trout	0.11
	Longnose Sucker	1.88
	Sculpin	0.21
Above Highway 1 Bridge	Rainbow Trout	0.12
	Longnose Sucker	0.70
	Sculpin	0.89

6.3.8 Trends in Fish Abundance 2002 to 2008

In addition to presence/absence data, it is often useful to monitor trends in abundance of selected species that span most or all of the sampling sections. Since sampling was initiated in 2002, longnose suckers have been present in all of the sampling sections where fish have been observed, and this species is probably a good choice for monitoring trends in abundance between various sections.

In 2005, suckers were most abundant at Lower Area One (Figure 6-2), which is located above the municipal sewage outfall near Butte. However, in 2006 and 2007, sucker abundance decreased noticeably at this site (Figure 6-2). In 2008 sucker density was slightly up from 2007, and this was the first year since sampling was initiated (2005) that the species did not witness a precipitous decline in relative abundance in the section (Figure 6-2). The cause of the decline of sucker density between 2005 and 2007 is not well understood, and occurred during the same period when sculpin density was increasing (Appendix N-2).

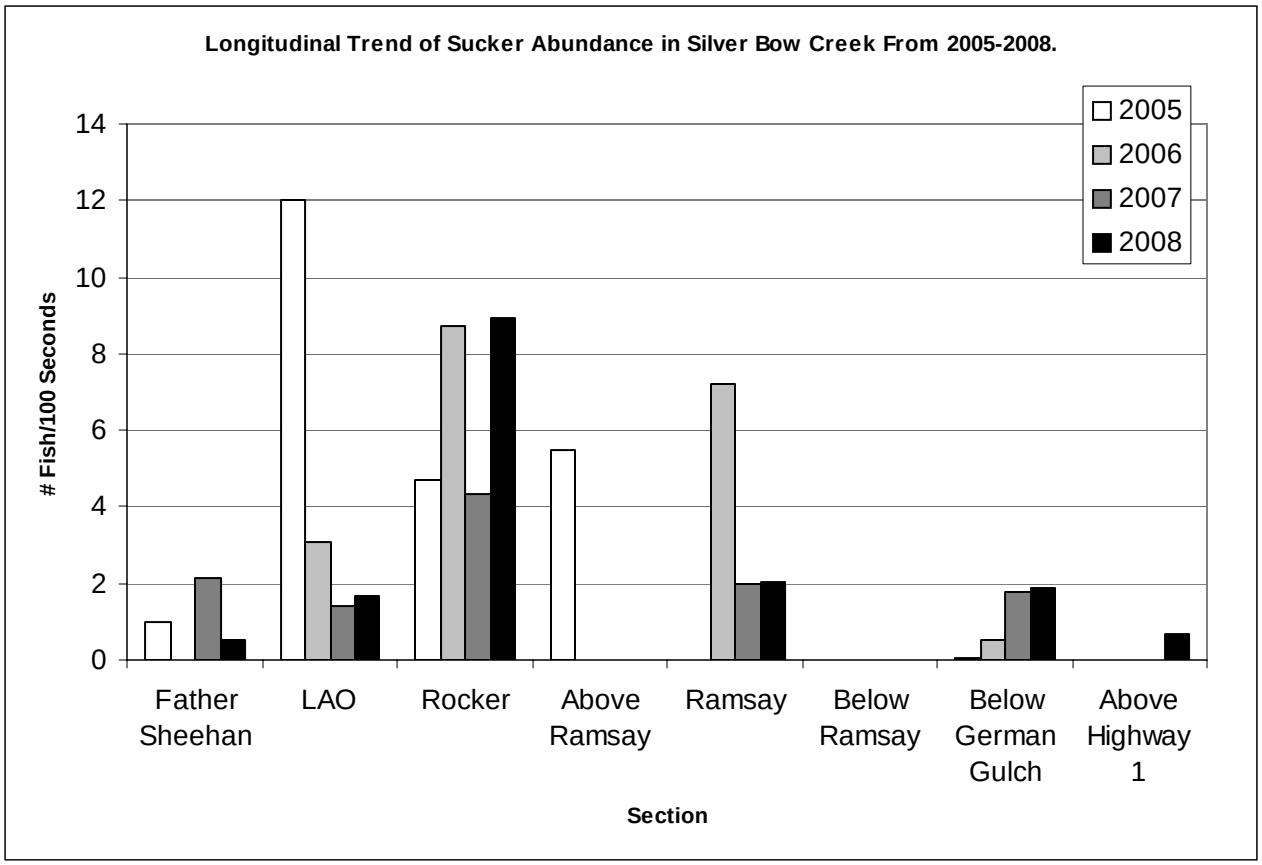


Figure 6-2. ***Longitudinal trend of longnose sucker relative abundance in eight sections of upper Silver Bow Creek from 2005-2008. (Above and below Ramsay sections only sampled in 2005 because of construction activities at the Ramsay section. The Ramsay section was remediated by 2006. The Above Highway 1 Section was added and first sampled in 2008. The below German Gulch and Above Highway 1 Sections are still unremediated).***

Sucker abundance near Rocker and above Ramsay was relatively similar in 2005, and all fish (including suckers) were rare in the unremediated section downstream of Ramsay during fall sampling despite the presence of similar physical habitat features such as streambed substrate, width-depth ratio, stream flow and other factors. In 2006, 2007, and again in 2008 sucker abundance was highest at the Rocker Section but decreased with downstream distance. However, the decline in abundance was not as sharp in these years as it was in 2005 (Figure 6-2).

Through 2007, sucker abundance continued to increase at both the Father Sheehan and Below German Gulch Sections (Figure 6-2). While density of suckers at the section below German Gulch was again slightly up from 2007, 2008 witnessed a notable decline in sucker density at the Father Sheehan Section (Figure 6-2), a pattern that is not well understood. At the Above Highway 1 Section that was added in 2008, suckers were present at this unremediated site, although they occurred at relatively low density. One interesting note is that in both 2007 and 2008, sucker density in the unremediated section below German Gulch was similar to the relative abundance of the species at the remediated Ramsay Section.

6.3.9 Long Term Sections

6.3.9.1 Rocker Section

The Rocker Section has been sampled every year since sampling was initiated in 2002. Longnose sucker and slimy sculpin are the only two species that have been documented in this reach during fall sampling. Longnose suckers are fairly common in the reach, and have been present at variable densities since 2002 when the reach was first sampled. Slimy sculpin, while present in the reach in all years except 2005 and 2008, tend to be much less abundant. See Appendix N-2 for a summary of catch-per-unit-effort for the Rocker Section from 2002-2008.

Based on observed trends in abundance of longnose suckers at the Rocker Section, it appears that 2006 and 2008 provided better conditions for sucker survival compared to other years of sampling. The highest numbers of suckers were captured during these years (Table 6-6). Three sculpin were also captured during sampling in 2006. In addition to fish sampling, a Hach Colorimeter was used to measure Total Ammonia at the Rocker Section on October 3, 2006. Total Ammonia was measured at 4.02 ppm, and pH was 7.71 on this date. During 2007, sucker abundance was similar to that of 2005 and 2002 (Table 6-6). In 2008, sucker density was the highest on record but was similar to 2006 in terms of CPUE (Table 6-6).

Table 6-6: ***Catch-per-unit effort electrofishing trend for longnose suckers in the Rocker Section of Silver Bow Creek (2002-2008).***

Year	# Longnose Suckers	Effort (seconds)	# Fish/100 Sec. (CPUE)
2002	75	1529	4.9
2003	48	1580	3.0
2004	20	1672	1.2
2005	122	2602	4.7
2006	167	1912	8.7
2007	109	2506	4.4
2008	188	2108	8.9

A comparison of length-frequency distribution for longnose suckers in the Rocker Section from 2002 through 2007 shows similar population structure during the period of sampling with most fish being less than 200 mm in total length (Figure 6-3). The largest increase in sucker numbers in 2005 occurred for relatively small individuals in the size group 51-74 mm. In 2007 the largest increase in sucker numbers was for fish between 101-150 mm in total length (Figure 6-3). During 2008, only the larger suckers were measured while the smaller individuals were counted. However, overall size structure appeared similar to previous sample years. The largest sucker captured in 2008 was 237 mm total length.

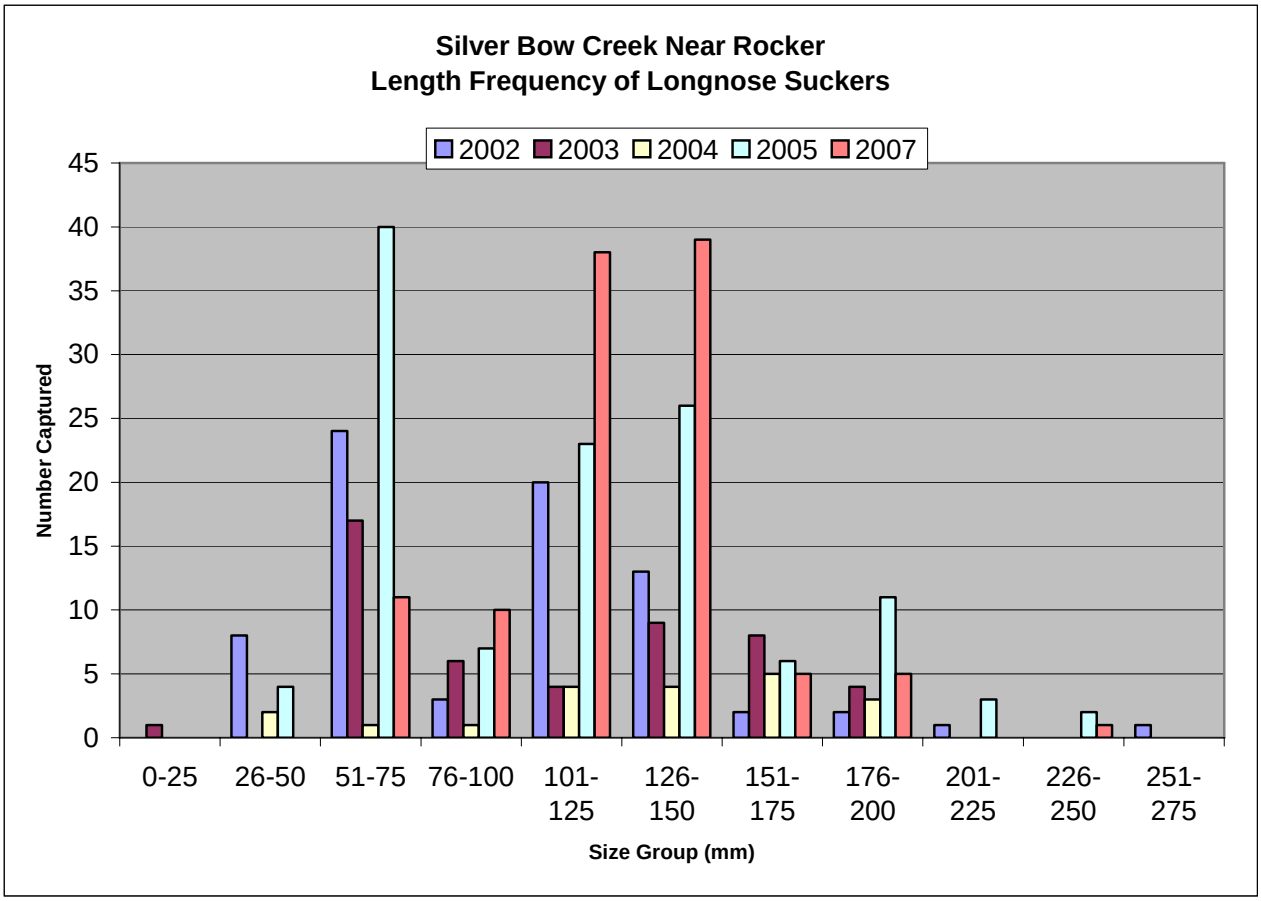


Figure 6-3. ***Comparison of length frequency of longnose suckers in the Rocker Section in 2002 through 2007.***

6.3.9.2 Ramsay Section

Sampling in the Ramsay Section was initiated fall 2003 (pre-remediation), when no fish were found during 1622 seconds of electrofishing. Sampling conditions were favorable for capturing fish if any were present, and the area of Silver Bow Creek was assumed to be void of fish as of October 2003. Again in 2004, no fish were observed during fall sampling. Construction activities in 2005 prevented sampling of the section. Due to floodplain reclamation activities, two new sections were established near Ramsay. One was in the newly reconstructed reach (Reach F) and one was below the remediation at Miles Crossing. Reach F contained 145 longnose suckers, 2 sculpin, and 1 central mudminnow in 2648 seconds of electrofishing. The Miles Crossing section contained no fish during fall 2005 based on 1473 seconds of electrofishing.

In 2006, 144 suckers and 2 sculpin were captured in the Ramsay Section during 1987 seconds of sampling. This section is similar to the location sampled during 2003, when no fish were observed prior to channel remediation. The 2006 results at the Ramsay Section were similar to findings during 2005 sampling at Reach F (when channel remediation activities prevented sampling the traditional Ramsay Section of 2002-2004). In addition to fish sampling, a Hach Colorimeter was used to measure Total Ammonia on 3 October 2006. Total Ammonia was measured at 0.59 ppm, which is considerably lower

than the measurement on the same day at the Rocker Section. Measured pH was 8.3 in the Ramsay Section.

In 2007, the presence of a single brook trout was documented at the Ramsay Section. This represented the first trout observed within the remediated portion of the SSTOU since sampling was initiated in 2003. In addition to the one brook trout, 42 longnose suckers and three slimy sculpin were also captured. While sucker abundance was down from 2006, sculpin abundance was approximately the same.

In 2008, sampling discovered two westslope cutthroat trout in the Ramsay Section. This finding is rather significant as it is the first documentation of native trout in the remediated portion of the SSTOU. Additionally, sampling in 2008 also turned up a brook trout, 32 longnose suckers, and five slimy sculpin. An interesting note regarding suckers captured in the reach was that all but one appeared to be young-of-the-year. The density of older age classes was down despite overall CPUE being similar to 2007.

6.3.9.3 Below German Gulch Section

The section below German Gulch was added in the fall of 2003. At this sampling event, no fish were captured during 1412 seconds of electrofishing. The section was sampled again in both the spring and fall of 2004. The sampling in May 2004 was to determine the potential for Silver Bow Creek to support fish during the spring when water quality may be improved by dilution due to rainfall and snowmelt. On May 19, 2004 the standard 1000 ft section below German Gulch was sampled with three electrofishing passes totaling 4730 seconds of effort. Three species of fish were observed during this sampling including one brook trout, two cutthroat trout, and two longnose suckers.

During spring 2005, no cutthroat trout or longnose sucker were observed during 1958 seconds of electrofishing in the 1000-foot section. Brook trout, however, were relatively common with 31 individuals captured during the sampling effort. One sculpin was also captured during the spring sampling on 27 June 2005. Streamflow was relatively high during this sampling effort and capture efficiency was presumed to be very low.

During fall 2005, three sculpin, one longnose sucker and no trout were captured in 1956 seconds of sampling the standard section. Although it is common to capture fish in this section during spring sampling, 2005 is the first year that fish have been found during the fall sampling effort.

During 2006, sampling of the standard electrofishing section was conducted on 6 October 2006, and no sampling was done during the spring. Sampling effort was 2218 seconds in the standard 1000 ft section, and one brook trout, three sculpin, and 11 suckers were captured. The fall 2006 sampling observed the most fish captured since the first fall sampling was conducted in 2003. In addition, the capture of a brook trout (112 mm TL) represents the first trout observed during fall sampling of this section.

During 2007, the Below German Gulch section was again sampled in both the spring and the fall. On June 1, 2007, the standard 1000 ft section was sampled with two passes. On the first pass, two westslope cutthroat trout, four brook trout, 15 suckers, three sculpin, and one central mudminnow were captured during 3030 seconds of electrofishing. On the second pass, one westslope cutthroat trout (67 mm) and six brook trout (Mean Length: 56 mm, Range: 30-180mm) were captured during 2552 seconds of electrofishing.

During fall 2007, four westslope cutthroat trout were captured in one and a half electrofishing passes through the section. These fish represent the first westslope cutthroat trout observed at this site during

fall sampling. In addition to the westslope cutthroat trout, 49 brook trout, 51 longnose suckers, and 23 slimy sculpin were also captured at the section during the fall survey. This represents the highest number of brook trout ever captured at this site during fall sampling, as well as the greatest number of longnose suckers and slimy sculpin at the site since sampling began in 2003 (both fall or spring). Streamflow was relatively high during this sampling effort

During fall 2008, one large rainbow trout and one phenotypic rainbow trout-westslope cutthroat trout hybrid were captured in the section below German Gulch. Additionally, two brook trout, 35 longnose suckers, and four slimy sculpin were also noted in the section. The documentation of rainbow trout in this section is the first record of the species in Silver Bow Creek since sampling was initiated in 2002. Overall, fish density appeared down from 2007 although CPUE was somewhat similar for all species except brook trout, which were notably less abundant.

6.3.9.4 Lower Area One Section

The section at Lower Area one was added in fall 2005 to provide an improved perspective of the longitudinal distribution of fish species in the upper Silver Bow Creek drainage. During fall sampling in 2005 (November 3rd), 310 longnose suckers, 19 slimy sculpin, and four central mudminnow were captured during 2578 seconds of electrofishing. The water was very turbid during the time of the survey and it is likely that efficiency was low, especially on hard to see species such as sculpin. No trout were captured at the site during the 2005 sampling event.

Sampling at the section was repeated in fall 2006. One 4320 second electrofishing pass on October 6th found 299 slimy sculpin, 133 longnose suckers, and six central mudminnow. Sucker abundance appeared to decline noticeably from 2005, while sculpin density appeared to increase. Similar to 2005, no trout were observed in the section in 2006.

During fall 2007, three adult brook trout were captured in the Lower Area One section. These fish represent the first trout collected at the site since sampling was initiated in 2005. In addition to the three brook trout, 42 longnose suckers, 231 slimy sculpin, and 10 central mudminnow were captured in the section in 2007. Like 2006, sculpin were much more abundant at the Lower Area One site than suckers, which for the third year in row, continued to decline in abundance. Mudminnow abundance was also up from past years.

During 2008, 41 longnose suckers, 114 slimy sculpin, and six central mudminnow were captured in the Lower Area One Section. Longnose sucker and central mudminnow appeared to be at similar densities to 2007, while slimy sculpin appeared to drop in relative abundance. No trout were observed at the Lower Area One Section in 2008.

6.3.9.5 Father Sheehan Section

The Father Sheehan Section was initially sampled in fall 2005, and like the section at Lower Area One, was added to provide and improved perspective of longitudinal fish distribution in upper Silver Bow Creek. On November 3, 2005, two electrofishing passes were made through the 500-foot section. On the first pass, 36 brook trout, 19 longnose suckers, and 71 slimy sculpin were captured during 1866 seconds of electrofishing. Brook trout from the first pass ranged between 95 and 260 mm in length. On the second pass (1351 seconds), only brook trout were targeted, of which 15 were captured ranging in length from 110 to 214 mm. No population estimate was run for brook trout due to fairly low capture efficiency.

The Father Sheehan Section was not sampled during 2006, but was surveyed again in October 2007. At this sampling event, two electrofishing passes were made through the established 500-foot section. During the first pass, 64 brook trout, 59 longnose suckers, 133 slimy sculpin, and 39 central mudminnow were captured during 2744 seconds of electrofishing. On the second pass, 11 brook trout, 29 longnose suckers, 58 slimy sculpin, and 15 central mudminnow were captured during 1610 seconds of electrofishing. All species sampled during fall 2007 showed an increase in abundance from 2005. Brook trout capture efficiency during 2007 was also high enough to produce population estimates for two size classes. For brook trout 75 to 149 mm in length, the population estimate was 33 (95% confidence interval: 33-37) fish per 500 feet of channel, and for brook trout greater than 150 mm in length, the estimate was 42 (95% confidence interval: 42-44) fish per 500 feet of channel.

During 2008, the Father Sheehan section was again sampled. Two electrofishing passes were made through the 500-foot section yielding 84 brook trout, 12 longnose suckers, 84 slimy sculpin, and 16 central mudminnow on the first pass, and 26 brook trout, 4 longnose suckers, 69 slimy sculpin, and 9 central mudminnow on the second pass. Brook trout showed an increase in density in the section compared to 2007, while the remaining three species all showed declines in relative abundance with longnose sucker showing the most notable drop.

6.3.9.6 Above Highway 1 Crossing

The section above the Highway 1 bridge crossing near Opportunity was added in 2008 to gain perspective of fish presence in lower, unremediated reaches of Silver Bow Creek, and to determine if rainbow and brown trout, which are stocked annually in the connected Warms Springs Ponds, may be moving upstream out of the ponds. During 2008, four rainbow trout, 23 longnose suckers, and 29 slimy sculpin were captured in the 250 m (820 foot) reach.

6.4 Discussion

Prior to 2002 fishery sampling in the Upper Silver Bow Creek Watershed was primarily confined to tributaries such as Blacktail Creek and German Gulch. Silver Bow Creek was generally considered to be void of fish except for occasional observations of suckers during the late 1990's when remediation of the stream channel began. Sampling described in this report represents the first formal sampling of fish presence and abundance in Silver Bow Creek. Fish sampling of Silver Bow Creek from 2002 to 2008 was conducted to provide a general perspective of fish response to ongoing remediation activities in Silver Bow Creek. Since numerous sections were sampled using relatively low effort sampling techniques, interpretation of results should be limited to observations of major trends in fish species composition. Sampling conducted in this effort is sufficient to determine if a sampling reach was fishless for one or more years, followed by colonization by tolerant species such as suckers and sculpin, and then followed by colonization by sensitive species such as trout. Relatively small fluctuations in fish abundance or species composition at specific sampling locations should not be considered significant unless a multi-year trend is observed.

The presence or absence of various fish species among the sample sections in Silver Bow Creek provides insight into the tolerance of each species to changes in water quality along the longitudinal gradient of the stream. Because of their sensitivity to poor water quality, brook trout are a good species to examine for distributional changes over time. Brook trout are common in upper Silver Bow Creek at Father Sheehan Park as well as in German Gulch and Browns Gulch. Fish in each of these areas clearly

have access to downstream reaches of Silver Bow Creek that provide similar habitat types. However, prior to 2007, no brook trout were ever captured during fall sampling in sections downstream of Father Sheehan Park (e.g. Lower Area One, Rocker, and Ramsay), except for one individual captured below the confluence of German Gulch in 2006. It can be reasonably assumed that water quality deterioration downstream of Father Sheehan Park is the primary reason for the absence or rarity of brook trout in downstream reaches of Silver Bow Creek. In fall 2007, brook trout were found in two reaches where they had previously not been documented. Three brook trout were captured at the Lower Area One Section, and one brook trout was captured at the Ramsay section. During 2008, no brook trout were found in the Lower Area One Section, and trout numbers continued to be very low at Ramsay and below German Gulch. While the presence of brook trout at several of these sections during recent sampling is an improvement over previous years, the rarity of this sensitive species, and its continued absence from the Rocker Section, still suggests water quality remains a concern downstream of Butte. Continued monitoring of these sections will help provide needed clarification.

At the Rocker Section, water quality is impaired by several factors including elevated ammonia levels directly related to the Butte sewage treatment plant discharge located just upstream. Only longnose suckers and slimy sculpin have been documented at the Rocker Section since sampling was initiated in 2002. Sucker and sculpin species tend to be more tolerant of a variety of pollutants such as metals, nutrients, low dissolved oxygen, high sediment loading, and elevated water temperatures. However, low summer streamflows, perhaps associated with drought conditions, tend to exacerbate water quality problems in Silver Bow Creek. An examination of annual differences in longnose sucker density at the Rocker Section appears to provide some support for this. Between 2002 and 2004, sucker density appeared to decline in the Rocker Section. During this period, average monthly spring and summer flows were relatively low. Longnose suckers spawn in the spring (April-May), and higher flows during this period likely benefit recruitment. Subsequently, low spring flows and further reduced summer flows may limit fish survival in areas of Silver Bow Creek. An assessment of USGS streamflow data collected for Silver Bow Creek below Blacktail Creek showed several patterns that seemed to correlate with fall sucker density in the Rocker Section. From 2002 through 2004, mean July flows were relatively low in Silver Bow Creek ranging from 12.4 to 14.2 cfs during this period. Mean July flow over the period of record (1983-2007) was 20.7 cfs. In addition to low summer flows, mean monthly flows in May from 2002 through 2004 averaged just 20.5 cfs (range: 16.2 - 24.0 cfs). The mean May flow over the period of record was 29.9 cfs. While summer flows in 2005 were similar to previous years, improved spring stream flow during this year may be a possible explanation for a recovery of sucker density observed at the Rocker Section during this year. In 2005, there was an abundance of young-of-the-year suckers present at the Rocker Section. During this year, mean flow during the month of May was 33 cfs, and the increased flows may have contributed to improved sucker recruitment during 2005. In 2006, mean May flows were similar to that of 2005, and sucker density at Rocker was the highest since sampling was initiated in 2002. In 2007, sucker density in the Rocker section appeared to decline to a level similar to that of 2005. The majority of fish captured during this year were larger than those from 2005, however, and likely represented individuals from the strong 2005 year-class. Oddly, mean monthly spring and summer flows were relatively similar to those of 2005 and 2006. In 2008, we observed the highest density of suckers in the Rocker Section ever recorded. During this year, mean flow during the month of May was 42 cfs, one of the highest mean May flows on record. The mean May flow for the period of record (1984-2008) is only 31 cfs. These increased spring flows may have contributed to improved sucker recruitment in 2008.

Fish species that are more tolerant of pollution and water quality problems such as longnose suckers and slimy sculpin reside in most areas of Silver Bow Creek. However, even these species have had trouble persisting in Silver Bow Creek downstream of Ramsay where metal loading remains high in areas not yet

remediated. Prior to 2005, it appeared that that Silver Bow Creek was not suitable for supporting fish in the two study sections located downstream of remediation activities (Ramsay or German Gulch). No fish were observed in these two sections during fall sampling in 2003 and 2004. However, three species of fish were found in the section below German Gulch during May 2004. Brook trout, westslope cutthroat trout, and longnose suckers were observed in low numbers during spring 2004, indicating that dilution water from German Gulch allows at least a temporary fishery to establish in the study section located about 0.5 miles downstream of the mouth. In addition, this observation confirmed the idea that German Gulch will likely provide an important source of fish recruitment to Silver Bow Creek in the future. Until 2005, it did not appear that any species of fish was able to persist throughout the year below German Gulch because no fish were observed during fall sampling. In October of 2005, three sculpin and one longnose sucker were observed in this section, and this sampling confirmed the first observation of fish in this section during the fall. In 2006, one brook trout was observed in the Below German Gulch Section during October, representing the first observation of trout in this area outside of the spring time period. In fall 2007, a rather remarkable number of fish were captured at the below German Gulch Section. A total of four westslope cutthroat trout, 49 brook trout, 51 longnose suckers, and 23 slimy sculpin were captured during the October electrofishing. This represents the first record of westslope cutthroat at this site during the fall. Higher fall streamflows in Silver Bow Creek below the confluence of German Gulch from 2005 through 2007, is one possible reason for the increased density of fish present in the reach during fall sampling. Based on examination of USGS streamflow data collected for Silver Bow Creek near Opportunity, mean October streamflow during the period of record (1988-2007) is 35.4 cfs. From 2002 through 2004, mean October flow was rather low in Silver Bow Creek, ranging from 21.5 to 23.7 cfs, and no fish were captured during fall sampling in the section below German Gulch during these years. However, between 2005 and 2007, mean October streamflow was noticeably higher in Silver Bow Creek, ranging from 32.5 to 35.6 cfs. This increase in average flow during October likely improved water quality and allowed fish to persist into the fall in the Below German Gulch Section. The reason for such a notable increase in fish density at the section below German Gulch during fall 2007 is not completely understood. It should be noted that the section below German Gulch that was sampled during fall 2007, was moved slightly upstream from the historic site due to bridge construction activity in the area of the historic section. It is unlikely however, that this small amount of movement could justify the differences in fish numbers from past surveys. Another potentially significant factor that is difficult to quantify, is that by the fall of 2007, most of the area known as Ramsay Flats, and farther downstream almost to Miles Crossing, had the majority of the contaminants removed from the floodplain. This area was a large source of metal contaminants and the removal of these contaminants may have benefited the fishery. Sampling during fall 2008 did little to clarify any of this however. During 2008, trout density was again low at the section below German Gulch with only two brook trout, one rainbow trout, and one westslope cutthroat-rainbow trout hybrid (phenotypic characteristics) noted. While overall trout density was notably down from 2007, sucker density was nearly the same or maybe even slightly higher in the reach. Mean monthly flows in Silver Bow Creek measured near Opportunity during 2008 were much higher on average than in 2007, yet these increased flows did not appear to be benefit trout at this location. One possibility is that the much higher than average May and June flows mobilized metals from bed sediments that led to increased mortality of sensitive species such as trout. It is obvious that there are multiple factors affecting fish use and survival in Silver Bow Creek, and it is going to take continued monitoring and more in-depth research to start answering some of these questions.

6.5 Recommendations

Continued monitoring of the established electrofishing sections in Silver Bow Creek still remains one of the best ways to assess fish response to ongoing remediation and restoration efforts as well as other factors such as drought and nutrient loading. Fish sampling in the Rocker, Ramsay and Below German Gulch Sections should be repeated annually, and sampling at the sections added in 2005 at Father Sheehan Park and at Lower Area One should also be continued. Additionally, adding and repeating new sample sections downstream of German Gulch such as the one above the Highway 1 crossing near Opportunity (added in 2008) will be necessary as remediation activities continue to move downstream.

Seasonal fish movements throughout the Silver Bow Creek watershed may result in problems interpreting trends with fish populations. Electrofishing surveys during the fall (spring and fall below German Gulch) provide a snapshot of the fishery status during a specific point in time, but fish mortality during one season may be masked by fish migration during another. A fish tagging and radiotelemetry study would provide beneficial information on how fish are utilizing and moving in the Silver Bow Creek watershed. A study of this sort is planned for the area beginning in spring of 2009. A graduate student from Montana State University would conduct the study with assistance from Montana Fish, Wildlife and Parks. The results of this multi-year project should yield some interesting and important results related to fish movement and behavior in the Silver Bow Creek watershed.

7.0 CAGED FISH MORTALITY STUDY

7.1 Introduction

The objective of the remedial action on the streamside tailings operable unit (SSTOU) of Silver Bow Creek is to improve the quality of surface water and instream sediments to the point that the creek could support the growth and propagation of fishes and associated aquatic life, including a self-sustaining population of trout species. Fish are monitored in remediated reaches and unremediated portions of Silver Bow Creek to evaluate species composition and abundance. Improved water quality resulting from the removal of tailings along Silver Bow Creek is believed to have improved conditions that will allow fish to survive. Indeed, fish monitoring efforts from 2002-2008 have yielded increased white sucker abundances and the presence of resident trout species, although site-specific variability does exist. In addition, it is not known if fish captured during sampling efforts are inhabiting Silver Bow Creek, or just moving through on-route to less contaminated tributaries.

To better understand if fish are capable of surviving in Silver Bow Creek under current conditions, a live caged fish study was conducted in the fall of 2008. The original monitoring plan proposed a 96-h acute study; however metal concentrations in the past decade have decreased to concentrations at or below chronic toxicity levels. Because of reduced metal loads, it may take longer for fish to succumb to the toxic effects from metals. Moreover, elevated ammonia concentrations downstream of the Butte wastewater treatment plant may be the limiting factor affecting fish survival in Silver Bow Creek. Thus, a 30-d chronic caged fish study was conducted to evaluate the factors limiting fish survival in Silver Bow Creek. Young-of-the-year fish were used for the study because they are typically more vulnerable to poor water quality conditions. They are also more readily available from the hatchery and can be replicated at higher densities in the cages.

7.2 Methods

Caged fish were placed at 4 locations along Silver Bow Creek, in addition to a control site in Brown's Gulch, a tributary that enters Silver Bow Creek west of Ramsey (Figure 7-1). Specific site locations were determined during a reconnaissance meeting in late June, 2008. Main-stem sites included locations above (SS-06G) and below (SS-07) the Butte sewage treatment outfall, as well as locations near Ramsey (SS-11D) and above the confluence with German Gulch (SS-15A). The Rocker section was not selected as a site for caged fish because it was believed the effluent from the sewage treatment plant makes water quality uninhabitable (i.e., anoxic conditions) at this location, even for a short period of time. Below German Gulch was selected as a site location because the effects of the un-remediated creek could be lessened by the inflow of German Gulch water.

Westslope cutthroat trout used for the caged fish study were obtained from Washoe State Fish Hatchery, in Anaconda. Fish (~1.5 inches TL) were transported from the hatchery to site locations the same day using 10-gallon coolers and placed in live cages, 12 fish per cage. Fish were acclimated to water temperatures at each site by placing the transport cooler in the stream until water temperatures differed by < 1 ºC. Fish were maintained on hatchery pellet food. Acclimation to pellet food at caged sites was not necessary because fish were already trained on pellet feed. The caged fish study was purposefully conducted during the month of August when water quality characteristics (i.e., temperature, dissolved

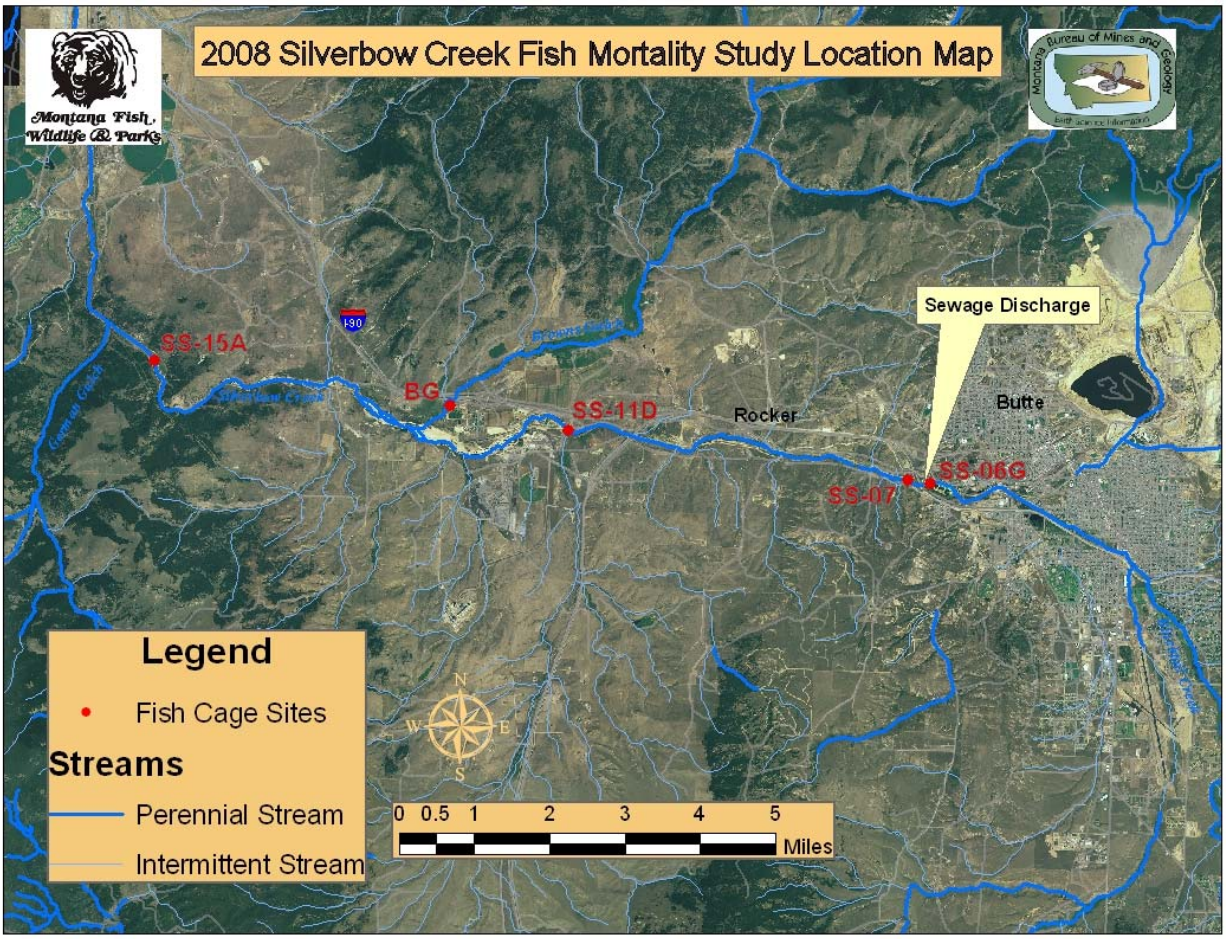


Figure7-1. ***Locations of caged fish along Silver Bow Creek.***

oxygen) are most extreme. Fish were placed into cages on August 1st, and the study was concluded on August 29th, 2008.

A number of water quality parameters were measured at each site in attempt to link fish mortalities in the cages at specific sites with water quality conditions. Hach Hydrolab ® MS5s or DS5s were deployed in the creek at each site. These instruments were programmed to collect hourly data on water temperature, conductivity, pH, dissolved oxygen, ORP, and turbidity. HOBO ® Tidbit ® temperature loggers were also placed in several cages to calibrate temperature differences between the Hach Hydrolab ® units and the water in the cages. We used an adaptive sampling plan for testing water quality for ammonia, hardness and metals that was adjusted depending on the survival pattern of fish in the cages. Metal contaminants of concern included: arsenic, lead, cadmium, copper, and zinc. Water samples were collected and preserved daily when individual cages were examined for fish mortalities. Because fish mortality was likely to occur rapidly at some sites, we front-loaded water sampling to better characterize causes of mortality, collecting samples daily the first seven days and every second or third day during the remaining weeks. Water samples were not collected at sites once 100% mortality was observed and no fish remained in the cages. A USGS gauging station (USGS 12323250) was used to monitor stream flow in Silver Bow Creek. This gauging station is located within feet of our caged fish site below the Butte wastewater treatment facility (SS-07).

Dissolved metals are typically lowest in the evening and highest after sunrise. Ammonia concentrations typically increase with increased WTTP discharge, so ammonia is typically highest in the morning. When possible, water samples were collected in the morning to capture the daily peak ammonia and metal concentrations. Water samples were stored in a fridge during the week and delivered to the Department of Health and Human Services (DPHHS) Environmental Lab in Helena, MT weekly, well in advance of the 30-day holding time for preserved samples. A second water sample for ammonia was tested using a portable Hach unit.

7.3 Results

Fish were successfully transplanted from the hatchery in Anaconda to caged sites along Silver bow Creek on August 1st. No mortalities were observed at any caged site the first week of the study, indicating that handling stress and acclimation procedures were not factors affecting fish survival. Daily maximum temperatures during the month of August remained at or just slightly below 20 ºC at most sites. This level is considered to be a physiological threshold temperature that can cause stress in trout. The sites at Ramsey (SS-11D) and above the confluence with German Gulch (SS-15A) experienced the highest maximum daily temperatures, frequently rising above 22 ºC (Figure 7-2). The control site in Browns Gulch consistently experienced the lowest maximum temperatures, but remained similar to the other sites in Silver Bow Creek.

A relatively small rain event occurred in the watershed on August 7th that resulted in increased flow of approximately 8 cfs in Silver Bow Creek that crested by August 11th (Figures 7-2 and 7-3). This rain event, while not large, appeared to mobilize metals, increasing metal concentrations of copper (Cu) and zinc (Zn) to above acute levels at the site below the sewage outfall (SS-07) and the site above the confluence with German Gulch (SS-15A; Figures 7-4 and 7-5). Total ammonia nitrogen levels remained below chronic toxicity levels at all site locations, expect for SS-07, where levels fluctuated between chronic and acute levels and increased to concentrations above acute standards (Figure 7-6). Ammonia did appear to increase in response to the rain event that occurred on August 7th, although peak values did not always correlate with high streamflow (Figure 7-6). On August 8th, significant mortalities were observed in caged fish at SS-07 and SS-15A (Table 7-1). Mortality of 100% and 96% of caged fish was observed for SS-07 and SS-15A during this time (Table 7-1).

During the 28-day chronic caged fish study, no mortalities were observed at SS-06G, the site above the Butte sewage treatment outfall. The control site in Brown's Gulch also experienced limited mortality, although 3 mortalities were observed from the 24 fish at the site. The Ramsey site (SS-11D) had 2 mortalities during the course of the study. Site SS-11D did experience Cu levels above acute levels (Figure 7-4) and also low dissolved oxygen levels (Figure 7-3), although only 2 mortalities were observed at this site.

The site below the sewage treatment outfall (SS-07) had several water quality measurements that may have individually or cumulatively affected fish survival (Table 7-1). Concentrations of both Cu and Zn increased to levels well above acute standards (Figure 7-7). Total ammonia nitrogen concentrations were frequently above chronic standards and exceeded acute standards on August 9th and 11th (Figure 7-7). Maximum temperatures appeared to decrease slightly with increased flow from the rain event on August 7th (Figure 7-2), however dissolved oxygen levels decreased to just above 5 mg/L during this same time period, another threshold level for contributing to stress in trout.

The site above the confluence with German Gulch (SS-15A) was the only other site that experienced significant fish mortality (Table 7-1). Concentrations of Cu were measured to be above acute levels throughout the study. Copper levels spiked even higher on August 7th, corresponding with the rain event (Figure 7-8). Levels of Zn were below the chronic and acute levels except on August 7th, when they also spiked to acutely toxic concentrations (Figure 7-8). Dissolved oxygen concentrations at SS-15A were favorable for trout throughout the study (Figure 7-8), although SS-15A experienced the highest maximum daily temperatures compared to other locations (Figure 7-2). In contrast to SS-07, total ammonia concentrations at SS-15A were at or below detection limits and did not appear to contribute to fish mortalities.

7.4 Discussion

Despite extensive remediation efforts on Silver Bow Creek and within the Upper Clark Fork Basin, there appears to be several factors still limiting trout survival in Silver Bow Creek. Rain events, even relatively small ones experienced during this study, appear to cause metal pulses into the creek that are acutely toxic to trout. Within the area of Silver Bow Creek examined in this study, it appears that the sites of greatest concern for metal contamination are located in and around sites SS-07 and SS-15A.

Total ammonia nitrogen discharged from the wastewater treatment plant in Butte has been identified as a major factor affecting water quality in Silver Bow Creek. Indeed, ammonia measured at SS-07 below the sewage treatment outfall peaked well above acutely toxic concentrations, and frequently was above chronic levels throughout the study. Because both metals (Cu and Zn) and ammonia were found at SS-07 at acutely toxic concentrations, it is not possible to determine the ultimate cause of fish mortalities. It is reasonable to believe that Cu, Zn, and ammonia had cumulative effects on fish survival; it is also probable that each contaminant would have independently caused mortality in fish because the levels for all 3 contaminants were measured above acute concentrations. Indeed, fish mortalities observed SS-15A were attributed exclusively to the effects of metal toxicity, since levels of ammonia were below detection limits at this site.

Surprisingly, and despite pre-study predictions, fish did survive at SS-06G and SS-11D with 0 and 2 mortalities observed at these 2 sites. Indeed, ammonia and Zn levels were low at both sites, often below detection limits; however Cu levels at SS-11D did frequently exceed acutely toxic levels. Moreover, this study was conducted during August when high temperatures, low dissolved oxygen levels, and reduced in-stream flow levels are expected to be most stressful to fish. Because fish were able to survive at these sites during this harsh time period, it is likely fish could inhabit these sections of the creek during other times of the year when water quality is more favorable. Nonetheless, a more extreme rain event could cause mortalities at these locations if elevated metal concentrations were pulsed into the creek, although studying the effects of a large rain event would warrant further investigation.

Clearly, ammonia concentrations measured at site SS-07 are a concern for water quality and the survival of fish. This result however was not un-expected, because of previous studies that have been conducted on Silver Bow Creek. The site above the sewage treatment outfall (SS-06G) is only 1400 ft upstream from the site below the outfall (SS-07). The metal concentrations (Cu and Zn) observed at SS-07 were extremely high, yet remained low and stable and SS-06A, suggesting that metals inputs are rapidly entering the creek between SS-06A and SS-07. It appears as though the remediated areas of Silver Bow Creek are being re-contaminated with metals from somewhere close to the sewage treatment outfall. This is clearly a concern and needs further investigation.

In addition to the water quality conditions limiting fish survival in Silver Bow Creek, food availability - namely aquatic macroinvertebrates – is likely limiting trout growth and survival, and the ability of the creek to support fish in any significant numbers. While invertebrate metrics have been used to characterize the health of Silver Bow Creek, measures of relative abundance for invertebrates have not been collected. These would be valuable, not only to monitor the long-term recovery of the watershed, but also to relate the potential of the creek to support trout biomass. Bioenergetics modeling could be used to estimate the biomass of trout that could be sustained in Silver Bow Creek, if estimates of invertebrate biomass were available. Evidently, improved water quality conditions in the creek that would favor trout survival would also be beneficial to resident invertebrates, so if metal and ammonia conditions improve for fish survival, invertebrate numbers may also increase. Still, the low trout numbers currently inhabiting Silver Bow Creek could be at the carrying capacity of the creek because of limited food resources, although future investigations would be necessary.

Table 7-1: ***Summary of fish mortalities observed in caged fish at 3 sites in Silver Bow Creek and 1 site in Browns Gulch during August 2008. Each cage contained 12 fish. The % total represents the cumulative mortalities within a cage. Note: data for SS-06G, where no fish mortalities were observed, is not included.***

Site	Date	Fish Mortalities Observed				
		Cage A			Cage B	
		Daily Total	% Total		Daily Total	% Total
SS-07	8-Aug-2008	11	92		10	83
SS-07	11-Aug-2008	1	100		2	100
SS-11D	22-Aug-2008	1	8		0	0
SS-11D	29-Aug-2008	0	8		1	8
SS-15A	8-Aug-2008	11	92		10	83
SS-15A	10-Aug-2008	0	92		2	100
BG	22-Aug-2008	1	8		0	0
BG	24-Aug-2008	0	8		2	17

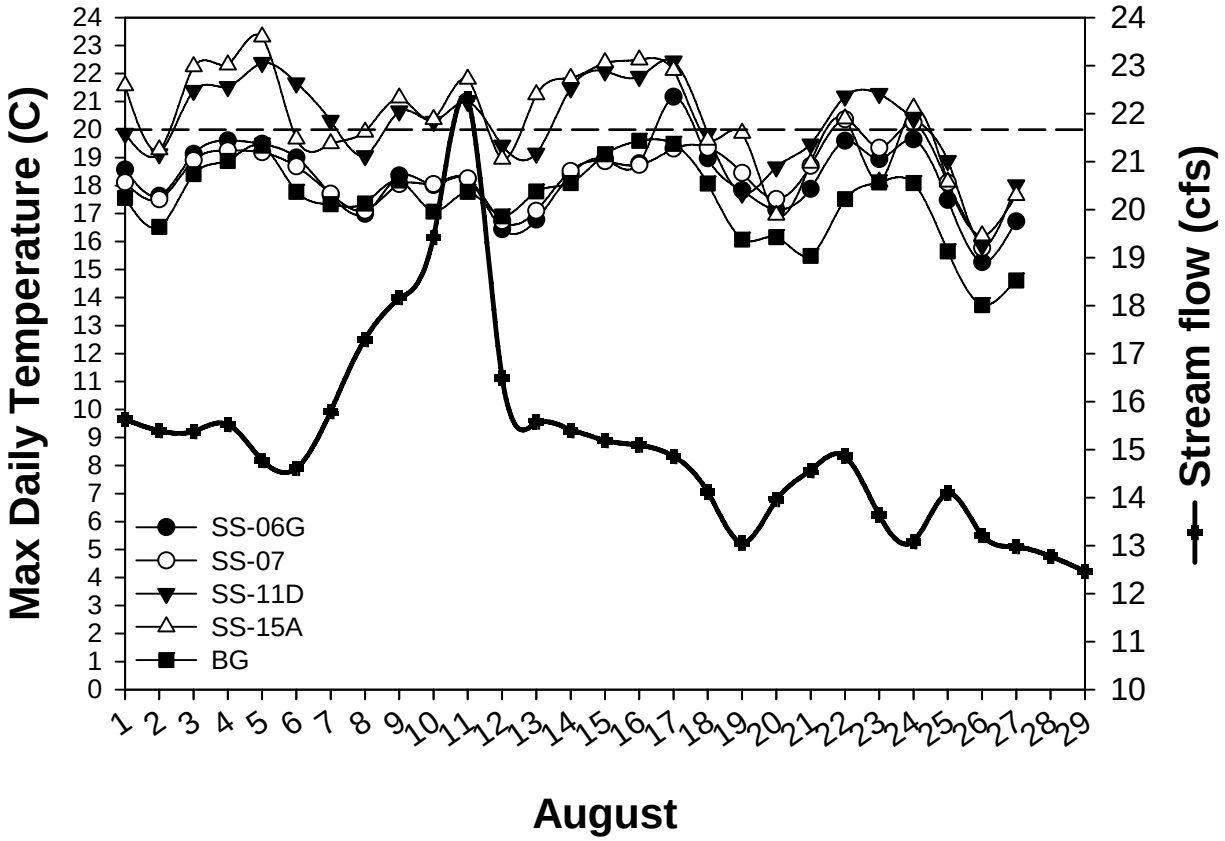


Figure 7-2*: Maximum daily temperatures (ºC) measured at each caged fish location during the month of August, 2008. Horizontal line at 20 ºC represents a physiological threshold temperature that can cause stress in trout.*

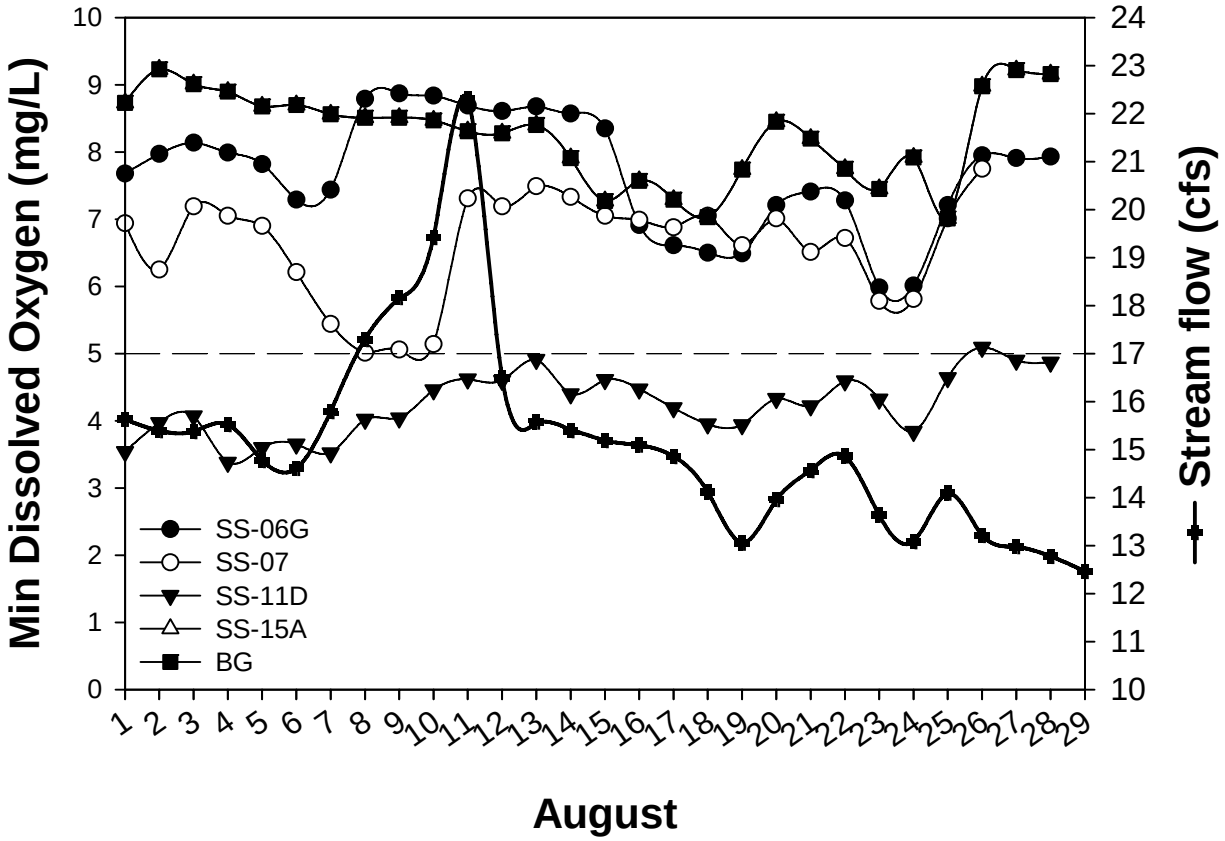


Figure 7-3: ***Minimum daily dissolved oxygen concentrations (mg/L) measured at each caged fish location during the month of August, 2008. Horizontal line at 5 mg/L represents a physiological threshold level that can cause stress in trout.***

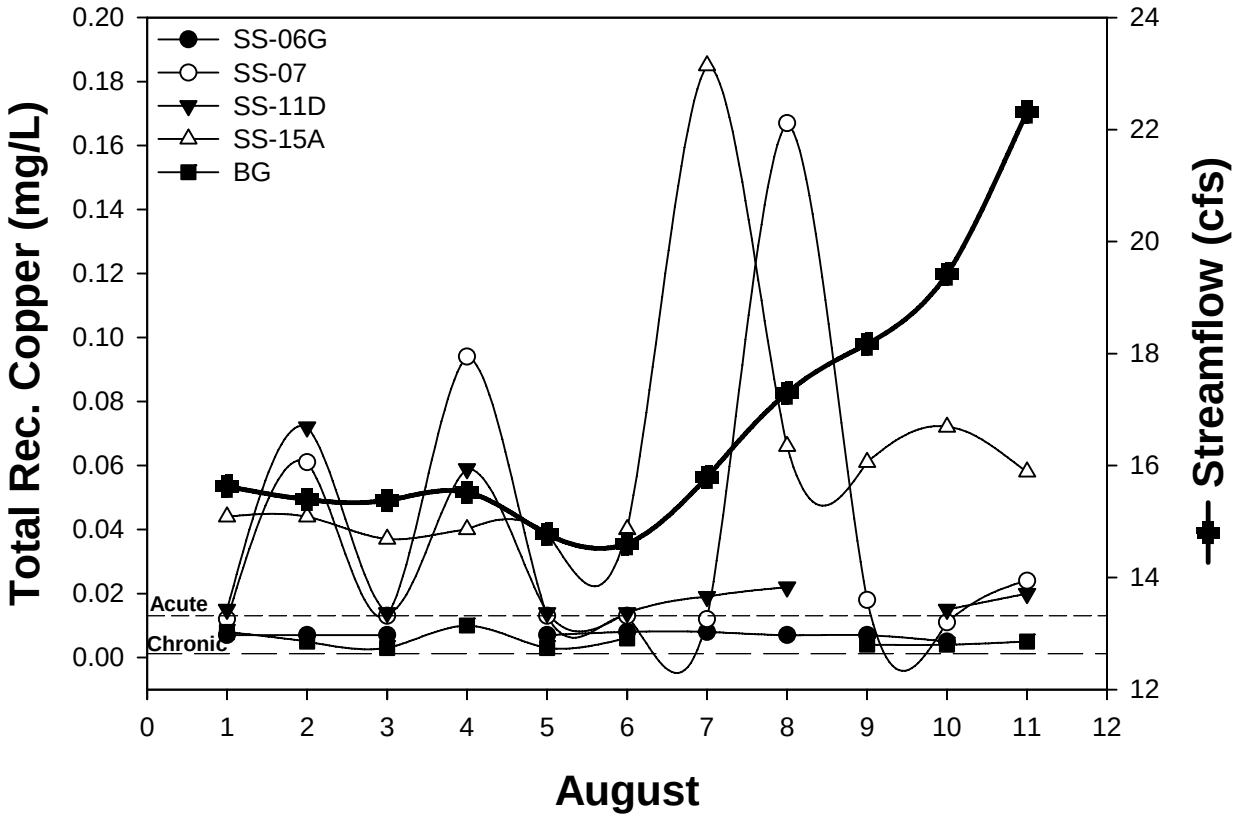


Figure 7-4: ***Total recoverable copper (mg/L) and streamflow measurements (cubic feet per second, cfs) for the initial 11-days of the study at each caged fish location.***

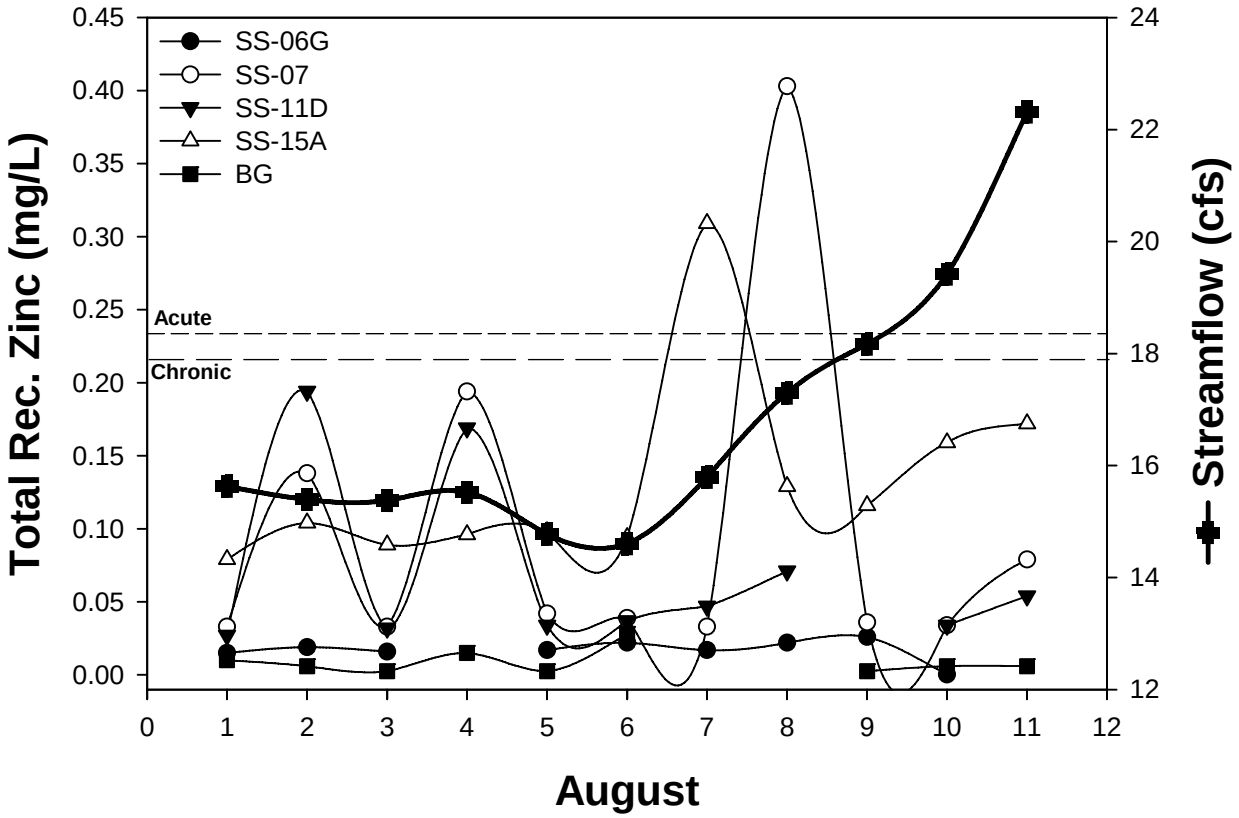


Figure 7-5: ***Total recoverable zinc (mg/L) and streamflow measurements (cubic feet per second, cfs) for the initial 11-days of the study at each caged fish location.***

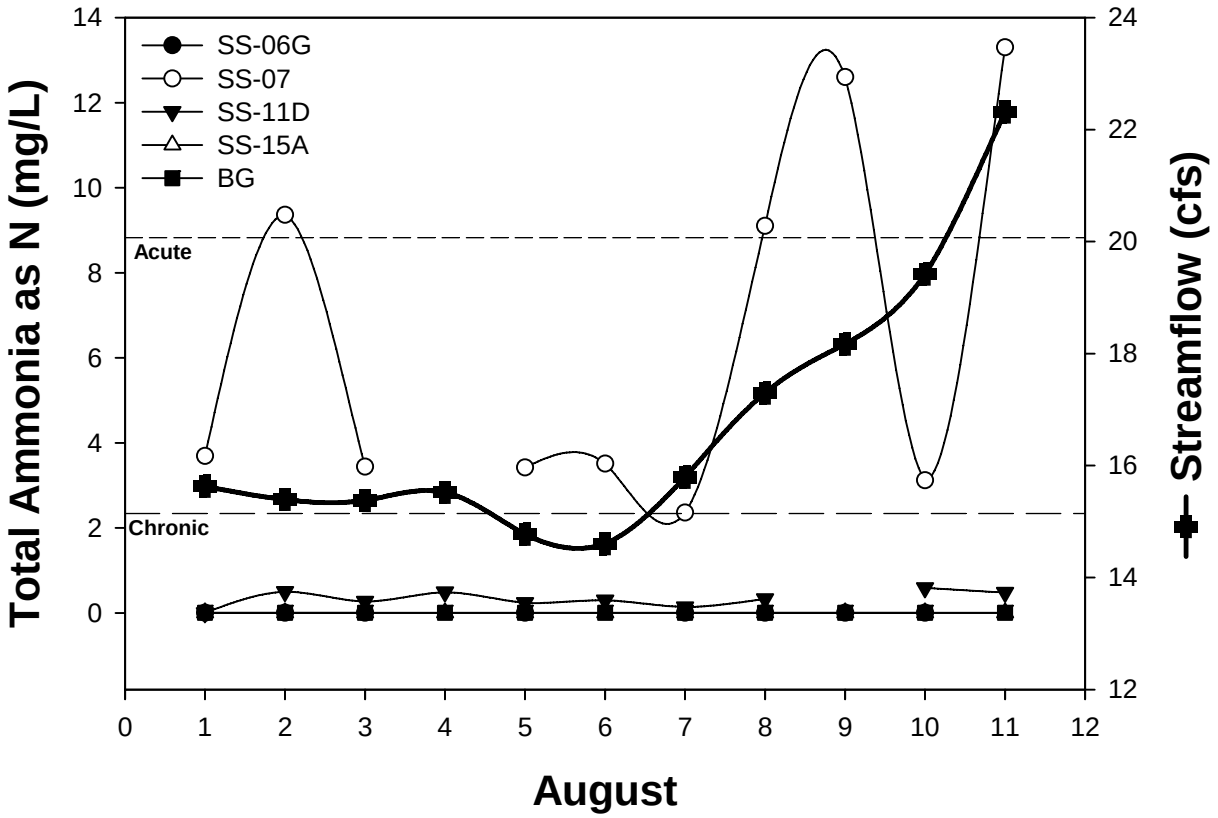


Figure 7-6: ***Total ammonia as Nitrogen (mg/L) and streamflow measurements (cubic feet per second, cfs) for the initial 11-days of the study at each caged fish location.***

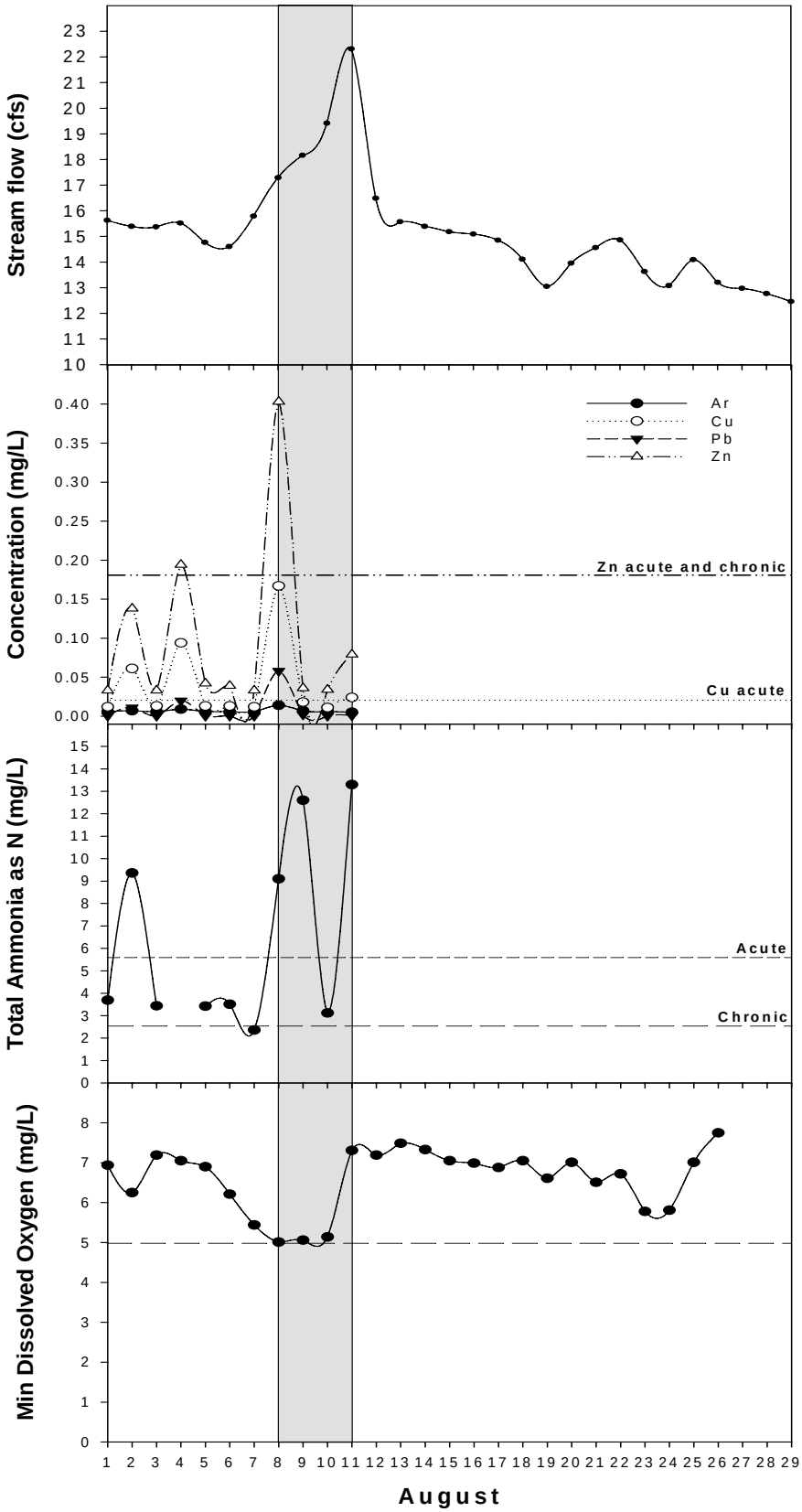


Figure 7-7: ***Temporal water quality data for SS-07 during the month of August, 2008. Days shown in grey represent time period when fish at SS-07 experienced 100% mortality.***

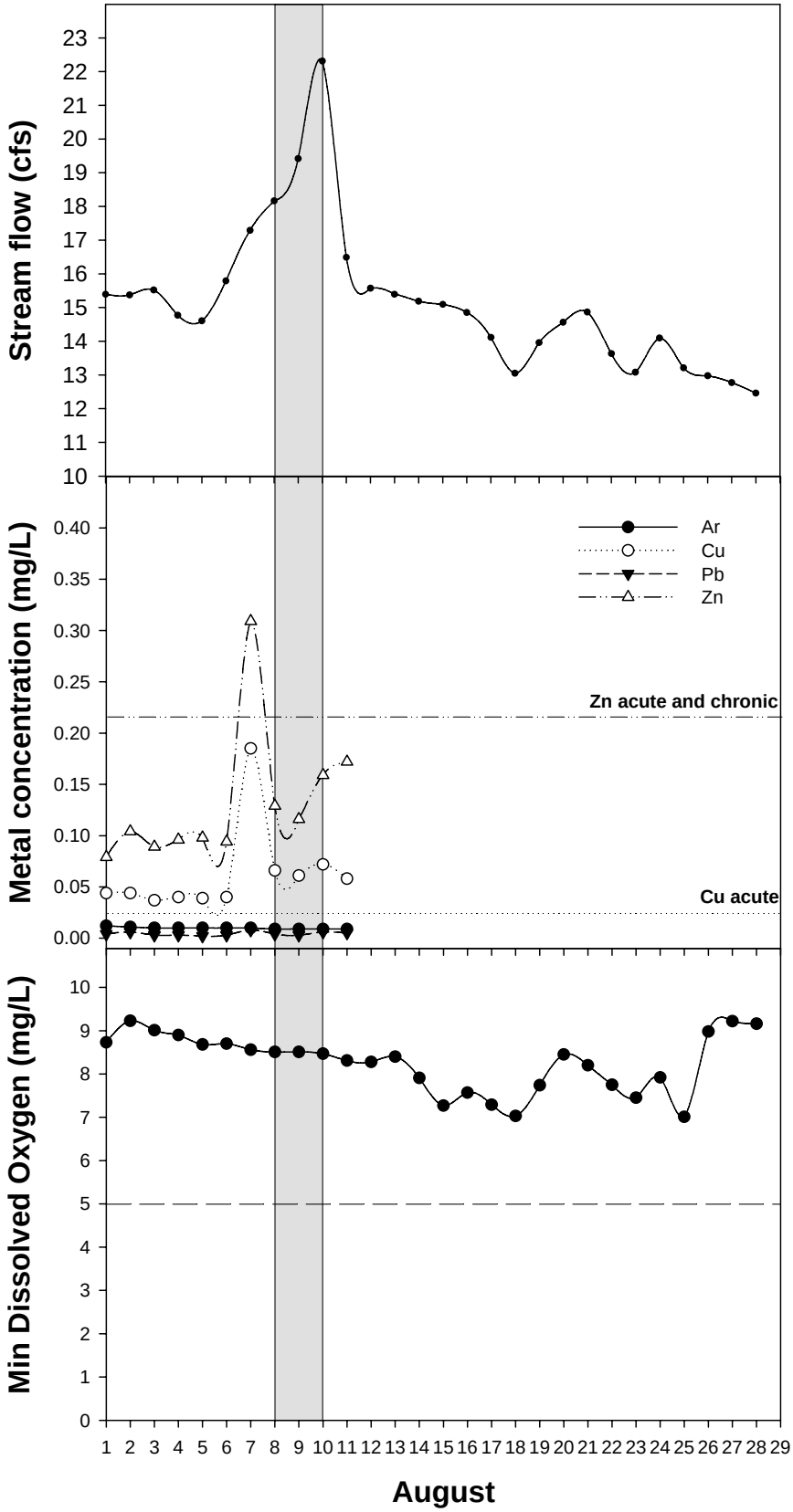


Figure 7-8: ***Temporal water quality data for SS-15A during the month of August, 2008. Days shown in grey represent time period when fish at SS-15A experienced 96% mortality.***

8.0 VEGETATION MONITORING REPORT

8.1 Introduction

Revegetation in each reach or phase of the SSTOU is monitored in temporal rotation until it passes performance standards. This report contains the results of 2008 revegetation monitoring in Reaches F, G, and H within Subarea 2 (SA 2) and most permanently seeded portions of SA 4.

Appendix A contains photographs of Reaches F, G, and H showing mainly the sample transects. Readers who find it difficult to visualize vegetation from canopy-coverage or density summaries may want to review those photographs before reading the narrative. Photographs of SA 4 are in Appendix B.

Photographs from reaches other than F, G, or H are in Appendix C. Appendix D contains canopy-coverage/species-composition summaries for Reaches F, G, and SA 4. Transect locations are in Appendix E. Appendix F contains photographs relating to 2008 transplanting activities. Transects in Reaches F-G-H are on maps 10-13 of set TT_SSTOU_SA_ALL_2. SA 4 monitoring transects are on map set Map# TT_SSTOU_SA4_3.

8.2 Precipitation Effects

In semiarid regions such as the SSTOU, seasonal and annual precipitation play such important roles in revegetation that this report begins with a precipitation summary. Some precipitation effects are direct, while others are indirect, e.g., manifested through changes in groundwater elevation. Precipitation in May and June usually has the greatest direct effect on seed germination and plant establishment and growth, but antecedent soil moisture and the timing, intensity, and duration of rainfall are also influential.

Average annual precipitation for the past 44 years at the Butte Airport was 12.6 inches (Table 8-1). The six years preceding 2005 were dry, resulting in a groundwater elevation drop of three feet in Reach A and below Durant Canyon. Similar drops since the late 1990s probably occurred throughout the SSTOU.

2005 marked the first real improvement in annual precipitation since the late 1990s. In 2006 and 2007, precipitation qualified as normal. While the Butte Airport dictated a precipitation shortfall in 2008, it was likely less than Table 8-1 indicates (see footnote). A few miles north of the airport on the Butte “flats,” my neighbor recorded more than three inches in May compared to 1 ¾ inches at the Airport. For the year, he recorded “normal” precipitation, although lacking the long-term records at the Airport.

Table 8-1: ***Precipitation at Butte, Montana (inches).***

Year	Annual Precipitation	May + June
1964-2008	12.6	4.3
1999-2004	10.6	3.7
2005	13.4	5.2
2006	12.5	4.2
2007	12.6	4.9
2008	10.2*	4.1
1999-2008	11.3	4.0

* Probably higher, the airport seemingly missed some spring rain, on the order of two niches.

8.3 Methods

Revegetation sampling methods, which combine canopy coverage from plots along transects and shrub density from one-meter-wide belts along the same transects in established revegetation with seedling density in young revegetation, remain unchanged from previous years.

All three measurements were sampled along 100-meter transects. The long length of these transects reflects average site and vegetation conditions within a significant portion of a hydrologic zone better than shorter transects that have a greater chance of emphasizing aberrant spots. An attempt was made to place transects within a single hydrologic zone as mapped, but it turned out that hydrology in some cases changed since it was mapped to guide revegetation, so some transects traverse two hydrologic zones.

To avoid littering the floodplain and banks with permanent markers (e.g., steel fenceposts that could also prove dangerous to equipment and pedestrians), transects are located by GPS coordinates only. Thus, the identical plot locations are not assured, just the same approximate areas. An unpaired t-test is appropriate for through-time comparisons, not the more powerful paired t-test.

In Reaches F and G, canopy coverage (Daubenmire 1959) was measured in 2008 along the same 100-meter transects previously for cover or seedling density. Canopy coverage was estimated in 20 0.5 m^2 plots at five-meter intervals along each transect. Plant cover was estimated as accurately as possible; cover classes were not used.

While it is premature to evaluate revegetation success, the standards are listed in Table 8-2.

Table 8-2: ***Minimum Desired Canopy Coverage* Approximately 10 Years after Seeding in Years of Near-normal Seasonal Precipitation.***

Hydrologic Zone	Average Perennial Canopy Coverage
Upland, Subirrigated	60%
Streambanks, Transition Zone	80%
Wetlands (not open water)	100%

* Not counting annuals or noxious weeds

Streambanks were not monitored due primarily to difficulty placing linear transects on curved banks and because shrubs interfere with placing transects. In general, streambanks have been the easiest and most successful revegetation.

In Reach H and most of SA 4, seedling density was measured by tallying non-weedy perennial seedlings within one-square-foot plots. The sample frame is a 2-foot x 2-foot plot divided into quarters (i.e., four individual measurements per frame location). Plots were systematically located at 10-meter intervals along 100-meter transects (i.e., 5, 15, 25…95) for a total of 40 one-square-foot samples per transect. Only desired perennial plants rooted within the sample frame were counted. I tallied no more than four individuals per one-square-foot quadrat to prevent a few individual plots with ultra-high density from unduly influencing the average.

Two seedling density statistics are relevant for evaluating revegetation. The average number of seedlings per square foot is self-explanatory, but it provides just part of the plant establishment picture. The other component is frequency. Frequency refers to the percent of area stocked, i.e., the percentage of one-square-foot samples with at least one desirable plant. Frequency can also be termed stocking. Without this parameter, a few plots with numerous seedlings could make a large area appear to be satisfactorily stocked when in fact some portions were overstocked and others barren.

There is no formal performance standard for seedling density; it is a way of evaluating initial establishment relative to the need for supplemental seeding assuming normal plant growth. Desired seedling densities are in Table 8-3. Of course, seedling density is a continuous variable, and dividing it into just two classes, satisfactory and unsatisfactory, oversimplifies interpretations, especially for borderline cases.

Table 8-3. ***Minimum Desired Seedling Densities and Frequencies associated with Satisfactory Seedling Establishment*.**

Hydrologic Zone	Average Density	Frequency
Uplands, Subirrigated	1.2 sq. ft.	70%
Streambanks, Transition Zone	2.5 sq. ft.	80%
Wetlands	3 sq. ft.	80%

8.4 Data Analysis

Most data summaries are simple descriptive statistics, usually the mean.

8.5 Results and Discussion

8.5.1 Reach F

Revegetation History

Approximately 17 acres north of the creek and two acres south of the creek in eastern Reach F were seeded in fall 2004; the rest was unfinished. Two small, shallow, surface-water wetlands were constructed. Due to springs, however, a much larger area north of the stream, east half, developed wetland and transition zone hydrology. By November, well after seeding, surface water originating near the northern embankment west of the two ponds crossed the floodplain and was discharging into Silver Bow Creek. Some areas earlier composted with a Terrigator were by then too wet to walk through with rubber boots. Hydrology continued to change so that northeast Reach F became wetter than when it was seeded; many mixes were designed for drier condition. Much of it was reseeded later by hand when it was muddy.

South of the swampy area, seeding occurred while coversoils, with few exceptions, were dry and excessively fluffy following composting. The in situ islands around conifers that were deliberately spared were not seeded because they were extremely rocky and weedy.

The lower half of Reach F, which is mostly upland and secondarily subirrigated with some transition zone in one small area just south of the creek, was seeded in May 2005. Some disturbed upland areas south of the railroad tracks also were seeded. In the upland and subirrigated zones, a roller was used to compact the very fluffy seedbed following seeding. In fall 2005, Western Reclamation scarified those barren areas that were not too wet, and I hand-seeded these areas.

Over in the wetland complex in upper Reach F, north side, the transplant crew trampled young seedlings from germinating seed and created thousands of footprints in the mud. These were excellent seeding microsites in a saline substrate. As soon as Bitterroot Restoration, Inc. (BRI) left, I reseeded (hand-broadcasted) all wet or moist portions lacking sufficient young seedlings. The ensuing vegetation bore witness to this hand-seeding far more than the initial seeding.

In September 2004, BRI was authorized to transplant into the upper half of the streambank in Reach F against the advice of those who had learned that fall planting was inferior to spring transplanting. Streambanks in the lower half had been constructed, but water was not running in the channel. Geese exacted significant mortality in the two months following transplanting, especially at the stream edge. Two thousand more willows were purchased for spring 2005 transplanting to replace those lost from the early mortality due to geese and frost damage.

In May 2005, the Reach F floodplain was planted. Perhaps 90% of all transplants went into the wetland complex in upper Reach F north of the tracks. Approximately 5% went into a transition zone unit south of the creek and another 5% into vacant banks.

Canopy Coverage

Reach F was sampled for seedling density in 2006. Of six transects, five were satisfactorily stocked and one was marginal (Prodgers 2007). This year (2008), it was sampled for canopy coverage and shrub density.

Stratified canopy coverage for upland and subirrigated monitoring transects is summarized in Table 8-4. Species composition is in Appendix D. Perennial plant cover is generally adequate to high (alfalfa portions), but there are also some salt-impaired sites in the northeast and smaller areas of residual contamination in the north-central region.

Table 8-4. ***Canopy-Coverage Summary for Reach F, 2008.***

Transect	Hydrology	Total Cover	Perennial Cover*	Bare Soil
F		%	%	%
54	Subirrigated	101.7	101.6	--
55	Subirrigated-Transition	71.3	71.1	15.9
56	Upland-Subirrigated	50.8	50.8	16.1
57	Upland-Subirrigated	107.4	103.9	5.2
58	Transition	118.5	114.4	--
59	Upland	77.9	77.3	29.9
MEAN		87.9	86.5	11.2

*Noxious weeds, annuals, and nonseeded biennials are not factored into perennial canopy coverage.

The wetland complex draining the two ponds and flowing south to the creek (minor) and west to enter the creek by the old construction road (main flow) is simply magnificent. (See Appendix A, Figures A18-20.) Part of the diverse species composition is from transplanting, but at the time the entire northeast area was a swamp and only later did it equilibrate into something like the current hydrology. Some of it is from wetland seed (hand seeding), including one area of Baltic rush and other areas with a lot of seaside arrowgrass among other species.

Woody Plant Densities

Despite a small fortune spent on transplanting, Reach F is overwhelmingly herbaceous; average shrub density for Transects 54-58 was just 320/ha, and few originated as transplants. The last 10 meters of a single transect (T59) brought the average for that entire 100-meter transect to 12,200/ha, mostly big sagebrush. As far as I know, this came from my hand-seeding of an area otherwise unseeded because it was part of the south access still in use then.

Woody plant densities for each transect are reported next. The herbaceous transplants are quite evident in wetlands, but they were planted throughout the northeast quarter of Reach F, which at the time was a swamp. While there is a place for transplants, seeding is far more influential in the eventual appearance of a reach.

Comments and Field Notes

T54. Alfalfa dominated. It looked like an alfalfa field with that single legume accounting for 89% of relative plant cover. No shrubs were observed on the transect and it is unlikely any could survive under

the dense alfalfa canopy. Field notes suggest that the slender wheatgrass is dying out. Haying might be desirable here, and we have approached Jack Erickson about it.

T55. Obviously a saline site. Hoppers were well represented even in the alkaligrass. Narrowleaf willow was somewhat common, about 800/ha and mostly 50-100 cm tall with a few taller and an equal amount shorter. Booth willow also occurred on the transect.

T56. Cover was less than desired at this subirrigated site, the lowest sampled in Reach F (Table 8-4), and it appears that some residual contamination is present. About 400 small greasewood plants/ha were present.

T57. Plant cover was outstanding due to 80% actual cover of alfalfa. No shrubs were seen, they can hardly establish under this much alfalfa cover.

T58. Hydrology is mostly transition zone with some subirrigated and a little transition-zone hydrology. Plenty of plant cover. About 300 Bebb willows/ha were present.

T59. Plant cover was good in this upland above the floodplain south of the creek and almost to the railroad tracks. Shrub density was outstanding, especially since field notes revealed that all the shrubs were in the last 10 meters, an area hand-seeded. The big sagebrush count was 10,900/ha or more than one shrub per meter averaged over the entire transect, but as mentioned they were concentrated strongly. 86% were <25 cm tall, 13% 25-50 cm tall, and just one percent 50-75 cm tall. In addition, there were 1,300 rubber rabbitbrush plants/ha, mostly 25-50 cm with some smaller and very few larger.

8.5.2 Reach G

In Reach G, seedling density was measured for the first time in 2007. This year (2008), Reach G was sampled for canopy coverage and shrub density.

Revegetation History

In uppermost Reach G, east of the creek, approximately 2.9 acres of upland and another 0.6 acres of subirrigated were seeded in spring 2005 when the western portion of Reach F was seeded. A 0.9-acre pond is also there.

The edge of the pond and an island within it were hand-broadcast seeded using the mix of transition zone and streambank seed mixes described for Reach F wetland-transition zone interseeding, spring 2005 (above). Chokecherry seed was also included. As it turned out, the island and some pond margins were contaminated, so most of the transplants died. At first, seeding didn't work well either. But as is often the case, the appearance improved so that repair was not warranted when evaluated in winter 2007. Few woody plants survived, however, and it is not a showcase.

In fall 2005 (and perhaps some in spring 2006), Reach G was seeded from the rock piles (UTM 370325) down to the west end of the westernmost pond (#6) located entirely within Reach G (UTM 369525). At that time, 72% of Reach G had been seeded. The remainder was either not fully constructed or uncomposted.

In spring 2006, some additional areas east of UTM 369540 were seeded with the same seed mixes used in fall 2005. The fall and spring seedings are essentially of the same age in that seed germinated in spring 2006. Areas west of UTM 369540 were not seeded until later and did not germinate until spring 2007.

In addition, the Montana Pit borrow area (18.7 acres) was seeded in spring 2006 using two sacks of Bozoisky Russian wildrye and one sack of Ranger alfalfa. The two species were seeded in alternate rows. Available seed may have been insufficient, and additional seed may have been purchased locally (Circle S/Three Forks).

The final (western) portion of Reach G, 27.1 acres, was seeded in fall 2006 (heavy seed) and late winter-early spring 2007 (light seed). The Blahnik staging area was seeded in 2006 and reseeded replete with seedbed preparation in spring 2008.

Canopy Coverage

Compared to Reach F, Reach G has less plant cover and more bare soil (comparing Tables 8-4 and 8-5) for three reasons:

1. Saline soils are more prevalent.
2. Alfalfa is far less common, related to #1.
3. Vegetation is younger.

Alkaligrass played a major role in Reach G revegetation, especially south of the creek. Saline soils and subirrigated hydrology are common.

Table 8-5. ***Canopy-Coverage Summary for Reach G, 2008.***

Transect	Hydrology	Total Cover	Perennial Cover*	Bare Soil
G		%	%	%
60	Upland	48.0	48.0	72.1
61	Subirrigated	71.7	71.7	31.0
62	Subirrigated-Transition	75.6	75.5	13.8
63	Transition	Not sampled (error)		
64	Subirrigated-Transition	77.3	77.3	0.7
65	Subirrigated-Upland	84.3	79.0	24.4
66	Subirrigated	95.4	95.3	0.9
67	Transition-Subirrigated	67.2	67.1	57.6
68	Transition-Subirrigated	93.4	91.3	28.8
69	Subirrigated	79.2	59.9	23.3
MEAN		76.9	73.9	28.1

*Noxious weeds, annuals, and nonseeded biennials are not factored into perennial canopy coverage.

Shrub Density

Like Reach F, Reach G received a hefty boost to mean shrub density from a single transect (T60). Otherwise, mean shrub density was 900 shrubs/ha, most of them from seeding. No doubt salinity limited both transplanted and seeded shrubs.

Transect 60 is a cool-aspect slope with very poor soil – even the sheep fescue is tiny and most of the sagebrush remains <25 cm tall. Total big sagebrush density was 44,400/ha based on sampling just 1/3 of the entire 100-meter transect – it was taking too long to sample the entire transect, and counting such dense shrubs is difficult. 91% were <25 cm, 7% were 25-50 cm, and the remainder were >50 cm tall. Rubber rabbitbrush, total density 5,100/ha were mostly 25-50 cm (53%) with equal amounts taller and shorter than that height class. The relationship here and elsewhere is that rubber rabbitbrush establishes more vigorously and grows faster than big sagebrush.

Comments and Field Notes

T60. Incredible abundance of shrubs and even more sub-shrubs (mostly *Artemisia frigida*), but a poor soil. I ran a little fertilization experiment here thinking the sagebrush would be clearly bigger and greener along that strip, but the fertilized shrubs are visually indistinguishable.

T61. About 800 greasewood shrubs/ha are present, half <25 cm and half 25-50 cm. Also a few rubber rabbitbrush, aspen, and Booth willow.

T62. 2,600 shrubs/ha is pretty good, mostly greasewood >25 cm high with incidental silver sagebrush, golden currant, and Wood rose.

T63. Data for this transect are missing; photos are missing; I must conclude that it was not sampled.

T64. A thick mat of litter is present. Tufted hairgrass occurs at the pond's edge. From memory, plant cover has declined and there is less alfalfa than previously. No shrubs.

T65. "Gotta use more streambank (wheatgrass)" according to my field notes. Of four species accounting for about 900 shrubs/ha, only big sagebrush is important with 500/ha, mostly 25-50 cm and secondarily <25 cm tall. This transect is chronicled in Appendix A, Figures A28-36. While standing litter two meters tall and more limits visibility, it is quite diverse.

T66. About 500 silver sagebrush shrubs/ha were present.

T67. Clearly transition zone hydrology. The only shrubs sampled were willows. Slenderleaf willow was most common (600/ha mostly 50-75 cm high but up to 100 cm) followed by Bebb willow (300/ha) and Geyer willow (100/ha).

T68. Mostly transition zone with some subirrigated hydrology, this area has rather few shrubs, the main one being greasewood at about 800/ha, almost entirely 25-50 cm. Otherwise, a few silver sagebrush and silver buffaloberry shrubs are present.

T69. Field notes suggest that it is upland or subirrigated or a combination of the two. This area was still weedy. The standing litter was so thick that shrubs could easily have been obscured; I counted just one fourwing saltbush and one rubber rabbitbrush (100 each/ha), both 25-50 cm tall.

8.5.3 Reach H

Revegetation History

Floodplain coversoils were compost-amended to two percent organic matter in the upper four inches. Earthsystems provided the bulk of the compost with Organix providing another 4,000 cubic yards. Ueland topsoil from their big pond excavation was applied to approximately 10 acres where compost was not added.

Most of Reach H was seeded in fall 2006 and winter-spring 2007. A small spot west of Brown's Gulch Creek had compost on it and could not be seeded then, and the load-out area near the Rarus pit was not yet available for seeding. In fall 2006, heavy seed was planted in all available areas, and light seed was applied to 10 or so acres. The remainder of the light seed was applied in late winter 2006/early spring 2007.

The 4.8-acre Hess (landowner) horse grazing area consists of a pond (0.9 acres) and 3.6 acres of upland with 0.2 acres of transition zone around the pond, which has rather steep sides. The 3.6-acre upland area was seeded with the Grazing Mix used in Phase 1, fall 2006. This mix consists of four wheatgrasses (intermediate, western, streambank, and thickspike), as well as green needlegrass, alfalfa, and crested wheatgrass.

North of the floodplain the Rarus Pit Area, a borrow source with associated disturbances, comprised 5.75 acres. Of these, 4.7 acres were upland, 0.45 acres transition zone, and 0.6 acres of wetland. In addition, another 7.5 acres of revegetated uplands lies north of and between the railroad tracks.

Some seeding was completed in spring 2007, but the main activity in Reach H at that time was transplanting. Planting was done by a Montana Conservation Corps crew that was mostly "leaders" who hadn't yet been assigned crews and a pair of professional planters. Transplanting occurred in late April and the first half of May.

These were the first plants originating at the Montana Conservation Seedling Nursery in Missoula. Although the photo of plants in Appendix F (Figure F-10) was taken in Reach I/2008, it indicates what fine specimens that nursery provides.

At Big Pond (Sheep Gulch Pond), transplanting was fairly successful on the south side of the pond and around the pond, but less so between the pond and stream where there were some problem soils. Some Butte High kids helped transplant the gro-bags one fine day.

The assignment of the following quantities to streambanks and floodplain are approximate (Table 8-6). A number of Tall Ones and bare-root currants and roses were planted a few meters behind the banks; these were assigned to floodplain. Plants that went into gravelly "point bars" were counted as streambank plants.

Table 8-6. ***Assignment of Quantities to Streambanks and Floodplains.***

Type/Size	Quantity	Comments
Trees/Gro-bags	230	All floodplain
Trees & shrubs/Tall Ones	575	360 streambanks 215 floodplain
Shrubs/10T	36,650	5,100 streambank 31,550 floodplain
Wetland herbs/3-4T	21,000	5,000 streambanks 16,000 floodplain

In addition to the above plants, we bought "off the market" from MT Conservation Seedling Nursery 5,400 bare-root plants at very low cost. All went into the floodplain, including behind the streambank. The bare-root plants didn't do as well as container plants.

Seedling Density

Summarizing seedling densities in Reaches G and H and two portions of Subarea 4 (Table 8-7), it is clear that Reach G and the portion of SA 4 sampled in 2007 were successfully seeded. While seedlings were less dense in Reach H, it too was satisfactory. The portion of SA 4 sampled in 2008, which was seeded later, has marginal density and frequency; it does not indicate that good revegetation will develop.

Table 8-7. ***Comparison of Seedling Densities in Reaches G, H, and Subarea 4.***

Reach	Year Sampled	Perrennials/Sq Ft	Frequency
G	2007	6.0	98
SA 4 T1-3	2007	5.4	88
H	2008	2.2	93
SA 4 T6-14	2008	1.4	75

All transects showed good seedling density except for T70 (Table 8-8), which is not satisfactory for its transition zone hydrology. Legumes are few compared to Reach F but similar to or even a little higher than Reach G, which has a prevalence of saline coversoils.

Shrubs were rather few (Table 8-8), but I don't think any of the sample transects are located in transplanting areas. The intent of seedling density sampling is not to quantify transplants. The area sampled per transect for seedling density is just 80 square feet (22.6 square meters) compared to the usual 100-meter belt transects sampled in conjunction with canopy coverage. Reach H has the prospect for some excellent willow patches, especially around Big Pond. While not as dense, some willows also survived north of the creek, but parts were too wet to plant (too wet to walk in). Other portions of Reach H were too dry to plant willows, especially south of the creek and west of Big Pond.

Table 8-8 ***Seedling Densities, Reach H, 2008. (Average perennial seedling per square foot / frequency.)***

Transect	Hydrology	All Grasses	Legumes	Forbs	Sub-Shrubs	Shrubs	Total Stocking	Overall Rating
T70	Transition	0.9	<0.1	0.4	0.1	0.1	1.5/90	Good
T71	Subirrigated	1.1	0.1	0.2	<0.1	<0.1	1.4/72	Fair
T72	Upland	2.0	<0.1	-	<0.1	<0.1	2.1/100	Good
T73	Subirrigated	2.4	0.1	-	0.1	0.2	2.8/96	Good
T74	Subirr-Trans	2.9	<0.1	-	-	<0.1	3.0/100	Good
T75	Subirrigated	1.5	<0.1	<0.1	-	<0.1	1.5/91	Good
T76	Upland	2.1	0.1	<0.1	0.2	0.2	2.6/94	V. Good
T77	Transition	2.5	-	-	-	-	2.5/100	Good
Average		1.9					2.2/93	

8.5.4 Subarea 4

Revegetation History

North of Highway 1: A 17-acre area north of Highway 1 that once served as a Jordan Construction staging area resembled a gravel pit because it was excavated to near the groundwater elevation in the north and because the substrate was clean cobbles, sand, and gravel with very little clay. Areas that weren't too wet were amended with real compost, not the Stimson wood product.

A double-disk plow ran through most of the pit bottom to minimally relieve compaction, but effectiveness was limited, and it remained rocky and hard. At this point it was supposed to be fertilized heavily with a mix of 50 pounds N, 15 pounds P, and 120 pounds K. Alas, the person who applied the fertilizer put it instead on the graded slopes separating the two wetland areas. Unaware that it had not been fertilized, Arrowhead Reclamation seeded the bottom by broadcasting and harrowing in 2005. When they learned it had not been fertilized, they applied whatever fertilizer and barley (mixed) remained from seeding Phase 1, east of the berm/road. The crucial fertilization component for a very coarse substrate was botched. Approximately two to three acres of pit floor was thus seeded; the rest was inundated.

Areas of standing water remained in the gravel-pit area in June 2005. I hand-seeded the pond margins wherever the substrate appeared suitable for plant growth using a mix of seed on hand, mainly some streambank seed purchased for Reach G.

The east, north, and northwest edges of the gravel pit, including the interior of the "horseshoe," (total of 6.2 acres) was seeded with a diverse mix including NRD "enhanced seed." Seeding was done by broadcasting and harrowing in a single pass. Of course, it was excessively fertilized with fertilizer that should have been applied to the gravel pit floor. This heavy fertilization mainly boosted the whitetop already present when seeding occurred.

In 2006 the dry area south of the wetland complex (T4-1) was broadcast seeded and lightly harrowed. After that, I went over it lightly (around 2 pounds/acre) with "upland light" seed including winterfat seed.

Also in 2006, as water receded in the northern (wetland) pit bottom (T4-5), I hand-seeded recently exposed portions. By summer 2006 the gravel pit bottom was adequately vegetated, and continued to improve unassisted.

As of 2008 none of the area north of Highway 1 was transplanted, other than sticking some cuttings into berms much farther north than the area monitored here.

South of Highway 1: The portion of Phase 1 west of the Mill-Willow road/berm (owned by Millie Mathews and Golden Technology) was "permanently seeded" in spring 2005 by Arrowhead Reclamation. A total of about 68 acres west of the road/berm north of the "duckhead" was seeded. The area east of the road/berm was seeded with barley in the second and third weeks of June due to construction delays, which is more than one month later than optimal. About 120 total acres were seeded.

The fall 2006 – spring 2007 seeding used four permanent seed mixes and a temporary seeding of cereal rye to facilitate weed control. Previously seeded areas such as Mathews' were reseeded. The regular upland mix and "upland coarse" contain diverse restoration seed in addition to basic remediation seed. The competitive mix consisting of Russian wildrye and alfalfa was applied to exterior field borders surrounding diverse seedings; herbicide application is anticipated, so a very basic mix known to be relatively weed-resistant was chosen. The grazing mix provides forage and lacks expensive restoration species ill-suited to livestock grazing. Application acreages follow:

ACRES	SEED OR SEED MIX
68.5	Grazing Mix
8.6	Competitive Mix
4.5	Upland Coarse Seed Mix
47.7	Regular Upland Seed Mix
52.6	Cereal Rye
0.6	Unremediated
0.3	Water
182.8	

Before it was seeded, an additional acreage designated for the coarse upland seed mix was delineated with a corresponding reduction of regular upland acreage.

Phase 2 was remediated in 2005; the original size was about 119 acres. Also that year, ARCO decided that a 46.8-acre area would be part of the acreage it owed as part of the final settlement. This is the "add-on." (The 46.8-acre figure includes some Phase 2 remediation intimately associated with this area.) It is located between the Burlington Northern Santa Fe Railroad (east) and Phase 2 (west) and from Highway 1 south to the large power lines. Since Phase 2 remediation was already underway, the majority of this area, previously used as gravel pits and dumping grounds, was incorporated into the design with Phase 3 for construction purposes. However, because of its proximity to Phase 2 and for simplicity in the revegetation report, all of this acreage is summarized in Phase 2 rather than Phase 3. The only seeding in 2005 was 47.3 acres temporarily seeded with barley in the fall.

In spring-summer 2006, a total of 53 acres within Phase 2 with a very coarse substrate (cobbly, gravelly, loamy sand and sandy loam) was amended with Stimpson Organic Amendment, a wood byproduct which, however, was not a real compost. Approximately two inches were applied, which correlates with 6% organic matter when incorporated into the upper four inches of coversoil. The main area so treated

was between DEQ's haul road and the railroad right-of-way to the east, but an area just south of MT Highway 1 north of the county road and haul road was also amended, as was an area west of the county road/haul road in northern Phase 2.

The first 32.3 acres planted in spring 2006 were seeded in two phases with the following seed mix, and in addition some winterfat seed was hand-broadcast. In fall 2006 and early winter 2007, the rest of Phase 2 outside the creek area was seeded as follows:

ACRES	SEED OR SEED MIX
32.4	Previously seeded spring 2006, Upland Coarse, Stimpson product
7.2	Competitive Mix
3	Wetlands, gravel pit hand-seeded
40.6	Regular Upland Seed Mix
22.6	Upland Coarse Seed Mix
18.0	Upland Regular Heavy and Upland Coarse Light (an error)
0.3	Water, unseeded
11.3	Unremediated, unseeded
135.4	

Phase 3: During fall 2006 and early winter 2007, Phase 3 was seeded as follows:

ACRES	SEED OR SEED MIX
4.0	Competitive Mix
29.6	Regular Upland Seed Mix
6.1	Upland Coarse Seed Mix
47.1	Cereal Rye
3.8	Unremediated
90.5	

Phase 4: Heavy seed was drill seeded in fall 2006. Light seed was broadcast seeded in late winter-early spring 2007. Rye was drill seeded in spring 2007.

Between the time when seed was ordered and seeding occurred, an additional acreage designated for the coarse upland seed mix was delineated with a corresponding reduction of regular upland acreage.

During fall 2006 and early winter 2007, Phase 4 was seeded in the following manner:

ACRES	SEED OR SEED MIX
3.4	Competitive Mix
32.1	Regular Upland Seed Mix
19.2	Upland Coarse Seed Mix
3.5	Unremediated
58.2	

Unremediated areas are within the railroad right-of-way.

Canopy Coverage

Only two transects were sampled for canopy coverage and shrubs in SA 4. Both are north of MT Hwy 1, the old Jordan staging area. Transect 4-1 in the southern portion was sampled in 2007 for seeding

density. It had good density (3.9 perennials/sq. ft) but marginal stocking (75%), so there were numerous spots without plants amidst otherwise plentiful plants.

The gravelly substrate is droughty and hard on plants during dry periods. Although seedling density in 2007 was good if spotty, total plant cover in 2008 was just 46%. (See Appendix D for species composition.) This amount is probably near the limit for such a droughty substrate in a year of below-average precipitation. The silver sagebrush remains tiny for the same reason. Indeed, almost all of the shrubs are less than four inches tall. Compost wood chips comprise part of the ground cover.

Density sampling indicated about 600 golden currants per ha, all <25 cm tall, and another 2,000 silver sagebrush shrubs/ha, but only 300/ha were taller than 25 cm.

The northern wetland area was not previously sampled. Plant cover was good (83% at T4-5), but diversity was surprisingly low for the transect considering the splendid richness of the wetland complex. Half of relative cover came from tufted hairgrass, which while tolerant of acidic and metal-contaminated sites is also an important grass in Montana on clean, wet substrates.

Seedling Densities

Within the areas sampled, seedling densities in SA 4 in 2008 were generally adequate but hardly impressive as Table 8-9 attests. The summary data in Table 8-9 for SA 4, Transects six through 14, actually points a rosier picture than random or systematic sampling would. Transects were subjectively placed to be in continuous areas of revegetation insofar as possible, whereas random locations would have placed most if not all transects partially within barren areas. The reason behind this is that barren areas are visible and hardly need quantitative substantiation.

Table 8-9 further shows that all but one transect lacked legumes and that grasses comprised the only important growth-form. For the most part, applying the expensive, NRD-funded "enhanced seed" component in SA 4 is a waste as most substrates other than sand and gravel are acidic or contaminated or both.

Table 8-9. ***Seedling Densities, Subarea 4, 2008. (Average perennial seedling per square foot / frequency.)***

Transect	Hydrology	All Grasses	Legumes	Forbs	Sub-Shrub	Shrubs	Total Stocking	Overall Rating
T4-6	Upland	1.1	-	-	-	0.1	1.2/67	Poor
T4-7	Upland	1.5	-	-	-	<0.1	1.6/84	Fair
T4-8	Upland	1.4	0.6	<0.1	0.2	0.1	2.3/90	Good
T4-9	Upland	0.7	-	<<0.1	-	<<0.1	0.7/50	Unsatis.
T4-10	Upland	1.4	-	-	<<0.1	-	1.4/72	Fair
T4-11	Upland	1.7	-	-	<0.1	0.1	1.8/82	Good
T4-12	Upland	1.6	-	-	-	-	1.6//81	Fair
T4-13	Upland	1.1	-	-	-	-	1.1/79	Poor
T3-14	Upland	0.6	-	-	<<0.1	0.1	0.7/51	Unsatis.
Average		1.2					1.4/73	

Comments and Field Notes

T4-6. No sign of light-seed component. No forbs. Soil compacted. Bare patches within. Enhanced seed a waste.

T4-7. Few enhanced species. Lot of Canada wildrye, other grasses lack vigor.

T4-8. Very rocky like the add-on area. Some plants have died. Rubber rabbitbrush is tiny. Could use fertilizer. Overall, cudweed sagewort is tougher than tarragon.

T4-9. Compacted. Rather large voids. Hard to find continuously stocked vegetation to sample.

T4-10. Not compacted. No sign of enhanced seed. Grass is mostly Canada wildrye. Many grasses remain small.

T4-11. At best, you can hardly go 100 m straight without hitting a bad patch – and this is one of the best areas. Most successful species are Canada wildrye, fourwing saltbush, thickspike wheatgrass, and Indian ricegrass.

T4-12. Did not count any saltgrass, of which there are patches in the field indicating no remediation there. I tried to miss them with the transect. This is Millie's. There is a little whitetop here.

T4-13. Mostly good but patches of saltgrass and barrenness. Seeded with the grazing mix, species that are good establishers. Substrate is compacted at the start of T4-13.

T4-14. Everything is patchy. Rocky at the south end; bindweed and knapweed are present.

9.0 BIRD INVENTORY

This report contains the results of the 2008 bird monitoring in Subarea 2 (SA 2). A list of bird species observed in SA 2 (Reaches F-H) in 2008 is in Appendix G, and the bird census locations are in Appendix H.

In 2007, birds were first monitored in Reaches F, G, and H, although Reach H was bare dirt in early spring, and Reach G's revegetation was just one year old. The objective was to document bird use including the annual dynamic as revegetation unfolds rather than waiting until the entire subarea is completely vegetated as was done in Subarea 1 (SA 1). Some types of bird use are expected to increase in response to vegetational development; others may not. One suspects, for example, that shorebird use will diminish with time at the pond complex in mid to upper SA 2 and at Nissler Wetland as their habitat diminishes. This has happened elsewhere (Braile and Dunning 2003).

In 2008, we hoped to add sampling in Reach I and even J, but construction lagged, the stream channel hadn't been fully located, so we had to settle for sampling the same 12 points in Reaches F, G, and H that were sampled in 2007. This had the advantage of allowing evaluation of temporal effects that one assumes key for vegetational development. When SA 2 is complete, it will have 20 sample locations just as SA 1 does.

Perhaps the most obvious effect on bird us of vegetation development is the development of structure, food, and thermal and escape cover, Nate noted few sample points in Reach H no longer have the vista they once had, so in this sense bird observations may decline apart from actual bird use. Nate has been "amazed at the transformation" as vegetation develops quickly – music to the ears of a revegetation ecologist.

9.1 METHODS

Methods were identical to those used in SA 2 last year. The sole deviation from protocol is that Nate Kohler, who implements bird monitoring, was absent at the end of May, so sampling was conducted twice in June on the 9th and 27th. For consistency and to avoid confusion, results from June 9 were listed as "May." Due to the logistics caused by sampling both sides of the creek, the sequence of sampling was 25, 26, 27, 28, 29, 21, 22, 23, 24, 30, 31, and 32.

9.2 RESULTS

Last year we tentatively concluded that in its first year of sampling with more than 1/3 of the area bare dirt during most sampling, bird use in SA 2 equaled SA 1 when fully vegetated and with some structural development, especially the upper reaches. In favor of SA 2 are the pond complex and greater visibility at the Reach H stations, i.e., birds can be seen and counted farther away.

Forty bird species were identified in SA 2 in 2007. This year the total was 65 (Prodgers 2008), a 62% increase (Appendix G). This increase in number of species observed was the most dramatic change from 2007 to 2008. To be included in the species list, birds must use habitat within the remediated area, not merely fly over. They need not appear in sample data, i.e., they can be observed while moving between sample locations.

(For the record, the species list for SA 1 is up to 73. Most notably, Matt Vincent spotted several Harlequin ducks just above the Rocker bridge.)

Two quantities are of interest: number of birds and number of species. These quantities can be evaluated with three denominators: per station, temporally (per month), and per reach (not investigated).

Looking first at number of birds over time, Figure 9-1 shows that the abundance of birds observed in a standard set of samples varied little from March through May. Figure 9-2 is another way of expressing the same thing as far as 2008 goes, but it also compares bird quantities in 2008 vs. 2007. Subarea 2 experienced more bird use in March and April in 2008 than in 2007. May use was down somewhat and June use was about the same.

Switching our focus to species, the number of species sampled was greatest in April and May and least in March (Figure 9-3). Species richness also was higher in April and May 2008 compared to 2007. Average number of species per station (could be called species density) shows a somewhat different pattern (Figure 9-4): a dramatic increase from March to May and about the same density in June as May.

The final consideration is how habitat use and species are distributed: does each station or each species contribute similarly to overall abundance? Turning first to stations, equitability started quite low in March, which means that some stations had a lot of birds, others few, but it increased in April and seemed to equilibrate in May and June (Figure 9-5). Furthermore, equitability was generally similar in 2007 and 2008.

Considering species, the first observation from comparing the vertical axes in Figures 9-5 and 9-6 is that species equitability is greater than station equitability. Of course, there are more species (63, some not in data) than stations (12), but what really affects the Shannon index is evenness of relative abundance. Species equitability peaks in May and is lowest in late winter-early spring. Thus, the equitability pattern is similar for species and stations.

9.3 Bird Species in Subareas 1 and 2

- Number of bird species recorded for SA 1: 73
- Number of species recorded for SA 2: 65
- Combined species for both subareas: 91
- Number of species in common to both subareas: 47
- Number of species observed in SA 1 but not SA 2: 26
- Number of species occurring in SA 2 but not SA 1: 18

In time, it is expected that data from the two subareas will become more similar.

9.4 Recommendations

This is the same recommendation as last year, but construction did not allow it. We should locate the remaining eight observations points in Reaches I and J by mid-March so that the entirety of Subarea 2 can be monitored in 2009.

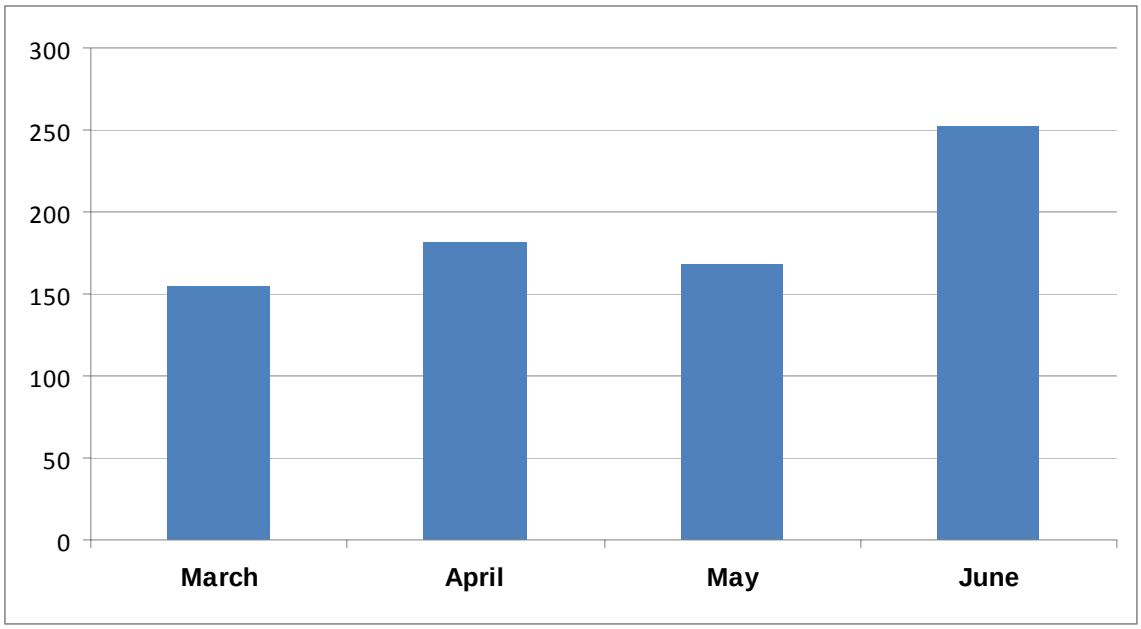


Figure 9-1. ***Total Birds at 12 Stations, Subarea 2, 2008***

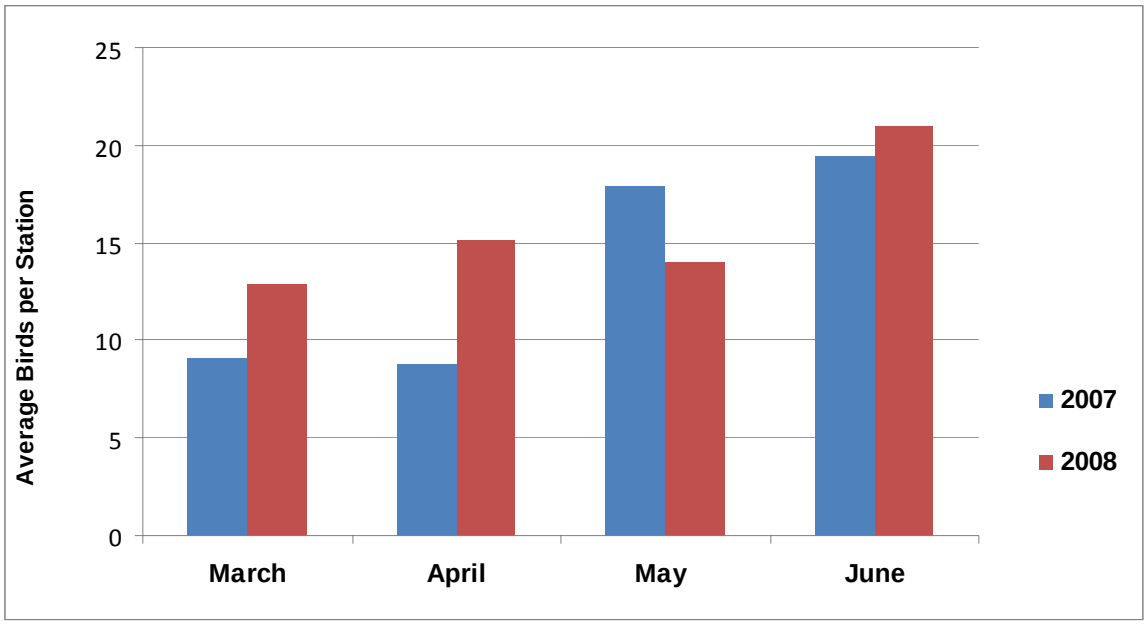


Figure 9-2. ***Mean Birds per Station, Subarea 2, 2007-2008***

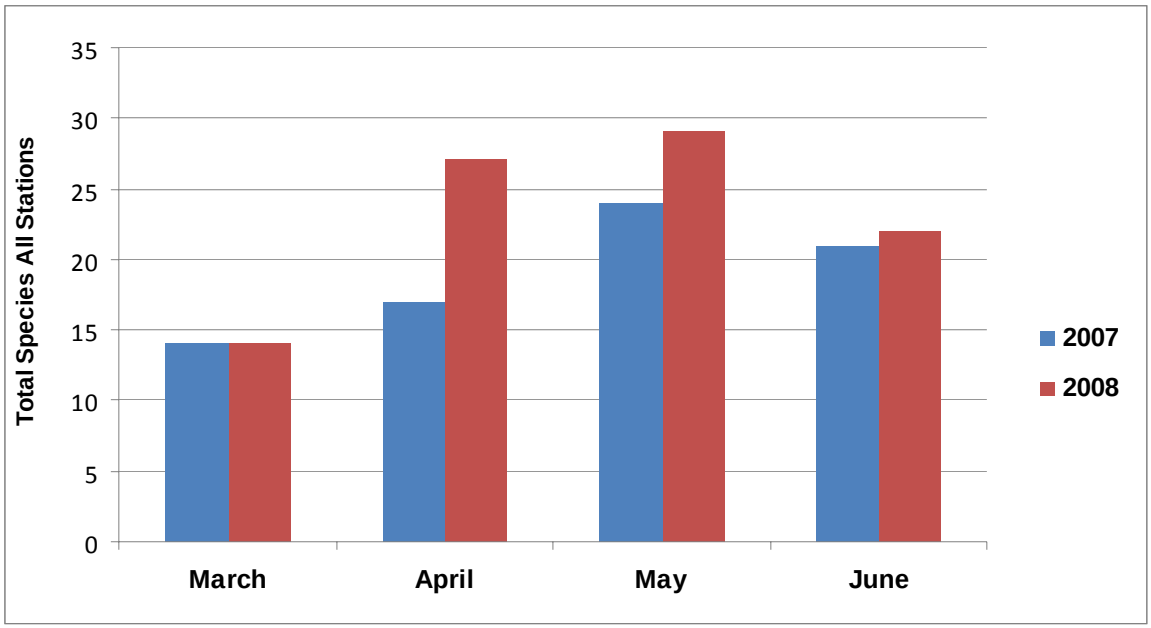


Figure 9-3. ***Total Species Sampled, Subarea 2, 2007-2008***

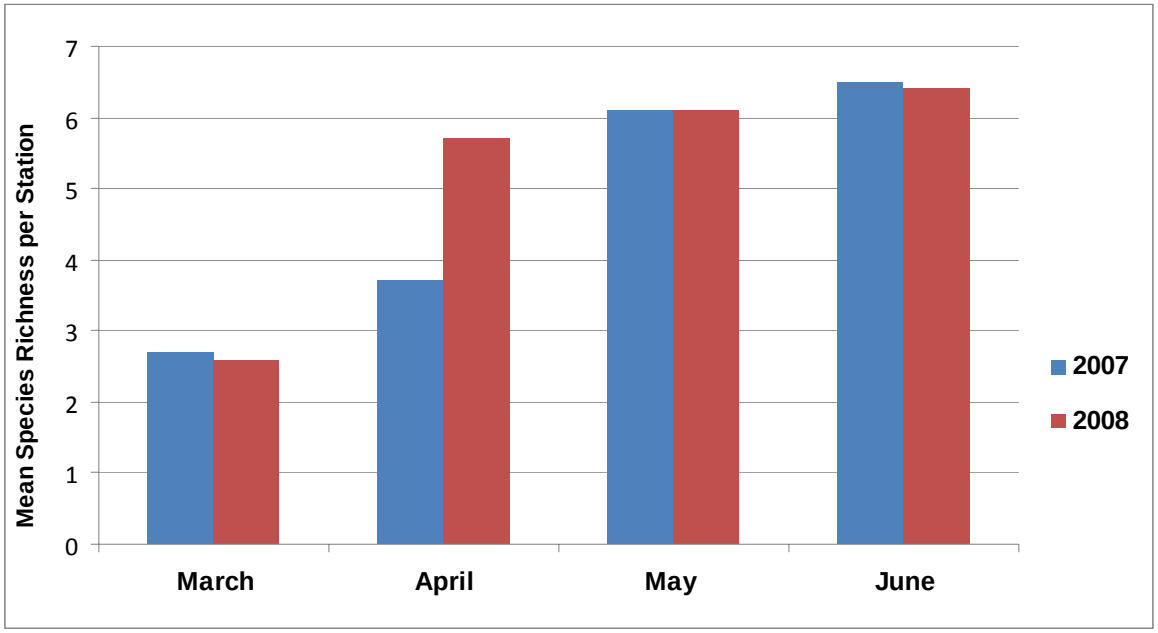


Figure 9-4. ***Average Number of Species per Station, Subarea 2, 2007-2008***

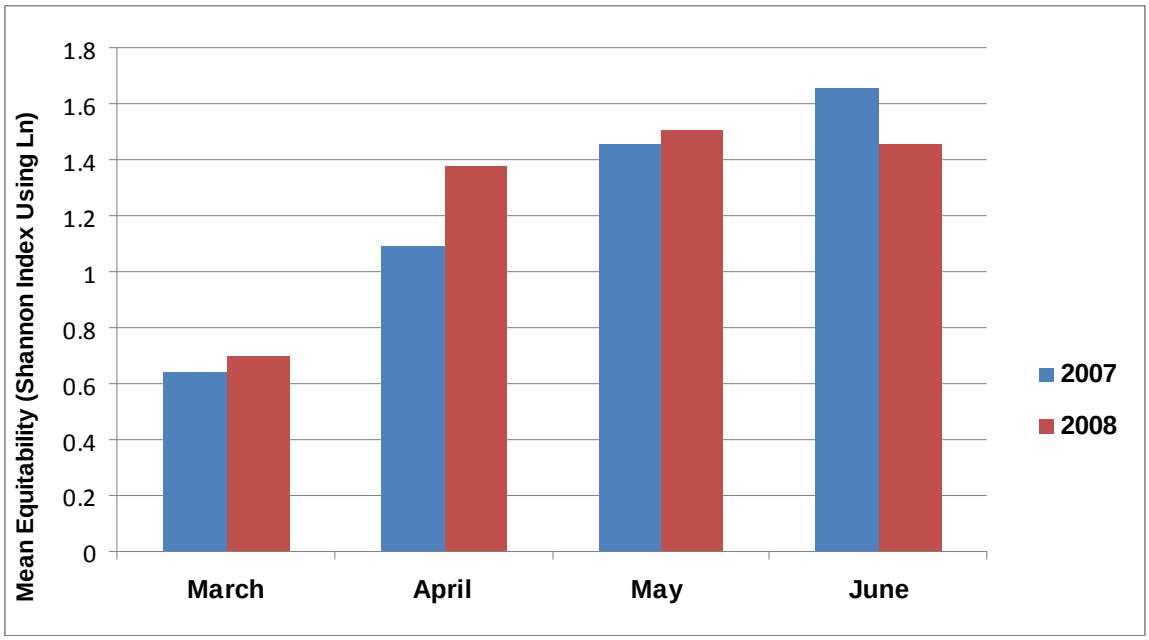


Figure 9-5. ***Equitability for Stations, Subarea 2, 2007-2008***

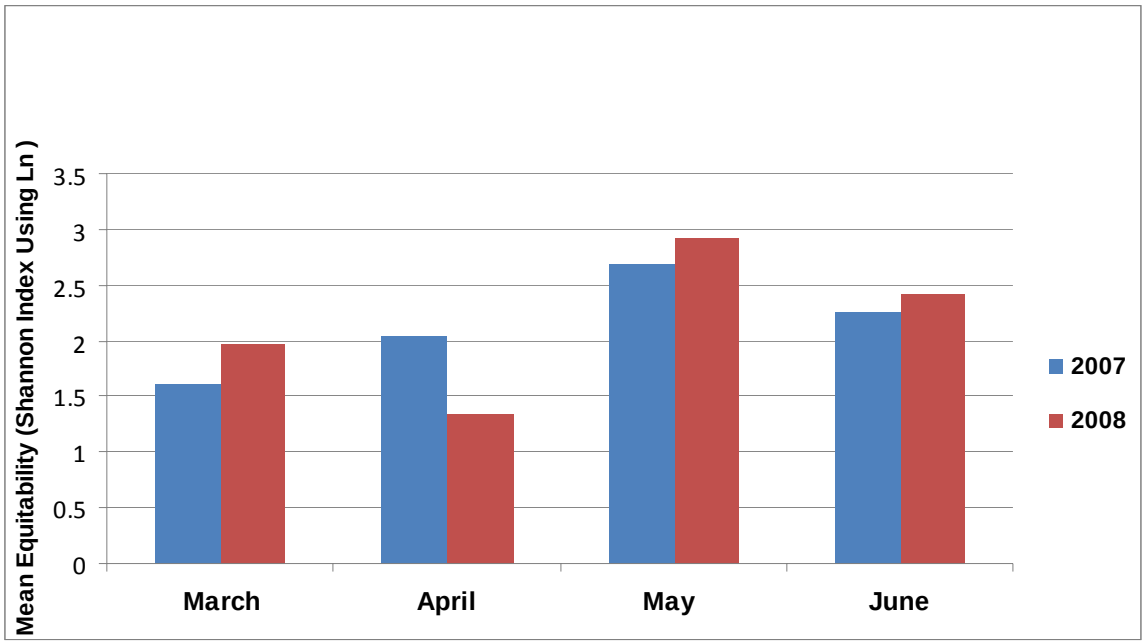


Figure 9-6. ***Equitability Based Upon Species, Subarea 2, 2007-2008***

10.0 CONCLUSIONS

This section of the monitoring report synthesizes conclusions drawn from each of the monitored media to enable a general evaluation of the success to date of the remedial action through the SSTOU. The remedial action has primarily concentrated on the removal of floodplain tailings material and contaminated instream sediments during construction of a new, uncontaminated channel. Media monitored in 2008 at 9 stations within the SSTOU, as well as at 2 stations outside of the Unit, include surface water, sediment, and biological samples. Results from groundwater, vadose zone, fish population, vegetation and bird monitoring are not integrated into these conclusions, as they can not be directly correlated to an established monitoring station. Results from each media are summarized to indicate whether remediation goals are being met at each monitoring station.

10.1 Summary of Site Characteristics

10.1.1 SS-06G *Silver Bow Creek above the WWTP*

Located upstream of the Streamside Tailings Operable Unit (SSTOU), SS-06G exhibits conditions of Silver Bow Creek as it enters Subarea 1 of the SSTOU. This site lies just upstream of the Butte Wastewater Treatment Plant (WWTP) outfall. Sample analysis at SS-06G included surface water, sediment, macroinvertebrates, and periphyton.

Surface water sampling at this station indicated cadmium, zinc, and mercury concentrations met remediation goals in 2008. However, concentrations of other metals in surface waters including arsenic, copper, lead, and manganese did not meet remediation goals during at least one of the quarterly sampling events. Nitrogen and phosphorous concentrations at this station indicated nutrient enrichment is a constraint limiting biological integrity in surface waters entering the SSTOU.

Although metals found in stream sediments fell well below remediation goals, concentrations of arsenic, lead, copper, and zinc fell above the threshold effects concentration for aquatic life. Biological sampling reflected the results found in both surface water and sediment, indicating severe impairment to both macroinvertebrate and periphyton communities. Metric scores implied elevated nutrients and metals as the primary limiting factors to biological integrity. Biological scores for both macroinvertebrates and periphyton did not meet remediation goals. Combined, these results imply unfavorable conditions exist upstream of the SSTOU, and remain influential on surface water, stream sediment, and biological communities downstream of SS-06G. Although SS-06G is outside of the SSTOU, a comparison of monitoring results found at this site to remediation goals is illustrated in Table 10-1.

Table 10-1. ***Summary table of remediation goals for Station SS-06G.***

	Bios		Surface Water									Sediment				
Station	Macro	Peri	As	Cd	Cu	Pb	Zn	Hg	Mn	Total N	Total P	As	Cd	Cu	Pb	Zn
SS-06G																

Remedy goal met in all quarters in 2008
Remedy goal met in some quarters in 2008
Remedy goal not met in any quarters in 2008

10.1.2 SS-07 *Silver Bow Creek below Butte WWTP*

Sample site SS-07 lies immediately downstream from the Butte WWTP, providing an opportunity to assess the influences of the plant's effluent on water chemistry and biological integrity. Remediation at this site, at the upper end of the SSTOU, was completed in 2000. Monitoring samples at this site included surface water, sediment, macroinvertebrates, and periphyton.

Surface water sampling at SS-07 indicated arsenic, cadmium, lead, and zinc concentrations met remediation goals in 2008; however, copper, mercury, and manganese concentrations did not meet remediation goals and may impair biological communities. Total N, total P, and ammonia concentrations rose considerably at this station as compared to SS-06G, indicating the WWTP has a profound influence on elevated nutrient concentrations. Dissolved oxygen at this station fell below 5 mg/L, indicating potential harm to fish as a result of biological demand for oxygen in the nutrient-rich waters found below the WWTP.

Although metals concentrations in stream sediments met remediation goals, all metals indicated concentrations above the threshold effect concentration (TEC) for aquatic life. Copper and zinc concentrations also fell above the probable effects concentration (PEC) for stream sediments.

The influence of elevated nutrients and metals in both sediment and surface waters on biological communities was evident in metric scores. Macroinvertebrate scores implied biological impairments can be attributed to excessive nutrients and metals. Highly elevated nutrient concentrations lead to increased periphytic and filamentous algal growth as well as rooted vegetation at this site. Metric scores for periphyton indicated severely impaired conditions, which can be attributed to the effects of metals and nutrients. These impairments led metric scores below remediation goals for both macroinvertebrates and periphyton at this site. A summary of all 2008 monitoring results at SS-07 as compared to remediation goals established for surface water, sediment, and biological communities is illustrated in Table 10-2.

Based on 2008 sampling, the Butte WWTP does not appear to influence metals found in surface water or sediments. Although metals concentrations in sediment were slightly higher below the WWTP than above, these concentrations are within the range of variability for sediment sampling, and therefore cannot be attributed to wastewater effluent. Nutrients discharged by the WWTP appear to have the most influential effect on water chemistry at site SS-07.

Table 10-2. ***Summary table of remediation goals for Station SS-07.***

	Bios		Surface Water									Sediment				
Station	Macro	Peri	As	Cd	Cu	Pb	Zn	Hg	Mn	Total N	Total P	As	Cd	Cu	Pb	Zn
SS-07																

Remedy goal met in all quarters in 2008
Remedy goal met in some quarters in 2008
Remedy goal not met in any quarters in 2008

10.1.3 SS-08 *Silver Bow Creek at Rocker*

Station SS-08 is located just over one mile downstream of SS-07 near the town of Rocker. This reach of Silver Bow Creek was remediated in 2002. No tributaries join Silver Bow Creek between SS-07 and SS-08 to affect dilution or addition of pollution via surface water. Monitoring data collected at this station include surface water, sediment, macroinvertebrates, and periphyton.

Surface water concentrations of arsenic, cadmium, zinc, and mercury met remediation goals during all sampling events in 2008. Copper, lead, and manganese concentrations did not meet remediation goals. Nutrient concentrations attenuated at SS-08 as compared to SS-07, but remained far above targets established for the Clark Fork River. Declines in nutrient concentrations at this station as compared to SS-07 were also noted in 2006 and 2007, and may be attributed to biological uptake of nutrients downstream of the WWTP.

Although no metals concentrations in stream sediments were above remediation goals in 2008, arsenic, copper, and zinc concentrations fell above the probable effects concentration, indicating probable effects to benthic organisms. Metric scores failed to meet remediation goals at SS-08, and indicated deteriorating biological integrity as compared to upstream at site SS-07. Potential causes of declining biological integrity include anaerobic conditions resulting from intensified algae and rooted vegetation respiration, and the over-accumulation of fine particulate matter in the form of decayed plant material in the latter part of the year. Overall, these conditions, when combined with elevated metal and nutrient concentrations, resulted in moderate to severe impairments in biological communities at this site. A summary of 2008 sampling results at SS-08 as compared to remediation goals established for surface water, sediment, and biological communities is illustrated in Table 10-3.

Table 10-3. ***Summary table of remediation goals for Station SS-08.***

	Bios		Surface Water									Sediment				
Station	Macro	Peri	As	Cd	Cu	Pb	Zn	Hg	Mn	Total N	Total P	As	Cd	Cu	Pb	Zn
SS-08																

Remedy goal met in all quarters in 2008
Remedy goal met in some quarters in 2008
Remedy goal not met in any quarters in 2008

10.1.4 SS-10A *Silver Bow Creek above Sand Creek*

Located approximately three miles downstream of SS-08, station SS-10A is just above the confluence of Silver Bow Creek with Sand Creek. Remediation of SS-10A was completed in 2003. Monitoring data collected at this site included surface water, sediment, macroinvertebrates, and periphyton.

Metals concentrations in surface water at site SS-10A remained fairly consistent with those found upstream at SS-08. Copper, cadmium, and manganese concentrations failed to meet remediation goals while arsenic, lead, zinc, and mercury met these goals during all sample events in 2008. Total nitrogen and phosphorous concentrations continued to attenuate from the WWTP; however, they remained highly elevated at SS-10A as compared to targets established for the Clark Fork River. Total nitrogen and phosphorous concentrations reached base level concentrations at SS-10A, and remained fairly similar at monitoring sites further downstream in the SSTOU. Ammonia concentrations continued to attenuate with increased distance from the WWTP, but remained a threat to biological communities. Station SS-10A recorded surface water temperatures exceeding 18 degrees Celsius during the June sampling event, indicating potential threats to salmonids. The riparian canopy through this reach is not well established as compared to remediated reaches upstream; therefore shading of the channel is more limited.

Zinc concentrations in sediment did not meet remediation goals at SS-10A, and was the only contaminant to fall above sediment goals within remediated areas of Silver Bow Creek. All other metals in sediments met remediation goals, but exceeded threshold effects concentrations for aquatic life.

Elevated amounts of organic detritus continued to appear through this reach, as well as an abundance of aquatic macrophytes and algae. Biologic metric scores, although improved from those at SS-08, suggested moderate impairment at this station from excessive nutrients and sedimentation. Although metal concentrations in surface water and sediments remained relatively similar from those found at SS-08, biological impairment ratings improved from severe at SS-08 to moderate at SS-10A. The consistency of metals in surface water and sediment, combined with declining nutrients as compared to SS-08 suggest elevated nutrients concentration is the major factor limiting biological communities at SS-10A. A summary of 2008 sampling results at SS-10A as compared to remediation goals established for surface water, sediment, and biological communities is illustrated in Table 10-4.

Table 10-4. ***Summary table of remediation goals for Station SS-10A.***

	Bios		Surface Water									Sediment				
Station	Macro	Peri	As	Cd	Cu	Pb	Zn	Hg	Mn	Total N	Total P	As	Cd	Cu	Pb	Zn
SS-10A																

Remedy goal met in all quarters in 2008
Remedy goal met in some quarters in 2008
Remedy goal not met in any quarters in 2008

10.1.5 SS-10B *Silver Bow Creek below Sand Creek*

This site is located directly downstream of SS-10A just below the confluence of Silver Bow Creek and Sand Creek. This station is situated below the mixing zone of Sand Creek to assess the influence of the aquatic environment from that drainage. This reach of Silver Bow Creek was remediated in 2003. Monitoring data collected at SS-10B included surface water, sediment, macroinvertebrates, and periphyton.

Metal and nutrient concentrations found in surface waters at SS-10B were nearly identical to those found at SS-10A, indicating Sand Creek had a minimal influence on each of these parameters. Copper concentrations remained above remediation goals during all quarters. Cadmium concentrations slightly rose as compared to sites upstream and passed the chronic limit for aquatic life. Surface water temperatures at this site exceeded 18 degrees Celsius during the June sampling event, indicating thermal constraints on salmonid populations are possible.

Although all metals detected in stream sediments remained below remediation goals, several were found above both threshold and probable effects limits. Metals in stream sediments were generally lower below Sand Creek as compared to above, indicating the potential that cleaner sediments are transporting from Sand Creek and depositing below the confluence.

Biological sampling continued to reflect elevated nutrient concentrations as the major limiting factor inhibiting macroinvertebrate and periphyton communities. Continued high concentrations of total N, total P, and ammonia corroborate with biological results. Metal concentrations appear to play a lesser role in macroinvertebrate communities at this station, as suggested by the metals index rating of “no impact”. Overall metric scores for macroinvertebrates and periphyton failed to meet remediation goals at SS-10B. A summary of 2008 sampling results at SS-10B as compared to remediation goals established for surface water, sediment, and biological communities is illustrated in Table 10-5..

Table 10-5. ***Summary table of remediation goals for Station SS-10B.***

	Bios		Surface Water									Sediment				
Station	Macro	Peri	As	Cd	Cu	Pb	Zn	Hg	Mn	Total N	Total P	As	Cd	Cu	Pb	Zn
SS-10B																

Remedy goal met in all quarters in 2008
Remedy goal met in some quarters in 2008
Remedy goal not met in any quarters in 2008

10.1.6 SS-11C *Silver Bow Creek above Browns Gulch*

Sample station SS-11C is located immediately upstream of the confluence of Silver Bow Creek and Browns Gulch. This reach of Silver Bow Creek was remediated in 2006. Monitoring efforts at this station include surface water, sediment, macroinvertebrates, and periphyton.

Surface water sampling at this station in 2008 indicated minor rises in cadmium, copper, and zinc as compared to station SS-10B. Arsenic, cadmium, copper, zinc, and manganese did not meet surface water remediation goals in 2008. Lead and mercury concentrations were below human health and aquatic life limits, and met remediation goals for this sampling year. Nutrient concentrations at SS-11C remained very high as compared to target concentrations established for the Clark Fork River. Total nitrogen and total phosphorous concentrations indicated very slight attenuation as compared to site SS-10B, indicating maximum biological uptake of nutrients has likely been met within the vicinity of these stations.

Stream sediments in this more recently remediated site indicated improvements in metal concentrations as compared to stations SS-10A and SS-10B. Stream sediments at this station have been remediated more recently than those upstream in the SSTOU, and have been subject to fewer high water events. All metal concentrations in sediments met remediation goals and fell below PEC limits.

Biological indicators of impairment dismissed metals and targeted excessive nutrients as the primary stress factor limiting integrity of the aquatic environment. Continued high nutrient levels resulted in moderate impairment of macroinvertebrate metrics, which did not meet remediation goals in 2008. Diatom metrics indicated good biological integrity, implying the cleaner sediments support diversified and healthy periphyton communities. Scores for periphyton metrics met remediation goals at station SS-11C. Slight impairment causes stemmed from pollution and siltation, likely due to excess fine particulate organic material covering the substrate. A summary of 2008 sampling results at SS-11C as compared to remediation goals established for surface water, sediment, and biological communities is illustrated in Table 10-6.

Table 10-6. ***Summary table of remediation goals for Station SS-11C.***

	Bios		Surface Water									Sediment				
Station	Macro	Peri	As	Cd	Cu	Pb	Zn	Hg	Mn	Total N	Total P	As	Cd	Cu	Pb	Zn
SS-11C																

Remedy goal met in all quarters in 2008
Remedy goal met in some quarters in 2008
Remedy goal not met in any quarters in 2008

10.1.7 SS-11D *Silver Bow Creek below Browns Gulch*

Station SS-11D lies just below the confluence of Silver Bow Creek and Browns Gulch, and is meant to provide an indication of the influence of that drainage on sediment and water chemistry. This reach of Silver Bow Creek was remediated in 2007. Monitoring data collected at this site included surface water, sediment, macroinvertebrates, and periphyton.

Metals and nutrient concentrations in surface waters found at SS-11D in 2008 varied little from those found at SS-11C, indicating Browns Gulch had minimal influence on the dilution of or contribution to analyzed constituents during sample dates. Similar to site SS-11C, arsenic, cadmium, copper, zinc, and manganese concentrations in surface waters at SS-11D also did not meet remediation goals. Lead and mercury concentrations met remediation goals during all quarters in 2008. Total nitrogen and phosphorous concentrations at this station remained well above targets established for the Clark Fork River. Signs of eutrophic conditions included an excess of algal and aquatic vegetation observed at both stations above and below Browns Gulch.

Stream sediment monitoring at this station also indicated very similar metals concentrations to those found at station SS-11C. Recorded metals concentrations in sediment at SS-11D were relatively low as compared to all other sample stations within the SSTOU, likely due to more recent placement of clean stream sediments during remediation. Concentrations of metals in sediment met all remediation goals in 2008. Additionally, all metal concentrations were below PEC concentrations, indicating a reduced likelihood of biological impairments due to sediment contamination.

Macroinvertebrate metrics improved from severe impairment in 2007 to moderate impairment in 2008 at this station; however, scores did not meet remediation goals. Biological indices at this site have suggested no impairment to the macroinvertebrate community as a result of metals contamination since 2007. Diatoms were the dominant component of the periphyton community, with metrics suggesting good to excellent biological integrity. As suggested by biological indicators in all upstream sites, the primary impairment of the biological community appears to be the result of excessive nutrients and eutrophic conditions at SS-11D. Table 10-7 provides a summary of all 2008 monitoring results at SS-11C as compared to remediation goals established for surface water, sediment, and biological communities.

Table 10-7. ***Summary table of remediation goals for Station SS-11D.***

	Bios		Surface Water									Sediment				
Station	Macro	Peri	As	Cd	Cu	Pb	Zn	Hg	Mn	Total N	Total P	As	Cd	Cu	Pb	Zn
SS-11D																

Remedy goal met in all quarters in 2008
Remedy goal met in some quarters in 2008
Remedy goal not met in any quarters in 2008

10.1.8 SS-15A *Silver Bow Creek above German Gulch*

Station SS-15A is located in Durant Canyon, and is immediately upstream of the confluence of Silver Bow Creek and German Gulch. Monitoring efforts at this station included surface water, sediment, macroinvertebrates, and periphyton. This station lies within Subarea 3 of the SSTOU, which has not been remediated as of 2008.

Arsenic, cadmium, copper, lead, zinc, and mercury concentrations in surface waters were all elevated as compared to station SS-11D and did not meet remediation goals in 2008. The continuation of this pattern in 2006 and 2007 offers the conclusion that unremediated tailings within the floodplain are the main source of metal contamination in surface waters. Manganese concentrations remained high as compared to the secondary maximum concentration, but did not indicate a noticeable rise as compared to upstream stations. The relatively constant concentrations of manganese in both remediated and unremediated areas of the SSTOU indicate the potential for naturally high levels of manganese in the geology of the Silver Bow Creek watershed. Nutrient concentrations at this station were nearly identical to those found at station SS-11D, and remained very high as compared to Clark Fork River targets.

Stream sediment monitoring indicated fairly drastic rises in metal concentrations through the unremediated Durant Canyon reach. Arsenic, copper, lead, and zinc concentrations fell above the TEC level during all quarters, indicating greater threats to biological communities as compared to remediated areas of the SSTOU. Cadmium concentrations were below the TEC during all but one quarter, indicating a lesser concern with respect to this metal. Zinc concentrations in sediments were above remediation goals established for the SSTOU during three of the four quarters, indicating this metal has the greatest potential for biological and human health concerns.

Stress on the biologic community due to metals was more evident in this reach as compared to stations SS-10A and SS-10B. Macroinvertebrate indices indicated moderate to severe impairment, and did not attain remediation goals in 2008. The diatom metrics implied moderate impairment of the algal community due to a high proportion of sediment and metals-tolerant taxa. As a result, periphyton scores also did not meet remediation goals. Overall, bioassessment metrics declined through the unremediated Durant Canyon and suggest impairments are related to both metals and excessive nutrients within this unremediated reach of Silver Bow Creek.

Table 10-8 provides a summary of all 2008 monitoring results at SS-15A as compared to remediation goals established for surface water, sediment, and biological communities.

Table 10-8. ***Summary table of remediation goals for Station SS-15A.***

	Bios		Surface Water									Sediment				
Station	Macro	Peri	As	Cd	Cu	Pb	Zn	Hg	Mn	Total N	Total P	As	Cd	Cu	Pb	Zn
SS-15A																

Remedy goal met in all quarters in 2008
Remedy goal met in some quarters in 2008
Remedy goal not met in any quarters in 2008

10.1.9 SS-15G *German Gulch near mouth*

Sample station SS-15G is located at the mouth of German Gulch and is the only station not located on Silver Bow Creek. This station provides monitoring data from the largest tributary stream of Silver Bow Creek, and allows a comparison of water chemistry and biological indicators between Silver Bow Creek and German Gulch. Monitoring efforts at SS-15G in 2008 included surface water, sediment, macroinvertebrates, and periphyton.

As was the case in 2007, metal concentrations in surface waters of German Gulch were found below human health and remediation goal concentrations or were below detection limits. Manganese was below the secondary maximum concentration at SS-15G, and was the only station to meet goals for this parameter in the study area. Nutrient concentrations at this station fell well below those found at any site on Silver Bow Creek and met standards established for the Clark Fork River for total nitrogen. Total phosphorous concentrations were also well below those found at all stations on Silver Bow Creek, but fell above targets established for the Clark Fork River during all quarterly samples. Sources of phosphorous contributions to German Gulch are unknown at this time.

The majority of sediment samples from German Gulch fell below the TEC level, indicating unlikely harm to biological communities. Arsenic was the only metal to exceed the TEC during all quarters, but did not exceed the PEC level in 2008. Overall, these results indicated stream sediments originating in German Gulch are relatively clean and pose little threat to benthic organisms.

Biological indicators reflected the overall higher quality of sediment and surface water quality conditions in German Gulch, and displayed the highest biological integrity of all sites sampled in 2008. Monitoring results at SS-15A indicated full support of the aquatic community and met remediation goals for both macroinvertebrates and periphyton in this contributing watershed of Silver Bow Creek. This station does not lie within the SSTOU; therefore remediation goals to not apply. As a comparison to other monitoring stations within the SSTOU, Table 10-9 summarizes 2008 monitoring results at SS-15A with respect to remediation goals established for surface water, sediment, and biological communities.

Table 10-9. ***Summary table of remediation goals for Station SS-15G.***

	Bios		Surface Water									Sediment				
Station	Macro	Peri	As	Cd	Cu	Pb	Zn	Hg	Mn	Total N	Total P	As	Cd	Cu	Pb	Zn
SS-15G																

Remedy goal met in all quarters in 2008
Remedy goal met in some quarters in 2008
Remedy goal not met in any quarters in 2008

10.1.10 SS-15B *Silver Bow Creek below German Gulch*

Station SS-15B is located just downstream of the mixing zone of German Gulch and Silver Bow Creek. This station provides monitoring data which enables the analysis of German Gulch's effect on water chemistry and biological communities in Silver Bow Creek downstream of its confluence. Monitoring efforts at this station in 2008 included surface water, sediment, macroinvertebrates, and periphyton.

Metal concentrations in surface waters at SS-15B were nearly identical to those found at SS-15A suggesting German Gulch had a minimal influence on surface water metal concentrations on sample dates. Remediation goals were not met for any metals in surface waters at this site. Nutrient concentrations at SS-15B remained highly elevated as compared to Clark Fork River targets and remain a limiting factor to biological integrity at SS-15B.

Although metal concentrations of arsenic, cadmium, copper, and lead in stream sediments met remediation goals, they fell above the TEC level during all quarters. Zinc concentrations in sediment again failed to meet remediation goals at this site.

The macroinvertebrate and periphyton communities at SS-15B were similar to those found at station SS-15A with respect to community composition and bioassessment indices. As was the case at station SS-15A, metrics scores pointed to increased metals as the limiting constraint on the biological community at site SS-15B. While high percentages of polysaprobous and siltation taxa were recorded, visual observations at this site did not support impairment from excessive silt or organic material, as the streambed was dominated by coarse gravel and cobble through this reach. Overall, bioassessment scores indicated moderate impairment of the macroinvertebrate community and moderate to severe impairment of the periphyton community. Goals for biological indicators were not met for either macroinvertebrates or periphyton. A summary of 2008 sampling results at SS-15A as compared to SSTOU remediation goals established for surface water, sediment, and biological communities is illustrated in Table 10-10.

Table 10-10. ***Summary table of remediation goals for Station SS-15B.***

	Bios		Surface Water									Sediment				
Station	Macro	Peri	As	Cd	Cu	Pb	Zn	Hg	Mn	Total N	Total P	As	Cd	Cu	Pb	Zn
SS-15B																

Remedy goal met in all quarters in 2008
Remedy goal met in some quarters in 2008
Remedy goal not met in any quarters in 2008

10.1.11 SS-17D *Silver Bow Creek near Opportunity*

Station SS-17D lies at the downstream extent of the SSTOU monitoring area. This station is located near the USGS stream gage at Opportunity, and is the only site within Subarea 4 of the SSTOU. Monitoring efforts at this station included surface water, sediment, macroinvertebrates, and periphyton. Floodplain remediation has been partially completed in Subarea 4; however, no channel reconstruction had begun within this portion of the SSTOU as of 2008.

Although this station indicated a decrease in surface water metals as compared to station SS-15B, the majority of metal concentrations fell above remediation goals. The decline in metals detected in surface waters could potentially be the result of partial floodplain remediation within Subarea 4, although it is difficult make a direct correlation. Total nitrogen and phosphorous concentrations at SS-17D also showed a decline from station SS-15B, yet remained well above standards established for the Clark Fork River. Surface water temperature exceeded 20 degrees Celsius during June, suggesting thermal pollution may stress salmonid populations in the lower extent of Silver Bow Creek.

Metals in stream sediment at SS-17D were similar to those found in Durant Canyon at sites SS-15A and SS-15B. With the exception of zinc, all concentrations of metals in sediments met remediation goals; however, arsenic, copper, lead, and zinc concentrations in sediments regularly exceeded PEC levels.

The effects of metals in sediments were observed in biological metric scores, which suggested moderate impairment of benthic organisms due to metals and an overall moderate to severely impaired macroinvertebrate community. Periphyton metrics suggested fair biological integrity dictated by relatively high percentages of siltation and pollution tolerant taxa. Overall, biological communities in the lower extent of the SSTOU did not meet remediation goals, and remain threatened as a result of the accumulation of metals in stream sediments and excessive nutrients, including total N, total P, and ammonia. Table 10-11 provides a summary of all 2008 monitoring results at SS-17D as compared to remediation goals established for surface water, sediment, and biological communities.

Table 10-11. ***Summary table of remediation goals for Station SS-17D***.

	Bios		Surface Water									Sediment				
Station	Macro	Peri	As	Cd	Cu	Pb	Zn	Hg	Mn	Total N	Total P	As	Cd	Cu	Pb	Zn
SS-17D																

Remedy goal met in all quarters in 2008
Remedy goal met in some quarters in 2008
Remedy goal not met in any quarters in 2008

11.0 REFERENCES

Bahls, L.L 1993. Periphyton bioassement methods for Montana streams (revised). Montana Department of Health and Environmental Sciences, Helena.

Barbour, M.T., J. Gerritsen, B.D. Snyder, and J. B. Stribling . Rapid Bioassessment Protocols for Use in Streams and Wadeable Rivers: Periphyton, Benthic Macroinvertebrates and Fish, Second Edition. EPA 841-B-99-002. U.S. Environmental Protection Agency; Office of Water; Washington, D.C.

Bollman, W. 1998. Improving stream bioassessment methods for the Montana valleys and foothill prairies ecoregion. Masters Thesis. University of Montana, Missoula, Montana.

Braile, T., and J. Dunning. 2003. Use of a restored wetland by migratory shorebirds diminishes with time (Indiana). Ecol. Rest. 21 (3), pp. 222-23.

Bukantis, R. 1998. Rapid bioassessment macroinvertebrate protocols: Standard Operating Procedures. Montana Department of Environmental Quality, Helena, Montana.

Busse, L.B., J.C. Simpson, and S.D. Cooper. 2006. Relationships among nutrients, algae, and land use in urbanized southern California streams. Canadian Journal of Fisheries and Aquatic Sciences. 63:2621-2638.

Canton, S.P. and Chadwick, J.W. 1985. The aquatic invertebrates of the Upper Clark Fork River, 1972-1984. In: Carlson, C.E. and Bahls, L.L (editor Proceedings of the Clark Fork River Symposium. Mont. College of Mineral Science and Technology. Butte.

Chadwick, J.W., Canton, S.P., and Dent, R.L. 1986 Recovery of benthic communities in Silver Bow Creek, Montana, following improved metal mine wastewater treatment. Water, Air, and Soil Pollution. 28: 427-438.

Confluence. 2002. Biological integrity of assessed reaches of Divide, Silver Bow, and Whitetail creeks. Report prepared for Natural Resource Damage Program, Helena, Montana.

Confluence. 2005. Biological Integrity of Silver Bow Creek based on Periphyton and Macroinvertebrate Associations. Report prepared for Natural Resource Damage Program, Helena, Montana.

Confluence. 2006. Biological Integrity of Silver Bow Creek based on Periphyton and Macroinvertebrate Associations. Report prepared for Natural Resource Damage Program, Helena, Montana.

Confluence. 2007. Biological Integrity of Silver Bow Creek based on Periphyton and Macroinvertebrate Associations. Report prepared for Natural Resource Damage Program, Helena, Montana.

DEQ and NRDP04a Comprehensive long term monitoring plan Silver Bow Creek SSTOU.

Daubenmire, R. 1959. A canopy-coverage method of vegetational analysis. Northwest Sci. 33(1): 43-64.

Hirst, H., I Juttner, and J.J. Omerod. 2002. Comparing the responses of diatoms and macro-invertebrates to metals in upland streams of Wales and Cornwall. Freshwater Biology 47:1752.

Ingman, G.L., and Ken, M.A. 1990. Water Quality Investigations in the Blackfoot River drainage. Montana Dept. of Helath and Environmental Sci., Water Quality Bureau. 115p.

Karr, J.R. and D.R. Dudley. 1981. Ecological perspectives on water quality goals. Environmental Management 5:55-68.

Lange-Bertalot, H. 1979. Simonsenia, a new genus with morphology intermediate between Nitzschia and Surirella Bacillaria 2: 127-153

McGuire, D.L. 2000. Aquatic macroinvertebrate surveys in the Clark Fork River, 1986-1988. Clark Fork Symposium.

McGuire, D.L. 2001. Clark Fork River macroinvertebrate community biological integrity: 2000 assessments. Report prepared for: Montana Department of Environmental Quality, Planning, Prevention, and Assistance Division, Helena Montana.

Natural Resource Damage Program, DEQ. 2007. Interim Comprehensive Long-term Monitoring Plan for Silver Bow Creek Streamside Tailings Operable Unit.

Neter, J., Wasserman, W., and Kutner, M. H. 1985. Applied Linear Statistical Models, 2nd ed. Irwin Press, Homewood, IL 60430. 1127 pp.

Prodgers, R. A. 2008. 2007 Revegetation and Bird Monitoring in Portions of Subareas 1, 2, and 4. 32 pp. + appendices.

Prodgers, R. A. 2007. Revegetation Monitoring Subareas 1 and 2, 2006. 14 pp. + appendices.

Prodgers, R. A. 2006. Vegetation Monitoring and Bird Census Report Subarea 1 2005. 16 pp. + appendices.

Prodgers, R. A. 2005. Subarea 1 Revegetation Monitoring 2004. 19 pp. + appendices.

Prodgers, R. A. 2004. Revegetation Monitoring Reaches B and C, SSTOU, 2003. 26 pp.+ appendices.

Weber, C.I. (editor). 1973. Biological field and laboratory methods for measuring the quality of surface water and effluents. US Environmental Protection Agency, Office of Research and Development, Cincinnati, Ohio. EPA 670-4-73-001.

Whitaker, R.H. 1952. A study of summer foliage insect communities in the Great Smoky Mountains. Ecological Monographs 22:6.

Appendix A

2008 Monitoring Photographs of Reaches F, G, and H

Figure A12. The main focus of these photos is the yellow monkeyflower, which we seeded, but the white carroty-looking plant is water hemlock. Its poisonous qualities can scarcely be exaggerated. I didn't spot it in Reach F until late summer – you can see that some of the fruits are almost ripe. Although we then sprayed it with herbicide, it looked like it would set seed anyway so I cut the stalks. Still, I expect to see some next year.

Figure A13. Silver buffaloberry can be a better streamside shrub than willows, depending upon soil qualities.

Figure A14. It's easy to miss the noxious weed *Lepidium latifolium*, tall pepperweed or broadleaved pepperweed, until if flowers in late summer, at which time it can hardly be missed.

Figure A15. This silverweed, *Potentilla anserina*, came from transplanting. Note the litter buildup, which appears to be limiting production.

Figure A16. Here a perennial native volunteer, *Epilobium ciliatum*, is colonizing some ground covered with Baltic rush litter; a little of the rush can still be seen.

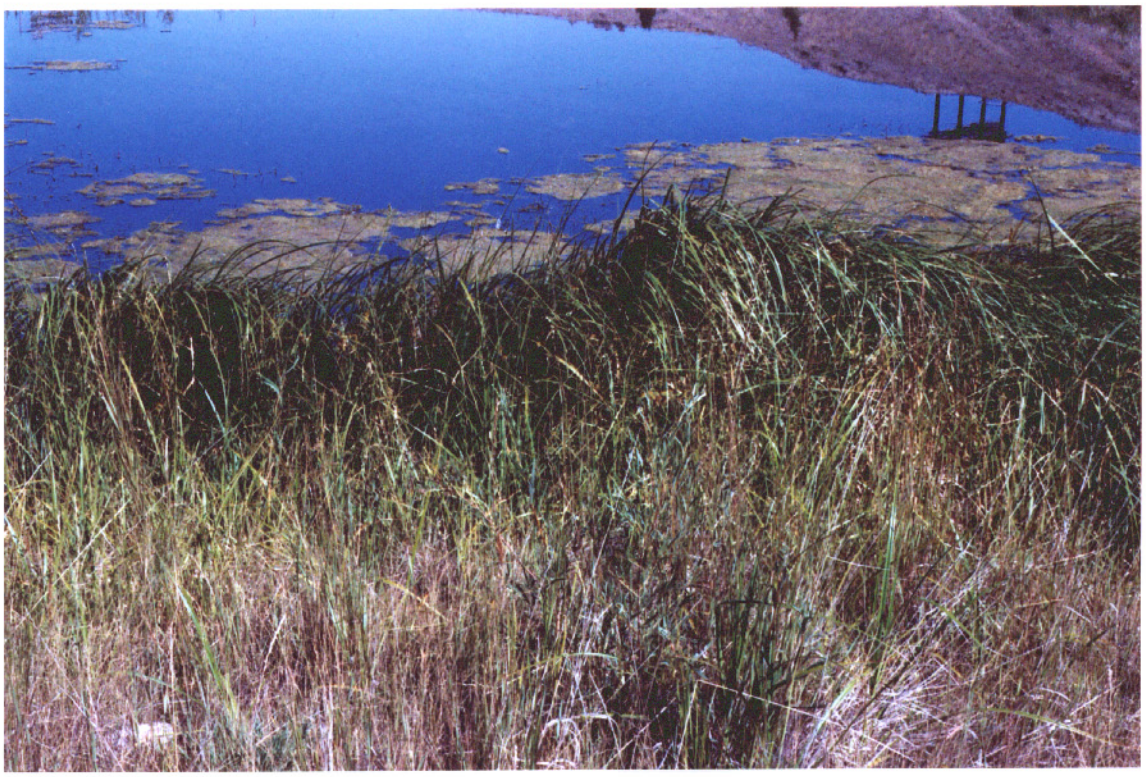


Figure A17. Sedges transplanted around pond margins in Reach F established but haven't spread inland.

Figure A18. The wetland strip draining the lower pond is most impressive. The blue sedge is Nebraska, the tall stalks arrowgrass. Short light-green plant throughout is common spikerush.

Figure A19. The tall grass behind the dog is American mannagrass, which we seeded. It occurs on some unremediated streambanks and is a favorite of mine.

Figure A20. The prominent bulrush was transplanted, as was the shorter, dark green spikerush that surrounds it. Across the water is cattails, a weedy native that inevitably colonizes shallow wetlands, usually via seed hitching a ride in duck feathers.

Figure A21. Reach G is pretty well vegetated, but due to the prevalence of saline coversoil and subirrigated-transitio zone hydrology, alkaligrass is the most abundant species. Wetlands are plentiful in this reach.

Figure A28. Transect 65, subirrigated and upland zones, is used to demonstrate how conditions and vegetation change along a single transects. It begins in a saline soil with limited plant cover.

Figure A29. T65 then enters a thicket of beeplant stalks with good vegetation below.

Figure A30. Here's a cudweed sagewort on T65 in dense vegetation below the standing litter.

Figure A31. Next, a sagebrush amidst plentiful grasses on T65.

Figure A32. You can't see far through standing litter, so the transect isn't perfectly straight.

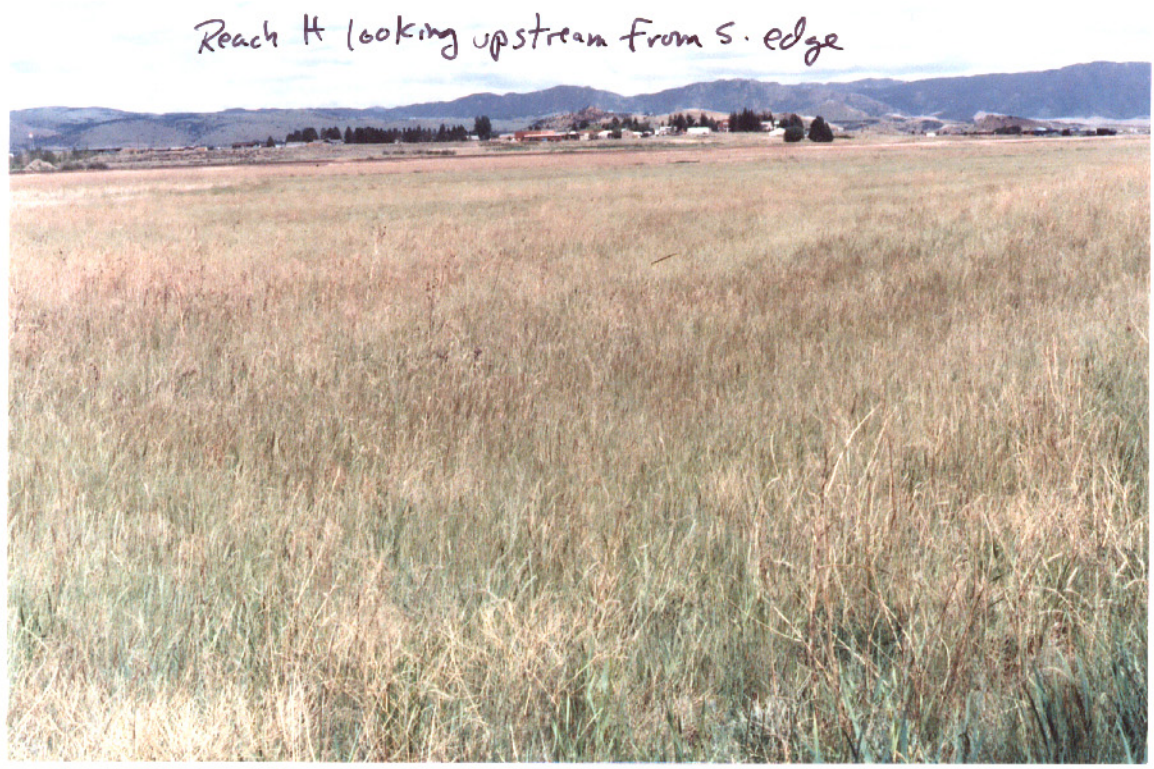
Figure A33. Next, another salty spot along T65; the shrub is greasewood.

Figure A34. More salinity, less plant cover, and the beeplant couldn't grow here.

Figure A35. Another thicket of good revegetation.

Figure A36. Transect 65 concludes as it began in a saline soil with reduced plant cover. Total plant cover for the entire transect was 84%, which is excellent considering the saline portions.

Figure A37. This is the last and largest in a series of ponds in Reach G. Bird use is prodigous.



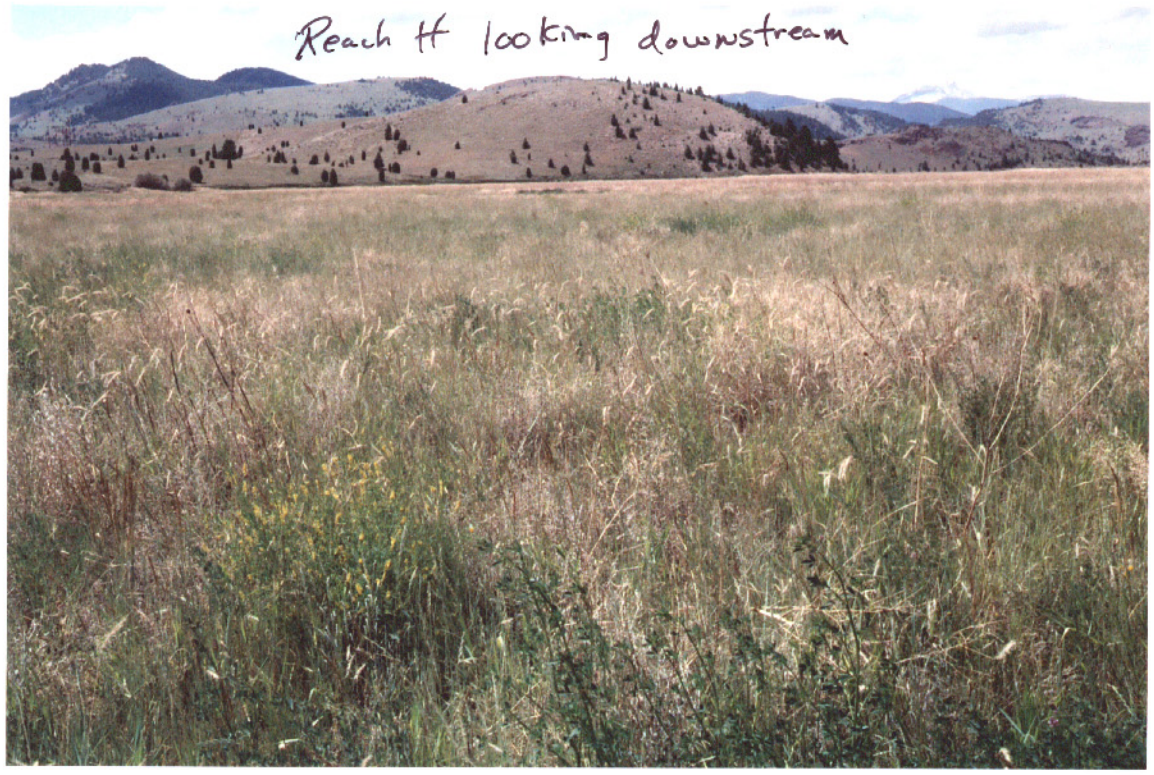


Figure A42. The view from the approximate middle of Reach H, south edge, looking upstream and downstream.

Figure A43. There were some terrible annual weed patches in Reach H right from the start. This area south remained dominated by tumble mustard in 2008. We used several sources of compost and some Ueland topsoil in Reach H, but so far haven't linked the weeds to an amendment or coversoil source.

Figure A44. Transect 70 in the transition zone was well stocked with grasses and forbs in addition to the willows visible here.

Figure A45. At upland T72, grasses were abundant.

Figure A46. Subirrigated T73 shows excellent stocking.

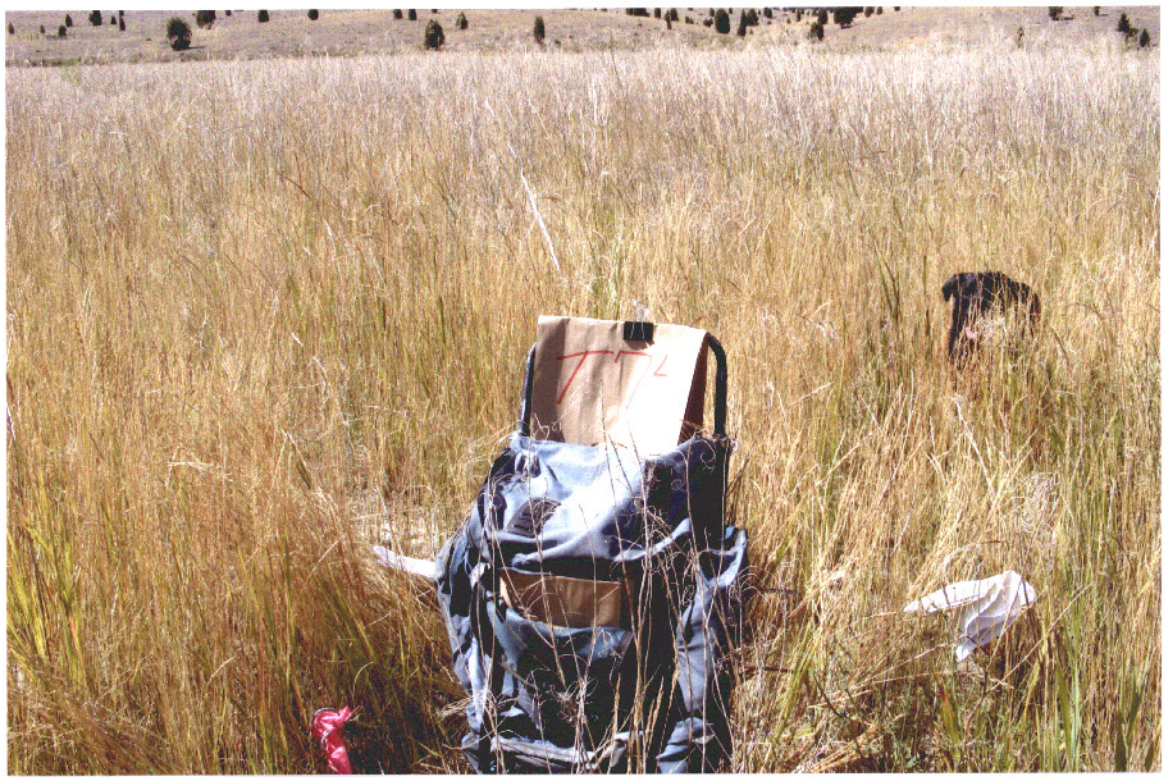


Figure A47. About three grasses per square foot were present at T74, which has subirrigated and transition-zone hydrology. Tall gray litter is remains of Rocky Mountain beeplant.

Figure A48. Transect 75 in the subirrigated zone is well stocked mainly with grasses.

Figure A49. This upland (T76) is more abundantly and diversely stocked than most wetter sites.

Figure A50. The final transect (T77) in Reach H is in the transition zone. It's well stocked with grasses but little else.

Appendix B

2008 Photographs of Subarea 4

Figure B1. When it comes to revegetation, Subarea 4 has its share of limitations in the form of acidic substrates and residual contamination, but not at the former Jordan staging area north of Highway 1. Top photo is the southern, drier portion. Lower photo shows east-central portion of the northern "horseshoe wetland."

Figure B2. This is the western part of the horseshoe wetland in June when there was standing water – it was completely dry in August.

Figure B3. Pretty impressive revegetation for gravel and sand. (Taken just north of the compost pile on the line between the northern (moist to wet) and southern (dry) potions.

Figure B4. This pond is the lowest spot, hence wettest spot, in the wetland complex.

Figure B5. Too much compost, was we have learned elsewhere, is not a recipe for good vegetation, although ten years from now it might be. This was a stockpile area.

Figure B6. Even the dry southern portion looked mighty fine in June.

Figure B7. Unfortunately, I couldn't catch this *Penstemon grandiflorus* (large beardtongue) in flower. It's an enhanced-seeding flower. Often the flowering stalks are eaten by deer.

Figure B8. It's *Salicornia rubra*, a native annual of moist, salty soils. (*Rubr* L. = reddish.)

Figure B9. It appears fuzzy because the fruits are so ethereal that the camera's autofocus can't detect them, but alkali sacaton (*Sporobolus airoides*) is a favorite grass of mine that we seed is moist soils, including saline ones. Unfortunately, it doesn't establish as easily as alkaligrass.

Figure B10. My guess for the identify of the mystery grass is *Agrostis tenuis*, near relative of *A. stolonifera*, the most common streambank grass prior to remediation. Even with a good specimen, I couldn't be sure and even thought perhaps *Calamagrostis*. Northeast wetland area.

Figure B11. Transect 4-1 is in the southern gravel-pit area. This coarse, gravelly substrate is very well vegetated with mostly native grasses. Total plant cover of 46% is the most you can expect for such a droughty substrate no matter how good it appears in spring (Figure B6).

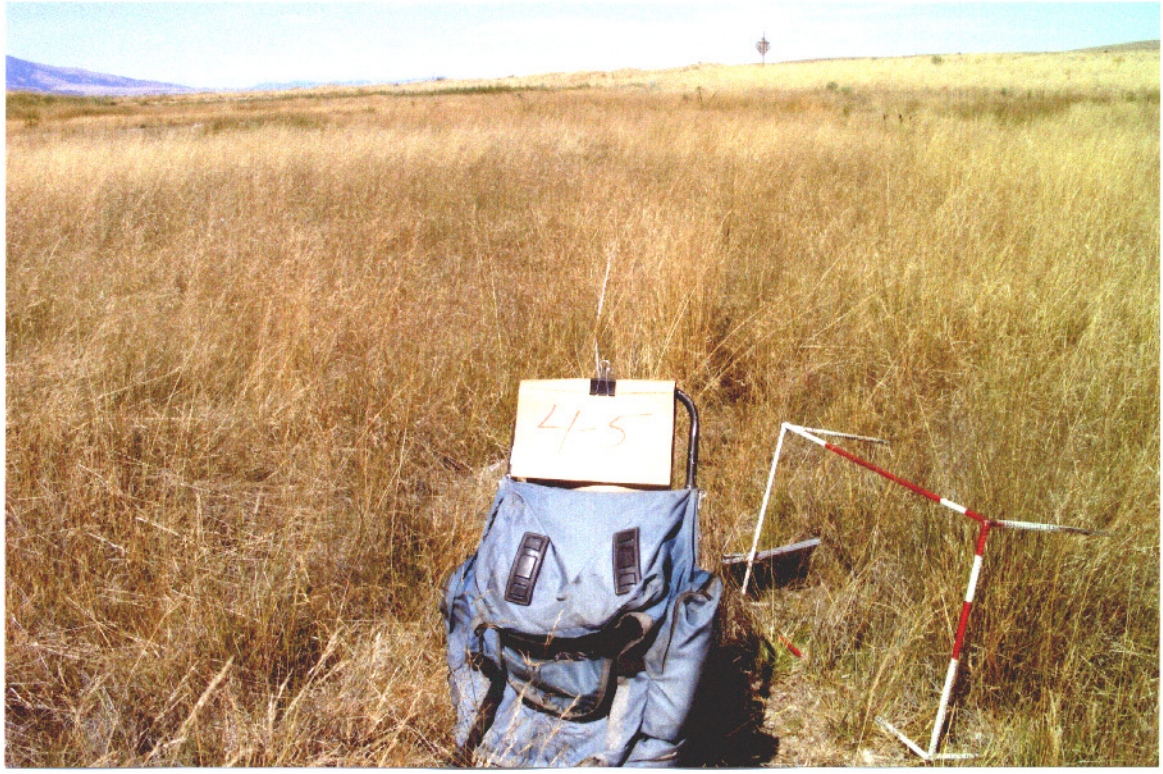


Figure B12. Transect 4-5 is in the eastern wetland area. Total plant cover was 82%, which was partially limited by some open water. The main species was tufted hairgrass. This is pretty impressive for what is essentially a gravel pit, and overall diversity is excellent.

Figure B13. The rest of the SA 4 transects were seeded in fall-winter 2006, so seedling density was monitored. These transects were subjectively located to avoid barren areas, which account for well over 100 acres. T4-6 had 1.2 perennial grasses per square foot combined with 67% stocking, which is not fully satisfactory.

Figure B14. Transect 4-7 was adequately stocked while remaining weedy (annual weeds, not noxious weeds). Density was 1.6 perennials per square foot with 84% frequency.

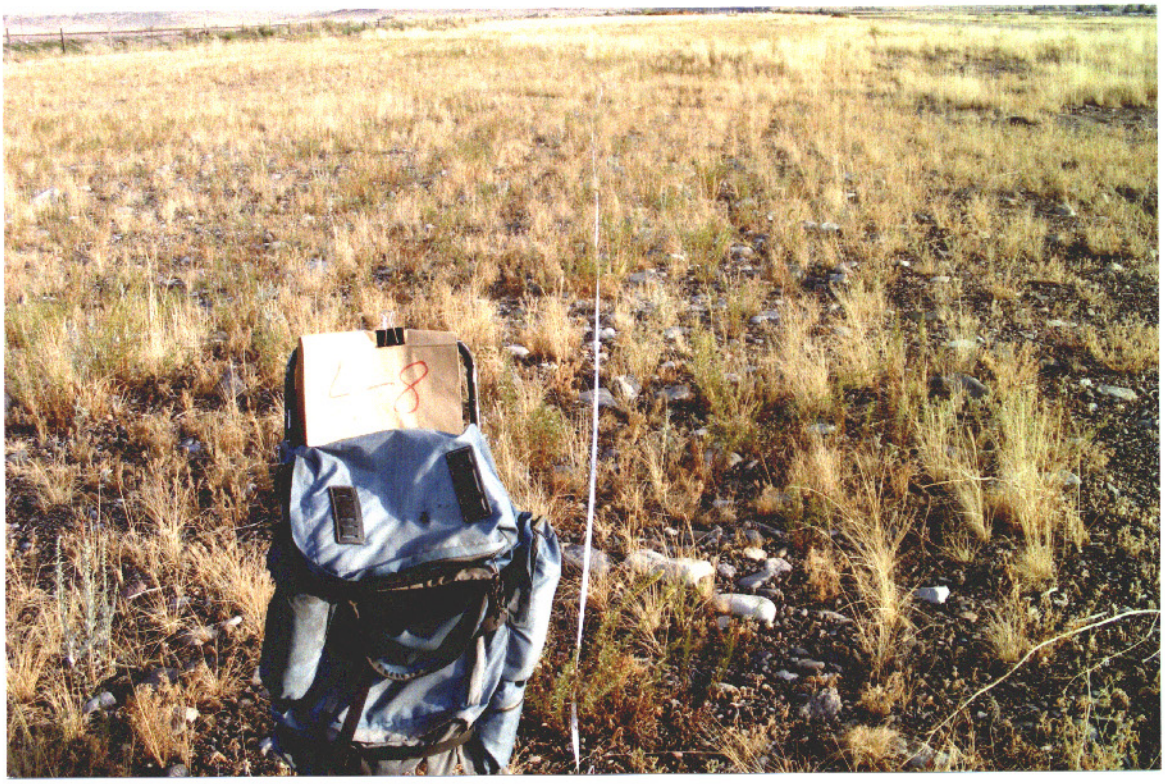


Figure B15. Transect 4-8 is in the Stimpson-amended area, a gravelly substrate that is both infertile and droughty. Seedling density was excellent (2.3/90) although the plants were small.

Figure B16. Transect 4-9 was unsatisfactory – voids just couldn't be missed in this area.

Figure B17. At Transect 4-10, annual weeds were plentiful but perennials barely adequate.

Figure B18. Like the others, Transect 4-11 is almost entirely grass – the "enhanced seed" component was wasted. Most of the soil in SA 4 is limiting to some degree.

Figure B19. While it looks pretty sparse at the origin, T4-12 was adequately stocked (1.6/81).

Figure B20. The final transect, B-14, fell well short of adequate stocking.

Figure B21. Nighthawks find good nesting habitat in what others might perceive as sparse revegetation. Stimson wood-product amendment covers the otherwise gravelly ground.

Figure B22. Yellow-flowered alfalfa is the most drought-tolerant variety. So far it has survived on the coarsest substrates in SA 4, including this Stimson-amended gravel.

Figure B23. The Stimson-amended area just south of Highway 1 was not sampled in 2008, but this is how it looked in August. Hot, dry weather takes a toll, but so far vegetation has bounced back when moisture returns.

Figure B24. Subarea 4 has significant acreages awaiting liming and coversoil because remediation left acidic substrates and in places elevated heavy metals and compaction. Grass is lower photograph is tufted hairgrass that was present before remediation.

Figure B25. Of the areas in SA 4 counted as vegetated, here by a temporary crop of ryegrass, some indicate decent soil but others don't bode well for permanent vegetation.

Figure B26. All of the areas temporarily seeded with cereal rye to facilitate weed control were "permanently" seeded in spring 2008. Tractor tire marks indicate seeding; none of the plants visible originated with the 2008 seeding. Total impaired acreage is greater than the 106 acres mapped in 2007.

Appendix C

Photographs of Subareas Not Monitored in 2008

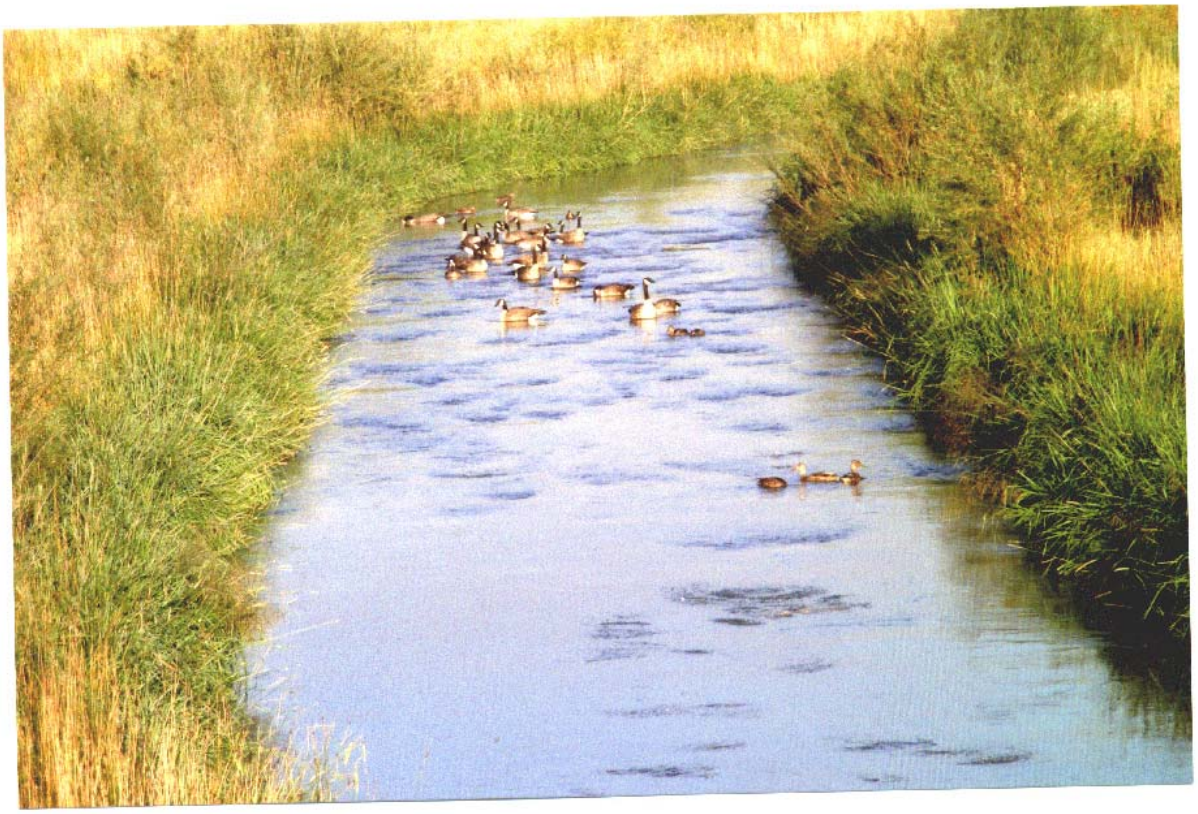


Figure C1. Geese like security, which equates with good visibility so predators can't sneak them. Their use of the SSTOU usually peaks in the first year or two after seeding unless sizable ponds are part of the habitat mix. Still, they sometimes use Silver Bow Creek with well-vegetated banks as here in Reach A.

Figure C2. Quantitative monitoring of Reach A concluded in 2007, but I had to take some photographs there for the 2009 Billings Reclamation Symposium. In a nutshell, it looks fine.

Figure C3. When it comes to physiognomic diversity, Reach A is the best. Shown are rubber rabbitbrush on a coarse upland substrate and aspens in the subirrigated or transition-zone. The latter site seems drier now than when it was planted. With dense vegetation comes transpiration. Water is withdrawn from the soil and hydrology appears drier at the surface. Consequently, hydrologic regimes can't be simply inferred.

Figure C4. While plant cover is greater on composted portions of Reach A, the difference was not statistically significant. At least we can conclude that noncomposted areas, shown here, were not fiascos.

Figure C5. Reaches B and C got off to a weedy start. I feel that we dragged it kicking and screaming every inch of the way, but it now appears satisfactory although physiognomic diversity was truncated by massive transplant mortality.

Figure C6. Volunteers other than weeds are uncommon in SSTOU revegetation except where there is open water. This Oxytropis sericea (white locoweed) growing in roadbase on the Greenway "trail" caught my eye, once again showing that clean and coarse is better than fine (textured) and salty.

Figure C7. It is easy, even obvious to conjecture that grasses inhibit willows.

Figure C8. This willow was growing about 20 meters farther from the creek than the one on C7, and they were planted at the same time in Reach B.

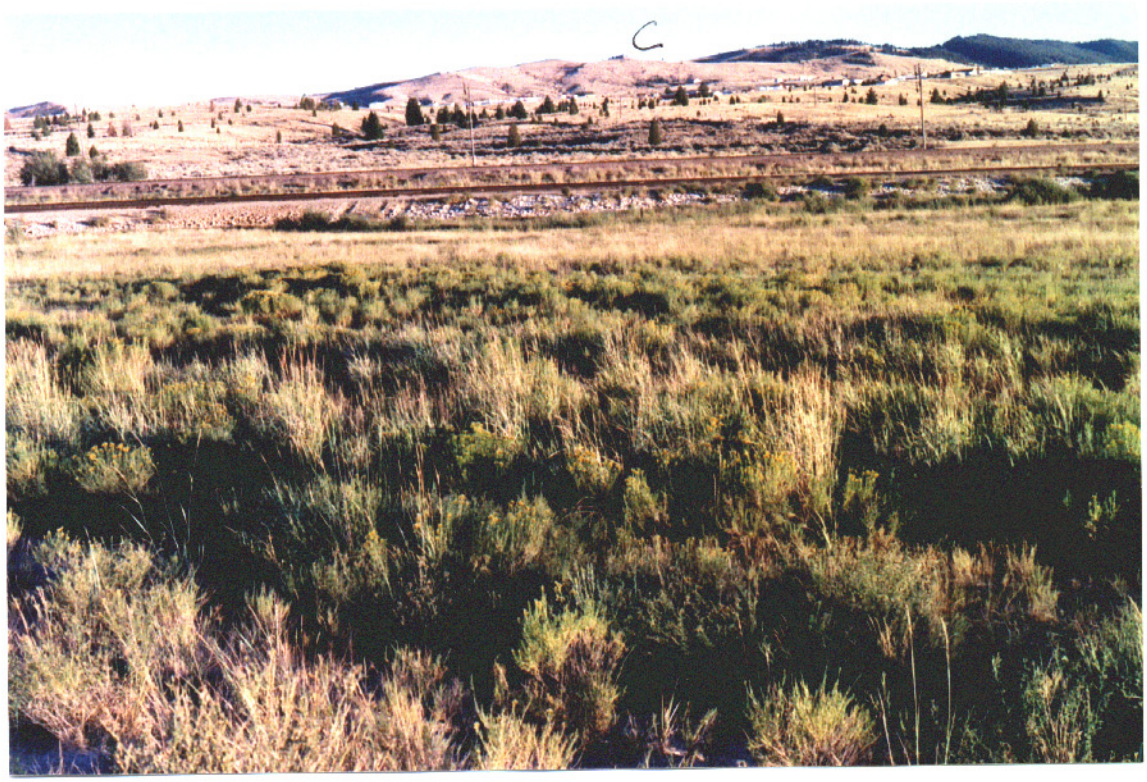


Figure C9. In Reach C, fertilizing in 2008 increased plant cover in the area where twice the normal amount of compost was applied. Otherwise, the comments for Reach B (C5) apply.

Figure C10. This is the second time I found elk remains in Reach D. The location must be attractive to elk. Unlike other reaches, it is out of sight of the frontage road.

Figure C11. Waterfowl spreads seeds around, and as long as the seed isn't purple loosestrife, it's to our advantage. This cosmopolitan bulrush (Schoenoplectus maritimus) at Nissler may have originated in the far north or old Mexico – there are no ecotypes of species spread by waterfowl.

Figure C12. Nissler Wetland continues to develop. I still predict that it will become a cattail swamp, and diversity is probably now at the zenith.

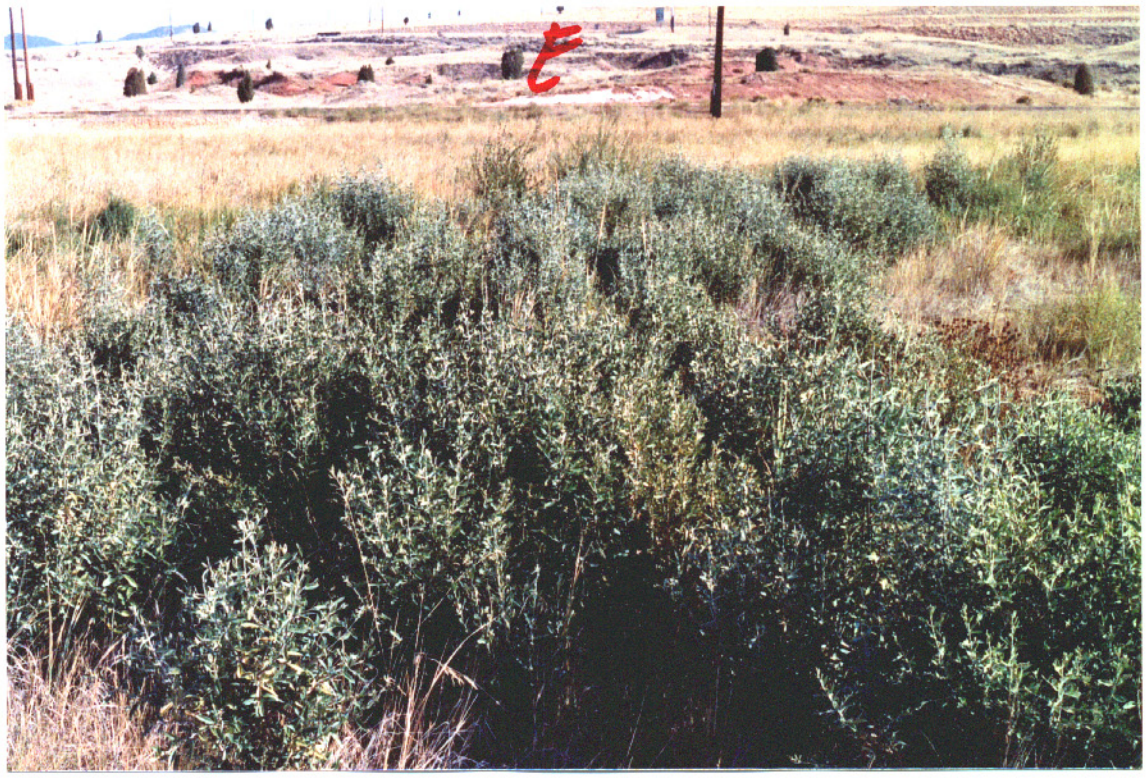


Figure C13. For me, the highpoint of Reach E is our best-ever patch of silver buffaloberry. In a few more years when they bear fruit, this will be prime bird habitat as they love the fruits.

Figure C14. Reach G was monitored this year, but not the streambanks. Among the most successful species provided by the NRD enhanced-seed fund is Canada milkvetch.

Figure C15. Reach I was raw habitat in spring 2008 – makes me feel like a painter handed a fresh canvas. Lower photo was taken in mid-summer. Note geese behind Belle.

Figure C16. Speaking of streambanks, the coolest plant yet found in the SSTOU may be Montana's only annual paintbrush, Castilleja exilis, in upper Reach H, north bank.

Figure C17. Whatever benefit compost may confer, it certainly provides a fungal component to the soil foodweb, which otherwise would be almost solely bacterial.

Figure C18. While competitive exclusion may subsequently limit its expression, species and growth-form diversity in portions of Reach I was splendid. The lower photo reveals grasses, forbs, subshrubs, and one shrub – not bad for less than one square meter.

Figure C17. Streambanks were flooded in lower Reach I before seeded plants could establish. Some had naught but volunteers (top). Others developed seeded grasses on the upper lift and volunteers on the lower lift. No matter, streambanks are the easiest revegetation.

Figure C~~18~~20. Reach I streambank in mid-summer with volunteers on the lower lift, grasses on the upper lift, and a row of willows behind the fabric where they were planted because the coir was under water in early June.

Figure C~~19~~31. Most of Reach I was successfully seeded, including the rocky substrate depicted in the lower photograph.

Figure C2~~0~~2. Some areas were as usual more sparse than others. The lower photograph shows an area in southern Reach I seeded late, then eroded. It was reseeded in fall 2008.

Figure C~~20~~3. Tim Reilly has pointed out, and these photographs corroborate, that the salts in saline coversoils don't necessarily originate with fill. Salts were present before remediation; these photographs are from Subarea 3, 2008. Of course, one hopes that following remediation the salts aren't blue!

Figure C24. I bought a pound of hawthorne in 2007 and mixed it into streambank mix. So far, this is the only plant seen. Already, it's been cropped by deer, the fate of most shrubs in the rose family.

Figure C25. The important thing in Silver Bow County weed control is to *pretend* to control weeds, not actually do it. Here the railroad company killed chokecherry, which we seed, but the butter-and-eggs is fine, ready to spread to the floodplain.

Appendix D

2008 Canopy Coverage and Frequency

APPENDIX D

CANOPY COVERAGE AND FREQUENCY

REACHES F, G, AND SA 4 2008

From the Long-Term Monitoring Plan:

Minimum Canopy Coverage Approximately 10 Years after Seeding in Years of Near-normal Seasonal Precipitation.

HYDROLOGIC ZONE	AVERAGE PERENNIAL CANOPY COVERAGE
Uplands, Subirrigated	60%
Streambanks, Transition Zone	80%
Wetlands (not open water)	100%

Table D1. Transect 54, Reach F 2008, Canopy Coverage and Frequency, Subirrigated Zone.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
INTRODUCED ANNUAL FORBS			
Chenopodium album	0.1	0.1	5
NATIVE PERENNIAL GRASSES			
Elymus cinereus	6.0	5.9	45
Elymus lanceolaltus	0.2	0.2	5
Elymus trachycaulus	4.3	4.2	30
	---	---	
Subtotal	10.5	10.3	
INTRODUCED PERENNIAL GRASSES			
Poa compressa	0.6	0.6	5
INTRODUCED LEGUMES			
Medicago sativa	90.5	89.0	100
Total Plant Cover	101.7	100.0	
Bare Soil	---		----
Coarse Fragments	---		----
Litter	83.6		100

Table D2. Transect 55, Reach F 2008, Canopy Coverage and Frequency, Mostly Transition Zone, Some Subirrigated.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
ANNUALS & BIENNIALS			
Setaria viridis	0.2	0.3	5
NATIVE PERENNIAL GRASSES & SEDGES			
Carex nebrascensis	0.1	0.1	5
Deschampsia cespitosa	1.0	1.4	5
Elymus spp. (veg.)	0.3	0.4	10
Elymus trachycaulus	0.6	0.8	15
Hordeum jubatum	0.5	0.7	5
Juncus balticus	1.1	1.5	20
Puccinellia nuttalliana	58.5	82.0	100
	---	---	
Subtotal	62.1	86.9	
INTRODUCED PERENNIAL GRASSES			
Poa compressa	0.1	0.1	5
NATIVE FORBS			
Epilobium ciliatum	6.1	8.6	35
Mimulus guttatus	0.1	0.1	5
Potentilla anserina	2.2	3.1	20
	---	---	
Subtotal	8.4	11.8	
SHRUBS			
Salix exigua	0.5	0.7	10
Total Plant Cover	71.3	99.8	
Bare Soil	15.9		75
Coarse Fragments	1.3		65
Litter	72.0		100

Table D3. Transect 56, Reach F 2008, Canopy Coverage and Frequency, Subirrigated Zone.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	%		
ANNUALS & BIENNIALS			
Cleome serrulata	0.1	0.2	5
NATIVE PERENNIAL GRASSES & RUSHES			
Elymus lanceolatus	2.0	3.9	40
Elymus smithii	0.6	1.2	15
Elymus trachycaulus	7.5	14.7	65
Juncus balticus	0.1	0.2	5
Leymus cinereus	13.5	26.5	70
Poa ampla (*P. juncifolia* var. *ampla*)	0.2	0.4	5
Puccinellia nuttalliana	2.1	4.1	45
Subtotal	26.0	51.0	
NATIVE SUBSHRUBS			
Artemisia frigida	0.1	0.2	10
INTRODUCED LEGUMES			
Medicago sativa	24.6	48.3	35
SHRUBS			
Sarcobatus vermiculatus	0.1	0.2	5
Total Plant Cover	50.9	99.9	
Bare Soil	16.1		80
Coarse Fragments	0.9		55
Litter	75.0		100

Table D4. Transect 57, Reach F 2008, Canopy Coverage and Frequency, Upland Zone.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
ANNUALS & BIENNIALS			
Sisymbrium loeselli	3.5	3.3	25
NATIVE PERENNIAL GRASSES			
Elymus lanceolatus	1.2	1.1	20
Elymus smithii	0.1	0.1	5
Elymus trachycaulus	1.5	1.4	30
Leymus cinereus	7.9	7.4	55
Poa ampla (*P. juncifolia* var. *ampla*)	7.9	7.4	65
Subtotal	18.6	17.4	
INTRODUCED PERENNIAL GRASSES			
Festuca ovina	3.2	3.0	40
Poa compressa	1.3	1.2	25
Subtotal	4.5	4.2	
INTRODUCED LEGUMES			
Medicago sativa	80.1	74.5	100
NATIVE SUBSHRUBS			
Artemisia frigida	0.7	0.6	20
Total Plant Cover	107.4	100.0	
Bare Soil	5.2		70
Coarse Fragments	0.8		65
Litter	74.6		100

Table D5. Transect 58, Reach F 2008, Canopy Coverage and Frequency, Mostly Transition Zone.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	%	%	%
BIENNIALS			
Melilotus officinalis & alba	4.1	3.5	45
NATIVE PERENNIAL GRASSES & RUSHES			
Deschampsia cespitosa	13.9	11.7	45
Elymus canadensis	0.6	0.5	15
Elymus trachycaulus	8.4	7.1	75
Festuca rubra	0.6	0.5	20
Juncus balticus	0.3	0.3	5
Leymus cinereus	2.2	1.9	10
Puccinellia nuttalliana	1.3	1.1	10
Subtotal	27.3	23.1	
INTRODUCED PERENNIAL GRASSES			
Poa compressa	19.8	16.7	100
NATIVE PERENNIAL FORBS			
Achillea millefolium	3.1	2.6	20
Epilobium ciliatum	3.6	3.0	30
Mimulus guttatus	0.5	0.4	5
Potentilla anserina	1.9	1.6	25
Subtotal	9.1	7.6	
INTRODUCED LEGUMES			
Lotus corniculatus	36.8	31.1	85
Trifolium repens	20.5	17.3	55
Subtotal	57.3	48.4	
PERENNIAL WEEDS			
Taraxacum officinale	0.4	0.3	10
SHRUBS			
Salix sp	0.5	0.4	10
Total Plant Cover	118.5	100.0	
Litter	82.0		100

Table D6. Transect 59, Reach F 2008, Canopy Coverage and Frequency, Upland Zone.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	%	%	%
ANNUALS and BIENNIALS			
Sisymbrium loeselli	0.6	0.8	15
NATIVE PERENNIAL GRASSES			
Elymus canadensis	0.6	0.8	10
Elymus lanceolatus	7.4	9.5	80
Elymus trachycaulus	2.5	3.2	25
Hordeum jubatum	0.4	0.5	5
Leymus cinereus	9.2	11.8	30
Poa ampla (*P. juncifolia* var. *ampla*)	2.3	3.0	45
Pseudoroegneria spicata	0.8	1.0	15
Subtotal	23.2	29.8	
INTRODUCED PERENNIAL GRASSES			
Festuca ovina	3.7	4.7	50
Poa compressa	0.3	0.4	5
Subtotal	4.0	5.1	
INTRODUCED LEGUMES			
Medicago sativa	47.1	60.5	70
NATIVE SUBSHRUBS			
Artemisia frigida	0.5	0.6	5
NATIVE SHRUBS			
Artemisia tridentata	2.2	2.8	15
Ericameria nauseosus	0.3	0.4	10
Subtotal	2.5	3.2	
Total Plant Cover	77.9	100.0	
Bare Soil	29.9		100
Coarse Fragments	5.6		95
Litter	56.8		100

Table D7. Transect 60, Reach G 2008, Canopy Coverage and Frequency, Upland Zone.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	%		
NATIVE PERENNIAL GRASSES			
Elymus lanceolatus	0.9	1.9	35
Elymus trachycaulus	0.1	0.2	5
Koeleria macrantha	0.1	0.2	5
Poa secunda	0.4	0.8	15
Subtotal	1.5	3.1	
INTRODUCED PERENNIAL GRASSES			
Festuca ovina	2.9	6.0	75
INTRODUCED LEGUMES			
Medicago sativa	3.5	7.3	25
NATIVE SUBSHRUBS			
Artemisia dracunculus	0.4	0.8	5
Artemisia frigida	24.6	51.3	100
Artemisia ludoviciana	2.8	5.8	90
Subtotal	27.8	57.9	
NATIVE SHRUBS			
Artemisia tridentata	8.6	17.9	90
Ericameria nauseosus	3.7	7.7	45
Subtotal	12.3	25.6	
Total Plant Cover	48.0	99.9	
Bare Soil	72.1		100
Coarse Fragments	1.1		95
Litter	14.0		100

Table D8. Transect 61, Reach G 2008, Canopy Coverage and Frequency, Subirrigated and Transition Zones.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------	%	----------
NATIVE PERENNIAL GRASSES			
Deschampsia cespitosa	0.2	0.3	5
Elymus lanceolatus	3.3	4.6	35
Elymus smithii	1.9	2.7	50
Elymus trachycaulus	4.3	6.0	45
Leymus cinereus + *E. canadensis*	1.9	2.7	35
Poa ampla (*P. juncifolia* var. *ampla*)	1.7	2.4	10
Puccinellia nuttalliana	45.2	63.0	95
Sporobolus airoides	0.6	0.8	15
Subtotal	59.1	82.5	
INTRODUCED PERENNIAL GRASSES			
Poa compressa	12.4	17.3	55
NATIVE FORBS			
Epilobium ciliatum	0.1	0.1	10
SHRUBS			
Sarcobatus vermiculatus	0.1	0.1	5
Total Plant Cover	71.7	100.0	
Bare Soil	31.0		100
Coarse Fragments	0.9		85
Litter	51.7		100

Table D9. Transect 62, Reach G 2008, Canopy Coverage and Frequency, Mostly Transition Zone.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------	%	----------
BIENNIALS			
Setaria viridis	0.1	0.1	5
NATIVE PERENNIAL GRASSES			
Deschampsia cespitosa	0.4	0.5	10
Elymus lanceolatus	0.2	0.3	5
Elymus smithii	0.1	0.1	5
Elymus trachycaulus	3.7	4.9	35
Hordeum brachyantherum	0.2	0.3	10
Hordeum jubatum	0.5	0.7	10
Leymus cinereus & Ely can	2.7	3.6	30
Puccinellia nuttalliana	51.6	68.2	100
	---	---	
Subtotal	59.4	78.6	
INTRODUCED PERENNIAL GRASSES			
Agrostis stolonifera	0.5	0.7	5
Alopecurus arundinaceus	2.0	2.7	35
Poa compressa	0.8	1.1	20
	---	---	
Subtotal	3.3	4.5	
NATIVE PERENNIAL FORBS			
Aster ascendens	4.3	5.7	35
Epilobium ciliatum	1.6	2.1	15
Mentha arvensis	0.1	0.1	5
	---	---	
Subtotal	6.0	7.9	
INTRODUCED LEGUMES			
Lotus corniculatus	2.2	2.9	20
Trifolium pratense	0.5	0.7	5
Trifolium repens	2.9	3.8	15
Triglochin maritima	0.3	0.4	5
	---	---	
Subtotal	5.9	7.8	

Table D9 continued

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
SHRUBS			
Ribes aureum	0.1	0.1	5
Sarcobatus vermiculatus	0.8	1.1	30
	---	---	
Subtotal	0.4	1.2	
Total Plant Cover	75.6	100.1	
Litter	13.8		100
Coarse Fragments	0.3		45
Bare Soil	71.4		100

T63 missing.

Table D11. Transect 64, Reach G 2008, Canopy Coverage and Frequency, Mostly Subirrigated, Some Transition Zone.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
NATIVE PERENNIAL GRASSES & RUSHES			
Deschampsia cespitosa	6.7	8.7	15
Elymus canadensis	0.6	0.8	10
Elymus cinereus	7.1	9.2	50
Elymus smithii	1.2	1.5	25
Elymus trachycaulus	0.8	1.0	20
Festuca rubra	0.4	0.5	
Hordeum jubatum	0.1	0.1	5
Juncus balticus	17.1	22.1	70
Poa ampla (*P. juncifolia* var. *ampla*)	7.0	9.1	60
Puccinellia nuttalliana	0.2	0.3	5
	---	---	
Subtotal	41.2	53.3	

Table D11 continued

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	%		
INTRODUCED PERENNIAL GRASSES			
Agrostis stolonifera	2.6	3.4	50
Festuca ovina	0.2	0.3	5
Poa compressa	18.0	23.3	85
Poa pratensis	0.2	0.3	5
Subtotal	21.0	27.3	
INTRODUCED LEGUMES			
Medicago sativa	14.6	18.9	45
Trifolium repens	0.5	0.5	5
Subtotal	15.1	19.4	
Total Plant Cover	77.3	100.0	
Bare Soil	0.7		15
Coarse Fragments	0.1		5
Litter	87.2		100

Table D12. Transect 65, Reach G 2008, Canopy Coverage and Frequency, Subirrigated Zone.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	%		
INTRODUCED ANNUALS			
Chenopodium sp.	5.3	6.3	20
NATIVE PERENNIAL GRASSES			
Elymus canadensis	7.1	8.4	65
*Elymus lanceolatus**	30.3	35.9	95
Elymus smithii	1.5	1.8	30
Poa secunda (*P. juncifolia* var. *ampla*)	4.5	5.3	25
Psuedoroegneria spicata	0.6	0.7	5
Puccinellia nuttalliana	14.9	17.7	55
Subtotal	58.9	69.8	
INTRODUCED PERENNIAL GRASSES			
Agrostis stolonifera	0.1	0.1	5
Poa compressa	0.1	0.1	5
Subtotal	0.2	0.2	
INTRODUCED LEGUMES			
Medicago sativa	19.6	23.3	40
NATIVE SUBSHRUBS			
Artemisia frigida	0.2	0.2	5
SHRUBS			
Sarcobatus vermiculatus	0.1	0.1	5
Total Plant Cover	84.3	99.9	
Bare Soil	24.4		70
Coarse Fragments	0.9		60
Litter	63.9		100

* Sodar streambank wheatgrass

Table D13. Transect 66, Reach G 2008, Canopy Coverage and Frequency, Subirrigated and Transition Zones.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
NATIVE PERENNIAL GRASSES & RUSHES			
Deschampsia cespitosa	1.3	1.4	10
Elymus canadensis	9.6	10.1	60
Elymus cinereus	3.0	3.1	5
Elymus lanceolatus	6.8	7.1	40
Elymus smithii	0.6	0.6	15
Elymus trachycaulus	4.2	4.4	40
Hordeum jubatum	0.5	0.5	10
Juncus balticus	1.0	1.1	5
Koeleria macrantha	0.2	0.2	5
Poa ampla (*P. juncifolia* var. *ampla*)	8.6	9.0	50
Puccinellia nuttalliana	11.8	12.4	45
	---	---	
Subtotal	47.4	49.9	
INTRODUCED PERENNIAL GRASSES			
Agrostis stolonifera	0.3	0.3	5
Festuca ovina	0.1	0.1	5
Poa compressa	11.0	11.5	80
	---	---	
Subtotal	11.4	11.9	
NATIVE PERENNIAL FORBS			
Achillea millefolium	2.7	2.8	30
Artemisia ludoviciana	0.5	0.5	5
Aster ascendens	0.2	0.3	5
Epilobium ciliatum	3.7	3.9	35
Epilobium angustifolium	0.1	0.1	5
	---	---	
Subtotal	7.2	7.6	
INTRODUCED LEGUMES			
Medicago sativa	26.1	27.4	45
Trifolium repens	3.2	3.3	15
	---	---	
Subtotal	29.3	30.7	

Table D13 continued

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
PERENNIAL WEEDS			
Cirsium arvense	0.1	0.1	5
Total Plant Cover	95.4	100.2	
Bare Soil	0.9		20
Coarse Fragments	---		---
Litter	83.6	\	100

Table D14. Transect 67, Reach G 2008, Canopy Coverage and Frequency, Transition Zone.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
ANNUALS & BIENNIALS			
Bidens cernua	0.1	0.2	5
NATIVE PERENNIAL GRASSES			
Deschampsia cespitosa	2.4	3.6	30
Elymus canadensis	0.3	0.4	15
Elymus lanceolatus	0.3	0.4	5
Elymus smithii	0.5	0.8	15
Elymus trachycaulus	2.0	3.0	45
Festuca rubra	1.5	2.2	25
Glyceria grandis	1.5	2.2	5
Poa juncifolia var. *ampla*	0.1	0.1	5
Puccinellia nuttalliana	46.4	69.1	100
	---	---	
Subtotal	55.0	81.8	
INTRODUCED PERENNIAL GRASSES			
Poa compressa	0.7	1.1	25

Table D14 continued

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
NATIVE PERENNIAL FORBS			
Aster ascendens	1.2	1.8	35
Epilobium ciliatum	6.4	9.5	90
Polygonum amphibium	0.1	0.1	5
	---	---	
Subtotal	7.7	11.4	
SHRUBS			
Salix bebbiana	1.4	2.1	10
Salix exigua	2.3	3.4	15
	---	---	
Subtotal	3.7	5.5	
Total Plant Cover	67.2	100.0	
Bare Soil	57.6		100
Coarse Fragments	1.8		95
Litter	21.9		100

Table D15. Transect 68, Reach G 2008, Canopy Coverage and Frequency, Mostly Transition Zone, Some Subirrigated.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
ANNUALS & BIENNIALS			
Melilotus alba	2.0	2.1	25
Rumex maritimus	0.1	0.1	10
	---	---	
Subtotal	2.1	2.2	

Table D15 continued

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
NATIVE PERENNIAL GRASSES			
Deschampsia cespitosa	1.0	1.1	20
Elymus canadensis	1.5	1.6	30
Elymus smithii	0.1	0.1	5
Elymus spicatus	0.1	0.1	5
Elymus trachycaulus	3.2	3.4	50
Festuca rubra	3.1	3.3	65
Puccinellia nuttalliana	60.2	64.4	100
	---	---	
Subtotal	69.2	74.0	
INTRODUCED PERENNIAL GRASSES			
Poa compressa	3.6	3.9	45
NATIVE PERENNIAL FORBS			
Achillea millefolium	0.1	0.1	5
Aster ascendens	2.3	2.5	55
Epilobium ciliatum	2.5	2.7	50
	---	---	
Subtotal	4.9	5.3	
INTRODUCED LEGUMES			
Medicago sativa	7.2	7.7	15
Trifolium repens	6.2	6.7	25
	---	---	
Subtotal	13.4	14.4	
SHRUBS			
Sarcobarus vermiculatus	0.1	0.1	5
Shepherdia argentea	0.1	0.1	5
	---	---	
Subtotal	0.2	0.2	
Total Plant Cover	93.4	100.0	
Bare Soil	28.8		95
Coarse Fragments	11.6		95
Litter	44.9		100

Table D16. Transect 69, Reach G 2008, Canopy Coverage and Frequency, Subirrigated Zone.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	%		
INTRODUCED ANNUALS			
Kochia scoria	19.3	24.4	70
NATIVE PERENNIAL GRASSES			
Achnatherum hymenoides	0.5	0.6	10
Deschampsia cespitosa	0.4	0.5	5
Elymus canadensis	8.4	10.6	60
Elymus lanceolatus	12.6	15.9	90
Elymus smithii	5.4	6.8	60
Elymus trachycaulus	4.3	5.4	55
Hordeum jubatum	0.2	0.2	5
Puccinellia nuttalliana	19.9	25.1	70
Subtotal	51.7	65.1	
INTRODUCED PERENNIAL GRASSES			
Poa compressa	0.8	1.0	15
Poa pratensis ?	0.7	0.9	5
Subtotal	1.5	1.9	
NATIVE PERENNIAL FORBS			
Aster ascendens	0.2	0.3	5
INTRODUCED LEGUMES			
Medicago sativa	6.3	8.0	30
NATIVE SUBSHRUBS			
Artemisia ludoviciana	0.2	0.3	5
Total Plant Cover	79.2	100.0	
Bare Soil	23.3		90
Coarse Fragments	0.7		70
Litter	58.1		100

Table D17. Transect 4-1, Subarea 4 2008, Canopy Coverage and Frequency, Predominantly Upland Zone.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	%	%	%
NATIVE PERENNIAL GRASSES			
Elymus canadensis	9.8	21.3	70
Elymus lanceolatus	16.4	35.6	95
Elymus smithii	0.8	1.7	20
Elymus trachycaulus	3.2	6.9	40
Poa ampla (*P. juncifolia* var. *ampla*)	0.1	0.2	5
Subtotal	30.3	65.7	
INTRODUCED PERENNIAL GRASSES			
Agrostis stolonifera	5.0	10.9	35
Festuca ovina	0.2	0.4	15
Poa compressa	0.7	1.5	15
Subtotal	5.9	12.8	
INTRODUCED LEGUMES			
Medicago sativa	4.3	9.3	25
NATIVE SUBSHRUBS			
Artemisia dracunculus	3.1	6.7	25
Artemisia ludoviciana	2.1	4.6	15
Subtotal	5.2	11.3	
NATIVE SHRUBS			
Artemisia cana	0.3	0.7	15
Ribes aureum	0.1	0.2	10
Subtotal	0.4	0.9	
Total Plant Cover	46.1	100.0	
Bare Soil	19.7		100
Coarse Fragments	33.4		100
Litter	34.7		100

Table D18. Transect 4-5, Subarea 4 2008, Canopy Coverage and Frequency, Wetland-Transition Zone.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
ALGAE			
Algae	8.5	10.3	10
NATIVE PERENNIAL GRASSES & SEDGES & RUSHES			
Carex sp.	0.3	0.4	10
Deschampsia cespitosa	42.5	51.6	85
Calamagrostis inexpansa var. stricta	0.2	0.2	5
Glyceria grandis	3.8	4.6	35
Juncus balticus	1.3	1.6	10
Puccinellia nuttalliana	8.2	10.0	40
Spartina sp.	2.1	2.5	10
Subtotal	58.4	70.9	
INTRODUCED PERENNIAL GRASSES			
Agrostis stolonifera	0.7	0.9	10
Agrostis tenuis	9.6	11.7	40
Subtotal	10.3	12.6	
NATIVE FORBS			
Triglochin maritima	1.8	2.2	30
NATIVE SHRUBS			
Salix exigua	3.3	4.0	20
Total Plant Cover	82.3	100.0	
Bare Soil	13.4		50
Coarse Fragments	2.5		45
Litter	58.7		100

Appendix E

2008 Vegetation Monitoring

Transect Locations

APPENDIX E

VEGETATION TRANSECT LOCATIONS

REACHES F, G, AND SA 4 2008

NAD 83 DATUM

REACH F SUBAREA 2 FIRST SAMPLED 2006

	Start	End	
T54	12T0370566	0557	Lower F
	UTM 5096021	6125	South side
T55	1127	1054	No. of creek
	6097	6164	So. of ponds
T56	0902	0797	No. of creek
	6158	6159	E. of old road
T57	0367	0415	W. end F
	5969	6053	W of creek
T58	0813	0900	Trans. Zone So. of Creek
	6041	6085	15 m of wetland
T59	0843	0941	Upland ends in
	5995	5984	hand-seeded area

REACH G SUBAREA 2 FIRST SAMPLED 2007

	Start	End	
T60	13T0369686	9593	Sagebrush area
	UTM 5095332	5289	Upland
T61	9711	9611	Mapped Subirr.
	5435	5437	Really Transition Zone
T62	9818	9914	Subirr
	5526	5523	
T63	0230	0300	Transition Zone
	5675	5740	
T64	12T0370581	0482	Subirrigated, not
	UTM5095868	5890	Upland
T65	0263	0171	No. of creek
	5825	5783	
T66	9800	9738	Subirrigated
	5600	5534	
T67	9232 notes 770	9152	
	5590 5567	5528	

T68	9380 5580	9384 5480
T69	9300 5400	9270 5493

REACH H SUBAREA 2 FIRST SAMPLED SEED DEN 2008

	Start	End
T70	12T0369090 UTM5095395	9090 5493
T71	8966 5526	8871 5556
T72	8775 5550	8778 5650
T73	8143 5600	8340 5665
T74	8175 5745	8243 5812
T75	8906 5577	8870 5670
T76	8560 5813	8498 5736
T77	9065 5655	9128 5574

2007

	START	END
4-1	12T0360844 UTM5106405	0750 6442
4-2	12T0360794 UTM5105900	0790 6001
4-3	0981 4410	0960 4508

2008

	Start	End
4-4	0844 6405	0750 6442
4-5	0830 6500	0848 6598
4-6	0900 4065	0857 4157
4-7	0811 4960	0801 4861
4-8	0950 4655	0959 4555
4-9	0980 3167	1013 3073
4-10	0795 4285	0788 4385
4-11	0775 3253	0817 3163
4-12	0075 5625	0050 5720
4-13	0150 5415	0220 5491
4-14	0150 4447	0237 4498

Appendix F

Transplanting Activities

Figure F1. The earliest transplanting in 2008 was in the first week of May, when the ground was still frozen in Reach A more than one foot deep due to topographic shading. This August cottonwood is in Reach E. These splendid specimens originated (genetically) along Sun River. All were planted in Reaches B-E with half of them in Reach B.

Figure F2. Public involvement has been sadly lacking for all Butte reclamation. In addition to restoration *per se*, participation by Butte kids has to be beneficial. These boys worked with me, and work they did. They mentioned several how meaningful working on Silver Bow Creek was compared to other assignments such as manning the desk at the dog pound.

Figure F3. Getting them vertical and watering in are part of planting, then comes the beaver fence.

Figure F4. Previously, we never had any serious beaver damage on Silver Bow Creek. Surmising that our fencing had spared trees, we fenced the new saplings similarly. It turned out that previous aspens and cottonwoods avoided beaver damage by virtue of distance from the creek, not a bit of fence. Cottonwood samplings are prized by beavers far above willows.

Figure F5. In just weeks, about one dozen cottonwoods looked like this. While they may sprout new stems from the robust root system, the objective of providing instant cover, shading the stream, and providing bird perching sites was nullified.

Figure F6. Cottonwoods continued to fall throughout the summer. The fencing was pushed in and gnawed through, climbed upon and crushed down, and shoved up the stem. It was a harsh lesson, but now we know that fencing must be far better anchored farther from the stem.

Figure F7. This just happened once. Guying samplings was generally not necessary. I erected this one and guyed it. Note also beaver damage to bole.

Figure F8. We finally caught up with a beaver at the Rocker Bridge, where it was engaged damming the culvert. Lower photo is its streambank home, flagged for the trappers convenience.

Figure F9. Silver Bow Creek was mostly out of its banks when transplanting occurred in early June. Some banks couldn't be planted, and low spots on the floodplain were flooded, so seeded plants didn't establish. This was remedied spring hand-seeding and fall seeding where needed.

Figure F10. Montana Conservation Seedling Nursery provided great plants. The little CAT moved heavy gro-bags across the swampy floodplain. Damage to floodplain seedings was minimal.

Figure F11. The Montana Conservation Corps and four professional planters provided the labor.

Figure F12. Construction hadn't progress as far as hoped at the time of planting, so some areas were really laced with transplants. They're not visually prominent at first.

Figure F13. By August, Reach I was looking good, although we decided to curtail bare-root plants because survival was much poorer than for container plants that have nursery dirt on the roots. It provides a bit of a buffer while the plants adjust to SSTOU coversoils.

Figure F14. By mid-summer, most containerized transplants were doing well. Transplant survival has been better since we switched nurseries from BRI to MCSN. Perhaps the very best habitat is "point bars" combining gravelly substrate with correct hydrology.

Figure F15. No matter how good the plants, the fill used to construct coversoils, or the underlying material, is usually suboptimal, and some mortality is to be expected.

Figure F16. We experimented with "sand trap" patches. Survival appeared good in mid-summer. These substrates received a lot of bare-root transplants; their survival isn't expected to be so good.

Figure F17. I transplanted this BRI Douglas fir into my Butte yard in 2006. In summer 2008 it died while I couldn't water it. BRI used to advertise that they grew roots.

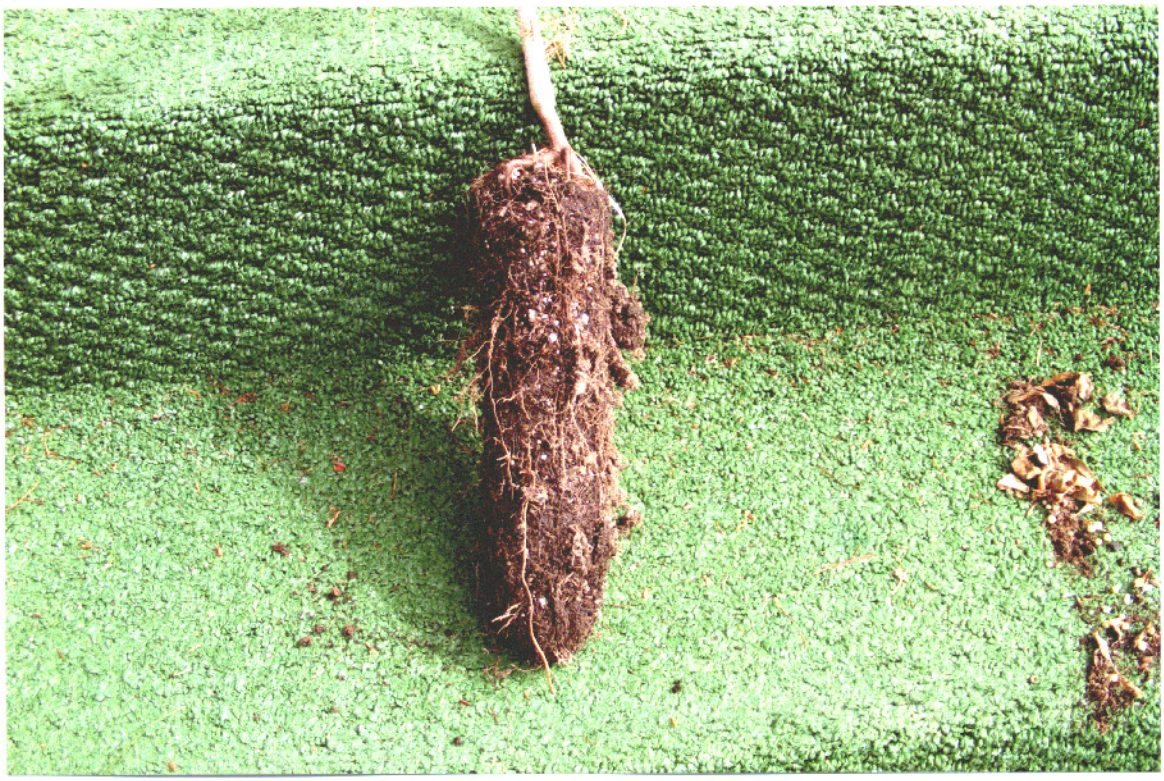


Figure F18. While the immediate cause of death may have been lack of water, it really was lack of roots. After two years, roots occupied little more volume than when transplanted. Still, I talk to many people who treat seedings as a great risk and transplanting as a sure thing.

Appendix G

Bird Species List

Streamside Tailings Operable Unit

Subarea 2

APPENDIX G

BIRD SPECIES LIST
STREAMSIDE TAILINGS OPERABLE UNIT
SUBAREA 2
Current 12/08

Quantitative sampling of 12 points in Subarea 2 began in late March and ended in late June in 2007 and 2008, one sampling session of approximately three hours per month starting at sunrise. The abbreviations below are used in quantitative sampling.

Only birds on perches, ground, or water or in some other way indicating actual use of restored habitats, not mere fly-byes, were counted.

COMMON NAME	ABBREVIATION
American Avocet	AMAV
American Coot	AMCO
American Crow	AMCR
American Pipit	AMPI
American Robin	AMRO
American Wigeon	AMWI
Bald Eagle	BAEA
Bank Swallow	BANS
Barn Swallow	BARS
Barrow's Goldeneye	BAGO
Black Tern	BLTE
Black-necked Stilt	BNST
Black-billed Magpie	BBMA
Blue-winged Teal	BWTE
Brewer's Blackbird	BRBL
Brewer's Sparrow	BRSP
Brown-headed Cowbird	BHCO
Bufflehead	BUFF
California Gull	CAGU
Canada Goose	CAGO
Cinnamon Teal	CITE
Cliff Swallow	CLSW
Common Goldeneye	COGO
Common Raven	CORA
Common Yellowthroat	COYE
Double-crested Cormorant	DCCO
Eastern Kingbird	EAKI
European Starling	EUST
Franklin's Gull	FRGU
Gadwall	GADW
Great Blue Heron	GTBH
Greater Yellowlegs	GRYE
Green-winged Teal	GWTE
Hooded Merganser	HOME

BIRDS OF SUBAREA 2 CONTINUED

COMMON NAME	ABBREVIATION
Killdeer	KILL
Lesser Scaup	LESC
Lesser Yellowlegs	LEYE
Mallard	MALL
Mourning Dove	MODO
Mountain Bluebird	MOBL
Northern Harrier	NOHA
Northern Pintail	NOPI
Northern Rough-winged Swallow	NRWS
Northern Shoveler	NSHO
Pine Siskin	PISI
Red-Tailed Hawk	RTHA
Red-winged Blackbird	RWBL
Ring-billed Gull	RBGU
Ring-necked Duck	RNDU
Rock Pigeon	ROPI
Ruddy Duck	RUDU
Sandhill Crane	SACR
Savannah Sparrow	SAVS
Snow Goose	SNGO
Song Sparrow	SOSP
Spotted Sandpiper	SPSA
Tree Swallow	TRSW
Tundra Swan	TUSW
Vesper Sparrow	VESP
Western Meadowlark	WEME
White-crowned Sparrow	WCSP
Wilson's Phalarope	WIPH
Wilson's Snipe	WISN
Yellow-headed Blackbird	YHBL
Yellow-rumped Warbler	YRWA

Appendix H

Bird Sample Locations (Observation Points)

Selecting sample locations: Some points, especially in Reach A, were located in or near tree or shrub pods where the structure of vegetation already is more than steppe. Some were located along the streambank where a stretch of creek could be seen; willows are common along streambanks. Two were coverboard sample locations. Two are located along the elevated road in lower D/upper E so a larger area could be seen. One of those points also affords a view of Nissler Wetland, which is part of remediation.

I avoided sampling in Reach E where the remediated area is a narrow riparian strip between "undisturbed" shrub-steppe vegetation with some coniferous trees. If we sampled there, we would be measuring almost exclusively transient birds of habitats outside Subarea 1.

SUBAREA 1 BIRD CENSUS SAMPLE LOCATIONS
START: UPPER REACH A
END: LOWER REACH E
DATUM: NAD 83

1	378729	94932	between interstate lanes
2	78373	95028	T18 so. of C1
3	78036	95149	Coverboard sample location CBA-1 at A1
4	77750	95190	T-19 by A4
5	77337	95315	Edge of W8 near W9
6	77205	95354	A3
7	76778	95407	So. streambank
8	76181	95414	Near W23
9	74933	95732	Well
10	74663	95761	So. streambank
11	74436	95737	So. streambank
12	74145	95644	So. streambank
13	74167	95588	Aspen pod upper Reach D
14	73776	95559	Fence so. of road (plots too close to road)
15	73560	95607	Fence no. of stream
16	73388	95676	So. edge road
17	72981	95768	So. edge road
18	72498	95867	Coverboard sample location CBE-1
19	71698	95857	
20	71527	95797	North streambank east of alkaligrass wetland

Subarea 2 sampling includes both ponds and creek banks. There is a much greater opportunity to identify birds at a distance than in Subarea 1. Also, sampling began in March, 2007, when lower Reach G and all of Reach H were bare dirt, although they had been seeded.

SUBAREA 2 BIRD CENSUS SAMPLE LOCATIONS
START: UPPER REACH F
END: LOWER REACH H (2007-08)
DATUM: NAD 83

21	12T0371193	UTM5096038	South bank creek
22	1024	6107	South bank
23	0428	6003	East bank
24	0433	5875	East bank
25	12T0370000	UTM5095494	Lower Pond #4 south bank
26	9855	5432	Lower Pond #5 south bank
27	9800	5530	South bank SBC
28	9650	5355	South edge Pond #6
29	9268	5347	Upper Pond #7
30	8980	5618	North bank SBC
31	8703	5666	North bank SBC
32	8218	5843	Confluence SBC and Browns Gulch Cr.

Appendix I

2008 Surface Water Data

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030193	1	SS-06G	3/24/2008	Alkalinity Bicarbonate as HCO3	126	mg/l	4/1/2008	2320B
2008030193	1	SS-06G	3/24/2008	Alkalinity Carbonate as CO3	0	mg/l	4/1/2008	2320B
2008030193	1	SS-06G	3/24/2008	Alkalinity Total as CaCO3	103	mg/l	4/1/2008	2320B
2008030193	1	SS-06G	3/24/2008	Ammonia (Undistilled) as N	<0.05	mg/l	4/9/2008 16:39	350.1
2008030193	1	SS-06G	3/24/2008	Anions	5.28	meq/l	1/2/1900 0:00	1030F
2008030193	1	SS-06G	3/24/2008	Arsenic as As (Dissolved)	0.003	mg/l	4/3/2008 22:54	200.8
2008030193	1	SS-06G	3/24/2008	Arsenic as As (Total)	0.005	mg/l	4/1/2008	200.8
2008030193	1	SS-06G	3/24/2008	Cadmium as Cd (Dissolved)	0.0001	mg/l	4/3/2008 22:54	200.8
2008030193	1	SS-06G	3/24/2008	Cadmium as Cd (Total)	0.00023	mg/l	4/1/2008 18:23	200.8
2008030193	1	SS-06G	3/24/2008	Calcium as Ca (Dissolved)	57	mg/l	3/31/2008	200.7
2008030193	1	SS-06G	3/24/2008	Cation/Anion Balance	3.02	% [max 5%]	1/2/1900 0:00	AWWA/APHA
2008030193	1	SS-06G	3/24/2008	Cations	4.97	meq/l	1/2/1900 0:00	1030F
2008030193	1	SS-06G	3/24/2008	Chloride as Cl	22	mg/l	4/11/2008	300
2008030193	1	SS-06G	3/24/2008	Copper as Cu (Dissolved)	0.006	mg/l	4/7/2008 15:18	200.8
2008030193	1	SS-06G	3/24/2008	Copper as Cu (Total)	0.015	mg/l	4/1/2008	200.8
2008030193	1	SS-06G	3/24/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	4/3/2008 22:54	200.8
2008030193	1	SS-06G	3/24/2008	Lead as Pb (Total)	0.0019	mg/l	4/1/2008	200.8
2008030193	1	SS-06G	3/24/2008	Magnesium as Mg (Dissolved)	14	mg/l	3/31/2008	200.7
2008030193	1	SS-06G	3/24/2008	Manganese as Mn (Dissolved)	0.16	mg/l	4/2/2008	200.7
2008030193	1	SS-06G	3/24/2008	Manganese as Mn (Total)	0	mg/l	4/1/2008 15:28	200.7
2008030193	1	SS-06G	3/24/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	4/4/2008	200.8
2008030193	1	SS-06G	3/24/2008	Mercury as Hg (Total)	<0.00001	mg/l	4/1/2008	200.8
2008030193	1	SS-06G	3/24/2008	Metals Batch#/Digestion Date	1477	-----	3/28/2008	200.2
2008030193	1	SS-06G	3/24/2008	Nitrate + Nitrite as N	1.45	mg/l	4/7/2008 16:11	353.2
2008030193	1	SS-06G	3/24/2008	Phosphorus Total	0.1	mg/l	4/8/2008 15:45	4500-P-E
2008030193	1	SS-06G	3/24/2008	Potassium as K (Dissolved)	4	mg/l	3/31/2008 14:13	200.7
2008030193	1	SS-06G	3/24/2008	Sodium as Na (Dissolved)	20	mg/l	3/31/2008	200.7
2008030193	1	SS-06G	3/24/2008	Sulfate as SO4	109	mg/l	4/11/2008 16:19	300
2008030193	1	SS-06G	3/24/2008	Total Kjeldahl Nitrogen as N	0.4	mg/l	4/14/2008 17:21	351.2
2008030193	1	SS-06G	3/24/2008	Zinc as Zn (Dissolved)	0.02	mg/l	4/2/2008	200.7
2008030193	1	SS-06G	3/24/2008	Zinc as Zn (Total)	0.05	mg/l	4/1/2008 15:28	200.7
2008030193	2	SS-07	3/24/2008	Alkalinity Bicarbonate as HCO3	141	mg/l	4/1/2008 9:00	2320B
2008030193	2	SS-07	3/24/2008	Alkalinity Carbonate as CO3	0	mg/l	4/1/2008	2320B
2008030193	2	SS-07	3/24/2008	Alkalinity Total as CaCO3	116	mg/l	4/1/2008 9:00	2320B
2008030193	2	SS-07	3/24/2008	Ammonia (Undistilled) as N	6.17	mg/l	4/10/2008	350.1
2008030193	2	SS-07	3/24/2008	Anions	5.24	meq/l	1/2/1900 0:00	1030F
2008030193	2	SS-07	3/24/2008	Arsenic as As (Dissolved)	0.003	mg/l	4/3/2008	200.8
2008030193	2	SS-07	3/24/2008	Arsenic as As (Total)	0.004	mg/l	4/1/2008	200.8
2008030193	2	SS-07	3/24/2008	Cadmium as Cd (Dissolved)	0.00011	mg/l	4/3/2008	200.8
2008030193	2	SS-07	3/24/2008	Cadmium as Cd (Total)	0.0002	mg/l	4/1/2008 18:33	200.8
2008030193	2	SS-07	3/24/2008	Calcium as Ca (Dissolved)	47	mg/l	3/31/2008	200.7
2008030193	2	SS-07	3/24/2008	Cation/Anion Balance	1.75	% [max 5%]	1/2/1900	AWWA/APHA
2008030193	2	SS-07	3/24/2008	Cations	5.06	meq/l	1/2/1900	1030F
2008030193	2	SS-07	3/24/2008	Chloride as Cl	29	mg/l	3/28/2008 22:50	300
2008030193	2	SS-07	3/24/2008	Copper as Cu (Dissolved)	0.015	mg/l	4/7/2008 15:30	200.8
2008030193	2	SS-07	3/24/2008	Copper as Cu (Total)	0.022	mg/l	4/1/2008 18:33	200.8
2008030193	2	SS-07	3/24/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	4/3/2008 23:23	200.8
2008030193	2	SS-07	3/24/2008	Lead as Pb (Total)	0.0021	mg/l	4/1/2008 18:33	200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030193	2	SS-07	3/24/2008	Magnesium as Mg (Dissolved)	12	mg/l	3/31/2008 14:23	200.7
2008030193	2	SS-07	3/24/2008	Manganese as Mn (Dissolved)	0.14	mg/l	4/2/2008	200.7
2008030193	2	SS-07	3/24/2008	Manganese as Mn (Total)	0.18	mg/l	4/1/2008 15:40	200.7
2008030193	2	SS-07	3/24/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	4/4/2008 16:52	200.8
2008030193	2	SS-07	3/24/2008	Mercury as Hg (Total)	0.00002	mg/l	4/17/2008 15:23	200.8
2008030193	2	SS-07	3/24/2008	Metals Batch#/Digestion Date	1477	-----	3/28/2008 12:00	200.2
2008030193	2	SS-07	3/24/2008	Nitrate + Nitrite as N	1.1	mg/l	4/7/2008	353.2
2008030193	2	SS-07	3/24/2008	Phosphorus Total	0.89	mg/l	4/8/2008 15:45	4500-P-E
2008030193	2	SS-07	3/24/2008	Potassium as K (Dissolved)	6	mg/l	3/31/2008 14:23	200.7
2008030193	2	SS-07	3/24/2008	Sodium as Na (Dissolved)	26	mg/l	3/31/2008 14:23	200.7
2008030193	2	SS-07	3/24/2008	Sulfate as SO4	97	mg/l	3/28/2008	300
2008030193	2	SS-07	3/24/2008	Total Kjeldahl Nitrogen as N	7.2	mg/l	4/14/2008	351.2
2008030193	2	SS-07	3/24/2008	Zinc as Zn (Dissolved)	0.05	mg/l	4/2/2008 12:48	200.7
2008030193	2	SS-07	3/24/2008	Zinc as Zn (Total)	0.06	mg/l	4/1/2008 15:40	200.7
2008030193	3	SS-08	3/24/2008	Alkalinity Bicarbonate as HCO3	133	mg/l	4/1/2008 9:00	2320B
2008030193	3	SS-08	3/24/2008	Alkalinity Carbonate as CO3	0	mg/l	4/1/2008	2320B
2008030193	3	SS-08	3/24/2008	Alkalinity Total as CaCO3	109	mg/l	4/1/2008 9:00	2320B
2008030193	3	SS-08	3/24/2008	Ammonia (Undistilled) as N	2.95	mg/l	4/10/2008 10:05	350.1
2008030193	3	SS-08	3/24/2008	Anions	5.33	meq/l	1/2/1900	1030F
2008030193	3	SS-08	3/24/2008	Arsenic as As (Dissolved)	0.003	mg/l	4/3/2008	200.8
2008030193	3	SS-08	3/24/2008	Arsenic as As (Total)	0.005	mg/l	4/1/2008 18:39	200.8
2008030193	3	SS-08	3/24/2008	Cadmium as Cd (Dissolved)	0.00016	mg/l	4/3/2008 23:29	200.8
2008030193	3	SS-08	3/24/2008	Cadmium as Cd (Total)	0.00028	mg/l	4/1/2008 18:39	200.8
2008030193	3	SS-08	3/24/2008	Calcium as Ca (Dissolved)	52	mg/l	3/31/2008	200.7
2008030193	3	SS-08	3/24/2008	Cation/Anion Balance	2.3	% [max 5%]	1/2/1900	AWWA/APHA
2008030193	3	SS-08	3/24/2008	Cations	5.09	meq/l	1/2/1900 0:00	1030F
2008030193	3	SS-08	3/24/2008	Chloride as Cl	29	mg/l	3/28/2008 23:21	300
2008030193	3	SS-08	3/24/2008	Copper as Cu (Dissolved)	0.011	mg/l	4/7/2008 15:51	200.8
2008030193	3	SS-08	3/24/2008	Copper as Cu (Total)	0.021	mg/l	4/1/2008	200.8
2008030193	3	SS-08	3/24/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	4/3/2008 23:29	200.8
2008030193	3	SS-08	3/24/2008	Lead as Pb (Total)	0.0031	mg/l	4/1/2008	200.8
2008030193	3	SS-08	3/24/2008	Magnesium as Mg (Dissolved)	13	mg/l	3/31/2008 14:27	200.7
2008030193	3	SS-08	3/24/2008	Manganese as Mn (Dissolved)	0.24	mg/l	4/2/2008 12:51	200.7
2008030193	3	SS-08	3/24/2008	Manganese as Mn (Total)	0.28	mg/l	4/1/2008 15:43	200.7
2008030193	3	SS-08	3/24/2008	Mercury as Hg (Dissolved)	0.00001	mg/l	4/10/2008 13:43	200.8
2008030193	3	SS-08	3/24/2008	Mercury as Hg (Total)	<0.00001	mg/l	4/1/2008 18:39	200.8
2008030193	3	SS-08	3/24/2008	Metals Batch#/Digestion Date	1477	-----	3/28/2008	200.2
2008030193	3	SS-08	3/24/2008	Nitrate + Nitrite as N	1.4	mg/l	4/7/2008 16:17	353.2
2008030193	3	SS-08	3/24/2008	Phosphorus Total	0.54	mg/l	4/8/2008	4500-P-E
2008030193	3	SS-08	3/24/2008	Potassium as K (Dissolved)	6	mg/l	4/14/2008	200.7
2008030193	3	SS-08	3/24/2008	Sodium as Na (Dissolved)	26	mg/l	4/14/2008	200.7
2008030193	3	SS-08	3/24/2008	Sulfate as SO4	107	mg/l	3/28/2008 23:21	300
2008030193	3	SS-08	3/24/2008	Total Kjeldahl Nitrogen as N	3.8	mg/l	4/14/2008	351.2
2008030193	3	SS-08	3/24/2008	Zinc as Zn (Dissolved)	0.05	mg/l	4/2/2008	200.7
2008030193	3	SS-08	3/24/2008	Zinc as Zn (Total)	0.08	mg/l	4/1/2008	200.7
2008030193	4	SS-10A	3/24/2008	Alkalinity Bicarbonate as HCO3	128	mg/l	4/1/2008 9:00	2320B
2008030193	4	SS-10A	3/24/2008	Alkalinity Carbonate as CO3	0	mg/l	4/1/2008 9:00	2320B
2008030193	4	SS-10A	3/24/2008	Alkalinity Total as CaCO3	105	mg/l	4/1/2008	2320B

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030193	4	SS-10A	3/24/2008	Ammonia (Undistilled) as N	1.93	mg/l	4/10/2008	350.1
2008030193	4	SS-10A	3/24/2008	Anions	5.3	meq/l	1/2/1900	1030F
2008030193	4	SS-10A	3/24/2008	Arsenic as As (Dissolved)	0.004	mg/l	4/3/2008	200.8
2008030193	4	SS-10A	3/24/2008	Arsenic as As (Total)	0.005	mg/l	4/1/2008	200.8
2008030193	4	SS-10A	3/24/2008	Cadmium as Cd (Dissolved)	0.00021	mg/l	4/3/2008 23:36	200.8
2008030193	4	SS-10A	3/24/2008	Cadmium as Cd (Total)	0.00031	mg/l	4/1/2008 18:44	200.8
2008030193	4	SS-10A	3/24/2008	Calcium as Ca (Dissolved)	54	mg/l	3/31/2008	200.7
2008030193	4	SS-10A	3/24/2008	Cation/Anion Balance	1.34	% [max 5%]	1/2/1900	AWWA/APHA
2008030193	4	SS-10A	3/24/2008	Cations	5.16	meq/l	1/2/1900 0:00	1030F
2008030193	4	SS-10A	3/24/2008	Chloride as Cl	29	mg/l	3/28/2008	300
2008030193	4	SS-10A	3/24/2008	Copper as Cu (Dissolved)	0.011	mg/l	4/7/2008	200.8
2008030193	4	SS-10A	3/24/2008	Copper as Cu (Total)	0.02	mg/l	4/1/2008 18:44	200.8
2008030193	4	SS-10A	3/24/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	4/3/2008 23:36	200.8
2008030193	4	SS-10A	3/24/2008	Lead as Pb (Total)	0.0023	mg/l	4/1/2008 18:44	200.8
2008030193	4	SS-10A	3/24/2008	Magnesium as Mg (Dissolved)	13	mg/l	3/31/2008	200.7
2008030193	4	SS-10A	3/24/2008	Manganese as Mn (Dissolved)	0.26	mg/l	4/2/2008 12:54	200.7
2008030193	4	SS-10A	3/24/2008	Manganese as Mn (Total)	0.31	mg/l	4/1/2008 15:46	200.7
2008030193	4	SS-10A	3/24/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	4/4/2008	200.8
2008030193	4	SS-10A	3/24/2008	Mercury as Hg (Total)	<0.00001	mg/l	4/1/2008	200.8
2008030193	4	SS-10A	3/24/2008	Metals Batch#/Digestion Date	1477	-----	3/28/2008 12:00	200.2
2008030193	4	SS-10A	3/24/2008	Nitrate + Nitrite as N	1.51	mg/l	4/7/2008 16:19	353.2
2008030193	4	SS-10A	3/24/2008	Phosphorus Total	0.46	mg/l	4/8/2008 15:45	4500-P-E
2008030193	4	SS-10A	3/24/2008	Potassium as K (Dissolved)	5	mg/l	3/31/2008	200.7
2008030193	4	SS-10A	3/24/2008	Sodium as Na (Dissolved)	26	mg/l	3/31/2008	200.7
2008030193	4	SS-10A	3/24/2008	Sulfate as SO4	109	mg/l	3/28/2008 23:51	300
2008030193	4	SS-10A	3/24/2008	Total Kjeldahl Nitrogen as N	2.5	mg/l	4/14/2008 17:36	351.2
2008030193	4	SS-10A	3/24/2008	Zinc as Zn (Dissolved)	0.05	mg/l	4/2/2008 12:54	200.7
2008030193	4	SS-10A	3/24/2008	Zinc as Zn (Total)	0.09	mg/l	4/1/2008	200.7
2008030193	5	SS-10B	3/24/2008	Alkalinity Bicarbonate as HCO3	131	mg/l	4/1/2008 9:00	2320B
2008030193	5	SS-10B	3/24/2008	Alkalinity Carbonate as CO3	0	mg/l	4/1/2008	2320B
2008030193	5	SS-10B	3/24/2008	Alkalinity Total as CaCO3	107	mg/l	4/1/2008 9:00	2320B
2008030193	5	SS-10B	3/24/2008	Ammonia (Undistilled) as N	1.98	mg/l	4/10/2008 10:07	350.1
2008030193	5	SS-10B	3/24/2008	Anions	5.32	meq/l	1/2/1900 0:00	1030F
2008030193	5	SS-10B	3/24/2008	Arsenic as As (Dissolved)	0.004	mg/l	4/3/2008 23:42	200.8
2008030193	5	SS-10B	3/24/2008	Arsenic as As (Total)	0.005	mg/l	4/1/2008 18:49	200.8
2008030193	5	SS-10B	3/24/2008	Cadmium as Cd (Dissolved)	0.0002	mg/l	4/3/2008	200.8
2008030193	5	SS-10B	3/24/2008	Cadmium as Cd (Total)	0.00032	mg/l	4/1/2008 18:49	200.8
2008030193	5	SS-10B	3/24/2008	Calcium as Ca (Dissolved)	53	mg/l	3/31/2008	200.7
2008030193	5	SS-10B	3/24/2008	Cation/Anion Balance	1.53	% [max 5%]	1/2/1900	AWWA/APHA
2008030193	5	SS-10B	3/24/2008	Cations	5.16	meq/l	1/2/1900	1030F
2008030193	5	SS-10B	3/24/2008	Chloride as Cl	29	mg/l	3/29/2008 0:22	300
2008030193	5	SS-10B	3/24/2008	Copper as Cu (Dissolved)	0.011	mg/l	4/7/2008	200.8
2008030193	5	SS-10B	3/24/2008	Copper as Cu (Total)	0.019	mg/l	4/1/2008	200.8
2008030193	5	SS-10B	3/24/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	4/3/2008	200.8
2008030193	5	SS-10B	3/24/2008	Lead as Pb (Total)	0.0025	mg/l	4/1/2008	200.8
2008030193	5	SS-10B	3/24/2008	Magnesium as Mg (Dissolved)	13	mg/l	3/31/2008 14:32	200.7
2008030193	5	SS-10B	3/24/2008	Manganese as Mn (Dissolved)	0.26	mg/l	4/2/2008 12:57	200.7
2008030193	5	SS-10B	3/24/2008	Manganese as Mn (Total)	0.32	mg/l	4/1/2008	200.7

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030193	5	SS-10B	3/24/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	4/4/2008 17:02	200.8
2008030193	5	SS-10B	3/24/2008	Mercury as Hg (Total)	<0.00001	mg/l	4/1/2008 18:49	200.8
2008030193	5	SS-10B	3/24/2008	Metals Batch#/Digestion Date	1477	-----	3/28/2008	200.2
2008030193	5	SS-10B	3/24/2008	Nitrate + Nitrite as N	1.54	mg/l	4/7/2008	353.2
2008030193	5	SS-10B	3/24/2008	Phosphorus Total	0.48	mg/l	4/8/2008	4500-P-E
2008030193	5	SS-10B	3/24/2008	Potassium as K (Dissolved)	5	mg/l	3/31/2008	200.7
2008030193	5	SS-10B	3/24/2008	Sodium as Na (Dissolved)	27	mg/l	3/31/2008 14:32	200.7
2008030193	5	SS-10B	3/24/2008	Sulfate as SO4	108	mg/l	3/29/2008 0:22	300
2008030193	5	SS-10B	3/24/2008	Total Kjeldahl Nitrogen as N	2.6	mg/l	4/14/2008	351.2
2008030193	5	SS-10B	3/24/2008	Zinc as Zn (Dissolved)	0.06	mg/l	4/2/2008	200.7
2008030193	5	SS-10B	3/24/2008	Zinc as Zn (Total)	0.09	mg/l	4/1/2008	200.7
2008030193	6	SS-10D	3/24/2008	Alkalinity Bicarbonate as HCO3	126	mg/l	4/1/2008 9:00	2320B
2008030193	6	SS-10D	3/24/2008	Alkalinity Carbonate as CO3	0	mg/l	4/1/2008 9:00	2320B
2008030193	6	SS-10D	3/24/2008	Alkalinity Total as CaCO3	103	mg/l	4/1/2008 9:00	2320B
2008030193	6	SS-10D	3/24/2008	Ammonia (Undistilled) as N	2.05	mg/l	4/10/2008	350.1
2008030193	6	SS-10D	3/24/2008	Anions	4.94	meq/l	1/2/1900 0:00	1030F
2008030193	6	SS-10D	3/24/2008	Arsenic as As (Dissolved)	0.004	mg/l	4/3/2008 23:49	200.8
2008030193	6	SS-10D	3/24/2008	Arsenic as As (Total)	0.005	mg/l	4/1/2008	200.8
2008030193	6	SS-10D	3/24/2008	Cadmium as Cd (Dissolved)	0.00021	mg/l	4/3/2008 23:49	200.8
2008030193	6	SS-10D	3/24/2008	Cadmium as Cd (Total)	0.0003	mg/l	4/1/2008 18:54	200.8
2008030193	6	SS-10D	3/24/2008	Calcium as Ca (Dissolved)	52	mg/l	3/31/2008	200.7
2008030193	6	SS-10D	3/24/2008	Cation/Anion Balance	1.29	% [max 5%]	1/2/1900	AWWA/APHA
2008030193	6	SS-10D	3/24/2008	Cations	5.07	meq/l	1/2/1900	1030F
2008030193	6	SS-10D	3/24/2008	Chloride as Cl	25	mg/l	4/11/2008	300
2008030193	6	SS-10D	3/24/2008	Copper as Cu (Dissolved)	0.01	mg/l	4/7/2008 16:09	200.8
2008030193	6	SS-10D	3/24/2008	Copper as Cu (Total)	0.019	mg/l	4/1/2008 18:54	200.8
2008030193	6	SS-10D	3/24/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	4/3/2008	200.8
2008030193	6	SS-10D	3/24/2008	Lead as Pb (Total)	0.0023	mg/l	4/1/2008	200.8
2008030193	6	SS-10D	3/24/2008	Magnesium as Mg (Dissolved)	13	mg/l	3/31/2008	200.7
2008030193	6	SS-10D	3/24/2008	Manganese as Mn (Dissolved)	0.27	mg/l	4/2/2008 13:00	200.7
2008030193	6	SS-10D	3/24/2008	Manganese as Mn (Total)	0.31	mg/l	4/1/2008 15:52	200.7
2008030193	6	SS-10D	3/24/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	4/4/2008 17:05	200.8
2008030193	6	SS-10D	3/24/2008	Mercury as Hg (Total)	<0.00001	mg/l	4/1/2008	200.8
2008030193	6	SS-10D	3/24/2008	Metals Batch#/Digestion Date	1477	-----	3/28/2008 12:00	200.2
2008030193	6	SS-10D	3/24/2008	Nitrate + Nitrite as N	1.53	mg/l	4/7/2008 16:22	353.2
2008030193	6	SS-10D	3/24/2008	Phosphorus Total	0.46	mg/l	4/8/2008	4500-P-E
2008030193	6	SS-10D	3/24/2008	Potassium as K (Dissolved)	5	mg/l	3/31/2008 14:34	200.7
2008030193	6	SS-10D	3/24/2008	Sodium as Na (Dissolved)	26	mg/l	3/31/2008 14:34	200.7
2008030193	6	SS-10D	3/24/2008	Sulfate as SO4	99	mg/l	4/11/2008	300
2008030193	6	SS-10D	3/24/2008	Total Kjeldahl Nitrogen as N	2.6	mg/l	4/14/2008	351.2
2008030193	6	SS-10D	3/24/2008	Zinc as Zn (Dissolved)	0.06	mg/l	4/2/2008	200.7
2008030193	6	SS-10D	3/24/2008	Zinc as Zn (Total)	0.09	mg/l	4/1/2008	200.7
2008030193	7	SS-11C	3/24/2008	Alkalinity Bicarbonate as HCO3	138	mg/l	4/1/2008 9:00	2320B
2008030193	7	SS-11C	3/24/2008	Alkalinity Carbonate as CO3	0	mg/l	4/1/2008 9:00	2320B
2008030193	7	SS-11C	3/24/2008	Alkalinity Total as CaCO3	113	mg/l	4/1/2008	2320B
2008030193	7	SS-11C	3/24/2008	Ammonia (Undistilled) as N	1.95	mg/l	4/10/2008	350.1
2008030193	7	SS-11C	3/24/2008	Anions	6.15	meq/l	1/2/1900	1030F
2008030193	7	SS-11C	3/24/2008	Arsenic as As (Dissolved)	0.006	mg/l	4/4/2008 0:03	200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030193	7	SS-11C	3/24/2008	Arsenic as As (Total)	0.006	mg/l	4/1/2008 19:23	200.8
2008030193	7	SS-11C	3/24/2008	Cadmium as Cd (Dissolved)	0.00045	mg/l	4/4/2008 0:03	200.8
2008030193	7	SS-11C	3/24/2008	Cadmium as Cd (Total)	0.00058	mg/l	4/1/2008	200.8
2008030193	7	SS-11C	3/24/2008	Calcium as Ca (Dissolved)	59	mg/l	3/31/2008 14:40	200.7
2008030193	7	SS-11C	3/24/2008	Cation/Anion Balance	1.42	% [max 5%]	1/2/1900 0:00	AWWA/APHA
2008030193	7	SS-11C	3/24/2008	Cations	5.98	meq/l	1/2/1900 0:00	1030F
2008030193	7	SS-11C	3/24/2008	Chloride as Cl	43	mg/l	3/29/2008 1:53	300
2008030193	7	SS-11C	3/24/2008	Copper as Cu (Dissolved)	0.015	mg/l	4/7/2008 16:22	200.8
2008030193	7	SS-11C	3/24/2008	Copper as Cu (Total)	0.023	mg/l	4/1/2008	200.8
2008030193	7	SS-11C	3/24/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	4/4/2008	200.8
2008030193	7	SS-11C	3/24/2008	Lead as Pb (Total)	0.0016	mg/l	4/2/2008	200.8
2008030193	7	SS-11C	3/24/2008	Magnesium as Mg (Dissolved)	14	mg/l	3/31/2008	200.7
2008030193	7	SS-11C	3/24/2008	Manganese as Mn (Dissolved)	0.39	mg/l	4/2/2008 13:06	200.7
2008030193	7	SS-11C	3/24/2008	Manganese as Mn (Total)	0.43	mg/l	4/1/2008 15:58	200.7
2008030193	7	SS-11C	3/24/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	4/4/2008	200.8
2008030193	7	SS-11C	3/24/2008	Mercury as Hg (Total)	0.00002	mg/l	4/17/2008	200.8
2008030193	7	SS-11C	3/24/2008	Metals Batch#/Digestion Date	1477	-----	3/28/2008	200.2
2008030193	7	SS-11C	3/24/2008	Nitrate + Nitrite as N	1.39	mg/l	4/7/2008	353.2
2008030193	7	SS-11C	3/24/2008	Phosphorus Total	0.43	mg/l	4/8/2008	4500-P-E
2008030193	7	SS-11C	3/24/2008	Potassium as K (Dissolved)	7	mg/l	4/14/2008	200.7
2008030193	7	SS-11C	3/24/2008	Sodium as Na (Dissolved)	36	mg/l	4/14/2008	200.7
2008030193	7	SS-11C	3/24/2008	Sulfate as SO4	124	mg/l	3/29/2008	300
2008030193	7	SS-11C	3/24/2008	Total Kjeldahl Nitrogen as N	2.4	mg/l	4/14/2008	351.2
2008030193	7	SS-11C	3/24/2008	Zinc as Zn (Dissolved)	0.13	mg/l	4/2/2008	200.7
2008030193	7	SS-11C	3/24/2008	Zinc as Zn (Total)	0.18	mg/l	4/1/2008	200.7
2008030193	8	SS-11D	3/24/2008	Alkalinity Bicarbonate as HCO3	141	mg/l	4/1/2008	2320B
2008030193	8	SS-11D	3/24/2008	Alkalinity Carbonate as CO3	0	mg/l	4/1/2008	2320B
2008030193	8	SS-11D	3/24/2008	Alkalinity Total as CaCO3	116	mg/l	4/1/2008	2320B
2008030193	8	SS-11D	3/24/2008	Ammonia (Undistilled) as N	1.81	mg/l	4/10/2008	350.1
2008030193	8	SS-11D	3/24/2008	Anions	5.77	meq/l	1/2/1900	1030F
2008030193	8	SS-11D	3/24/2008	Arsenic as As (Dissolved)	0.006	mg/l	4/4/2008	200.8
2008030193	8	SS-11D	3/24/2008	Arsenic as As (Total)	0.007	mg/l	4/1/2008	200.8
2008030193	8	SS-11D	3/24/2008	Cadmium as Cd (Dissolved)	0.00042	mg/l	4/4/2008	200.8
2008030193	8	SS-11D	3/24/2008	Cadmium as Cd (Total)	0.00054	mg/l	4/1/2008	200.8
2008030193	8	SS-11D	3/24/2008	Calcium as Ca (Dissolved)	56	mg/l	3/31/2008	200.7
2008030193	8	SS-11D	3/24/2008	Cation/Anion Balance	1.69	% [max 5%]	1/2/1900	AWWA/APHA
2008030193	8	SS-11D	3/24/2008	Cations	5.58	meq/l	1/2/1900	1030F
2008030193	8	SS-11D	3/24/2008	Chloride as Cl	38	mg/l	4/11/2008	300
2008030193	8	SS-11D	3/24/2008	Copper as Cu (Dissolved)	0.016	mg/l	4/7/2008	200.8
2008030193	8	SS-11D	3/24/2008	Copper as Cu (Total)	0.023	mg/l	4/1/2008	200.8
2008030193	8	SS-11D	3/24/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	4/4/2008	200.8
2008030193	8	SS-11D	3/24/2008	Lead as Pb (Total)	0.0017	mg/l	4/2/2008	200.8
2008030193	8	SS-11D	3/24/2008	Magnesium as Mg (Dissolved)	13	mg/l	3/31/2008	200.7
2008030193	8	SS-11D	3/24/2008	Manganese as Mn (Dissolved)	0.37	mg/l	4/2/2008	200.7
2008030193	8	SS-11D	3/24/2008	Manganese as Mn (Total)	0.45	mg/l	4/1/2008	200.7
2008030193	8	SS-11D	3/24/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	4/4/2008	200.8
2008030193	8	SS-11D	3/24/2008	Mercury as Hg (Total)	0.00003	mg/l	4/17/2008	200.8
2008030193	8	SS-11D	3/24/2008	Metals Batch#/Digestion Date	1477	-----	3/28/2008	200.2

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030193	8	SS-11D	3/24/2008	Nitrate + Nitrite as N	1.31	mg/l	4/7/2008	353.2
2008030193	8	SS-11D	3/24/2008	Phosphorus Total	0.41	mg/l	4/8/2008	4500-P-E
2008030193	8	SS-11D	3/24/2008	Potassium as K (Dissolved)	6	mg/l	3/31/2008	200.7
2008030193	8	SS-11D	3/24/2008	Sodium as Na (Dissolved)	33	mg/l	3/31/2008	200.7
2008030193	8	SS-11D	3/24/2008	Sulfate as SO4	110	mg/l	4/11/2008	300
2008030193	8	SS-11D	3/24/2008	Total Kjeldahl Nitrogen as N	2.4	mg/l	4/14/2008	351.2
2008030193	8	SS-11D	3/24/2008	Zinc as Zn (Dissolved)	0.14	mg/l	4/2/2008	200.7
2008030193	8	SS-11D	3/24/2008	Zinc as Zn (Total)	0.19	mg/l	4/1/2008	200.7
2008030193	9	SS-15A	3/24/2008	Alkalinity Bicarbonate as HCO3	133	mg/l	4/1/2008	2320B
2008030193	9	SS-15A	3/24/2008	Alkalinity Carbonate as CO3	0	mg/l	4/1/2008	2320B
2008030193	9	SS-15A	3/24/2008	Alkalinity Total as CaCO3	109	mg/l	4/1/2008	2320B
2008030193	9	SS-15A	3/24/2008	Ammonia (Undistilled) as N	1.74	mg/l	4/10/2008	350.1
2008030193	9	SS-15A	3/24/2008	Anions	5.16	meq/l	1/2/1900	1030F
2008030193	9	SS-15A	3/24/2008	Arsenic as As (Dissolved)	0.008	mg/l	4/4/2008	200.8
2008030193	9	SS-15A	3/24/2008	Arsenic as As (Total)	0.012	mg/l	4/1/2008	200.8
2008030193	9	SS-15A	3/24/2008	Cadmium as Cd (Dissolved)	0.00073	mg/l	4/4/2008	200.8
2008030193	9	SS-15A	3/24/2008	Cadmium as Cd (Total)	0.0011	mg/l	4/1/2008	200.8
2008030193	9	SS-15A	3/24/2008	Calcium as Ca (Dissolved)	53	mg/l	3/31/2008	200.7
2008030193	9	SS-15A	3/24/2008	Cation/Anion Balance	0.96	% [max 5%]	1/2/1900	AWWA/APHA
2008030193	9	SS-15A	3/24/2008	Cations	5.26	meq/l	1/2/1900	1030F
2008030193	9	SS-15A	3/24/2008	Chloride as Cl	30	mg/l	4/11/2008	300
2008030193	9	SS-15A	3/24/2008	Copper as Cu (Dissolved)	0.032	mg/l	4/7/2008	200.8
2008030193	9	SS-15A	3/24/2008	Copper as Cu (Total)	0.085	mg/l	4/1/2008	200.8
2008030193	9	SS-15A	3/24/2008	Lead as Pb (Dissolved)	0.0012	mg/l	4/4/2008	200.8
2008030193	9	SS-15A	3/24/2008	Lead as Pb (Total)	0.024	mg/l	4/2/2008	200.8
2008030193	9	SS-15A	3/24/2008	Magnesium as Mg (Dissolved)	12	mg/l	3/31/2008	200.7
2008030193	9	SS-15A	3/24/2008	Manganese as Mn (Dissolved)	0.4	mg/l	4/2/2008	200.7
2008030193	9	SS-15A	3/24/2008	Manganese as Mn (Total)	0.53	mg/l	4/1/2008	200.7
2008030193	9	SS-15A	3/24/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	4/4/2008	200.8
2008030193	9	SS-15A	3/24/2008	Mercury as Hg (Total)	0.00019	mg/l	4/17/2008	200.8
2008030193	9	SS-15A	3/24/2008	Metals Batch#/Digestion Date	1477	-----	3/28/2008	200.2
2008030193	9	SS-15A	3/24/2008	Nitrate + Nitrite as N	1.3	mg/l	4/7/2008	353.2
2008030193	9	SS-15A	3/24/2008	Phosphorus Total	0.42	mg/l	4/8/2008	4500-P-E
2008030193	9	SS-15A	3/24/2008	Potassium as K (Dissolved)	6	mg/l	3/31/2008	200.7
2008030193	9	SS-15A	3/24/2008	Sodium as Na (Dissolved)	31	mg/l	3/31/2008	200.7
2008030193	9	SS-15A	3/24/2008	Sulfate as SO4	98	mg/l	4/11/2008	300
2008030193	9	SS-15A	3/24/2008	Total Kjeldahl Nitrogen as N	2.2	mg/l	4/14/2008	351.2
2008030193	9	SS-15A	3/24/2008	Zinc as Zn (Dissolved)	0.2	mg/l	4/2/2008	200.7
2008030193	9	SS-15A	3/24/2008	Zinc as Zn (Total)	0.32	mg/l	4/1/2008	200.7
2008030193	10	SS-15B	3/24/2008	Alkalinity Bicarbonate as HCO3	131	mg/l	4/1/2008	2320B
2008030193	10	SS-15B	3/24/2008	Alkalinity Carbonate as CO3	0	mg/l	4/1/2008	2320B
2008030193	10	SS-15B	3/24/2008	Alkalinity Total as CaCO3	107	mg/l	4/1/2008	2320B
2008030193	10	SS-15B	3/24/2008	Ammonia (Undistilled) as N	1.57	mg/l	4/10/2008	350.1
2008030193	10	SS-15B	3/24/2008	Anions	5.29	meq/l	1/2/1900	1030F
2008030193	10	SS-15B	3/24/2008	Arsenic as As (Dissolved)	0.007	mg/l	4/4/2008	200.8
2008030193	10	SS-15B	3/24/2008	Arsenic as As (Total)	0.011	mg/l	4/1/2008	200.8
2008030193	10	SS-15B	3/24/2008	Cadmium as Cd (Dissolved)	0.00068	mg/l	4/4/2008	200.8
2008030193	10	SS-15B	3/24/2008	Cadmium as Cd (Total)	0.001	mg/l	4/1/2008	200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030193	10	SS-15B	3/24/2008	Calcium as Ca (Dissolved)	52	mg/l	3/31/2008	200.7
2008030193	10	SS-15B	3/24/2008	Cation/Anion Balance	1.34	% [max 5%]	1/2/1900	AWWA/APHA
2008030193	10	SS-15B	3/24/2008	Cations	5.15	meq/l	1/2/1900	1030F
2008030193	10	SS-15B	3/24/2008	Chloride as Cl	33	mg/l	3/29/2008	300
2008030193	10	SS-15B	3/24/2008	Copper as Cu (Dissolved)	0.029	mg/l	4/7/2008	200.8
2008030193	10	SS-15B	3/24/2008	Copper as Cu (Total)	0.075	mg/l	4/1/2008	200.8
2008030193	10	SS-15B	3/24/2008	Lead as Pb (Dissolved)	0.0013	mg/l	4/4/2008	200.8
2008030193	10	SS-15B	3/24/2008	Lead as Pb (Total)	0.022	mg/l	4/2/2008	200.8
2008030193	10	SS-15B	3/24/2008	Magnesium as Mg (Dissolved)	12	mg/l	3/31/2008	200.7
2008030193	10	SS-15B	3/24/2008	Manganese as Mn (Dissolved)	0.38	mg/l	4/2/2008	200.7
2008030193	10	SS-15B	3/24/2008	Manganese as Mn (Total)	0.47	mg/l	4/1/2008	200.7
2008030193	10	SS-15B	3/24/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	4/4/2008	200.8
2008030193	10	SS-15B	3/24/2008	Mercury as Hg (Total)	0.00016	mg/l	4/17/2008	200.8
2008030193	10	SS-15B	3/24/2008	Metals Batch#/Digestion Date	1477	-----	3/28/2008	200.2
2008030193	10	SS-15B	3/24/2008	Nitrate + Nitrite as N	1.28	mg/l	4/7/2008	353.2
2008030193	10	SS-15B	3/24/2008	Phosphorus Total	0.41	mg/l	4/8/2008	4500-P-E
2008030193	10	SS-15B	3/24/2008	Potassium as K (Dissolved)	6	mg/l	3/31/2008	200.7
2008030193	10	SS-15B	3/24/2008	Sodium as Na (Dissolved)	30	mg/l	3/31/2008	200.7
2008030193	10	SS-15B	3/24/2008	Sulfate as SO4	102	mg/l	3/29/2008	300
2008030193	10	SS-15B	3/24/2008	Total Kjeldahl Nitrogen as N	2	mg/l	4/14/2008	351.2
2008030193	10	SS-15B	3/24/2008	Zinc as Zn (Dissolved)	0.19	mg/l	4/2/2008	200.7
2008030193	10	SS-15B	3/24/2008	Zinc as Zn (Total)	0.3	mg/l	4/1/2008	200.7
2008030193	11	SS-15G	3/24/2008	Alkalinity Bicarbonate as HCO3	108	mg/l	4/1/2008	2320B
2008030193	11	SS-15G	3/24/2008	Alkalinity Carbonate as CO3	0	mg/l	4/1/2008	2320B
2008030193	11	SS-15G	3/24/2008	Alkalinity Total as CaCO3	88	mg/l	4/1/2008	2320B
2008030193	11	SS-15G	3/24/2008	Ammonia (Undistilled) as N	<0.05	mg/l	4/9/2008	350.1
2008030193	11	SS-15G	3/24/2008	Anions	2.61	meq/l	1/2/1900	1030F
2008030193	11	SS-15G	3/24/2008	Arsenic as As (Dissolved)	0.003	mg/l	4/4/2008	200.8
2008030193	11	SS-15G	3/24/2008	Arsenic as As (Total)	0.003	mg/l	4/1/2008	200.8
2008030193	11	SS-15G	3/24/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	4/4/2008	200.8
2008030193	11	SS-15G	3/24/2008	Cadmium as Cd (Total)	<0.00008	mg/l	4/1/2008	200.8
2008030193	11	SS-15G	3/24/2008	Calcium as Ca (Dissolved)	38	mg/l	3/31/2008	200.7
2008030193	11	SS-15G	3/24/2008	Cation/Anion Balance	0.11	[max 0.20]	1/2/1900	AWWA/APHA
2008030193	11	SS-15G	3/24/2008	Cations	2.72	meq/l	1/2/1900	1030F
2008030193	11	SS-15G	3/24/2008	Chloride as Cl	2	mg/l	3/29/2008	300
2008030193	11	SS-15G	3/24/2008	Copper as Cu (Dissolved)	0.001	mg/l	4/4/2008	200.8
2008030193	11	SS-15G	3/24/2008	Copper as Cu (Total)	<0.001	mg/l	4/1/2008	200.8
2008030193	11	SS-15G	3/24/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	4/4/2008	200.8
2008030193	11	SS-15G	3/24/2008	Lead as Pb (Total)	<0.0005	mg/l	4/2/2008	200.8
2008030193	11	SS-15G	3/24/2008	Magnesium as Mg (Dissolved)	7	mg/l	3/31/2008	200.7
2008030193	11	SS-15G	3/24/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	4/2/2008	200.7
2008030193	11	SS-15G	3/24/2008	Manganese as Mn (Total)	<0.005	mg/l	4/1/2008	200.7
2008030193	11	SS-15G	3/24/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	4/4/2008	200.8
2008030193	11	SS-15G	3/24/2008	Mercury as Hg (Total)	0.00001	mg/l	4/17/2008	200.8
2008030193	11	SS-15G	3/24/2008	Metals Batch#/Digestion Date	1477	-----	3/28/2008	200.2
2008030193	11	SS-15G	3/24/2008	Nitrate + Nitrite as N	0.05	mg/l	4/8/2008	353.2
2008030193	11	SS-15G	3/24/2008	Phosphorus Total	0.04	mg/l	4/8/2008	4500-P-E
2008030193	11	SS-15G	3/24/2008	Potassium as K (Dissolved)	1	mg/l	3/31/2008	200.7

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030193	11	SS-15G	3/24/2008	Sodium as Na (Dissolved)	5	mg/l	3/31/2008	200.7
2008030193	11	SS-15G	3/24/2008	Sulfate as SO4	38	mg/l	3/29/2008	300
2008030193	11	SS-15G	3/24/2008	Total Kjeldahl Nitrogen as N	<0.2	mg/l	4/14/2008	351.2
2008030193	11	SS-15G	3/24/2008	Zinc as Zn (Dissolved)	0.01	mg/l	4/2/2008	200.7
2008030193	11	SS-15G	3/24/2008	Zinc as Zn (Total)	<0.01	mg/l	4/1/2008	200.7
2008030193	12	SS-15BB	3/24/2008	Alkalinity Bicarbonate as HCO3	1	mg/l	4/1/2008	2320B
2008030193	12	SS-15BB	3/24/2008	Alkalinity Carbonate as CO3	0	mg/l	4/1/2008	2320B
2008030193	12	SS-15BB	3/24/2008	Alkalinity Total as CaCO3	1	mg/l	4/1/2008	2320B
2008030193	12	SS-15BB	3/24/2008	Ammonia (Undistilled) as N	<0.05	mg/l	4/9/2008	350.1
2008030193	12	SS-15BB	3/24/2008	Anions	<0.38	meq/l	1/2/1900	1030F
2008030193	12	SS-15BB	3/24/2008	Arsenic as As (Dissolved)	<0.003	mg/l	4/4/2008	200.8
2008030193	12	SS-15BB	3/24/2008	Arsenic as As (Total)	<0.003	mg/l	4/1/2008	200.8
2008030193	12	SS-15BB	3/24/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	4/4/2008	200.8
2008030193	12	SS-15BB	3/24/2008	Cadmium as Cd (Total)	<0.00008	mg/l	4/1/2008	200.8
2008030193	12	SS-15BB	3/24/2008	Calcium as Ca (Dissolved)	<1	mg/l	3/31/2008	200.7
2008030193	12	SS-15BB	3/24/2008	Cation/Anion Balance	NA	% [max 5%]	1/2/1900	AWWA/APHA
2008030193	12	SS-15BB	3/24/2008	Cations	<0.30	meq/l	1/2/1900	1030F
2008030193	12	SS-15BB	3/24/2008	Chloride as Cl	<1	mg/l	3/29/2008	300
2008030193	12	SS-15BB	3/24/2008	Copper as Cu (Dissolved)	<0.001	mg/l	4/4/2008	200.8
2008030193	12	SS-15BB	3/24/2008	Copper as Cu (Total)	<0.001	mg/l	4/1/2008	200.8
2008030193	12	SS-15BB	3/24/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	4/4/2008	200.8
2008030193	12	SS-15BB	3/24/2008	Lead as Pb (Total)	<0.0005	mg/l	4/2/2008	200.8
2008030193	12	SS-15BB	3/24/2008	Magnesium as Mg (Dissolved)	<1	mg/l	3/31/2008	200.7
2008030193	12	SS-15BB	3/24/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	4/2/2008	200.7
2008030193	12	SS-15BB	3/24/2008	Manganese as Mn (Total)	<0.005	mg/l	4/1/2008	200.7
2008030193	12	SS-15BB	3/24/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	4/4/2008	200.8
2008030193	12	SS-15BB	3/24/2008	Mercury as Hg (Total)	<0.00001	mg/l	4/17/2008	200.8
2008030193	12	SS-15BB	3/24/2008	Metals Batch#/Digestion Date	1477	-----	3/28/2008	200.2
2008030193	12	SS-15BB	3/24/2008	Nitrate + Nitrite as N	0.05	mg/l	4/8/2008	353.2
2008030193	12	SS-15BB	3/24/2008	Phosphorus Total	0.001	mg/l	4/8/2008	4500-P-E
2008030193	12	SS-15BB	3/24/2008	Potassium as K (Dissolved)	<1	mg/l	3/31/2008	200.7
2008030193	12	SS-15BB	3/24/2008	Sodium as Na (Dissolved)	<1	mg/l	3/31/2008	200.7
2008030193	12	SS-15BB	3/24/2008	Sulfate as SO4	<5	mg/l	3/29/2008	300
2008030193	12	SS-15BB	3/24/2008	Total Kjeldahl Nitrogen as N	<0.2	mg/l	4/14/2008	351.2
2008030193	12	SS-15BB	3/24/2008	Zinc as Zn (Dissolved)	0.02	mg/l	4/2/2008	200.7
2008030193	12	SS-15BB	3/24/2008	Zinc as Zn (Total)	<0.01	mg/l	4/1/2008	200.7
2008030193	13	SS-17D	3/24/2008	Alkalinity Bicarbonate as HCO3	120	mg/l	4/1/2008	2320B
2008030193	13	SS-17D	3/24/2008	Alkalinity Carbonate as CO3	0	mg/l	4/1/2008	2320B
2008030193	13	SS-17D	3/24/2008	Alkalinity Total as CaCO3	99	mg/l	4/1/2008	2320B
2008030193	13	SS-17D	3/24/2008	Ammonia (Undistilled) as N	1.11	mg/l	4/10/2008	350.1
2008030193	13	SS-17D	3/24/2008	Anions	5.1	meq/l	1/2/1900	1030F
2008030193	13	SS-17D	3/24/2008	Arsenic as As (Dissolved)	0.008	mg/l	4/4/2008	200.8
2008030193	13	SS-17D	3/24/2008	Arsenic as As (Total)	0.011	mg/l	4/1/2008	200.8
2008030193	13	SS-17D	3/24/2008	Cadmium as Cd (Dissolved)	0.00054	mg/l	4/4/2008	200.8
2008030193	13	SS-17D	3/24/2008	Cadmium as Cd (Total)	0.00078	mg/l	4/1/2008	200.8
2008030193	13	SS-17D	3/24/2008	Calcium as Ca (Dissolved)	51	mg/l	3/31/2008	200.7
2008030193	13	SS-17D	3/24/2008	Cation/Anion Balance	0.99	% [max 5%]	1/2/1900	AWWA/APHA
2008030193	13	SS-17D	3/24/2008	Cations	5	meq/l	1/2/1900	1030F

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030193	13	SS-17D	3/24/2008	Chloride as Cl	31	mg/l	3/29/2008	300
2008030193	13	SS-17D	3/24/2008	Copper as Cu (Dissolved)	0.029	mg/l	4/4/2008	200.8
2008030193	13	SS-17D	3/24/2008	Copper as Cu (Total)	0.056	mg/l	4/1/2008	200.8
2008030193	13	SS-17D	3/24/2008	Lead as Pb (Dissolved)	0.0006	mg/l	4/4/2008	200.8
2008030193	13	SS-17D	3/24/2008	Lead as Pb (Total)	0.0089	mg/l	4/2/2008	200.8
2008030193	13	SS-17D	3/24/2008	Magnesium as Mg (Dissolved)	12	mg/l	3/31/2008	200.7
2008030193	13	SS-17D	3/24/2008	Manganese as Mn (Dissolved)	0.26	mg/l	4/2/2008	200.7
2008030193	13	SS-17D	3/24/2008	Manganese as Mn (Total)	0.32	mg/l	4/1/2008	200.7
2008030193	13	SS-17D	3/24/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	4/4/2008	200.8
2008030193	13	SS-17D	3/24/2008	Mercury as Hg (Total)	0.00008	mg/l	4/17/2008	200.8
2008030193	13	SS-17D	3/24/2008	Metals Batch#/Digestion Date	1477	-----	3/28/2008	200.2
2008030193	13	SS-17D	3/24/2008	Nitrate + Nitrite as N	1.4	mg/l	4/7/2008	353.2
2008030193	13	SS-17D	3/24/2008	Phosphorus Total	0.32	mg/l	4/8/2008	4500-P-E
2008030193	13	SS-17D	3/24/2008	Potassium as K (Dissolved)	5	mg/l	3/31/2008	200.7
2008030193	13	SS-17D	3/24/2008	Sodium as Na (Dissolved)	29	mg/l	3/31/2008	200.7
2008030193	13	SS-17D	3/24/2008	Sulfate as SO4	103	mg/l	3/29/2008	300
2008030193	13	SS-17D	3/24/2008	Total Kjeldahl Nitrogen as N	1.7	mg/l	4/15/2008	351.2
2008030193	13	SS-17D	3/24/2008	Zinc as Zn (Dissolved)	0.07	mg/l	4/2/2008	200.7
2008030193	13	SS-17D	3/24/2008	Zinc as Zn (Total)	0.18	mg/l	4/1/2008	200.7
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Alkalinity Bicarbonate as HCO3	123	mg/l	4/1/2008	2320B
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Alkalinity Carbonate as CO3	0	mg/l	4/1/2008	2320B
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Alkalinity Total as CaCO3	101	mg/l	4/1/2008	2320B
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Ammonia (Undistilled) as N	0	RPD [0-20]	4/9/2008	350.1
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Anions	5.21	meq/l	1/2/1900	1030F
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Arsenic as As (Dissolved)	0.003	mg/l	4/3/2008	200.8
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Arsenic as As (Total)	0.005	mg/l	4/1/2008	200.8
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Cadmium as Cd (Dissolved)	0.00015	mg/l	4/3/2008	200.8
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Cadmium as Cd (Total)	0.0002	mg/l	4/1/2008	200.8
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Calcium as Ca (Dissolved)	58	mg/l	3/31/2008	200.7
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Cation/Anion Balance	1.86	% [max 5%]	1/2/1900	AWWA/APHA
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Cations	5.02	meq/l	1/2/1900	1030F
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Chloride as Cl	22	mg/l	4/11/2008	300
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Copper as Cu (Dissolved)	0.006	mg/l	4/7/2008	200.8
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Copper as Cu (Total)	0.015	mg/l	4/1/2008	200.8
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Lead as Pb (Dissolved)	0.0006	mg/l	4/3/2008	200.8
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Lead as Pb (Total)	0.0021	mg/l	4/1/2008	200.8
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Magnesium as Mg (Dissolved)	14	mg/l	3/31/2008	200.7
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Manganese as Mn (Dissolved)	0.15	mg/l	4/2/2008	200.7
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Manganese as Mn (Total)	0.2	mg/l	4/1/2008	200.7
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	4/4/2008	200.8
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Mercury as Hg (Total)	<0.00001	mg/l	4/1/2008	200.8
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Metals Batch#/Digestion Date	1477	-----	3/28/2008	200.2
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Nitrate + Nitrite as N	1.44	mg/l	4/7/2008	353.2
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Phosphorus Total	6	RPD [0-20]	4/8/2008	4500-P-E
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Potassium as K (Dissolved)	4	mg/l	3/31/2008	200.7
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Sodium as Na (Dissolved)	20	mg/l	3/31/2008	200.7
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Sulfate as SO4	108	mg/l	4/11/2008	300
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Total Kjeldahl Nitrogen as N	0.4	mg/l	4/14/2008	351.2

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Zinc as Zn (Dissolved)	0.02	mg/l	4/2/2008	200.7
2008030193	14	DUPLICATE OF 2008030193-1	3/24/2008	Zinc as Zn (Total)	0.05	mg/l	4/1/2008	200.7
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Alkalinity Bicarbonate as HCO3	NA	mg/l	4/1/2008	2320B
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Alkalinity Carbonate as CO3	NA	mg/l	4/1/2008	2320B
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Alkalinity Total as CaCO3	86	% [77-116]	4/1/2008	2320B
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Ammonia (Undistilled) as N	94	% [90-110]	4/10/2008	350.1
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Arsenic as As (Dissolved)	99	% [79-124]	4/3/2008	200.8
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Arsenic as As (Total)	96	% [79-124]	4/1/2008	200.8
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Cadmium as Cd (Dissolved)	99	% [83-116]	4/3/2008	200.8
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Cadmium as Cd (Total)	95	% [83-116]	4/1/2008	200.8
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Calcium as Ca (Dissolved)	101	% [78-122]	3/31/2008	200.7
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Chloride as Cl	108	% [84-124]	4/11/2008	300
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Copper as Cu (Dissolved)	96	% [70-114]	4/7/2008	200.8
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Copper as Cu (Total)	87	% [70-117]	4/1/2008	200.8
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Lead as Pb (Dissolved)	102	% [81-121]	4/3/2008	200.8
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Lead as Pb (Total)	107	% [81-121]	4/1/2008	200.8
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Magnesium as Mg (Dissolved)	102	% [84-118]	3/31/2008	200.7
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Manganese as Mn (Dissolved)	97	% [81-114]	4/2/2008	200.7
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Manganese as Mn (Total)	103	% [78-121]	4/1/2008	200.7
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Mercury as Hg (Dissolved)	94	% [70-127]	4/4/2008	200.8
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Mercury as Hg (Total)	134 (3)	% [70-130]	4/1/2008	200.8
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Metals Batch#/Digestion Date	1477	-----	3/28/2008	200.2
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Nitrate + Nitrite as N	96	% [90-110]	4/7/2008	353.2
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Phosphorus Total	98	% [66-133]	4/8/2008	4500-P-E
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Potassium as K (Dissolved)	97	% [85-120]	3/31/2008	200.7
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Sodium as Na (Dissolved)	97	% [73-124]	3/31/2008	200.7
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Sulfate as SO4	101	% [84-124]	4/11/2008	300
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Total Kjeldahl Nitrogen as N	92	% [61-128]	4/14/2008	351.2
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Zinc as Zn (Dissolved)	100	% [89-113]	4/2/2008	200.7
2008030193	15	MATRIX SPIKE OF 2008030193-6	3/24/2008	Zinc as Zn (Total)	103	% [84-121]	4/1/2008	200.7
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Alkalinity Bicarbonate as HCO3	105	mg/l	4/1/2008	2320B
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Alkalinity Carbonate as CO3	0	mg/l	4/1/2008	2320B
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Alkalinity Total as CaCO3	86	mg/l	4/1/2008	2320B
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Ammonia (Undistilled) as N	6	RPD [0-20]	4/9/2008	350.1
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Anions	2.57	meq/l	1/2/1900	1030F
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Arsenic as As (Dissolved)	0.003	mg/l	4/4/2008	200.8
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Arsenic as As (Total)	0.003	mg/l	4/1/2008	200.8
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	4/4/2008	200.8
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Cadmium as Cd (Total)	<0.00008	mg/l	4/1/2008	200.8
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Calcium as Ca (Dissolved)	38	mg/l	3/31/2008	200.7
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Cation/Anion Balance	0.15	[max 0.20]	1/2/1900	AWWA/APHA
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Cations	2.72	meq/l	1/2/1900	1030F
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Chloride as Cl	2	mg/l	3/29/2008	300
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Copper as Cu (Dissolved)	0.001	mg/l	4/4/2008	200.8
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Copper as Cu (Total)	<0.001	mg/l	4/1/2008	200.8
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	4/4/2008	200.8
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Lead as Pb (Total)	<0.0005	mg/l	4/2/2008	200.8
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Magnesium as Mg (Dissolved)	7	mg/l	3/31/2008	200.7

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	4/2/2008	200.7
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Manganese as Mn (Total)	<0.005	mg/l	4/1/2008	200.7
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	4/4/2008	200.8
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Mercury as Hg (Total)	0	RPD [0-20]	4/17/2008	200.8
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Metals Batch#/Digestion Date	1477	-----	3/28/2008	200.2
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Nitrate + Nitrite as N	0	RPD [0-20]	4/8/2008	353.2
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Phosphorus Total	2	RPD [0-20]	4/8/2008	4500-P-E
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Potassium as K (Dissolved)	1	mg/l	3/31/2008	200.7
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Sodium as Na (Dissolved)	5	mg/l	3/31/2008	200.7
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Sulfate as SO4	38	mg/l	3/29/2008	300
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Total Kjeldahl Nitrogen as N	4	RPD [0-20]	4/15/2008	351.2
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Zinc as Zn (Dissolved)	0.01	mg/l	4/2/2008	200.7
2008030193	16	DUPLICATE OF 2008030193-11	3/24/2008	Zinc as Zn (Total)	<0.01	mg/l	4/1/2008	200.7
2008030193	17	METHOD BLANK	1/2/1900	Alkalinity Bicarbonate as HCO3	<1	mg/l	4/1/2008	2320B
2008030193	17	METHOD BLANK	1/2/1900	Alkalinity Carbonate as CO3	0	mg/l	4/1/2008	2320B
2008030193	17	METHOD BLANK	1/2/1900	Alkalinity Total as CaCO3	<1	mg/l	4/1/2008	2320B
2008030193	17	METHOD BLANK	1/2/1900	Ammonia (Undistilled) as N	<0.05	mg/l	4/9/2008	350.1
2008030193	17	METHOD BLANK	1/2/1900	Arsenic as As (Dissolved)	<0.003	mg/l	4/3/2008	200.8
2008030193	17	METHOD BLANK	1/2/1900	Arsenic as As (Total)	<0.003	mg/l	4/1/2008	200.8
2008030193	17	METHOD BLANK	1/2/1900	Cadmium as Cd (Dissolved)	<0.00008	mg/l	4/3/2008	200.8
2008030193	17	METHOD BLANK	1/2/1900	Cadmium as Cd (Total)	<0.00008	mg/l	4/1/2008	200.8
2008030193	17	METHOD BLANK	1/2/1900	Calcium as Ca (Dissolved)	<1	mg/l	3/31/2008	200.7
2008030193	17	METHOD BLANK	1/2/1900	Chloride as Cl	<1	mg/l	3/28/2008	300
2008030193	17	METHOD BLANK	1/2/1900	Copper as Cu (Dissolved)	<0.001	mg/l	4/7/2008	200.8
2008030193	17	METHOD BLANK	1/2/1900	Copper as Cu (Total)	<0.001	mg/l	4/1/2008	200.8
2008030193	17	METHOD BLANK	1/2/1900	Lead as Pb (Dissolved)	<0.0005	mg/l	4/3/2008	200.8
2008030193	17	METHOD BLANK	1/2/1900	Lead as Pb (Total)	<0.0005	mg/l	4/1/2008	200.8
2008030193	17	METHOD BLANK	1/2/1900	Magnesium as Mg (Dissolved)	<1	mg/l	3/31/2008	200.7
2008030193	17	METHOD BLANK	1/2/1900	Manganese as Mn (Dissolved)	<0.005	mg/l	4/2/2008	200.7
2008030193	17	METHOD BLANK	1/2/1900	Manganese as Mn (Total)	<0.005	mg/l	4/1/2008	200.7
2008030193	17	METHOD BLANK	1/2/1900	Mercury as Hg (Dissolved)	<0.00001	mg/l	4/4/2008	200.8
2008030193	17	METHOD BLANK	1/2/1900	Mercury as Hg (Total)	<0.00001	mg/l	4/17/2008	200.8
2008030193	17	METHOD BLANK	1/2/1900	Metals Batch#/Digestion Date	1477	-----	3/28/2008	200.2
2008030193	17	METHOD BLANK	1/2/1900	Nitrate + Nitrite as N	<0.01	mg/l	4/8/2008	353.2
2008030193	17	METHOD BLANK	1/2/1900	Phosphorus Total	<0.001	mg/l	4/8/2008	4500-P-E
2008030193	17	METHOD BLANK	1/2/1900	Potassium as K (Dissolved)	<1	mg/l	3/31/2008	200.7
2008030193	17	METHOD BLANK	1/2/1900	Sodium as Na (Dissolved)	<1	mg/l	3/31/2008	200.7
2008030193	17	METHOD BLANK	1/2/1900	Sulfate as SO4	<5	mg/l	3/28/2008	300
2008030193	17	METHOD BLANK	1/2/1900	Total Kjeldahl Nitrogen as N	<0.2	mg/l	4/14/2008	351.2
2008030193	17	METHOD BLANK	1/2/1900	Zinc as Zn (Dissolved)	<0.01	mg/l	4/2/2008	200.7
2008030193	17	METHOD BLANK	1/2/1900	Zinc as Zn (Total)	<0.01	mg/l	4/1/2008	200.7
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Alkalinity Bicarbonate as HCO3	NA	% [89-110]	4/1/2008	2320B
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Alkalinity Carbonate as CO3	NA	% [89-110]	4/1/2008	2320B
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Alkalinity Total as CaCO3	98	% [89-110]	4/1/2008	2320B
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Ammonia (Undistilled) as N	97	% [90-110]	4/9/2008	350.1
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Arsenic as As (Dissolved)	95	% [85-113]	4/3/2008	200.8
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Arsenic as As (Total)	114	% [85-115]	4/1/2008	200.8
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Cadmium as Cd (Dissolved)	96	% [85-115]	4/3/2008	200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Cadmium as Cd (Total)	114	% [85-115]	4/1/2008	200.8
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Calcium as Ca (Dissolved)	99	% [91-114]	3/31/2008	200.7
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Chloride as Cl	104	% [90-110]	3/28/2008	300
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Copper as Cu (Dissolved)	100	% [84-114]	4/7/2008	200.8
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Copper as Cu (Total)	113	% [85-115]	4/1/2008	200.8
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Lead as Pb (Dissolved)	101	% [85-115]	4/3/2008	200.8
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Lead as Pb (Total)	109	% [85-115]	4/2/2008	200.8
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Magnesium as Mg (Dissolved)	97	% [89-112]	3/31/2008	200.7
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Manganese as Mn (Dissolved)	97	% [92-114]	4/2/2008	200.7
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Manganese as Mn (Total)	105	% [94-115]	4/1/2008	200.7
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Mercury as Hg (Dissolved)	88	% [85-115]	4/4/2008	200.8
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Mercury as Hg (Total)	99	% [85-115]	4/17/2008	200.8
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Metals Batch#/Digestion Date	1477	-----	3/28/2008	200.2
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Nitrate + Nitrite as N	94	% [90-110]	4/8/2008	353.2
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Phosphorus Total	93	% [77-119]	4/8/2008	4500-P-E
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Potassium as K (Dissolved)	96	% [86-114]	3/31/2008	200.7
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Sodium as Na (Dissolved)	95	% [87-112]	3/31/2008	200.7
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Sulfate as SO4	101	% [90-110]	3/28/2008	300
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Total Kjeldahl Nitrogen as N	102	% [78-128]	4/14/2008	351.2
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Zinc as Zn (Dissolved)	95	% [89-113]	4/2/2008	200.7
2008030193	18	LABORATORY CONTROL SAMPLE	1/2/1900	Zinc as Zn (Total)	102	% [89-115]	4/1/2008	200.7
2008070024	10	SS-06G	6/30/2008	Alkalinity Bicarbonate as HCO3	106	mg/l	7/14/2008	2320B
2008070024	10	SS-06G	6/30/2008	Alkalinity Carbonate as CO3	0	mg/l	7/14/2008	2320B
2008070024	10	SS-06G	6/30/2008	Alkalinity Total as CaCO3	87	mg/l	7/14/2008	2320B
2008070024	10	SS-06G	6/30/2008	Ammonia (Undistilled) as N	<0.05	mg/l	7/17/2008	350.1
2008070024	10	SS-06G	6/30/2008	Anions	3.37	meq/l	1/2/1900	1030F
2008070024	10	SS-06G	6/30/2008	Arsenic as As (Dissolved)	0.004	mg/l	7/11/2008	200.8
2008070024	10	SS-06G	6/30/2008	Arsenic as As (Total)	0.011	mg/l	7/10/2008	200.8
2008070024	10	SS-06G	6/30/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008	200.8
2008070024	10	SS-06G	6/30/2008	Cadmium as Cd (Total)	0.00017	mg/l	7/10/2008	200.8
2008070024	10	SS-06G	6/30/2008	Calcium as Ca (Dissolved)	37	mg/l	7/10/2008	200.7
2008070024	10	SS-06G	6/30/2008	Cation/Anion Balance	0.14	[max 0.20]	1/2/1900	AWWA/APHA
2008070024	10	SS-06G	6/30/2008	Cations	3.23	meq/l	1/2/1900	1030F
2008070024	10	SS-06G	6/30/2008	Chloride as Cl	12	mg/l	7/16/2008	300
2008070024	10	SS-06G	6/30/2008	Copper as Cu (Dissolved)	0.005	mg/l	7/11/2008	200.8
2008070024	10	SS-06G	6/30/2008	Copper as Cu (Total)	0.021	mg/l	7/10/2008	200.8
2008070024	10	SS-06G	6/30/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008070024	10	SS-06G	6/30/2008	Lead as Pb (Total)	0.0025	mg/l	7/10/2008	200.8
2008070024	10	SS-06G	6/30/2008	Magnesium as Mg (Dissolved)	9	mg/l	7/10/2008	200.7
2008070024	10	SS-06G	6/30/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	7/10/2008	200.7
2008070024	10	SS-06G	6/30/2008	Manganese as Mn (Total)	0.12	mg/l	7/9/2008	200.7
2008070024	10	SS-06G	6/30/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/14/2008	200.8
2008070024	10	SS-06G	6/30/2008	Mercury as Hg (Total)	<0.00001	mg/l	7/23/2008	200.8
2008070024	10	SS-06G	6/30/2008	Metals Batch#/Digestion Date	1594	-----	7/8/2008	200.2
2008070024	10	SS-06G	6/30/2008	Nitrate + Nitrite as N	0.62	mg/l	7/11/2008	353.2
2008070024	10	SS-06G	6/30/2008	Phosphorus Total	0.15	mg/l	7/16/2008	4500-P-E
2008070024	10	SS-06G	6/30/2008	Potassium as K (Dissolved)	3	mg/l	7/10/2008	200.7
2008070024	10	SS-06G	6/30/2008	Sodium as Na (Dissolved)	13	mg/l	7/10/2008	200.7

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070024	10	SS-06G	6/30/2008	Sulfate as SO4	60	mg/l	7/16/2008	300
2008070024	10	SS-06G	6/30/2008	Total Kjeldahl Nitrogen as N	0.5	mg/l	7/15/2008	351.2
2008070024	10	SS-06G	6/30/2008	Zinc as Zn (Dissolved)	0.01	mg/l	7/10/2008	200.7
2008070024	10	SS-06G	6/30/2008	Zinc as Zn (Total)	0.04	mg/l	7/9/2008	200.7
2008070024	9	SS-07	6/30/2008	Alkalinity Bicarbonate as HCO3	146	mg/l	7/14/2008	2320B
2008070024	9	SS-07	6/30/2008	Alkalinity Carbonate as CO3	0	mg/l	7/14/2008	2320B
2008070024	9	SS-07	6/30/2008	Alkalinity Total as CaCO3	120	mg/l	7/14/2008	2320B
2008070024	9	SS-07	6/30/2008	Ammonia (Undistilled) as N	8.97	mg/l	7/17/2008	350.1
2008070024	9	SS-07	6/30/2008	Anions	4.35	meq/l	1/2/1900	1030F
2008070024	9	SS-07	6/30/2008	Arsenic as As (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008070024	9	SS-07	6/30/2008	Arsenic as As (Total)	0.006	mg/l	7/10/2008	200.8
2008070024	9	SS-07	6/30/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008	200.8
2008070024	9	SS-07	6/30/2008	Cadmium as Cd (Total)	0.00017	mg/l	7/10/2008	200.8
2008070024	9	SS-07	6/30/2008	Calcium as Ca (Dissolved)	32	mg/l	7/10/2008	200.7
2008070024	9	SS-07	6/30/2008	Cation/Anion Balance	0.69	% [max 2%]	1/2/1900	AWWA/APHA
2008070024	9	SS-07	6/30/2008	Cations	4.29	meq/l	1/2/1900	1030F
2008070024	9	SS-07	6/30/2008	Chloride as Cl	33	mg/l	7/16/2008	300
2008070024	9	SS-07	6/30/2008	Copper as Cu (Dissolved)	0.012	mg/l	7/11/2008	200.8
2008070024	9	SS-07	6/30/2008	Copper as Cu (Total)	0.039	mg/l	7/10/2008	200.8
2008070024	9	SS-07	6/30/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008070024	9	SS-07	6/30/2008	Lead as Pb (Total)	0.0019	mg/l	7/10/2008	200.8
2008070024	9	SS-07	6/30/2008	Magnesium as Mg (Dissolved)	8	mg/l	7/10/2008	200.7
2008070024	9	SS-07	6/30/2008	Manganese as Mn (Dissolved)	0.14	mg/l	7/10/2008	200.7
2008070024	9	SS-07	6/30/2008	Manganese as Mn (Total)	0.18	mg/l	7/9/2008	200.7
2008070024	9	SS-07	6/30/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/11/2008	200.8
2008070024	9	SS-07	6/30/2008	Mercury as Hg (Total)	0.00006	mg/l	7/23/2008	200.8
2008070024	9	SS-07	6/30/2008	Metals Batch#/Digestion Date	1594	-----	7/8/2008	200.2
2008070024	9	SS-07	6/30/2008	Nitrate + Nitrite as N	0.59	mg/l	7/11/2008	353.2
2008070024	9	SS-07	6/30/2008	Phosphorus Total	0.18	mg/l	7/16/2008	4500-P-E
2008070024	9	SS-07	6/30/2008	Potassium as K (Dissolved)	7	mg/l	7/10/2008	200.7
2008070024	9	SS-07	6/30/2008	Sodium as Na (Dissolved)	28	mg/l	7/10/2008	200.7
2008070024	9	SS-07	6/30/2008	Sulfate as SO4	47	mg/l	7/16/2008	300
2008070024	9	SS-07	6/30/2008	Total Kjeldahl Nitrogen as N	11.2	mg/l	7/15/2008	351.2
2008070024	9	SS-07	6/30/2008	Zinc as Zn (Dissolved)	0.09	mg/l	7/10/2008	200.7
2008070024	9	SS-07	6/30/2008	Zinc as Zn (Total)	0.09	mg/l	7/9/2008	200.7
2008070024	8	SS-08	6/30/2008	Alkalinity Bicarbonate as HCO3	103	mg/l	7/14/2008	2320B
2008070024	8	SS-08	6/30/2008	Alkalinity Carbonate as CO3	0	mg/l	7/14/2008	2320B
2008070024	8	SS-08	6/30/2008	Alkalinity Total as CaCO3	85	mg/l	7/14/2008	2320B
2008070024	8	SS-08	6/30/2008	Ammonia (Undistilled) as N	1.47	mg/l	7/17/2008	350.1
2008070024	8	SS-08	6/30/2008	Anions	3.63	meq/l	1/2/1900	1030F
2008070024	8	SS-08	6/30/2008	Arsenic as As (Dissolved)	0.004	mg/l	7/11/2008	200.8
2008070024	8	SS-08	6/30/2008	Arsenic as As (Total)	0.009	mg/l	7/10/2008	200.8
2008070024	8	SS-08	6/30/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008	200.8
2008070024	8	SS-08	6/30/2008	Cadmium as Cd (Total)	0.00024	mg/l	7/10/2008	200.8
2008070024	8	SS-08	6/30/2008	Calcium as Ca (Dissolved)	38	mg/l	7/10/2008	200.7
2008070024	8	SS-08	6/30/2008	Cation/Anion Balance	0.69	% [max 2%]	1/2/1900	AWWA/APHA
2008070024	8	SS-08	6/30/2008	Cations	3.58	meq/l	1/2/1900	1030F
2008070024	8	SS-08	6/30/2008	Chloride as Cl	18	mg/l	7/16/2008	300

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070024	8	SS-08	6/30/2008	Copper as Cu (Dissolved)	0.008	mg/l	7/11/2008	200.8
2008070024	8	SS-08	6/30/2008	Copper as Cu (Total)	0.026	mg/l	7/10/2008	200.8
2008070024	8	SS-08	6/30/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008070024	8	SS-08	6/30/2008	Lead as Pb (Total)	0.0016	mg/l	7/10/2008	200.8
2008070024	8	SS-08	6/30/2008	Magnesium as Mg (Dissolved)	9	mg/l	7/10/2008	200.7
2008070024	8	SS-08	6/30/2008	Manganese as Mn (Dissolved)	0.012	mg/l	7/10/2008	200.7
2008070024	8	SS-08	6/30/2008	Manganese as Mn (Total)	0.18	mg/l	7/9/2008	200.7
2008070024	8	SS-08	6/30/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/11/2008	200.8
2008070024	8	SS-08	6/30/2008	Mercury as Hg (Total)	0.00001	mg/l	7/23/2008	200.8
2008070024	8	SS-08	6/30/2008	Metals Batch#/Digestion Date	1594	-----	7/8/2008	200.2
2008070024	8	SS-08	6/30/2008	Nitrate + Nitrite as N	1.26	mg/l	7/11/2008	353.2
2008070024	8	SS-08	6/30/2008	Phosphorus Total	0.44	mg/l	7/16/2008	4500-P-E
2008070024	8	SS-08	6/30/2008	Potassium as K (Dissolved)	4	mg/l	7/10/2008	200.7
2008070024	8	SS-08	6/30/2008	Sodium as Na (Dissolved)	17	mg/l	7/10/2008	200.7
2008070024	8	SS-08	6/30/2008	Sulfate as SO4	64	mg/l	7/16/2008	300
2008070024	8	SS-08	6/30/2008	Total Kjeldahl Nitrogen as N	2.2	mg/l	7/15/2008	351.2
2008070024	8	SS-08	6/30/2008	Zinc as Zn (Dissolved)	0.04	mg/l	7/10/2008	200.7
2008070024	8	SS-08	6/30/2008	Zinc as Zn (Total)	0.07	mg/l	7/9/2008	200.7
2008070024	4	SS-10A	6/30/2008	Alkalinity Bicarbonate as HCO3	98	mg/l	7/14/2008 14:10	2320B
2008070024	4	SS-10A	6/30/2008	Alkalinity Carbonate as CO3	0	mg/l	7/14/2008 14:10	2320B
2008070024	4	SS-10A	6/30/2008	Alkalinity Total as CaCO3	80	mg/l	7/14/2008	2320B
2008070024	4	SS-10A	6/30/2008	Ammonia (Undistilled) as N	0.28	mg/l	7/17/2008	350.1
2008070024	4	SS-10A	6/30/2008	Anions	3.65	meq/l	1/2/1900	1030F
2008070024	4	SS-10A	6/30/2008	Arsenic as As (Dissolved)	0.004	mg/l	7/11/2008	200.8
2008070024	4	SS-10A	6/30/2008	Arsenic as As (Total)	0.009	mg/l	7/10/2008	200.8
2008070024	4	SS-10A	6/30/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008 20:57	200.8
2008070024	4	SS-10A	6/30/2008	Cadmium as Cd (Total)	0.00019	mg/l	7/10/2008 17:26	200.8
2008070024	4	SS-10A	6/30/2008	Calcium as Ca (Dissolved)	38	mg/l	7/10/2008	200.7
2008070024	4	SS-10A	6/30/2008	Cation/Anion Balance	1.81	% [max 2%]	1/2/1900	AWWA/APHA
2008070024	4	SS-10A	6/30/2008	Cations	3.52	meq/l	1/2/1900 0:00	1030F
2008070024	4	SS-10A	6/30/2008	Chloride as Cl	18	mg/l	7/16/2008	300
2008070024	4	SS-10A	6/30/2008	Copper as Cu (Dissolved)	0.007	mg/l	7/11/2008	200.8
2008070024	4	SS-10A	6/30/2008	Copper as Cu (Total)	0.021	mg/l	7/10/2008 17:26	200.8
2008070024	4	SS-10A	6/30/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008 20:57	200.8
2008070024	4	SS-10A	6/30/2008	Lead as Pb (Total)	0.001	mg/l	7/10/2008 17:26	200.8
2008070024	4	SS-10A	6/30/2008	Magnesium as Mg (Dissolved)	9	mg/l	7/10/2008	200.7
2008070024	4	SS-10A	6/30/2008	Manganese as Mn (Dissolved)	0.006	mg/l	7/10/2008 19:40	200.7
2008070024	4	SS-10A	6/30/2008	Manganese as Mn (Total)	0.13	mg/l	7/9/2008 17:35	200.7
2008070024	4	SS-10A	6/30/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/11/2008	200.8
2008070024	4	SS-10A	6/30/2008	Mercury as Hg (Total)	<0.00001	mg/l	7/23/2008	200.8
2008070024	4	SS-10A	6/30/2008	Metals Batch#/Digestion Date	1594	-----	7/8/2008 11:00	200.2
2008070024	4	SS-10A	6/30/2008	Nitrate + Nitrite as N	1.72	mg/l	7/11/2008 14:09	353.2
2008070024	4	SS-10A	6/30/2008	Phosphorus Total	0.34	mg/l	7/16/2008 16:30	4500-P-E
2008070024	4	SS-10A	6/30/2008	Potassium as K (Dissolved)	3	mg/l	7/10/2008	200.7
2008070024	4	SS-10A	6/30/2008	Sodium as Na (Dissolved)	18	mg/l	7/10/2008	200.7
2008070024	4	SS-10A	6/30/2008	Sulfate as SO4	68	mg/l	7/16/2008 8:51	300
2008070024	4	SS-10A	6/30/2008	Total Kjeldahl Nitrogen as N	0.8	mg/l	7/15/2008 11:22	351.2
2008070024	4	SS-10A	6/30/2008	Zinc as Zn (Dissolved)	0.02	mg/l	7/10/2008 19:40	200.7

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070024	4	SS-10A	6/30/2008	Zinc as Zn (Total)	0.05	mg/l	7/9/2008	200.7
2008070024	5	SS-10B	6/30/2008	Alkalinity Bicarbonate as HCO3	100	mg/l	7/14/2008 14:10	2320B
2008070024	5	SS-10B	6/30/2008	Alkalinity Carbonate as CO3	0	mg/l	7/14/2008	2320B
2008070024	5	SS-10B	6/30/2008	Alkalinity Total as CaCO3	82	mg/l	7/14/2008 14:10	2320B
2008070024	5	SS-10B	6/30/2008	Ammonia (Undistilled) as N	0.23	mg/l	7/17/2008 11:11	350.1
2008070024	5	SS-10B	6/30/2008	Anions	3.61	meq/l	1/2/1900 0:00	1030F
2008070024	5	SS-10B	6/30/2008	Arsenic as As (Dissolved)	0.004	mg/l	7/11/2008 21:03	200.8
2008070024	5	SS-10B	6/30/2008	Arsenic as As (Total)	0.009	mg/l	7/10/2008 19:32	200.8
2008070024	5	SS-10B	6/30/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008	200.8
2008070024	5	SS-10B	6/30/2008	Cadmium as Cd (Total)	0.00021	mg/l	7/10/2008 19:32	200.8
2008070024	5	SS-10B	6/30/2008	Calcium as Ca (Dissolved)	38	mg/l	7/10/2008	200.7
2008070024	5	SS-10B	6/30/2008	Cation/Anion Balance	1.55	% [max 2%]	1/2/1900	AWWA/APHA
2008070024	5	SS-10B	6/30/2008	Cations	3.5	meq/l	1/2/1900	1030F
2008070024	5	SS-10B	6/30/2008	Chloride as Cl	17	mg/l	7/16/2008 9:22	300
2008070024	5	SS-10B	6/30/2008	Copper as Cu (Dissolved)	0.007	mg/l	7/11/2008	200.8
2008070024	5	SS-10B	6/30/2008	Copper as Cu (Total)	0.021	mg/l	7/10/2008	200.8
2008070024	5	SS-10B	6/30/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008070024	5	SS-10B	6/30/2008	Lead as Pb (Total)	0.001	mg/l	7/10/2008	200.8
2008070024	5	SS-10B	6/30/2008	Magnesium as Mg (Dissolved)	9	mg/l	7/10/2008 19:43	200.7
2008070024	5	SS-10B	6/30/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	7/10/2008 19:43	200.7
2008070024	5	SS-10B	6/30/2008	Manganese as Mn (Total)	0.13	mg/l	7/9/2008	200.7
2008070024	5	SS-10B	6/30/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/11/2008 13:26	200.8
2008070024	5	SS-10B	6/30/2008	Mercury as Hg (Total)	<0.00001	mg/l	7/23/2008 16:34	200.8
2008070024	5	SS-10B	6/30/2008	Metals Batch#/Digestion Date	1594	-----	7/8/2008	200.2
2008070024	5	SS-10B	6/30/2008	Nitrate + Nitrite as N	1.66	mg/l	7/11/2008	353.2
2008070024	5	SS-10B	6/30/2008	Phosphorus Total	0.35	mg/l	7/16/2008	4500-P-E
2008070024	5	SS-10B	6/30/2008	Potassium as K (Dissolved)	4	mg/l	7/10/2008	200.7
2008070024	5	SS-10B	6/30/2008	Sodium as Na (Dissolved)	17	mg/l	7/10/2008 19:43	200.7
2008070024	5	SS-10B	6/30/2008	Sulfate as SO4	66	mg/l	7/16/2008 9:22	300
2008070024	5	SS-10B	6/30/2008	Total Kjeldahl Nitrogen as N	0.8	mg/l	7/15/2008	351.2
2008070024	5	SS-10B	6/30/2008	Zinc as Zn (Dissolved)	0.02	mg/l	7/10/2008	200.7
2008070024	5	SS-10B	6/30/2008	Zinc as Zn (Total)	0.05	mg/l	7/9/2008	200.7
2008070024	6	SS-10BB	6/30/2008	Alkalinity Bicarbonate as HCO3	100	mg/l	7/14/2008 14:10	2320B
2008070024	6	SS-10BB	6/30/2008	Alkalinity Carbonate as CO3	0	mg/l	7/14/2008 14:10	2320B
2008070024	6	SS-10BB	6/30/2008	Alkalinity Total as CaCO3	82	mg/l	7/14/2008 14:10	2320B
2008070024	6	SS-10BB	6/30/2008	Ammonia (Undistilled) as N	0.23	mg/l	7/17/2008	350.1
2008070024	6	SS-10BB	6/30/2008	Anions	3.63	meq/l	1/2/1900 0:00	1030F
2008070024	6	SS-10BB	6/30/2008	Arsenic as As (Dissolved)	0.004	mg/l	7/11/2008 21:09	200.8
2008070024	6	SS-10BB	6/30/2008	Arsenic as As (Total)	0.009	mg/l	7/10/2008	200.8
2008070024	6	SS-10BB	6/30/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008 21:09	200.8
2008070024	6	SS-10BB	6/30/2008	Cadmium as Cd (Total)	0.0002	mg/l	7/10/2008 17:38	200.8
2008070024	6	SS-10BB	6/30/2008	Calcium as Ca (Dissolved)	40	mg/l	7/10/2008	200.7
2008070024	6	SS-10BB	6/30/2008	Cation/Anion Balance	0.83	% [max 2%]	1/2/1900	AWWA/APHA
2008070024	6	SS-10BB	6/30/2008	Cations	3.57	meq/l	1/2/1900	1030F
2008070024	6	SS-10BB	6/30/2008	Chloride as Cl	17	mg/l	7/16/2008	300
2008070024	6	SS-10BB	6/30/2008	Copper as Cu (Dissolved)	0.007	mg/l	7/11/2008 21:09	200.8
2008070024	6	SS-10BB	6/30/2008	Copper as Cu (Total)	0.021	mg/l	7/10/2008 17:38	200.8
2008070024	6	SS-10BB	6/30/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008	200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070024	6	SS-10BB	6/30/2008	Lead as Pb (Total)	0.001	mg/l	7/10/2008	200.8
2008070024	6	SS-10BB	6/30/2008	Magnesium as Mg (Dissolved)	9	mg/l	7/10/2008	200.7
2008070024	6	SS-10BB	6/30/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	7/10/2008 19:55	200.7
2008070024	6	SS-10BB	6/30/2008	Manganese as Mn (Total)	0.14	mg/l	7/9/2008 17:41	200.7
2008070024	6	SS-10BB	6/30/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/11/2008 13:29	200.8
2008070024	6	SS-10BB	6/30/2008	Mercury as Hg (Total)	<0.00001	mg/l	7/23/2008	200.8
2008070024	6	SS-10BB	6/30/2008	Metals Batch#/Digestion Date	1594	-----	7/8/2008 11:00	200.2
2008070024	6	SS-10BB	6/30/2008	Nitrate + Nitrite as N	1.68 J	mg/l	7/11/2008 14:13	353.2
2008070024	6	SS-10BB	6/30/2008	Phosphorus Total	0.34	mg/l	7/16/2008	4500-P-E
2008070024	6	SS-10BB	6/30/2008	Potassium as K (Dissolved)	3	mg/l	7/10/2008 19:55	200.7
2008070024	6	SS-10BB	6/30/2008	Sodium as Na (Dissolved)	17	mg/l	7/10/2008 19:55	200.7
2008070024	6	SS-10BB	6/30/2008	Sulfate as SO4	67	mg/l	7/16/2008	300
2008070024	6	SS-10BB	6/30/2008	Total Kjeldahl Nitrogen as N	0.9	mg/l	7/15/2008	351.2
2008070024	6	SS-10BB	6/30/2008	Zinc as Zn (Dissolved)	0.01	mg/l	7/10/2008	200.7
2008070024	6	SS-10BB	6/30/2008	Zinc as Zn (Total)	0.05	mg/l	7/9/2008	200.7
2008070024	7	SS-11C	6/30/2008	Alkalinity Bicarbonate as HCO3	106	mg/l	7/14/2008 14:10	2320B
2008070024	7	SS-11C	6/30/2008	Alkalinity Carbonate as CO3	0	mg/l	7/14/2008 14:10	2320B
2008070024	7	SS-11C	6/30/2008	Alkalinity Total as CaCO3	87	mg/l	7/14/2008	2320B
2008070024	7	SS-11C	6/30/2008	Ammonia (Undistilled) as N	0.08	mg/l	7/17/2008	350.1
2008070024	7	SS-11C	6/30/2008	Anions	4.24	meq/l	1/2/1900	1030F
2008070024	7	SS-11C	6/30/2008	Arsenic as As (Dissolved)	0.004	mg/l	7/11/2008 21:23	200.8
2008070024	7	SS-11C	6/30/2008	Arsenic as As (Total)	0.01	mg/l	7/10/2008 18:03	200.8
2008070024	7	SS-11C	6/30/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008 21:23	200.8
2008070024	7	SS-11C	6/30/2008	Cadmium as Cd (Total)	0.00042	mg/l	7/10/2008	200.8
2008070024	7	SS-11C	6/30/2008	Calcium as Ca (Dissolved)	43	mg/l	7/10/2008 20:04	200.7
2008070024	7	SS-11C	6/30/2008	Cation/Anion Balance	1.92	% [max 2%]	1/2/1900 0:00	AWWA/APHA
2008070024	7	SS-11C	6/30/2008	Cations	4.08	meq/l	1/2/1900 0:00	1030F
2008070024	7	SS-11C	6/30/2008	Chloride as Cl	27	mg/l	7/16/2008 13:38	300
2008070024	7	SS-11C	6/30/2008	Copper as Cu (Dissolved)	0.007	mg/l	7/11/2008 21:23	200.8
2008070024	7	SS-11C	6/30/2008	Copper as Cu (Total)	0.024	mg/l	7/10/2008	200.8
2008070024	7	SS-11C	6/30/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008070024	7	SS-11C	6/30/2008	Lead as Pb (Total)	0.0012	mg/l	7/10/2008	200.8
2008070024	7	SS-11C	6/30/2008	Magnesium as Mg (Dissolved)	10	mg/l	7/10/2008	200.7
2008070024	7	SS-11C	6/30/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	7/10/2008 20:04	200.7
2008070024	7	SS-11C	6/30/2008	Manganese as Mn (Total)	0.17	mg/l	7/9/2008 17:53	200.7
2008070024	7	SS-11C	6/30/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/11/2008	200.8
2008070024	7	SS-11C	6/30/2008	Mercury as Hg (Total)	0.00001	mg/l	7/23/2008	200.8
2008070024	7	SS-11C	6/30/2008	Metals Batch#/Digestion Date	1594	-----	7/8/2008	200.2
2008070024	7	SS-11C	6/30/2008	Nitrate + Nitrite as N	1.83	mg/l	7/11/2008	353.2
2008070024	7	SS-11C	6/30/2008	Phosphorus Total	0.31	mg/l	7/16/2008	4500-P-E
2008070024	7	SS-11C	6/30/2008	Potassium as K (Dissolved)	4	mg/l	7/10/2008	200.7
2008070024	7	SS-11C	6/30/2008	Sodium as Na (Dissolved)	23	mg/l	7/10/2008	200.7
2008070024	7	SS-11C	6/30/2008	Sulfate as SO4	77	mg/l	7/16/2008	300
2008070024	7	SS-11C	6/30/2008	Total Kjeldahl Nitrogen as N	0.8	mg/l	7/15/2008	351.2
2008070024	7	SS-11C	6/30/2008	Zinc as Zn (Dissolved)	0.02	mg/l	7/10/2008	200.7
2008070024	7	SS-11C	6/30/2008	Zinc as Zn (Total)	0.07	mg/l	7/9/2008	200.7
2008070024	13	SS-11D	6/30/2008	Alkalinity Bicarbonate as HCO3	109	mg/l	7/14/2008	2320B
2008070024	13	SS-11D	6/30/2008	Alkalinity Carbonate as CO3	0	mg/l	7/14/2008	2320B

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070024	13	SS-11D	6/30/2008	Alkalinity Total as CaCO3	89	mg/l	7/14/2008	2320B
2008070024	13	SS-11D	6/30/2008	Ammonia (Undistilled) as N	0.06	mg/l	7/17/2008	350.1
2008070024	13	SS-11D	6/30/2008	Anions	3.77	meq/l	1/2/1900	1030F
2008070024	13	SS-11D	6/30/2008	Arsenic as As (Dissolved)	0.006	mg/l	7/11/2008	200.8
2008070024	13	SS-11D	6/30/2008	Arsenic as As (Total)	0.014	mg/l	7/10/2008	200.8
2008070024	13	SS-11D	6/30/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008	200.8
2008070024	13	SS-11D	6/30/2008	Cadmium as Cd (Total)	0.00021	mg/l	7/10/2008	200.8
2008070024	13	SS-11D	6/30/2008	Calcium as Ca (Dissolved)	38	mg/l	7/10/2008	200.7
2008070024	13	SS-11D	6/30/2008	Cation/Anion Balance	0.94	% [max 2%]	1/2/1900	AWWA/APHA
2008070024	13	SS-11D	6/30/2008	Cations	3.7	meq/l	1/2/1900	1030F
2008070024	13	SS-11D	6/30/2008	Chloride as Cl	20	mg/l	7/18/2008	300
2008070024	13	SS-11D	6/30/2008	Copper as Cu (Dissolved)	0.006	mg/l	7/11/2008	200.8
2008070024	13	SS-11D	6/30/2008	Copper as Cu (Total)	0.019	mg/l	7/10/2008	200.8
2008070024	13	SS-11D	6/30/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008070024	13	SS-11D	6/30/2008	Lead as Pb (Total)	0.0013	mg/l	7/10/2008	200.8
2008070024	13	SS-11D	6/30/2008	Magnesium as Mg (Dissolved)	9	mg/l	7/10/2008	200.7
2008070024	13	SS-11D	6/30/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	7/10/2008	200.7
2008070024	13	SS-11D	6/30/2008	Manganese as Mn (Total)	0.15	mg/l	7/9/2008	200.7
2008070024	13	SS-11D	6/30/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/14/2008	200.8
2008070024	13	SS-11D	6/30/2008	Mercury as Hg (Total)	<0.00001	mg/l	7/23/2008	200.8
2008070024	13	SS-11D	6/30/2008	Metals Batch#/Digestion Date	1594	-----	7/8/2008	200.2
2008070024	13	SS-11D	6/30/2008	Nitrate + Nitrite as N	1.35	mg/l	7/11/2008	353.2
2008070024	13	SS-11D	6/30/2008	Phosphorus Total	0.27	mg/l	7/16/2008	4500-P-E
2008070024	13	SS-11D	6/30/2008	Potassium as K (Dissolved)	4	mg/l	7/10/2008	200.7
2008070024	13	SS-11D	6/30/2008	Sodium as Na (Dissolved)	22	mg/l	7/10/2008	200.7
2008070024	13	SS-11D	6/30/2008	Sulfate as SO4	64	mg/l	7/18/2008	300
2008070024	13	SS-11D	6/30/2008	Total Kjeldahl Nitrogen as N	0.9	mg/l	7/15/2008	351.2
2008070024	13	SS-11D	6/30/2008	Zinc as Zn (Dissolved)	0.01	mg/l	7/10/2008	200.7
2008070024	13	SS-11D	6/30/2008	Zinc as Zn (Total)	0.06	mg/l	7/9/2008	200.7
2008070024	3	SS-11D2	6/30/2008	Alkalinity Bicarbonate as HCO3	<1	mg/l	7/14/2008 14:10	2320B
2008070024	3	SS-11D2	6/30/2008	Alkalinity Carbonate as CO3	0	mg/l	7/14/2008	2320B
2008070024	3	SS-11D2	6/30/2008	Alkalinity Total as CaCO3	<1	mg/l	7/14/2008 14:10	2320B
2008070024	3	SS-11D2	6/30/2008	Ammonia (Undistilled) as N	<0.05	mg/l	7/17/2008 11:03	350.1
2008070024	3	SS-11D2	6/30/2008	Anions	<0.20	meq/l	1/2/1900	1030F
2008070024	3	SS-11D2	6/30/2008	Arsenic as As (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008070024	3	SS-11D2	6/30/2008	Arsenic as As (Total)	<0.003	mg/l	7/10/2008 17:20	200.8
2008070024	3	SS-11D2	6/30/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008 20:51	200.8
2008070024	3	SS-11D2	6/30/2008	Cadmium as Cd (Total)	<0.00008	mg/l	7/10/2008 17:20	200.8
2008070024	3	SS-11D2	6/30/2008	Calcium as Ca (Dissolved)	<1	mg/l	7/10/2008	200.7
2008070024	3	SS-11D2	6/30/2008	Cation/Anion Balance	NA	% [max 5%]	1/2/1900	AWWA/APHA
2008070024	3	SS-11D2	6/30/2008	Cations	<0.30	meq/l	1/2/1900 0:00	1030F
2008070024	3	SS-11D2	6/30/2008	Chloride as Cl	<1	mg/l	7/16/2008 8:21	300
2008070024	3	SS-11D2	6/30/2008	Copper as Cu (Dissolved)	<0.001	mg/l	7/11/2008 20:51	200.8
2008070024	3	SS-11D2	6/30/2008	Copper as Cu (Total)	<0.001	mg/l	7/10/2008	200.8
2008070024	3	SS-11D2	6/30/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008 20:51	200.8
2008070024	3	SS-11D2	6/30/2008	Lead as Pb (Total)	<0.0005	mg/l	7/10/2008	200.8
2008070024	3	SS-11D2	6/30/2008	Magnesium as Mg (Dissolved)	<1	mg/l	7/10/2008 19:37	200.7
2008070024	3	SS-11D2	6/30/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	7/10/2008 19:37	200.7

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070024	3	SS-11D2	6/30/2008	Manganese as Mn (Total)	<0.005	mg/l	7/9/2008 17:32	200.7
2008070024	3	SS-11D2	6/30/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/11/2008 13:20	200.8
2008070024	3	SS-11D2	6/30/2008	Mercury as Hg (Total)	<0.00001	mg/l	7/23/2008 16:28	200.8
2008070024	3	SS-11D2	6/30/2008	Metals Batch#/Digestion Date	1594	-----	7/8/2008	200.2
2008070024	3	SS-11D2	6/30/2008	Nitrate + Nitrite as N	0.01	mg/l	7/11/2008 14:00	353.2
2008070024	3	SS-11D2	6/30/2008	Phosphorus Total	<0.001	mg/l	7/16/2008	4500-P-E
2008070024	3	SS-11D2	6/30/2008	Potassium as K (Dissolved)	<1	mg/l	7/10/2008	200.7
2008070024	3	SS-11D2	6/30/2008	Sodium as Na (Dissolved)	<1	mg/l	7/10/2008	200.7
2008070024	3	SS-11D2	6/30/2008	Sulfate as SO4	<5	mg/l	7/16/2008 8:21	300
2008070024	3	SS-11D2	6/30/2008	Total Kjeldahl Nitrogen as N	<0.2	mg/l	7/15/2008	351.2
2008070024	3	SS-11D2	6/30/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	7/10/2008	200.7
2008070024	3	SS-11D2	6/30/2008	Zinc as Zn (Total)	<0.01	mg/l	7/9/2008	200.7
2008070024	12	SS-15A	6/30/2008	Alkalinity Bicarbonate as HCO3	112	mg/l	7/14/2008	2320B
2008070024	12	SS-15A	6/30/2008	Alkalinity Carbonate as CO3	0	mg/l	7/14/2008	2320B
2008070024	12	SS-15A	6/30/2008	Alkalinity Total as CaCO3	92	mg/l	7/14/2008	2320B
2008070024	12	SS-15A	6/30/2008	Ammonia (Undistilled) as N	<0.05	mg/l	7/17/2008	350.1
2008070024	12	SS-15A	6/30/2008	Anions	3.73	meq/l	1/2/1900	1030F
2008070024	12	SS-15A	6/30/2008	Arsenic as As (Dissolved)	0.008	mg/l	7/11/2008	200.8
2008070024	12	SS-15A	6/30/2008	Arsenic as As (Total)	0.02	mg/l	7/10/2008	200.8
2008070024	12	SS-15A	6/30/2008	Cadmium as Cd (Dissolved)	0.00009	mg/l	7/11/2008	200.8
2008070024	12	SS-15A	6/30/2008	Cadmium as Cd (Total)	0.00053	mg/l	7/10/2008	200.8
2008070024	12	SS-15A	6/30/2008	Calcium as Ca (Dissolved)	35	mg/l	7/10/2008	200.7
2008070024	12	SS-15A	6/30/2008	Cation/Anion Balance	0.31*	[max 0.20]	1/2/1900	AWWA/APHA
2008070024	12	SS-15A	6/30/2008	Cations	3.42	meq/l	1/2/1900	1030F
2008070024	12	SS-15A	6/30/2008	Chloride as Cl	19	mg/l	7/18/2008	300
2008070024	12	SS-15A	6/30/2008	Copper as Cu (Dissolved)	0.012	mg/l	7/11/2008	200.8
2008070024	12	SS-15A	6/30/2008	Copper as Cu (Total)	0.061	mg/l	7/10/2008	200.8
2008070024	12	SS-15A	6/30/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008070024	12	SS-15A	6/30/2008	Lead as Pb (Total)	0.013	mg/l	7/10/2008	200.8
2008070024	12	SS-15A	6/30/2008	Magnesium as Mg (Dissolved)	8	mg/l	7/10/2008	200.7
2008070024	12	SS-15A	6/30/2008	Manganese as Mn (Dissolved)	0.016	mg/l	7/10/2008	200.7
2008070024	12	SS-15A	6/30/2008	Manganese as Mn (Total)	0.18	mg/l	7/9/2008	200.7
2008070024	12	SS-15A	6/30/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/14/2008	200.8
2008070024	12	SS-15A	6/30/2008	Mercury as Hg (Total)	0.00007	mg/l	7/23/2008	200.8
2008070024	12	SS-15A	6/30/2008	Metals Batch#/Digestion Date	1594	-----	7/8/2008	200.2
2008070024	12	SS-15A	6/30/2008	Nitrate + Nitrite as N	1.24	mg/l	7/11/2008	353.2
2008070024	12	SS-15A	6/30/2008	Phosphorus Total	0.26	mg/l	7/16/2008	4500-P-E
2008070024	12	SS-15A	6/30/2008	Potassium as K (Dissolved)	4	mg/l	7/10/2008	200.7
2008070024	12	SS-15A	6/30/2008	Sodium as Na (Dissolved)	21	mg/l	7/10/2008	200.7
2008070024	12	SS-15A	6/30/2008	Sulfate as SO4	61	mg/l	7/18/2008	300
2008070024	12	SS-15A	6/30/2008	Total Kjeldahl Nitrogen as N	0.7	mg/l	7/15/2008	351.2
2008070024	12	SS-15A	6/30/2008	Zinc as Zn (Dissolved)	0.02	mg/l	7/10/2008	200.7
2008070024	12	SS-15A	6/30/2008	Zinc as Zn (Total)	0.12	mg/l	7/9/2008	200.7
2008070024	11	SS-15B	6/30/2008	Alkalinity Bicarbonate as HCO3	98	mg/l	7/14/2008	2320B
2008070024	11	SS-15B	6/30/2008	Alkalinity Carbonate as CO3	0	mg/l	7/14/2008	2320B
2008070024	11	SS-15B	6/30/2008	Alkalinity Total as CaCO3	80	mg/l	7/14/2008	2320B
2008070024	11	SS-15B	6/30/2008	Ammonia (Undistilled) as N	<0.05	mg/l	7/17/2008	350.1
2008070024	11	SS-15B	6/30/2008	Anions	3.29	meq/l	1/2/1900	1030F

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070024	11	SS-15B	6/30/2008	Arsenic as As (Dissolved)	0.009	mg/l	7/11/2008	200.8
2008070024	11	SS-15B	6/30/2008	Arsenic as As (Total)	0.019	mg/l	7/10/2008	200.8
2008070024	11	SS-15B	6/30/2008	Cadmium as Cd (Dissolved)	0.00022	mg/l	7/11/2008	200.8
2008070024	11	SS-15B	6/30/2008	Cadmium as Cd (Total)	0.00052	mg/l	7/10/2008	200.8
2008070024	11	SS-15B	6/30/2008	Calcium as Ca (Dissolved)	35	mg/l	7/10/2008	200.7
2008070024	11	SS-15B	6/30/2008	Cation/Anion Balance	1.35	% [max 2%]	1/2/1900	AWWA/APHA
2008070024	11	SS-15B	6/30/2008	Cations	3.38	meq/l	1/2/1900	1030F
2008070024	11	SS-15B	6/30/2008	Chloride as Cl	17	mg/l	7/16/2008	300
2008070024	11	SS-15B	6/30/2008	Copper as Cu (Dissolved)	0.023	mg/l	7/11/2008	200.8
2008070024	11	SS-15B	6/30/2008	Copper as Cu (Total)	0.058	mg/l	7/10/2008	200.8
2008070024	11	SS-15B	6/30/2008	Lead as Pb (Dissolved)	0.0046	mg/l	7/11/2008	200.8
2008070024	11	SS-15B	6/30/2008	Lead as Pb (Total)	0.014	mg/l	7/10/2008	200.8
2008070024	11	SS-15B	6/30/2008	Magnesium as Mg (Dissolved)	8	mg/l	7/10/2008	200.7
2008070024	11	SS-15B	6/30/2008	Manganese as Mn (Dissolved)	0.15	mg/l	7/10/2008	200.7
2008070024	11	SS-15B	6/30/2008	Manganese as Mn (Total)	0.16	mg/l	7/9/2008	200.7
2008070024	11	SS-15B	6/30/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/14/2008	200.8
2008070024	11	SS-15B	6/30/2008	Mercury as Hg (Total)	0.00007	mg/l	7/23/2008	200.8
2008070024	11	SS-15B	6/30/2008	Metals Batch#/Digestion Date	1594	-----	7/8/2008	200.2
2008070024	11	SS-15B	6/30/2008	Nitrate + Nitrite as N	1.15	mg/l	7/11/2008	353.2
2008070024	11	SS-15B	6/30/2008	Phosphorus Total	0.26	mg/l	7/16/2008	4500-P-E
2008070024	11	SS-15B	6/30/2008	Potassium as K (Dissolved)	4	mg/l	7/10/2008	200.7
2008070024	11	SS-15B	6/30/2008	Sodium as Na (Dissolved)	20	mg/l	7/10/2008	200.7
2008070024	11	SS-15B	6/30/2008	Sulfate as SO4	54	mg/l	7/16/2008	300
2008070024	11	SS-15B	6/30/2008	Total Kjeldahl Nitrogen as N	0.6	mg/l	7/15/2008	351.2
2008070024	11	SS-15B	6/30/2008	Zinc as Zn (Dissolved)	0.12	mg/l	7/10/2008	200.7
2008070024	11	SS-15B	6/30/2008	Zinc as Zn (Total)	0.12	mg/l	7/9/2008	200.7
2008070024	1	SS-15G	6/30/2008	Alkalinity Bicarbonate as HCO3	100	mg/l	7/14/2008	2320B
2008070024	1	SS-15G	6/30/2008	Alkalinity Carbonate as CO3	0	mg/l	7/14/2008	2320B
2008070024	1	SS-15G	6/30/2008	Alkalinity Total as CaCO3	82	mg/l	7/14/2008	2320B
2008070024	1	SS-15G	6/30/2008	Ammonia (Undistilled) as N	<0.05	mg/l	7/17/2008 10:58	350.1
2008070024	1	SS-15G	6/30/2008	Anions	2.32	meq/l	1/2/1900 0:00	1030F
2008070024	1	SS-15G	6/30/2008	Arsenic as As (Dissolved)	<0.003	mg/l	7/11/2008 20:22	200.8
2008070024	1	SS-15G	6/30/2008	Arsenic as As (Total)	0.004	mg/l	7/10/2008	200.8
2008070024	1	SS-15G	6/30/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008 20:22	200.8
2008070024	1	SS-15G	6/30/2008	Cadmium as Cd (Total)	<0.00008	mg/l	7/10/2008 17:01	200.8
2008070024	1	SS-15G	6/30/2008	Calcium as Ca (Dissolved)	33	mg/l	7/10/2008	200.7
2008070024	1	SS-15G	6/30/2008	Cation/Anion Balance	0.11	[max 0.20]	1/2/1900 0:00	AWWA/APHA
2008070024	1	SS-15G	6/30/2008	Cations	2.21	meq/l	1/2/1900 0:00	1030F
2008070024	1	SS-15G	6/30/2008	Chloride as Cl	2	mg/l	7/16/2008	300
2008070024	1	SS-15G	6/30/2008	Copper as Cu (Dissolved)	<0.001	mg/l	7/11/2008 20:22	200.8
2008070024	1	SS-15G	6/30/2008	Copper as Cu (Total)	0.002	mg/l	7/10/2008	200.8
2008070024	1	SS-15G	6/30/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008 20:22	200.8
2008070024	1	SS-15G	6/30/2008	Lead as Pb (Total)	<0.0005	mg/l	7/10/2008	200.8
2008070024	1	SS-15G	6/30/2008	Magnesium as Mg (Dissolved)	5	mg/l	7/10/2008	200.7
2008070024	1	SS-15G	6/30/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	7/10/2008	200.7
2008070024	1	SS-15G	6/30/2008	Manganese as Mn (Total)	0	mg/l	7/9/2008 17:23	200.7
2008070024	1	SS-15G	6/30/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/11/2008	200.8
2008070024	1	SS-15G	6/30/2008	Mercury as Hg (Total)	0.00001	mg/l	7/23/2008	200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070024	1	SS-15G	6/30/2008	Metals Batch#/Digestion Date	1594	-----	7/8/2008	200.2
2008070024	1	SS-15G	6/30/2008	Nitrate + Nitrite as N	<0.01	mg/l	7/11/2008 13:54	353.2
2008070024	1	SS-15G	6/30/2008	Phosphorus Total	0.04	mg/l	7/16/2008 16:30	4500-P-E
2008070024	1	SS-15G	6/30/2008	Potassium as K (Dissolved)	1	mg/l	7/10/2008 19:28	200.7
2008070024	1	SS-15G	6/30/2008	Sodium as Na (Dissolved)	3	mg/l	7/10/2008	200.7
2008070024	1	SS-15G	6/30/2008	Sulfate as SO4	30	mg/l	7/16/2008 4:17	300
2008070024	1	SS-15G	6/30/2008	Total Kjeldahl Nitrogen as N	<0.2	mg/l	7/15/2008 11:09	351.2
2008070024	1	SS-15G	6/30/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	7/10/2008	200.7
2008070024	1	SS-15G	6/30/2008	Zinc as Zn (Total)	<0.01	mg/l	7/9/2008 17:23	200.7
2008070024	2	SS-17D	6/30/2008	Alkalinity Bicarbonate as HCO3	91	mg/l	7/14/2008 14:10	2320B
2008070024	2	SS-17D	6/30/2008	Alkalinity Carbonate as CO3	8	mg/l	7/14/2008	2320B
2008070024	2	SS-17D	6/30/2008	Alkalinity Total as CaCO3	89	mg/l	7/14/2008 14:10	2320B
2008070024	2	SS-17D	6/30/2008	Ammonia (Undistilled) as N	<0.05	mg/l	7/17/2008	350.1
2008070024	2	SS-17D	6/30/2008	Anions	3.24	meq/l	1/2/1900 0:00	1030F
2008070024	2	SS-17D	6/30/2008	Arsenic as As (Dissolved)	0.007	mg/l	7/11/2008	200.8
2008070024	2	SS-17D	6/30/2008	Arsenic as As (Total)	0.016	mg/l	7/10/2008	200.8
2008070024	2	SS-17D	6/30/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008	200.8
2008070024	2	SS-17D	6/30/2008	Cadmium as Cd (Total)	0.00035	mg/l	7/10/2008 17:14	200.8
2008070024	2	SS-17D	6/30/2008	Calcium as Ca (Dissolved)	34	mg/l	7/10/2008	200.7
2008070024	2	SS-17D	6/30/2008	Cation/Anion Balance	0.28	[max 0.20]	1/2/1900	AWWA/APHA
2008070024	2	SS-17D	6/30/2008	Cations	2.96	meq/l	1/2/1900	1030F
2008070024	2	SS-17D	6/30/2008	Chloride as Cl	12	mg/l	7/16/2008 7:50	300
2008070024	2	SS-17D	6/30/2008	Copper as Cu (Dissolved)	0.01	mg/l	7/11/2008 20:46	200.8
2008070024	2	SS-17D	6/30/2008	Copper as Cu (Total)	0.043	mg/l	7/10/2008 17:14	200.8
2008070024	2	SS-17D	6/30/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008 20:46	200.8
2008070024	2	SS-17D	6/30/2008	Lead as Pb (Total)	0.0081	mg/l	7/10/2008 17:14	200.8
2008070024	2	SS-17D	6/30/2008	Magnesium as Mg (Dissolved)	7	mg/l	7/10/2008 19:34	200.7
2008070024	2	SS-17D	6/30/2008	Manganese as Mn (Dissolved)	0.032	mg/l	7/10/2008	200.7
2008070024	2	SS-17D	6/30/2008	Manganese as Mn (Total)	0.11	mg/l	7/9/2008 17:29	200.7
2008070024	2	SS-17D	6/30/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/11/2008 13:12	200.8
2008070024	2	SS-17D	6/30/2008	Mercury as Hg (Total)	0.00005	mg/l	7/23/2008 16:25	200.8
2008070024	2	SS-17D	6/30/2008	Metals Batch#/Digestion Date	1594	-----	7/8/2008 11:00	200.2
2008070024	2	SS-17D	6/30/2008	Nitrate + Nitrite as N	0.49	mg/l	7/11/2008	353.2
2008070024	2	SS-17D	6/30/2008	Phosphorus Total	0.2	mg/l	7/16/2008 16:30	4500-P-E
2008070024	2	SS-17D	6/30/2008	Potassium as K (Dissolved)	3	mg/l	7/10/2008 19:34	200.7
2008070024	2	SS-17D	6/30/2008	Sodium as Na (Dissolved)	14	mg/l	7/10/2008 19:34	200.7
2008070024	2	SS-17D	6/30/2008	Sulfate as SO4	52	mg/l	7/16/2008	300
2008070024	2	SS-17D	6/30/2008	Total Kjeldahl Nitrogen as N	0.6	mg/l	7/15/2008	351.2
2008070024	2	SS-17D	6/30/2008	Zinc as Zn (Dissolved)	0.01	mg/l	7/10/2008 19:34	200.7
2008070024	2	SS-17D	6/30/2008	Zinc as Zn (Total)	0.08	mg/l	7/9/2008 17:29	200.7
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Alkalinity Bicarbonate as HCO3	98	mg/l	7/14/2008	2320B
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Alkalinity Carbonate as CO3	0	mg/l	7/14/2008	2320B
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Alkalinity Total as CaCO3	80	mg/l	7/14/2008	2320B
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Ammonia (Undistilled) as N	<0.05	mg/l	7/17/2008	350.1
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Anions	2.28	meq/l	1/2/1900	1030F
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Arsenic as As (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Arsenic as As (Total)	0.005	mg/l	7/10/2008	200.8
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008	200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Cadmium as Cd (Total)	<0.00008	mg/l	7/10/2008	200.8
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Calcium as Ca (Dissolved)	32	mg/l	7/10/2008	200.7
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Cation/Anion Balance	0.12	[max 0.20]	1/2/1900	AWWA/APHA
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Cations	2.16	meq/l	1/2/1900	1030F
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Chloride as Cl	2	mg/l	7/16/2008	300
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Copper as Cu (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Copper as Cu (Total)	0.002	mg/l	7/10/2008	200.8
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Lead as Pb (Total)	<0.0005	mg/l	7/10/2008	200.8
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Magnesium as Mg (Dissolved)	5	mg/l	7/10/2008	200.7
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	7/10/2008	200.7
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Manganese as Mn (Total)	0.011	mg/l	7/9/2008	200.7
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/11/2008	200.8
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Mercury as Hg (Total)	<0.00001	mg/l	7/23/2008	200.8
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Metals Batch#/Digestion Date	1594	-----	7/8/2008	200.2
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Nitrate + Nitrite as N	0.01	mg/l	7/11/2008	353.2
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Phosphorus Total	0.04	mg/l	7/16/2008	4500-P-E
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Potassium as K (Dissolved)	1	mg/l	7/10/2008	200.7
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Sodium as Na (Dissolved)	3	mg/l	7/10/2008	200.7
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Sulfate as SO4	30	mg/l	7/16/2008	300
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Total Kjeldahl Nitrogen as N	<0.2	mg/l	7/15/2008	351.2
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	7/10/2008	200.7
2008070024	14	DUPLICATE OF 2008070024-1	6/30/2008	Zinc as Zn (Total)	<0.01	mg/l	7/9/2008	200.7
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Alkalinity Bicarbonate as HCO3	100	mg/l	7/14/2008	2320B
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Alkalinity Carbonate as CO3	0	mg/l	7/14/2008	2320B
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Alkalinity Total as CaCO3	82	mg/l	7/14/2008	2320B
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Ammonia (Undistilled) as N	0*	RPD [0-20]	7/17/2008	350.1
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Anions	3.3	meq/l	1/2/1900	1030F
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Arsenic as As (Dissolved)	0.009	mg/l	7/11/2008	200.8
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Arsenic as As (Total)	0.019	mg/l	7/10/2008	200.8
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Cadmium as Cd (Dissolved)	0.00023	mg/l	7/11/2008	200.8
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Cadmium as Cd (Total)	0.0005	mg/l	7/10/2008	200.8
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Calcium as Ca (Dissolved)	36	mg/l	7/10/2008	200.7
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Cation/Anion Balance	1.93	% [max 2%]	1/2/1900	AWWA/APHA
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Cations	3.43	meq/l	1/2/1900	1030F
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Chloride as Cl	17	mg/l	7/16/2008	300
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Copper as Cu (Dissolved)	0.024	mg/l	7/11/2008	200.8
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Copper as Cu (Total)	0.059	mg/l	7/10/2008	200.8
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Lead as Pb (Dissolved)	0.0047	mg/l	7/11/2008	200.8
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Lead as Pb (Total)	0.013	mg/l	7/10/2008	200.8
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Magnesium as Mg (Dissolved)	8	mg/l	7/10/2008	200.7
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Manganese as Mn (Dissolved)	0.15	mg/l	7/10/2008	200.7
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Manganese as Mn (Total)	0.16	mg/l	7/9/2008	200.7
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/14/2008	200.8
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Mercury as Hg (Total)	0*	RPD [0-20]	7/23/2008	200.8
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Metals Batch#/Digestion Date	1594	-----	7/8/2008	200.2
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Nitrate + Nitrite as N	1.12	mg/l	7/11/2008	353.2
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Phosphorus Total	0.27	mg/l	7/16/2008	4500-P-E

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Potassium as K (Dissolved)	4	mg/l	7/10/2008	200.7
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Sodium as Na (Dissolved)	20	mg/l	7/10/2008	200.7
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Sulfate as SO4	53	mg/l	7/16/2008	300
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Total Kjeldahl Nitrogen as N	17*	RPD [0-20]	7/15/2008	351.2
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Zinc as Zn (Dissolved)	0.12	mg/l	7/10/2008	200.7
2008070024	16	DUPLICATE OF 2008070024-11	6/30/2008	Zinc as Zn (Total)	0.12	mg/l	7/9/2008	200.7
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Alkalinity Bicarbonate as HCO3	NA	% [89-110]	7/14/2008	2320B
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Alkalinity Carbonate as CO3	NA	% [89-110]	7/14/2008	2320B
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Alkalinity Total as CaCO3	100	% [89-110]	7/14/2008	2320B
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Ammonia (Undistilled) as N	100	% [90-110]	7/17/2008	350.1
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Arsenic as As (Dissolved)	96	% [85-111]	7/11/2008	200.8
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Arsenic as As (Total)	102	% [85-115]	7/10/2008	200.8
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Cadmium as Cd (Dissolved)	99	% [86-113]	7/11/2008	200.8
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Cadmium as Cd (Total)	102	% [85-115]	7/10/2008	200.8
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Calcium as Ca (Dissolved)	99	% [91-114]	7/10/2008	200.7
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Chloride as Cl	100	% [90-110]	7/16/2008	300
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Copper as Cu (Dissolved)	96	% [85-114]	7/11/2008	200.8
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Copper as Cu (Total)	102	% [85-115]	7/10/2008	200.8
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Lead as Pb (Dissolved)	102	% [87-114]	7/11/2008	200.8
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Lead as Pb (Total)	104	% [85-115]	7/10/2008	200.8
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Magnesium as Mg (Dissolved)	101	% [89-112]	7/10/2008	200.7
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Manganese as Mn (Dissolved)	100	% [92-114]	7/10/2008	200.7
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Manganese as Mn (Total)	105	% [94-115]	7/9/2008	200.7
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Mercury as Hg (Dissolved)	96	% [85-115]	7/11/2008	200.8
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Mercury as Hg (Total)	105	% [85-115]	7/23/2008	200.8
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Metals Batch#/Digestion Date	1594	-----	7/8/2008	200.2
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Nitrate + Nitrite as N	106	% [90-110]	7/11/2008	353.2
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Phosphorus Total	102	% [77-119]	7/16/2008	4500-P-E
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Potassium as K (Dissolved)	90	% [86-114]	7/10/2008	200.7
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Sodium as Na (Dissolved)	88	% [87-112]	7/10/2008	200.7
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Sulfate as SO4	94	% [90-110]	7/16/2008	300
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Total Kjeldahl Nitrogen as N	106	% [78-128]	7/15/2008	351.2
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Zinc as Zn (Dissolved)	100	% [89-113]	7/10/2008	200.7
2008070024	18	LABORATORY CONTROL SAMPLE	1/2/1900	Zinc as Zn (Total)	110	% [89-115]	7/9/2008	200.7
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Alkalinity Bicarbonate as HCO3	NA	% [77-116]	7/14/2008	2320B
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Alkalinity Carbonate as CO3	NA	% [77-116]	7/14/2008	2320B
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Alkalinity Total as CaCO3	94	% [77-116]	7/14/2008	2320B
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Ammonia (Undistilled) as N	106	% [90-110]	7/17/2008	350.1
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Arsenic as As (Dissolved)	107	% [84-127]	7/11/2008	200.8
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Arsenic as As (Total)	102	% [79-124]	7/10/2008	200.8
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Cadmium as Cd (Dissolved)	102	% [81-116]	7/11/2008	200.8
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Cadmium as Cd (Total)	103	% [83-116]	7/10/2008	200.8
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Calcium as Ca (Dissolved)	99	% [78-122]	7/10/2008	200.7
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Chloride as Cl	111	% [84-124]	7/16/2008	300
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Copper as Cu (Dissolved)	104	% [70-114]	7/11/2008	200.8
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Copper as Cu (Total)	96	% [70-117]	7/10/2008	200.8
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Lead as Pb (Dissolved)	104	% [82-117]	7/11/2008	200.8
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Lead as Pb (Total)	106	% [81-121]	7/10/2008	200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Magnesium as Mg (Dissolved)	103	% [84-118]	7/10/2008	200.7
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Manganese as Mn (Dissolved)	102	% [81-114]	7/10/2008	200.7
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Manganese as Mn (Total)	98	% [78-121]	7/9/2008	200.7
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Mercury as Hg (Dissolved)	96	% [70-127]	7/11/2008	200.8
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Mercury as Hg (Total)	116	% [70-130]	7/23/2008	200.8
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Metals Batch#/Digestion Date	1594	-----	7/8/2008	200.2
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Nitrate + Nitrite as N	112 (4)	% [90-110]	7/11/2008	353.2
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Phosphorus Total	102	% [66-133]	7/16/2008	4500-P-E
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Potassium as K (Dissolved)	95	% [85-120]	7/10/2008	200.7
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Sodium as Na (Dissolved)	94	% [73-124]	7/10/2008	200.7
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Sulfate as SO4	104	% [84-124]	7/16/2008	300
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Total Kjeldahl Nitrogen as N	98*	% [61-128]	7/15/2008	351.2
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Zinc as Zn (Dissolved)	102	% [89-113]	7/10/2008	200.7
2008070024	15	MATRIX SPIKE 2008070024-6	6/30/2008	Zinc as Zn (Total)	106	% [84-121]	7/9/2008	200.7
2008070024	17	METHOD BLANK	1/2/1900	Alkalinity Bicarbonate as HCO3	<1	mg/l	7/14/2008	2320B
2008070024	17	METHOD BLANK	1/2/1900	Alkalinity Carbonate as CO3	0	mg/l	7/14/2008	2320B
2008070024	17	METHOD BLANK	1/2/1900	Alkalinity Total as CaCO3	<1	mg/l	7/14/2008	2320B
2008070024	17	METHOD BLANK	1/2/1900	Ammonia (Undistilled) as N	<0.05	mg/l	7/17/2008	350.1
2008070024	17	METHOD BLANK	1/2/1900	Arsenic as As (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008070024	17	METHOD BLANK	1/2/1900	Arsenic as As (Total)	<0.003	mg/l	7/10/2008	200.8
2008070024	17	METHOD BLANK	1/2/1900	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008	200.8
2008070024	17	METHOD BLANK	1/2/1900	Cadmium as Cd (Total)	<0.00008	mg/l	7/10/2008	200.8
2008070024	17	METHOD BLANK	1/2/1900	Calcium as Ca (Dissolved)	<1	mg/l	7/10/2008	200.7
2008070024	17	METHOD BLANK	1/2/1900	Chloride as Cl	<1	mg/l	7/16/2008	300
2008070024	17	METHOD BLANK	1/2/1900	Copper as Cu (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008070024	17	METHOD BLANK	1/2/1900	Copper as Cu (Total)	<0.001	mg/l	7/10/2008	200.8
2008070024	17	METHOD BLANK	1/2/1900	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008070024	17	METHOD BLANK	1/2/1900	Lead as Pb (Total)	<0.0005	mg/l	7/10/2008	200.8
2008070024	17	METHOD BLANK	1/2/1900	Magnesium as Mg (Dissolved)	<1	mg/l	7/10/2008	200.7
2008070024	17	METHOD BLANK	1/2/1900	Manganese as Mn (Dissolved)	<0.005	mg/l	7/10/2008	200.7
2008070024	17	METHOD BLANK	1/2/1900	Manganese as Mn (Total)	<0.005	mg/l	7/9/2008	200.7
2008070024	17	METHOD BLANK	1/2/1900	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/11/2008	200.8
2008070024	17	METHOD BLANK	1/2/1900	Mercury as Hg (Total)	<0.00001	mg/l	7/23/2008	200.8
2008070024	17	METHOD BLANK	1/2/1900	Metals Batch#/Digestion Date	1594	-----	7/8/2008	200.2
2008070024	17	METHOD BLANK	1/2/1900	Nitrate + Nitrite as N	<0.01	mg/l	7/11/2008	353.2
2008070024	17	METHOD BLANK	1/2/1900	Phosphorus Total	<0.001	mg/l	7/16/2008	4500-P-E
2008070024	17	METHOD BLANK	1/2/1900	Potassium as K (Dissolved)	<1	mg/l	7/10/2008	200.7
2008070024	17	METHOD BLANK	1/2/1900	Sodium as Na (Dissolved)	<1	mg/l	7/10/2008	200.7
2008070024	17	METHOD BLANK	1/2/1900	Sulfate as SO4	<5	mg/l	7/16/2008	300
2008070024	17	METHOD BLANK	1/2/1900	Total Kjeldahl Nitrogen as N	<0.2	mg/l	7/15/2008	351.2
2008070024	17	METHOD BLANK	1/2/1900	Zinc as Zn (Dissolved)	<0.01	mg/l	7/10/2008	200.7
2008070024	17	METHOD BLANK	1/2/1900	Zinc as Zn (Total)	<0.01	mg/l	7/9/2008	200.7
2008090200	10	SS-06G	9/17/2008	Alkalinity Bicarbonate as HCO3	130	mg/l	9/29/2008	2320B
2008090200	10	SS-06G	9/17/2008	Alkalinity Carbonate as CO3	0	mg/l	9/29/2008	2320B
2008090200	10	SS-06G	9/17/2008	Alkalinity Total as CaCO3	107	mg/l	9/29/2008	2320B
2008090200	10	SS-06G	9/17/2008	Ammonia (Undistilled) as N	<0.05	mg/l	9/23/2008	350.1 MOD
2008090200	10	SS-06G	9/17/2008	Anions	5.75	meq/l	1/2/1900	1030F
2008090200	10	SS-06G	9/17/2008	Arsenic as As (Dissolved)	0.003	mg/l	9/29/2008	200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090200	10	SS-06G	9/17/2008	Arsenic as As (Total)	0.006	mg/l	10/2/2008	200.8
2008090200	10	SS-06G	9/17/2008	Cadmium as Cd (Dissolved)	0.0001	mg/l	9/29/2008	200.8
2008090200	10	SS-06G	9/17/2008	Cadmium as Cd (Total)	0.00013	mg/l	10/6/2008	200.8
2008090200	10	SS-06G	9/17/2008	Calcium as Ca (Dissolved)	66	mg/l	9/23/2008	200.7
2008090200	10	SS-06G	9/17/2008	Cation/Anion Balance	0.44	% [max 2%]	1/2/1900	AWWA/APHA
2008090200	10	SS-06G	9/17/2008	Cations	5.7	meq/l	1/2/1900	1030F
2008090200	10	SS-06G	9/17/2008	Chloride as Cl	22	mg/l	10/5/2008	300
2008090200	10	SS-06G	9/17/2008	Copper as Cu (Dissolved)	0.005	mg/l	9/29/2008	200.8
2008090200	10	SS-06G	9/17/2008	Copper as Cu (Total)	0.007	mg/l	10/2/2008	200.8
2008090200	10	SS-06G	9/17/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	9/29/2008	200.8
2008090200	10	SS-06G	9/17/2008	Lead as Pb (Total)	0.0008	mg/l	10/2/2008	200.8
2008090200	10	SS-06G	9/17/2008	Magnesium as Mg (Dissolved)	15	mg/l	9/23/2008	200.7
2008090200	10	SS-06G	9/17/2008	Manganese as Mn (Dissolved)	0.048	mg/l	9/23/2008	200.7
2008090200	10	SS-06G	9/17/2008	Manganese as Mn (Total)	0.086	mg/l	9/29/2008	200.7
2008090200	10	SS-06G	9/17/2008	Mercury Batch #/Digest Date	1781	-----	10/1/2008	200.2
2008090200	10	SS-06G	9/17/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	9/30/2008	200.8
2008090200	10	SS-06G	9/17/2008	Mercury as Hg (Total)		mg/l		245.1
2008090200	10	SS-06G	9/17/2008	Metals Batch#/Digestion Date	1776	-----	9/26/2008	200.2
2008090200	10	SS-06G	9/17/2008	Nitrate + Nitrite as N	1.3	mg/l	10/10/2008	353.2
2008090200	10	SS-06G	9/17/2008	Phosphorus Total	0.068	mg/l	10/10/2008	4500 P-E
2008090200	10	SS-06G	9/17/2008	Potassium as K (Dissolved)	5	mg/l	9/23/2008	200.7
2008090200	10	SS-06G	9/17/2008	Sodium as Na (Dissolved)	24	mg/l	9/23/2008	200.7
2008090200	10	SS-06G	9/17/2008	Sulfate as SO4	139	mg/l	10/5/2008	300
2008090200	10	SS-06G	9/17/2008	Total Kjeldahl Nitrogen as N	<0.2	mg/l	9/29/2008	351.2
2008090200	10	SS-06G	9/17/2008	Zinc as Zn (Dissolved)	0.02	mg/l	9/23/2008	200.7
2008090200	10	SS-06G	9/17/2008	Zinc as Zn (Total)	0.04	mg/l	9/29/2008	200.7
2008090200	11	SS-07	9/17/2008	Alkalinity Bicarbonate as HCO3	136	mg/l	9/29/2008	2320B
2008090200	11	SS-07	9/17/2008	Alkalinity Carbonate as CO3	0	mg/l	9/29/2008	2320B
2008090200	11	SS-07	9/17/2008	Alkalinity Total as CaCO3	112	mg/l	9/29/2008	2320B
2008090200	11	SS-07	9/17/2008	Ammonia (Undistilled) as N	1.8	mg/l	9/23/2008	350.1 MOD
2008090200	11	SS-07	9/17/2008	Anions	5.64	meq/l	1/2/1900	1030F
2008090200	11	SS-07	9/17/2008	Arsenic as As (Dissolved)	<0.003	mg/l	9/29/2008	200.8
2008090200	11	SS-07	9/17/2008	Arsenic as As (Total)	0.005	mg/l	10/2/2008	200.8
2008090200	11	SS-07	9/17/2008	Cadmium as Cd (Dissolved)	0.00011	mg/l	9/29/2008	200.8
2008090200	11	SS-07	9/17/2008	Cadmium as Cd (Total)	0.00013	mg/l	10/6/2008	200.8
2008090200	11	SS-07	9/17/2008	Calcium as Ca (Dissolved)	63	mg/l	9/23/2008	200.7
2008090200	11	SS-07	9/17/2008	Cation/Anion Balance	0.97	% [max 2%]	1/2/1900	AWWA/APHA
2008090200	11	SS-07	9/17/2008	Cations	5.75	meq/l	1/2/1900	1030F
2008090200	11	SS-07	9/17/2008	Chloride as Cl	26	mg/l	10/5/2008	300
2008090200	11	SS-07	9/17/2008	Copper as Cu (Dissolved)	0.007	mg/l	9/29/2008	200.8
2008090200	11	SS-07	9/17/2008	Copper as Cu (Total)	0.008	mg/l	10/2/2008	200.8
2008090200	11	SS-07	9/17/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	9/29/2008	200.8
2008090200	11	SS-07	9/17/2008	Lead as Pb (Total)	0.0008	mg/l	10/2/2008	200.8
2008090200	11	SS-07	9/17/2008	Magnesium as Mg (Dissolved)	14	mg/l	9/23/2008	200.7
2008090200	11	SS-07	9/17/2008	Manganese as Mn (Dissolved)	0.047	mg/l	9/23/2008	200.7
2008090200	11	SS-07	9/17/2008	Manganese as Mn (Total)	0.077	mg/l	9/29/2008	200.7
2008090200	11	SS-07	9/17/2008	Mercury Batch #/Digest Date	1781	-----	10/1/2008	200.2
2008090200	11	SS-07	9/17/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	9/30/2008	200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090200	11	SS-07	9/17/2008	Mercury as Hg (Total)	<0.00005	mg/l	10/2/2008	200.8
2008090200	11	SS-07	9/17/2008	Metals Batch#/Digestion Date	1776	-----	9/26/2008	200.2
2008090200	11	SS-07	9/17/2008	Nitrate + Nitrite as N	1.15	mg/l	10/10/2008	353.2
2008090200	11	SS-07	9/17/2008	Phosphorus Total	0.303	mg/l	10/10/2008	4500 P-E
2008090200	11	SS-07	9/17/2008	Potassium as K (Dissolved)	6	mg/l	9/23/2008	200.7
2008090200	11	SS-07	9/17/2008	Sodium as Na (Dissolved)	27	mg/l	9/23/2008	200.7
2008090200	11	SS-07	9/17/2008	Sulfate as SO4	124	mg/l	10/5/2008	300
2008090200	11	SS-07	9/17/2008	Total Kjeldahl Nitrogen as N	2.2	mg/l	9/29/2008	351.2
2008090200	11	SS-07	9/17/2008	Zinc as Zn (Dissolved)	0.04	mg/l	9/23/2008	200.7
2008090200	11	SS-07	9/17/2008	Zinc as Zn (Total)	0.04	mg/l	9/29/2008	200.7
2008090200	9	SS-08	9/17/2008	Alkalinity Bicarbonate as HCO3	136	mg/l	9/29/2008	2320B
2008090200	9	SS-08	9/17/2008	Alkalinity Carbonate as CO3	0	mg/l	9/29/2008	2320B
2008090200	9	SS-08	9/17/2008	Alkalinity Total as CaCO3	112	mg/l	9/29/2008	2320B
2008090200	9	SS-08	9/17/2008	Ammonia (Undistilled) as N	2.1	mg/l	9/23/2008	350.1 MOD
2008090200	9	SS-08	9/17/2008	Anions	5.8	meq/l	1/2/1900	1030F
2008090200	9	SS-08	9/17/2008	Arsenic as As (Dissolved)	0.003	mg/l	9/29/2008	200.8
2008090200	9	SS-08	9/17/2008	Arsenic as As (Total)	0.006	mg/l	10/1/2008	200.8
2008090200	9	SS-08	9/17/2008	Cadmium as Cd (Dissolved)	0.00012	mg/l	9/29/2008	200.8
2008090200	9	SS-08	9/17/2008	Cadmium as Cd (Total)	0.00021	mg/l	10/6/2008	200.8
2008090200	9	SS-08	9/17/2008	Calcium as Ca (Dissolved)	62	mg/l	9/23/2008	200.7
2008090200	9	SS-08	9/17/2008	Cation/Anion Balance	0.26	% [max 2%]	1/2/1900	AWWA/APHA
2008090200	9	SS-08	9/17/2008	Cations	5.77	meq/l	1/2/1900	1030F
2008090200	9	SS-08	9/17/2008	Chloride as Cl	29	mg/l	10/5/2008	300
2008090200	9	SS-08	9/17/2008	Copper as Cu (Dissolved)	0.007	mg/l	9/29/2008	200.8
2008090200	9	SS-08	9/17/2008	Copper as Cu (Total)	0.014	mg/l	10/1/2008	200.8
2008090200	9	SS-08	9/17/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	9/29/2008	200.8
2008090200	9	SS-08	9/17/2008	Lead as Pb (Total)	0.0026	mg/l	10/1/2008	200.8
2008090200	9	SS-08	9/17/2008	Magnesium as Mg (Dissolved)	14	mg/l	9/23/2008	200.7
2008090200	9	SS-08	9/17/2008	Manganese as Mn (Dissolved)	0.13	mg/l	9/23/2008	200.7
2008090200	9	SS-08	9/17/2008	Manganese as Mn (Total)	0.34	mg/l	9/29/2008	200.7
2008090200	9	SS-08	9/17/2008	Mercury Batch #/Digest Date	1781	-----	10/1/2008	200.2
2008090200	9	SS-08	9/17/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	9/30/2008	200.8
2008090200	9	SS-08	9/17/2008	Mercury as Hg (Total)	<0.00005	mg/l	10/2/2008	200.8
2008090200	9	SS-08	9/17/2008	Metals Batch#/Digestion Date	1776	-----	9/26/2008	200.2
2008090200	9	SS-08	9/17/2008	Nitrate + Nitrite as N	1.94	mg/l	10/10/2008	353.2
2008090200	9	SS-08	9/17/2008	Phosphorus Total	0.508	mg/l	10/10/2008	4500 P-E
2008090200	9	SS-08	9/17/2008	Potassium as K (Dissolved)	6	mg/l	9/23/2008	200.7
2008090200	9	SS-08	9/17/2008	Sodium as Na (Dissolved)	30	mg/l	9/23/2008	200.7
2008090200	9	SS-08	9/17/2008	Sulfate as SO4	125	mg/l	10/5/2008	300
2008090200	9	SS-08	9/17/2008	Total Kjeldahl Nitrogen as N	2.6	mg/l	9/29/2008	351.2
2008090200	9	SS-08	9/17/2008	Zinc as Zn (Dissolved)	0.07	mg/l	9/23/2008	200.7
2008090200	9	SS-08	9/17/2008	Zinc as Zn (Total)	0.07	mg/l	9/29/2008	200.7
2008090200	8	SS-10A	9/17/2008	Alkalinity Bicarbonate as HCO3	127	mg/l	9/29/2008	2320B
2008090200	8	SS-10A	9/17/2008	Alkalinity Carbonate as CO3	0	mg/l	9/29/2008	2320B
2008090200	8	SS-10A	9/17/2008	Alkalinity Total as CaCO3	104	mg/l	9/29/2008	2320B
2008090200	8	SS-10A	9/17/2008	Ammonia (Undistilled) as N	0.68	mg/l	9/23/2008	350.1 MOD
2008090200	8	SS-10A	9/17/2008	Anions	5.68	meq/l	1/2/1900	1030F
2008090200	8	SS-10A	9/17/2008	Arsenic as As (Dissolved)	0.004	mg/l	9/29/2008	200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090200	8	SS-10A	9/17/2008	Arsenic as As (Total)	0.005	mg/l	10/1/2008	200.8
2008090200	8	SS-10A	9/17/2008	Cadmium as Cd (Dissolved)	0.00015	mg/l	9/29/2008	200.8
2008090200	8	SS-10A	9/17/2008	Cadmium as Cd (Total)	0.00023	mg/l	10/6/2008	200.8
2008090200	8	SS-10A	9/17/2008	Calcium as Ca (Dissolved)	62	mg/l	9/23/2008	200.7
2008090200	8	SS-10A	9/17/2008	Cation/Anion Balance	0.26	% [max 2%]	1/2/1900	AWWA/APHA
2008090200	8	SS-10A	9/17/2008	Cations	5.71	meq/l	1/2/1900	1030F
2008090200	8	SS-10A	9/17/2008	Chloride as Cl	29	mg/l	10/5/2008	300
2008090200	8	SS-10A	9/17/2008	Copper as Cu (Dissolved)	0.008	mg/l	9/29/2008	200.8
2008090200	8	SS-10A	9/17/2008	Copper as Cu (Total)	0.012	mg/l	10/1/2008	200.8
2008090200	8	SS-10A	9/17/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	9/29/2008	200.8
2008090200	8	SS-10A	9/17/2008	Lead as Pb (Total)	0.0012	mg/l	10/1/2008	200.8
2008090200	8	SS-10A	9/17/2008	Magnesium as Mg (Dissolved)	13	mg/l	9/23/2008	200.7
2008090200	8	SS-10A	9/17/2008	Manganese as Mn (Dissolved)	0.069	mg/l	9/23/2008	200.7
2008090200	8	SS-10A	9/17/2008	Manganese as Mn (Total)	0.17	mg/l	9/29/2008	200.7
2008090200	8	SS-10A	9/17/2008	Mercury Batch #/Digest Date	1781	-----	10/1/2008	200.2
2008090200	8	SS-10A	9/17/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	9/30/2008	200.8
2008090200	8	SS-10A	9/17/2008	Mercury as Hg (Total)	<0.00005	mg/l	10/2/2008	200.8
2008090200	8	SS-10A	9/17/2008	Metals Batch#/Digestion Date	1776	-----	9/26/2008	200.2
2008090200	8	SS-10A	9/17/2008	Nitrate + Nitrite as N	2.45	mg/l	10/10/2008	353.2
2008090200	8	SS-10A	9/17/2008	Phosphorus Total	0.442	mg/l	10/10/2008	4500 P-E
2008090200	8	SS-10A	9/17/2008	Potassium as K (Dissolved)	6	mg/l	9/23/2008	200.7
2008090200	8	SS-10A	9/17/2008	Sodium as Na (Dissolved)	31	mg/l	9/23/2008	200.7
2008090200	8	SS-10A	9/17/2008	Sulfate as SO4	125	mg/l	10/5/2008	300
2008090200	8	SS-10A	9/17/2008	Total Kjeldahl Nitrogen as N	1.2	mg/l	9/29/2008	351.2
2008090200	8	SS-10A	9/17/2008	Zinc as Zn (Dissolved)	0.06	mg/l	9/23/2008	200.7
2008090200	8	SS-10A	9/17/2008	Zinc as Zn (Total)	0.06	mg/l	9/29/2008	200.7
2008090200	5	SS-10B	9/16/2008	Alkalinity Bicarbonate as HCO3	130	mg/l	9/29/2008 14:00	2320B
2008090200	5	SS-10B	9/16/2008	Alkalinity Carbonate as CO3	0	mg/l	9/29/2008 14:00	2320B
2008090200	5	SS-10B	9/16/2008	Alkalinity Total as CaCO3	107	mg/l	9/29/2008 14:00	2320B
2008090200	5	SS-10B	9/16/2008	Ammonia (Undistilled) as N	0.73	mg/l	9/23/2008	350.1 MOD
2008090200	5	SS-10B	9/16/2008	Anions	5.75	meq/l	1/2/1900 0:00	1030F
2008090200	5	SS-10B	9/16/2008	Arsenic as As (Dissolved)	0.004	mg/l	9/29/2008	200.8
2008090200	5	SS-10B	9/16/2008	Arsenic as As (Total)	0.006	mg/l	10/1/2008	200.8
2008090200	5	SS-10B	9/16/2008	Cadmium as Cd (Dissolved)	0.00016	mg/l	9/29/2008	200.8
2008090200	5	SS-10B	9/16/2008	Cadmium as Cd (Total)	0.00022	mg/l	10/6/2008 18:41	200.8
2008090200	5	SS-10B	9/16/2008	Calcium as Ca (Dissolved)	62	mg/l	9/23/2008	200.7
2008090200	5	SS-10B	9/16/2008	Cation/Anion Balance	0.43	% [max 2%]	1/2/1900	AWWA/APHA
2008090200	5	SS-10B	9/16/2008	Cations	5.8	meq/l	1/2/1900	1030F
2008090200	5	SS-10B	9/16/2008	Chloride as Cl	30	mg/l	10/5/2008	300
2008090200	5	SS-10B	9/16/2008	Copper as Cu (Dissolved)	0.008	mg/l	9/29/2008 14:46	200.8
2008090200	5	SS-10B	9/16/2008	Copper as Cu (Total)	0.011	mg/l	10/1/2008 23:18	200.8
2008090200	5	SS-10B	9/16/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	9/29/2008	200.8
2008090200	5	SS-10B	9/16/2008	Lead as Pb (Total)	0.0012	mg/l	10/1/2008 23:18	200.8
2008090200	5	SS-10B	9/16/2008	Magnesium as Mg (Dissolved)	14	mg/l	9/23/2008 15:44	200.7
2008090200	5	SS-10B	9/16/2008	Manganese as Mn (Dissolved)	0.07	mg/l	9/23/2008	200.7
2008090200	5	SS-10B	9/16/2008	Manganese as Mn (Total)	0.17	mg/l	9/29/2008	200.7
2008090200	5	SS-10B	9/16/2008	Mercury Batch #/Digest Date	1781	-----	10/1/2008	200.2
2008090200	5	SS-10B	9/16/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	9/30/2008	200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090200	5	SS-10B	9/16/2008	Mercury as Hg (Total)	<0.00005	mg/l	10/2/2008 12:08	200.8
2008090200	5	SS-10B	9/16/2008	Metals Batch#/Digestion Date	1776	-----	9/26/2008 17:00	200.2
2008090200	5	SS-10B	9/16/2008	Nitrate + Nitrite as N	2.6	mg/l	10/10/2008	353.2
2008090200	5	SS-10B	9/16/2008	Phosphorus Total	0.429	mg/l	10/10/2008	4500 P-E
2008090200	5	SS-10B	9/16/2008	Potassium as K (Dissolved)	6	mg/l	9/23/2008	200.7
2008090200	5	SS-10B	9/16/2008	Sodium as Na (Dissolved)	31	mg/l	9/23/2008 15:44	200.7
2008090200	5	SS-10B	9/16/2008	Sulfate as SO4	124	mg/l	10/5/2008 16:57	300
2008090200	5	SS-10B	9/16/2008	Total Kjeldahl Nitrogen as N	1.3	mg/l	9/29/2008 17:55	351.2
2008090200	5	SS-10B	9/16/2008	Zinc as Zn (Dissolved)	0.05	mg/l	9/23/2008	200.7
2008090200	5	SS-10B	9/16/2008	Zinc as Zn (Total)	0.06	mg/l	9/29/2008 15:57	200.7
2008090200	6	SS-11C	9/16/2008	Alkalinity Bicarbonate as HCO3	133	mg/l	9/29/2008 14:00	2320B
2008090200	6	SS-11C	9/16/2008	Alkalinity Carbonate as CO3	3	mg/l	9/29/2008	2320B
2008090200	6	SS-11C	9/16/2008	Alkalinity Total as CaCO3	114	mg/l	9/29/2008 14:00	2320B
2008090200	6	SS-11C	9/16/2008	Ammonia (Undistilled) as N	0.12	mg/l	9/23/2008 11:45	350.1 MOD
2008090200	6	SS-11C	9/16/2008	Anions	6.41	meq/l	1/2/1900	1030F
2008090200	6	SS-11C	9/16/2008	Arsenic as As (Dissolved)	0.005	mg/l	9/29/2008	200.8
2008090200	6	SS-11C	9/16/2008	Arsenic as As (Total)	0.007	mg/l	10/1/2008	200.8
2008090200	6	SS-11C	9/16/2008	Cadmium as Cd (Dissolved)	0.0002	mg/l	9/29/2008	200.8
2008090200	6	SS-11C	9/16/2008	Cadmium as Cd (Total)	0.00031	mg/l	10/1/2008 23:24	200.8
2008090200	6	SS-11C	9/16/2008	Calcium as Ca (Dissolved)	64	mg/l	9/23/2008 15:47	200.7
2008090200	6	SS-11C	9/16/2008	Cation/Anion Balance	1.1	% [max 5%]	1/2/1900	AWWA/APHA
2008090200	6	SS-11C	9/16/2008	Cations	6.27	meq/l	1/2/1900	1030F
2008090200	6	SS-11C	9/16/2008	Chloride as Cl	39	mg/l	10/5/2008	300
2008090200	6	SS-11C	9/16/2008	Copper as Cu (Dissolved)	0.011	mg/l	9/29/2008 14:52	200.8
2008090200	6	SS-11C	9/16/2008	Copper as Cu (Total)	0.017	mg/l	10/1/2008 23:24	200.8
2008090200	6	SS-11C	9/16/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	9/29/2008 14:52	200.8
2008090200	6	SS-11C	9/16/2008	Lead as Pb (Total)	0.0013	mg/l	10/1/2008	200.8
2008090200	6	SS-11C	9/16/2008	Magnesium as Mg (Dissolved)	14	mg/l	9/23/2008 15:47	200.7
2008090200	6	SS-11C	9/16/2008	Manganese as Mn (Dissolved)	0.039	mg/l	9/23/2008 15:47	200.7
2008090200	6	SS-11C	9/16/2008	Manganese as Mn (Total)	0.2	mg/l	9/29/2008	200.7
2008090200	6	SS-11C	9/16/2008	Mercury Batch #/Digest Date	1781	-----	10/1/2008 16:00	200.2
2008090200	6	SS-11C	9/16/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	9/30/2008 13:11	200.8
2008090200	6	SS-11C	9/16/2008	Mercury as Hg (Total)	<0.00005	mg/l	10/2/2008	200.8
2008090200	6	SS-11C	9/16/2008	Metals Batch#/Digestion Date	1776	-----	9/26/2008	200.2
2008090200	6	SS-11C	9/16/2008	Nitrate + Nitrite as N	2.52	mg/l	10/10/2008	353.2
2008090200	6	SS-11C	9/16/2008	Phosphorus Total	0.415	mg/l	10/10/2008	4500 P-E
2008090200	6	SS-11C	9/16/2008	Potassium as K (Dissolved)	7	mg/l	9/23/2008 15:47	200.7
2008090200	6	SS-11C	9/16/2008	Sodium as Na (Dissolved)	40	mg/l	9/23/2008 15:47	200.7
2008090200	6	SS-11C	9/16/2008	Sulfate as SO4	137	mg/l	10/5/2008	300
2008090200	6	SS-11C	9/16/2008	Total Kjeldahl Nitrogen as N	0.7	mg/l	9/29/2008	351.2
2008090200	6	SS-11C	9/16/2008	Zinc as Zn (Dissolved)	0.03	mg/l	9/23/2008	200.7
2008090200	6	SS-11C	9/16/2008	Zinc as Zn (Total)	0.08	mg/l	9/29/2008 16:06	200.7
2008090200	7	SS-11D	9/16/2008	Alkalinity Bicarbonate as HCO3	130	mg/l	9/29/2008 14:00	2320B
2008090200	7	SS-11D	9/16/2008	Alkalinity Carbonate as CO3	3	mg/l	9/29/2008 14:00	2320B
2008090200	7	SS-11D	9/16/2008	Alkalinity Total as CaCO3	112	mg/l	9/29/2008	2320B
2008090200	7	SS-11D	9/16/2008	Ammonia (Undistilled) as N	0.07	mg/l	9/23/2008 11:48	350.1 MOD
2008090200	7	SS-11D	9/16/2008	Anions	6.37	meq/l	1/2/1900 0:00	1030F
2008090200	7	SS-11D	9/16/2008	Arsenic as As (Dissolved)	0.006	mg/l	9/29/2008 15:20	200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090200	7	SS-11D	9/16/2008	Arsenic as As (Total)	0.008	mg/l	10/1/2008 23:37	200.8
2008090200	7	SS-11D	9/16/2008	Cadmium as Cd (Dissolved)	0.0002	mg/l	9/29/2008 15:20	200.8
2008090200	7	SS-11D	9/16/2008	Cadmium as Cd (Total)	0.00038	mg/l	10/1/2008	200.8
2008090200	7	SS-11D	9/16/2008	Calcium as Ca (Dissolved)	64	mg/l	9/23/2008	200.7
2008090200	7	SS-11D	9/16/2008	Cation/Anion Balance	0.79	% [max 2%]	1/2/1900	AWWA/APHA
2008090200	7	SS-11D	9/16/2008	Cations	6.27	meq/l	1/2/1900	1030F
2008090200	7	SS-11D	9/16/2008	Chloride as Cl	39	mg/l	10/5/2008 18:28	300
2008090200	7	SS-11D	9/16/2008	Copper as Cu (Dissolved)	0.01	mg/l	9/29/2008 15:20	200.8
2008090200	7	SS-11D	9/16/2008	Copper as Cu (Total)	0.016	mg/l	10/1/2008	200.8
2008090200	7	SS-11D	9/16/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	9/29/2008	200.8
2008090200	7	SS-11D	9/16/2008	Lead as Pb (Total)	0.0012	mg/l	10/1/2008	200.8
2008090200	7	SS-11D	9/16/2008	Magnesium as Mg (Dissolved)	14	mg/l	9/23/2008	200.7
2008090200	7	SS-11D	9/16/2008	Manganese as Mn (Dissolved)	0.042	mg/l	9/23/2008	200.7
2008090200	7	SS-11D	9/16/2008	Manganese as Mn (Total)	0.19	mg/l	9/29/2008	200.7
2008090200	7	SS-11D	9/16/2008	Mercury Batch #/Digest Date	1781	-----	10/1/2008	200.2
2008090200	7	SS-11D	9/16/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	9/30/2008	200.8
2008090200	7	SS-11D	9/16/2008	Mercury as Hg (Total)	<0.00005	mg/l	10/2/2008	200.8
2008090200	7	SS-11D	9/16/2008	Metals Batch#/Digestion Date	1776	-----	9/26/2008	200.2
2008090200	7	SS-11D	9/16/2008	Nitrate + Nitrite as N	2.46	mg/l	10/10/2008	353.2
2008090200	7	SS-11D	9/16/2008	Phosphorus Total	0.415	mg/l	10/10/2008	4500 P-E
2008090200	7	SS-11D	9/16/2008	Potassium as K (Dissolved)	7	mg/l	9/23/2008	200.7
2008090200	7	SS-11D	9/16/2008	Sodium as Na (Dissolved)	40	mg/l	9/23/2008	200.7
2008090200	7	SS-11D	9/16/2008	Sulfate as SO4	137	mg/l	10/5/2008	300
2008090200	7	SS-11D	9/16/2008	Total Kjeldahl Nitrogen as N	0.6	mg/l	9/29/2008	351.2
2008090200	7	SS-11D	9/16/2008	Zinc as Zn (Dissolved)	0.04	mg/l	9/23/2008	200.7
2008090200	7	SS-11D	9/16/2008	Zinc as Zn (Total)	0.08	mg/l	9/29/2008	200.7
2008090200	4	SS-15A	9/16/2008	Alkalinity Bicarbonate as HCO3	139	mg/l	9/29/2008	2320B
2008090200	4	SS-15A	9/16/2008	Alkalinity Carbonate as CO3	0	mg/l	9/29/2008	2320B
2008090200	4	SS-15A	9/16/2008	Alkalinity Total as CaCO3	114	mg/l	9/29/2008	2320B
2008090200	4	SS-15A	9/16/2008	Ammonia (Undistilled) as N	<0.05	mg/l	9/23/2008	350.1 MOD
2008090200	4	SS-15A	9/16/2008	Anions	5.98	meq/l	1/2/1900 0:00	1030F
2008090200	4	SS-15A	9/16/2008	Arsenic as As (Dissolved)	0.009	mg/l	9/29/2008 14:40	200.8
2008090200	4	SS-15A	9/16/2008	Arsenic as As (Total)	0.011	mg/l	10/1/2008	200.8
2008090200	4	SS-15A	9/16/2008	Cadmium as Cd (Dissolved)	0.00042	mg/l	9/29/2008	200.8
2008090200	4	SS-15A	9/16/2008	Cadmium as Cd (Total)	0.00068	mg/l	10/1/2008 23:12	200.8
2008090200	4	SS-15A	9/16/2008	Calcium as Ca (Dissolved)	61	mg/l	9/23/2008	200.7
2008090200	4	SS-15A	9/16/2008	Cation/Anion Balance	0.25	% [max 2%]	1/2/1900	AWWA/APHA
2008090200	4	SS-15A	9/16/2008	Cations	5.95	meq/l	1/2/1900 0:00	1030F
2008090200	4	SS-15A	9/16/2008	Chloride as Cl	36	mg/l	10/5/2008 16:26	300
2008090200	4	SS-15A	9/16/2008	Copper as Cu (Dissolved)	0.021	mg/l	9/29/2008 14:40	200.8
2008090200	4	SS-15A	9/16/2008	Copper as Cu (Total)	0.051	mg/l	10/1/2008	200.8
2008090200	4	SS-15A	9/16/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	9/29/2008 14:40	200.8
2008090200	4	SS-15A	9/16/2008	Lead as Pb (Total)	0.0077	mg/l	10/1/2008 23:12	200.8
2008090200	4	SS-15A	9/16/2008	Magnesium as Mg (Dissolved)	13	mg/l	9/23/2008	200.7
2008090200	4	SS-15A	9/16/2008	Manganese as Mn (Dissolved)	0.047	mg/l	9/23/2008	200.7
2008090200	4	SS-15A	9/16/2008	Manganese as Mn (Total)	0.14	mg/l	9/29/2008 15:54	200.7
2008090200	4	SS-15A	9/16/2008	Mercury Batch #/Digest Date	1781	-----	10/1/2008 16:00	200.2
2008090200	4	SS-15A	9/16/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	9/30/2008 13:00	200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090200	4	SS-15A	9/16/2008	Mercury as Hg (Total)	<0.00005	mg/l	10/2/2008	200.8
2008090200	4	SS-15A	9/16/2008	Metals Batch#/Digestion Date	1776	-----	9/26/2008	200.2
2008090200	4	SS-15A	9/16/2008	Nitrate + Nitrite as N	2.57	mg/l	10/10/2008 14:49	353.2
2008090200	4	SS-15A	9/16/2008	Phosphorus Total	0.455	mg/l	10/10/2008 9:10	4500 P-E
2008090200	4	SS-15A	9/16/2008	Potassium as K (Dissolved)	7	mg/l	9/23/2008 15:41	200.7
2008090200	4	SS-15A	9/16/2008	Sodium as Na (Dissolved)	38	mg/l	9/23/2008	200.7
2008090200	4	SS-15A	9/16/2008	Sulfate as SO4	120	mg/l	10/5/2008 16:26	300
2008090200	4	SS-15A	9/16/2008	Total Kjeldahl Nitrogen as N	0.6	mg/l	9/29/2008	351.2
2008090200	4	SS-15A	9/16/2008	Zinc as Zn (Dissolved)	0.1	mg/l	9/23/2008 15:41	200.7
2008090200	4	SS-15A	9/16/2008	Zinc as Zn (Total)	0.21	mg/l	9/29/2008 15:54	200.7
2008090200	3	SS-15B	9/16/2008	Alkalinity Bicarbonate as HCO3	136	mg/l	9/29/2008 14:00	2320B
2008090200	3	SS-15B	9/16/2008	Alkalinity Carbonate as CO3	0	mg/l	9/29/2008 14:00	2320B
2008090200	3	SS-15B	9/16/2008	Alkalinity Total as CaCO3	112	mg/l	9/29/2008	2320B
2008090200	3	SS-15B	9/16/2008	Ammonia (Undistilled) as N	<0.05	mg/l	9/23/2008	350.1 MOD
2008090200	3	SS-15B	9/16/2008	Anions	5.84	meq/l	1/2/1900 0:00	1030F
2008090200	3	SS-15B	9/16/2008	Arsenic as As (Dissolved)	0.008	mg/l	9/29/2008 14:34	200.8
2008090200	3	SS-15B	9/16/2008	Arsenic as As (Total)	0.011	mg/l	10/1/2008 23:06	200.8
2008090200	3	SS-15B	9/16/2008	Cadmium as Cd (Dissolved)	0.00041	mg/l	9/29/2008	200.8
2008090200	3	SS-15B	9/16/2008	Cadmium as Cd (Total)	0.0007	mg/l	10/1/2008	200.8
2008090200	3	SS-15B	9/16/2008	Calcium as Ca (Dissolved)	60	mg/l	9/23/2008 15:37	200.7
2008090200	3	SS-15B	9/16/2008	Cation/Anion Balance	0.09	% [max 2%]	1/2/1900 0:00	AWWA/APHA
2008090200	3	SS-15B	9/16/2008	Cations	5.85	meq/l	1/2/1900 0:00	1030F
2008090200	3	SS-15B	9/16/2008	Chloride as Cl	35	mg/l	10/5/2008	300
2008090200	3	SS-15B	9/16/2008	Copper as Cu (Dissolved)	0.021	mg/l	9/29/2008 14:34	200.8
2008090200	3	SS-15B	9/16/2008	Copper as Cu (Total)	0.053	mg/l	10/1/2008	200.8
2008090200	3	SS-15B	9/16/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	9/29/2008 14:34	200.8
2008090200	3	SS-15B	9/16/2008	Lead as Pb (Total)	0.0084	mg/l	10/1/2008 23:06	200.8
2008090200	3	SS-15B	9/16/2008	Magnesium as Mg (Dissolved)	13	mg/l	9/23/2008 15:37	200.7
2008090200	3	SS-15B	9/16/2008	Manganese as Mn (Dissolved)	0.047	mg/l	9/23/2008 15:37	200.7
2008090200	3	SS-15B	9/16/2008	Manganese as Mn (Total)	0.14	mg/l	9/29/2008 15:52	200.7
2008090200	3	SS-15B	9/16/2008	Mercury Batch #/Digest Date	1781	-----	10/1/2008	200.2
2008090200	3	SS-15B	9/16/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	9/30/2008 12:57	200.8
2008090200	3	SS-15B	9/16/2008	Mercury as Hg (Total)	<0.00005	mg/l	10/2/2008	200.8
2008090200	3	SS-15B	9/16/2008	Metals Batch#/Digestion Date	1776	-----	9/26/2008	200.2
2008090200	3	SS-15B	9/16/2008	Nitrate + Nitrite as N	2.54	mg/l	10/10/2008	353.2
2008090200	3	SS-15B	9/16/2008	Phosphorus Total	0.448	mg/l	10/10/2008 9:10	4500 P-E
2008090200	3	SS-15B	9/16/2008	Potassium as K (Dissolved)	7	mg/l	9/23/2008	200.7
2008090200	3	SS-15B	9/16/2008	Sodium as Na (Dissolved)	37	mg/l	9/23/2008	200.7
2008090200	3	SS-15B	9/16/2008	Sulfate as SO4	117	mg/l	10/5/2008	300
2008090200	3	SS-15B	9/16/2008	Total Kjeldahl Nitrogen as N	0.4	mg/l	9/29/2008 17:52	351.2
2008090200	3	SS-15B	9/16/2008	Zinc as Zn (Dissolved)	0.1	mg/l	9/23/2008 15:37	200.7
2008090200	3	SS-15B	9/16/2008	Zinc as Zn (Total)	0.2	mg/l	9/29/2008	200.7
2008090200	2	SS-15G	9/16/2008	Alkalinity Bicarbonate as HCO3	139	mg/l	9/29/2008	2320B
2008090200	2	SS-15G	9/16/2008	Alkalinity Carbonate as CO3	0	mg/l	9/29/2008 14:00	2320B
2008090200	2	SS-15G	9/16/2008	Alkalinity Total as CaCO3	114	mg/l	9/29/2008	2320B
2008090200	2	SS-15G	9/16/2008	Ammonia (Undistilled) as N	<0.05	mg/l	9/23/2008 11:39	350.1 MOD
2008090200	2	SS-15G	9/16/2008	Anions	3.04	meq/l	1/2/1900	1030F
2008090200	2	SS-15G	9/16/2008	Arsenic as As (Dissolved)	<0.003	mg/l	9/29/2008	200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090200	2	SS-15G	9/16/2008	Arsenic as As (Total)	0.004	mg/l	10/1/2008	200.8
2008090200	2	SS-15G	9/16/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	9/29/2008 14:28	200.8
2008090200	2	SS-15G	9/16/2008	Cadmium as Cd (Total)	<0.00008	mg/l	10/6/2008	200.8
2008090200	2	SS-15G	9/16/2008	Calcium as Ca (Dissolved)	46	mg/l	9/23/2008	200.7
2008090200	2	SS-15G	9/16/2008	Cation/Anion Balance	0.14	[max 0.20]	1/2/1900	AWWA/APHA
2008090200	2	SS-15G	9/16/2008	Cations	3.18	meq/l	1/2/1900 0:00	1030F
2008090200	2	SS-15G	9/16/2008	Chloride as Cl	1	mg/l	10/5/2008 15:25	300
2008090200	2	SS-15G	9/16/2008	Copper as Cu (Dissolved)	0.001	mg/l	9/29/2008 14:28	200.8
2008090200	2	SS-15G	9/16/2008	Copper as Cu (Total)	<0.001	mg/l	10/6/2008 18:37	200.8
2008090200	2	SS-15G	9/16/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	9/29/2008 14:28	200.8
2008090200	2	SS-15G	9/16/2008	Lead as Pb (Total)	<0.0005	mg/l	10/1/2008 23:00	200.8
2008090200	2	SS-15G	9/16/2008	Magnesium as Mg (Dissolved)	8	mg/l	9/23/2008	200.7
2008090200	2	SS-15G	9/16/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	9/23/2008 15:25	200.7
2008090200	2	SS-15G	9/16/2008	Manganese as Mn (Total)	<0.005	mg/l	9/29/2008 15:49	200.7
2008090200	2	SS-15G	9/16/2008	Mercury Batch #/Digest Date	1781	-----	10/1/2008 16:00	200.2
2008090200	2	SS-15G	9/16/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	9/30/2008 12:54	200.8
2008090200	2	SS-15G	9/16/2008	Mercury as Hg (Total)	<0.00005	mg/l	10/2/2008	200.8
2008090200	2	SS-15G	9/16/2008	Metals Batch#/Digestion Date	1776	-----	9/26/2008 17:00	200.2
2008090200	2	SS-15G	9/16/2008	Nitrate + Nitrite as N	0.02	mg/l	10/10/2008 13:39	353.2
2008090200	2	SS-15G	9/16/2008	Phosphorus Total	0.029	mg/l	10/10/2008 9:10	4500 P-E
2008090200	2	SS-15G	9/16/2008	Potassium as K (Dissolved)	2	mg/l	9/23/2008	200.7
2008090200	2	SS-15G	9/16/2008	Sodium as Na (Dissolved)	4	mg/l	9/23/2008	200.7
2008090200	2	SS-15G	9/16/2008	Sulfate as SO4	35	mg/l	10/5/2008 15:25	300
2008090200	2	SS-15G	9/16/2008	Total Kjeldahl Nitrogen as N	<0.2	mg/l	9/29/2008 17:50	351.2
2008090200	2	SS-15G	9/16/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	9/23/2008 15:25	200.7
2008090200	2	SS-15G	9/16/2008	Zinc as Zn (Total)	<0.01	mg/l	9/29/2008	200.7
2008090200	13	SS-17	9/17/2008	Alkalinity Bicarbonate as HCO3	106	mg/l	9/29/2008	2320B
2008090200	13	SS-17	9/17/2008	Alkalinity Carbonate as CO3	15	mg/l	9/29/2008	2320B
2008090200	13	SS-17	9/17/2008	Alkalinity Total as CaCO3	112	mg/l	9/29/2008	2320B
2008090200	13	SS-17	9/17/2008	Ammonia (Undistilled) as N	<0.05	mg/l	9/23/2008	350.1 MOD
2008090200	13	SS-17	9/17/2008	Anions	5.8	meq/l	1/2/1900	1030F
2008090200	13	SS-17	9/17/2008	Arsenic as As (Dissolved)	0.011	mg/l	9/29/2008	200.8
2008090200	13	SS-17	9/17/2008	Arsenic as As (Total)	0.013	mg/l	10/2/2008	200.8
2008090200	13	SS-17	9/17/2008	Cadmium as Cd (Dissolved)	0.00033	mg/l	9/29/2008	200.8
2008090200	13	SS-17	9/17/2008	Cadmium as Cd (Total)	0.00059	mg/l	10/2/2008	200.8
2008090200	13	SS-17	9/17/2008	Calcium as Ca (Dissolved)	60	mg/l	9/23/2008	200.7
2008090200	13	SS-17	9/17/2008	Cation/Anion Balance	0.52	% [max 2%]	1/2/1900	AWWA/APHA
2008090200	13	SS-17	9/17/2008	Cations	5.74	meq/l	1/2/1900	1030F
2008090200	13	SS-17	9/17/2008	Chloride as Cl	33	mg/l	10/5/2008	300
2008090200	13	SS-17	9/17/2008	Copper as Cu (Dissolved)	0.022	mg/l	9/29/2008	200.8
2008090200	13	SS-17	9/17/2008	Copper as Cu (Total)	0.047	mg/l	10/2/2008	200.8
2008090200	13	SS-17	9/17/2008	Lead as Pb (Dissolved)	0.0005	mg/l	9/29/2008	200.8
2008090200	13	SS-17	9/17/2008	Lead as Pb (Total)	0.0064	mg/l	10/2/2008	200.8
2008090200	13	SS-17	9/17/2008	Magnesium as Mg (Dissolved)	13	mg/l	9/23/2008	200.7
2008090200	13	SS-17	9/17/2008	Manganese as Mn (Dissolved)	0.024	mg/l	9/23/2008	200.7
2008090200	13	SS-17	9/17/2008	Manganese as Mn (Total)	0.11	mg/l	9/29/2008	200.7
2008090200	13	SS-17	9/17/2008	Mercury Batch #/Digest Date	1781	-----	10/1/2008	200.2
2008090200	13	SS-17	9/17/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	9/30/2008	200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090200	13	SS-17	9/17/2008	Mercury as Hg (Total)	<0.00005	mg/l	10/2/2008	200.8
2008090200	13	SS-17	9/17/2008	Metals Batch#/Digestion Date	1776	-----	9/26/2008	200.2
2008090200	13	SS-17	9/17/2008	Nitrate + Nitrite as N	2.06	mg/l	10/10/2008	353.2
2008090200	13	SS-17	9/17/2008	Phosphorus Total	0.29	mg/l	10/10/2008	4500 P-E
2008090200	13	SS-17	9/17/2008	Potassium as K (Dissolved)	6	mg/l	9/23/2008	200.7
2008090200	13	SS-17	9/17/2008	Sodium as Na (Dissolved)	35	mg/l	9/23/2008	200.7
2008090200	13	SS-17	9/17/2008	Sulfate as SO4	119	mg/l	10/5/2008	300
2008090200	13	SS-17	9/17/2008	Total Kjeldahl Nitrogen as N	0.5	mg/l	9/29/2008	351.2
2008090200	13	SS-17	9/17/2008	Zinc as Zn (Dissolved)	0.02	mg/l	9/23/2008	200.7
2008090200	13	SS-17	9/17/2008	Zinc as Zn (Total)	0.12	mg/l	9/29/2008	200.7
2008090200	12	SS-17B	9/17/2008	Alkalinity Bicarbonate as HCO3	<1	mg/l	9/29/2008	2320B
2008090200	12	SS-17B	9/17/2008	Alkalinity Carbonate as CO3	0	mg/l	9/29/2008	2320B
2008090200	12	SS-17B	9/17/2008	Alkalinity Total as CaCO3	<1	mg/l	9/29/2008	2320B
2008090200	12	SS-17B	9/17/2008	Ammonia (Undistilled) as N	<0.05	mg/l	9/23/2008	350.1 MOD
2008090200	12	SS-17B	9/17/2008	Anions	<0.20	meq/l	1/2/1900	1030F
2008090200	12	SS-17B	9/17/2008	Arsenic as As (Dissolved)	<0.003	mg/l	9/29/2008	200.8
2008090200	12	SS-17B	9/17/2008	Arsenic as As (Total)	<0.003	mg/l	10/2/2008	200.8
2008090200	12	SS-17B	9/17/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	9/29/2008	200.8
2008090200	12	SS-17B	9/17/2008	Cadmium as Cd (Total)	<0.00008	mg/l	10/6/2008	200.8
2008090200	12	SS-17B	9/17/2008	Calcium as Ca (Dissolved)	<1	mg/l	9/23/2008	200.7
2008090200	12	SS-17B	9/17/2008	Cation/Anion Balance	NA	% [max 5%]	1/2/1900	AWWA/APHA
2008090200	12	SS-17B	9/17/2008	Cations	<0.30	meq/l	1/2/1900	1030F
2008090200	12	SS-17B	9/17/2008	Chloride as Cl	<1	mg/l	10/5/2008	300
2008090200	12	SS-17B	9/17/2008	Copper as Cu (Dissolved)	<0.001	mg/l	9/29/2008	200.8
2008090200	12	SS-17B	9/17/2008	Copper as Cu (Total)	<0.001	mg/l	10/6/2008	200.8
2008090200	12	SS-17B	9/17/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	9/29/2008	200.8
2008090200	12	SS-17B	9/17/2008	Lead as Pb (Total)	<0.0005	mg/l	10/2/2008	200.8
2008090200	12	SS-17B	9/17/2008	Magnesium as Mg (Dissolved)	<1	mg/l	9/23/2008	200.7
2008090200	12	SS-17B	9/17/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	9/23/2008	200.7
2008090200	12	SS-17B	9/17/2008	Manganese as Mn (Total)	<0.005	mg/l	9/29/2008	200.7
2008090200	12	SS-17B	9/17/2008	Mercury Batch #/Digest Date	1781	-----	10/1/2008	200.2
2008090200	12	SS-17B	9/17/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	9/30/2008	200.8
2008090200	12	SS-17B	9/17/2008	Mercury as Hg (Total)	<0.00005	mg/l	10/2/2008	200.8
2008090200	12	SS-17B	9/17/2008	Metals Batch#/Digestion Date	1776	-----	9/26/2008	200.2
2008090200	12	SS-17B	9/17/2008	Nitrate + Nitrite as N	0.01	mg/l	10/10/2008	353.2
2008090200	12	SS-17B	9/17/2008	Phosphorus Total	0.006	mg/l	10/10/2008	4500-P-E
2008090200	12	SS-17B	9/17/2008	Potassium as K (Dissolved)	<1	mg/l	9/23/2008	200.7
2008090200	12	SS-17B	9/17/2008	Sodium as Na (Dissolved)	<1	mg/l	9/23/2008	200.7
2008090200	12	SS-17B	9/17/2008	Sulfate as SO4	<5	mg/l	10/5/2008	300
2008090200	12	SS-17B	9/17/2008	Total Kjeldahl Nitrogen as N	<0.2	mg/l	9/29/2008	351.2
2008090200	12	SS-17B	9/17/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	9/23/2008	200.7
2008090200	12	SS-17B	9/17/2008	Zinc as Zn (Total)	<0.01	mg/l	9/29/2008	200.7
2008090200	1	SS-17D	9/16/2008	Alkalinity Bicarbonate as HCO3	103	mg/l	9/29/2008	2320B
2008090200	1	SS-17D	9/16/2008	Alkalinity Carbonate as CO3	15	mg/l	9/29/2008	2320B
2008090200	1	SS-17D	9/16/2008	Alkalinity Total as CaCO3	109	mg/l	9/29/2008	2320B
2008090200	1	SS-17D	9/16/2008	Ammonia (Undistilled) as N	<0.05	mg/l	9/23/2008 11:38	350.1 MOD
2008090200	1	SS-17D	9/16/2008	Anions	5.73	meq/l	1/2/1900 0:00	1030F
2008090200	1	SS-17D	9/16/2008	Arsenic as As (Dissolved)	0.011	mg/l	9/29/2008 14:15	200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090200	1	SS-17D	9/16/2008	Arsenic as As (Total)	0.015	mg/l	10/1/2008	200.8
2008090200	1	SS-17D	9/16/2008	Cadmium as Cd (Dissolved)	0.00035	mg/l	9/29/2008 14:15	200.8
2008090200	1	SS-17D	9/16/2008	Cadmium as Cd (Total)	0.00081	mg/l	10/1/2008 22:35	200.8
2008090200	1	SS-17D	9/16/2008	Calcium as Ca (Dissolved)	60	mg/l	9/23/2008	200.7
2008090200	1	SS-17D	9/16/2008	Cation/Anion Balance	0.43	% [max 2%]	1/2/1900 0:00	AWWA/APHA
2008090200	1	SS-17D	9/16/2008	Cations	5.78	meq/l	1/2/1900 0:00	1030F
2008090200	1	SS-17D	9/16/2008	Chloride as Cl	33	mg/l	10/5/2008	300
2008090200	1	SS-17D	9/16/2008	Copper as Cu (Dissolved)	0.024	mg/l	9/29/2008 14:15	200.8
2008090200	1	SS-17D	9/16/2008	Copper as Cu (Total)	0.048	mg/l	10/1/2008	200.8
2008090200	1	SS-17D	9/16/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	9/29/2008 14:15	200.8
2008090200	1	SS-17D	9/16/2008	Lead as Pb (Total)	0.007	mg/l	10/1/2008	200.8
2008090200	1	SS-17D	9/16/2008	Magnesium as Mg (Dissolved)	13	mg/l	9/23/2008	200.7
2008090200	1	SS-17D	9/16/2008	Manganese as Mn (Dissolved)	0.022	mg/l	9/23/2008	200.7
2008090200	1	SS-17D	9/16/2008	Manganese as Mn (Total)	0	mg/l	9/29/2008 15:43	200.7
2008090200	1	SS-17D	9/16/2008	Mercury Batch #/Digest Date	1781	-----	10/1/2008	200.2
2008090200	1	SS-17D	9/16/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	9/30/2008	200.8
2008090200	1	SS-17D	9/16/2008	Mercury as Hg (Total)	<0.00005	mg/l	10/2/2008	200.8
2008090200	1	SS-17D	9/16/2008	Metals Batch#/Digestion Date	1776	-----	9/26/2008 17:00	200.2
2008090200	1	SS-17D	9/16/2008	Nitrate + Nitrite as N	2	mg/l	10/10/2008 14:43	353.2
2008090200	1	SS-17D	9/16/2008	Phosphorus Total	0.257	mg/l	10/10/2008 9:10	4500 P-E
2008090200	1	SS-17D	9/16/2008	Potassium as K (Dissolved)	6	mg/l	9/23/2008	200.7
2008090200	1	SS-17D	9/16/2008	Sodium as Na (Dissolved)	36	mg/l	9/23/2008 15:19	200.7
2008090200	1	SS-17D	9/16/2008	Sulfate as SO4	119	mg/l	10/5/2008 14:24	300
2008090200	1	SS-17D	9/16/2008	Total Kjeldahl Nitrogen as N	0.5	mg/l	9/29/2008	351.2
2008090200	1	SS-17D	9/16/2008	Zinc as Zn (Dissolved)	0.02	mg/l	9/23/2008 15:19	200.7
2008090200	1	SS-17D	9/16/2008	Zinc as Zn (Total)	0.13	mg/l	9/29/2008 15:43	200.7
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Alkalinity Bicarbonate as HCO3	106	mg/l	9/29/2008	2320B
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Alkalinity Carbonate as CO3	15	mg/l	9/29/2008	2320B
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Alkalinity Total as CaCO3	112	mg/l	9/29/2008	2320B
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Ammonia (Undistilled) as N	0*	RPD [0-20]	9/23/2008	350.1 MOD
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Anions	5.79	meq/l	1/2/1900	1030F
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Arsenic as As (Dissolved)	0.011	mg/l	9/29/2008	200.8
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Arsenic as As (Total)	0.015	mg/l	10/1/2008	200.8
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Cadmium as Cd (Dissolved)	0.00032	mg/l	9/29/2008	200.8
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Cadmium as Cd (Total)	0.0007	mg/l	10/1/2008	200.8
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Calcium as Ca (Dissolved)	62	mg/l	9/23/2008	200.7
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Cation/Anion Balance	1.03	% [max 5%]	1/2/1900	AWWA/APHA
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Cations	5.91	meq/l	1/2/1900	1030F
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Chloride as Cl	33	mg/l	10/5/2008	300
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Copper as Cu (Dissolved)	0.023	mg/l	9/29/2008	200.8
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Copper as Cu (Total)	0.048	mg/l	10/1/2008	200.8
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	9/29/2008	200.8
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Lead as Pb (Total)	0.0066	mg/l	10/1/2008	200.8
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Magnesium as Mg (Dissolved)	13	mg/l	9/23/2008	200.7
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Manganese as Mn (Dissolved)	0.022	mg/l	9/23/2008	200.7
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Manganese as Mn (Total)	0.12	mg/l	9/29/2008	200.7
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Mercury Batch #/Digest Date	1781	-----	10/1/2008	200.2
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	9/30/2008	200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Mercury as Hg (Total)	<0.00005	mg/l	10/2/2008	200.8
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Metals Batch#/Digestion Date	1776	-----	9/26/2008	200.2
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Nitrate + Nitrite as N	1.95	mg/l	10/10/2008	353.2
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Phosphorus Total	0.237	mg/l	10/10/2008	4500 P-E
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Potassium as K (Dissolved)	7	mg/l	9/23/2008	200.7
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Sodium as Na (Dissolved)	36	mg/l	9/23/2008	200.7
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Sulfate as SO4	119	mg/l	10/5/2008	300
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Total Kjeldahl Nitrogen as N	0*	RPD [0-20]	9/29/2008	351.2
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Zinc as Zn (Dissolved)	0.02	mg/l	9/23/2008	200.7
2008090200	14	DUPLICATE OF 2008090200-1	9/16/2008	Zinc as Zn (Total)	0.13	mg/l	9/29/2008	200.7
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Alkalinity Bicarbonate as HCO3	133	mg/l	9/29/2008	2320B
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Alkalinity Carbonate as CO3	0	mg/l	9/29/2008	2320B
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Alkalinity Total as CaCO3	109	mg/l	9/29/2008	2320B
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Ammonia (Undistilled) as N	1.77	mg/l	9/23/2008	350.1 MOD
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Anions	5.6	meq/l	1/2/1900	1030F
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Arsenic as As (Dissolved)	<0.003	mg/l	9/29/2008	200.8
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Arsenic as As (Total)	0.004	mg/l	10/2/2008	200.8
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Cadmium as Cd (Dissolved)	0.0001	mg/l	9/29/2008	200.8
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Cadmium as Cd (Total)	0.00012	mg/l	10/6/2008	200.8
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Calcium as Ca (Dissolved)	60	mg/l	9/23/2008	200.7
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Cation/Anion Balance	0.72	% [max 2%]	1/2/1900	AWWA/APHA
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Cations	5.52	meq/l	1/2/1900	1030F
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Chloride as Cl	26	mg/l	10/5/2008	300
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Copper as Cu (Dissolved)	0.006	mg/l	9/29/2008	200.8
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Copper as Cu (Total)	0.008	mg/l	10/2/2008	200.8
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	9/29/2008	200.8
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Lead as Pb (Total)	0.0007	mg/l	10/2/2008	200.8
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Magnesium as Mg (Dissolved)	13	mg/l	9/23/2008	200.7
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Manganese as Mn (Dissolved)	0.046	mg/l	9/23/2008	200.7
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Manganese as Mn (Total)	0.077	mg/l	9/29/2008	200.7
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Mercury Batch #/Digest Date	1781	-----	10/1/2008	200.2
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	9/30/2008	200.8
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Mercury as Hg (Total)	<0.00005	mg/l	10/2/2008	200.8
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Metals Batch#/Digestion Date	1776	-----	9/26/2008	200.2
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Nitrate + Nitrite as N	1.17	mg/l	10/10/2008	353.2
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Phosphorus Total	NA	% [66-133]	10/10/2008	4500-P-E
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Potassium as K (Dissolved)	6	mg/l	9/23/2008	200.7
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Sodium as Na (Dissolved)	27	mg/l	9/23/2008	200.7
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Sulfate as SO4	125	mg/l	10/5/2008	300
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Total Kjeldahl Nitrogen as N	2.2	mg/l	9/29/2008	351.2
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Zinc as Zn (Dissolved)	0.04	mg/l	9/23/2008	200.7
2008090200	16	DUPLICATE OF 2008090200-11	9/17/2008	Zinc as Zn (Total)	0.05	mg/l	9/29/2008	200.7
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Alkalinity Bicarbonate as HCO3	NA	% [89-110]	9/29/2008	2320B
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Alkalinity Carbonate as CO3	NA	% [89-110]	9/29/2008	2320B
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Alkalinity Total as CaCO3	102	% [89-110]	9/29/2008	2320B
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Ammonia (Undistilled) as N	106	% [90-110]	9/23/2008	350.1 MOD
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Arsenic as As (Dissolved)	94	% [84-127]	9/29/2008	200.8
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Arsenic as As (Total)	100	% [85-115]	10/1/2008	200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Cadmium as Cd (Dissolved)	98	% [81-116]	9/29/2008	200.8
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Cadmium as Cd (Total)	101	% [85-115]	10/1/2008	200.8
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Calcium as Ca (Dissolved)	105	% [91-114]	9/23/2008	200.7
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Chloride as Cl	99	% [90-110]	10/5/2008	300
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Copper as Cu (Dissolved)	100	% [70-114]	9/29/2008	200.8
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Copper as Cu (Total)	95	% [85-115]	10/1/2008	200.8
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Lead as Pb (Dissolved)	101	% [85-115]	10/1/2008	200.8
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Lead as Pb (Total)	101	% [85-115]	10/1/2008	200.8
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Magnesium as Mg (Dissolved)	101	% [89-112]	9/23/2008	200.7
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Manganese as Mn (Dissolved)	103	% [92-114]	9/23/2008	200.7
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Manganese as Mn (Total)	108	% [94-115]	9/29/2008	200.7
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Mercury Batch #/Digest Date	1781	-----	10/1/2008	200.2
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Mercury as Hg (Dissolved)	98	% [85-115]	9/30/2008	200.8
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Mercury as Hg (Total)	102	% [85-115]	10/2/2008	200.8
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Metals Batch#/Digestion Date	1776	-----	9/26/2008	200.2
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Nitrate + Nitrite as N	94	% [90-110]	10/10/2008	353.2
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Phosphorus Total	86	% [77-119]	10/10/2008	4500 P-E
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Potassium as K (Dissolved)	100	% [86-114]	9/23/2008	200.7
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Sodium as Na (Dissolved)	99	% [87-112]	9/23/2008	200.7
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Sulfate as SO4	99	% [90-110]	10/5/2008	300
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Total Kjeldahl Nitrogen as N	95	% [78-128]	9/29/2008	351.2
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Zinc as Zn (Dissolved)	102	% [89-113]	9/23/2008	200.7
2008090200	18	LABORATORY CONTROL SAMPLE	1/2/1900	Zinc as Zn (Total)	106	% [89-115]	9/29/2008	200.7
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Alkalinity Bicarbonate as HCO3	NA	% [77-116]	9/29/2008	2320B
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Alkalinity Carbonate as CO3	NA	% [77-116]	9/29/2008	2320B
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Alkalinity Total as CaCO3	88	% [77-116]	9/29/2008	2320B
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Ammonia (Undistilled) as N	109	% [90-110]	9/23/2008	350.1 MOD
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Arsenic as As (Dissolved)	98	% [84-127]	9/29/2008	200.8
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Arsenic as As (Total)	104	% [79-124]	10/1/2008	200.8
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Cadmium as Cd (Dissolved)	99	% [81-116]	9/29/2008	200.8
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Cadmium as Cd (Total)	102	% [83-116]	10/1/2008	200.8
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Calcium as Ca (Dissolved)	102	% [78-122]	9/23/2008	200.7
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Chloride as Cl	97	% [84-124]	10/5/2008	300
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Copper as Cu (Dissolved)	82	% [70-114]	9/29/2008	200.8
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Copper as Cu (Total)	90	% [70-117]	10/1/2008	200.8
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Lead as Pb (Dissolved)	96	% [82-117]	9/29/2008	200.8
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Lead as Pb (Total)	102	% [81-121]	10/1/2008	200.8
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Magnesium as Mg (Dissolved)	93	% [84-118]	9/23/2008	200.7
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Manganese as Mn (Dissolved)	96	% [81-114]	9/23/2008	200.7
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Manganese as Mn (Total)	100	% [78-121]	9/29/2008	200.7
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Mercury Batch #/Digest Date	1781	-----	10/1/2008	200.2
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Mercury as Hg (Dissolved)	92	% [70-127]	9/30/2008	200.8
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Mercury as Hg (Total)	114	% [70-130]	10/2/2008	200.8
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Metals Batch#/Digestion Date	1776	-----	9/26/2008	200.2
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Nitrate + Nitrite as N	94	% [90-110]	10/10/2008	353.2
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Phosphorus Total	100	% [66-133]	10/10/2008	4500 P-E
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Potassium as K (Dissolved)	109	% [85-120]	9/23/2008	200.7
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Sodium as Na (Dissolved)	90	% [73-124]	9/23/2008	200.7

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Sulfate as SO4	91	% [84-124]	10/5/2008	300
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Total Kjeldahl Nitrogen as N	86*	% [61-128]	9/29/2008	351.2
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Zinc as Zn (Dissolved)	102	% [89-113]	9/23/2008	200.7
2008090200	15	MATRIX SPIKE OF 2008090200-6	9/16/2008	Zinc as Zn (Total)	105	% [84-121]	9/29/2008	200.7
2008090200	17	METHOD BLANK	1/2/1900	Alkalinity Bicarbonate as HCO3	<1	mg/l	9/29/2008	2320B
2008090200	17	METHOD BLANK	1/2/1900	Alkalinity Carbonate as CO3	0	mg/l	9/29/2008	2320B
2008090200	17	METHOD BLANK	1/2/1900	Alkalinity Total as CaCO3	<1	mg/l	9/29/2008	2320B
2008090200	17	METHOD BLANK	1/2/1900	Ammonia (Undistilled) as N	<0.05	mg/l	9/23/2008	350.1 MOD
2008090200	17	METHOD BLANK	1/2/1900	Arsenic as As (Dissolved)	<0.003	mg/l	9/29/2008	200.8
2008090200	17	METHOD BLANK	1/2/1900	Arsenic as As (Total)	<0.003	mg/l	10/1/2008	200.8
2008090200	17	METHOD BLANK	1/2/1900	Cadmium as Cd (Dissolved)	<0.00008	mg/l	9/29/2008	200.8
2008090200	17	METHOD BLANK	1/2/1900	Cadmium as Cd (Total)	<0.00008	mg/l	10/1/2008	200.8
2008090200	17	METHOD BLANK	1/2/1900	Calcium as Ca (Dissolved)	<1	mg/l	9/23/2008	200.7
2008090200	17	METHOD BLANK	1/2/1900	Chloride as Cl	<1	mg/l	10/5/2008	300
2008090200	17	METHOD BLANK	1/2/1900	Copper as Cu (Dissolved)	<0.001	mg/l	9/29/2008	200.8
2008090200	17	METHOD BLANK	1/2/1900	Copper as Cu (Total)	<0.001	mg/l	10/1/2008	200.8
2008090200	17	METHOD BLANK	1/2/1900	Lead as Pb (Dissolved)	<0.0005	mg/l	9/29/2008	200.8
2008090200	17	METHOD BLANK	1/2/1900	Lead as Pb (Total)	<0.0005	mg/l	10/1/2008	200.8
2008090200	17	METHOD BLANK	1/2/1900	Magnesium as Mg (Dissolved)	<1	mg/l	9/23/2008	200.7
2008090200	17	METHOD BLANK	1/2/1900	Manganese as Mn (Dissolved)	<0.005	mg/l	9/23/2008	200.7
2008090200	17	METHOD BLANK	1/2/1900	Manganese as Mn (Total)	<0.005	mg/l	9/29/2008	200.7
2008090200	17	METHOD BLANK	1/2/1900	Mercury Batch #/Digest Date	1781	-----	10/1/2008	200.2
2008090200	17	METHOD BLANK	1/2/1900	Mercury as Hg (Dissolved)	<0.00005	mg/l	9/30/2008	200.8
2008090200	17	METHOD BLANK	1/2/1900	Mercury as Hg (Total)	<0.00005	mg/l	10/2/2008	200.8
2008090200	17	METHOD BLANK	1/2/1900	Metals Batch#/Digestion Date	1776	-----	9/26/2008	200.2
2008090200	17	METHOD BLANK	1/2/1900	Nitrate + Nitrite as N	<0.01	mg/l	10/10/2008	353.2
2008090200	17	METHOD BLANK	1/2/1900	Phosphorus Total	<0.005	mg/l	10/10/2008	4500 P-E
2008090200	17	METHOD BLANK	1/2/1900	Potassium as K (Dissolved)	<1	mg/l	9/23/2008	200.7
2008090200	17	METHOD BLANK	1/2/1900	Sodium as Na (Dissolved)	<1	mg/l	9/23/2008	200.7
2008090200	17	METHOD BLANK	1/2/1900	Sulfate as SO4	<5	mg/l	10/5/2008	300
2008090200	17	METHOD BLANK	1/2/1900	Total Kjeldahl Nitrogen as N	<0.2	mg/l	9/29/2008	351.2
2008090200	17	METHOD BLANK	1/2/1900	Zinc as Zn (Dissolved)	<0.01	mg/l	9/23/2008	200.7
2008090200	17	METHOD BLANK	1/2/1900	Zinc as Zn (Total)	<0.01	mg/l	9/29/2008	200.7
1086308	1086308006	SS-06G	12/09/08	Arsenic	4.5	ug/L	12/17/08	EPA 200.8
1086308	1086308006	SS-06G	12/09/08	Cadmium	0.23	ug/L	12/17/08	EPA 200.8
1086308	1086308006	SS-06G	12/09/08	Calcium	54600	ug/L	12/17/08	EPA 200.8
1086308	1086308006	SS-06G	12/09/08	Copper	17.0	ug/L	12/17/08	EPA 200.8
1086308	1086308006	SS-06G	12/09/08	Lead	3.7	ug/L	12/17/08	EPA 200.8
1086308	1086308006	SS-06G	12/09/08	Magnesium	18400	ug/L	12/17/08	EPA 200.8
1086308	1086308006	SS-06G	12/09/08	Manganese	165	ug/L	12/17/08	EPA 200.8
1086308	1086308006	SS-06G	12/09/08	Potassium	3980	ug/L	12/17/08	EPA 200.8
1086308	1086308006	SS-06G	12/09/08	Sodium	24700	ug/L	12/17/08	EPA 200.8
1086308	1086308006	SS-06G	12/09/08	Zinc	58.4	ug/L	12/17/08	EPA 200.8
1086308	1086308006	SS-06G	12/09/08	Arsenic, Dissolved	3.0	ug/L	12/22/08	EPA 200.8
1086308	1086308006	SS-06G	12/09/08	Cadmium, Dissolved	0.11	ug/L	12/22/08	EPA 200.8
1086308	1086308006	SS-06G	12/09/08	Calcium, Dissolved	52400	ug/L	12/22/08	EPA 200.8
1086308	1086308006	SS-06G	12/09/08	Copper, Dissolved	4.6	ug/L	12/22/08	EPA 200.8
1086308	1086308006	SS-06G	12/09/08	Lead, Dissolved	ND	ug/L	12/22/08	EPA 200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086308	1086308006	SS-06G	12/09/08	Magnesium, Dissolved	19700	ug/L	12/22/08	EPA 200.8
1086308	1086308006	SS-06G	12/09/08	Manganese, Dissolved	63.2	ug/L	12/22/08	EPA 200.8
1086308	1086308006	SS-06G	12/09/08	Potassium, Dissolved	3710	ug/L	12/22/08	EPA 200.8
1086308	1086308006	SS-06G	12/09/08	Sodium, Dissolved	26300	ug/L	12/22/08	EPA 200.8
1086308	1086308006	SS-06G	12/09/08	Zinc, Dissolved	28.9	ug/L	12/22/08	EPA 200.8
1086308	1086308006	SS-06G	12/09/08	Chloride	48.5	mg/L	12/17/08	SM 4500-Cl E
1086308	1086308006	SS-06G	12/09/08	Sulfate	103	mg/L	12/17/08	SM 4500-SO4 E
1086308	1086308006	SS-06G	12/09/08	Alkalinity, Carbonate (CaCO3)	ND	mg/L	12/17/08	SM 2320B
1086308	1086308006	SS-06G	12/09/08	Alkalinity, Total as CaCO3	99.4	mg/L	12/17/08	SM 2320B
1086308	1086308006	SS-06G	12/09/08	Alkalinity,Bicarbonate (CaCO3)	99.4	mg/L	12/17/08	SM 2320B
1086308	1086308006	SS-06G	12/09/08	Nitrogen, NO2 plus NO3	1.6	mg/L	12/17/08	EPA 353.1
1086308	1086308006	SS-06G	12/09/08	Mercury	ND	ug/L	12/22/08	EPA 245.1
1086308	1086308006	SS-06G	12/09/08	Mercury, Dissolved	ND	ug/L	12/23/08	EPA 245.1
1086308	1086308006	SS-06G	12/09/08	Nitrogen, Ammonia	ND	mg/L	12/23/08	EPA 350.1
2008120121	6	SS-06G	12/9/2008	Phosphorus Total as P	0.104	mg/l	12/30/2008	
2008120121	6	SS-06G	12/9/2008	Total Kjeldahl Nitrogen as N	0.6	mg/l	12/27/2008	351.2
1086308	1086308005	SS-07	12/09/08	Arsenic	3.3	ug/L	12/17/08	EPA 200.8
1086308	1086308005	SS-07	12/09/08	Cadmium	0.12	ug/L	12/17/08	EPA 200.8
1086308	1086308005	SS-07	12/09/08	Calcium	39000	ug/L	12/17/08	EPA 200.8
1086308	1086308005	SS-07	12/09/08	Copper	17.9	ug/L	12/17/08	EPA 200.8
1086308	1086308005	SS-07	12/09/08	Lead	2.0	ug/L	12/17/08	EPA 200.8
1086308	1086308005	SS-07	12/09/08	Magnesium	12400	ug/L	12/17/08	EPA 200.8
1086308	1086308005	SS-07	12/09/08	Manganese	81.3	ug/L	12/17/08	EPA 200.8
1086308	1086308005	SS-07	12/09/08	Potassium	7700	ug/L	12/17/08	EPA 200.8
1086308	1086308005	SS-07	12/09/08	Sodium	34600	ug/L	12/17/08	EPA 200.8
1086308	1086308005	SS-07	12/09/08	Zinc	56.1	ug/L	12/17/08	EPA 200.8
1086308	1086308005	SS-07	12/09/08	Arsenic, Dissolved	2.9	ug/L	12/22/08	EPA 200.8
1086308	1086308005	SS-07	12/09/08	Cadmium, Dissolved	ND	ug/L	12/22/08	EPA 200.8
1086308	1086308005	SS-07	12/09/08	Calcium, Dissolved	33700	ug/L	12/22/08	EPA 200.8
1086308	1086308005	SS-07	12/09/08	Copper, Dissolved	15.5	ug/L	12/22/08	EPA 200.8
1086308	1086308005	SS-07	12/09/08	Lead, Dissolved	0.35	ug/L	12/22/08	EPA 200.8
1086308	1086308005	SS-07	12/09/08	Magnesium, Dissolved	11400	ug/L	12/22/08	EPA 200.8
1086308	1086308005	SS-07	12/09/08	Manganese, Dissolved	33.1	ug/L	12/22/08	EPA 200.8
1086308	1086308005	SS-07	12/09/08	Potassium, Dissolved	8260	ug/L	12/22/08	EPA 200.8
1086308	1086308005	SS-07	12/09/08	Sodium, Dissolved	38400	ug/L	12/22/08	EPA 200.8
1086308	1086308005	SS-07	12/09/08	Zinc, Dissolved	49.3	ug/L	12/22/08	EPA 200.8
1086308	1086308005	SS-07	12/09/08	Chloride	48.8	mg/L	12/17/08	SM 4500-Cl E
1086308	1086308005	SS-07	12/09/08	Sulfate	51.4	mg/L	12/17/08	SM 4500-SO4 E
1086308	1086308005	SS-07	12/09/08	Alkalinity, Carbonate (CaCO3)	ND	mg/L	12/17/08	SM 2320B
1086308	1086308005	SS-07	12/09/08	Alkalinity, Total as CaCO3	150	mg/L	12/17/08	SM 2320B
1086308	1086308005	SS-07	12/09/08	Alkalinity,Bicarbonate (CaCO3)	150	mg/L	12/17/08	SM 2320B
1086308	1086308005	SS-07	12/09/08	Nitrogen, NO2 plus NO3	0.55	mg/L	12/17/08	EPA 353.1
1086308	1086308005	SS-07	12/09/08	Mercury	ND	ug/L	12/22/08	EPA 245.1
1086308	1086308005	SS-07	12/09/08	Mercury, Dissolved	ND	ug/L	12/23/08	EPA 245.1
1086308	1086308005	SS-07	12/09/08	Nitrogen, Ammonia	17.2	mg/L	12/23/08	EPA 350.1
2008120121	5	SS-07	12/9/2008	Phosphorus Total as P	2.3	mg/l	12/30/2008	
2008120121	5	SS-07	12/9/2008	Total Kjeldahl Nitrogen as N	17.8	mg/l	12/27/2008	351.2
1086308	1086308004	SS-08	12/09/08	Arsenic	4.1	ug/L	12/17/08	EPA 200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086308	1086308004	SS-08	12/09/08	Cadmium	0.27	ug/L	12/17/08	EPA 200.8
1086308	1086308004	SS-08	12/09/08	Calcium	46700	ug/L	12/17/08	EPA 200.8
1086308	1086308004	SS-08	12/09/08	Copper	22.1	ug/L	12/17/08	EPA 200.8
1086308	1086308004	SS-08	12/09/08	Lead	3.5	ug/L	12/17/08	EPA 200.8
1086308	1086308004	SS-08	12/09/08	Magnesium	11500	ug/L	12/17/08	EPA 200.8
1086308	1086308004	SS-08	12/09/08	Manganese	188	ug/L	12/17/08	EPA 200.8
1086308	1086308004	SS-08	12/09/08	Potassium	5700	ug/L	12/17/08	EPA 200.8
1086308	1086308004	SS-08	12/09/08	Sodium	27800	ug/L	12/17/08	EPA 200.8
1086308	1086308004	SS-08	12/09/08	Zinc	81.5	ug/L	12/17/08	EPA 200.8
1086308	1086308004	SS-08	12/09/08	Arsenic, Dissolved	3.4	ug/L	12/22/08	EPA 200.8
1086308	1086308004	SS-08	12/09/08	Cadmium, Dissolved	0.15	ug/L	12/22/08	EPA 200.8
1086308	1086308004	SS-08	12/09/08	Calcium, Dissolved	44600	ug/L	12/22/08	EPA 200.8
1086308	1086308004	SS-08	12/09/08	Copper, Dissolved	9.9	ug/L	12/22/08	EPA 200.8
1086308	1086308004	SS-08	12/09/08	Lead, Dissolved	0.22	ug/L	12/22/08	EPA 200.8
1086308	1086308004	SS-08	12/09/08	Magnesium, Dissolved	12400	ug/L	12/22/08	EPA 200.8
1086308	1086308004	SS-08	12/09/08	Manganese, Dissolved	79.7	ug/L	12/22/08	EPA 200.8
1086308	1086308004	SS-08	12/09/08	Potassium, Dissolved	5540	ug/L	12/22/08	EPA 200.8
1086308	1086308004	SS-08	12/09/08	Sodium, Dissolved	29500	ug/L	12/22/08	EPA 200.8
1086308	1086308004	SS-08	12/09/08	Zinc, Dissolved	56.4	ug/L	12/22/08	EPA 200.8
1086308	1086308004	SS-08	12/09/08	Chloride	32.5	mg/L	12/17/08	SM 4500-Cl E
1086308	1086308004	SS-08	12/09/08	Sulfate	84.4	mg/L	12/17/08	SM 4500-SO4 E
1086308	1086308004	SS-08	12/09/08	Alkalinity, Carbonate (CaCO3)	ND	mg/L	12/17/08	SM 2320B
1086308	1086308004	SS-08	12/09/08	Alkalinity, Total as CaCO3	114	mg/L	12/17/08	SM 2320B
1086308	1086308004	SS-08	12/09/08	Alkalinity,Bicarbonate (CaCO3)	114	mg/L	12/17/08	SM 2320B
1086308	1086308004	SS-08	12/09/08	Nitrogen, NO2 plus NO3	1.5	mg/L	12/17/08	EPA 353.1
1086308	1086308004	SS-08	12/09/08	Mercury	ND	ug/L	12/22/08	EPA 245.1
1086308	1086308004	SS-08	12/09/08	Mercury, Dissolved	ND	ug/L	12/23/08	EPA 245.1
1086308	1086308004	SS-08	12/09/08	Nitrogen, Ammonia	6.6	mg/L	12/23/08	EPA 350.1
2008120121	4	SS-08	12/9/2008	Phosphorus Total as P	0.84	mg/l	12/30/2008	
2008120121	4	SS-08	12/9/2008	Total Kjeldahl Nitrogen as N	6.2	mg/l	12/27/2008	351.2
1086308	1086308003	SS-10 Blank	12/09/08	Arsenic	ND	ug/L	12/17/08	EPA 200.8
1086308	1086308003	SS-10 Blank	12/09/08	Cadmium	ND	ug/L	12/17/08	EPA 200.8
1086308	1086308003	SS-10 Blank	12/09/08	Calcium	ND	ug/L	12/17/08	EPA 200.8
1086308	1086308003	SS-10 Blank	12/09/08	Copper	ND	ug/L	12/17/08	EPA 200.8
1086308	1086308003	SS-10 Blank	12/09/08	Lead	ND	ug/L	12/17/08	EPA 200.8
1086308	1086308003	SS-10 Blank	12/09/08	Magnesium	ND	ug/L	12/17/08	EPA 200.8
1086308	1086308003	SS-10 Blank	12/09/08	Manganese	0.58	ug/L	12/17/08	EPA 200.8
1086308	1086308003	SS-10 Blank	12/09/08	Potassium	ND	ug/L	12/17/08	EPA 200.8
1086308	1086308003	SS-10 Blank	12/09/08	Sodium	59.9	ug/L	12/17/08	EPA 200.8
1086308	1086308003	SS-10 Blank	12/09/08	Zinc	ND	ug/L	12/17/08	EPA 200.8
1086308	1086308003	SS-10 Blank	12/09/08	Arsenic, Dissolved	ND	ug/L	12/22/08	EPA 200.8
1086308	1086308003	SS-10 Blank	12/09/08	Cadmium, Dissolved	ND	ug/L	12/22/08	EPA 200.8
1086308	1086308003	SS-10 Blank	12/09/08	Calcium, Dissolved	35.0	ug/L	12/22/08	EPA 200.8
1086308	1086308003	SS-10 Blank	12/09/08	Copper, Dissolved	ND	ug/L	12/22/08	EPA 200.8
1086308	1086308003	SS-10 Blank	12/09/08	Lead, Dissolved	ND	ug/L	12/22/08	EPA 200.8
1086308	1086308003	SS-10 Blank	12/09/08	Magnesium, Dissolved	6.7	ug/L	12/22/08	EPA 200.8
1086308	1086308003	SS-10 Blank	12/09/08	Manganese, Dissolved	ND	ug/L	12/22/08	EPA 200.8
1086308	1086308003	SS-10 Blank	12/09/08	Potassium, Dissolved	ND	ug/L	12/22/08	EPA 200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086308	1086308003	SS-10 Blank	12/09/08	Sodium, Dissolved	ND	ug/L	12/22/08	EPA 200.8
1086308	1086308003	SS-10 Blank	12/09/08	Zinc, Dissolved	ND	ug/L	12/22/08	EPA 200.8
1086308	1086308003	SS-10 Blank	12/09/08	Chloride	ND	mg/L	12/17/08	SM 4500-Cl E
1086308	1086308003	SS-10 Blank	12/09/08	Sulfate	ND	mg/L	12/17/08	SM 4500-SO4 E
1086308	1086308003	SS-10 Blank	12/09/08	Alkalinity, Carbonate (CaCO3)	ND	mg/L	12/17/08	SM 2320B
1086308	1086308003	SS-10 Blank	12/09/08	Alkalinity, Total as CaCO3	ND	mg/L	12/17/08	SM 2320B
1086308	1086308003	SS-10 Blank	12/09/08	Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	12/17/08	SM 2320B
1086308	1086308003	SS-10 Blank	12/09/08	Nitrogen, NO2 plus NO3	ND	mg/L	12/17/08	EPA 353.1
1086308	1086308003	SS-10 Blank	12/09/08	Mercury	ND	ug/L	12/22/08	EPA 245.1
1086308	1086308003	SS-10 Blank	12/09/08	Mercury, Dissolved	ND	ug/L	12/23/08	EPA 245.1
1086308	1086308003	SS-10 Blank	12/09/08	Nitrogen, Ammonia	ND	mg/L	12/23/08	EPA 350.1
2008120121	3	SS-10 Blank	12/9/2008	Phosphorus Total as P		mg/l	12/31/2008	
2008120121	3	SS-10 Blank	12/9/2008	Total Kjeldahl Nitrogen as N		mg/l	12/27/2008	351.2
1086308	1086308001	SS-10A	12/09/08	Arsenic	4.4	ug/L	12/17/08	EPA 200.8
1086308	1086308001	SS-10A	12/09/08	Cadmium	0.31	ug/L	12/17/08	EPA 200.8
1086308	1086308001	SS-10A	12/09/08	Calcium	46600	ug/L	12/17/08	EPA 200.8
1086308	1086308001	SS-10A	12/09/08	Copper	20.9	ug/L	12/17/08	EPA 200.8
1086308	1086308001	SS-10A	12/09/08	Lead	2.7	ug/L	12/17/08	EPA 200.8
1086308	1086308001	SS-10A	12/09/08	Magnesium	12000	ug/L	12/17/08	EPA 200.8
1086308	1086308001	SS-10A	12/09/08	Manganese	185	ug/L	12/17/08	EPA 200.8
1086308	1086308001	SS-10A	12/09/08	Potassium	5540	ug/L	12/17/08	EPA 200.8
1086308	1086308001	SS-10A	12/09/08	Sodium	27800	ug/L	12/17/08	EPA 200.8
1086308	1086308001	SS-10A	12/09/08	Zinc	81.0	ug/L	12/17/08	EPA 200.8
1086308	1086308001	SS-10A	12/09/08	Arsenic, Dissolved	3.9	ug/L	12/22/08	EPA 200.8
1086308	1086308001	SS-10A	12/09/08	Cadmium, Dissolved	0.19	ug/L	12/22/08	EPA 200.8
1086308	1086308001	SS-10A	12/09/08	Calcium, Dissolved	46000	ug/L	12/22/08	EPA 200.8
1086308	1086308001	SS-10A	12/09/08	Copper, Dissolved	11.1	ug/L	12/22/08	EPA 200.8
1086308	1086308001	SS-10A	12/09/08	Lead, Dissolved	0.23	ug/L	12/22/08	EPA 200.8
1086308	1086308001	SS-10A	12/09/08	Magnesium, Dissolved	12400	ug/L	12/22/08	EPA 200.8
1086308	1086308001	SS-10A	12/09/08	Manganese, Dissolved	46.4	ug/L	12/22/08	EPA 200.8
1086308	1086308001	SS-10A	12/09/08	Potassium, Dissolved	5690	ug/L	12/22/08	EPA 200.8
1086308	1086308001	SS-10A	12/09/08	Sodium, Dissolved	29100	ug/L	12/22/08	EPA 200.8
1086308	1086308001	SS-10A	12/09/08	Zinc, Dissolved	51.1	ug/L	12/22/08	EPA 200.8
1086308	1086308001	SS-10A	12/09/08	Chloride	31.2	mg/L	12/17/08	SM 4500-Cl E
1086308	1086308001	SS-10A	12/09/08	Sulfate	88.9	mg/L	12/17/08	SM 4500-SO4 E
1086308	1086308001	SS-10A	12/09/08	Alkalinity, Carbonate (CaCO3)	ND	mg/L	12/17/08	SM 2320B
1086308	1086308001	SS-10A	12/09/08	Alkalinity, Total as CaCO3	107	mg/L	12/17/08	SM 2320B
1086308	1086308001	SS-10A	12/09/08	Alkalinity,Bicarbonate (CaCO3)	107	mg/L	12/17/08	SM 2320B
1086308	1086308001	SS-10A	12/09/08	Nitrogen, NO2 plus NO3	2.2	mg/L	12/17/08	EPA 353.1
1086308	1086308001	SS-10A	12/09/08	Mercury	ND	ug/L	12/22/08	EPA 245.1
1086308	1086308001	SS-10A	12/09/08	Mercury, Dissolved	ND	ug/L	12/23/08	EPA 245.1
1086308	1086308001	SS-10A	12/09/08	Nitrogen, Ammonia	3.7	mg/L	12/23/08	EPA 350.1
2008120121	1	SS-10A	12/9/2008	Phosphorus Total as P	0.563	mg/l	12/30/2008	
2008120121	1	SS-10A	12/9/2008	Total Kjeldahl Nitrogen as N	3.6	mg/l	12/27/2008	351.2
1086308	1086308002	SS-10B	12/09/08	Arsenic	4.2	ug/L	12/17/08	EPA 200.8
1086308	1086308002	SS-10B	12/09/08	Cadmium	0.29	ug/L	12/17/08	EPA 200.8
1086308	1086308002	SS-10B	12/09/08	Calcium	49500	ug/L	12/17/08	EPA 200.8
1086308	1086308002	SS-10B	12/09/08	Copper	19.2	ug/L	12/17/08	EPA 200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086308	1086308002	SS-10B	12/09/08	Lead	2.5	ug/L	12/17/08	EPA 200.8
1086308	1086308002	SS-10B	12/09/08	Magnesium	12000	ug/L	12/17/08	EPA 200.8
1086308	1086308002	SS-10B	12/09/08	Manganese	171	ug/L	12/17/08	EPA 200.8
1086308	1086308002	SS-10B	12/09/08	Potassium	5440	ug/L	12/17/08	EPA 200.8
1086308	1086308002	SS-10B	12/09/08	Sodium	27800	ug/L	12/17/08	EPA 200.8
1086308	1086308002	SS-10B	12/09/08	Zinc	80.4	ug/L	12/17/08	EPA 200.8
1086308	1086308002	SS-10B	12/09/08	Arsenic, Dissolved	3.9	ug/L	12/22/08	EPA 200.8
1086308	1086308002	SS-10B	12/09/08	Cadmium, Dissolved	0.17	ug/L	12/22/08	EPA 200.8
1086308	1086308002	SS-10B	12/09/08	Calcium, Dissolved	46300	ug/L	12/22/08	EPA 200.8
1086308	1086308002	SS-10B	12/09/08	Copper, Dissolved	10.9	ug/L	12/22/08	EPA 200.8
1086308	1086308002	SS-10B	12/09/08	Lead, Dissolved	0.22	ug/L	12/22/08	EPA 200.8
1086308	1086308002	SS-10B	12/09/08	Magnesium, Dissolved	12500	ug/L	12/22/08	EPA 200.8
1086308	1086308002	SS-10B	12/09/08	Manganese, Dissolved	44.3	ug/L	12/22/08	EPA 200.8
1086308	1086308002	SS-10B	12/09/08	Potassium, Dissolved	5430	ug/L	12/22/08	EPA 200.8
1086308	1086308002	SS-10B	12/09/08	Sodium, Dissolved	28800	ug/L	12/22/08	EPA 200.8
1086308	1086308002	SS-10B	12/09/08	Zinc, Dissolved	53.0	ug/L	12/22/08	EPA 200.8
1086308	1086308002	SS-10B	12/09/08	Chloride	31.0	mg/L	12/17/08	SM 4500-Cl E
1086308	1086308002	SS-10B	12/09/08	Sulfate	89.6	mg/L	12/17/08	SM 4500-SO4 E
1086308	1086308002	SS-10B	12/09/08	Alkalinity, Carbonate (CaCO3)	ND	mg/L	12/17/08	SM 2320B
1086308	1086308002	SS-10B	12/09/08	Alkalinity, Total as CaCO3	106	mg/L	12/17/08	SM 2320B
1086308	1086308002	SS-10B	12/09/08	Alkalinity,Bicarbonate (CaCO3)	106	mg/L	12/17/08	SM 2320B
1086308	1086308002	SS-10B	12/09/08	Nitrogen, NO2 plus NO3	2.0	mg/L	12/17/08	EPA 353.1
1086308	1086308002	SS-10B	12/09/08	Mercury	ND	ug/L	12/22/08	EPA 245.1
1086308	1086308002	SS-10B	12/09/08	Mercury, Dissolved	ND	ug/L	12/23/08	EPA 245.1
1086308	1086308002	SS-10B	12/09/08	Nitrogen, Ammonia	3.6	mg/L	12/23/08	EPA 350.1
2008120121	2	SS-10B	12/9/2008	Phosphorus Total as P	0.606	mg/l	12/30/2008	
2008120121	2	SS-10B	12/9/2008	Total Kjeldahl Nitrogen as N	3.9	mg/l	12/27/2008	351.2
1086308	1086308007	SS-11C	12/09/08	Arsenic	4.9	ug/L	12/17/08	EPA 200.8
1086308	1086308007	SS-11C	12/09/08	Cadmium	0.44	ug/L	12/17/08	EPA 200.8
1086308	1086308007	SS-11C	12/09/08	Calcium	54000	ug/L	12/17/08	EPA 200.8
1086308	1086308007	SS-11C	12/09/08	Copper	21.0	ug/L	12/17/08	EPA 200.8
1086308	1086308007	SS-11C	12/09/08	Lead	1.3	ug/L	12/17/08	EPA 200.8
1086308	1086308007	SS-11C	12/09/08	Magnesium	13400	ug/L	12/17/08	EPA 200.8
1086308	1086308007	SS-11C	12/09/08	Manganese	215	ug/L	12/17/08	EPA 200.8
1086308	1086308007	SS-11C	12/09/08	Potassium	5620	ug/L	12/17/08	EPA 200.8
1086308	1086308007	SS-11C	12/09/08	Sodium	39000	ug/L	12/17/08	EPA 200.8
1086308	1086308007	SS-11C	12/09/08	Zinc	155	ug/L	12/17/08	EPA 200.8
1086308	1086308007	SS-11C	12/09/08	Arsenic, Dissolved	5.0	ug/L	12/22/08	EPA 200.8
1086308	1086308007	SS-11C	12/09/08	Cadmium, Dissolved	0.41	ug/L	12/22/08	EPA 200.8
1086308	1086308007	SS-11C	12/09/08	Calcium, Dissolved	54800	ug/L	12/22/08	EPA 200.8
1086308	1086308007	SS-11C	12/09/08	Copper, Dissolved	14.7	ug/L	12/22/08	EPA 200.8
1086308	1086308007	SS-11C	12/09/08	Lead, Dissolved	0.17	ug/L	12/22/08	EPA 200.8
1086308	1086308007	SS-11C	12/09/08	Magnesium, Dissolved	14800	ug/L	12/22/08	EPA 200.8
1086308	1086308007	SS-11C	12/09/08	Manganese, Dissolved	144	ug/L	12/22/08	EPA 200.8
1086308	1086308007	SS-11C	12/09/08	Potassium, Dissolved	5710	ug/L	12/22/08	EPA 200.8
1086308	1086308007	SS-11C	12/09/08	Sodium, Dissolved	43500	ug/L	12/22/08	EPA 200.8
1086308	1086308007	SS-11C	12/09/08	Zinc, Dissolved	142	ug/L	12/22/08	EPA 200.8
1086308	1086308007	SS-11C	12/09/08	Chloride	48.1	mg/L	12/17/08	SM 4500-Cl E

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086308	1086308007	SS-11C	12/09/08	Sulfate	108	mg/L	12/17/08	SM 4500-SO4 E
1086308	1086308007	SS-11C	12/09/08	Alkalinity, Carbonate (CaCO3)	ND	mg/L	12/17/08	SM 2320B
1086308	1086308007	SS-11C	12/09/08	Alkalinity, Total as CaCO3	119	mg/L	12/17/08	SM 2320B
1086308	1086308007	SS-11C	12/09/08	Alkalinity,Bicarbonate (CaCO3)	119	mg/L	12/17/08	SM 2320B
1086308	1086308007	SS-11C	12/09/08	Nitrogen, NO2 plus NO3	2.7	mg/L	12/17/08	EPA 353.1
1086308	1086308007	SS-11C	12/09/08	Mercury	ND	ug/L	12/22/08	EPA 245.1
1086308	1086308007	SS-11C	12/09/08	Mercury, Dissolved	ND	ug/L	12/23/08	EPA 245.1
1086308	1086308007	SS-11C	12/09/08	Nitrogen, Ammonia	2.5	mg/L	12/23/08	EPA 350.1
2008120121	7	SS-11C	12/9/2008	Phosphorus Total as P	0.427	mg/l	12/30/2008	
2008120121	7	SS-11C	12/9/2008	Total Kjeldahl Nitrogen as N	2.6	mg/l	12/27/2008	351.2
1086308	1086308008	SS-11C Dup	12/09/08	Arsenic	5.0	ug/L	12/17/08	EPA 200.8
1086308	1086308008	SS-11C Dup	12/09/08	Cadmium	0.51	ug/L	12/17/08	EPA 200.8
1086308	1086308008	SS-11C Dup	12/09/08	Calcium	54600	ug/L	12/17/08	EPA 200.8
1086308	1086308008	SS-11C Dup	12/09/08	Copper	21.8	ug/L	12/17/08	EPA 200.8
1086308	1086308008	SS-11C Dup	12/09/08	Lead	1.4	ug/L	12/17/08	EPA 200.8
1086308	1086308008	SS-11C Dup	12/09/08	Magnesium	13500	ug/L	12/17/08	EPA 200.8
1086308	1086308008	SS-11C Dup	12/09/08	Manganese	221	ug/L	12/17/08	EPA 200.8
1086308	1086308008	SS-11C Dup	12/09/08	Potassium	5720	ug/L	12/17/08	EPA 200.8
1086308	1086308008	SS-11C Dup	12/09/08	Sodium	39800	ug/L	12/17/08	EPA 200.8
1086308	1086308008	SS-11C Dup	12/09/08	Zinc	162	ug/L	12/17/08	EPA 200.8
1086308	1086308008	SS-11C Dup	12/09/08	Arsenic, Dissolved	5.0	ug/L	12/22/08	EPA 200.8
1086308	1086308008	SS-11C Dup	12/09/08	Cadmium, Dissolved	0.39	ug/L	12/22/08	EPA 200.8
1086308	1086308008	SS-11C Dup	12/09/08	Calcium, Dissolved	54000	ug/L	12/22/08	EPA 200.8
1086308	1086308008	SS-11C Dup	12/09/08	Copper, Dissolved	14.7	ug/L	12/22/08	EPA 200.8
1086308	1086308008	SS-11C Dup	12/09/08	Lead, Dissolved	0.16	ug/L	12/22/08	EPA 200.8
1086308	1086308008	SS-11C Dup	12/09/08	Magnesium, Dissolved	14800	ug/L	12/22/08	EPA 200.8
1086308	1086308008	SS-11C Dup	12/09/08	Manganese, Dissolved	128	ug/L	12/22/08	EPA 200.8
1086308	1086308008	SS-11C Dup	12/09/08	Potassium, Dissolved	5590	ug/L	12/22/08	EPA 200.8
1086308	1086308008	SS-11C Dup	12/09/08	Zinc, Dissolved	139	ug/L	12/22/08	EPA 200.8
1086308	1086308008	SS-11C Dup	12/09/08	Sodium, Dissolved	38000	ug/L	12/23/08	EPA 200.8
1086308	1086308008	SS-11C Dup	12/09/08	Chloride	47.9	mg/L	12/17/08	SM 4500-Cl E
1086308	1086308008	SS-11C Dup	12/09/08	Sulfate	109	mg/L	12/17/08	SM 4500-SO4 E
1086308	1086308008	SS-11C Dup	12/09/08	Alkalinity, Carbonate (CaCO3)	ND	mg/L	12/17/08	SM 2320B
1086308	1086308008	SS-11C Dup	12/09/08	Alkalinity, Total as CaCO3	118	mg/L	12/17/08	SM 2320B
1086308	1086308008	SS-11C Dup	12/09/08	Alkalinity,Bicarbonate (CaCO3)	118	mg/L	12/17/08	SM 2320B
1086308	1086308008	SS-11C Dup	12/09/08	Nitrogen, NO2 plus NO3	2.1	mg/L	12/17/08	EPA 353.1
1086308	1086308008	SS-11C Dup	12/09/08	Mercury	ND	ug/L	12/22/08	EPA 245.1
1086308	1086308008	SS-11C Dup	12/09/08	Mercury, Dissolved	ND	ug/L	12/23/08	EPA 245.1
1086308	1086308008	SS-11C Dup	12/09/08	Nitrogen, Ammonia	2.4	mg/L	12/23/08	EPA 350.1
2008120121	8	SS-11C Dup	12/9/2008	Phosphorus Total as P	0.42	mg/l	12/30/2008	
2008120121	8	SS-11C Dup	12/9/2008	Total Kjeldahl Nitrogen as N	2.5	mg/l	12/27/2008	351.2
1086308	1086308009	SS-11D	12/09/08	Arsenic	6.5	ug/L	12/17/08	EPA 200.8
1086308	1086308009	SS-11D	12/09/08	Cadmium	0.32	ug/L	12/17/08	EPA 200.8
1086308	1086308009	SS-11D	12/09/08	Calcium	45000	ug/L	12/17/08	EPA 200.8
1086308	1086308009	SS-11D	12/09/08	Copper	14.4	ug/L	12/17/08	EPA 200.8
1086308	1086308009	SS-11D	12/09/08	Lead	1.4	ug/L	12/17/08	EPA 200.8
1086308	1086308009	SS-11D	12/09/08	Magnesium	11100	ug/L	12/17/08	EPA 200.8
1086308	1086308009	SS-11D	12/09/08	Manganese	166	ug/L	12/17/08	EPA 200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086308	1086308009	SS-11D	12/09/08	Potassium	4870	ug/L	12/17/08	EPA 200.8
1086308	1086308009	SS-11D	12/09/08	Sodium	33400	ug/L	12/17/08	EPA 200.8
1086308	1086308009	SS-11D	12/09/08	Zinc	105	ug/L	12/17/08	EPA 200.8
1086308	1086308009	SS-11D	12/09/08	Arsenic, Dissolved	6.1	ug/L	12/22/08	EPA 200.8
1086308	1086308009	SS-11D	12/09/08	Cadmium, Dissolved	0.27	ug/L	12/22/08	EPA 200.8
1086308	1086308009	SS-11D	12/09/08	Calcium, Dissolved	45600	ug/L	12/22/08	EPA 200.8
1086308	1086308009	SS-11D	12/09/08	Copper, Dissolved	10.4	ug/L	12/22/08	EPA 200.8
1086308	1086308009	SS-11D	12/09/08	Lead, Dissolved	0.14	ug/L	12/22/08	EPA 200.8
1086308	1086308009	SS-11D	12/09/08	Magnesium, Dissolved	12600	ug/L	12/22/08	EPA 200.8
1086308	1086308009	SS-11D	12/09/08	Potassium, Dissolved	4930	ug/L	12/22/08	EPA 200.8
1086308	1086308009	SS-11D	12/09/08	Zinc, Dissolved	95.5	ug/L	12/22/08	EPA 200.8
1086308	1086308009	SS-11D	12/09/08	Manganese, Dissolved	95.5	ug/L	12/23/08	EPA 200.8
1086308	1086308009	SS-11D	12/09/08	Sodium, Dissolved	32900	ug/L	12/23/08	EPA 200.8
1086308	1086308009	SS-11D	12/09/08	Chloride	35.6	mg/L	12/17/08	SM 4500-Cl E
1086308	1086308009	SS-11D	12/09/08	Sulfate	80.1	mg/L	12/17/08	SM 4500-SO4 E
1086308	1086308009	SS-11D	12/09/08	Alkalinity, Carbonate (CaCO3)	ND	mg/L	12/17/08	SM 2320B
1086308	1086308009	SS-11D	12/09/08	Alkalinity, Total as CaCO3	112	mg/L	12/17/08	SM 2320B
1086308	1086308009	SS-11D	12/09/08	Alkalinity,Bicarbonate (CaCO3)	112	mg/L	12/17/08	SM 2320B
1086308	1086308009	SS-11D	12/09/08	Nitrogen, NO2 plus NO3	1.9	mg/L	12/17/08	EPA 353.1
1086308	1086308009	SS-11D	12/09/08	Mercury	ND	ug/L	12/22/08	EPA 245.1
1086308	1086308009	SS-11D	12/09/08	Mercury, Dissolved	ND	ug/L	12/23/08	EPA 245.1
1086308	1086308009	SS-11D	12/09/08	Nitrogen, Ammonia	2.0	mg/L	12/23/08	EPA 350.1
2008120121	9	SS-11D	12/9/2008	Phosphorus Total as P	0.367	mg/l	12/30/2008	
2008120121	9	SS-11D	12/9/2008	Total Kjeldahl Nitrogen as N	2.3	mg/l	12/27/2008	351.2
1086308	1086308011	SS-15A	12/09/08	Arsenic	7.2	ug/L	12/17/08	EPA 200.8
1086308	1086308011	SS-15A	12/09/08	Cadmium	0.52	ug/L	12/17/08	EPA 200.8
1086308	1086308011	SS-15A	12/09/08	Calcium	50800	ug/L	12/17/08	EPA 200.8
1086308	1086308011	SS-15A	12/09/08	Copper	39.0	ug/L	12/17/08	EPA 200.8
1086308	1086308011	SS-15A	12/09/08	Lead	5.1	ug/L	12/17/08	EPA 200.8
1086308	1086308011	SS-15A	12/09/08	Magnesium	12400	ug/L	12/17/08	EPA 200.8
1086308	1086308011	SS-15A	12/09/08	Manganese	208	ug/L	12/17/08	EPA 200.8
1086308	1086308011	SS-15A	12/09/08	Potassium	5630	ug/L	12/17/08	EPA 200.8
1086308	1086308011	SS-15A	12/09/08	Sodium	37600	ug/L	12/17/08	EPA 200.8
1086308	1086308011	SS-15A	12/09/08	Zinc	201	ug/L	12/17/08	EPA 200.8
1086308	1086308011	SS-15A	12/09/08	Arsenic, Dissolved	6.3	ug/L	12/22/08	EPA 200.8
1086308	1086308011	SS-15A	12/09/08	Cadmium, Dissolved	0.42	ug/L	12/22/08	EPA 200.8
1086308	1086308011	SS-15A	12/09/08	Calcium, Dissolved	49600	ug/L	12/22/08	EPA 200.8
1086308	1086308011	SS-15A	12/09/08	Copper, Dissolved	17.8	ug/L	12/22/08	EPA 200.8
1086308	1086308011	SS-15A	12/09/08	Lead, Dissolved	0.31	ug/L	12/22/08	EPA 200.8
1086308	1086308011	SS-15A	12/09/08	Magnesium, Dissolved	13400	ug/L	12/22/08	EPA 200.8
1086308	1086308011	SS-15A	12/09/08	Potassium, Dissolved	5740	ug/L	12/22/08	EPA 200.8
1086308	1086308011	SS-15A	12/09/08	Zinc, Dissolved	157	ug/L	12/22/08	EPA 200.8
1086308	1086308011	SS-15A	12/09/08	Manganese, Dissolved	111	ug/L	12/23/08	EPA 200.8
1086308	1086308011	SS-15A	12/09/08	Sodium, Dissolved	37400	ug/L	12/23/08	EPA 200.8
1086308	1086308011	SS-15A	12/09/08	Chloride	40.4	mg/L	12/17/08	SM 4500-Cl E
1086308	1086308011	SS-15A	12/09/08	Sulfate	94.8	mg/L	12/17/08	SM 4500-SO4 E
1086308	1086308011	SS-15A	12/09/08	Nitrogen, NO2 plus NO3	2.3	mg/L	12/17/08	EPA 353.1
1086308	1086308011	SS-15A	12/09/08	Alkalinity, Carbonate (CaCO3)	ND	mg/L	12/18/08	SM 2320B

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086308	1086308011	SS-15A	12/09/08	Alkalinity, Total as CaCO3	110	mg/L	12/18/08	SM 2320B
1086308	1086308011	SS-15A	12/09/08	Alkalinity,Bicarbonate (CaCO3)	110	mg/L	12/18/08	SM 2320B
1086308	1086308011	SS-15A	12/09/08	Mercury	ND	ug/L	12/22/08	EPA 245.1
1086308	1086308011	SS-15A	12/09/08	Mercury, Dissolved	ND	ug/L	12/23/08	EPA 245.1
1086308	1086308011	SS-15A	12/09/08	Nitrogen, Ammonia	1.7	mg/L	12/23/08	EPA 350.1
2008120121	11	SS-15A	12/9/2008	Phosphorus Total as P	0.428	mg/l	12/30/2008	
2008120121	11	SS-15A	12/9/2008	Total Kjeldahl Nitrogen as N	2.3	mg/l	12/27/2008	351.2
1086308	1086308012	SS-15B	12/09/08	Arsenic	6.9	ug/L	12/17/08	EPA 200.8
1086308	1086308012	SS-15B	12/09/08	Cadmium	0.50	ug/L	12/17/08	EPA 200.8
1086308	1086308012	SS-15B	12/09/08	Calcium	51900	ug/L	12/17/08	EPA 200.8
1086308	1086308012	SS-15B	12/09/08	Copper	33.0	ug/L	12/17/08	EPA 200.8
1086308	1086308012	SS-15B	12/09/08	Lead	4.5	ug/L	12/17/08	EPA 200.8
1086308	1086308012	SS-15B	12/09/08	Magnesium	11900	ug/L	12/17/08	EPA 200.8
1086308	1086308012	SS-15B	12/09/08	Manganese	196	ug/L	12/17/08	EPA 200.8
1086308	1086308012	SS-15B	12/09/08	Potassium	5270	ug/L	12/17/08	EPA 200.8
1086308	1086308012	SS-15B	12/09/08	Sodium	36500	ug/L	12/17/08	EPA 200.8
1086308	1086308012	SS-15B	12/09/08	Zinc	189	ug/L	12/17/08	EPA 200.8
1086308	1086308012	SS-15B	12/09/08	Arsenic, Dissolved	6.2	ug/L	12/22/08	EPA 200.8
1086308	1086308012	SS-15B	12/09/08	Cadmium, Dissolved	0.43	ug/L	12/22/08	EPA 200.8
1086308	1086308012	SS-15B	12/09/08	Calcium, Dissolved	49500	ug/L	12/22/08	EPA 200.8
1086308	1086308012	SS-15B	12/09/08	Copper, Dissolved	17.4	ug/L	12/22/08	EPA 200.8
1086308	1086308012	SS-15B	12/09/08	Lead, Dissolved	0.31	ug/L	12/22/08	EPA 200.8
1086308	1086308012	SS-15B	12/09/08	Magnesium, Dissolved	13300	ug/L	12/22/08	EPA 200.8
1086308	1086308012	SS-15B	12/09/08	Potassium, Dissolved	5340	ug/L	12/22/08	EPA 200.8
1086308	1086308012	SS-15B	12/09/08	Zinc, Dissolved	158	ug/L	12/22/08	EPA 200.8
1086308	1086308012	SS-15B	12/09/08	Manganese, Dissolved	112	ug/L	12/23/08	EPA 200.8
1086308	1086308012	SS-15B	12/09/08	Sodium, Dissolved	35900	ug/L	12/23/08	EPA 200.8
1086308	1086308012	SS-15B	12/09/08	Chloride	39.7	mg/L	12/17/08	SM 4500-Cl E
1086308	1086308012	SS-15B	12/09/08	Sulfate	92.9	mg/L	12/17/08	SM 4500-SO4 E
1086308	1086308012	SS-15B	12/09/08	Nitrogen, NO2 plus NO3	2.0	mg/L	12/17/08	EPA 353.1
1086308	1086308012	SS-15B	12/09/08	Alkalinity, Carbonate (CaCO3)	ND	mg/L	12/18/08	SM 2320B
1086308	1086308012	SS-15B	12/09/08	Alkalinity, Total as CaCO3	116	mg/L	12/18/08	SM 2320B
1086308	1086308012	SS-15B	12/09/08	Alkalinity,Bicarbonate (CaCO3)	116	mg/L	12/18/08	SM 2320B
1086308	1086308012	SS-15B	12/09/08	Mercury	ND	ug/L	12/22/08	EPA 245.1
1086308	1086308012	SS-15B	12/09/08	Mercury, Dissolved	ND	ug/L	12/23/08	EPA 245.1
1086308	1086308012	SS-15B	12/09/08	Nitrogen, Ammonia	1.8	mg/L	12/23/08	EPA 350.1
2008120121	12	SS-15B	12/9/2008	Phosphorus Total as P	0.435	mg/l	12/30/2008	
2008120121	12	SS-15B	12/9/2008	Total Kjeldahl Nitrogen as N	2.3	mg/l	12/27/2008	351.2
1086308	1086308010	SS-15G	12/09/08	Arsenic	3.3	ug/L	12/17/08	EPA 200.8
1086308	1086308010	SS-15G	12/09/08	Cadmium	ND	ug/L	12/17/08	EPA 200.8
1086308	1086308010	SS-15G	12/09/08	Calcium	38800	ug/L	12/17/08	EPA 200.8
1086308	1086308010	SS-15G	12/09/08	Copper	0.77	ug/L	12/17/08	EPA 200.8
1086308	1086308010	SS-15G	12/09/08	Lead	ND	ug/L	12/17/08	EPA 200.8
1086308	1086308010	SS-15G	12/09/08	Magnesium	7140	ug/L	12/17/08	EPA 200.8
1086308	1086308010	SS-15G	12/09/08	Manganese	2.9	ug/L	12/17/08	EPA 200.8
1086308	1086308010	SS-15G	12/09/08	Potassium	1500	ug/L	12/17/08	EPA 200.8
1086308	1086308010	SS-15G	12/09/08	Sodium	4640	ug/L	12/17/08	EPA 200.8
1086308	1086308010	SS-15G	12/09/08	Zinc	ND	ug/L	12/17/08	EPA 200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086308	1086308010	SS-15G	12/09/08	Arsenic, Dissolved	3.7	ug/L	12/22/08	EPA 200.8
1086308	1086308010	SS-15G	12/09/08	Cadmium, Dissolved	ND	ug/L	12/22/08	EPA 200.8
1086308	1086308010	SS-15G	12/09/08	Calcium, Dissolved	38000	ug/L	12/22/08	EPA 200.8
1086308	1086308010	SS-15G	12/09/08	Copper, Dissolved	0.74	ug/L	12/22/08	EPA 200.8
1086308	1086308010	SS-15G	12/09/08	Lead, Dissolved	ND	ug/L	12/22/08	EPA 200.8
1086308	1086308010	SS-15G	12/09/08	Magnesium, Dissolved	7710	ug/L	12/22/08	EPA 200.8
1086308	1086308010	SS-15G	12/09/08	Potassium, Dissolved	1460	ug/L	12/22/08	EPA 200.8
1086308	1086308010	SS-15G	12/09/08	Zinc, Dissolved	ND	ug/L	12/22/08	EPA 200.8
1086308	1086308010	SS-15G	12/09/08	Manganese, Dissolved	2.7	ug/L	12/23/08	EPA 200.8
1086308	1086308010	SS-15G	12/09/08	Sodium, Dissolved	4150	ug/L	12/23/08	EPA 200.8
1086308	1086308010	SS-15G	12/09/08	Chloride	ND	mg/L	12/17/08	SM 4500-Cl E
1086308	1086308010	SS-15G	12/09/08	Sulfate	35.0	mg/L	12/17/08	SM 4500-SO4 E
1086308	1086308010	SS-15G	12/09/08	Alkalinity, Carbonate (CaCO3)	ND	mg/L	12/17/08	SM 2320B
1086308	1086308010	SS-15G	12/09/08	Alkalinity, Total as CaCO3	97.7	mg/L	12/17/08	SM 2320B
1086308	1086308010	SS-15G	12/09/08	Alkalinity,Bicarbonate (CaCO3)	97.7	mg/L	12/17/08	SM 2320B
1086308	1086308010	SS-15G	12/09/08	Nitrogen, NO2 plus NO3	ND	mg/L	12/17/08	EPA 353.1
1086308	1086308010	SS-15G	12/09/08	Mercury	ND	ug/L	12/22/08	EPA 245.1
1086308	1086308010	SS-15G	12/09/08	Mercury, Dissolved	ND	ug/L	12/23/08	EPA 245.1
1086308	1086308010	SS-15G	12/09/08	Nitrogen, Ammonia	ND	mg/L	12/23/08	EPA 350.1
2008120121	10	SS-15G	12/9/2008	Phosphorus Total as P	0.036	mg/l	12/30/2008	
2008120121	10	SS-15G	12/9/2008	Total Kjeldahl Nitrogen as N		mg/l	12/27/2008	351.2
1086308	1086308013	SS-17D	12/09/08	Arsenic	6.8	ug/L	12/17/08	EPA 200.8
1086308	1086308013	SS-17D	12/09/08	Cadmium	0.51	ug/L	12/17/08	EPA 200.8
1086308	1086308013	SS-17D	12/09/08	Calcium	51200	ug/L	12/17/08	EPA 200.8
1086308	1086308013	SS-17D	12/09/08	Copper	23.6	ug/L	12/17/08	EPA 200.8
1086308	1086308013	SS-17D	12/09/08	Lead	2.0	ug/L	12/17/08	EPA 200.8
1086308	1086308013	SS-17D	12/09/08	Magnesium	11400	ug/L	12/17/08	EPA 200.8
1086308	1086308013	SS-17D	12/09/08	Manganese	128	ug/L	12/17/08	EPA 200.8
1086308	1086308013	SS-17D	12/09/08	Potassium	4660	ug/L	12/17/08	EPA 200.8
1086308	1086308013	SS-17D	12/09/08	Sodium	32300	ug/L	12/17/08	EPA 200.8
1086308	1086308013	SS-17D	12/09/08	Zinc	182	ug/L	12/17/08	EPA 200.8
1086308	1086308013	SS-17D	12/09/08	Arsenic, Dissolved	6.6	ug/L	12/22/08	EPA 200.8
1086308	1086308013	SS-17D	12/09/08	Cadmium, Dissolved	0.51	ug/L	12/22/08	EPA 200.8
1086308	1086308013	SS-17D	12/09/08	Calcium, Dissolved	48500	ug/L	12/22/08	EPA 200.8
1086308	1086308013	SS-17D	12/09/08	Copper, Dissolved	17.4	ug/L	12/22/08	EPA 200.8
1086308	1086308013	SS-17D	12/09/08	Lead, Dissolved	0.33	ug/L	12/22/08	EPA 200.8
1086308	1086308013	SS-17D	12/09/08	Magnesium, Dissolved	12400	ug/L	12/22/08	EPA 200.8
1086308	1086308013	SS-17D	12/09/08	Potassium, Dissolved	4790	ug/L	12/22/08	EPA 200.8
1086308	1086308013	SS-17D	12/09/08	Zinc, Dissolved	172	ug/L	12/22/08	EPA 200.8
1086308	1086308013	SS-17D	12/09/08	Manganese, Dissolved	106	ug/L	12/23/08	EPA 200.8
1086308	1086308013	SS-17D	12/09/08	Sodium, Dissolved	33100	ug/L	12/23/08	EPA 200.8
1086308	1086308013	SS-17D	12/09/08	Chloride	31.7	mg/L	12/17/08	SM 4500-Cl E
1086308	1086308013	SS-17D	12/09/08	Sulfate	87.7	mg/L	12/17/08	SM 4500-SO4 E
1086308	1086308013	SS-17D	12/09/08	Nitrogen, NO2 plus NO3	2.1	mg/L	12/17/08	EPA 353.1
1086308	1086308013	SS-17D	12/09/08	Alkalinity, Carbonate (CaCO3)	ND	mg/L	12/18/08	SM 2320B
1086308	1086308013	SS-17D	12/09/08	Alkalinity, Total as CaCO3	106	mg/L	12/18/08	SM 2320B
1086308	1086308013	SS-17D	12/09/08	Alkalinity,Bicarbonate (CaCO3)	106	mg/L	12/18/08	SM 2320B
1086308	1086308013	SS-17D	12/09/08	Mercury	ND	ug/L	12/22/08	EPA 245.1

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086308	1086308013	SS-17D	12/09/08	Mercury, Dissolved	ND	ug/L	12/23/08	EPA 245.1
1086308	1086308013	SS-17D	12/09/08	Nitrogen, Ammonia	0.67	mg/L	12/23/08	EPA 350.1
2008120121	13	SS-17D	12/9/2008	Phosphorus Total as P	0.293	mg/l	12/30/2008	
2008120121	13	SS-17D	12/9/2008	Total Kjeldahl Nitrogen as N	1	mg/l	12/27/2008	351.2
1086308	564195	BLANK		Arsenic	ND	ug/L	12/17/08	EPA 200.8
1086308	564195	BLANK		Cadmium	ND	ug/L	12/17/08	EPA 200.8
1086308	564195	BLANK		Calcium	ND	ug/L	12/17/08	EPA 200.8
1086308	564195	BLANK		Copper	ND	ug/L	12/17/08	EPA 200.8
1086308	564195	BLANK		Lead	ND	ug/L	12/17/08	EPA 200.8
1086308	564195	BLANK		Magnesium	8.9	ug/L	12/17/08	EPA 200.8
1086308	564195	BLANK		Manganese	3.3	ug/L	12/17/08	EPA 200.8
1086308	564195	BLANK		Potassium	ND	ug/L	12/17/08	EPA 200.8
1086308	564195	BLANK		Sodium	ND	ug/L	12/17/08	EPA 200.8
1086308	564195	BLANK		Zinc	ND	ug/L	12/17/08	EPA 200.8
1086308	564253	BLANK		Arsenic, Dissolved	ND	ug/L	12/22/08	EPA 200.8
1086308	564253	BLANK		Cadmium, Dissolved	ND	ug/L	12/22/08	EPA 200.8
1086308	564253	BLANK		Calcium, Dissolved	ND	ug/L	12/22/08	EPA 200.8
1086308	564253	BLANK		Copper, Dissolved	ND	ug/L	12/22/08	EPA 200.8
1086308	564253	BLANK		Lead, Dissolved	ND	ug/L	12/22/08	EPA 200.8
1086308	564253	BLANK		Magnesium, Dissolved	ND	ug/L	12/22/08	EPA 200.8
1086308	564253	BLANK		Manganese, Dissolved	ND	ug/L	12/22/08	EPA 200.8
1086308	564253	BLANK		Potassium, Dissolved	ND	ug/L	12/22/08	EPA 200.8
1086308	564253	BLANK		Sodium, Dissolved	ND	ug/L	12/22/08	EPA 200.8
1086308	564253	BLANK		Zinc, Dissolved	ND	ug/L	12/22/08	EPA 200.8
1086308	564667	BLANK		Chloride	ND	mg/L	12/17/08	SM 4500-Cl E
1086308	564673	BLANK		Chloride	ND	mg/L	12/17/08	SM 4500-Cl E
1086308	564677	BLANK		Sulfate	ND	mg/L	12/17/08	SM 4500-SO4 E
1086308	564683	BLANK		Sulfate	ND	mg/L	12/17/08	SM 4500-SO4 E
1086308	564708	BLANK		Alkalinity, Carbonate (CaCO3)	ND	mg/L	12/17/08	SM 2320B
1086308	564708	BLANK		Alkalinity, Total as CaCO3	ND	mg/L	12/17/08	SM 2320B
1086308	564708	BLANK		Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	12/17/08	SM 2320B
1086308	564734	BLANK		Nitrogen, NO2 plus NO3	ND	mg/L	12/17/08	EPA 353.1
1086308	564740	BLANK		Nitrogen, NO2 plus NO3	ND	mg/L	12/17/08	EPA 353.1
1086308	565399	BLANK		Alkalinity, Carbonate (CaCO3)	ND	mg/L	12/18/08	SM 2320B
1086308	565399	BLANK		Alkalinity, Total as CaCO3	ND	mg/L	12/18/08	SM 2320B
1086308	565399	BLANK		Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	12/18/08	SM 2320B
1086308	565552	BLANK		Mercury	ND	ug/L	12/22/08	EPA 245.1
1086308	565843	BLANK		Mercury, Dissolved	ND	ug/L	12/23/08	EPA 245.1
1086308	566695	BLANK		Nitrogen, Ammonia	ND	mg/L	12/23/08	EPA 350.1
1086308	567097	BLANK		Nitrogen, Ammonia	ND	mg/L	12/23/08	EPA 350.1
2008120121	16	BLANK	1/3/1900	Phosphorus Total as P		mg/l	12/31/2008	
2008120121	16	BLANK	1/3/1900	Total Kjeldahl Nitrogen as N		mg/l	12/27/2008	351.2
1086308	564712	DUP		Alkalinity, Carbonate (CaCO3)	ND	mg/L	12/17/08	SM 2320B
1086308	564712	DUP		Alkalinity, Total as CaCO3	530	mg/L	12/17/08	SM 2320B
1086308	564712	DUP		Alkalinity,Bicarbonate (CaCO3)	530	mg/L	12/17/08	SM 2320B
1086308	564714	DUP		Alkalinity, Carbonate (CaCO3)	ND	mg/L	12/17/08	SM 2320B
1086308	564714	DUP		Alkalinity, Total as CaCO3	105	mg/L	12/17/08	SM 2320B
1086308	564714	DUP		Alkalinity,Bicarbonate (CaCO3)	105	mg/L	12/17/08	SM 2320B

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086308	565403	DUP		Alkalinity, Carbonate (CaCO3)	ND	mg/L	12/18/08	SM 2320B
1086308	565403	DUP		Alkalinity, Total as CaCO3	118	mg/L	12/18/08	SM 2320B
1086308	565403	DUP		Alkalinity,Bicarbonate (CaCO3)	118	mg/L	12/18/08	SM 2320B
1086308	565405	DUP		Alkalinity, Carbonate (CaCO3)	ND	mg/L	12/18/08	SM 2320B
1086308	565405	DUP		Alkalinity, Total as CaCO3	101	mg/L	12/18/08	SM 2320B
1086308	565405	DUP		Alkalinity,Bicarbonate (CaCO3)	101	mg/L	12/18/08	SM 2320B
2008120121	14	DUP	1/3/1900	Phosphorus Total as P	4	RPD [0-20]	12/30/2008	
2008120121	14	DUP	1/3/1900	Total Kjeldahl Nitrogen as N	0	RPD [0-20]	12/27/2008	351.2
2008120121	17	LCS	1/3/1900	Phosphorus Total as P	108	% [77-119]	12/31/2008	
2008120121	17	LCS	1/3/1900	Total Kjeldahl Nitrogen as N	100	% [78-128]	12/27/2008	351.2
1086308	564196	LCS		Arsenic	103	%	12/17/08	EPA 200.8
1086308	564196	LCS		Cadmium	103	%	12/17/08	EPA 200.8
1086308	564196	LCS		Calcium	114	%	12/17/08	EPA 200.8
1086308	564196	LCS		Copper	102	%	12/17/08	EPA 200.8
1086308	564196	LCS		Lead	97	%	12/17/08	EPA 200.8
1086308	564196	LCS		Magnesium	105	%	12/17/08	EPA 200.8
1086308	564196	LCS		Manganese	97	%	12/17/08	EPA 200.8
1086308	564196	LCS		Potassium	106	%	12/17/08	EPA 200.8
1086308	564196	LCS		Sodium	105	%	12/17/08	EPA 200.8
1086308	564196	LCS		Zinc	99	%	12/17/08	EPA 200.8
1086308	564254	LCS		Arsenic, Dissolved	100	%	12/22/08	EPA 200.8
1086308	564254	LCS		Cadmium, Dissolved	100	%	12/22/08	EPA 200.8
1086308	564254	LCS		Calcium, Dissolved	99	%	12/22/08	EPA 200.8
1086308	564254	LCS		Copper, Dissolved	103	%	12/22/08	EPA 200.8
1086308	564254	LCS		Lead, Dissolved	98	%	12/22/08	EPA 200.8
1086308	564254	LCS		Magnesium, Dissolved	104	%	12/22/08	EPA 200.8
1086308	564254	LCS		Manganese, Dissolved	102	%	12/22/08	EPA 200.8
1086308	564254	LCS		Potassium, Dissolved	99	%	12/22/08	EPA 200.8
1086308	564254	LCS		Sodium, Dissolved	105	%	12/22/08	EPA 200.8
1086308	564254	LCS		Zinc, Dissolved	103	%	12/22/08	EPA 200.8
1086308	564668	LCS		Chloride	110	%	12/17/08	SM 4500-Cl E
1086308	564674	LCS		Chloride	109	%	12/17/08	SM 4500-Cl E
1086308	564678	LCS		Sulfate	98	%	12/17/08	SM 4500-SO4 E
1086308	564684	LCS		Sulfate	96	%	12/17/08	SM 4500-SO4 E
1086308	564709	LCS		Alkalinity, Total as CaCO3	100	%	12/17/08	SM 2320B
1086308	564735	LCS		Nitrogen, NO2 plus NO3	105	%	12/17/08	EPA 353.1
1086308	564741	LCS		Nitrogen, NO2 plus NO3	97	%	12/17/08	EPA 353.1
1086308	565400	LCS		Alkalinity, Total as CaCO3	101	%	12/18/08	SM 2320B
1086308	565553	LCS		Mercury	92	%	12/22/08	EPA 245.1
1086308	565844	LCS		Mercury, Dissolved	91	%	12/23/08	EPA 245.1
1086308	566696	LCS		Nitrogen, Ammonia	97	%	12/23/08	EPA 350.1
1086308	567098	LCS		Nitrogen, Ammonia	97	%	12/23/08	EPA 350.1
1086308	564710	LCSD		Alkalinity, Total as CaCO3	102	%	12/17/08	SM 2320B
1086308	565401	LCSD		Alkalinity, Total as CaCO3	101	%	12/18/08	SM 2320B
2008120121	15	MS	1/3/1900	Phosphorus Total as P	100	% [66-133]	12/30/2008	
2008120121	15	MS	1/3/1900	Total Kjeldahl Nitrogen as N	92	% [61-128]	12/27/2008	351.2
1086308	564197	MS		Arsenic	98	%	12/17/08	EPA 200.8
1086308	564197	MS		Cadmium	97	%	12/17/08	EPA 200.8

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086308	564197	MS		Calcium	66	%	12/17/08	EPA 200.8
1086308	564197	MS		Copper	96	%	12/17/08	EPA 200.8
1086308	564197	MS		Lead	95	%	12/17/08	EPA 200.8
1086308	564197	MS		Magnesium	57	%	12/17/08	EPA 200.8
1086308	564197	MS		Manganese	82	%	12/17/08	EPA 200.8
1086308	564197	MS		Potassium	73	%	12/17/08	EPA 200.8
1086308	564197	MS		Sodium	16	%	12/17/08	EPA 200.8
1086308	564197	MS		Zinc	90	%	12/17/08	EPA 200.8
1086308	564198	MS		Arsenic	103	%	12/17/08	EPA 200.8
1086308	564198	MS		Cadmium	102	%	12/17/08	EPA 200.8
1086308	564198	MS		Calcium	120	%	12/17/08	EPA 200.8
1086308	564198	MS		Copper	97	%	12/17/08	EPA 200.8
1086308	564198	MS		Lead	96	%	12/17/08	EPA 200.8
1086308	564198	MS		Magnesium	124	%	12/17/08	EPA 200.8
1086308	564198	MS		Manganese	97	%	12/17/08	EPA 200.8
1086308	564198	MS		Potassium	105	%	12/17/08	EPA 200.8
1086308	564198	MS		Sodium	132	%	12/17/08	EPA 200.8
1086308	564198	MS		Zinc	96	%	12/17/08	EPA 200.8
1086308	564255	MS		Arsenic, Dissolved	104	%	12/22/08	EPA 200.8
1086308	564255	MS		Cadmium, Dissolved	105	%	12/22/08	EPA 200.8
1086308	564255	MS		Calcium, Dissolved	-180	%	12/22/08	EPA 200.8
1086308	564255	MS		Copper, Dissolved	106	%	12/22/08	EPA 200.8
1086308	564255	MS		Lead, Dissolved	101	%	12/22/08	EPA 200.8
1086308	564255	MS		Magnesium, Dissolved	107	%	12/22/08	EPA 200.8
1086308	564255	MS		Manganese, Dissolved	108	%	12/22/08	EPA 200.8
1086308	564255	MS		Potassium, Dissolved	87	%	12/22/08	EPA 200.8
1086308	564255	MS		Sodium, Dissolved	64	%	12/22/08	EPA 200.8
1086308	564255	MS		Zinc, Dissolved	105	%	12/22/08	EPA 200.8
1086308	564257	MS		Arsenic, Dissolved	103	%	12/22/08	EPA 200.8
1086308	564257	MS		Cadmium, Dissolved	105	%	12/22/08	EPA 200.8
1086308	564257	MS		Calcium, Dissolved	-81	%	12/22/08	EPA 200.8
1086308	564257	MS		Copper, Dissolved	109	%	12/22/08	EPA 200.8
1086308	564257	MS		Lead, Dissolved	98	%	12/22/08	EPA 200.8
1086308	564257	MS		Magnesium, Dissolved	100	%	12/22/08	EPA 200.8
1086308	564257	MS		Potassium, Dissolved	107	%	12/22/08	EPA 200.8
1086308	564257	MS		Zinc, Dissolved	114	%	12/22/08	EPA 200.8
1086308	564257	MS		Manganese, Dissolved	104	%	12/23/08	EPA 200.8
1086308	564257	MS		Sodium, Dissolved	89	%	12/23/08	EPA 200.8
1086308	564669	MS		Chloride	111	%	12/17/08	SM 4500-Cl E
1086308	564671	MS		Chloride	92	%	12/17/08	SM 4500-Cl E
1086308	564675	MS		Chloride	88	%	12/17/08	SM 4500-Cl E
1086308	564679	MS		Sulfate	65	%	12/17/08	SM 4500-SO4 E
1086308	564681	MS		Sulfate	88	%	12/17/08	SM 4500-SO4 E
1086308	564685	MS		Sulfate	98	%	12/17/08	SM 4500-SO4 E
1086308	564711	MS		Alkalinity, Total as CaCO3	92	%	12/17/08	SM 2320B
1086308	564713	MS		Alkalinity, Total as CaCO3	96	%	12/17/08	SM 2320B
1086308	564736	MS		Nitrogen, NO2 plus NO3	141	%	12/17/08	EPA 353.1
1086308	564738	MS		Nitrogen, NO2 plus NO3	98	%	12/17/08	EPA 353.1

2008 Surface Water Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086308	564742	MS		Nitrogen, NO2 plus NO3	106	%	12/17/08	EPA 353.1
1086308	564744	MS		Nitrogen, NO2 plus NO3	116	%	12/17/08	EPA 353.1
1086308	565402	MS		Alkalinity, Total as CaCO3	95	%	12/18/08	SM 2320B
1086308	565404	MS		Alkalinity, Total as CaCO3	93	%	12/18/08	SM 2320B
1086308	565554	MS		Mercury	98	%	12/22/08	EPA 245.1
1086308	565556	MS		Mercury	98	%	12/22/08	EPA 245.1
1086308	565845	MS		Mercury, Dissolved	50	%	12/23/08	EPA 245.1
1086308	565847	MS		Mercury, Dissolved		%	12/23/08	EPA 245.1
1086308	566697	MS		Nitrogen, Ammonia	98	%	12/23/08	EPA 350.1
1086308	567099	MS		Nitrogen, Ammonia	117	%	12/23/08	EPA 350.1
1086308	564199	MSD		Arsenic	102	%	12/17/08	EPA 200.8
1086308	564199	MSD		Cadmium	101	%	12/17/08	EPA 200.8
1086308	564199	MSD		Calcium	230	%	12/17/08	EPA 200.8
1086308	564199	MSD		Copper	100	%	12/17/08	EPA 200.8
1086308	564199	MSD		Lead	97	%	12/17/08	EPA 200.8
1086308	564199	MSD		Magnesium	118	%	12/17/08	EPA 200.8
1086308	564199	MSD		Manganese	116	%	12/17/08	EPA 200.8
1086308	564199	MSD		Potassium	107	%	12/17/08	EPA 200.8
1086308	564199	MSD		Sodium	122	%	12/17/08	EPA 200.8
1086308	564199	MSD		Zinc	99	%	12/17/08	EPA 200.8
1086308	564256	MSD		Arsenic, Dissolved	97	%	12/22/08	EPA 200.8
1086308	564256	MSD		Cadmium, Dissolved	97	%	12/22/08	EPA 200.8
1086308	564256	MSD		Calcium, Dissolved	-96	%	12/22/08	EPA 200.8
1086308	564256	MSD		Copper, Dissolved	100	%	12/22/08	EPA 200.8
1086308	564256	MSD		Lead, Dissolved	94	%	12/22/08	EPA 200.8
1086308	564256	MSD		Magnesium, Dissolved	132	%	12/22/08	EPA 200.8
1086308	564256	MSD		Manganese, Dissolved	105	%	12/22/08	EPA 200.8
1086308	564256	MSD		Potassium, Dissolved	89	%	12/22/08	EPA 200.8
1086308	564256	MSD		Sodium, Dissolved	175	%	12/22/08	EPA 200.8
1086308	564256	MSD		Zinc, Dissolved	100	%	12/22/08	EPA 200.8
1086308	564670	MSD		Chloride	110	%	12/17/08	SM 4500-Cl E
1086308	564672	MSD		Chloride	89	%	12/17/08	SM 4500-Cl E
1086308	564676	MSD		Chloride	91	%	12/17/08	SM 4500-Cl E
1086308	564680	MSD		Sulfate	66	%	12/17/08	SM 4500-SO4 E
1086308	564682	MSD		Sulfate	87	%	12/17/08	SM 4500-SO4 E
1086308	564686	MSD		Sulfate	94	%	12/17/08	SM 4500-SO4 E
1086308	564737	MSD		Nitrogen, NO2 plus NO3	107	%	12/17/08	EPA 353.1
1086308	564739	MSD		Nitrogen, NO2 plus NO3	87	%	12/17/08	EPA 353.1
1086308	564743	MSD		Nitrogen, NO2 plus NO3	108	%	12/17/08	EPA 353.1
1086308	564745	MSD		Nitrogen, NO2 plus NO3	114	%	12/17/08	EPA 353.1
1086308	565555	MSD		Mercury	96	%	12/22/08	EPA 245.1
1086308	565846	MSD		Mercury, Dissolved	86	%	12/23/08	EPA 245.1
1086308	566698	MSD		Nitrogen, Ammonia	121	%	12/23/08	EPA 350.1
1086308	567100	MSD		Nitrogen, Ammonia	115	%	12/23/08	EPA 350.1

Appendix J

2008 Groundwater Data

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008040022	3	1GW-1038, GROUNDWATER	3/26/2008	Arsenic as As (Dissolved)	0.041	mg/l	4/3/2008 13:00	200.8
2008040022	3	1GW-1038, GROUNDWATER	3/26/2008	Cadmium as Cd (Dissolved)	0.0004	mg/l	4/3/2008	200.8
2008040022	3	1GW-1038, GROUNDWATER	3/26/2008	Copper as Cu (Dissolved)	0.028	mg/l	4/3/2008 13:00	200.8
2008040022	3	1GW-1038, GROUNDWATER	3/26/2008	Lead as Pb (Dissolved)	0.001	mg/l	4/3/2008	200.8
2008040022	3	1GW-1038, GROUNDWATER	3/26/2008	Zinc as Zn (Dissolved)	0.02	mg/l	4/3/2008	200.8
2008040022	4	MW-10, GROUNDWATER	3/26/2008	Arsenic as As (Dissolved)	<0.003	mg/l	4/3/2008	200.8
2008040022	4	MW-10, GROUNDWATER	3/26/2008	Cadmium as Cd (Dissolved)	0	mg/l	4/3/2008 13:06	200.8
2008040022	4	MW-10, GROUNDWATER	3/26/2008	Copper as Cu (Dissolved)	2.1	mg/l	4/4/2008	200.7
2008040022	4	MW-10, GROUNDWATER	3/26/2008	Lead as Pb (Dissolved)	0.055	mg/l	4/3/2008	200.8
2008040022	4	MW-10, GROUNDWATER	3/26/2008	Zinc as Zn (Dissolved)	9.31	mg/l	4/4/2008	200.7
2008040022	5	P-37A, GROUNDWATER	3/26/2008	Arsenic as As (Dissolved)	<0.003	mg/l	4/3/2008 13:32	200.8
2008040022	5	P-37A, GROUNDWATER	3/26/2008	Cadmium as Cd (Dissolved)	0.0009	mg/l	4/3/2008 13:32	200.8
2008040022	5	P-37A, GROUNDWATER	3/26/2008	Copper as Cu (Dissolved)	0.022	mg/l	4/3/2008 13:32	200.8
2008040022	5	P-37A, GROUNDWATER	3/26/2008	Lead as Pb (Dissolved)	0.0008	mg/l	4/3/2008	200.8
2008040022	5	P-37A, GROUNDWATER	3/26/2008	Zinc as Zn (Dissolved)	0.32	mg/l	4/3/2008 13:32	200.8
2008040022	6	1GW-1004A, GROUNDWATER	3/26/2008	Arsenic as As (Dissolved)	<0.003	mg/l	4/3/2008 13:38	200.8
2008040022	6	1GW-1004A, GROUNDWATER	3/26/2008	Cadmium as Cd (Dissolved)	0.0043	mg/l	4/3/2008	200.8
2008040022	6	1GW-1004A, GROUNDWATER	3/26/2008	Copper as Cu (Dissolved)	0.046	mg/l	4/3/2008 13:38	200.8
2008040022	6	1GW-1004A, GROUNDWATER	3/26/2008	Lead as Pb (Dissolved)	0.0018	mg/l	4/3/2008 15:08	200.8
2008040022	6	1GW-1004A, GROUNDWATER	3/26/2008	Zinc as Zn (Dissolved)	5	mg/l	4/4/2008	200.7
2008040022	7	DUPLICATE OF 2008040022-1	3/24/2008	Arsenic as As (Total Recoverable)	0.006	mg/l	4/9/2008 19:30	200.8
2008040022	7	DUPLICATE OF 2008040022-1	3/24/2008	Cadmium as Cd (Total Recoverable)	0.115	mg/l	4/9/2008	200.8
2008040022	7	DUPLICATE OF 2008040022-1	3/24/2008	Copper as Cu (Total Recoverable)	3.12	mg/l	4/9/2008 13:25	200.7
2008040022	7	DUPLICATE OF 2008040022-1	3/24/2008	Lead as Pb (Total Recoverable)	0.0028	mg/l	4/9/2008	200.8
2008040022	7	DUPLICATE OF 2008040022-1	3/24/2008	Mercury as Hg (Total Recoverable)	0.00004	mg/l	4/11/2008	200.8
2008040022	7	DUPLICATE OF 2008040022-1	3/24/2008	Metals Batch#/Digestion Date	1490	-----	4/8/2008	200.2
2008040022	7	DUPLICATE OF 2008040022-1	3/24/2008	Zinc as Zn (Total Recoverable)	19.7	mg/l	4/9/2008 13:25	200.7
2008040022	1	POND	3/24/2008	Arsenic as As (Total Recoverable)	0.006	mg/l	4/9/2008	200.8
2008040022	1	POND	3/24/2008	Cadmium as Cd (Total Recoverable)	0.115	mg/l	4/9/2008	200.8
2008040022	1	POND	3/24/2008	Copper as Cu (Total Recoverable)	3.21	mg/l	4/9/2008	200.7
2008040022	1	POND	3/24/2008	Lead as Pb (Total Recoverable)	0.0027	mg/l	4/9/2008 19:23	200.8
2008040022	1	POND	3/24/2008	Mercury as Hg (Total Recoverable)	0.00004	mg/l	4/11/2008 15:08	200.8
2008040022	1	POND	3/24/2008	Metals Batch#/Digestion Date	1490	-----	4/8/2008 14:15	200.2
2008040022	1	POND	3/24/2008	Zinc as Zn (Total Recoverable)	20.1	mg/l	4/9/2008	200.7
2008040022	2	POND	3/24/2008	Arsenic as As (Dissolved)	0.004	mg/l	4/3/2008 12:46	200.8
2008040022	2	POND	3/24/2008	Cadmium as Cd (Dissolved)	0.11	mg/l	4/3/2008 12:46	200.8
2008040022	2	POND	3/24/2008	Copper as Cu (Dissolved)	2.89	mg/l	4/4/2008	200.7
2008040022	2	POND	3/24/2008	Lead as Pb (Dissolved)	0.0012	mg/l	4/3/2008 14:48	200.8
2008040022	2	POND	3/24/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	4/4/2008 18:39	200.8
2008040022	2	POND	3/24/2008	Zinc as Zn (Dissolved)	18.3	mg/l	4/4/2008	200.7
2008040022	8	MATRIX SPIKE OF 2008040022-1	3/24/2008	Arsenic as As (Total Recoverable)	97	% [79-124]	4/9/2008	200.8
2008040022	8	MATRIX SPIKE OF 2008040022-1	3/24/2008	Cadmium as Cd (Total Recoverable)	93	% [83-116]	4/9/2008	200.8
2008040022	8	MATRIX SPIKE OF 2008040022-1	3/24/2008	Copper as Cu (Total Recoverable)	100	% [70-130]	4/9/2008	200.7
2008040022	8	MATRIX SPIKE OF 2008040022-1	3/24/2008	Lead as Pb (Total Recoverable)	105	% [81-121]	4/9/2008 19:37	200.8
2008040022	8	MATRIX SPIKE OF 2008040022-1	3/24/2008	Mercury as Hg (Total Recoverable)	128	% [70-130]	4/11/2008 15:20	200.8
2008040022	8	MATRIX SPIKE OF 2008040022-1	3/24/2008	Metals Batch#/Digestion Date	1490	-----	4/8/2008 14:15	200.2
2008040022	8	MATRIX SPIKE OF 2008040022-1	3/24/2008	Zinc as Zn (Total Recoverable)	99	% [84-121]	4/9/2008 13:28	200.7
2008040022	9	METHOD BLANK	1/2/1900	Arsenic as As (Dissolved)	<0.003	mg/l	4/3/2008 12:09	200.8

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008040022	9	METHOD BLANK	1/2/1900	Arsenic as As (Total Recoverable)	<0.003	mg/l	4/9/2008 19:10	200.8
2008040022	9	METHOD BLANK	1/2/1900	Cadmium as Cd (Dissolved)	<0.00008	mg/l	4/3/2008	200.8
2008040022	9	METHOD BLANK	1/2/1900	Cadmium as Cd (Total Recoverable)	<0.00008	mg/l	4/9/2008 19:10	200.8
2008040022	9	METHOD BLANK	1/2/1900	Copper as Cu (Dissolved)	<0.01	mg/l	4/4/2008 14:51	200.7
2008040022	9	METHOD BLANK	1/2/1900	Copper as Cu (Total Recoverable)	<0.01	mg/l	4/9/2008 13:16	200.7
2008040022	9	METHOD BLANK	1/2/1900	Lead as Pb (Dissolved)	<0.0005	mg/l	4/3/2008 14:38	200.8
2008040022	9	METHOD BLANK	1/2/1900	Lead as Pb (Total Recoverable)	<0.0005	mg/l	4/9/2008	200.8
2008040022	9	METHOD BLANK	1/2/1900	Mercury as Hg (Dissolved)	<0.00001	mg/l	4/4/2008 16:25	200.8
2008040022	9	METHOD BLANK	1/2/1900	Mercury as Hg (Total Recoverable)	<0.00001	mg/l	4/11/2008 15:01	200.8
2008040022	9	METHOD BLANK	1/2/1900	Metals Batch#/Digestion Date	1490	-----	4/8/2008 14:15	200.2
2008040022	9	METHOD BLANK	1/2/1900	Zinc as Zn (Dissolved)	<0.01	mg/l	4/4/2008	200.7
2008040022	9	METHOD BLANK	1/2/1900	Zinc as Zn (Total Recoverable)	<0.01	mg/l	4/9/2008	200.7
2008040022	10	LABORATORY CONTROL SAMPLE	1/2/1900	Arsenic as As (Dissolved)	98	% [85-111]	4/3/2008 12:14	200.8
2008040022	10	LABORATORY CONTROL SAMPLE	1/2/1900	Arsenic as As (Total Recoverable)	92	% [85-115]	4/9/2008 19:15	200.8
2008040022	10	LABORATORY CONTROL SAMPLE	1/2/1900	Cadmium as Cd (Dissolved)	100	% [86-113]	4/3/2008 12:14	200.8
2008040022	10	LABORATORY CONTROL SAMPLE	1/2/1900	Cadmium as Cd (Total Recoverable)	94	% [85-115]	4/9/2008	200.8
2008040022	10	LABORATORY CONTROL SAMPLE	1/2/1900	Copper as Cu (Dissolved)	94	% [85-115]	4/4/2008 14:54	200.7
2008040022	10	LABORATORY CONTROL SAMPLE	1/2/1900	Copper as Cu (Total Recoverable)	99	% [85-115]	4/9/2008 13:19	200.7
2008040022	10	LABORATORY CONTROL SAMPLE	1/2/1900	Lead as Pb (Dissolved)	96	% [87-114]	4/3/2008	200.8
2008040022	10	LABORATORY CONTROL SAMPLE	1/2/1900	Lead as Pb (Total Recoverable)	103	% [85-115]	4/9/2008	200.8
2008040022	10	LABORATORY CONTROL SAMPLE	1/2/1900	Mercury as Hg (Dissolved)	88	% [85-115]	4/4/2008 16:28	200.8
2008040022	10	LABORATORY CONTROL SAMPLE	1/2/1900	Mercury as Hg (Total Recoverable)	104	% [85-115]	4/11/2008 15:04	200.8
2008040022	10	LABORATORY CONTROL SAMPLE	1/2/1900	Metals Batch#/Digestion Date	1490	-----	4/8/2008 14:15	200.2
2008040022	10	LABORATORY CONTROL SAMPLE	1/2/1900	Zinc as Zn (Dissolved)	98	% [89-113]	4/4/2008	200.7
2008040022	10	LABORATORY CONTROL SAMPLE	1/2/1900	Zinc as Zn (Total Recoverable)	107	% [89-115]	4/9/2008	200.7
2008040022	11	DUPLICATE OF 2008040022-2	3/24/2008	Arsenic as As (Dissolved)	0	RPD [0-20]	4/3/2008 13:26	200.8
2008040022	11	DUPLICATE OF 2008040022-2	3/24/2008	Cadmium as Cd (Dissolved)	0	RPD [0-20]	4/3/2008 13:26	200.8
2008040022	11	DUPLICATE OF 2008040022-2	3/24/2008	Copper as Cu (Dissolved)	1	RPD [0-20]	4/4/2008 15:32	200.7
2008040022	11	DUPLICATE OF 2008040022-2	3/24/2008	Lead as Pb (Dissolved)	0	RPD [0-20]	4/3/2008	200.8
2008040022	11	DUPLICATE OF 2008040022-2	3/24/2008	Mercury as Hg (Dissolved)	0	RPD [0-20]	4/4/2008 18:24	200.8
2008040022	11	DUPLICATE OF 2008040022-2	3/24/2008	Zinc as Zn (Dissolved)	0	RPD [0-20]	4/4/2008	200.7
2008040022	12	MATRIX SPIKE OF 2008040022-2	3/24/2008	Arsenic as As (Dissolved)	102	% [84-127]	4/3/2008 12:52	200.8
2008040022	12	MATRIX SPIKE OF 2008040022-2	3/24/2008	Cadmium as Cd (Dissolved)	102	% [81-116]	4/3/2008 12:52	200.8
2008040022	12	MATRIX SPIKE OF 2008040022-2	3/24/2008	Copper as Cu (Dissolved)	100	% [70-130]	4/4/2008 15:34	200.7
2008040022	12	MATRIX SPIKE OF 2008040022-2	3/24/2008	Lead as Pb (Dissolved)	98	% [82-117]	4/3/2008 14:51	200.8
2008040022	12	MATRIX SPIKE OF 2008040022-2	3/24/2008	Mercury as Hg (Dissolved)	96	% [70-127]	4/4/2008 18:27	200.8
2008040022	12	MATRIX SPIKE OF 2008040022-2	3/24/2008	Zinc as Zn (Dissolved)	104	% [89-113]	4/4/2008	200.7
2008060279	1	MW-2A	6/25/2008	Alkalinity Bicarbonate as HCO3	160	mg/l	7/9/2008	2320B
2008060279	1	MW-2A	6/25/2008	Alkalinity Carbonate as CO3	0	mg/l	7/9/2008	2320B
2008060279	1	MW-2A	6/25/2008	Alkalinity Total as CaCO3	131	mg/l	7/9/2008	2320B
2008060279	1	MW-2A	6/25/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	7/10/2008 17:28	200.7
2008060279	1	MW-2A	6/25/2008	Anions	7.76	meq/l	1/2/1900 0:00	1030F
2008060279	1	MW-2A	6/25/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	7/11/2008 17:33	200.8
2008060279	1	MW-2A	6/25/2008	Arsenic as As (Dissolved)	0.006	mg/l	7/11/2008	200.8
2008060279	1	MW-2A	6/25/2008	Barium as Ba (Dissolved)	0.008	mg/l	7/11/2008 17:33	200.8
2008060279	1	MW-2A	6/25/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	7/11/2008 17:33	200.8
2008060279	1	MW-2A	6/25/2008	Boron as B (Dissolved)	<0.1	mg/l	7/10/2008	200.7
2008060279	1	MW-2A	6/25/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008 17:33	200.8

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008060279	1	MW-2A	6/25/2008	Calcium as Ca (Dissolved)	102	mg/l	7/10/2008 17:28	200.7
2008060279	1	MW-2A	6/25/2008	Cation/Anion Balance	0.71	% [max 2%]	1/2/1900	AWWA/APHA
2008060279	1	MW-2A	6/25/2008	Cations	7.65	meq/l	1/2/1900 0:00	1030F
2008060279	1	MW-2A	6/25/2008	Chloride as Cl	5	mg/l	7/15/2008	300
2008060279	1	MW-2A	6/25/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	7/11/2008 17:33	200.8
2008060279	1	MW-2A	6/25/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	7/11/2008	200.8
2008060279	1	MW-2A	6/25/2008	Copper as Cu (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	1	MW-2A	6/25/2008	Iron as Fe (Dissolved)	<0.05	mg/l	7/10/2008	200.7
2008060279	1	MW-2A	6/25/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008 17:33	200.8
2008060279	1	MW-2A	6/25/2008	Magnesium as Mg (Dissolved)	15	mg/l	7/10/2008	200.7
2008060279	1	MW-2A	6/25/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	7/10/2008	200.7
2008060279	1	MW-2A	6/25/2008	Mercury Batch #/Digest Date	NA	-----	1/2/1900	-----
2008060279	1	MW-2A	6/25/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/11/2008 14:47	200.8
2008060279	1	MW-2A	6/25/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	7/11/2008 17:33	200.8
2008060279	1	MW-2A	6/25/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	7/11/2008 17:33	200.8
2008060279	1	MW-2A	6/25/2008	Potassium as K (Dissolved)	4	mg/l	7/10/2008	200.7
2008060279	1	MW-2A	6/25/2008	Selenium as Se (Dissolved)	0.006	mg/l	7/11/2008 17:33	200.8
2008060279	1	MW-2A	6/25/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	7/11/2008 17:33	200.8
2008060279	1	MW-2A	6/25/2008	Sodium as Na (Dissolved)	28	mg/l	7/10/2008	200.7
2008060279	1	MW-2A	6/25/2008	Sulfate as SO4	240	mg/l	7/15/2008 7:40	300
2008060279	1	MW-2A	6/25/2008	Uranium as U (Dissolved)	NA	mg/l	1/2/1900 0:00	200.8
2008060279	1	MW-2A	6/25/2008	Vanadium as V (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	1	MW-2A	6/25/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	7/10/2008 17:28	200.7
2008060279	2	MW-2E	6/25/2008	Alkalinity Bicarbonate as HCO3	156	mg/l	7/9/2008	2320B
2008060279	2	MW-2E	6/25/2008	Alkalinity Carbonate as CO3	0	mg/l	7/9/2008 11:50	2320B
2008060279	2	MW-2E	6/25/2008	Alkalinity Total as CaCO3	128	mg/l	7/9/2008	2320B
2008060279	2	MW-2E	6/25/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	7/10/2008	200.7
2008060279	2	MW-2E	6/25/2008	Anions	7.68	meq/l	1/2/1900	1030F
2008060279	2	MW-2E	6/25/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	7/11/2008 17:45	200.8
2008060279	2	MW-2E	6/25/2008	Arsenic as As (Dissolved)	0.006	mg/l	7/11/2008	200.8
2008060279	2	MW-2E	6/25/2008	Barium as Ba (Dissolved)	0.008	mg/l	7/11/2008	200.8
2008060279	2	MW-2E	6/25/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	2	MW-2E	6/25/2008	Boron as B (Dissolved)	<0.1	mg/l	7/10/2008 17:34	200.7
2008060279	2	MW-2E	6/25/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008 17:45	200.8
2008060279	2	MW-2E	6/25/2008	Calcium as Ca (Dissolved)	98	mg/l	7/10/2008 17:34	200.7
2008060279	2	MW-2E	6/25/2008	Cation/Anion Balance	1.79	% [max 2%]	1/2/1900 0:00	AWWA/APHA
2008060279	2	MW-2E	6/25/2008	Cations	7.41	meq/l	1/2/1900 0:00	1030F
2008060279	2	MW-2E	6/25/2008	Chloride as Cl	5	mg/l	7/15/2008 12:00	300
2008060279	2	MW-2E	6/25/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	2	MW-2E	6/25/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	7/11/2008 17:45	200.8
2008060279	2	MW-2E	6/25/2008	Copper as Cu (Dissolved)	<0.001	mg/l	7/11/2008 17:45	200.8
2008060279	2	MW-2E	6/25/2008	Iron as Fe (Dissolved)	<0.05	mg/l	7/10/2008 17:34	200.7
2008060279	2	MW-2E	6/25/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008 17:45	200.8
2008060279	2	MW-2E	6/25/2008	Magnesium as Mg (Dissolved)	14	mg/l	7/10/2008	200.7
2008060279	2	MW-2E	6/25/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	7/10/2008 17:34	200.7
2008060279	2	MW-2E	6/25/2008	Mercury Batch #/Digest Date	NA	-----	1/2/1900 0:00	-----
2008060279	2	MW-2E	6/25/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/11/2008 14:53	200.8
2008060279	2	MW-2E	6/25/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	7/11/2008	200.8

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008060279	2	MW-2E	6/25/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	2	MW-2E	6/25/2008	Potassium as K (Dissolved)	4	mg/l	7/10/2008 17:34	200.7
2008060279	2	MW-2E	6/25/2008	Selenium as Se (Dissolved)	0.005	mg/l	7/11/2008 17:45	200.8
2008060279	2	MW-2E	6/25/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	7/11/2008 17:45	200.8
2008060279	2	MW-2E	6/25/2008	Sodium as Na (Dissolved)	29	mg/l	7/10/2008	200.7
2008060279	2	MW-2E	6/25/2008	Sulfate as SO4	239	mg/l	7/15/2008 12:00	300
2008060279	2	MW-2E	6/25/2008	Uranium as U (Dissolved)	NA	mg/l	1/2/1900 0:00	200.8
2008060279	2	MW-2E	6/25/2008	Vanadium as V (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	2	MW-2E	6/25/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	7/10/2008	200.7
2008060279	3	LYP-07	6/25/2008	Alkalinity Bicarbonate as HCO3	301	mg/l	7/9/2008 11:50	2320B
2008060279	3	LYP-07	6/25/2008	Alkalinity Carbonate as CO3	0	mg/l	7/9/2008 11:50	2320B
2008060279	3	LYP-07	6/25/2008	Alkalinity Total as CaCO3	247	mg/l	7/9/2008 11:50	2320B
2008060279	3	LYP-07	6/25/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	7/10/2008	200.7
2008060279	3	LYP-07	6/25/2008	Anions	9.30*	meq/l	1/2/1900	1030F
2008060279	3	LYP-07	6/25/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	7/11/2008 17:51	200.8
2008060279	3	LYP-07	6/25/2008	Arsenic as As (Dissolved)	0.005	mg/l	7/11/2008 17:51	200.8
2008060279	3	LYP-07	6/25/2008	Barium as Ba (Dissolved)	0.031	mg/l	7/11/2008 17:51	200.8
2008060279	3	LYP-07	6/25/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	3	LYP-07	6/25/2008	Boron as B (Dissolved)	<0.1	mg/l	7/10/2008 17:37	200.7
2008060279	3	LYP-07	6/25/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008	200.8
2008060279	3	LYP-07	6/25/2008	Calcium as Ca (Dissolved)	106	mg/l	7/10/2008 17:37	200.7
2008060279	3	LYP-07	6/25/2008	Cation/Anion Balance	4.49*	% [max 5%]	1/2/1900 0:00	AWWA/APHA
2008060279	3	LYP-07	6/25/2008	Cations	8.50*	meq/l	1/2/1900 0:00	1030F
2008060279	3	LYP-07	6/25/2008	Chloride as Cl	15	mg/l	7/15/2008 12:31	300
2008060279	3	LYP-07	6/25/2008	Chromium as Cr (Dissolved)	0.001	mg/l	7/11/2008 17:51	200.8
2008060279	3	LYP-07	6/25/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	7/11/2008	200.8
2008060279	3	LYP-07	6/25/2008	Copper as Cu (Dissolved)	<0.001	mg/l	7/11/2008 17:51	200.8
2008060279	3	LYP-07	6/25/2008	Iron as Fe (Dissolved)	1.47	mg/l	7/10/2008	200.7
2008060279	3	LYP-07	6/25/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	3	LYP-07	6/25/2008	Magnesium as Mg (Dissolved)	20	mg/l	7/10/2008	200.7
2008060279	3	LYP-07	6/25/2008	Manganese as Mn (Dissolved)	0.32	mg/l	7/10/2008 17:37	200.7
2008060279	3	LYP-07	6/25/2008	Mercury Batch #/Digest Date	NA	-----	1/2/1900	-----
2008060279	3	LYP-07	6/25/2008	Mercury as Hg (Dissolved)	0.00002	mg/l	7/11/2008	200.8
2008060279	3	LYP-07	6/25/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	3	LYP-07	6/25/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	7/11/2008 17:51	200.8
2008060279	3	LYP-07	6/25/2008	Potassium as K (Dissolved)	5	mg/l	7/10/2008 17:37	200.7
2008060279	3	LYP-07	6/25/2008	Selenium as Se (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	3	LYP-07	6/25/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	3	LYP-07	6/25/2008	Sodium as Na (Dissolved)	33	mg/l	7/10/2008	200.7
2008060279	3	LYP-07	6/25/2008	Sulfate as SO4	189	mg/l	7/15/2008	300
2008060279	3	LYP-07	6/25/2008	Uranium as U (Dissolved)	NA	mg/l	1/2/1900	200.8
2008060279	3	LYP-07	6/25/2008	Vanadium as V (Dissolved)	<0.01	mg/l	7/11/2008 17:51	200.8
2008060279	3	LYP-07	6/25/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	7/10/2008 17:37	200.7
2008060279	4	MW-3A	6/25/2008	Alkalinity Bicarbonate as HCO3	4	mg/l	7/9/2008	2320B
2008060279	4	MW-3A	6/25/2008	Alkalinity Carbonate as CO3	0	mg/l	7/9/2008	2320B
2008060279	4	MW-3A	6/25/2008	Alkalinity Total as CaCO3	3	mg/l	7/9/2008 11:50	2320B
2008060279	4	MW-3A	6/25/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	7/10/2008	200.7
2008060279	4	MW-3A	6/25/2008	Anions	<0.38	meq/l	1/2/1900	1030F

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008060279	4	MW-3A	6/25/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	7/11/2008 17:57	200.8
2008060279	4	MW-3A	6/25/2008	Arsenic as As (Dissolved)	<0.003	mg/l	7/11/2008 17:57	200.8
2008060279	4	MW-3A	6/25/2008	Barium as Ba (Dissolved)	<0.005	mg/l	7/11/2008 17:57	200.8
2008060279	4	MW-3A	6/25/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	4	MW-3A	6/25/2008	Boron as B (Dissolved)	<0.1	mg/l	7/10/2008 17:41	200.7
2008060279	4	MW-3A	6/25/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008 17:57	200.8
2008060279	4	MW-3A	6/25/2008	Calcium as Ca (Dissolved)	<1	mg/l	7/10/2008	200.7
2008060279	4	MW-3A	6/25/2008	Cation/Anion Balance	NA	% [max 5%]	1/2/1900	AWWA/APHA
2008060279	4	MW-3A	6/25/2008	Cations	<0.20	meq/l	1/2/1900 0:00	1030F
2008060279	4	MW-3A	6/25/2008	Chloride as Cl	<1	mg/l	7/15/2008 13:01	300
2008060279	4	MW-3A	6/25/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	7/11/2008 17:57	200.8
2008060279	4	MW-3A	6/25/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	7/11/2008	200.8
2008060279	4	MW-3A	6/25/2008	Copper as Cu (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	4	MW-3A	6/25/2008	Iron as Fe (Dissolved)	<0.05	mg/l	7/10/2008 17:41	200.7
2008060279	4	MW-3A	6/25/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008 17:57	200.8
2008060279	4	MW-3A	6/25/2008	Magnesium as Mg (Dissolved)	<1	mg/l	7/10/2008 17:41	200.7
2008060279	4	MW-3A	6/25/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	7/10/2008	200.7
2008060279	4	MW-3A	6/25/2008	Mercury Batch #/Digest Date	NA	-----	1/2/1900 0:00	-----
2008060279	4	MW-3A	6/25/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/11/2008	200.8
2008060279	4	MW-3A	6/25/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	7/11/2008 17:57	200.8
2008060279	4	MW-3A	6/25/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	7/11/2008 17:57	200.8
2008060279	4	MW-3A	6/25/2008	Potassium as K (Dissolved)	<1	mg/l	7/10/2008 17:41	200.7
2008060279	4	MW-3A	6/25/2008	Selenium as Se (Dissolved)	<0.001	mg/l	7/11/2008 17:57	200.8
2008060279	4	MW-3A	6/25/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	7/11/2008 17:57	200.8
2008060279	4	MW-3A	6/25/2008	Sodium as Na (Dissolved)	<1	mg/l	7/10/2008	200.7
2008060279	4	MW-3A	6/25/2008	Sulfate as SO4	<5	mg/l	7/15/2008 13:01	300
2008060279	4	MW-3A	6/25/2008	Uranium as U (Dissolved)	NA	mg/l	1/2/1900	200.8
2008060279	4	MW-3A	6/25/2008	Vanadium as V (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	4	MW-3A	6/25/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	7/10/2008	200.7
2008060279	5	MW-2D	6/25/2008	Alkalinity Bicarbonate as HCO3	185	mg/l	7/9/2008 11:50	2320B
2008060279	5	MW-2D	6/25/2008	Alkalinity Carbonate as CO3	0	mg/l	7/9/2008	2320B
2008060279	5	MW-2D	6/25/2008	Alkalinity Total as CaCO3	151	mg/l	7/9/2008	2320B
2008060279	5	MW-2D	6/25/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	7/10/2008	200.7
2008060279	5	MW-2D	6/25/2008	Anions	7.53*	meq/l	1/2/1900	1030F
2008060279	5	MW-2D	6/25/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	7/11/2008 18:03	200.8
2008060279	5	MW-2D	6/25/2008	Arsenic as As (Dissolved)	0.003	mg/l	7/11/2008 18:03	200.8
2008060279	5	MW-2D	6/25/2008	Barium as Ba (Dissolved)	0.02	mg/l	7/11/2008	200.8
2008060279	5	MW-2D	6/25/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	7/11/2008 18:03	200.8
2008060279	5	MW-2D	6/25/2008	Boron as B (Dissolved)	<0.1	mg/l	7/10/2008 17:44	200.7
2008060279	5	MW-2D	6/25/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008	200.8
2008060279	5	MW-2D	6/25/2008	Calcium as Ca (Dissolved)	85	mg/l	7/10/2008	200.7
2008060279	5	MW-2D	6/25/2008	Cation/Anion Balance	4.44*	% [max 2%]	1/2/1900	AWWA/APHA
2008060279	5	MW-2D	6/25/2008	Cations	6.89*	meq/l	1/2/1900	1030F
2008060279	5	MW-2D	6/25/2008	Chloride as Cl	13	mg/l	7/15/2008 13:32	300
2008060279	5	MW-2D	6/25/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	7/11/2008 18:03	200.8
2008060279	5	MW-2D	6/25/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	7/11/2008	200.8
2008060279	5	MW-2D	6/25/2008	Copper as Cu (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	5	MW-2D	6/25/2008	Iron as Fe (Dissolved)	<0.05	mg/l	7/10/2008	200.7

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008060279	5	MW-2D	6/25/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008 18:03	200.8
2008060279	5	MW-2D	6/25/2008	Magnesium as Mg (Dissolved)	18	mg/l	7/10/2008 17:44	200.7
2008060279	5	MW-2D	6/25/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	7/10/2008 17:44	200.7
2008060279	5	MW-2D	6/25/2008	Mercury Batch #/Digest Date	NA	-----	1/2/1900	-----
2008060279	5	MW-2D	6/25/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/11/2008 15:07	200.8
2008060279	5	MW-2D	6/25/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	7/11/2008 18:03	200.8
2008060279	5	MW-2D	6/25/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	5	MW-2D	6/25/2008	Potassium as K (Dissolved)	3	mg/l	7/10/2008 17:44	200.7
2008060279	5	MW-2D	6/25/2008	Selenium as Se (Dissolved)	0.002	mg/l	7/11/2008 18:03	200.8
2008060279	5	MW-2D	6/25/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	5	MW-2D	6/25/2008	Sodium as Na (Dissolved)	25	mg/l	7/10/2008	200.7
2008060279	5	MW-2D	6/25/2008	Sulfate as SO4	199	mg/l	7/15/2008	300
2008060279	5	MW-2D	6/25/2008	Uranium as U (Dissolved)	NA	mg/l	1/2/1900	200.8
2008060279	5	MW-2D	6/25/2008	Vanadium as V (Dissolved)	<0.01	mg/l	7/11/2008 18:03	200.8
2008060279	5	MW-2D	6/25/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	7/10/2008 17:44	200.7
2008060279	6	MW-2C	6/25/2008	Alkalinity Bicarbonate as HCO3	122	mg/l	7/9/2008	2320B
2008060279	6	MW-2C	6/25/2008	Alkalinity Carbonate as CO3	0	mg/l	7/9/2008	2320B
2008060279	6	MW-2C	6/25/2008	Alkalinity Total as CaCO3	100	mg/l	7/9/2008	2320B
2008060279	6	MW-2C	6/25/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	7/10/2008 17:56	200.7
2008060279	6	MW-2C	6/25/2008	Anions	6.5	meq/l	1/2/1900 0:00	1030F
2008060279	6	MW-2C	6/25/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	7/11/2008 18:20	200.8
2008060279	6	MW-2C	6/25/2008	Arsenic as As (Dissolved)	0.003	mg/l	7/11/2008	200.8
2008060279	6	MW-2C	6/25/2008	Barium as Ba (Dissolved)	0.01	mg/l	7/11/2008 18:20	200.8
2008060279	6	MW-2C	6/25/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	7/11/2008 18:20	200.8
2008060279	6	MW-2C	6/25/2008	Boron as B (Dissolved)	<0.1	mg/l	7/10/2008	200.7
2008060279	6	MW-2C	6/25/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008 18:20	200.8
2008060279	6	MW-2C	6/25/2008	Calcium as Ca (Dissolved)	72	mg/l	7/10/2008 17:56	200.7
2008060279	6	MW-2C	6/25/2008	Cation/Anion Balance	1.25	% [max 2%]	1/2/1900	AWWA/APHA
2008060279	6	MW-2C	6/25/2008	Cations	6.34	meq/l	1/2/1900	1030F
2008060279	6	MW-2C	6/25/2008	Chloride as Cl	14	mg/l	7/15/2008	300
2008060279	6	MW-2C	6/25/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	6	MW-2C	6/25/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	7/11/2008 18:20	200.8
2008060279	6	MW-2C	6/25/2008	Copper as Cu (Dissolved)	<0.001	mg/l	7/11/2008 18:20	200.8
2008060279	6	MW-2C	6/25/2008	Iron as Fe (Dissolved)	<0.05	mg/l	7/10/2008	200.7
2008060279	6	MW-2C	6/25/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	6	MW-2C	6/25/2008	Magnesium as Mg (Dissolved)	16	mg/l	7/10/2008	200.7
2008060279	6	MW-2C	6/25/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	7/10/2008 17:56	200.7
2008060279	6	MW-2C	6/25/2008	Mercury Batch #/Digest Date	NA	-----	1/2/1900 0:00	-----
2008060279	6	MW-2C	6/25/2008	Mercury as Hg (Dissolved)	0.00001	mg/l	7/11/2008 15:10	200.8
2008060279	6	MW-2C	6/25/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	6	MW-2C	6/25/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	7/11/2008 18:20	200.8
2008060279	6	MW-2C	6/25/2008	Potassium as K (Dissolved)	3	mg/l	7/10/2008 17:56	200.7
2008060279	6	MW-2C	6/25/2008	Selenium as Se (Dissolved)	0.002	mg/l	7/11/2008 18:20	200.8
2008060279	6	MW-2C	6/25/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	7/11/2008 18:20	200.8
2008060279	6	MW-2C	6/25/2008	Sodium as Na (Dissolved)	31	mg/l	7/10/2008 17:56	200.7
2008060279	6	MW-2C	6/25/2008	Sulfate as SO4	197	mg/l	7/15/2008	300
2008060279	6	MW-2C	6/25/2008	Uranium as U (Dissolved)	NA	mg/l	1/2/1900	200.8
2008060279	6	MW-2C	6/25/2008	Vanadium as V (Dissolved)	<0.01	mg/l	7/11/2008	200.8

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008060279	6	MW-2C	6/25/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	7/10/2008	200.7
2008060279	7	1GW-1056	6/25/2008	Alkalinity Bicarbonate as HCO3	169	mg/l	7/9/2008 11:50	2320B
2008060279	7	1GW-1056	6/25/2008	Alkalinity Carbonate as CO3	0	mg/l	7/9/2008 11:50	2320B
2008060279	7	1GW-1056	6/25/2008	Alkalinity Total as CaCO3	139	mg/l	7/9/2008	2320B
2008060279	7	1GW-1056	6/25/2008	Aluminum as Al (Dissolved)	0.03	mg/l	7/10/2008	200.7
2008060279	7	1GW-1056	6/25/2008	Anions	7.50*	meq/l	1/2/1900	1030F
2008060279	7	1GW-1056	6/25/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008060279	7	1GW-1056	6/25/2008	Arsenic as As (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008060279	7	1GW-1056	6/25/2008	Barium as Ba (Dissolved)	0.015	mg/l	7/11/2008	200.8
2008060279	7	1GW-1056	6/25/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	7	1GW-1056	6/25/2008	Boron as B (Dissolved)	<0.1	mg/l	7/10/2008	200.7
2008060279	7	1GW-1056	6/25/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008	200.8
2008060279	7	1GW-1056	6/25/2008	Calcium as Ca (Dissolved)	85	mg/l	7/10/2008	200.7
2008060279	7	1GW-1056	6/25/2008	Cation/Anion Balance	4.53*	% [max 2%]	1/2/1900	AWWA/APHA
2008060279	7	1GW-1056	6/25/2008	Cations	6.85*	meq/l	1/2/1900	1030F
2008060279	7	1GW-1056	6/25/2008	Chloride as Cl	11	mg/l	7/15/2008	300
2008060279	7	1GW-1056	6/25/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	7	1GW-1056	6/25/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	7/11/2008	200.8
2008060279	7	1GW-1056	6/25/2008	Copper as Cu (Dissolved)	0.001	mg/l	7/11/2008	200.8
2008060279	7	1GW-1056	6/25/2008	Iron as Fe (Dissolved)	<0.05	mg/l	7/10/2008	200.7
2008060279	7	1GW-1056	6/25/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	7	1GW-1056	6/25/2008	Magnesium as Mg (Dissolved)	17	mg/l	7/10/2008	200.7
2008060279	7	1GW-1056	6/25/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	7/10/2008	200.7
2008060279	7	1GW-1056	6/25/2008	Mercury Batch #/Digest Date	NA	-----	1/2/1900	-----
2008060279	7	1GW-1056	6/25/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/11/2008	200.8
2008060279	7	1GW-1056	6/25/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	7	1GW-1056	6/25/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	7	1GW-1056	6/25/2008	Potassium as K (Dissolved)	3	mg/l	7/10/2008	200.7
2008060279	7	1GW-1056	6/25/2008	Selenium as Se (Dissolved)	0.003	mg/l	7/11/2008	200.8
2008060279	7	1GW-1056	6/25/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	7	1GW-1056	6/25/2008	Sodium as Na (Dissolved)	26	mg/l	7/10/2008	200.7
2008060279	7	1GW-1056	6/25/2008	Sulfate as SO4	212	mg/l	7/15/2008	300
2008060279	7	1GW-1056	6/25/2008	Uranium as U (Dissolved)	NA	mg/l	1/2/1900	200.8
2008060279	7	1GW-1056	6/25/2008	Vanadium as V (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	7	1GW-1056	6/25/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	7/10/2008	200.7
2008060279	8	MW-2B	6/25/2008	Alkalinity Bicarbonate as HCO3	98	mg/l	7/9/2008	2320B
2008060279	8	MW-2B	6/25/2008	Alkalinity Carbonate as CO3	0	mg/l	7/9/2008	2320B
2008060279	8	MW-2B	6/25/2008	Alkalinity Total as CaCO3	80	mg/l	7/9/2008	2320B
2008060279	8	MW-2B	6/25/2008	Aluminum as Al (Dissolved)	0.03	mg/l	7/10/2008	200.7
2008060279	8	MW-2B	6/25/2008	Anions	5.4	meq/l	1/2/1900	1030F
2008060279	8	MW-2B	6/25/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008060279	8	MW-2B	6/25/2008	Arsenic as As (Dissolved)	0.004	mg/l	7/11/2008	200.8
2008060279	8	MW-2B	6/25/2008	Barium as Ba (Dissolved)	0.014	mg/l	7/11/2008	200.8
2008060279	8	MW-2B	6/25/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	8	MW-2B	6/25/2008	Boron as B (Dissolved)	<0.1	mg/l	7/10/2008	200.7
2008060279	8	MW-2B	6/25/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008	200.8
2008060279	8	MW-2B	6/25/2008	Calcium as Ca (Dissolved)	59	mg/l	7/10/2008	200.7
2008060279	8	MW-2B	6/25/2008	Cation/Anion Balance	1.79	% [max 2%]	1/2/1900	AWWA/APHA

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008060279	8	MW-2B	6/25/2008	Cations	5.21	meq/l	1/2/1900	1030F
2008060279	8	MW-2B	6/25/2008	Chloride as Cl	15	mg/l	7/15/2008	300
2008060279	8	MW-2B	6/25/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	8	MW-2B	6/25/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	7/11/2008	200.8
2008060279	8	MW-2B	6/25/2008	Copper as Cu (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	8	MW-2B	6/25/2008	Iron as Fe (Dissolved)	<0.05	mg/l	7/10/2008	200.7
2008060279	8	MW-2B	6/25/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	8	MW-2B	6/25/2008	Magnesium as Mg (Dissolved)	15	mg/l	7/10/2008	200.7
2008060279	8	MW-2B	6/25/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	7/10/2008	200.7
2008060279	8	MW-2B	6/25/2008	Mercury Batch #/Digest Date	NA	-----	1/2/1900	-----
2008060279	8	MW-2B	6/25/2008	Mercury as Hg (Dissolved)	0.00001	mg/l	7/11/2008	200.8
2008060279	8	MW-2B	6/25/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	8	MW-2B	6/25/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	8	MW-2B	6/25/2008	Potassium as K (Dissolved)	3	mg/l	7/10/2008	200.7
2008060279	8	MW-2B	6/25/2008	Selenium as Se (Dissolved)	0.001	mg/l	7/11/2008	200.8
2008060279	8	MW-2B	6/25/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	8	MW-2B	6/25/2008	Sodium as Na (Dissolved)	22	mg/l	7/10/2008	200.7
2008060279	8	MW-2B	6/25/2008	Sulfate as SO4	162	mg/l	7/15/2008	300
2008060279	8	MW-2B	6/25/2008	Uranium as U (Dissolved)	NA	mg/l	1/2/1900	200.8
2008060279	8	MW-2B	6/25/2008	Vanadium as V (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	8	MW-2B	6/25/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	7/10/2008	200.7
2008060279	9	MW-10	6/25/2008	Alkalinity Bicarbonate as HCO3	<1	mg/l	7/9/2008	2320B
2008060279	9	MW-10	6/25/2008	Alkalinity Carbonate as CO3	0	mg/l	7/9/2008	2320B
2008060279	9	MW-10	6/25/2008	Alkalinity Total as CaCO3	<1	mg/l	7/9/2008	2320B
2008060279	9	MW-10	6/25/2008	Aluminum as Al (Dissolved)	0.68	mg/l	7/10/2008	200.7
2008060279	9	MW-10	6/25/2008	Anions	8.05*	meq/l	1/2/1900	1030F
2008060279	9	MW-10	6/25/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008060279	9	MW-10	6/25/2008	Arsenic as As (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008060279	9	MW-10	6/25/2008	Barium as Ba (Dissolved)	0.012	mg/l	7/11/2008	200.8
2008060279	9	MW-10	6/25/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	9	MW-10	6/25/2008	Boron as B (Dissolved)	<0.1	mg/l	7/10/2008	200.7
2008060279	9	MW-10	6/25/2008	Cadmium as Cd (Dissolved)	0.0027	mg/l	7/11/2008	200.8
2008060279	9	MW-10	6/25/2008	Calcium as Ca (Dissolved)	56	mg/l	7/10/2008	200.7
2008060279	9	MW-10	6/25/2008	Cation/Anion Balance	15.74*	% [max 2%]	1/2/1900	AWWA/APHA
2008060279	9	MW-10	6/25/2008	Cations	5.86*	meq/l	1/2/1900	1030F
2008060279	9	MW-10	6/25/2008	Chloride as Cl	55	mg/l	7/18/2008	300
2008060279	9	MW-10	6/25/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	9	MW-10	6/25/2008	Cobalt as Co (Dissolved)	0.012	mg/l	7/11/2008	200.8
2008060279	9	MW-10	6/25/2008	Copper as Cu (Dissolved)	0.51	mg/l	7/11/2008	200.8
2008060279	9	MW-10	6/25/2008	Iron as Fe (Dissolved)	2.74	mg/l	7/10/2008	200.7
2008060279	9	MW-10	6/25/2008	Lead as Pb (Dissolved)	0.035	mg/l	7/11/2008	200.8
2008060279	9	MW-10	6/25/2008	Magnesium as Mg (Dissolved)	14	mg/l	7/10/2008	200.7
2008060279	9	MW-10	6/25/2008	Manganese as Mn (Dissolved)	8.46	mg/l	7/10/2008	200.7
2008060279	9	MW-10	6/25/2008	Mercury Batch #/Digest Date	NA	-----	1/2/1900	-----
2008060279	9	MW-10	6/25/2008	Mercury as Hg (Dissolved)	0.00001	mg/l	7/11/2008	200.8
2008060279	9	MW-10	6/25/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	9	MW-10	6/25/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	9	MW-10	6/25/2008	Potassium as K (Dissolved)	5	mg/l	7/10/2008	200.7

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008060279	9	MW-10	6/25/2008	Selenium as Se (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	9	MW-10	6/25/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	9	MW-10	6/25/2008	Sodium as Na (Dissolved)	41	mg/l	7/10/2008	200.7
2008060279	9	MW-10	6/25/2008	Sulfate as SO4	312	mg/l	7/18/2008	300
2008060279	9	MW-10	6/25/2008	Uranium as U (Dissolved)	NA	mg/l	1/2/1900	200.8
2008060279	9	MW-10	6/25/2008	Vanadium as V (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	9	MW-10	6/25/2008	Zinc as Zn (Dissolved)	7.3	mg/l	7/10/2008	200.7
2008060279	10	LYS-01	6/26/2008	Alkalinity Bicarbonate as HCO3	206	mg/l	7/10/2008	2320B
2008060279	10	LYS-01	6/26/2008	Alkalinity Carbonate as CO3	0	mg/l	7/10/2008	2320B
2008060279	10	LYS-01	6/26/2008	Alkalinity Total as CaCO3	169	mg/l	7/10/2008	2320B
2008060279	10	LYS-01	6/26/2008	Aluminum as Al (Dissolved)	0.03	mg/l	7/10/2008	200.7
2008060279	10	LYS-01	6/26/2008	Anions	8.33*	meq/l	1/2/1900	1030F
2008060279	10	LYS-01	6/26/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008060279	10	LYS-01	6/26/2008	Arsenic as As (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008060279	10	LYS-01	6/26/2008	Barium as Ba (Dissolved)	0.019	mg/l	7/11/2008	200.8
2008060279	10	LYS-01	6/26/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	10	LYS-01	6/26/2008	Boron as B (Dissolved)	<0.1	mg/l	7/10/2008	200.7
2008060279	10	LYS-01	6/26/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008	200.8
2008060279	10	LYS-01	6/26/2008	Calcium as Ca (Dissolved)	95	mg/l	7/10/2008	200.7
2008060279	10	LYS-01	6/26/2008	Cation/Anion Balance	4.32*	% [max 2%]	1/2/1900	AWWA/APHA
2008060279	10	LYS-01	6/26/2008	Cations	7.64*	meq/l	1/2/1900	1030F
2008060279	10	LYS-01	6/26/2008	Chloride as Cl	11	mg/l	7/15/2008	300
2008060279	10	LYS-01	6/26/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	10	LYS-01	6/26/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	7/11/2008	200.8
2008060279	10	LYS-01	6/26/2008	Copper as Cu (Dissolved)	0.005	mg/l	7/11/2008	200.8
2008060279	10	LYS-01	6/26/2008	Iron as Fe (Dissolved)	<0.05	mg/l	7/10/2008	200.7
2008060279	10	LYS-01	6/26/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	10	LYS-01	6/26/2008	Magnesium as Mg (Dissolved)	19	mg/l	7/10/2008	200.7
2008060279	10	LYS-01	6/26/2008	Manganese as Mn (Dissolved)	0.07	mg/l	7/10/2008	200.7
2008060279	10	LYS-01	6/26/2008	Mercury Batch #/Digest Date	NA	-----	1/2/1900	-----
2008060279	10	LYS-01	6/26/2008	Mercury as Hg (Dissolved)	0.00001	mg/l	7/11/2008	200.8
2008060279	10	LYS-01	6/26/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	10	LYS-01	6/26/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	10	LYS-01	6/26/2008	Potassium as K (Dissolved)	3	mg/l	7/10/2008	200.7
2008060279	10	LYS-01	6/26/2008	Selenium as Se (Dissolved)	0.002	mg/l	7/11/2008	200.8
2008060279	10	LYS-01	6/26/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	10	LYS-01	6/26/2008	Sodium as Na (Dissolved)	29	mg/l	7/10/2008	200.7
2008060279	10	LYS-01	6/26/2008	Sulfate as SO4	223	mg/l	7/15/2008	300
2008060279	10	LYS-01	6/26/2008	Uranium as U (Dissolved)	NA	mg/l	1/2/1900	200.8
2008060279	10	LYS-01	6/26/2008	Vanadium as V (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	10	LYS-01	6/26/2008	Zinc as Zn (Dissolved)	0.07	mg/l	7/10/2008	200.7
2008060279	11	LYS-3A	6/26/2008	Alkalinity Bicarbonate as HCO3	204	mg/l	7/10/2008	2320B
2008060279	11	LYS-3A	6/26/2008	Alkalinity Carbonate as CO3	0	mg/l	7/10/2008	2320B
2008060279	11	LYS-3A	6/26/2008	Alkalinity Total as CaCO3	167	mg/l	7/10/2008	2320B
2008060279	11	LYS-3A	6/26/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	7/10/2008	200.7
2008060279	11	LYS-3A	6/26/2008	Anions	8.29*	meq/l	1/2/1900	1030F
2008060279	11	LYS-3A	6/26/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008060279	11	LYS-3A	6/26/2008	Arsenic as As (Dissolved)	<0.003	mg/l	7/11/2008	200.8

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008060279	11	LYS-3A	6/26/2008	Barium as Ba (Dissolved)	0.017	mg/l	7/11/2008	200.8
2008060279	11	LYS-3A	6/26/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	11	LYS-3A	6/26/2008	Boron as B (Dissolved)	<0.1	mg/l	7/10/2008	200.7
2008060279	11	LYS-3A	6/26/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008	200.8
2008060279	11	LYS-3A	6/26/2008	Calcium as Ca (Dissolved)	92	mg/l	7/10/2008	200.7
2008060279	11	LYS-3A	6/26/2008	Cation/Anion Balance	5.34*	% [max 2%]	1/2/1900	AWWA/APHA
2008060279	11	LYS-3A	6/26/2008	Cations	7.45*	meq/l	1/2/1900	1030F
2008060279	11	LYS-3A	6/26/2008	Chloride as Cl	11	mg/l	7/15/2008	300
2008060279	11	LYS-3A	6/26/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	11	LYS-3A	6/26/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	7/11/2008	200.8
2008060279	11	LYS-3A	6/26/2008	Copper as Cu (Dissolved)	0.001	mg/l	7/11/2008	200.8
2008060279	11	LYS-3A	6/26/2008	Iron as Fe (Dissolved)	<0.05	mg/l	7/10/2008	200.7
2008060279	11	LYS-3A	6/26/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	11	LYS-3A	6/26/2008	Magnesium as Mg (Dissolved)	19	mg/l	7/10/2008	200.7
2008060279	11	LYS-3A	6/26/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	7/10/2008	200.7
2008060279	11	LYS-3A	6/26/2008	Mercury Batch #/Digest Date	NA	-----	1/2/1900	-----
2008060279	11	LYS-3A	6/26/2008	Mercury as Hg (Dissolved)	0.00001	mg/l	7/11/2008	200.8
2008060279	11	LYS-3A	6/26/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	11	LYS-3A	6/26/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	11	LYS-3A	6/26/2008	Potassium as K (Dissolved)	3	mg/l	7/10/2008	200.7
2008060279	11	LYS-3A	6/26/2008	Selenium as Se (Dissolved)	0.002	mg/l	7/11/2008	200.8
2008060279	11	LYS-3A	6/26/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	11	LYS-3A	6/26/2008	Sodium as Na (Dissolved)	28	mg/l	7/10/2008	200.7
2008060279	11	LYS-3A	6/26/2008	Sulfate as SO4	223	mg/l	7/15/2008	300
2008060279	11	LYS-3A	6/26/2008	Uranium as U (Dissolved)	NA	mg/l	1/2/1900	200.8
2008060279	11	LYS-3A	6/26/2008	Vanadium as V (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	11	LYS-3A	6/26/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	7/10/2008	200.7
2008060279	12	LYS-10	6/26/2008	Alkalinity Bicarbonate as HCO3	<1	mg/l	7/10/2008	2320B
2008060279	12	LYS-10	6/26/2008	Alkalinity Carbonate as CO3	0	mg/l	7/10/2008	2320B
2008060279	12	LYS-10	6/26/2008	Alkalinity Total as CaCO3	<1	mg/l	7/10/2008	2320B
2008060279	12	LYS-10	6/26/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	7/10/2008	200.7
2008060279	12	LYS-10	6/26/2008	Anions	<0.38	meq/l	1/2/1900	1030F
2008060279	12	LYS-10	6/26/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008060279	12	LYS-10	6/26/2008	Arsenic as As (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008060279	12	LYS-10	6/26/2008	Barium as Ba (Dissolved)	<0.005	mg/l	7/11/2008	200.8
2008060279	12	LYS-10	6/26/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	12	LYS-10	6/26/2008	Boron as B (Dissolved)	<0.1	mg/l	7/10/2008	200.7
2008060279	12	LYS-10	6/26/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008	200.8
2008060279	12	LYS-10	6/26/2008	Calcium as Ca (Dissolved)	<1	mg/l	7/10/2008	200.7
2008060279	12	LYS-10	6/26/2008	Cation/Anion Balance	NA	% [max 5%]	1/2/1900	AWWA/APHA
2008060279	12	LYS-10	6/26/2008	Cations	<0.20	meq/l	1/2/1900	1030F
2008060279	12	LYS-10	6/26/2008	Chloride as Cl	<1	mg/l	7/15/2008	300
2008060279	12	LYS-10	6/26/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	12	LYS-10	6/26/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	7/11/2008	200.8
2008060279	12	LYS-10	6/26/2008	Copper as Cu (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	12	LYS-10	6/26/2008	Iron as Fe (Dissolved)	<0.05	mg/l	7/10/2008	200.7
2008060279	12	LYS-10	6/26/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	12	LYS-10	6/26/2008	Magnesium as Mg (Dissolved)	<1	mg/l	7/10/2008	200.7

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008060279	12	LYS-10	6/26/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	7/10/2008	200.7
2008060279	12	LYS-10	6/26/2008	Mercury Batch #/Digest Date	NA	-----	1/2/1900	-----
2008060279	12	LYS-10	6/26/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/11/2008	200.8
2008060279	12	LYS-10	6/26/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	12	LYS-10	6/26/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	12	LYS-10	6/26/2008	Potassium as K (Dissolved)	<1	mg/l	7/10/2008	200.7
2008060279	12	LYS-10	6/26/2008	Selenium as Se (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	12	LYS-10	6/26/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	12	LYS-10	6/26/2008	Sodium as Na (Dissolved)	<1	mg/l	7/10/2008	200.7
2008060279	12	LYS-10	6/26/2008	Sulfate as SO4	<5	mg/l	7/15/2008	300
2008060279	12	LYS-10	6/26/2008	Uranium as U (Dissolved)	NA	mg/l	1/2/1900	200.8
2008060279	12	LYS-10	6/26/2008	Vanadium as V (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	12	LYS-10	6/26/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	7/10/2008	200.7
2008060279	13	MW-5A	6/26/2008	Alkalinity Bicarbonate as HCO3	<1	mg/l	7/10/2008	2320B
2008060279	13	MW-5A	6/26/2008	Alkalinity Carbonate as CO3	0	mg/l	7/10/2008	2320B
2008060279	13	MW-5A	6/26/2008	Alkalinity Total as CaCO3	<1	mg/l	7/10/2008	2320B
2008060279	13	MW-5A	6/26/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	7/10/2008	200.7
2008060279	13	MW-5A	6/26/2008	Anions	<0.38	meq/l	1/2/1900	1030F
2008060279	13	MW-5A	6/26/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008060279	13	MW-5A	6/26/2008	Arsenic as As (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008060279	13	MW-5A	6/26/2008	Barium as Ba (Dissolved)	<0.005	mg/l	7/11/2008	200.8
2008060279	13	MW-5A	6/26/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	13	MW-5A	6/26/2008	Boron as B (Dissolved)	<0.1	mg/l	7/10/2008	200.7
2008060279	13	MW-5A	6/26/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008	200.8
2008060279	13	MW-5A	6/26/2008	Calcium as Ca (Dissolved)	<1	mg/l	7/10/2008	200.7
2008060279	13	MW-5A	6/26/2008	Cation/Anion Balance	NA	% [max 5%]	1/2/1900	AWWA/APHA
2008060279	13	MW-5A	6/26/2008	Cations	<0.20	meq/l	1/2/1900	1030F
2008060279	13	MW-5A	6/26/2008	Chloride as Cl	<1	mg/l	7/15/2008	300
2008060279	13	MW-5A	6/26/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	13	MW-5A	6/26/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	7/11/2008	200.8
2008060279	13	MW-5A	6/26/2008	Copper as Cu (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	13	MW-5A	6/26/2008	Iron as Fe (Dissolved)	<0.05	mg/l	7/10/2008	200.7
2008060279	13	MW-5A	6/26/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	13	MW-5A	6/26/2008	Magnesium as Mg (Dissolved)	<1	mg/l	7/10/2008	200.7
2008060279	13	MW-5A	6/26/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	7/10/2008	200.7
2008060279	13	MW-5A	6/26/2008	Mercury Batch #/Digest Date	NA	-----	1/2/1900	-----
2008060279	13	MW-5A	6/26/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/11/2008	200.8
2008060279	13	MW-5A	6/26/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	13	MW-5A	6/26/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	13	MW-5A	6/26/2008	Potassium as K (Dissolved)	<1	mg/l	7/10/2008	200.7
2008060279	13	MW-5A	6/26/2008	Selenium as Se (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	13	MW-5A	6/26/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	13	MW-5A	6/26/2008	Sodium as Na (Dissolved)	<1	mg/l	7/10/2008	200.7
2008060279	13	MW-5A	6/26/2008	Sulfate as SO4	<5	mg/l	7/15/2008	300
2008060279	13	MW-5A	6/26/2008	Uranium as U (Dissolved)	NA	mg/l	1/2/1900	200.8
2008060279	13	MW-5A	6/26/2008	Vanadium as V (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	13	MW-5A	6/26/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	7/10/2008	200.7
2008060279	14	1GW-1004B	6/26/2008	Alkalinity Bicarbonate as HCO3	<1	mg/l	7/10/2008	2320B

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008060279	14	1GW-1004B	6/26/2008	Alkalinity Carbonate as CO3	0	mg/l	7/10/2008	2320B
2008060279	14	1GW-1004B	6/26/2008	Alkalinity Total as CaCO3	<1	mg/l	7/10/2008	2320B
2008060279	14	1GW-1004B	6/26/2008	Aluminum as Al (Dissolved)	0.77	mg/l	7/10/2008	200.7
2008060279	14	1GW-1004B	6/26/2008	Anions	9.49*	meq/l	1/2/1900	1030F
2008060279	14	1GW-1004B	6/26/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008060279	14	1GW-1004B	6/26/2008	Arsenic as As (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008060279	14	1GW-1004B	6/26/2008	Barium as Ba (Dissolved)	0.007	mg/l	7/11/2008	200.8
2008060279	14	1GW-1004B	6/26/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	14	1GW-1004B	6/26/2008	Boron as B (Dissolved)	<0.1	mg/l	7/10/2008	200.7
2008060279	14	1GW-1004B	6/26/2008	Cadmium as Cd (Dissolved)	0.0084	mg/l	7/14/2008	200.8
2008060279	14	1GW-1004B	6/26/2008	Calcium as Ca (Dissolved)	64	mg/l	7/10/2008	200.7
2008060279	14	1GW-1004B	6/26/2008	Cation/Anion Balance	10.16*	% [max 2%]	1/2/1900	AWWA/APHA
2008060279	14	1GW-1004B	6/26/2008	Cations	7.74*	meq/l	1/2/1900	1030F
2008060279	14	1GW-1004B	6/26/2008	Chloride as Cl	39	mg/l	7/15/2008	300
2008060279	14	1GW-1004B	6/26/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	14	1GW-1004B	6/26/2008	Cobalt as Co (Dissolved)	0.009	mg/l	7/11/2008	200.8
2008060279	14	1GW-1004B	6/26/2008	Copper as Cu (Dissolved)	0.061	mg/l	7/11/2008	200.8
2008060279	14	1GW-1004B	6/26/2008	Iron as Fe (Dissolved)	<0.05	mg/l	7/10/2008	200.7
2008060279	14	1GW-1004B	6/26/2008	Lead as Pb (Dissolved)	0.0015	mg/l	7/11/2008	200.8
2008060279	14	1GW-1004B	6/26/2008	Magnesium as Mg (Dissolved)	34	mg/l	7/10/2008	200.7
2008060279	14	1GW-1004B	6/26/2008	Manganese as Mn (Dissolved)	10.6	mg/l	7/10/2008	200.7
2008060279	14	1GW-1004B	6/26/2008	Mercury Batch #/Digest Date	NA	-----	1/2/1900	-----
2008060279	14	1GW-1004B	6/26/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/11/2008	200.8
2008060279	14	1GW-1004B	6/26/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	14	1GW-1004B	6/26/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	14	1GW-1004B	6/26/2008	Potassium as K (Dissolved)	7	mg/l	7/10/2008	200.7
2008060279	14	1GW-1004B	6/26/2008	Selenium as Se (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	14	1GW-1004B	6/26/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	14	1GW-1004B	6/26/2008	Sodium as Na (Dissolved)	36	mg/l	7/10/2008	200.7
2008060279	14	1GW-1004B	6/26/2008	Sulfate as SO4	403	mg/l	7/18/2008	300
2008060279	14	1GW-1004B	6/26/2008	Uranium as U (Dissolved)	NA	mg/l	1/2/1900	200.8
2008060279	14	1GW-1004B	6/26/2008	Vanadium as V (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	14	1GW-1004B	6/26/2008	Zinc as Zn (Dissolved)	8.24	mg/l	7/10/2008	200.7
2008060279	15	1GW-1004A	6/26/2008	Alkalinity Bicarbonate as HCO3	<1	mg/l	7/10/2008	2320B
2008060279	15	1GW-1004A	6/26/2008	Alkalinity Carbonate as CO3	0	mg/l	7/10/2008	2320B
2008060279	15	1GW-1004A	6/26/2008	Alkalinity Total as CaCO3	<1	mg/l	7/10/2008	2320B
2008060279	15	1GW-1004A	6/26/2008	Aluminum as Al (Dissolved)	0.66	mg/l	7/10/2008	200.7
2008060279	15	1GW-1004A	6/26/2008	Anions	9.53*	meq/l	1/2/1900	1030F
2008060279	15	1GW-1004A	6/26/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008060279	15	1GW-1004A	6/26/2008	Arsenic as As (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008060279	15	1GW-1004A	6/26/2008	Barium as Ba (Dissolved)	0.006	mg/l	7/11/2008	200.8
2008060279	15	1GW-1004A	6/26/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	15	1GW-1004A	6/26/2008	Boron as B (Dissolved)	<0.1	mg/l	7/10/2008	200.7
2008060279	15	1GW-1004A	6/26/2008	Cadmium as Cd (Dissolved)	0.0074	mg/l	7/14/2008	200.8
2008060279	15	1GW-1004A	6/26/2008	Calcium as Ca (Dissolved)	62	mg/l	7/10/2008	200.7
2008060279	15	1GW-1004A	6/26/2008	Cation/Anion Balance	13.45*	% [max 5%]	1/2/1900	AWWA/APHA
2008060279	15	1GW-1004A	6/26/2008	Cations	7.27*	meq/l	1/2/1900	1030F
2008060279	15	1GW-1004A	6/26/2008	Chloride as Cl	41	mg/l	7/15/2008	300

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008060279	15	1GW-1004A	6/26/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	15	1GW-1004A	6/26/2008	Cobalt as Co (Dissolved)	0.009	mg/l	7/11/2008	200.8
2008060279	15	1GW-1004A	6/26/2008	Copper as Cu (Dissolved)	0.04	mg/l	7/11/2008	200.8
2008060279	15	1GW-1004A	6/26/2008	Iron as Fe (Dissolved)	<0.05	mg/l	7/10/2008	200.7
2008060279	15	1GW-1004A	6/26/2008	Lead as Pb (Dissolved)	0.0008	mg/l	7/11/2008	200.8
2008060279	15	1GW-1004A	6/26/2008	Magnesium as Mg (Dissolved)	32	mg/l	7/10/2008	200.7
2008060279	15	1GW-1004A	6/26/2008	Manganese as Mn (Dissolved)	10.6	mg/l	7/10/2008	200.7
2008060279	15	1GW-1004A	6/26/2008	Mercury Batch #/Digest Date	NA	-----	1/2/1900	-----
2008060279	15	1GW-1004A	6/26/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/11/2008	200.8
2008060279	15	1GW-1004A	6/26/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	15	1GW-1004A	6/26/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	15	1GW-1004A	6/26/2008	Potassium as K (Dissolved)	6	mg/l	7/10/2008	200.7
2008060279	15	1GW-1004A	6/26/2008	Selenium as Se (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	15	1GW-1004A	6/26/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	15	1GW-1004A	6/26/2008	Sodium as Na (Dissolved)	32	mg/l	7/10/2008	200.7
2008060279	15	1GW-1004A	6/26/2008	Sulfate as SO4	402	mg/l	7/18/2008	300
2008060279	15	1GW-1004A	6/26/2008	Uranium as U (Dissolved)	NA	mg/l	1/2/1900	200.8
2008060279	15	1GW-1004A	6/26/2008	Vanadium as V (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	15	1GW-1004A	6/26/2008	Zinc as Zn (Dissolved)	7.78	mg/l	7/10/2008	200.7
2008060279	16	P-37A	6/26/2008	Alkalinity Bicarbonate as HCO3	56	mg/l	7/10/2008	2320B
2008060279	16	P-37A	6/26/2008	Alkalinity Carbonate as CO3	0	mg/l	7/10/2008	2320B
2008060279	16	P-37A	6/26/2008	Alkalinity Total as CaCO3	46	mg/l	7/10/2008	2320B
2008060279	16	P-37A	6/26/2008	Aluminum as Al (Dissolved)	0.04	mg/l	7/10/2008	200.7
2008060279	16	P-37A	6/26/2008	Anions	11.94*	meq/l	1/2/1900	1030F
2008060279	16	P-37A	6/26/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008060279	16	P-37A	6/26/2008	Arsenic as As (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008060279	16	P-37A	6/26/2008	Barium as Ba (Dissolved)	0.028 J	mg/l	7/11/2008	200.8
2008060279	16	P-37A	6/26/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	16	P-37A	6/26/2008	Boron as B (Dissolved)	<0.1	mg/l	7/10/2008	200.7
2008060279	16	P-37A	6/26/2008	Cadmium as Cd (Dissolved)	0.054	mg/l	7/14/2008	200.8
2008060279	16	P-37A	6/26/2008	Calcium as Ca (Dissolved)	109	mg/l	7/10/2008	200.7
2008060279	16	P-37A	6/26/2008	Cation/Anion Balance	6.37*	% [max 5%]	1/2/1900	AWWA/APHA
2008060279	16	P-37A	6/26/2008	Cations	10.51*	meq/l	1/2/1900	1030F
2008060279	16	P-37A	6/26/2008	Chloride as Cl	250	mg/l	7/22/2008	300
2008060279	16	P-37A	6/26/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	16	P-37A	6/26/2008	Cobalt as Co (Dissolved)	0.004	mg/l	7/11/2008	200.8
2008060279	16	P-37A	6/26/2008	Copper as Cu (Dissolved)	0.002	mg/l	7/11/2008	200.8
2008060279	16	P-37A	6/26/2008	Iron as Fe (Dissolved)	0.91	mg/l	7/10/2008	200.7
2008060279	16	P-37A	6/26/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	16	P-37A	6/26/2008	Magnesium as Mg (Dissolved)	20	mg/l	7/10/2008	200.7
2008060279	16	P-37A	6/26/2008	Manganese as Mn (Dissolved)	4.84	mg/l	7/10/2008	200.7
2008060279	16	P-37A	6/26/2008	Mercury Batch #/Digest Date	NA	-----	1/2/1900	-----
2008060279	16	P-37A	6/26/2008	Mercury as Hg (Dissolved)	0.00001	mg/l	7/11/2008	200.8
2008060279	16	P-37A	6/26/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	16	P-37A	6/26/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	16	P-37A	6/26/2008	Potassium as K (Dissolved)	8	mg/l	7/10/2008	200.7
2008060279	16	P-37A	6/26/2008	Selenium as Se (Dissolved)	0.002	mg/l	7/11/2008	200.8
2008060279	16	P-37A	6/26/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	7/11/2008	200.8

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008060279	16	P-37A	6/26/2008	Sodium as Na (Dissolved)	74	mg/l	7/10/2008	200.7
2008060279	16	P-37A	6/26/2008	Sulfate as SO4	174	mg/l	7/22/2008	300
2008060279	16	P-37A	6/26/2008	Uranium as U (Dissolved)	NA	mg/l	1/2/1900	200.8
2008060279	16	P-37A	6/26/2008	Vanadium as V (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	16	P-37A	6/26/2008	Zinc as Zn (Dissolved)	1.14	mg/l	7/10/2008	200.7
2008060279	17	1-GW-1038	6/26/2008	Alkalinity Bicarbonate as HCO3	83	mg/l	7/10/2008	2320B
2008060279	17	1-GW-1038	6/26/2008	Alkalinity Carbonate as CO3	0	mg/l	7/10/2008	2320B
2008060279	17	1-GW-1038	6/26/2008	Alkalinity Total as CaCO3	68	mg/l	7/10/2008	2320B
2008060279	17	1-GW-1038	6/26/2008	Aluminum as Al (Dissolved)	0.07	mg/l	7/10/2008	200.7
2008060279	17	1-GW-1038	6/26/2008	Anions	1.9	meq/l	1/2/1900	1030F
2008060279	17	1-GW-1038	6/26/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008060279	17	1-GW-1038	6/26/2008	Arsenic as As (Dissolved)	0.023	mg/l	7/11/2008	200.8
2008060279	17	1-GW-1038	6/26/2008	Barium as Ba (Dissolved)	0.029	mg/l	7/11/2008	200.8
2008060279	17	1-GW-1038	6/26/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	17	1-GW-1038	6/26/2008	Boron as B (Dissolved)	<0.1	mg/l	7/10/2008	200.7
2008060279	17	1-GW-1038	6/26/2008	Cadmium as Cd (Dissolved)	0.001	mg/l	7/14/2008	200.8
2008060279	17	1-GW-1038	6/26/2008	Calcium as Ca (Dissolved)	29	mg/l	7/10/2008	200.7
2008060279	17	1-GW-1038	6/26/2008	Cation/Anion Balance	1.76*	[max 0.20]	1/2/1900	AWWA/APHA
2008060279	17	1-GW-1038	6/26/2008	Cations	3.56	meq/l	1/2/1900	1030F
2008060279	17	1-GW-1038	6/26/2008	Chloride as Cl	19	mg/l	7/16/2008	300
2008060279	17	1-GW-1038	6/26/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	17	1-GW-1038	6/26/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	7/11/2008	200.8
2008060279	17	1-GW-1038	6/26/2008	Copper as Cu (Dissolved)	0.013	mg/l	7/11/2008	200.8
2008060279	17	1-GW-1038	6/26/2008	Iron as Fe (Dissolved)	<0.05	mg/l	7/10/2008	200.7
2008060279	17	1-GW-1038	6/26/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	17	1-GW-1038	6/26/2008	Magnesium as Mg (Dissolved)	7	mg/l	7/10/2008	200.7
2008060279	17	1-GW-1038	6/26/2008	Manganese as Mn (Dissolved)	0.15	mg/l	7/10/2008	200.7
2008060279	17	1-GW-1038	6/26/2008	Mercury Batch #/Digest Date	NA	-----	1/2/1900	-----
2008060279	17	1-GW-1038	6/26/2008	Mercury as Hg (Dissolved)	0.00014	mg/l	7/11/2008	200.8
2008060279	17	1-GW-1038	6/26/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	17	1-GW-1038	6/26/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	17	1-GW-1038	6/26/2008	Potassium as K (Dissolved)	4	mg/l	7/10/2008	200.7
2008060279	17	1-GW-1038	6/26/2008	Selenium as Se (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	17	1-GW-1038	6/26/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	17	1-GW-1038	6/26/2008	Sodium as Na (Dissolved)	33	mg/l	7/10/2008	200.7
2008060279	17	1-GW-1038	6/26/2008	Sulfate as SO4	<5	mg/l	7/16/2008	300
2008060279	17	1-GW-1038	6/26/2008	Uranium as U (Dissolved)	NA	mg/l	1/2/1900	200.8
2008060279	17	1-GW-1038	6/26/2008	Vanadium as V (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	17	1-GW-1038	6/26/2008	Zinc as Zn (Dissolved)	0.02	mg/l	7/10/2008	200.7
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Alkalinity Bicarbonate as HCO3	154	mg/l	7/9/2008	2320B
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Alkalinity Carbonate as CO3	0	mg/l	7/9/2008	2320B
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Alkalinity Total as CaCO3	127	mg/l	7/9/2008	2320B
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	7/10/2008	200.7
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Arsenic as As (Dissolved)	0.006	mg/l	7/11/2008	200.8
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Barium as Ba (Dissolved)	0.008	mg/l	7/11/2008	200.8
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Boron as B (Dissolved)	<0.1	mg/l	7/10/2008	200.7

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008	200.8
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Calcium as Ca (Dissolved)	97	mg/l	7/10/2008	200.7
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Chloride as Cl	5	mg/l	7/15/2008	300
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	7/11/2008	200.8
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Copper as Cu (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Iron as Fe (Dissolved)	<0.05	mg/l	7/10/2008	200.7
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Magnesium as Mg (Dissolved)	15	mg/l	7/10/2008	200.7
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	7/10/2008	200.7
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Mercury Batch #/Digest Date	NA	-----	1/2/1900	-----
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/11/2008	200.8
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Potassium as K (Dissolved)	4	mg/l	7/10/2008	200.7
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Selenium as Se (Dissolved)	0.006	mg/l	7/11/2008	200.8
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Sodium as Na (Dissolved)	28	mg/l	7/10/2008	200.7
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Sulfate as SO4	240	mg/l	7/15/2008	300
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Uranium as U (Dissolved)	NA	mg/l	1/2/1900	200.8
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Vanadium as V (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	18	DUPLICATE OF 2008060279-01	6/25/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	7/10/2008	200.7
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Alkalinity Bicarbonate as HCO3	NA	% [77-116]	7/9/2008	2320B
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Alkalinity Carbonate as CO3	NA	% [77-116]	7/9/2008	2320B
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Alkalinity Total as CaCO3	101	% [77-116]	7/9/2008	2320B
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Aluminum as Al (Dissolved)	102	% [81-117]	7/10/2008	200.7
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Antimony as Sb (Dissolved)	102	% [85-118]	7/11/2008	200.8
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Arsenic as As (Dissolved)	107	% [84-127]	7/11/2008	200.8
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Barium as Ba (Dissolved)	116	% [81-121]	7/11/2008	200.8
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Beryllium as Be (Dissolved)	96	% [72-122]	7/11/2008	200.8
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Boron as B (Dissolved)	102	% [87-113]	7/10/2008	200.7
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Cadmium as Cd (Dissolved)	100	% [81-116]	7/11/2008	200.8
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Calcium as Ca (Dissolved)	94	% [78-122]	7/10/2008	200.7
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Chloride as Cl	117	% [84-124]	7/15/2008	300
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Chromium as Cr (Dissolved)	94	% [75-119]	7/11/2008	200.8
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Cobalt as Co (Dissolved)	92	% [77-118]	7/11/2008	200.8
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Copper as Cu (Dissolved)	94	% [70-114]	7/11/2008	200.8
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Iron as Fe (Dissolved)	101	% [87-111]	7/10/2008	200.7
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Lead as Pb (Dissolved)	102	% [82-117]	7/11/2008	200.8
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Magnesium as Mg (Dissolved)	101	% [84-118]	7/10/2008	200.7
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Manganese as Mn (Dissolved)	100	% [81-114]	7/10/2008	200.7
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Mercury Batch #/Digest Date	NA	-----	1/2/1900	-----
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Mercury as Hg (Dissolved)	104	% [70-127]	7/11/2008	200.8
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Molybdenum as Mo (Dissolved)	102	% [79-128]	7/11/2008	200.8
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Nickel as Ni (Dissolved)	95	% [77-114]	7/11/2008	200.8
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Potassium as K (Dissolved)	95	% [85-120]	7/10/2008	200.7
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Selenium as Se (Dissolved)	103	% [76-130]	7/11/2008	200.8
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Silver as Ag (Dissolved)	96	% [70-118]	7/11/2008	200.8

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Sodium as Na (Dissolved)	90	% [73-124]	7/10/2008	200.7
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Sulfate as SO4	106	% [84-124]	7/15/2008	300
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Uranium as U (Dissolved)	NA	mg/l	1/2/1900	200.8
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Vanadium as V (Dissolved)	99	% [84-117]	7/11/2008	200.8
2008060279	19	MATRIX SPIKE OF OF 2008060279-06	6/25/2008	Zinc as Zn (Dissolved)	104	% [89-113]	7/10/2008	200.7
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Alkalinity Bicarbonate as HCO3	<1	mg/l	7/10/2008	2320B
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Alkalinity Carbonate as CO3	0	mg/l	7/10/2008	2320B
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Alkalinity Total as CaCO3	<1	mg/l	7/10/2008	2320B
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	7/10/2008	200.7
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Arsenic as As (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Barium as Ba (Dissolved)	0.018	mg/l	7/11/2008	200.8
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Boron as B (Dissolved)	<0.1	mg/l	7/10/2008	200.7
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008	200.8
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Calcium as Ca (Dissolved)	90	mg/l	7/10/2008	200.7
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Chloride as Cl	12	mg/l	7/15/2008	300
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	7/11/2008	200.8
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Copper as Cu (Dissolved)	0.001	mg/l	7/11/2008	200.8
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Iron as Fe (Dissolved)	<0.05	mg/l	7/10/2008	200.7
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Magnesium as Mg (Dissolved)	19	mg/l	7/10/2008	200.7
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	7/10/2008	200.7
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Mercury Batch #/Digest Date	NA	-----	1/2/1900	-----
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/11/2008	200.8
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Potassium as K (Dissolved)	3	mg/l	7/10/2008	200.7
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Selenium as Se (Dissolved)	0.002	mg/l	7/11/2008	200.8
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Sodium as Na (Dissolved)	29	mg/l	7/10/2008	200.7
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Sulfate as SO4	223	mg/l	7/15/2008	300
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Uranium as U (Dissolved)	NA	mg/l	1/2/1900	200.8
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Vanadium as V (Dissolved)	<0.01	mg/l	7/11/2008	200.8
2008060279	20	DUPLICATE OF OF 2008060279-11	6/26/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	7/10/2008	200.7
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Alkalinity Bicarbonate as HCO3	NA	% [77-116]	7/10/2008	2320B
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Alkalinity Carbonate as CO3	NA	% [77-116]	7/10/2008	2320B
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Alkalinity Total as CaCO3	87	% [77-116]	7/10/2008	2320B
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Aluminum as Al (Dissolved)	98	% [81-117]	7/10/2008	200.7
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Antimony as Sb (Dissolved)	104	% [85-118]	7/11/2008	200.8
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Arsenic as As (Dissolved)	104	% [84-127]	7/11/2008	200.8
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Barium as Ba (Dissolved)	154 (4)	% [81-121]	7/11/2008	200.8
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Beryllium as Be (Dissolved)	101	% [72-122]	7/11/2008	200.8
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Boron as B (Dissolved)	100	% [87-113]	7/10/2008 18:48	200.7
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Cadmium as Cd (Dissolved)	100	% [81-116]	7/14/2008 20:00	200.8
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Calcium as Ca (Dissolved)	90	% [78-122]	7/10/2008 18:51	200.7
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Chloride as Cl	103	% [84-124	7/17/2008 12:49	300

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Chromium as Cr (Dissolved)	96	% [75-119]	7/11/2008 19:50	200.8
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Cobalt as Co (Dissolved)	104	% [77-118]	7/11/2008 19:50	200.8
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Copper as Cu (Dissolved)	96	% [70-114]	7/11/2008 19:50	200.8
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Iron as Fe (Dissolved)	98	% [87-111]	7/10/2008 18:48	200.7
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Lead as Pb (Dissolved)	104	% [82-117]	7/11/2008 19:50	200.8
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Magnesium as Mg (Dissolved)	100	% [84-118]	7/10/2008 18:51	200.7
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Manganese as Mn (Dissolved)	92	% [81-114]	7/10/2008 18:48	200.7
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Mercury Batch #/Digest Date	NA	-----	1/2/1900 0:00	-----
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Mercury as Hg (Dissolved)	100	% [70-127]	7/11/2008 15:54	200.8
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Molybdenum as Mo (Dissolved)	108	% [79-128]	7/11/2008 19:50	200.8
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Nickel as Ni (Dissolved)	107	% [77-114]	7/11/2008 19:50	200.8
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Potassium as K (Dissolved)	93	% [85-120]	7/10/2008 18:51	200.7
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Selenium as Se (Dissolved)	98	% [76-130]	7/11/2008 19:50	200.8
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Silver as Ag (Dissolved)	101	% [70-118]	7/11/2008 19:50	200.8
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Sodium as Na (Dissolved)	90	% [73-124]	7/10/2008 18:51	200.7
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Sulfate as SO4	103	% [84-124]	7/15/2008 22:11	300
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Uranium as U (Dissolved)	NA	mg/l	1/2/1900 0:00	200.8
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Vanadium as V (Dissolved)	97	% [84-117]	7/11/2008 19:50	200.8
2008060279	21	MATRIX SPIKE OF OF 2008060279-16	6/26/2008	Zinc as Zn (Dissolved)	99	% [89-113]	7/10/2008 18:48	200.7
2008060279	22	METHOD BLANK	1/2/1900	Alkalinity Bicarbonate as HCO3	<1	mg/l	7/9/2008 11:50	2320B
2008060279	22	METHOD BLANK	1/2/1900	Alkalinity Carbonate as CO3	0	mg/l	7/9/2008 11:50	2320B
2008060279	22	METHOD BLANK	1/2/1900	Alkalinity Total as CaCO3	<1	mg/l	7/9/2008 11:50	2320B
2008060279	22	METHOD BLANK	1/2/1900	Aluminum as Al (Dissolved)	<0.03	mg/l	7/10/2008 17:16	200.7
2008060279	22	METHOD BLANK	1/2/1900	Antimony as Sb (Dissolved)	<0.003	mg/l	7/11/2008 17:08	200.8
2008060279	22	METHOD BLANK	1/2/1900	Arsenic as As (Dissolved)	<0.003	mg/l	7/11/2008 17:08	200.8
2008060279	22	METHOD BLANK	1/2/1900	Barium as Ba (Dissolved)	<0.005	mg/l	7/11/2008 17:08	200.8
2008060279	22	METHOD BLANK	1/2/1900	Beryllium as Be (Dissolved)	<0.001	mg/l	7/11/2008 17:08	200.8
2008060279	22	METHOD BLANK	1/2/1900	Boron as B (Dissolved)	<0.1	mg/l	7/10/2008 17:16	200.7
2008060279	22	METHOD BLANK	1/2/1900	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008 17:08	200.8
2008060279	22	METHOD BLANK	1/2/1900	Calcium as Ca (Dissolved)	<1	mg/l	7/10/2008 17:16	200.7
2008060279	22	METHOD BLANK	1/2/1900	Chloride as Cl	<1	mg/l	7/15/2008 6:39	300
2008060279	22	METHOD BLANK	1/2/1900	Chromium as Cr (Dissolved)	<0.001	mg/l	7/11/2008 17:08	200.8
2008060279	22	METHOD BLANK	1/2/1900	Cobalt as Co (Dissolved)	<0.002	mg/l	7/11/2008 17:08	200.8
2008060279	22	METHOD BLANK	1/2/1900	Copper as Cu (Dissolved)	<0.001	mg/l	7/11/2008 17:08	200.8
2008060279	22	METHOD BLANK	1/2/1900	Iron as Fe (Dissolved)	<0.05	mg/l	7/10/2008 17:16	200.7
2008060279	22	METHOD BLANK	1/2/1900	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008 17:08	200.8
2008060279	22	METHOD BLANK	1/2/1900	Magnesium as Mg (Dissolved)	<1	mg/l	7/10/2008 17:16	200.7
2008060279	22	METHOD BLANK	1/2/1900	Manganese as Mn (Dissolved)	<0.005	mg/l	7/10/2008 17:16	200.7
2008060279	22	METHOD BLANK	1/2/1900	Mercury Batch #/Digest Date	NA	-----	1/2/1900 0:00	-----
2008060279	22	METHOD BLANK	1/2/1900	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/11/2008 14:37	200.8
2008060279	22	METHOD BLANK	1/2/1900	Molybdenum as Mo (Dissolved)	<0.01	mg/l	7/11/2008 17:08	200.8
2008060279	22	METHOD BLANK	1/2/1900	Nickel as Ni (Dissolved)	0.01 B	mg/l	7/11/2008 17:08	200.8
2008060279	22	METHOD BLANK	1/2/1900	Potassium as K (Dissolved)	<1	mg/l	7/10/2008 17:16	200.7
2008060279	22	METHOD BLANK	1/2/1900	Selenium as Se (Dissolved)	<0.001	mg/l	7/11/2008 17:08	200.8
2008060279	22	METHOD BLANK	1/2/1900	Silver as Ag (Dissolved)	<0.0005	mg/l	7/11/2008 17:08	200.8
2008060279	22	METHOD BLANK	1/2/1900	Sodium as Na (Dissolved)	<1	mg/l	7/10/2008 17:16	200.7
2008060279	22	METHOD BLANK	1/2/1900	Sulfate as SO4	<5	mg/l	7/15/2008 6:39	300
2008060279	22	METHOD BLANK	1/2/1900	Uranium as U (Dissolved)	NA	mg/l	1/2/1900 0:00	200.8

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008060279	22	METHOD BLANK	1/2/1900	Vanadium as V (Dissolved)	<0.01	mg/l	7/11/2008 17:08	200.8
2008060279	22	METHOD BLANK	1/2/1900	Zinc as Zn (Dissolved)	<0.01	mg/l	7/10/2008 17:16	200.7
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Alkalinity Bicarbonate as HCO3	NA	% [89-110]	7/9/2008 11:50	2320B
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Alkalinity Carbonate as CO3	NA	% [89-110]	7/9/2008 11:50	2320B
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Alkalinity Total as CaCO3	99	% [89-110]	7/9/2008 11:50	2320B
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Aluminum as Al (Dissolved)	100	% [86-112]	7/10/2008 17:19	200.7
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Antimony as Sb (Dissolved)	98	% [85-113]	7/11/2008 17:14	200.8
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Arsenic as As (Dissolved)	98	% [85-111]	7/11/2008 17:14	200.8
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Barium as Ba (Dissolved)	97	% [85-113]	7/11/2008 17:14	200.8
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Beryllium as Be (Dissolved)	98	% [85-112]	7/11/2008 17:14	200.8
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Boron as B (Dissolved)	96	% [85-108]	7/10/2008 17:19	200.7
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Cadmium as Cd (Dissolved)	99	% [86-113]	7/11/2008 17:14	200.8
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Calcium as Ca (Dissolved)	100	% [91-114]	7/10/2008 17:22	200.7
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Chloride as Cl	104	% [90-110]	7/15/2008 7:10	300
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Chromium as Cr (Dissolved)	99	% [85-115]	7/11/2008 17:14	200.8
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Cobalt as Co (Dissolved)	100	% [87-112]	7/11/2008 17:14	200.8
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Copper as Cu (Dissolved)	102	% [85-114]	7/11/2008 17:14	200.8
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Iron as Fe (Dissolved)	96	% [90-112]	7/10/2008 17:19	200.7
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Lead as Pb (Dissolved)	100	% [87-114]	7/11/2008 17:14	200.8
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Magnesium as Mg (Dissolved)	102	% [89-112]	7/10/2008 17:22	200.7
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Manganese as Mn (Dissolved)	97	% [92-114]	7/10/2008 17:19	200.7
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Mercury Batch #/Digest Date	NA	-----	1/2/1900 0:00	-----
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Mercury as Hg (Dissolved)	96	% [85-115]	7/11/2008 14:39	200.8
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Molybdenum as Mo (Dissolved)	98	% [86-114]	7/11/2008 17:14	200.8
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Nickel as Ni (Dissolved)	99	% [85-112]	7/11/2008 17:14	200.8
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Potassium as K (Dissolved)	89	% [86-114]	7/10/2008 17:22	200.7
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Selenium as Se (Dissolved)	96	% [85-115]	7/11/2008 17:14	200.8
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Silver as Ag (Dissolved)	100	% [88-111]	7/11/2008 17:14	200.8
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Sodium as Na (Dissolved)	90	% [87-112]	7/10/2008 17:22	200.7
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Sulfate as SO4	97	% [90-110]	7/15/2008 17:10	300
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Uranium as U (Dissolved)	NA	mg/l	1/2/1900 0:00	200.8
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Vanadium as V (Dissolved)	100	% [86-114]	7/11/2008 17:14	200.8
2008060279	23	LABORATORY CONTROL SAMPLE	1/2/1900	Zinc as Zn (Dissolved)	98	% [89-113]	7/10/2008 17:19	200.7
2008090290	1	P-114	9/24/2008	Alkalinity Bicarbonate as HCO3	248	mg/l	10/7/2008	2320B
2008090290	1	P-114	9/24/2008	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008	2320B
2008090290	1	P-114	9/24/2008	Alkalinity Total as CaCO3	203	mg/l	10/7/2008	2320B
2008090290	1	P-114	9/24/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	10/10/2008 18:52	200.7
2008090290	1	P-114	9/24/2008	Anions	7.99	meq/l	1/2/1900 0:00	1030F
2008090290	1	P-114	9/24/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	10/8/2008 17:22	200.8
2008090290	1	P-114	9/24/2008	Arsenic as As (Dissolved)	0.003	mg/l	10/8/2008	200.8
2008090290	1	P-114	9/24/2008	Barium as Ba (Dissolved)	0.032	mg/l	10/8/2008 17:22	200.8
2008090290	1	P-114	9/24/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008 17:22	200.8
2008090290	1	P-114	9/24/2008	Boron as B (Dissolved)	<0.1	mg/l	10/10/2008	200.7
2008090290	1	P-114	9/24/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	10/15/2008 17:54	200.8
2008090290	1	P-114	9/24/2008	Calcium as Ca	61	mg/l	10/8/2008 17:48	200.7
2008090290	1	P-114	9/24/2008	Cation/Anion Balance	1.24	% [max 2%]	1/2/1900	AWWA/APHA
2008090290	1	P-114	9/24/2008	Cations	8.19	meq/l	1/2/1900 0:00	1030F
2008090290	1	P-114	9/24/2008	Chloride as Cl	33	mg/l	10/15/2008	300

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090290	1	P-114	9/24/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	10/8/2008 17:22	200.8
2008090290	1	P-114	9/24/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	10/8/2008	200.8
2008090290	1	P-114	9/24/2008	Copper as Cu (Dissolved)	0.001	mg/l	10/15/2008	200.8
2008090290	1	P-114	9/24/2008	Iron as Fe (Dissolved)	<0.05	mg/l	10/10/2008	200.7
2008090290	1	P-114	9/24/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	10/8/2008 17:22	200.8
2008090290	1	P-114	9/24/2008	Magnesium as Mg	6	mg/l	10/8/2008	200.7
2008090290	1	P-114	9/24/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	10/8/2008	200.7
2008090290	1	P-114	9/24/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	10/1/2008	200.8
2008090290	1	P-114	9/24/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	10/8/2008 17:22	200.8
2008090290	1	P-114	9/24/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	10/8/2008 17:22	200.8
2008090290	1	P-114	9/24/2008	Potassium as K	5	mg/l	10/8/2008 17:48	200.7
2008090290	1	P-114	9/24/2008	Selenium as Se (Dissolved)	0.001	mg/l	10/15/2008	200.8
2008090290	1	P-114	9/24/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	10/15/2008 17:54	200.8
2008090290	1	P-114	9/24/2008	Sodium as Na	104	mg/l	10/8/2008 17:48	200.7
2008090290	1	P-114	9/24/2008	Sulfate as SO4	144	mg/l	10/15/2008	300
2008090290	1	P-114	9/24/2008	Uranium as U (Dissolved)	0.004	mg/l	10/8/2008 17:22	200.8
2008090290	1	P-114	9/24/2008	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008 17:22	200.8
2008090290	1	P-114	9/24/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	10/10/2008	200.7
2008090290	2	MW-3A	9/24/2008	Alkalinity Bicarbonate as HCO3	<1	mg/l	10/7/2008 10:00	2320B
2008090290	2	MW-3A	9/24/2008	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008	2320B
2008090290	2	MW-3A	9/24/2008	Alkalinity Total as CaCO3	<1	mg/l	10/7/2008 10:00	2320B
2008090290	2	MW-3A	9/24/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	10/10/2008	200.7
2008090290	2	MW-3A	9/24/2008	Anions	<0.20	meq/l	1/2/1900	1030F
2008090290	2	MW-3A	9/24/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	2	MW-3A	9/24/2008	Arsenic as As (Dissolved)	<0.003	mg/l	10/8/2008 17:49	200.8
2008090290	2	MW-3A	9/24/2008	Barium as Ba (Dissolved)	<0.005	mg/l	10/8/2008	200.8
2008090290	2	MW-3A	9/24/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	2	MW-3A	9/24/2008	Boron as B (Dissolved)	<0.1	mg/l	10/10/2008	200.7
2008090290	2	MW-3A	9/24/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	10/15/2008 18:06	200.8
2008090290	2	MW-3A	9/24/2008	Calcium as Ca	<1	mg/l	10/8/2008 17:54	200.7
2008090290	2	MW-3A	9/24/2008	Cation/Anion Balance	NA	% [max 5%]	1/2/1900 0:00	AWWA/APHA
2008090290	2	MW-3A	9/24/2008	Cations	<0.30	meq/l	1/2/1900 0:00	1030F
2008090290	2	MW-3A	9/24/2008	Chloride as Cl	<1	mg/l	10/15/2008 6:22	300
2008090290	2	MW-3A	9/24/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	10/8/2008 17:49	200.8
2008090290	2	MW-3A	9/24/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	10/8/2008	200.8
2008090290	2	MW-3A	9/24/2008	Copper as Cu (Dissolved)	<0.001	mg/l	10/15/2008 18:06	200.8
2008090290	2	MW-3A	9/24/2008	Iron as Fe (Dissolved)	<0.05	mg/l	10/10/2008 18:58	200.7
2008090290	2	MW-3A	9/24/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	10/8/2008 17:49	200.8
2008090290	2	MW-3A	9/24/2008	Magnesium as Mg	<1	mg/l	10/8/2008 17:54	200.7
2008090290	2	MW-3A	9/24/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	10/8/2008	200.7
2008090290	2	MW-3A	9/24/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	10/1/2008 11:57	200.8
2008090290	2	MW-3A	9/24/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	10/8/2008 17:49	200.8
2008090290	2	MW-3A	9/24/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	10/8/2008 17:49	200.8
2008090290	2	MW-3A	9/24/2008	Potassium as K	<1	mg/l	10/8/2008	200.7
2008090290	2	MW-3A	9/24/2008	Selenium as Se (Dissolved)	<0.001	mg/l	10/15/2008	200.8
2008090290	2	MW-3A	9/24/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	10/15/2008 18:06	200.8
2008090290	2	MW-3A	9/24/2008	Sodium as Na	<1	mg/l	10/8/2008 17:54	200.7
2008090290	2	MW-3A	9/24/2008	Sulfate as SO4	<5	mg/l	10/15/2008 6:22	300

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090290	2	MW-3A	9/24/2008	Uranium as U (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	2	MW-3A	9/24/2008	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008 17:49	200.8
2008090290	2	MW-3A	9/24/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	10/10/2008 18:58	200.7
2008090290	3	MWGW-1003R	9/25/2008	Alkalinity Bicarbonate as HCO3	160	mg/l	10/7/2008	2320B
2008090290	3	MWGW-1003R	9/25/2008	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008	2320B
2008090290	3	MWGW-1003R	9/25/2008	Alkalinity Total as CaCO3	131	mg/l	10/7/2008 10:00	2320B
2008090290	3	MWGW-1003R	9/25/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	10/10/2008 19:01	200.7
2008090290	3	MWGW-1003R	9/25/2008	Anions	3.96	meq/l	1/2/1900 0:00	1030F
2008090290	3	MWGW-1003R	9/25/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	3	MWGW-1003R	9/25/2008	Arsenic as As (Dissolved)	0.01	mg/l	10/8/2008	200.8
2008090290	3	MWGW-1003R	9/25/2008	Barium as Ba (Dissolved)	0.041	mg/l	10/8/2008 17:55	200.8
2008090290	3	MWGW-1003R	9/25/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008 17:55	200.8
2008090290	3	MWGW-1003R	9/25/2008	Boron as B (Dissolved)	<0.1	mg/l	10/10/2008 19:01	200.7
2008090290	3	MWGW-1003R	9/25/2008	Cadmium as Cd (Dissolved)	0.00009	mg/l	10/15/2008	200.8
2008090290	3	MWGW-1003R	9/25/2008	Calcium as Ca	36	mg/l	10/24/2008 11:28	200.7
2008090290	3	MWGW-1003R	9/25/2008	Cation/Anion Balance	0.04	[max 0.20]	1/2/1900	AWWA/APHA
2008090290	3	MWGW-1003R	9/25/2008	Cations	3.92	meq/l	1/2/1900 0:00	1030F
2008090290	3	MWGW-1003R	9/25/2008	Chloride as Cl	12	mg/l	10/15/2008 6:53	300
2008090290	3	MWGW-1003R	9/25/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	10/8/2008 17:55	200.8
2008090290	3	MWGW-1003R	9/25/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	10/8/2008 3:48	200.8
2008090290	3	MWGW-1003R	9/25/2008	Copper as Cu (Dissolved)	<0.001	mg/l	10/15/2008 18:12	200.8
2008090290	3	MWGW-1003R	9/25/2008	Iron as Fe (Dissolved)	0.14	mg/l	10/10/2008	200.7
2008090290	3	MWGW-1003R	9/25/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	10/8/2008 17:55	200.8
2008090290	3	MWGW-1003R	9/25/2008	Magnesium as Mg	7	mg/l	10/8/2008	200.7
2008090290	3	MWGW-1003R	9/25/2008	Manganese as Mn (Dissolved)	0.088	mg/l	10/8/2008	200.7
2008090290	3	MWGW-1003R	9/25/2008	Mercury as Hg (Dissolved)	0.00009	mg/l	10/1/2008	200.8
2008090290	3	MWGW-1003R	9/25/2008	Molybdenum as Mo (Dissolved)	0.01	mg/l	10/8/2008 17:55	200.8
2008090290	3	MWGW-1003R	9/25/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	3	MWGW-1003R	9/25/2008	Potassium as K	6	mg/l	10/8/2008	200.7
2008090290	3	MWGW-1003R	9/25/2008	Selenium as Se (Dissolved)	0.001	mg/l	10/15/2008	200.8
2008090290	3	MWGW-1003R	9/25/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	10/15/2008 18:12	200.8
2008090290	3	MWGW-1003R	9/25/2008	Sodium as Na	30	mg/l	10/8/2008 17:57	200.7
2008090290	3	MWGW-1003R	9/25/2008	Sulfate as SO4	48	mg/l	10/15/2008	300
2008090290	3	MWGW-1003R	9/25/2008	Uranium as U (Dissolved)	0.003	mg/l	10/8/2008	200.8
2008090290	3	MWGW-1003R	9/25/2008	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	3	MWGW-1003R	9/25/2008	Zinc as Zn (Dissolved)	0.02	mg/l	10/10/2008	200.7
2008090290	4	1GW-1004B	9/25/2008	Alkalinity Bicarbonate as HCO3	<1	mg/l	10/7/2008	2320B
2008090290	4	1GW-1004B	9/25/2008	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008 10:00	2320B
2008090290	4	1GW-1004B	9/25/2008	Alkalinity Total as CaCO3	<1	mg/l	10/7/2008 10:00	2320B
2008090290	4	1GW-1004B	9/25/2008	Aluminum as Al (Dissolved)	0.62	mg/l	10/10/2008	200.7
2008090290	4	1GW-1004B	9/25/2008	Anions	12.51	meq/l	1/2/1900	1030F
2008090290	4	1GW-1004B	9/25/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	10/8/2008 18:01	200.8
2008090290	4	1GW-1004B	9/25/2008	Arsenic as As (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	4	1GW-1004B	9/25/2008	Barium as Ba (Dissolved)	0.02	mg/l	10/8/2008	200.8
2008090290	4	1GW-1004B	9/25/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008 18:01	200.8
2008090290	4	1GW-1004B	9/25/2008	Boron as B (Dissolved)	0.1	mg/l	10/10/2008 19:04	200.7
2008090290	4	1GW-1004B	9/25/2008	Cadmium as Cd (Dissolved)	0.0051	mg/l	10/8/2008 18:01	200.8
2008090290	4	1GW-1004B	9/25/2008	Calcium as Ca	76	mg/l	10/8/2008	200.7

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090290	4	1GW-1004B	9/25/2008	Cation/Anion Balance	17.03*	% [max 5%]	1/2/1900 0:00	AWWA/APHA
2008090290	4	1GW-1004B	9/25/2008	Cations	8.87	meq/l	1/2/1900 0:00	1030F
2008090290	4	1GW-1004B	9/25/2008	Chloride as Cl	28	mg/l	10/15/2008	300
2008090290	4	1GW-1004B	9/25/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	4	1GW-1004B	9/25/2008	Cobalt as Co (Dissolved)	0.042	mg/l	10/8/2008 3:54	200.8
2008090290	4	1GW-1004B	9/25/2008	Copper as Cu (Dissolved)	0.15	mg/l	10/8/2008 18:01	200.8
2008090290	4	1GW-1004B	9/25/2008	Iron as Fe (Dissolved)	28.5	mg/l	10/10/2008 19:04	200.7
2008090290	4	1GW-1004B	9/25/2008	Lead as Pb (Dissolved)	0.023	mg/l	10/8/2008	200.8
2008090290	4	1GW-1004B	9/25/2008	Magnesium as Mg	40	mg/l	10/8/2008	200.7
2008090290	4	1GW-1004B	9/25/2008	Manganese as Mn (Dissolved)	23.5	mg/l	10/14/2008 12:28	200.7
2008090290	4	1GW-1004B	9/25/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	10/1/2008 12:08	200.8
2008090290	4	1GW-1004B	9/25/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	10/8/2008 18:01	200.8
2008090290	4	1GW-1004B	9/25/2008	Nickel as Ni (Dissolved)	0.02	mg/l	10/8/2008	200.8
2008090290	4	1GW-1004B	9/25/2008	Potassium as K	8	mg/l	10/8/2008 18:00	200.7
2008090290	4	1GW-1004B	9/25/2008	Selenium as Se (Dissolved)	0.001	mg/l	10/15/2008	200.8
2008090290	4	1GW-1004B	9/25/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	10/15/2008 18:18	200.8
2008090290	4	1GW-1004B	9/25/2008	Sodium as Na	37	mg/l	10/8/2008 18:00	200.7
2008090290	4	1GW-1004B	9/25/2008	Sulfate as SO4	563	mg/l	10/15/2008 7:23	300
2008090290	4	1GW-1004B	9/25/2008	Uranium as U (Dissolved)	0.001	mg/l	10/8/2008 18:01	200.8
2008090290	4	1GW-1004B	9/25/2008	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008 18:01	200.8
2008090290	4	1GW-1004B	9/25/2008	Zinc as Zn (Dissolved)	9.81	mg/l	10/10/2008	200.7
2008090290	5	1GW-1004A	9/25/2008	Alkalinity Bicarbonate as HCO3	<1	mg/l	10/7/2008 10:00	2320B
2008090290	5	1GW-1004A	9/25/2008	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008	2320B
2008090290	5	1GW-1004A	9/25/2008	Alkalinity Total as CaCO3	<1	mg/l	10/7/2008	2320B
2008090290	5	1GW-1004A	9/25/2008	Aluminum as Al (Dissolved)	0.48	mg/l	10/10/2008	200.7
2008090290	5	1GW-1004A	9/25/2008	Anions	12.48	meq/l	1/2/1900 0:00	1030F
2008090290	5	1GW-1004A	9/25/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	5	1GW-1004A	9/25/2008	Arsenic as As (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	5	1GW-1004A	9/25/2008	Barium as Ba (Dissolved)	0.019	mg/l	10/8/2008	200.8
2008090290	5	1GW-1004A	9/25/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	5	1GW-1004A	9/25/2008	Boron as B (Dissolved)	0.1	mg/l	10/10/2008 19:07	200.7
2008090290	5	1GW-1004A	9/25/2008	Cadmium as Cd (Dissolved)	0.005	mg/l	10/8/2008 18:07	200.8
2008090290	5	1GW-1004A	9/25/2008	Calcium as Ca	80	mg/l	10/8/2008	200.7
2008090290	5	1GW-1004A	9/25/2008	Cation/Anion Balance	15.18*	% [max 5%]	1/2/1900 0:00	AWWA/APHA
2008090290	5	1GW-1004A	9/25/2008	Cations	9.19	meq/l	1/2/1900 0:00	1030F
2008090290	5	1GW-1004A	9/25/2008	Chloride as Cl	29	mg/l	10/15/2008	300
2008090290	5	1GW-1004A	9/25/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	5	1GW-1004A	9/25/2008	Cobalt as Co (Dissolved)	0.041	mg/l	10/8/2008	200.8
2008090290	5	1GW-1004A	9/25/2008	Copper as Cu (Dissolved)	0.11	mg/l	10/8/2008	200.8
2008090290	5	1GW-1004A	9/25/2008	Iron as Fe (Dissolved)	37.2	mg/l	10/10/2008 19:07	200.7
2008090290	5	1GW-1004A	9/25/2008	Lead as Pb (Dissolved)	0.009	mg/l	10/8/2008 18:07	200.8
2008090290	5	1GW-1004A	9/25/2008	Magnesium as Mg	40	mg/l	10/8/2008	200.7
2008090290	5	1GW-1004A	9/25/2008	Manganese as Mn (Dissolved)	22.9	mg/l	10/24/2008	200.7
2008090290	5	1GW-1004A	9/25/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	10/1/2008	200.8
2008090290	5	1GW-1004A	9/25/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	10/8/2008 18:07	200.8
2008090290	5	1GW-1004A	9/25/2008	Nickel as Ni (Dissolved)	0.02	mg/l	10/8/2008 18:07	200.8
2008090290	5	1GW-1004A	9/25/2008	Potassium as K	8	mg/l	10/8/2008 18:03	200.7
2008090290	5	1GW-1004A	9/25/2008	Selenium as Se (Dissolved)	<0.001	mg/l	10/15/2008	200.8

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090290	5	1GW-1004A	9/25/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	10/15/2008 18:24	200.8
2008090290	5	1GW-1004A	9/25/2008	Sodium as Na	39	mg/l	10/8/2008 18:03	200.7
2008090290	5	1GW-1004A	9/25/2008	Sulfate as SO4	560	mg/l	10/15/2008	300
2008090290	5	1GW-1004A	9/25/2008	Uranium as U (Dissolved)	0.001	mg/l	10/8/2008 18:07	200.8
2008090290	5	1GW-1004A	9/25/2008	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008 18:07	200.8
2008090290	5	1GW-1004A	9/25/2008	Zinc as Zn (Dissolved)	9.66	mg/l	10/10/2008	200.7
2008090290	6	MW-2C	9/25/2008	Alkalinity Bicarbonate as HCO3	124	mg/l	10/7/2008	2320B
2008090290	6	MW-2C	9/25/2008	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008	2320B
2008090290	6	MW-2C	9/25/2008	Alkalinity Total as CaCO3	102	mg/l	10/7/2008	2320B
2008090290	6	MW-2C	9/25/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	10/10/2008 19:10	200.7
2008090290	6	MW-2C	9/25/2008	Anions	6.58	meq/l	1/2/1900 0:00	1030F
2008090290	6	MW-2C	9/25/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	6	MW-2C	9/25/2008	Arsenic as As (Dissolved)	0.007	mg/l	10/8/2008	200.8
2008090290	6	MW-2C	9/25/2008	Barium as Ba (Dissolved)	0.021	mg/l	10/8/2008	200.8
2008090290	6	MW-2C	9/25/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008 18:13	200.8
2008090290	6	MW-2C	9/25/2008	Boron as B (Dissolved)	<0.1	mg/l	10/10/2008 19:10	200.7
2008090290	6	MW-2C	9/25/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	10/15/2008 18:45	200.8
2008090290	6	MW-2C	9/25/2008	Calcium as Ca	73	mg/l	10/8/2008	200.7
2008090290	6	MW-2C	9/25/2008	Cation/Anion Balance	0	% [max 2%]	1/2/1900 0:00	AWWA/APHA
2008090290	6	MW-2C	9/25/2008	Cations	6.58	meq/l	1/2/1900 0:00	1030F
2008090290	6	MW-2C	9/25/2008	Chloride as Cl	14	mg/l	10/15/2008	300
2008090290	6	MW-2C	9/25/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	10/8/2008 18:13	200.8
2008090290	6	MW-2C	9/25/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	10/8/2008 4:21	200.8
2008090290	6	MW-2C	9/25/2008	Copper as Cu (Dissolved)	<0.001	mg/l	10/15/2008	200.8
2008090290	6	MW-2C	9/25/2008	Iron as Fe (Dissolved)	<0.05	mg/l	10/10/2008	200.7
2008090290	6	MW-2C	9/25/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	10/8/2008	200.8
2008090290	6	MW-2C	9/25/2008	Magnesium as Mg	16	mg/l	10/8/2008	200.7
2008090290	6	MW-2C	9/25/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	10/8/2008 18:15	200.7
2008090290	6	MW-2C	9/25/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	10/1/2008 12:14	200.8
2008090290	6	MW-2C	9/25/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	6	MW-2C	9/25/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	6	MW-2C	9/25/2008	Potassium as K	4	mg/l	10/8/2008	200.7
2008090290	6	MW-2C	9/25/2008	Selenium as Se (Dissolved)	0.002	mg/l	10/15/2008 18:45	200.8
2008090290	6	MW-2C	9/25/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	10/15/2008 18:45	200.8
2008090290	6	MW-2C	9/25/2008	Sodium as Na	35	mg/l	10/8/2008 18:15	200.7
2008090290	6	MW-2C	9/25/2008	Sulfate as SO4	199	mg/l	10/15/2008	300
2008090290	6	MW-2C	9/25/2008	Uranium as U (Dissolved)	0.009	mg/l	10/8/2008 18:13	200.8
2008090290	6	MW-2C	9/25/2008	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008 18:13	200.8
2008090290	6	MW-2C	9/25/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	10/10/2008 19:10	200.7
2008090290	7	MW-2D	9/25/2008	Alkalinity Bicarbonate as HCO3	188	mg/l	10/7/2008 10:00	2320B
2008090290	7	MW-2D	9/25/2008	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008 10:00	2320B
2008090290	7	MW-2D	9/25/2008	Alkalinity Total as CaCO3	154	mg/l	10/7/2008	2320B
2008090290	7	MW-2D	9/25/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	10/10/2008	200.7
2008090290	7	MW-2D	9/25/2008	Anions	7.66	meq/l	1/2/1900	1030F
2008090290	7	MW-2D	9/25/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	7	MW-2D	9/25/2008	Arsenic as As (Dissolved)	0.007	mg/l	10/8/2008 18:27	200.8
2008090290	7	MW-2D	9/25/2008	Barium as Ba (Dissolved)	0.043	mg/l	10/8/2008 18:27	200.8
2008090290	7	MW-2D	9/25/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008	200.8

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090290	7	MW-2D	9/25/2008	Boron as B (Dissolved)	<0.1	mg/l	10/10/2008	200.7
2008090290	7	MW-2D	9/25/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	10/15/2008	200.8
2008090290	7	MW-2D	9/25/2008	Calcium as Ca	98	mg/l	10/8/2008	200.7
2008090290	7	MW-2D	9/25/2008	Cation/Anion Balance	1.29	% [max 2%]	1/2/1900	AWWA/APHA
2008090290	7	MW-2D	9/25/2008	Cations	7.86	meq/l	1/2/1900	1030F
2008090290	7	MW-2D	9/25/2008	Chloride as Cl	14	mg/l	10/15/2008	300
2008090290	7	MW-2D	9/25/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	7	MW-2D	9/25/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	10/8/2008	200.8
2008090290	7	MW-2D	9/25/2008	Copper as Cu (Dissolved)	0.002	mg/l	10/15/2008	200.8
2008090290	7	MW-2D	9/25/2008	Iron as Fe (Dissolved)	<0.05	mg/l	10/10/2008	200.7
2008090290	7	MW-2D	9/25/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	10/8/2008	200.8
2008090290	7	MW-2D	9/25/2008	Magnesium as Mg	20	mg/l	10/8/2008	200.7
2008090290	7	MW-2D	9/25/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	10/8/2008	200.7
2008090290	7	MW-2D	9/25/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	10/1/2008	200.8
2008090290	7	MW-2D	9/25/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	7	MW-2D	9/25/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	7	MW-2D	9/25/2008	Potassium as K	4	mg/l	10/8/2008	200.7
2008090290	7	MW-2D	9/25/2008	Selenium as Se (Dissolved)	0.003	mg/l	10/15/2008	200.8
2008090290	7	MW-2D	9/25/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	10/15/2008	200.8
2008090290	7	MW-2D	9/25/2008	Sodium as Na	28	mg/l	10/8/2008	200.7
2008090290	7	MW-2D	9/25/2008	Sulfate as SO4	201	mg/l	10/15/2008	300
2008090290	7	MW-2D	9/25/2008	Uranium as U (Dissolved)	0.067	mg/l	10/17/2008	200.8
2008090290	7	MW-2D	9/25/2008	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	7	MW-2D	9/25/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	10/10/2008	200.7
2008090290	8	P-06A	9/25/2008	Alkalinity Bicarbonate as HCO3	157	mg/l	10/7/2008	2320B
2008090290	8	P-06A	9/25/2008	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008	2320B
2008090290	8	P-06A	9/25/2008	Alkalinity Total as CaCO3	128	mg/l	10/7/2008	2320B
2008090290	8	P-06A	9/25/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	10/10/2008	200.7
2008090290	8	P-06A	9/25/2008	Anions	8.43	meq/l	1/2/1900	1030F
2008090290	8	P-06A	9/25/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	8	P-06A	9/25/2008	Arsenic as As (Dissolved)	0.003	mg/l	10/8/2008	200.8
2008090290	8	P-06A	9/25/2008	Barium as Ba (Dissolved)	0.026	mg/l	10/8/2008	200.8
2008090290	8	P-06A	9/25/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	8	P-06A	9/25/2008	Boron as B (Dissolved)	<0.1	mg/l	10/10/2008	200.7
2008090290	8	P-06A	9/25/2008	Cadmium as Cd (Dissolved)	0.002	mg/l	10/8/2008	200.8
2008090290	8	P-06A	9/25/2008	Calcium as Ca	77	mg/l	10/8/2008	200.7
2008090290	8	P-06A	9/25/2008	Cation/Anion Balance	1.4	% [max 2%]	1/2/1900	AWWA/APHA
2008090290	8	P-06A	9/25/2008	Cations	8.67	meq/l	1/2/1900	1030F
2008090290	8	P-06A	9/25/2008	Chloride as Cl	50	mg/l	10/15/2008	300
2008090290	8	P-06A	9/25/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	8	P-06A	9/25/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	10/8/2008	200.8
2008090290	8	P-06A	9/25/2008	Copper as Cu (Dissolved)	0.047	mg/l	10/8/2008	200.8
2008090290	8	P-06A	9/25/2008	Iron as Fe (Dissolved)	0.06	mg/l	10/10/2008	200.7
2008090290	8	P-06A	9/25/2008	Lead as Pb (Dissolved)	0.0016	mg/l	10/8/2008	200.8
2008090290	8	P-06A	9/25/2008	Magnesium as Mg	15	mg/l	10/8/2008	200.7
2008090290	8	P-06A	9/25/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	10/8/2008	200.7
2008090290	8	P-06A	9/25/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	10/1/2008	200.8
2008090290	8	P-06A	9/25/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	10/8/2008	200.8

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090290	8	P-06A	9/25/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	8	P-06A	9/25/2008	Potassium as K	6	mg/l	10/8/2008	200.7
2008090290	8	P-06A	9/25/2008	Selenium as Se (Dissolved)	0.002	mg/l	10/15/2008	200.8
2008090290	8	P-06A	9/25/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	10/15/2008	200.8
2008090290	8	P-06A	9/25/2008	Sodium as Na	79	mg/l	10/8/2008	200.7
2008090290	8	P-06A	9/25/2008	Sulfate as SO4	214	mg/l	10/15/2008	300
2008090290	8	P-06A	9/25/2008	Uranium as U (Dissolved)	0.009	mg/l	10/8/2008	200.8
2008090290	8	P-06A	9/25/2008	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	8	P-06A	9/25/2008	Zinc as Zn (Dissolved)	0.25	mg/l	10/10/2008	200.7
2008090290	9	LYP-07	9/25/2008	Alkalinity Bicarbonate as HCO3	348	mg/l	10/7/2008	2320B
2008090290	9	LYP-07	9/25/2008	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008	2320B
2008090290	9	LYP-07	9/25/2008	Alkalinity Total as CaCO3	285	mg/l	10/7/2008	2320B
2008090290	9	LYP-07	9/25/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	10/10/2008	200.7
2008090290	9	LYP-07	9/25/2008	Anions	11.61	meq/l	1/2/1900	1030F
2008090290	9	LYP-07	9/25/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	9	LYP-07	9/25/2008	Arsenic as As (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	9	LYP-07	9/25/2008	Barium as Ba (Dissolved)	0.075	mg/l	10/8/2008	200.8
2008090290	9	LYP-07	9/25/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	9	LYP-07	9/25/2008	Boron as B (Dissolved)	<0.1	mg/l	10/10/2008	200.7
2008090290	9	LYP-07	9/25/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	10/15/2008	200.8
2008090290	9	LYP-07	9/25/2008	Calcium as Ca	150	mg/l	10/8/2008	200.7
2008090290	9	LYP-07	9/25/2008	Cation/Anion Balance	3.09	% [max 5%]	1/2/1900	AWWA/APHA
2008090290	9	LYP-07	9/25/2008	Cations	12.35	meq/l	1/2/1900	1030F
2008090290	9	LYP-07	9/25/2008	Chloride as Cl	20	mg/l	10/15/2008	300
2008090290	9	LYP-07	9/25/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	9	LYP-07	9/25/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	10/8/2008	200.8
2008090290	9	LYP-07	9/25/2008	Copper as Cu (Dissolved)	<0.001	mg/l	10/15/2008	200.8
2008090290	9	LYP-07	9/25/2008	Iron as Fe (Dissolved)	<0.05	mg/l	10/10/2008	200.7
2008090290	9	LYP-07	9/25/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	10/8/2008	200.8
2008090290	9	LYP-07	9/25/2008	Magnesium as Mg	29	mg/l	10/8/2008	200.7
2008090290	9	LYP-07	9/25/2008	Manganese as Mn (Dissolved)	0.048	mg/l	10/8/2008	200.7
2008090290	9	LYP-07	9/25/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	10/1/2008	200.8
2008090290	9	LYP-07	9/25/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	9	LYP-07	9/25/2008	Nickel as Ni (Dissolved)	0.01	mg/l	10/8/2008	200.8
2008090290	9	LYP-07	9/25/2008	Potassium as K	5	mg/l	10/8/2008	200.7
2008090290	9	LYP-07	9/25/2008	Selenium as Se (Dissolved)	0.004	mg/l	10/15/2008	200.8
2008090290	9	LYP-07	9/25/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	10/15/2008	200.8
2008090290	9	LYP-07	9/25/2008	Sodium as Na	54	mg/l	10/8/2008	200.7
2008090290	9	LYP-07	9/25/2008	Sulfate as SO4	257	mg/l	10/15/2008	300
2008090290	9	LYP-07	9/25/2008	Uranium as U (Dissolved)	0.089	mg/l	10/17/2008	200.8
2008090290	9	LYP-07	9/25/2008	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	9	LYP-07	9/25/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	10/10/2008	200.7
2008090290	10	P-37A	9/25/2008	Alkalinity Bicarbonate as HCO3	94	mg/l	10/7/2008	2320B
2008090290	10	P-37A	9/25/2008	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008	2320B
2008090290	10	P-37A	9/25/2008	Alkalinity Total as CaCO3	77	mg/l	10/7/2008	2320B
2008090290	10	P-37A	9/25/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	10/10/2008	200.7
2008090290	10	P-37A	9/25/2008	Anions	11.22	meq/l	1/2/1900	1030F
2008090290	10	P-37A	9/25/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	10/8/2008	200.8

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090290	10	P-37A	9/25/2008	Arsenic as As (Dissolved)	0.009	mg/l	10/8/2008	200.8
2008090290	10	P-37A	9/25/2008	Barium as Ba (Dissolved)	0.044	mg/l	10/8/2008	200.8
2008090290	10	P-37A	9/25/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	10	P-37A	9/25/2008	Boron as B (Dissolved)	<0.1	mg/l	10/10/2008	200.7
2008090290	10	P-37A	9/25/2008	Cadmium as Cd (Dissolved)	0.045	mg/l	10/8/2008	200.8
2008090290	10	P-37A	9/25/2008	Calcium as Ca	113	mg/l	10/8/2008	200.7
2008090290	10	P-37A	9/25/2008	Cation/Anion Balance	0.36	% [max 5%]	1/2/1900	AWWA/APHA
2008090290	10	P-37A	9/25/2008	Cations	11.3	meq/l	1/2/1900	1030F
2008090290	10	P-37A	9/25/2008	Chloride as Cl	175	mg/l	10/22/2008	300
2008090290	10	P-37A	9/25/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	10	P-37A	9/25/2008	Cobalt as Co (Dissolved)	0.011	mg/l	10/8/2008	200.8
2008090290	10	P-37A	9/25/2008	Copper as Cu (Dissolved)	0.049	mg/l	10/8/2008	200.8
2008090290	10	P-37A	9/25/2008	Iron as Fe (Dissolved)	2.4	mg/l	10/10/2008	200.7
2008090290	10	P-37A	9/25/2008	Lead as Pb (Dissolved)	0.0005	mg/l	10/8/2008	200.8
2008090290	10	P-37A	9/25/2008	Magnesium as Mg	20	mg/l	10/8/2008	200.7
2008090290	10	P-37A	9/25/2008	Manganese as Mn (Dissolved)	4.19	mg/l	10/8/2008	200.7
2008090290	10	P-37A	9/25/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	10/1/2008	200.8
2008090290	10	P-37A	9/25/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	10	P-37A	9/25/2008	Nickel as Ni (Dissolved)	0.01	mg/l	10/8/2008	200.8
2008090290	10	P-37A	9/25/2008	Potassium as K	9	mg/l	10/8/2008	200.7
2008090290	10	P-37A	9/25/2008	Selenium as Se (Dissolved)	0.004	mg/l	10/15/2008	200.8
2008090290	10	P-37A	9/25/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	10/15/2008	200.8
2008090290	10	P-37A	9/25/2008	Sodium as Na	87	mg/l	10/8/2008	200.7
2008090290	10	P-37A	9/25/2008	Sulfate as SO4	228	mg/l	10/15/2008	300
2008090290	10	P-37A	9/25/2008	Uranium as U (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	10	P-37A	9/25/2008	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	10	P-37A	9/25/2008	Zinc as Zn (Dissolved)	0.89	mg/l	10/10/2008	200.7
2008090290	11	1GW-1038	9/25/2008	Alkalinity Bicarbonate as HCO3	191	mg/l	10/7/2008	2320B
2008090290	11	1GW-1038	9/25/2008	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008	2320B
2008090290	11	1GW-1038	9/25/2008	Alkalinity Total as CaCO3	157	mg/l	10/7/2008	2320B
2008090290	11	1GW-1038	9/25/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	10/10/2008	200.7
2008090290	11	1GW-1038	9/25/2008	Anions	4.63	meq/l	1/2/1900	1030F
2008090290	11	1GW-1038	9/25/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	11	1GW-1038	9/25/2008	Arsenic as As (Dissolved)	0.04	mg/l	10/8/2008	200.8
2008090290	11	1GW-1038	9/25/2008	Barium as Ba (Dissolved)	0.14	mg/l	10/8/2008	200.8
2008090290	11	1GW-1038	9/25/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	11	1GW-1038	9/25/2008	Boron as B (Dissolved)	<0.1	mg/l	10/10/2008	200.7
2008090290	11	1GW-1038	9/25/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	10/15/2008	200.8
2008090290	11	1GW-1038	9/25/2008	Calcium as Ca	42	mg/l	10/8/2008	200.7
2008090290	11	1GW-1038	9/25/2008	Cation/Anion Balance	0.54	% [max 2%]	1/2/1900	AWWA/APHA
2008090290	11	1GW-1038	9/25/2008	Cations	4.68	meq/l	1/2/1900	1030F
2008090290	11	1GW-1038	9/25/2008	Chloride as Cl	44	mg/l	10/15/2008	300
2008090290	11	1GW-1038	9/25/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	11	1GW-1038	9/25/2008	Cobalt as Co (Dissolved)	0.005	mg/l	10/8/2008	200.8
2008090290	11	1GW-1038	9/25/2008	Copper as Cu (Dissolved)	0.006	mg/l	10/8/2008	200.8
2008090290	11	1GW-1038	9/25/2008	Iron as Fe (Dissolved)	<0.05	mg/l	10/10/2008	200.7
2008090290	11	1GW-1038	9/25/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	10/8/2008	200.8
2008090290	11	1GW-1038	9/25/2008	Magnesium as Mg	9	mg/l	10/8/2008	200.7

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090290	11	1GW-1038	9/25/2008	Manganese as Mn (Dissolved)	1.46	mg/l	10/8/2008	200.7
2008090290	11	1GW-1038	9/25/2008	Mercury as Hg (Dissolved)	0.00025	mg/l	10/1/2008	200.8
2008090290	11	1GW-1038	9/25/2008	Molybdenum as Mo (Dissolved)	0.01	mg/l	10/8/2008	200.8
2008090290	11	1GW-1038	9/25/2008	Nickel as Ni (Dissolved)	0.02	mg/l	10/8/2008	200.8
2008090290	11	1GW-1038	9/25/2008	Potassium as K	6	mg/l	10/8/2008	200.7
2008090290	11	1GW-1038	9/25/2008	Selenium as Se (Dissolved)	<0.001	mg/l	10/15/2008	200.8
2008090290	11	1GW-1038	9/25/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	10/15/2008	200.8
2008090290	11	1GW-1038	9/25/2008	Sodium as Na	40	mg/l	10/8/2008	200.7
2008090290	11	1GW-1038	9/25/2008	Sulfate as SO4	12	mg/l	10/15/2008	300
2008090290	11	1GW-1038	9/25/2008	Uranium as U (Dissolved)	0.002	mg/l	10/8/2008	200.8
2008090290	11	1GW-1038	9/25/2008	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	11	1GW-1038	9/25/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	10/10/2008	200.7
2008090290	12	P-58A	9/24/2008	Alkalinity Bicarbonate as HCO3	100	mg/l	10/7/2008	2320B
2008090290	12	P-58A	9/24/2008	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008	2320B
2008090290	12	P-58A	9/24/2008	Alkalinity Total as CaCO3	82	mg/l	10/7/2008	2320B
2008090290	12	P-58A	9/24/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	10/10/2008	200.7
2008090290	12	P-58A	9/24/2008	Anions	7.11	meq/l	1/2/1900	1030F
2008090290	12	P-58A	9/24/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	12	P-58A	9/24/2008	Arsenic as As (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	12	P-58A	9/24/2008	Barium as Ba (Dissolved)	0.063	mg/l	10/8/2008	200.8
2008090290	12	P-58A	9/24/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	12	P-58A	9/24/2008	Boron as B (Dissolved)	<0.1	mg/l	10/10/2008	200.7
2008090290	12	P-58A	9/24/2008	Cadmium as Cd (Dissolved)	0.022	mg/l	10/8/2008	200.8
2008090290	12	P-58A	9/24/2008	Calcium as Ca	76	mg/l	10/8/2008	200.7
2008090290	12	P-58A	9/24/2008	Cation/Anion Balance	5.57*	% [max 2%]	1/2/1900	AWWA/APHA
2008090290	12	P-58A	9/24/2008	Cations	6.36	meq/l	1/2/1900	1030F
2008090290	12	P-58A	9/24/2008	Chloride as Cl	30	mg/l	10/15/2008	300
2008090290	12	P-58A	9/24/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	12	P-58A	9/24/2008	Cobalt as Co (Dissolved)	0.016	mg/l	10/8/2008	200.8
2008090290	12	P-58A	9/24/2008	Copper as Cu (Dissolved)	0.13	mg/l	10/8/2008	200.8
2008090290	12	P-58A	9/24/2008	Iron as Fe (Dissolved)	0.87	mg/l	10/10/2008	200.7
2008090290	12	P-58A	9/24/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	10/8/2008	200.8
2008090290	12	P-58A	9/24/2008	Magnesium as Mg	12	mg/l	10/8/2008	200.7
2008090290	12	P-58A	9/24/2008	Manganese as Mn (Dissolved)	7.7	mg/l	10/8/2008	200.7
2008090290	12	P-58A	9/24/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	10/1/2008	200.8
2008090290	12	P-58A	9/24/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	12	P-58A	9/24/2008	Nickel as Ni (Dissolved)	0.01	mg/l	10/8/2008	200.8
2008090290	12	P-58A	9/24/2008	Potassium as K	9	mg/l	10/8/2008	200.7
2008090290	12	P-58A	9/24/2008	Selenium as Se (Dissolved)	<0.001	mg/l	10/15/2008	200.8
2008090290	12	P-58A	9/24/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	10/15/2008	200.8
2008090290	12	P-58A	9/24/2008	Sodium as Na	31	mg/l	10/8/2008	200.7
2008090290	12	P-58A	9/24/2008	Sulfate as SO4	222	mg/l	10/15/2008	300
2008090290	12	P-58A	9/24/2008	Uranium as U (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	12	P-58A	9/24/2008	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	12	P-58A	9/24/2008	Zinc as Zn (Dissolved)	3.67	mg/l	10/10/2008	200.7
2008090290	13	P-39R	9/24/2008	Alkalinity Bicarbonate as HCO3	315	mg/l	10/7/2008	2320B
2008090290	13	P-39R	9/24/2008	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008	2320B
2008090290	13	P-39R	9/24/2008	Alkalinity Total as CaCO3	258	mg/l	10/7/2008	2320B

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090290	13	P-39R	9/24/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	10/10/2008	200.7
2008090290	13	P-39R	9/24/2008	Anions	11.88	meq/l	1/2/1900	1030F
2008090290	13	P-39R	9/24/2008	Antimony as Sb (Dissolved)	0.022	mg/l	10/8/2008	200.8
2008090290	13	P-39R	9/24/2008	Arsenic as As (Dissolved)	0.012	mg/l	10/8/2008	200.8
2008090290	13	P-39R	9/24/2008	Barium as Ba (Dissolved)	0.1	mg/l	10/8/2008	200.8
2008090290	13	P-39R	9/24/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	13	P-39R	9/24/2008	Boron as B (Dissolved)	0.3	mg/l	10/10/2008	200.7
2008090290	13	P-39R	9/24/2008	Cadmium as Cd (Dissolved)	0.00041	mg/l	10/8/2008	200.8
2008090290	13	P-39R	9/24/2008	Calcium as Ca	143	mg/l	10/8/2008	200.7
2008090290	13	P-39R	9/24/2008	Cation/Anion Balance	4.5	% [max 5%]	1/2/1900	AWWA/APHA
2008090290	13	P-39R	9/24/2008	Cations	13	meq/l	1/2/1900	1030F
2008090290	13	P-39R	9/24/2008	Chloride as Cl	87	mg/l	10/15/2008	300
2008090290	13	P-39R	9/24/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	13	P-39R	9/24/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	10/8/2008	200.8
2008090290	13	P-39R	9/24/2008	Copper as Cu (Dissolved)	0.038	mg/l	10/8/2008	200.8
2008090290	13	P-39R	9/24/2008	Iron as Fe (Dissolved)	<0.05	mg/l	10/10/2008	200.7
2008090290	13	P-39R	9/24/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	10/8/2008	200.8
2008090290	13	P-39R	9/24/2008	Magnesium as Mg	23	mg/l	10/8/2008	200.7
2008090290	13	P-39R	9/24/2008	Manganese as Mn (Dissolved)	0.009	mg/l	10/8/2008	200.7
2008090290	13	P-39R	9/24/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	10/1/2008	200.8
2008090290	13	P-39R	9/24/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	13	P-39R	9/24/2008	Nickel as Ni (Dissolved)	0.01	mg/l	10/8/2008	200.8
2008090290	13	P-39R	9/24/2008	Potassium as K	14	mg/l	10/8/2008	200.7
2008090290	13	P-39R	9/24/2008	Selenium as Se (Dissolved)	0.001	mg/l	10/15/2008	200.8
2008090290	13	P-39R	9/24/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	10/15/2008	200.8
2008090290	13	P-39R	9/24/2008	Sodium as Na	83	mg/l	10/8/2008	200.7
2008090290	13	P-39R	9/24/2008	Sulfate as SO4	205	mg/l	10/15/2008	300
2008090290	13	P-39R	9/24/2008	Uranium as U (Dissolved)	0.013	mg/l	10/8/2008	200.8
2008090290	13	P-39R	9/24/2008	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	13	P-39R	9/24/2008	Zinc as Zn (Dissolved)	0.02	mg/l	10/10/2008	200.7
2008090290	14	MW-5A	9/24/2008	Alkalinity Bicarbonate as HCO3	<1	mg/l	10/7/2008	2320B
2008090290	14	MW-5A	9/24/2008	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008	2320B
2008090290	14	MW-5A	9/24/2008	Alkalinity Total as CaCO3	<1	mg/l	10/7/2008	2320B
2008090290	14	MW-5A	9/24/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	10/10/2008	200.7
2008090290	14	MW-5A	9/24/2008	Anions	<0.20	meq/l	1/2/1900	1030F
2008090290	14	MW-5A	9/24/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	14	MW-5A	9/24/2008	Arsenic as As (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	14	MW-5A	9/24/2008	Barium as Ba (Dissolved)	<0.005	mg/l	10/8/2008	200.8
2008090290	14	MW-5A	9/24/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	14	MW-5A	9/24/2008	Boron as B (Dissolved)	<0.1	mg/l	10/10/2008	200.7
2008090290	14	MW-5A	9/24/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	10/15/2008	200.8
2008090290	14	MW-5A	9/24/2008	Calcium as Ca	<1	mg/l	10/8/2008	200.7
2008090290	14	MW-5A	9/24/2008	Cation/Anion Balance	NA	% [max 5%]	1/2/1900	AWWA/APHA
2008090290	14	MW-5A	9/24/2008	Cations	<0.30	meq/l	1/2/1900	1030F
2008090290	14	MW-5A	9/24/2008	Chloride as Cl	<1	mg/l	10/15/2008	300
2008090290	14	MW-5A	9/24/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	14	MW-5A	9/24/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	10/8/2008	200.8
2008090290	14	MW-5A	9/24/2008	Copper as Cu (Dissolved)	<0.001	mg/l	10/15/2008	200.8

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090290	14	MW-5A	9/24/2008	Iron as Fe (Dissolved)	<0.05	mg/l	10/10/2008	200.7
2008090290	14	MW-5A	9/24/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	10/8/2008	200.8
2008090290	14	MW-5A	9/24/2008	Magnesium as Mg	<1	mg/l	10/8/2008	200.7
2008090290	14	MW-5A	9/24/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	10/8/2008	200.7
2008090290	14	MW-5A	9/24/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	10/1/2008	200.8
2008090290	14	MW-5A	9/24/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	14	MW-5A	9/24/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	14	MW-5A	9/24/2008	Potassium as K	<1	mg/l	10/8/2008	200.7
2008090290	14	MW-5A	9/24/2008	Selenium as Se (Dissolved)	<0.001	mg/l	10/15/2008	200.8
2008090290	14	MW-5A	9/24/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	10/15/2008	200.8
2008090290	14	MW-5A	9/24/2008	Sodium as Na	<1	mg/l	10/8/2008	200.7
2008090290	14	MW-5A	9/24/2008	Sulfate as SO4	<5	mg/l	10/15/2008	300
2008090290	14	MW-5A	9/24/2008	Uranium as U (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	14	MW-5A	9/24/2008	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	14	MW-5A	9/24/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	10/10/2008	200.7
2008090290	15	MW-6R	9/24/2008	Alkalinity Bicarbonate as HCO3	49	mg/l	10/7/2008	2320B
2008090290	15	MW-6R	9/24/2008	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008	2320B
2008090290	15	MW-6R	9/24/2008	Alkalinity Total as CaCO3	40	mg/l	10/7/2008	2320B
2008090290	15	MW-6R	9/24/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	10/10/2008	200.7
2008090290	15	MW-6R	9/24/2008	Anions	4.64	meq/l	1/2/1900	1030F
2008090290	15	MW-6R	9/24/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	15	MW-6R	9/24/2008	Arsenic as As (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	15	MW-6R	9/24/2008	Barium as Ba (Dissolved)	0.028	mg/l	10/8/2008	200.8
2008090290	15	MW-6R	9/24/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	15	MW-6R	9/24/2008	Boron as B (Dissolved)	<0.1	mg/l	10/10/2008	200.7
2008090290	15	MW-6R	9/24/2008	Cadmium as Cd (Dissolved)	0.0045	mg/l	10/8/2008	200.8
2008090290	15	MW-6R	9/24/2008	Calcium as Ca	36	mg/l	10/8/2008	200.7
2008090290	15	MW-6R	9/24/2008	Cation/Anion Balance	8.41*	% [max 2%]	1/2/1900	AWWA/APHA
2008090290	15	MW-6R	9/24/2008	Cations	3.92	meq/l	1/2/1900	1030F
2008090290	15	MW-6R	9/24/2008	Chloride as Cl	30	mg/l	10/15/2008	300
2008090290	15	MW-6R	9/24/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	15	MW-6R	9/24/2008	Cobalt as Co (Dissolved)	0.013	mg/l	10/8/2008	200.8
2008090290	15	MW-6R	9/24/2008	Copper as Cu (Dissolved)	0.13	mg/l	10/8/2008	200.8
2008090290	15	MW-6R	9/24/2008	Iron as Fe (Dissolved)	<0.05	mg/l	10/10/2008	200.7
2008090290	15	MW-6R	9/24/2008	Lead as Pb (Dissolved)	0.0008	mg/l	10/8/2008	200.8
2008090290	15	MW-6R	9/24/2008	Magnesium as Mg	10	mg/l	10/8/2008	200.7
2008090290	15	MW-6R	9/24/2008	Manganese as Mn (Dissolved)	3.58	mg/l	10/8/2008	200.7
2008090290	15	MW-6R	9/24/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	10/1/2008	200.8
2008090290	15	MW-6R	9/24/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	15	MW-6R	9/24/2008	Nickel as Ni (Dissolved)	0.01	mg/l	10/8/2008	200.8
2008090290	15	MW-6R	9/24/2008	Potassium as K	5	mg/l	10/8/2008	200.7
2008090290	15	MW-6R	9/24/2008	Selenium as Se (Dissolved)	<0.001	mg/l	10/15/2008	200.8
2008090290	15	MW-6R	9/24/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	10/15/2008	200.8
2008090290	15	MW-6R	9/24/2008	Sodium as Na	27	mg/l	10/8/2008	200.7
2008090290	15	MW-6R	9/24/2008	Sulfate as SO4	144	mg/l	10/15/2008	300
2008090290	15	MW-6R	9/24/2008	Uranium as U (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	15	MW-6R	9/24/2008	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	15	MW-6R	9/24/2008	Zinc as Zn (Dissolved)	0.81	mg/l	10/10/2008	200.7

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090290	16	MW-10	9/24/2008	Alkalinity Bicarbonate as HCO3	<1	mg/l	10/7/2008	2320B
2008090290	16	MW-10	9/24/2008	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008	2320B
2008090290	16	MW-10	9/24/2008	Alkalinity Total as CaCO3	<1	mg/l	10/7/2008	2320B
2008090290	16	MW-10	9/24/2008	Aluminum as Al (Dissolved)	0.22	mg/l	10/10/2008	200.7
2008090290	16	MW-10	9/24/2008	Anions	5.47	meq/l	1/2/1900	1030F
2008090290	16	MW-10	9/24/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	16	MW-10	9/24/2008	Arsenic as As (Dissolved)	0.006	mg/l	10/8/2008	200.8
2008090290	16	MW-10	9/24/2008	Barium as Ba (Dissolved)	0.022	mg/l	10/8/2008	200.8
2008090290	16	MW-10	9/24/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	16	MW-10	9/24/2008	Boron as B (Dissolved)	0.1	mg/l	10/10/2008	200.7
2008090290	16	MW-10	9/24/2008	Cadmium as Cd (Dissolved)	0.0046	mg/l	10/8/2008	200.8
2008090290	16	MW-10	9/24/2008	Calcium as Ca	44	mg/l	10/8/2008	200.7
2008090290	16	MW-10	9/24/2008	Cation/Anion Balance	13.02*	% [max 2%]	1/2/1900	AWWA/APHA
2008090290	16	MW-10	9/24/2008	Cations	4.21	meq/l	1/2/1900	1030F
2008090290	16	MW-10	9/24/2008	Chloride as Cl	36	mg/l	10/15/2008	300
2008090290	16	MW-10	9/24/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	16	MW-10	9/24/2008	Cobalt as Co (Dissolved)	0.028	mg/l	10/8/2008	200.8
2008090290	16	MW-10	9/24/2008	Copper as Cu (Dissolved)	0.29	mg/l	10/8/2008	200.8
2008090290	16	MW-10	9/24/2008	Iron as Fe (Dissolved)	7.34	mg/l	10/10/2008	200.7
2008090290	16	MW-10	9/24/2008	Lead as Pb (Dissolved)	0.0077	mg/l	10/8/2008	200.8
2008090290	16	MW-10	9/24/2008	Magnesium as Mg	11	mg/l	10/8/2008	200.7
2008090290	16	MW-10	9/24/2008	Manganese as Mn (Dissolved)	8.36	mg/l	10/8/2008	200.7
2008090290	16	MW-10	9/24/2008	Mercury as Hg (Dissolved)	0.00011	mg/l	10/1/2008	200.8
2008090290	16	MW-10	9/24/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	16	MW-10	9/24/2008	Nickel as Ni (Dissolved)	0.01	mg/l	10/8/2008	200.8
2008090290	16	MW-10	9/24/2008	Potassium as K	6	mg/l	10/8/2008	200.7
2008090290	16	MW-10	9/24/2008	Selenium as Se (Dissolved)	<0.001	mg/l	10/15/2008	200.8
2008090290	16	MW-10	9/24/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	10/15/2008	200.8
2008090290	16	MW-10	9/24/2008	Sodium as Na	22	mg/l	10/8/2008	200.7
2008090290	16	MW-10	9/24/2008	Sulfate as SO4	214	mg/l	10/15/2008	300
2008090290	16	MW-10	9/24/2008	Uranium as U (Dissolved)	0.002	mg/l	10/8/2008	200.8
2008090290	16	MW-10	9/24/2008	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	16	MW-10	9/24/2008	Zinc as Zn (Dissolved)	5.76	mg/l	10/10/2008	200.7
2008090290	17	MW-1052R	9/24/2008	Alkalinity Bicarbonate as HCO3	166	mg/l	10/7/2008	2320B
2008090290	17	MW-1052R	9/24/2008	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008	2320B
2008090290	17	MW-1052R	9/24/2008	Alkalinity Total as CaCO3	136	mg/l	10/7/2008	2320B
2008090290	17	MW-1052R	9/24/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	10/10/2008	200.7
2008090290	17	MW-1052R	9/24/2008	Anions	12.3	meq/l	1/2/1900	1030F
2008090290	17	MW-1052R	9/24/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	17	MW-1052R	9/24/2008	Arsenic as As (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	17	MW-1052R	9/24/2008	Barium as Ba (Dissolved)	0.05	mg/l	10/8/2008	200.8
2008090290	17	MW-1052R	9/24/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	17	MW-1052R	9/24/2008	Boron as B (Dissolved)	0.1	mg/l	10/10/2008	200.7
2008090290	17	MW-1052R	9/24/2008	Cadmium as Cd (Dissolved)	0.12	mg/l	10/8/2008	200.8
2008090290	17	MW-1052R	9/24/2008	Calcium as Ca	103	mg/l	10/8/2008	200.7
2008090290	17	MW-1052R	9/24/2008	Cation/Anion Balance	4.24	% [max 5%]	1/2/1900	AWWA/APHA
2008090290	17	MW-1052R	9/24/2008	Cations	11.3	meq/l	1/2/1900	1030F
2008090290	17	MW-1052R	9/24/2008	Chloride as Cl	17	mg/l	10/15/2008	300

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090290	17	MW-1052R	9/24/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	17	MW-1052R	9/24/2008	Cobalt as Co (Dissolved)	0.004	mg/l	10/8/2008	200.8
2008090290	17	MW-1052R	9/24/2008	Copper as Cu (Dissolved)	0.18	mg/l	10/8/2008	200.8
2008090290	17	MW-1052R	9/24/2008	Iron as Fe (Dissolved)	<0.05	mg/l	10/10/2008	200.7
2008090290	17	MW-1052R	9/24/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	10/8/2008	200.8
2008090290	17	MW-1052R	9/24/2008	Magnesium as Mg	16	mg/l	10/8/2008	200.7
2008090290	17	MW-1052R	9/24/2008	Manganese as Mn (Dissolved)	3.99	mg/l	10/8/2008	200.7
2008090290	17	MW-1052R	9/24/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	10/1/2008	200.8
2008090290	17	MW-1052R	9/24/2008	Molybdenum as Mo (Dissolved)	0.03	mg/l	10/8/2008	200.8
2008090290	17	MW-1052R	9/24/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	17	MW-1052R	9/24/2008	Potassium as K	9	mg/l	10/8/2008	200.7
2008090290	17	MW-1052R	9/24/2008	Selenium as Se (Dissolved)	<0.001	mg/l	10/15/2008	200.8
2008090290	17	MW-1052R	9/24/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	10/17/2008	200.8
2008090290	17	MW-1052R	9/24/2008	Sodium as Na	106	mg/l	10/8/2008	200.7
2008090290	17	MW-1052R	9/24/2008	Sulfate as SO4	437	mg/l	10/15/2008	300
2008090290	17	MW-1052R	9/24/2008	Uranium as U (Dissolved)	0.012	mg/l	10/8/2008	200.8
2008090290	17	MW-1052R	9/24/2008	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	17	MW-1052R	9/24/2008	Zinc as Zn (Dissolved)	2.3	mg/l	10/10/2008	200.7
2008090290	18	MW-1010R	9/24/2008	Alkalinity Bicarbonate as HCO3	194	mg/l	10/7/2008	2320B
2008090290	18	MW-1010R	9/24/2008	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008	2320B
2008090290	18	MW-1010R	9/24/2008	Alkalinity Total as CaCO3	159	mg/l	10/7/2008	2320B
2008090290	18	MW-1010R	9/24/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	10/10/2008	200.7
2008090290	18	MW-1010R	9/24/2008	Anions	12.78	meq/l	1/2/1900	1030F
2008090290	18	MW-1010R	9/24/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	18	MW-1010R	9/24/2008	Arsenic as As (Dissolved)	0.004	mg/l	10/8/2008	200.8
2008090290	18	MW-1010R	9/24/2008	Barium as Ba (Dissolved)	0.046	mg/l	10/8/2008	200.8
2008090290	18	MW-1010R	9/24/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	18	MW-1010R	9/24/2008	Boron as B (Dissolved)	0.2	mg/l	10/10/2008	200.7
2008090290	18	MW-1010R	9/24/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	10/15/2008	200.8
2008090290	18	MW-1010R	9/24/2008	Calcium as Ca	125	mg/l	10/8/2008	200.7
2008090290	18	MW-1010R	9/24/2008	Cation/Anion Balance	3.07	% [max 5%]	1/2/1900	AWWA/APHA
2008090290	18	MW-1010R	9/24/2008	Cations	13.59	meq/l	1/2/1900	1030F
2008090290	18	MW-1010R	9/24/2008	Chloride as Cl	51	mg/l	10/15/2008	300
2008090290	18	MW-1010R	9/24/2008	Chromium as Cr (Dissolved)	0.001	mg/l	10/8/2008	200.8
2008090290	18	MW-1010R	9/24/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	10/8/2008	200.8
2008090290	18	MW-1010R	9/24/2008	Copper as Cu (Dissolved)	0.002	mg/l	10/15/2008	200.8
2008090290	18	MW-1010R	9/24/2008	Iron as Fe (Dissolved)	<0.05	mg/l	10/10/2008	200.7
2008090290	18	MW-1010R	9/24/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	10/8/2008	200.8
2008090290	18	MW-1010R	9/24/2008	Magnesium as Mg	23	mg/l	10/8/2008	200.7
2008090290	18	MW-1010R	9/24/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	10/8/2008	200.7
2008090290	18	MW-1010R	9/24/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	10/1/2008	200.8
2008090290	18	MW-1010R	9/24/2008	Molybdenum as Mo (Dissolved)	0.01	mg/l	10/8/2008	200.8
2008090290	18	MW-1010R	9/24/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	18	MW-1010R	9/24/2008	Potassium as K	6	mg/l	10/8/2008	200.7
2008090290	18	MW-1010R	9/24/2008	Selenium as Se (Dissolved)	<0.001	mg/l	10/15/2008	200.8
2008090290	18	MW-1010R	9/24/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	10/15/2008	200.8
2008090290	18	MW-1010R	9/24/2008	Sodium as Na	122	mg/l	10/8/2008	200.7
2008090290	18	MW-1010R	9/24/2008	Sulfate as SO4	392	mg/l	10/15/2008	300

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090290	18	MW-1010R	9/24/2008	Uranium as U (Dissolved)	0.041	mg/l	10/8/2008	200.8
2008090290	18	MW-1010R	9/24/2008	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	18	MW-1010R	9/24/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	10/10/2008	200.7
2008090290	19	MW-2B	9/24/2008	Alkalinity Bicarbonate as HCO3	100	mg/l	10/7/2008	2320B
2008090290	19	MW-2B	9/24/2008	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008	2320B
2008090290	19	MW-2B	9/24/2008	Alkalinity Total as CaCO3	82	mg/l	10/7/2008	2320B
2008090290	19	MW-2B	9/24/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	10/10/2008	200.7
2008090290	19	MW-2B	9/24/2008	Anions	5.35	meq/l	1/2/1900	1030F
2008090290	19	MW-2B	9/24/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	19	MW-2B	9/24/2008	Arsenic as As (Dissolved)	0.009	mg/l	10/8/2008	200.8
2008090290	19	MW-2B	9/24/2008	Barium as Ba (Dissolved)	0.029	mg/l	10/8/2008	200.8
2008090290	19	MW-2B	9/24/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	19	MW-2B	9/24/2008	Boron as B (Dissolved)	<0.1	mg/l	10/10/2008	200.7
2008090290	19	MW-2B	9/24/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	10/15/2008	200.8
2008090290	19	MW-2B	9/24/2008	Calcium as Ca	61	mg/l	10/30/2008	200.7
2008090290	19	MW-2B	9/24/2008	Cation/Anion Balance	4.46*	% [max 2%]	1/2/1900	AWWA/APHA
2008090290	19	MW-2B	9/24/2008	Cations	5.85	meq/l	1/2/1900	1030F
2008090290	19	MW-2B	9/24/2008	Chloride as Cl	14	mg/l	10/15/2008	300
2008090290	19	MW-2B	9/24/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	19	MW-2B	9/24/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	10/8/2008	200.8
2008090290	19	MW-2B	9/24/2008	Copper as Cu (Dissolved)	0.002	mg/l	10/15/2008	200.8
2008090290	19	MW-2B	9/24/2008	Iron as Fe (Dissolved)	<0.05	mg/l	10/10/2008	200.7
2008090290	19	MW-2B	9/24/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	10/8/2008	200.8
2008090290	19	MW-2B	9/24/2008	Magnesium as Mg	15	mg/l	10/30/2008	200.7
2008090290	19	MW-2B	9/24/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	10/8/2008	200.7
2008090290	19	MW-2B	9/24/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	10/1/2008	200.8
2008090290	19	MW-2B	9/24/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	19	MW-2B	9/24/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	19	MW-2B	9/24/2008	Potassium as K	4	mg/l	10/8/2008	200.7
2008090290	19	MW-2B	9/24/2008	Selenium as Se (Dissolved)	0.001	mg/l	10/15/2008	200.8
2008090290	19	MW-2B	9/24/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	10/15/2008	200.8
2008090290	19	MW-2B	9/24/2008	Sodium as Na	25	mg/l	10/8/2008	200.7
2008090290	19	MW-2B	9/24/2008	Sulfate as SO4	159	mg/l	10/15/2008	300
2008090290	19	MW-2B	9/24/2008	Uranium as U (Dissolved)	0.002	mg/l	10/8/2008	200.8
2008090290	19	MW-2B	9/24/2008	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	19	MW-2B	9/24/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	10/10/2008	200.7
2008090290	20	MW-2A	9/24/2008	Alkalinity Bicarbonate as HCO3	158	mg/l	10/7/2008	2320B
2008090290	20	MW-2A	9/24/2008	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008	2320B
2008090290	20	MW-2A	9/24/2008	Alkalinity Total as CaCO3	129	mg/l	10/7/2008	2320B
2008090290	20	MW-2A	9/24/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	10/10/2008	200.7
2008090290	20	MW-2A	9/24/2008	Anions	7.77	meq/l	1/2/1900	1030F
2008090290	20	MW-2A	9/24/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	20	MW-2A	9/24/2008	Arsenic as As (Dissolved)	0.01	mg/l	10/8/2008	200.8
2008090290	20	MW-2A	9/24/2008	Barium as Ba (Dissolved)	0.015	mg/l	10/8/2008	200.8
2008090290	20	MW-2A	9/24/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	20	MW-2A	9/24/2008	Boron as B (Dissolved)	<0.1	mg/l	10/10/2008	200.7
2008090290	20	MW-2A	9/24/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	10/15/2008	200.8
2008090290	20	MW-2A	9/24/2008	Calcium as Ca	108	mg/l	10/8/2008	200.7

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090290	20	MW-2A	9/24/2008	Cation/Anion Balance	2.15*	% [max 2%]	1/2/1900	AWWA/APHA
2008090290	20	MW-2A	9/24/2008	Cations	8.11	meq/l	1/2/1900	1030F
2008090290	20	MW-2A	9/24/2008	Chloride as Cl	4	mg/l	10/15/2008	300
2008090290	20	MW-2A	9/24/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	20	MW-2A	9/24/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	10/8/2008	200.8
2008090290	20	MW-2A	9/24/2008	Copper as Cu (Dissolved)	<0.001	mg/l	10/15/2008	200.8
2008090290	20	MW-2A	9/24/2008	Iron as Fe (Dissolved)	<0.05	mg/l	10/10/2008	200.7
2008090290	20	MW-2A	9/24/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	10/8/2008	200.8
2008090290	20	MW-2A	9/24/2008	Magnesium as Mg	16	mg/l	10/8/2008	200.7
2008090290	20	MW-2A	9/24/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	10/8/2008	200.7
2008090290	20	MW-2A	9/24/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	10/1/2008	200.8
2008090290	20	MW-2A	9/24/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	20	MW-2A	9/24/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	20	MW-2A	9/24/2008	Potassium as K	4	mg/l	10/8/2008	200.7
2008090290	20	MW-2A	9/24/2008	Selenium as Se (Dissolved)	0.01	mg/l	10/8/2008	200.8
2008090290	20	MW-2A	9/24/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	10/15/2008	200.8
2008090290	20	MW-2A	9/24/2008	Sodium as Na	30	mg/l	10/8/2008	200.7
2008090290	20	MW-2A	9/24/2008	Sulfate as SO4	244	mg/l	10/15/2008	300
2008090290	20	MW-2A	9/24/2008	Uranium as U (Dissolved)	0.05	mg/l	10/8/2008	200.8
2008090290	20	MW-2A	9/24/2008	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	20	MW-2A	9/24/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	10/10/2008	200.7
2008090290	21	MW-2E	9/24/2008	Alkalinity Bicarbonate as HCO3	151	mg/l	10/7/2008	2320B
2008090290	21	MW-2E	9/24/2008	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008	2320B
2008090290	21	MW-2E	9/24/2008	Alkalinity Total as CaCO3	124	mg/l	10/7/2008	2320B
2008090290	21	MW-2E	9/24/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	10/10/2008	200.7
2008090290	21	MW-2E	9/24/2008	Anions	7.84	meq/l	1/2/1900	1030F
2008090290	21	MW-2E	9/24/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	21	MW-2E	9/24/2008	Arsenic as As (Dissolved)	0.011	mg/l	10/8/2008	200.8
2008090290	21	MW-2E	9/24/2008	Barium as Ba (Dissolved)	0.02	mg/l	10/8/2008	200.8
2008090290	21	MW-2E	9/24/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	21	MW-2E	9/24/2008	Boron as B (Dissolved)	<0.1	mg/l	10/10/2008	200.7
2008090290	21	MW-2E	9/24/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	10/15/2008	200.8
2008090290	21	MW-2E	9/24/2008	Calcium as Ca	110	mg/l	10/8/2008	200.7
2008090290	21	MW-2E	9/24/2008	Cation/Anion Balance	2.31*	% [max 2%]	1/2/1900	AWWA/APHA
2008090290	21	MW-2E	9/24/2008	Cations	8.21	meq/l	1/2/1900	1030F
2008090290	21	MW-2E	9/24/2008	Chloride as Cl	4	mg/l	10/15/2008	300
2008090290	21	MW-2E	9/24/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	10/8/2008	200.8
2008090290	21	MW-2E	9/24/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	10/8/2008	200.8
2008090290	21	MW-2E	9/24/2008	Copper as Cu (Dissolved)	0.001	mg/l	10/15/2008	200.8
2008090290	21	MW-2E	9/24/2008	Iron as Fe (Dissolved)	<0.05	mg/l	10/10/2008	200.7
2008090290	21	MW-2E	9/24/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	10/8/2008 16:52	200.8
2008090290	21	MW-2E	9/24/2008	Magnesium as Mg	16	mg/l	10/8/2008 17:21	200.7
2008090290	21	MW-2E	9/24/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	10/8/2008 17:21	200.7
2008090290	21	MW-2E	9/24/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	10/1/2008 10:31	200.8
2008090290	21	MW-2E	9/24/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	10/8/2008 16:52	200.8
2008090290	21	MW-2E	9/24/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	10/8/2008 16:52	200.8
2008090290	21	MW-2E	9/24/2008	Potassium as K	4	mg/l	10/8/2008 17:21	200.7
2008090290	21	MW-2E	9/24/2008	Selenium as Se (Dissolved)	0.011	mg/l	10/8/2008 16:52	200.8

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090290	21	MW-2E	9/24/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	10/15/2008 17:09	200.8
2008090290	21	MW-2E	9/24/2008	Sodium as Na	30	mg/l	10/8/2008 17:21	200.7
2008090290	21	MW-2E	9/24/2008	Sulfate as SO4	252	mg/l	10/15/2008 0:16	300
2008090290	21	MW-2E	9/24/2008	Uranium as U (Dissolved)	0.051	mg/l	10/8/2008 16:52	200.8
2008090290	21	MW-2E	9/24/2008	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008 16:52	200.8
2008090290	21	MW-2E	9/24/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	10/10/2008 18:24	200.7
2008090290	22	1GW-1056	9/24/2008	Alkalinity Bicarbonate as HCO3	169	mg/l	10/7/2008 10:00	2320B
2008090290	22	1GW-1056	9/24/2008	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008 10:00	2320B
2008090290	22	1GW-1056	9/24/2008	Alkalinity Total as CaCO3	139	mg/l	10/7/2008 10:00	2320B
2008090290	22	1GW-1056	9/24/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	10/10/2008 18:27	200.7
2008090290	22	1GW-1056	9/24/2008	Anions	7.77	meq/l	1/2/1900 0:00	1030F
2008090290	22	1GW-1056	9/24/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	10/8/2008 16:58	200.8
2008090290	22	1GW-1056	9/24/2008	Arsenic as As (Dissolved)	0.005	mg/l	10/8/2008 16:58	200.8
2008090290	22	1GW-1056	9/24/2008	Barium as Ba (Dissolved)	0.039	mg/l	10/8/2008 16:58	200.8
2008090290	22	1GW-1056	9/24/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008 16:58	200.8
2008090290	22	1GW-1056	9/24/2008	Boron as B (Dissolved)	<0.1	mg/l	10/10/2008 18:27	200.7
2008090290	22	1GW-1056	9/24/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	10/15/2008 17:29	200.8
2008090290	22	1GW-1056	9/24/2008	Calcium as Ca	97	mg/l	10/8/2008 17:24	200.7
2008090290	22	1GW-1056	9/24/2008	Cation/Anion Balance	0.58	% [max 2%]	1/2/1900 0:00	AWWA/APHA
2008090290	22	1GW-1056	9/24/2008	Cations	7.86	meq/l	1/2/1900 0:00	1030F
2008090290	22	1GW-1056	9/24/2008	Chloride as Cl	10	mg/l	10/15/2008 1:17	300
2008090290	22	1GW-1056	9/24/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	10/8/2008 16:58	200.8
2008090290	22	1GW-1056	9/24/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	10/8/2008 16:58	200.8
2008090290	22	1GW-1056	9/24/2008	Copper as Cu (Dissolved)	<0.001	mg/l	10/15/2008 17:29	200.8
2008090290	22	1GW-1056	9/24/2008	Iron as Fe (Dissolved)	<0.05	mg/l	10/10/2008 18:27	200.7
2008090290	22	1GW-1056	9/24/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	10/8/2008 16:58	200.8
2008090290	22	1GW-1056	9/24/2008	Magnesium as Mg	19	mg/l	10/8/2008 17:24	200.7
2008090290	22	1GW-1056	9/24/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	10/8/2008 17:24	200.7
2008090290	22	1GW-1056	9/24/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	10/1/2008 10:42	200.8
2008090290	22	1GW-1056	9/24/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	10/8/2008 16:58	200.8
2008090290	22	1GW-1056	9/24/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	10/8/2008 16:58	200.8
2008090290	22	1GW-1056	9/24/2008	Potassium as K	4	mg/l	10/8/2008 17:24	200.7
2008090290	22	1GW-1056	9/24/2008	Selenium as Se (Dissolved)	0.006	mg/l	10/8/2008 16:58	200.8
2008090290	22	1GW-1056	9/24/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	10/15/2008 17:29	200.8
2008090290	22	1GW-1056	9/24/2008	Sodium as Na	31	mg/l	10/8/2008 17:24	200.7
2008090290	22	1GW-1056	9/24/2008	Sulfate as SO4	226	mg/l	10/15/2008 1:17	300
2008090290	22	1GW-1056	9/24/2008	Uranium as U (Dissolved)	0.047	mg/l	10/8/2008 16:58	200.8
2008090290	22	1GW-1056	9/24/2008	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008 16:58	200.8
2008090290	22	1GW-1056	9/24/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	10/10/2008 18:27	200.7
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Alkalinity Bicarbonate as HCO3	251	mg/l	10/7/2008 10:00	2320B
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008 10:00	2320B
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Alkalinity Total as CaCO3	206	mg/l	10/7/2008 10:00	2320B
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	10/10/2008 18:55	200.7
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	10/8/2008 17:43	200.8
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Arsenic as As (Dissolved)	0.003	mg/l	10/8/2008 17:43	200.8
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Barium as Ba (Dissolved)	0.031	mg/l	10/8/2008 17:43	200.8
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008 17:43	200.8
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Boron as B (Dissolved)	<0.1	mg/l	10/10/2008 18:55	200.7

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	10/15/2008 18:00	200.8
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Calcium as Ca	60	mg/l	10/8/2008 17:51	200.7
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Chloride as Cl	33	mg/l	10/15/2008 4:20	300
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	10/8/2008 17:43	200.8
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Cobalt as Co (Dissolved)	<0.002	mg/l	10/8/2008 3:36	200.8
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Copper as Cu (Dissolved)	0.001	mg/l	10/15/2008 18:00	200.8
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Iron as Fe (Dissolved)	<0.05	mg/l	10/10/2008 18:55	200.7
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	10/8/2008 17:43	200.8
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Magnesium as Mg	6	mg/l	10/8/2008 17:51	200.7
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	10/8/2008 17:51	200.7
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Mercury as Hg (Dissolved)	<0.00005	mg/l	10/1/2008 11:54	200.8
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Molybdenum as Mo (Dissolved)	<0.01	mg/l	10/8/2008 17:43	200.8
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Nickel as Ni (Dissolved)	<0.01	mg/l	10/8/2008 17:43	200.8
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Potassium as K	5	mg/l	10/8/2008 17:51	200.7
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Selenium as Se (Dissolved)	<0.001	mg/l	10/15/2008 18:00	200.8
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	10/15/2008 18:00	200.8
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Sodium as Na	102	mg/l	10/8/2008 17:51	200.7
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Sulfate as SO4	143	mg/l	10/15/2008 4:20	300
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Uranium as U (Dissolved)	0.003	mg/l	10/8/2008 17:43	200.8
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008 17:43	200.8
2008090290	23	DUPLICATE OF 2008090290-1	9/24/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	10/10/2008 18:55	200.7
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Alkalinity Bicarbonate as HCO3	NA	% [77-116]	10/7/2008 10:00	2320B
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Alkalinity Carbonate as CO3	NA	% [77-116]	10/7/2008 10:00	2320B
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Alkalinity Total as CaCO3	108	% [77-116]	10/7/2008 10:00	2320B
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Aluminum as Al (Dissolved)	93	% [81-117]	10/10/2008 19:13	200.7
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Antimony as Sb (Dissolved)	108	% [85-118]	10/8/2008 18:19	200.8
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Arsenic as As (Dissolved)	106	% [84-127]	10/8/2008 18:19	200.8
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Barium as Ba (Dissolved)	105	% [81-121]	10/8/2008 18:19	200.8
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Beryllium as Be (Dissolved)	102	% [72-122]	10/8/2008 18:19	200.8
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Boron as B (Dissolved)	99	% [87-113]	10/10/2008 19:13	200.7
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Cadmium as Cd (Dissolved)	98	% [81-116]	10/15/2008 18:51	200.8
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Calcium as Ca	104	% [78-122]	10/8/2008 18:22	200.7
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Chloride as Cl	110	% [84-124]	10/15/2008 8:55	300
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Chromium as Cr (Dissolved)	100	% [75-119]	10/8/2008 18:19	200.8
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Cobalt as Co (Dissolved)	108	% [77-118]	10/8/2008 4:27	200.8
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Copper as Cu (Dissolved)	91	% [70-114]	10/15/2008 18:51	200.8
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Iron as Fe (Dissolved)	101	% [87-111]	10/10/2008 19:13	200.7
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Lead as Pb (Dissolved)	104	% [82-117]	10/8/2008 18:19	200.8
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Magnesium as Mg	100	% [84-118]	10/8/2008 18:22	200.7
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Manganese as Mn (Dissolved)	100	% [81-114]	10/8/2008 18:19	200.7
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Mercury as Hg (Dissolved)	105	% [70-127]	10/1/2008 12:17	200.8
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Molybdenum as Mo (Dissolved)	110	% [79-128]	10/8/2008 18:19	200.8
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Nickel as Ni (Dissolved)	100	% [77-114]	10/8/2008 18:19	200.8
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Potassium as K	96	% [85-120]	10/8/2008 18:22	200.7
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Selenium as Se (Dissolved)	101	% [76-130]	10/15/2008 18:51	200.8
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Silver as Ag (Dissolved)	96	% [70-118]	10/15/2008 18:51	200.8
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Sodium as Na	98	% [73-124]	10/8/2008 18:22	200.7
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Sulfate as SO4	104	% [84-124]	10/15/2008 8:55	300

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Uranium as U (Dissolved)	106	% [77-130]	10/8/2008 18:19	200.8
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Vanadium as V (Dissolved)	97	% [84-117]	10/8/2008 18:19	200.8
2008090290	24	MATRIX SPIKE OF 2008090290-6	9/25/2008	Zinc as Zn (Dissolved)	100	% [89-113]	10/10/2008 19:13	200.7
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Alkalinity Bicarbonate as HCO3	197	mg/l	10/7/2008 10:00	2320B
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008 10:00	2320B
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Alkalinity Total as CaCO3	161	mg/l	10/7/2008 10:00	2320B
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Aluminum as Al (Dissolved)	<0.03	mg/l	10/10/2008 19:44	200.7
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Antimony as Sb (Dissolved)	<0.003	mg/l	10/8/2008 19:12	200.8
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Arsenic as As (Dissolved)	0.042	mg/l	10/8/2008 19:12	200.8
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Barium as Ba (Dissolved)	0.15	mg/l	10/8/2008 19:12	200.8
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008 19:12	200.8
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Boron as B (Dissolved)	<0.1	mg/l	10/10/2008	200.7
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	10/15/2008	200.8
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Calcium as Ca	40	mg/l	10/8/2008	200.7
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Chloride as Cl	44	mg/l	10/15/2008 13:29	300
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Chromium as Cr (Dissolved)	<0.001	mg/l	10/8/2008 19:12	200.8
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Cobalt as Co (Dissolved)	0.005	mg/l	10/8/2008 5:05	200.8
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Copper as Cu (Dissolved)	0.006	mg/l	10/8/2008 19:12	200.8
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Iron as Fe (Dissolved)	<0.05	mg/l	10/10/2008 19:44	200.7
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	10/8/2008 19:12	200.8
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Magnesium as Mg	9	mg/l	10/8/2008 18:40	200.7
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Manganese as Mn (Dissolved)	1.44	mg/l	10/8/2008 18:40	200.7
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Mercury as Hg (Dissolved)	0.0002	mg/l	10/1/2008 12:46	200.8
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Molybdenum as Mo (Dissolved)	0.01	mg/l	10/8/2008 19:12	200.8
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Nickel as Ni (Dissolved)	0.02	mg/l	10/8/2008 19:12	200.8
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Potassium as K	6	mg/l	10/8/2008 18:40	200.7
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Selenium as Se (Dissolved)	<0.001	mg/l	10/15/2008 19:28	200.8
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Silver as Ag (Dissolved)	<0.0005	mg/l	10/15/2008 19:28	200.8
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Sodium as Na	40	mg/l	10/8/2008 18:40	200.7
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Sulfate as SO4	12	mg/l	10/15/2008 13:29	300
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Uranium as U (Dissolved)	0.002	mg/l	10/8/2008 19:12	200.8
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008 19:12	200.8
2008090290	25	DUPLICATE OF 2008090290-11	9/25/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	10/10/2008 19:44	200.7
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Alkalinity Bicarbonate as HCO3	NA	% [77-116]	10/7/2008 10:00	2320B
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Alkalinity Carbonate as CO3	NA	% [77-116]	10/7/2008 10:00	2320B
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Alkalinity Total as CaCO3	107	% [77-116]	10/7/2008 10:00	2320B
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Aluminum as Al (Dissolved)	95	% [81-117]	10/10/2008	200.7
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Antimony as Sb (Dissolved)	100	% [85-118]	10/8/2008	200.8
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Arsenic as As (Dissolved)	99	% [84-127]	10/8/2008	200.8
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Barium as Ba (Dissolved)	100	% [81-121]	10/8/2008 19:48	200.8
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Beryllium as Be (Dissolved)	98	% [72-122]	10/8/2008 19:48	200.8
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Boron as B (Dissolved)	99	% [87-113]	10/10/2008 20:12	200.7
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Cadmium as Cd (Dissolved)	101	% [81-116]	10/8/2008 19:48	200.8
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Calcium as Ca	108	% [78-122]	10/8/2008 19:10	200.7
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Chloride as Cl	110	% [84-124]	10/15/2008 18:38	300
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Chromium as Cr (Dissolved)	95	% [75-119]	10/8/2008 19:48	200.8
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Cobalt as Co (Dissolved)	110	% [77-118]	10/8/2008 5:56	200.8
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Copper as Cu (Dissolved)	88	% [70-114]	10/8/2008 19:48	200.8

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Iron as Fe (Dissolved)	103	% [87-111]	10/10/2008 20:12	200.7
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Lead as Pb (Dissolved)	102	% [82-117]	10/8/2008 19:48	200.8
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Magnesium as Mg	103	% [84-118]	10/8/2008 19:10	200.7
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Manganese as Mn (Dissolved)	-2	% [81-114]	10/8/2008 19:07	200.7
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Mercury as Hg (Dissolved)	106	% [70-127]	10/1/2008 13:09	200.8
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Molybdenum as Mo (Dissolved)	100	% [79-128]	10/8/2008 19:48	200.8
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Nickel as Ni (Dissolved)	94	% [77-114]	10/8/2008 19:48	200.8
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Potassium as K	97	% [85-120]	10/8/2008 19:10	200.7
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Selenium as Se (Dissolved)	100	% [76-130]	10/15/2008 20:25	200.8
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Silver as Ag (Dissolved)	80	% [70-118]	10/15/2008 20:25	200.8
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Sodium as Na	102	% [73-124]	10/8/2008 19:10	200.7
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Sulfate as SO4	97	% [84-124]	10/15/2008 18:38	300
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Uranium as U (Dissolved)	98	% [77-130]	10/8/2008 19:48	200.8
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Vanadium as V (Dissolved)	90	% [84-117]	10/8/2008	200.8
2008090290	26	MATRIX SPIKE OF 2008090290-16	9/24/2008	Zinc as Zn (Dissolved)	105	% [89-113]	10/10/2008	200.7
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Alkalinity Bicarbonate as HCO3	0	RPD [0-20]	10/7/2008	2320B
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Alkalinity Carbonate as CO3	0	RPD [0-20]	10/7/2008 10:00	2320B
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Alkalinity Total as CaCO3	0	RPD [0-20]	10/7/2008 10:00	2320B
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Aluminum as Al (Dissolved)	0	RPD [0-20]	10/10/2008 18:03	200.7
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Antimony as Sb (Dissolved)	2	RPD [0-20]	10/8/2008 16:38	200.8
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Arsenic as As (Dissolved)	0	RPD [0-20]	10/8/2008 16:38	200.8
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Barium as Ba (Dissolved)	1	RPD [0-20]	10/8/2008 16:38	200.8
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Beryllium as Be (Dissolved)	1	RPD [0-20]	10/8/2008 16:38	200.8
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Boron as B (Dissolved)	1	RPD [0-20]	10/10/2008 18:03	200.7
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Cadmium as Cd (Dissolved)	2	RPD [0-20]	10/15/2008 16:55	200.8
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Calcium as Ca	2	RPD [0-20]	10/8/2008 16:38	200.7
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Chloride as Cl	0	RPD [0-20]	10/15/2008 0:47	300
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Chromium as Cr (Dissolved)	0	RPD [0-20]	10/8/2008 16:38	200.8
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Cobalt as Co (Dissolved)	1	RPD [0-20]	10/8/2008 16:38	200.8
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Copper as Cu (Dissolved)	1	RPD [0-20]	10/15/2008 16:55	200.8
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Iron as Fe (Dissolved)	0	RPD [0-20]	10/10/2008 18:03	200.7
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Lead as Pb (Dissolved)	1	RPD [0-20]	10/8/2008 16:38	200.8
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Magnesium as Mg	0	RPD [0-20]	10/8/2008 16:38	200.7
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Manganese as Mn (Dissolved)	0	RPD [0-20]	10/8/2008 16:38	200.7
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Mercury as Hg (Dissolved)	0	RPD [0-20]	10/1/2008 10:34	200.8
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Molybdenum as Mo (Dissolved)	0	RPD [0-20]	10/8/2008 16:38	200.8
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Nickel as Ni (Dissolved)	1	RPD [0-20]	10/8/2008 16:38	200.8
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Potassium as K	2	RPD [0-20]	10/8/2008 16:38	200.7
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Selenium as Se (Dissolved)	1	RPD [0-20]	10/8/2008	200.8
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Silver as Ag (Dissolved)	34 (3)	RPD [0-20]	10/15/2008	200.8
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Sodium as Na	0	RPD [0-20]	10/8/2008	200.7
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Sulfate as SO4	0	RPD [0-20]	10/15/2008 0:47	300
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Uranium as U (Dissolved)	0	RPD [0-20]	10/8/2008 16:38	200.8
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Vanadium as V (Dissolved)	2	RPD [0-20]	10/8/2008 16:38	200.8
2008090290	27	DUPLICATE (BATCH)	1/2/1900	Zinc as Zn (Dissolved)	0	RPD [0-20]	10/10/2008 18:03	200.7
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Alkalinity Bicarbonate as HCO3	NA	% [77-116]	10/7/2008 10:00	2320B
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Alkalinity Carbonate as CO3	NA	% [77-116]	10/7/2008 10:00	2320B
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Alkalinity Total as CaCO3	101	% [77-116]	10/7/2008 10:00	2320B

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Aluminum as Al (Dissolved)	99*	% [81-117]	10/10/2008 18:15	200.7
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Antimony as Sb (Dissolved)	104	% [85-118]	10/8/2008 16:32	200.8
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Arsenic as As (Dissolved)	106	% [84-127]	10/8/2008 16:32	200.8
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Barium as Ba (Dissolved)	106	% [81-121]	10/8/2008 16:32	200.8
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Beryllium as Be (Dissolved)	104	% [72-122]	10/8/2008 16:32	200.8
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Boron as B (Dissolved)	97*	% [87-113]	10/10/2008 18:15	200.7
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Cadmium as Cd (Dissolved)	100*	% [81-116]	10/15/2008 16:49	200.8
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Calcium as Ca	103	% [78-122]	10/8/2008 16:57	200.7
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Chloride as Cl	104	% [84-124]	10/15/2008 1:48	300
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Chromium as Cr (Dissolved)	102	% [75-119]	10/8/2008 16:32	200.8
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Cobalt as Co (Dissolved)	99	% [77-118]	10/8/2008 16:32	200.8
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Copper as Cu (Dissolved)	90*	% [70-114]	10/15/2008 16:49	200.8
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Iron as Fe (Dissolved)	98	% [87-111]	10/10/2008 18:15	200.7
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Lead as Pb (Dissolved)	104	% [82-117]	10/8/2008 16:32	200.8
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Magnesium as Mg	101	% [84-118]	10/8/2008 16:57	200.7
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Manganese as Mn (Dissolved)	99	% [81-114]	10/8/2008	200.7
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Mercury as Hg (Dissolved)	106	% [70-127]	10/1/2008	200.8
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Molybdenum as Mo (Dissolved)	104	% [79-128]	10/8/2008	200.8
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Nickel as Ni (Dissolved)	102	% [77-114]	10/8/2008 16:32	200.8
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Potassium as K	95	% [85-120]	10/8/2008 16:57	200.7
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Selenium as Se (Dissolved)	104	% [76-130]	10/8/2008 16:32	200.8
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Silver as Ag (Dissolved)	58 (3)	% [70-118]	10/15/2008 16:49	200.8
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Sodium as Na	97	% [73-124]	10/8/2008 16:57	200.7
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Sulfate as SO4	104	% [84-124]	10/15/2008 1:48	300
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Uranium as U (Dissolved)	102	% [77-130]	10/8/2008 16:32	200.8
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Vanadium as V (Dissolved)	95	% [84-117]	10/8/2008 16:32	200.8
2008090290	28	MATRIX SPIKE OF 2008090290-22	9/24/2008	Zinc as Zn (Dissolved)	94	% [89-113]	10/10/2008 18:15	200.7
2008090290	29	METHOD BLANK	1/2/1900	Alkalinity Bicarbonate as HCO3	<1	mg/l	10/7/2008 10:00	2320B
2008090290	29	METHOD BLANK	1/2/1900	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008 10:00	2320B
2008090290	29	METHOD BLANK	1/2/1900	Alkalinity Total as CaCO3	<1	mg/l	10/7/2008 10:00	2320B
2008090290	29	METHOD BLANK	1/2/1900	Aluminum as Al (Dissolved)	<0.03	mg/l	10/10/2008 18:30	200.7
2008090290	29	METHOD BLANK	1/2/1900	Antimony as Sb (Dissolved)	<0.003	mg/l	10/8/2008 17:04	200.8
2008090290	29	METHOD BLANK	1/2/1900	Arsenic as As (Dissolved)	<0.003	mg/l	10/8/2008 17:04	200.8
2008090290	29	METHOD BLANK	1/2/1900	Barium as Ba (Dissolved)	<0.005	mg/l	10/8/2008 17:04	200.8
2008090290	29	METHOD BLANK	1/2/1900	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008 17:04	200.8
2008090290	29	METHOD BLANK	1/2/1900	Boron as B (Dissolved)	<0.1	mg/l	10/10/2008 18:30	200.7
2008090290	29	METHOD BLANK	1/2/1900	Cadmium as Cd (Dissolved)	<0.00008	mg/l	10/15/2008 17:35	200.8
2008090290	29	METHOD BLANK	1/2/1900	Calcium as Ca	<1	mg/l	10/8/2008 16:17	200.7
2008090290	29	METHOD BLANK	1/2/1900	Chloride as Cl	<1	mg/l	10/15/2008 2:49	300
2008090290	29	METHOD BLANK	1/2/1900	Chromium as Cr (Dissolved)	<0.001	mg/l	10/8/2008 17:04	200.8
2008090290	29	METHOD BLANK	1/2/1900	Cobalt as Co (Dissolved)	<0.002	mg/l	10/8/2008	200.8
2008090290	29	METHOD BLANK	1/2/1900	Copper as Cu (Dissolved)	<0.001	mg/l	10/15/2008	200.8
2008090290	29	METHOD BLANK	1/2/1900	Iron as Fe (Dissolved)	<0.05	mg/l	10/10/2008	200.7
2008090290	29	METHOD BLANK	1/2/1900	Lead as Pb (Dissolved)	<0.0005	mg/l	10/8/2008 17:04	200.8
2008090290	29	METHOD BLANK	1/2/1900	Magnesium as Mg	<1	mg/l	10/8/2008 16:17	200.7
2008090290	29	METHOD BLANK	1/2/1900	Manganese as Mn (Dissolved)	<0.005	mg/l	10/8/2008 16:17	200.7
2008090290	29	METHOD BLANK	1/2/1900	Mercury as Hg (Dissolved)	<0.00005	mg/l	10/1/2008 11:44	200.8
2008090290	29	METHOD BLANK	1/2/1900	Molybdenum as Mo (Dissolved)	<0.01	mg/l	10/8/2008 17:04	200.8

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090290	29	METHOD BLANK	1/2/1900	Nickel as Ni (Dissolved)	<0.01	mg/l	10/8/2008 17:04	200.8
2008090290	29	METHOD BLANK	1/2/1900	Potassium as K	<1	mg/l	10/8/2008 16:17	200.7
2008090290	29	METHOD BLANK	1/2/1900	Selenium as Se (Dissolved)	<0.001	mg/l	10/15/2008 17:35	200.8
2008090290	29	METHOD BLANK	1/2/1900	Silver as Ag (Dissolved)	<0.0005	mg/l	10/15/2008 17:35	200.8
2008090290	29	METHOD BLANK	1/2/1900	Sodium as Na	<1	mg/l	10/8/2008 16:17	200.7
2008090290	29	METHOD BLANK	1/2/1900	Sulfate as SO4	<5	mg/l	10/15/2008 2:49	300
2008090290	29	METHOD BLANK	1/2/1900	Uranium as U (Dissolved)	<0.001	mg/l	10/8/2008 17:04	200.8
2008090290	29	METHOD BLANK	1/2/1900	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008 17:04	200.8
2008090290	29	METHOD BLANK	1/2/1900	Zinc as Zn (Dissolved)	<0.01	mg/l	10/10/2008 18:30	200.7
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Alkalinity Bicarbonate as HCO3	NA	% [89-110]	10/7/2008 10:00	2320B
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Alkalinity Carbonate as CO3	NA	% [89-110]	10/7/2008 10:00	2320B
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Alkalinity Total as CaCO3	105	% [89-110]	10/7/2008 10:00	2320B
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Aluminum as Al (Dissolved)	95	% [86-112]	10/10/2008 18:43	200.7
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Antimony as Sb (Dissolved)	102	% [85-113]	10/8/2008 17:09	200.8
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Arsenic as As (Dissolved)	100	% [85-111]	10/8/2008 17:09	200.8
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Barium as Ba (Dissolved)	99	% [85-113]	10/8/2008 17:09	200.8
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Beryllium as Be (Dissolved)	100	% [85-112]	10/8/2008 17:09	200.8
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Boron as B (Dissolved)	99	% [85-108]	10/10/2008	200.7
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Cadmium as Cd (Dissolved)	99	% [86-113]	10/15/2008	200.8
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Calcium as Ca	105	% [91-114]	10/8/2008	200.7
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Chloride as Cl	99	% [90-110]	10/15/2008 3:19	300
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Chromium as Cr (Dissolved)	102	% [85-115]	10/8/2008 17:09	200.8
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Cobalt as Co (Dissolved)	112	% [87-112]	10/8/2008 3:17	200.8
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Copper as Cu (Dissolved)	98	% [85-114]	10/15/2008 17:41	200.8
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Iron as Fe (Dissolved)	106	% [90-112]	10/10/2008 18:43	200.7
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Lead as Pb (Dissolved)	105	% [87-114]	10/8/2008 17:09	200.8
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Magnesium as Mg	102	% [89-112]	10/8/2008 16:23	200.7
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Manganese as Mn (Dissolved)	102	% [92-114]	10/8/2008 16:23	200.7
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Mercury as Hg (Dissolved)	96	% [85-115]	10/1/2008 11:47	200.8
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Molybdenum as Mo (Dissolved)	102	% [86-114]	10/8/2008 17:09	200.8
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Nickel as Ni (Dissolved)	98	% [85-112]	10/8/2008 17:09	200.8
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Potassium as K	99	% [86-114]	10/8/2008 16:23	200.7
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Selenium as Se (Dissolved)	100	% [85-115]	10/15/2008 17:41	200.8
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Silver as Ag (Dissolved)	100	% [88-111]	10/15/2008 17:41	200.8
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Sodium as Na	100	% [87-112]	10/8/2008 16:23	200.7
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Sulfate as SO4	101	% [90-110]	10/15/2008 3:19	300
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Uranium as U (Dissolved)	101	% [88-114]	10/8/2008 17:09	200.8
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Vanadium as V (Dissolved)	97	% [86-114]	10/8/2008 17:09	200.8
2008090290	30	LABORATORY CONTROL SAMPLE	1/2/1900	Zinc as Zn (Dissolved)	100	% [89-113]	10/10/2008 18:43	200.7
2008090290	31	METHOD BLANK	1/2/1900	Alkalinity Bicarbonate as HCO3	<1	mg/l	10/7/2008 10:00	2320B
2008090290	31	METHOD BLANK	1/2/1900	Alkalinity Carbonate as CO3	0	mg/l	10/7/2008 10:00	2320B
2008090290	31	METHOD BLANK	1/2/1900	Alkalinity Total as CaCO3	<1	mg/l	10/7/2008 10:00	2320B
2008090290	31	METHOD BLANK	1/2/1900	Aluminum as Al (Dissolved)	<0.03	mg/l	10/10/2008	200.7
2008090290	31	METHOD BLANK	1/2/1900	Antimony as Sb (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	31	METHOD BLANK	1/2/1900	Arsenic as As (Dissolved)	<0.003	mg/l	10/8/2008	200.8
2008090290	31	METHOD BLANK	1/2/1900	Barium as Ba (Dissolved)	<0.005	mg/l	10/8/2008 14:20	200.8
2008090290	31	METHOD BLANK	1/2/1900	Beryllium as Be (Dissolved)	<0.001	mg/l	10/8/2008 14:20	200.8
2008090290	31	METHOD BLANK	1/2/1900	Boron as B (Dissolved)	<0.1	mg/l	10/10/2008 16:56	200.7

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090290	31	METHOD BLANK	1/2/1900	Cadmium as Cd (Dissolved)	<0.00008	mg/l	10/15/2008 15:40	200.8
2008090290	31	METHOD BLANK	1/2/1900	Calcium as Ca	<1	mg/l	10/8/2008 17:36	200.7
2008090290	31	METHOD BLANK	1/2/1900	Chloride as Cl	<1	mg/l	10/14/2008 16:39	300
2008090290	31	METHOD BLANK	1/2/1900	Chromium as Cr (Dissolved)	<0.001	mg/l	10/8/2008 14:20	200.8
2008090290	31	METHOD BLANK	1/2/1900	Cobalt as Co (Dissolved)	<0.002	mg/l	10/8/2008 14:20	200.8
2008090290	31	METHOD BLANK	1/2/1900	Copper as Cu (Dissolved)	<0.001	mg/l	10/15/2008 15:40	200.8
2008090290	31	METHOD BLANK	1/2/1900	Iron as Fe (Dissolved)	<0.05	mg/l	10/10/2008 16:56	200.7
2008090290	31	METHOD BLANK	1/2/1900	Lead as Pb (Dissolved)	<0.0005	mg/l	10/8/2008 14:20	200.8
2008090290	31	METHOD BLANK	1/2/1900	Magnesium as Mg	<1	mg/l	10/8/2008 17:36	200.7
2008090290	31	METHOD BLANK	1/2/1900	Manganese as Mn (Dissolved)	<0.005	mg/l	10/8/2008 17:36	200.7
2008090290	31	METHOD BLANK	1/2/1900	Mercury as Hg (Dissolved)	<0.00005	mg/l	10/1/2008 10:22	200.8
2008090290	31	METHOD BLANK	1/2/1900	Molybdenum as Mo (Dissolved)	<0.01	mg/l	10/8/2008 14:20	200.8
2008090290	31	METHOD BLANK	1/2/1900	Nickel as Ni (Dissolved)	<0.01	mg/l	10/8/2008 14:20	200.8
2008090290	31	METHOD BLANK	1/2/1900	Potassium as K	<1	mg/l	10/8/2008 17:36	200.7
2008090290	31	METHOD BLANK	1/2/1900	Selenium as Se (Dissolved)	<0.001	mg/l	10/8/2008 14:20	200.8
2008090290	31	METHOD BLANK	1/2/1900	Silver as Ag (Dissolved)	<0.0005	mg/l	10/15/2008 15:40	200.8
2008090290	31	METHOD BLANK	1/2/1900	Sodium as Na	<1	mg/l	10/8/2008 17:36	200.7
2008090290	31	METHOD BLANK	1/2/1900	Sulfate as SO4	<5	mg/l	10/14/2008 16:39	300
2008090290	31	METHOD BLANK	1/2/1900	Uranium as U (Dissolved)	<0.001	mg/l	10/8/2008 14:20	200.8
2008090290	31	METHOD BLANK	1/2/1900	Vanadium as V (Dissolved)	<0.01	mg/l	10/8/2008	200.8
2008090290	31	METHOD BLANK	1/2/1900	Zinc as Zn (Dissolved)	<0.01	mg/l	10/10/2008	200.7
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Alkalinity Bicarbonate as HCO3	NA	% [89-110]	10/7/2008	2320B
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Alkalinity Carbonate as CO3	NA	% [89-110]	10/7/2008 10:00	2320B
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Alkalinity Total as CaCO3	105	% [89-110]	10/7/2008 10:00	2320B
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Aluminum as Al (Dissolved)	97	% [86-112]	10/10/2008 16:59	200.7
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Antimony as Sb (Dissolved)	104	% [85-113]	10/8/2008 14:25	200.8
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Arsenic as As (Dissolved)	101	% [85-111]	10/8/2008 14:25	200.8
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Barium as Ba (Dissolved)	102	% [85-113]	10/8/2008 14:25	200.8
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Beryllium as Be (Dissolved)	102	% [85-112]	10/8/2008 14:25	200.8
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Boron as B (Dissolved)	98	% [85-108]	10/10/2008 16:59	200.7
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Cadmium as Cd (Dissolved)	101	% [86-113]	10/15/2008 15:45	200.8
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Calcium as Ca	102	% [91-114]	10/8/2008 17:42	200.7
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Chloride as Cl	99	% [90-110]	10/14/2008 17:09	300
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Chromium as Cr (Dissolved)	104	% [85-115]	10/8/2008 14:25	200.8
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Cobalt as Co (Dissolved)	104	% [87-112]	10/8/2008 14:25	200.8
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Copper as Cu (Dissolved)	100	% [85-114]	10/15/2008 15:45	200.8
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Iron as Fe (Dissolved)	104	% [90-112]	10/10/2008 16:59	200.7
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Lead as Pb (Dissolved)	106	% [87-114]	10/8/2008 14:25	200.8
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Magnesium as Mg	100	% [89-112]	10/8/2008 17:42	200.7
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Manganese as Mn (Dissolved)	102	% [92-114]	10/8/2008 17:39	200.7
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Mercury as Hg (Dissolved)	96	% [85-115]	10/1/2008 10:24	200.8
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Molybdenum as Mo (Dissolved)	104	% [86-114]	10/8/2008 14:25	200.8
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Nickel as Ni (Dissolved)	101	% [85-112]	10/8/2008 14:25	200.8
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Potassium as K	98	% [86-114]	10/8/2008 17:42	200.7
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Selenium as Se (Dissolved)	101	% [85-115]	10/8/2008	200.8
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Silver as Ag (Dissolved)	102	% [88-111]	10/15/2008	200.8
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Sodium as Na	99	% [87-112]	10/8/2008	200.7
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Sulfate as SO4	104	% [90-110]	10/14/2008 17:09	300

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Uranium as U (Dissolved)	102	% [88-114]	10/8/2008 14:25	200.8
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Vanadium as V (Dissolved)	98	% [86-114]	10/8/2008 14:25	200.8
2008090290	32	LABORATORY CONTROL SAMPLE	1/2/1900	Zinc as Zn (Dissolved)	98	% [89-113]	10/10/2008 16:59	200.7
1086630	1086630005	1GW-1004A	12/11/08	Arsenic, Dissolved	0.82	ug/L	12/24/08	EPA 200.8
1086630	1086630005	1GW-1004A	12/11/08	Cadmium, Dissolved	0.96	ug/L	12/24/08	EPA 200.8
1086630	1086630005	1GW-1004A	12/11/08	Copper, Dissolved	13.0	ug/L	12/24/08	EPA 200.8
1086630	1086630005	1GW-1004A	12/11/08	Lead, Dissolved	ND	ug/L	12/24/08	EPA 200.8
1086630	1086630005	1GW-1004A	12/11/08	Zinc, Dissolved	6200	ug/L	12/29/08	EPA 200.8
1086630	1086630002	1GW-1038	12/11/08	Arsenic, Dissolved	41.1	ug/L	12/24/08	EPA 200.8
1086630	1086630002	1GW-1038	12/11/08	Cadmium, Dissolved	1.1	ug/L	12/24/08	EPA 200.8
1086630	1086630002	1GW-1038	12/11/08	Copper, Dissolved	9.5	ug/L	12/24/08	EPA 200.8
1086630	1086630002	1GW-1038	12/11/08	Lead, Dissolved	0.16	ug/L	12/24/08	EPA 200.8
1086630	1086630002	1GW-1038	12/11/08	Zinc, Dissolved	32.2	ug/L	12/24/08	EPA 200.8
1086630	1086630004	MW-10	12/11/08	Arsenic, Dissolved	2.6	ug/L	12/24/08	EPA 200.8
1086630	1086630004	MW-10	12/11/08	Cadmium, Dissolved	4.8	ug/L	12/24/08	EPA 200.8
1086630	1086630004	MW-10	12/11/08	Copper, Dissolved	214	ug/L	12/24/08	EPA 200.8
1086630	1086630004	MW-10	12/11/08	Lead, Dissolved	0.49	ug/L	12/24/08	EPA 200.8
1086630	1086630004	MW-10	12/11/08	Zinc, Dissolved	4860	ug/L	12/29/08	EPA 200.8
1086630	1086630006	MW-12	12/11/08	Arsenic, Dissolved	2.8	ug/L	12/24/08	EPA 200.8
1086630	1086630006	MW-12	12/11/08	Cadmium, Dissolved	4.5	ug/L	12/24/08	EPA 200.8
1086630	1086630006	MW-12	12/11/08	Copper, Dissolved	234	ug/L	12/24/08	EPA 200.8
1086630	1086630006	MW-12	12/11/08	Lead, Dissolved	0.72	ug/L	12/24/08	EPA 200.8
1086630	1086630006	MW-12	12/11/08	Zinc, Dissolved	5000	ug/L	12/29/08	EPA 200.8
1086630	1086630003	MW-13	12/11/08	Arsenic, Dissolved	ND	ug/L	12/24/08	EPA 200.8
1086630	1086630003	MW-13	12/11/08	Cadmium, Dissolved	ND	ug/L	12/24/08	EPA 200.8
1086630	1086630003	MW-13	12/11/08	Copper, Dissolved	ND	ug/L	12/24/08	EPA 200.8
1086630	1086630003	MW-13	12/11/08	Lead, Dissolved	ND	ug/L	12/24/08	EPA 200.8
1086630	1086630003	MW-13	12/11/08	Zinc, Dissolved	ND	ug/L	12/24/08	EPA 200.8
1086630	1086630001	P-37A	12/11/08	Arsenic, Dissolved	1.6	ug/L	12/24/08	EPA 200.8
1086630	1086630001	P-37A	12/11/08	Cadmium, Dissolved	31.9	ug/L	12/24/08	EPA 200.8
1086630	1086630001	P-37A	12/11/08	Copper, Dissolved	38.3	ug/L	12/24/08	EPA 200.8
1086630	1086630001	P-37A	12/11/08	Lead, Dissolved	ND	ug/L	12/24/08	EPA 200.8
1086630	1086630001	P-37A	12/11/08	Zinc, Dissolved	716	ug/L	12/24/08	EPA 200.8
1086630	567692	BLANK		Zinc, Dissolved	ND	ug/L	12/24/08	EPA 200.8
1086630	567692	BLANK		Arsenic, Dissolved	ND	ug/L	12/24/08	EPA 200.8
1086630	567692	BLANK		Cadmium, Dissolved	ND	ug/L	12/24/08	EPA 200.8
1086630	567692	BLANK		Copper, Dissolved	ND	ug/L	12/24/08	EPA 200.8
1086630	567692	BLANK		Lead, Dissolved	ND	ug/L	12/24/08	EPA 200.8
1086630	567693	LCS		Arsenic, Dissolved	102	%	12/24/08	EPA 200.8
1086630	567693	LCS		Cadmium, Dissolved	101	%	12/24/08	EPA 200.8
1086630	567693	LCS		Copper, Dissolved	101	%	12/24/08	EPA 200.8
1086630	567693	LCS		Lead, Dissolved	100	%	12/24/08	EPA 200.8
1086630	567693	LCS		Zinc, Dissolved	95	%	12/24/08	EPA 200.8
1086630	567694	MS		Arsenic, Dissolved	104	%	12/24/08	EPA 200.8
1086630	567694	MS		Cadmium, Dissolved	97	%	12/24/08	EPA 200.8
1086630	567694	MS		Copper, Dissolved	96	%	12/24/08	EPA 200.8
1086630	567694	MS		Lead, Dissolved	96	%	12/24/08	EPA 200.8
1086630	567694	MS		Zinc, Dissolved	89	%	12/24/08	EPA 200.8

2008 Groundwater Data

Sample ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086630	567695	MSD		Arsenic, Dissolved	104	%	12/24/08	EPA 200.8
1086630	567695	MSD		Cadmium, Dissolved	97	%	12/24/08	EPA 200.8
1086630	567695	MSD		Copper, Dissolved	95	%	12/24/08	EPA 200.8
1086630	567695	MSD		Lead, Dissolved	96	%	12/24/08	EPA 200.8
1086630	567695	MSD		Zinc, Dissolved	95	%	12/24/08	EPA 200.8

Appendix K

2008 Vadose Zone Data

2008 Vadose Zone Data

Sample ID	Sample	Station	Date	Paramater	Value	Units	Lab Date	Method
2008060279	10	LYS-01	6/26/2008	Alkalinity Bicarbonate as HCO3	206	mg/l	7/10/2008 11:50	2320B
2008060279	10	LYS-01	6/26/2008	Alkalinity Carbonate as CO3	0	mg/l	7/10/2008 11:50	2320B
2008060279	10	LYS-01	6/26/2008	Alkalinity Total as CaCO3	169	mg/l	7/10/2008	2320B
2008060279	10	LYS-01	6/26/2008	Anions	8.33*	meq/l	1/2/1900	1030F
2008060279	10	LYS-01	6/26/2008	Arsenic as As (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008060279	10	LYS-01	6/26/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008	200.8
2008060279	10	LYS-01	6/26/2008	Calcium as Ca (Dissolved)	95	mg/l	7/10/2008 18:14	200.7
2008060279	10	LYS-01	6/26/2008	Cation/Anion Balance	4.32*	% [max 2%]	1/2/1900 0:00	AWWA/APHA
2008060279	10	LYS-01	6/26/2008	Cations	7.64*	meq/l	1/2/1900	1030F
2008060279	10	LYS-01	6/26/2008	Chloride as Cl	11	mg/l	7/15/2008	300
2008060279	10	LYS-01	6/26/2008	Copper as Cu (Dissolved)	0.005	mg/l	7/11/2008	200.8
2008060279	10	LYS-01	6/26/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008 18:51	200.8
2008060279	10	LYS-01	6/26/2008	Magnesium as Mg (Dissolved)	19	mg/l	7/10/2008 18:14	200.7
2008060279	10	LYS-01	6/26/2008	Manganese as Mn (Dissolved)	0.07	mg/l	7/10/2008 18:14	200.7
2008060279	10	LYS-01	6/26/2008	Mercury Batch #/Digest Date	NA	-----	1/2/1900	-----
2008060279	10	LYS-01	6/26/2008	Mercury as Hg (Dissolved)	0.00001	mg/l	7/11/2008 15:25	200.8
2008060279	10	LYS-01	6/26/2008	Potassium as K (Dissolved)	3	mg/l	7/10/2008 18:14	200.7
2008060279	10	LYS-01	6/26/2008	Sodium as Na (Dissolved)	29	mg/l	7/10/2008 18:14	200.7
2008060279	10	LYS-01	6/26/2008	Sulfate as SO4	223	mg/l	7/15/2008 18:07	300
2008060279	10	LYS-01	6/26/2008	Zinc as Zn (Dissolved)	0.07	mg/l	7/10/2008 18:14	200.7
2008060279	11	LYS-3A	6/26/2008	Alkalinity Bicarbonate as HCO3	204	mg/l	7/10/2008	2320B
2008060279	11	LYS-3A	6/26/2008	Alkalinity Carbonate as CO3	0	mg/l	7/10/2008	2320B
2008060279	11	LYS-3A	6/26/2008	Alkalinity Total as CaCO3	167	mg/l	7/10/2008	2320B
2008060279	11	LYS-3A	6/26/2008	Anions	8.29*	meq/l	1/2/1900	1030F
2008060279	11	LYS-3A	6/26/2008	Arsenic as As (Dissolved)	<0.003	mg/l	7/11/2008 18:57	200.8
2008060279	11	LYS-3A	6/26/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008 18:57	200.8
2008060279	11	LYS-3A	6/26/2008	Calcium as Ca (Dissolved)	92	mg/l	7/10/2008	200.7
2008060279	11	LYS-3A	6/26/2008	Cation/Anion Balance	5.34*	% [max 2%]	1/2/1900	AWWA/APHA
2008060279	11	LYS-3A	6/26/2008	Cations	7.45*	meq/l	1/2/1900	1030F
2008060279	11	LYS-3A	6/26/2008	Chloride as Cl	11	mg/l	7/15/2008	300
2008060279	11	LYS-3A	6/26/2008	Copper as Cu (Dissolved)	0.001	mg/l	7/11/2008	200.8
2008060279	11	LYS-3A	6/26/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	11	LYS-3A	6/26/2008	Magnesium as Mg (Dissolved)	19	mg/l	7/10/2008	200.7
2008060279	11	LYS-3A	6/26/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	7/10/2008	200.7
2008060279	11	LYS-3A	6/26/2008	Mercury Batch #/Digest Date	NA	-----	1/2/1900	-----
2008060279	11	LYS-3A	6/26/2008	Mercury as Hg (Dissolved)	0.00001	mg/l	7/11/2008	200.8
2008060279	11	LYS-3A	6/26/2008	Potassium as K (Dissolved)	3	mg/l	7/10/2008	200.7

2008 Vadose Zone Data

Sample ID	Sample	Station	Date	Paramater	Value	Units	Lab Date	Method
2008060279	11	LYS-3A	6/26/2008	Sodium as Na (Dissolved)	28	mg/l	7/10/2008	200.7
2008060279	11	LYS-3A	6/26/2008	Sulfate as SO4	223	mg/l	7/15/2008	300
2008060279	11	LYS-3A	6/26/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	7/10/2008	200.7
2008060279	12	LYS-10	6/26/2008	Alkalinity Bicarbonate as HCO3	<1	mg/l	7/10/2008	2320B
2008060279	12	LYS-10	6/26/2008	Alkalinity Carbonate as CO3	0	mg/l	7/10/2008	2320B
2008060279	12	LYS-10	6/26/2008	Alkalinity Total as CaCO3	<1	mg/l	7/10/2008	2320B
2008060279	12	LYS-10	6/26/2008	Anions	<0.38	meq/l	1/2/1900	1030F
2008060279	12	LYS-10	6/26/2008	Arsenic as As (Dissolved)	<0.003	mg/l	7/11/2008	200.8
2008060279	12	LYS-10	6/26/2008	Cadmium as Cd (Dissolved)	<0.00008	mg/l	7/11/2008	200.8
2008060279	12	LYS-10	6/26/2008	Calcium as Ca (Dissolved)	<1	mg/l	7/10/2008	200.7
2008060279	12	LYS-10	6/26/2008	Cation/Anion Balance	NA	% [max 5%]	1/2/1900	AWWA/APHA
2008060279	12	LYS-10	6/26/2008	Cations	<0.20	meq/l	1/2/1900	1030F
2008060279	12	LYS-10	6/26/2008	Chloride as Cl	<1	mg/l	7/15/2008	300
2008060279	12	LYS-10	6/26/2008	Copper as Cu (Dissolved)	<0.001	mg/l	7/11/2008	200.8
2008060279	12	LYS-10	6/26/2008	Lead as Pb (Dissolved)	<0.0005	mg/l	7/11/2008	200.8
2008060279	12	LYS-10	6/26/2008	Magnesium as Mg (Dissolved)	<1	mg/l	7/10/2008	200.7
2008060279	12	LYS-10	6/26/2008	Manganese as Mn (Dissolved)	<0.005	mg/l	7/10/2008	200.7
2008060279	12	LYS-10	6/26/2008	Mercury Batch #/Digest Date	NA	-----	1/2/1900	-----
2008060279	12	LYS-10	6/26/2008	Mercury as Hg (Dissolved)	<0.00001	mg/l	7/11/2008	200.8
2008060279	12	LYS-10	6/26/2008	Potassium as K (Dissolved)	<1	mg/l	7/10/2008	200.7
2008060279	12	LYS-10	6/26/2008	Sodium as Na (Dissolved)	<1	mg/l	7/10/2008	200.7
2008060279	12	LYS-10	6/26/2008	Sulfate as SO4	<5	mg/l	7/15/2008	300
2008060279	12	LYS-10	6/26/2008	Zinc as Zn (Dissolved)	<0.01	mg/l	7/10/2008	200.7

Appendix L

2008 Sediment Data

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030195	1	SS-07 (1mm to 2mm Sieve Size)	3/24/2008	Aluminum Dry Basis	3780	mg/kg	4/10/2008	6010B
2008030195	1	SS-07 (1mm to 2mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	1	SS-07 (1mm to 2mm Sieve Size)	3/24/2008	Arsenic Dry Basis	21	mg/kg	4/10/2008	6010B
2008030195	1	SS-07 (1mm to 2mm Sieve Size)	3/24/2008	Barium Dry Basis	170	mg/kg	4/10/2008 16:42	6010B
2008030195	1	SS-07 (1mm to 2mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008 16:42	6010B
2008030195	1	SS-07 (1mm to 2mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008 16:42	6010B
2008030195	1	SS-07 (1mm to 2mm Sieve Size)	3/24/2008	Cadmium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	1	SS-07 (1mm to 2mm Sieve Size)	3/24/2008	Chromium Dry Basis	8	mg/kg	4/10/2008 16:42	6010B
2008030195	1	SS-07 (1mm to 2mm Sieve Size)	3/24/2008	Cobalt Dry Basis	7	mg/kg	4/10/2008 16:42	6010B
2008030195	1	SS-07 (1mm to 2mm Sieve Size)	3/24/2008	Copper Dry Basis	100	mg/kg	4/10/2008	6010B
2008030195	1	SS-07 (1mm to 2mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	69	%	1/2/1900 0:00	D421
2008030195	1	SS-07 (1mm to 2mm Sieve Size)	3/24/2008	Fraction of Total Sample	36	%	1/2/1900 0:00	D421
2008030195	1	SS-07 (1mm to 2mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1384	-----	4/8/2008	3050B
2008030195	1	SS-07 (1mm to 2mm Sieve Size)	3/24/2008	Iron Dry Basis	10200	mg/kg	4/10/2008 15:52	6010B
2008030195	1	SS-07 (1mm to 2mm Sieve Size)	3/24/2008	Lead Dry Basis	68	mg/kg	4/10/2008	6010B
2008030195	1	SS-07 (1mm to 2mm Sieve Size)	3/24/2008	Manganese Dry Basis	2700	mg/kg	4/10/2008 15:52	6010B
2008030195	1	SS-07 (1mm to 2mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	839	-----	4/8/2008	7471B
2008030195	1	SS-07 (1mm to 2mm Sieve Size)	3/24/2008	Mercury Dry Basis	<0.1	mg/kg	4/9/2008	7471B
2008030195	1	SS-07 (1mm to 2mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	1	SS-07 (1mm to 2mm Sieve Size)	3/24/2008	Nickel Dry Basis	5	mg/kg	4/10/2008 16:42	6010B
2008030195	1	SS-07 (1mm to 2mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	1	SS-07 (1mm to 2mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	1	SS-07 (1mm to 2mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	1	SS-07 (1mm to 2mm Sieve Size)	3/24/2008	Vanadium Dry Basis	18	mg/kg	4/10/2008 16:42	6010B
2008030195	1	SS-07 (1mm to 2mm Sieve Size)	3/24/2008	Zinc Dry Basis	397	mg/kg	4/10/2008 16:42	6010B
2008030195	2	SS-08 (1mm to 2mm Sieve Size)	3/24/2008	Aluminum Dry Basis	3380	mg/kg	4/10/2008 15:58	6010B
2008030195	2	SS-08 (1mm to 2mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	2	SS-08 (1mm to 2mm Sieve Size)	3/24/2008	Arsenic Dry Basis	20	mg/kg	4/10/2008 16:57	6010B
2008030195	2	SS-08 (1mm to 2mm Sieve Size)	3/24/2008	Barium Dry Basis	86	mg/kg	4/10/2008 16:57	6010B
2008030195	2	SS-08 (1mm to 2mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	2	SS-08 (1mm to 2mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008 16:57	6010B
2008030195	2	SS-08 (1mm to 2mm Sieve Size)	3/24/2008	Cadmium Dry Basis	<2	mg/kg	4/10/2008 16:57	6010B
2008030195	2	SS-08 (1mm to 2mm Sieve Size)	3/24/2008	Chromium Dry Basis	6	mg/kg	4/10/2008	6010B
2008030195	2	SS-08 (1mm to 2mm Sieve Size)	3/24/2008	Cobalt Dry Basis	<5	mg/kg	4/10/2008 16:57	6010B
2008030195	2	SS-08 (1mm to 2mm Sieve Size)	3/24/2008	Copper Dry Basis	179	mg/kg	4/10/2008	6010B
2008030195	2	SS-08 (1mm to 2mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	49	%	1/2/1900 0:00	D421
2008030195	2	SS-08 (1mm to 2mm Sieve Size)	3/24/2008	Fraction of Total Sample	9.8	%	1/2/1900	D421
2008030195	2	SS-08 (1mm to 2mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1384	-----	4/8/2008	3050B
2008030195	2	SS-08 (1mm to 2mm Sieve Size)	3/24/2008	Iron Dry Basis	10100	mg/kg	4/10/2008	6010B
2008030195	2	SS-08 (1mm to 2mm Sieve Size)	3/24/2008	Lead Dry Basis	48	mg/kg	4/10/2008 16:57	6010B
2008030195	2	SS-08 (1mm to 2mm Sieve Size)	3/24/2008	Manganese Dry Basis	453	mg/kg	4/10/2008	6010B
2008030195	2	SS-08 (1mm to 2mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	839	-----	4/8/2008	7471B
2008030195	2	SS-08 (1mm to 2mm Sieve Size)	3/24/2008	Mercury Dry Basis	0.2	mg/kg	4/9/2008	7471B
2008030195	2	SS-08 (1mm to 2mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008 16:57	6010B
2008030195	2	SS-08 (1mm to 2mm Sieve Size)	3/24/2008	Nickel Dry Basis	<5	mg/kg	4/10/2008 16:57	6010B
2008030195	2	SS-08 (1mm to 2mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008 16:57	6010B
2008030195	2	SS-08 (1mm to 2mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008 16:57	6010B
2008030195	2	SS-08 (1mm to 2mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008 11:46	6020
2008030195	2	SS-08 (1mm to 2mm Sieve Size)	3/24/2008	Vanadium Dry Basis	19	mg/kg	4/10/2008 16:57	6010B
2008030195	2	SS-08 (1mm to 2mm Sieve Size)	3/24/2008	Zinc Dry Basis	283	mg/kg	4/10/2008	6010B
2008030195	3	SS-10A (1mm to 2mm Sieve Size)	3/24/2008	Aluminum Dry Basis	2700	mg/kg	4/10/2008 16:01	6010B
2008030195	3	SS-10A (1mm to 2mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008 11:49	6020
2008030195	3	SS-10A (1mm to 2mm Sieve Size)	3/24/2008	Arsenic Dry Basis	<10	mg/kg	4/10/2008 17:00	6010B
2008030195	3	SS-10A (1mm to 2mm Sieve Size)	3/24/2008	Barium Dry Basis	104	mg/kg	4/10/2008 17:00	6010B
2008030195	3	SS-10A (1mm to 2mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	3	SS-10A (1mm to 2mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008 17:00	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030195	3	SS-10A (1mm to 2mm Sieve Size)	3/24/2008	Cadmium Dry Basis	<2	mg/kg	4/10/2008 17:00	6010B
2008030195	3	SS-10A (1mm to 2mm Sieve Size)	3/24/2008	Chromium Dry Basis	4	mg/kg	4/10/2008 17:00	6010B
2008030195	3	SS-10A (1mm to 2mm Sieve Size)	3/24/2008	Cobalt Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	3	SS-10A (1mm to 2mm Sieve Size)	3/24/2008	Copper Dry Basis	508	mg/kg	4/10/2008	6010B
2008030195	3	SS-10A (1mm to 2mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	43	%	1/2/1900 0:00	D421
2008030195	3	SS-10A (1mm to 2mm Sieve Size)	3/24/2008	Fraction of Total Sample	12	%	1/2/1900 0:00	D421
2008030195	3	SS-10A (1mm to 2mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1384	-----	4/8/2008 10:35	3050B
2008030195	3	SS-10A (1mm to 2mm Sieve Size)	3/24/2008	Iron Dry Basis	7080	mg/kg	4/10/2008	6010B
2008030195	3	SS-10A (1mm to 2mm Sieve Size)	3/24/2008	Lead Dry Basis	<10	mg/kg	4/10/2008 17:00	6010B
2008030195	3	SS-10A (1mm to 2mm Sieve Size)	3/24/2008	Manganese Dry Basis	648	mg/kg	4/10/2008 17:00	6010B
2008030195	3	SS-10A (1mm to 2mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	839	-----	4/8/2008	7471B
2008030195	3	SS-10A (1mm to 2mm Sieve Size)	3/24/2008	Mercury Dry Basis	<0.1	mg/kg	4/9/2008	7471B
2008030195	3	SS-10A (1mm to 2mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008 17:00	6010B
2008030195	3	SS-10A (1mm to 2mm Sieve Size)	3/24/2008	Nickel Dry Basis	<5	mg/kg	4/10/2008 17:00	6010B
2008030195	3	SS-10A (1mm to 2mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008 17:00	6010B
2008030195	3	SS-10A (1mm to 2mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	3	SS-10A (1mm to 2mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	3	SS-10A (1mm to 2mm Sieve Size)	3/24/2008	Vanadium Dry Basis	12	mg/kg	4/10/2008 17:00	6010B
2008030195	3	SS-10A (1mm to 2mm Sieve Size)	3/24/2008	Zinc Dry Basis	199	mg/kg	4/10/2008 17:00	6010B
2008030195	4	SS-10B (1mm to 2mm Sieve Size)	3/24/2008	Aluminum Dry Basis	4620	mg/kg	4/10/2008 16:04	6010B
2008030195	4	SS-10B (1mm to 2mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	4	SS-10B (1mm to 2mm Sieve Size)	3/24/2008	Arsenic Dry Basis	13	mg/kg	4/10/2008 17:03	6010B
2008030195	4	SS-10B (1mm to 2mm Sieve Size)	3/24/2008	Barium Dry Basis	562	mg/kg	4/10/2008	6010B
2008030195	4	SS-10B (1mm to 2mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008 17:03	6010B
2008030195	4	SS-10B (1mm to 2mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008 17:03	6010B
2008030195	4	SS-10B (1mm to 2mm Sieve Size)	3/24/2008	Cadmium Dry Basis	3	mg/kg	4/10/2008 17:03	6010B
2008030195	4	SS-10B (1mm to 2mm Sieve Size)	3/24/2008	Chromium Dry Basis	9	mg/kg	4/10/2008 17:03	6010B
2008030195	4	SS-10B (1mm to 2mm Sieve Size)	3/24/2008	Cobalt Dry Basis	7	mg/kg	4/10/2008 17:03	6010B
2008030195	4	SS-10B (1mm to 2mm Sieve Size)	3/24/2008	Copper Dry Basis	202	mg/kg	4/10/2008	6010B
2008030195	4	SS-10B (1mm to 2mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	4.4	%	1/2/1900 0:00	D421
2008030195	4	SS-10B (1mm to 2mm Sieve Size)	3/24/2008	Fraction of Total Sample	3.7	%	1/2/1900	D421
2008030195	4	SS-10B (1mm to 2mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1384	-----	4/8/2008	3050B
2008030195	4	SS-10B (1mm to 2mm Sieve Size)	3/24/2008	Iron Dry Basis	11600	mg/kg	4/10/2008	6010B
2008030195	4	SS-10B (1mm to 2mm Sieve Size)	3/24/2008	Lead Dry Basis	59	mg/kg	4/10/2008 17:03	6010B
2008030195	4	SS-10B (1mm to 2mm Sieve Size)	3/24/2008	Manganese Dry Basis	2380	mg/kg	4/10/2008	6010B
2008030195	4	SS-10B (1mm to 2mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	839	-----	4/8/2008	7471B
2008030195	4	SS-10B (1mm to 2mm Sieve Size)	3/24/2008	Mercury Dry Basis	0.4	mg/kg	4/9/2008	7471B
2008030195	4	SS-10B (1mm to 2mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008 17:03	6010B
2008030195	4	SS-10B (1mm to 2mm Sieve Size)	3/24/2008	Nickel Dry Basis	6	mg/kg	4/10/2008 17:03	6010B
2008030195	4	SS-10B (1mm to 2mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	4	SS-10B (1mm to 2mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	4	SS-10B (1mm to 2mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	4	SS-10B (1mm to 2mm Sieve Size)	3/24/2008	Vanadium Dry Basis	33	mg/kg	4/10/2008	6010B
2008030195	4	SS-10B (1mm to 2mm Sieve Size)	3/24/2008	Zinc Dry Basis	550	mg/kg	4/10/2008	6010B
2008030195	5	SS-10D (1mm to 2mm Sieve Size)	3/24/2008	Aluminum Dry Basis	6940	mg/kg	4/10/2008 16:07	6010B
2008030195	5	SS-10D (1mm to 2mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008 11:54	6020
2008030195	5	SS-10D (1mm to 2mm Sieve Size)	3/24/2008	Arsenic Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	5	SS-10D (1mm to 2mm Sieve Size)	3/24/2008	Barium Dry Basis	147	mg/kg	4/10/2008	6010B
2008030195	5	SS-10D (1mm to 2mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008 17:06	6010B
2008030195	5	SS-10D (1mm to 2mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	5	SS-10D (1mm to 2mm Sieve Size)	3/24/2008	Cadmium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	5	SS-10D (1mm to 2mm Sieve Size)	3/24/2008	Chromium Dry Basis	6	mg/kg	4/10/2008 17:06	6010B
2008030195	5	SS-10D (1mm to 2mm Sieve Size)	3/24/2008	Cobalt Dry Basis	<5	mg/kg	4/10/2008 17:06	6010B
2008030195	5	SS-10D (1mm to 2mm Sieve Size)	3/24/2008	Copper Dry Basis	28	mg/kg	4/10/2008 17:06	6010B
2008030195	5	SS-10D (1mm to 2mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	23	%	1/2/1900	D421
2008030195	5	SS-10D (1mm to 2mm Sieve Size)	3/24/2008	Fraction of Total Sample	12	%	1/2/1900 0:00	D421

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030195	5	SS-10D (1mm to 2mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1384	-----	4/8/2008 10:35	3050B
2008030195	5	SS-10D (1mm to 2mm Sieve Size)	3/24/2008	Iron Dry Basis	10800	mg/kg	4/10/2008	6010B
2008030195	5	SS-10D (1mm to 2mm Sieve Size)	3/24/2008	Lead Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	5	SS-10D (1mm to 2mm Sieve Size)	3/24/2008	Manganese Dry Basis	440	mg/kg	4/10/2008 17:06	6010B
2008030195	5	SS-10D (1mm to 2mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	839	-----	4/8/2008 16:30	7471B
2008030195	5	SS-10D (1mm to 2mm Sieve Size)	3/24/2008	Mercury Dry Basis	<0.1	mg/kg	4/9/2008 13:15	7471B
2008030195	5	SS-10D (1mm to 2mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	5	SS-10D (1mm to 2mm Sieve Size)	3/24/2008	Nickel Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	5	SS-10D (1mm to 2mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008 17:06	6010B
2008030195	5	SS-10D (1mm to 2mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008 17:06	6010B
2008030195	5	SS-10D (1mm to 2mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008 11:54	6020
2008030195	5	SS-10D (1mm to 2mm Sieve Size)	3/24/2008	Vanadium Dry Basis	16	mg/kg	4/10/2008	6010B
2008030195	5	SS-10D (1mm to 2mm Sieve Size)	3/24/2008	Zinc Dry Basis	64	mg/kg	4/10/2008 17:06	6010B
2008030195	6	SS-11C (1mm to 2mm Sieve Size)	3/24/2008	Aluminum Dry Basis	4520	mg/kg	4/10/2008	6010B
2008030195	6	SS-11C (1mm to 2mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008 12:02	6020
2008030195	6	SS-11C (1mm to 2mm Sieve Size)	3/24/2008	Arsenic Dry Basis	<10	mg/kg	4/10/2008 17:09	6010B
2008030195	6	SS-11C (1mm to 2mm Sieve Size)	3/24/2008	Barium Dry Basis	85	mg/kg	4/10/2008 17:09	6010B
2008030195	6	SS-11C (1mm to 2mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008 17:09	6010B
2008030195	6	SS-11C (1mm to 2mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008 17:09	6010B
2008030195	6	SS-11C (1mm to 2mm Sieve Size)	3/24/2008	Cadmium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	6	SS-11C (1mm to 2mm Sieve Size)	3/24/2008	Chromium Dry Basis	7	mg/kg	4/10/2008 17:09	6010B
2008030195	6	SS-11C (1mm to 2mm Sieve Size)	3/24/2008	Cobalt Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	6	SS-11C (1mm to 2mm Sieve Size)	3/24/2008	Copper Dry Basis	14	mg/kg	4/10/2008	6010B
2008030195	6	SS-11C (1mm to 2mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	16	%	1/2/1900	D421
2008030195	6	SS-11C (1mm to 2mm Sieve Size)	3/24/2008	Fraction of Total Sample	7.2	%	1/2/1900 0:00	D421
2008030195	6	SS-11C (1mm to 2mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1384	-----	4/8/2008	3050B
2008030195	6	SS-11C (1mm to 2mm Sieve Size)	3/24/2008	Iron Dry Basis	6020	mg/kg	4/10/2008	6010B
2008030195	6	SS-11C (1mm to 2mm Sieve Size)	3/24/2008	Lead Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	6	SS-11C (1mm to 2mm Sieve Size)	3/24/2008	Manganese Dry Basis	278	mg/kg	4/10/2008	6010B
2008030195	6	SS-11C (1mm to 2mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	839	-----	4/8/2008 16:30	7471B
2008030195	6	SS-11C (1mm to 2mm Sieve Size)	3/24/2008	Mercury Dry Basis	<0.1	mg/kg	4/9/2008 13:15	7471B
2008030195	6	SS-11C (1mm to 2mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	6	SS-11C (1mm to 2mm Sieve Size)	3/24/2008	Nickel Dry Basis	<5	mg/kg	4/10/2008 17:09	6010B
2008030195	6	SS-11C (1mm to 2mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008 17:09	6010B
2008030195	6	SS-11C (1mm to 2mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	6	SS-11C (1mm to 2mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	6	SS-11C (1mm to 2mm Sieve Size)	3/24/2008	Vanadium Dry Basis	12	mg/kg	4/10/2008	6010B
2008030195	6	SS-11C (1mm to 2mm Sieve Size)	3/24/2008	Zinc Dry Basis	47	mg/kg	4/10/2008	6010B
2008030195	7	SS-11D (1mm to 2mm Sieve Size)	3/24/2008	Aluminum Dry Basis	3860	mg/kg	4/10/2008 16:25	6010B
2008030195	7	SS-11D (1mm to 2mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008 12:07	6020
2008030195	7	SS-11D (1mm to 2mm Sieve Size)	3/24/2008	Arsenic Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	7	SS-11D (1mm to 2mm Sieve Size)	3/24/2008	Barium Dry Basis	83	mg/kg	4/10/2008	6010B
2008030195	7	SS-11D (1mm to 2mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	7	SS-11D (1mm to 2mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008 17:15	6010B
2008030195	7	SS-11D (1mm to 2mm Sieve Size)	3/24/2008	Cadmium Dry Basis	<2	mg/kg	4/10/2008 17:15	6010B
2008030195	7	SS-11D (1mm to 2mm Sieve Size)	3/24/2008	Chromium Dry Basis	8	mg/kg	4/10/2008 17:15	6010B
2008030195	7	SS-11D (1mm to 2mm Sieve Size)	3/24/2008	Cobalt Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	7	SS-11D (1mm to 2mm Sieve Size)	3/24/2008	Copper Dry Basis	13	mg/kg	4/10/2008 17:15	6010B
2008030195	7	SS-11D (1mm to 2mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	65	%	1/2/1900 0:00	D421
2008030195	7	SS-11D (1mm to 2mm Sieve Size)	3/24/2008	Fraction of Total Sample	20	%	1/2/1900	D421
2008030195	7	SS-11D (1mm to 2mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1384	-----	4/8/2008 10:35	3050B
2008030195	7	SS-11D (1mm to 2mm Sieve Size)	3/24/2008	Iron Dry Basis	6610	mg/kg	4/10/2008 16:25	6010B
2008030195	7	SS-11D (1mm to 2mm Sieve Size)	3/24/2008	Lead Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	7	SS-11D (1mm to 2mm Sieve Size)	3/24/2008	Manganese Dry Basis	340	mg/kg	4/10/2008	6010B
2008030195	7	SS-11D (1mm to 2mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	839	-----	4/8/2008	7471B
2008030195	7	SS-11D (1mm to 2mm Sieve Size)	3/24/2008	Mercury Dry Basis	<0.1	mg/kg	4/9/2008	7471B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030195	7	SS-11D (1mm to 2mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008 17:15	6010B
2008030195	7	SS-11D (1mm to 2mm Sieve Size)	3/24/2008	Nickel Dry Basis	<5	mg/kg	4/10/2008 17:15	6010B
2008030195	7	SS-11D (1mm to 2mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	7	SS-11D (1mm to 2mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	7	SS-11D (1mm to 2mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	7	SS-11D (1mm to 2mm Sieve Size)	3/24/2008	Vanadium Dry Basis	13	mg/kg	4/10/2008 17:15	6010B
2008030195	7	SS-11D (1mm to 2mm Sieve Size)	3/24/2008	Zinc Dry Basis	52	mg/kg	4/10/2008 17:15	6010B
2008030195	8	SS-15A (1mm to 2mm Sieve Size)	3/24/2008	Aluminum Dry Basis	2170	mg/kg	4/10/2008 16:28	6010B
2008030195	8	SS-15A (1mm to 2mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	8	SS-15A (1mm to 2mm Sieve Size)	3/24/2008	Arsenic Dry Basis	66	mg/kg	4/10/2008 17:17	6010B
2008030195	8	SS-15A (1mm to 2mm Sieve Size)	3/24/2008	Barium Dry Basis	84	mg/kg	4/10/2008 17:17	6010B
2008030195	8	SS-15A (1mm to 2mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	8	SS-15A (1mm to 2mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008 17:17	6010B
2008030195	8	SS-15A (1mm to 2mm Sieve Size)	3/24/2008	Cadmium Dry Basis	<2	mg/kg	4/10/2008 17:17	6010B
2008030195	8	SS-15A (1mm to 2mm Sieve Size)	3/24/2008	Chromium Dry Basis	5	mg/kg	4/10/2008	6010B
2008030195	8	SS-15A (1mm to 2mm Sieve Size)	3/24/2008	Cobalt Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	8	SS-15A (1mm to 2mm Sieve Size)	3/24/2008	Copper Dry Basis	274	mg/kg	4/10/2008	6010B
2008030195	8	SS-15A (1mm to 2mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	84	%	1/2/1900	D421
2008030195	8	SS-15A (1mm to 2mm Sieve Size)	3/24/2008	Fraction of Total Sample	64	%	1/2/1900 0:00	D421
2008030195	8	SS-15A (1mm to 2mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1384	-----	4/8/2008 10:35	3050B
2008030195	8	SS-15A (1mm to 2mm Sieve Size)	3/24/2008	Iron Dry Basis	10100	mg/kg	4/10/2008	6010B
2008030195	8	SS-15A (1mm to 2mm Sieve Size)	3/24/2008	Lead Dry Basis	122	mg/kg	4/10/2008	6010B
2008030195	8	SS-15A (1mm to 2mm Sieve Size)	3/24/2008	Manganese Dry Basis	631	mg/kg	4/10/2008	6010B
2008030195	8	SS-15A (1mm to 2mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	839	-----	4/8/2008 16:30	7471B
2008030195	8	SS-15A (1mm to 2mm Sieve Size)	3/24/2008	Mercury Dry Basis	0.2	mg/kg	4/9/2008 13:15	7471B
2008030195	8	SS-15A (1mm to 2mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008 17:17	6010B
2008030195	8	SS-15A (1mm to 2mm Sieve Size)	3/24/2008	Nickel Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	8	SS-15A (1mm to 2mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008 17:17	6010B
2008030195	8	SS-15A (1mm to 2mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008 17:17	6010B
2008030195	8	SS-15A (1mm to 2mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008 12:10	6020
2008030195	8	SS-15A (1mm to 2mm Sieve Size)	3/24/2008	Vanadium Dry Basis	12	mg/kg	4/10/2008 17:17	6010B
2008030195	8	SS-15A (1mm to 2mm Sieve Size)	3/24/2008	Zinc Dry Basis	564	mg/kg	4/10/2008 17:17	6010B
2008030195	9	SS-15G (1mm to 2mm Sieve Size)	3/24/2008	Aluminum Dry Basis	9250	mg/kg	4/10/2008	6010B
2008030195	9	SS-15G (1mm to 2mm Sieve Size)	3/24/2008	Antimony Dry Basis	6	mg/kg	4/14/2008	6020
2008030195	9	SS-15G (1mm to 2mm Sieve Size)	3/24/2008	Arsenic Dry Basis	35	mg/kg	4/10/2008	6010B
2008030195	9	SS-15G (1mm to 2mm Sieve Size)	3/24/2008	Barium Dry Basis	133	mg/kg	4/10/2008	6010B
2008030195	9	SS-15G (1mm to 2mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008 17:20	6010B
2008030195	9	SS-15G (1mm to 2mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008 17:20	6010B
2008030195	9	SS-15G (1mm to 2mm Sieve Size)	3/24/2008	Cadmium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	9	SS-15G (1mm to 2mm Sieve Size)	3/24/2008	Chromium Dry Basis	13	mg/kg	4/10/2008	6010B
2008030195	9	SS-15G (1mm to 2mm Sieve Size)	3/24/2008	Cobalt Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	9	SS-15G (1mm to 2mm Sieve Size)	3/24/2008	Copper Dry Basis	85	mg/kg	4/10/2008	6010B
2008030195	9	SS-15G (1mm to 2mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	34	%	1/2/1900	D421
2008030195	9	SS-15G (1mm to 2mm Sieve Size)	3/24/2008	Fraction of Total Sample	7.1	%	1/2/1900	D421
2008030195	9	SS-15G (1mm to 2mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1384	-----	4/8/2008	3050B
2008030195	9	SS-15G (1mm to 2mm Sieve Size)	3/24/2008	Iron Dry Basis	19300	mg/kg	4/10/2008	6010B
2008030195	9	SS-15G (1mm to 2mm Sieve Size)	3/24/2008	Lead Dry Basis	23	mg/kg	4/10/2008	6010B
2008030195	9	SS-15G (1mm to 2mm Sieve Size)	3/24/2008	Manganese Dry Basis	195	mg/kg	4/10/2008	6010B
2008030195	9	SS-15G (1mm to 2mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	839	-----	4/8/2008	7471B
2008030195	9	SS-15G (1mm to 2mm Sieve Size)	3/24/2008	Mercury Dry Basis	<0.1	mg/kg	4/9/2008	7471B
2008030195	9	SS-15G (1mm to 2mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	9	SS-15G (1mm to 2mm Sieve Size)	3/24/2008	Nickel Dry Basis	9	mg/kg	4/10/2008	6010B
2008030195	9	SS-15G (1mm to 2mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	9	SS-15G (1mm to 2mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	9	SS-15G (1mm to 2mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	9	SS-15G (1mm to 2mm Sieve Size)	3/24/2008	Vanadium Dry Basis	25	mg/kg	4/10/2008	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030195	9	SS-15G (1mm to 2mm Sieve Size)	3/24/2008	Zinc Dry Basis	343	mg/kg	4/10/2008	6010B
2008030195	10	SS-15B (1mm to 2mm Sieve Size)	3/24/2008	Aluminum Dry Basis	3060	mg/kg	4/10/2008	6010B
2008030195	10	SS-15B (1mm to 2mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	10	SS-15B (1mm to 2mm Sieve Size)	3/24/2008	Arsenic Dry Basis	74	mg/kg	4/10/2008	6010B
2008030195	10	SS-15B (1mm to 2mm Sieve Size)	3/24/2008	Barium Dry Basis	111	mg/kg	4/10/2008	6010B
2008030195	10	SS-15B (1mm to 2mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	10	SS-15B (1mm to 2mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	10	SS-15B (1mm to 2mm Sieve Size)	3/24/2008	Cadmium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	10	SS-15B (1mm to 2mm Sieve Size)	3/24/2008	Chromium Dry Basis	6	mg/kg	4/10/2008	6010B
2008030195	10	SS-15B (1mm to 2mm Sieve Size)	3/24/2008	Cobalt Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	10	SS-15B (1mm to 2mm Sieve Size)	3/24/2008	Copper Dry Basis	347	mg/kg	4/10/2008	6010B
2008030195	10	SS-15B (1mm to 2mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	29	%	1/2/1900	D421
2008030195	10	SS-15B (1mm to 2mm Sieve Size)	3/24/2008	Fraction of Total Sample	22	%	1/2/1900	D421
2008030195	10	SS-15B (1mm to 2mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1384	-----	4/8/2008	3050B
2008030195	10	SS-15B (1mm to 2mm Sieve Size)	3/24/2008	Iron Dry Basis	12800	mg/kg	4/10/2008	6010B
2008030195	10	SS-15B (1mm to 2mm Sieve Size)	3/24/2008	Lead Dry Basis	141	mg/kg	4/10/2008	6010B
2008030195	10	SS-15B (1mm to 2mm Sieve Size)	3/24/2008	Manganese Dry Basis	680	mg/kg	4/10/2008	6010B
2008030195	10	SS-15B (1mm to 2mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	839	-----	4/8/2008	7471B
2008030195	10	SS-15B (1mm to 2mm Sieve Size)	3/24/2008	Mercury Dry Basis	0.4	mg/kg	4/9/2008	7471B
2008030195	10	SS-15B (1mm to 2mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	10	SS-15B (1mm to 2mm Sieve Size)	3/24/2008	Nickel Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	10	SS-15B (1mm to 2mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	10	SS-15B (1mm to 2mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	10	SS-15B (1mm to 2mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	10	SS-15B (1mm to 2mm Sieve Size)	3/24/2008	Vanadium Dry Basis	15	mg/kg	4/10/2008	6010B
2008030195	10	SS-15B (1mm to 2mm Sieve Size)	3/24/2008	Zinc Dry Basis	674	mg/kg	4/10/2008	6010B
2008030195	11	SS-17D (1mm to 2mm Sieve Size)	3/24/2008	Aluminum Dry Basis	2860	mg/kg	4/10/2008	6010B
2008030195	11	SS-17D (1mm to 2mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	11	SS-17D (1mm to 2mm Sieve Size)	3/24/2008	Arsenic Dry Basis	61	mg/kg	4/10/2008	6010B
2008030195	11	SS-17D (1mm to 2mm Sieve Size)	3/24/2008	Barium Dry Basis	91	mg/kg	4/10/2008	6010B
2008030195	11	SS-17D (1mm to 2mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	11	SS-17D (1mm to 2mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	11	SS-17D (1mm to 2mm Sieve Size)	3/24/2008	Cadmium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	11	SS-17D (1mm to 2mm Sieve Size)	3/24/2008	Chromium Dry Basis	6	mg/kg	4/10/2008	6010B
2008030195	11	SS-17D (1mm to 2mm Sieve Size)	3/24/2008	Cobalt Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	11	SS-17D (1mm to 2mm Sieve Size)	3/24/2008	Copper Dry Basis	239	mg/kg	4/10/2008	6010B
2008030195	11	SS-17D (1mm to 2mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	40	%	1/2/1900	D421
2008030195	11	SS-17D (1mm to 2mm Sieve Size)	3/24/2008	Fraction of Total Sample	27	%	1/2/1900	D421
2008030195	11	SS-17D (1mm to 2mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1384	-----	4/8/2008	3050B
2008030195	11	SS-17D (1mm to 2mm Sieve Size)	3/24/2008	Iron Dry Basis	12900	mg/kg	4/10/2008	6010B
2008030195	11	SS-17D (1mm to 2mm Sieve Size)	3/24/2008	Lead Dry Basis	82	mg/kg	4/10/2008	6010B
2008030195	11	SS-17D (1mm to 2mm Sieve Size)	3/24/2008	Manganese Dry Basis	526	mg/kg	4/10/2008	6010B
2008030195	11	SS-17D (1mm to 2mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	839	-----	4/8/2008	7471B
2008030195	11	SS-17D (1mm to 2mm Sieve Size)	3/24/2008	Mercury Dry Basis	0.1	mg/kg	4/9/2008	7471B
2008030195	11	SS-17D (1mm to 2mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	11	SS-17D (1mm to 2mm Sieve Size)	3/24/2008	Nickel Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	11	SS-17D (1mm to 2mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	11	SS-17D (1mm to 2mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	11	SS-17D (1mm to 2mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	11	SS-17D (1mm to 2mm Sieve Size)	3/24/2008	Vanadium Dry Basis	14	mg/kg	4/10/2008	6010B
2008030195	11	SS-17D (1mm to 2mm Sieve Size)	3/24/2008	Zinc Dry Basis	592	mg/kg	4/10/2008	6010B
2008030195	12	SS-06G (1mm to 2mm Sieve Size)	3/24/2008	Aluminum Dry Basis	2880	mg/kg	4/10/2008	6010B
2008030195	12	SS-06G (1mm to 2mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	12	SS-06G (1mm to 2mm Sieve Size)	3/24/2008	Arsenic Dry Basis	22	mg/kg	4/10/2008	6010B
2008030195	12	SS-06G (1mm to 2mm Sieve Size)	3/24/2008	Barium Dry Basis	138	mg/kg	4/10/2008	6010B
2008030195	12	SS-06G (1mm to 2mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030195	12	SS-06G (1mm to 2mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	12	SS-06G (1mm to 2mm Sieve Size)	3/24/2008	Cadmium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	12	SS-06G (1mm to 2mm Sieve Size)	3/24/2008	Chromium Dry Basis	6	mg/kg	4/10/2008	6010B
2008030195	12	SS-06G (1mm to 2mm Sieve Size)	3/24/2008	Cobalt Dry Basis	6	mg/kg	4/10/2008	6010B
2008030195	12	SS-06G (1mm to 2mm Sieve Size)	3/24/2008	Copper Dry Basis	98	mg/kg	4/10/2008	6010B
2008030195	12	SS-06G (1mm to 2mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	48	%	1/2/1900	D421
2008030195	12	SS-06G (1mm to 2mm Sieve Size)	3/24/2008	Fraction of Total Sample	45	%	1/2/1900	D421
2008030195	12	SS-06G (1mm to 2mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1384	-----	4/8/2008	3050B
2008030195	12	SS-06G (1mm to 2mm Sieve Size)	3/24/2008	Iron Dry Basis	9420	mg/kg	4/10/2008	6010B
2008030195	12	SS-06G (1mm to 2mm Sieve Size)	3/24/2008	Lead Dry Basis	74	mg/kg	4/10/2008	6010B
2008030195	12	SS-06G (1mm to 2mm Sieve Size)	3/24/2008	Manganese Dry Basis	2260	mg/kg	4/10/2008	6010B
2008030195	12	SS-06G (1mm to 2mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	839	-----	4/8/2008	7471B
2008030195	12	SS-06G (1mm to 2mm Sieve Size)	3/24/2008	Mercury Dry Basis	<0.1	mg/kg	4/9/2008	7471B
2008030195	12	SS-06G (1mm to 2mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	12	SS-06G (1mm to 2mm Sieve Size)	3/24/2008	Nickel Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	12	SS-06G (1mm to 2mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	12	SS-06G (1mm to 2mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	12	SS-06G (1mm to 2mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	12	SS-06G (1mm to 2mm Sieve Size)	3/24/2008	Vanadium Dry Basis	17	mg/kg	4/10/2008	6010B
2008030195	12	SS-06G (1mm to 2mm Sieve Size)	3/24/2008	Zinc Dry Basis	434	mg/kg	4/10/2008	6010B
2008030195	13	DUPLICATE OF 2008030195-1	3/24/2008	Aluminum Dry Basis	4100	mg/kg	4/10/2008	6010B
2008030195	13	DUPLICATE OF 2008030195-1	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	13	DUPLICATE OF 2008030195-1	3/24/2008	Arsenic Dry Basis	20	mg/kg	4/10/2008	6010B
2008030195	13	DUPLICATE OF 2008030195-1	3/24/2008	Barium Dry Basis	172	mg/kg	4/10/2008	6010B
2008030195	13	DUPLICATE OF 2008030195-1	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	13	DUPLICATE OF 2008030195-1	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	13	DUPLICATE OF 2008030195-1	3/24/2008	Cadmium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	13	DUPLICATE OF 2008030195-1	3/24/2008	Chromium Dry Basis	9	mg/kg	4/10/2008	6010B
2008030195	13	DUPLICATE OF 2008030195-1	3/24/2008	Cobalt Dry Basis	7	mg/kg	4/10/2008	6010B
2008030195	13	DUPLICATE OF 2008030195-1	3/24/2008	Copper Dry Basis	98	mg/kg	4/10/2008	6010B
2008030195	13	DUPLICATE OF 2008030195-1	3/24/2008	ICP/AA Batch#/Digest Date	1384	-----	4/8/2008	3050B
2008030195	13	DUPLICATE OF 2008030195-1	3/24/2008	Iron Dry Basis	10500	mg/kg	4/10/2008	6010B
2008030195	13	DUPLICATE OF 2008030195-1	3/24/2008	Lead Dry Basis	66	mg/kg	4/10/2008	6010B
2008030195	13	DUPLICATE OF 2008030195-1	3/24/2008	Manganese Dry Basis	2680	mg/kg	4/10/2008	6010B
2008030195	13	DUPLICATE OF 2008030195-1	3/24/2008	Mercury Batch #/Digest Date	839	-----	4/8/2008	7471B
2008030195	13	DUPLICATE OF 2008030195-1	3/24/2008	Mercury Dry Basis	<0.1	mg/kg	4/9/2008	7471B
2008030195	13	DUPLICATE OF 2008030195-1	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	13	DUPLICATE OF 2008030195-1	3/24/2008	Nickel Dry Basis	5	mg/kg	4/10/2008	6010B
2008030195	13	DUPLICATE OF 2008030195-1	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	13	DUPLICATE OF 2008030195-1	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	13	DUPLICATE OF 2008030195-1	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	13	DUPLICATE OF 2008030195-1	3/24/2008	Vanadium Dry Basis	19	mg/kg	4/10/2008	6010B
2008030195	13	DUPLICATE OF 2008030195-1	3/24/2008	Zinc Dry Basis	391	mg/kg	4/10/2008	6010B
2008030195	14	MATRIX SPIKE OF 2008030195-6	3/24/2008	Aluminum Dry Basis	-2	% [75-125]	4/10/2008	6010B
2008030195	14	MATRIX SPIKE OF 2008030195-6	3/24/2008	Antimony Dry Basis	103	% [61-122]	4/14/2008	6020
2008030195	14	MATRIX SPIKE OF 2008030195-6	3/24/2008	Arsenic Dry Basis	96	% [69-126]	4/10/2008	6010B
2008030195	14	MATRIX SPIKE OF 2008030195-6	3/24/2008	Barium Dry Basis	93	% [66-137]	4/10/2008	6010B
2008030195	14	MATRIX SPIKE OF 2008030195-6	3/24/2008	Beryllium Dry Basis	95	% [77-112]	4/10/2008	6010B
2008030195	14	MATRIX SPIKE OF 2008030195-6	3/24/2008	Boron Dry Basis	96	% [75-125]	4/10/2008	6010B
2008030195	14	MATRIX SPIKE OF 2008030195-6	3/24/2008	Cadmium Dry Basis	94	% [77-117]	4/10/2008	6010B
2008030195	14	MATRIX SPIKE OF 2008030195-6	3/24/2008	Chromium Dry Basis	92	% [75-125]	4/10/2008	6010B
2008030195	14	MATRIX SPIKE OF 2008030195-6	3/24/2008	Cobalt Dry Basis	93	% [75-125]	4/10/2008	6010B
2008030195	14	MATRIX SPIKE OF 2008030195-6	3/24/2008	Copper Dry Basis	89	% [66-133]	4/10/2008	6010B
2008030195	14	MATRIX SPIKE OF 2008030195-6	3/24/2008	ICP/AA Batch#/Digest Date	1384	-----	4/8/2008	3050B
2008030195	14	MATRIX SPIKE OF 2008030195-6	3/24/2008	Iron Dry Basis	-2	% [75-125]	4/10/2008	6010B
2008030195	14	MATRIX SPIKE OF 2008030195-6	3/24/2008	Lead Dry Basis	96	% [75-121]	4/10/2008	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030195	14	MATRIX SPIKE OF 2008030195-6	3/24/2008	Manganese Dry Basis	84	% [67-128]	4/10/2008	6010B
2008030195	14	MATRIX SPIKE OF 2008030195-6	3/24/2008	Mercury Batch #/Digest Date	839	-----	4/8/2008	7471B
2008030195	14	MATRIX SPIKE OF 2008030195-6	3/24/2008	Mercury Dry Basis	106	% [55-139]	4/9/2008	7471B
2008030195	14	MATRIX SPIKE OF 2008030195-6	3/24/2008	Molybdenum Dry Basis	93	% [75-125]	4/10/2008	6010B
2008030195	14	MATRIX SPIKE OF 2008030195-6	3/24/2008	Nickel Dry Basis	95	% [74-113]	4/10/2008	6010B
2008030195	14	MATRIX SPIKE OF 2008030195-6	3/24/2008	Selenium Dry Basis	98	% [79-116]	4/10/2008	6010B
2008030195	14	MATRIX SPIKE OF 2008030195-6	3/24/2008	Silver Dry Basis	93	% [76-119]	4/10/2008	6010B
2008030195	14	MATRIX SPIKE OF 2008030195-6	3/24/2008	Uranium Dry Basis	100	% [75-125]	4/14/2008	6020
2008030195	14	MATRIX SPIKE OF 2008030195-6	3/24/2008	Vanadium Dry Basis	93	% [76-117]	4/10/2008	6010B
2008030195	14	MATRIX SPIKE OF 2008030195-6	3/24/2008	Zinc Dry Basis	93	% [65-133]	4/10/2008	6010B
2008030195	16	METHOD BLANK	1/2/1900	Aluminum Dry Basis	<1	mg/l	4/10/2008	6010B
2008030195	16	METHOD BLANK	1/2/1900	Antimony Dry Basis	<0.05	mg/l	4/14/2008	6020
2008030195	16	METHOD BLANK	1/2/1900	Arsenic Dry Basis	<0.1	mg/l	4/10/2008	6010B
2008030195	16	METHOD BLANK	1/2/1900	Barium Dry Basis	<0.05	mg/l	4/10/2008	6010B
2008030195	16	METHOD BLANK	1/2/1900	Beryllium Dry Basis	<0.02	mg/l	4/10/2008	6010B
2008030195	16	METHOD BLANK	1/2/1900	Boron Dry Basis	<0.1	mg/l	4/10/2008	6010B
2008030195	16	METHOD BLANK	1/2/1900	Cadmium Dry Basis	<0.02	mg/l	4/10/2008	6010B
2008030195	16	METHOD BLANK	1/2/1900	Chromium Dry Basis	<0.02	mg/l	4/10/2008	6010B
2008030195	16	METHOD BLANK	1/2/1900	Cobalt Dry Basis	<0.05	mg/l	4/10/2008	6010B
2008030195	16	METHOD BLANK	1/2/1900	Copper Dry Basis	<0.1	mg/l	4/10/2008	6010B
2008030195	16	METHOD BLANK	1/2/1900	ICP/AA Batch#/Digest Date	1384	-----	4/8/2008	3050B
2008030195	16	METHOD BLANK	1/2/1900	Iron Dry Basis	<1	mg/l	4/10/2008	6010B
2008030195	16	METHOD BLANK	1/2/1900	Lead Dry Basis	<0.1	mg/l	4/10/2008	6010B
2008030195	16	METHOD BLANK	1/2/1900	Manganese Dry Basis	<0.02	mg/l	4/10/2008	6010B
2008030195	16	METHOD BLANK	1/2/1900	Mercury Batch #/Digest Date	839	-----	4/8/2008	7471B
2008030195	16	METHOD BLANK	1/2/1900	Mercury Dry Basis	<0.002	mg/l	4/9/2008	7471B
2008030195	16	METHOD BLANK	1/2/1900	Molybdenum Dry Basis	<0.05	mg/l	4/10/2008	6010B
2008030195	16	METHOD BLANK	1/2/1900	Nickel Dry Basis	<0.05	mg/l	4/10/2008	6010B
2008030195	16	METHOD BLANK	1/2/1900	Selenium Dry Basis	<0.1	mg/l	4/10/2008	6010B
2008030195	16	METHOD BLANK	1/2/1900	Silver Dry Basis	<0.05	mg/l	4/10/2008	6010B
2008030195	16	METHOD BLANK	1/2/1900	Uranium Dry Basis	<0.05	mg/l	4/14/2008	6020
2008030195	16	METHOD BLANK	1/2/1900	Vanadium Dry Basis	<0.05	mg/l	4/10/2008	6010B
2008030195	16	METHOD BLANK	1/2/1900	Zinc Dry Basis	<0.1	mg/l	4/10/2008	6010B
2008030195	17	LABORATORY CONTROL SAMPLE	1/2/1900	Aluminum Dry Basis	106	% [80-120]	4/10/2008	6010B
2008030195	17	LABORATORY CONTROL SAMPLE	1/2/1900	Antimony Dry Basis	104	% [65-128]	4/14/2008	6020
2008030195	17	LABORATORY CONTROL SAMPLE	1/2/1900	Arsenic Dry Basis	98	% [86-113]	4/10/2008	6010B
2008030195	17	LABORATORY CONTROL SAMPLE	1/2/1900	Barium Dry Basis	104	% [84-119]	4/10/2008	6010B
2008030195	17	LABORATORY CONTROL SAMPLE	1/2/1900	Beryllium Dry Basis	100	% [85-112]	4/10/2008	6010B
2008030195	17	LABORATORY CONTROL SAMPLE	1/2/1900	Boron Dry Basis	107	% [80-120]	4/10/2008	6010B
2008030195	17	LABORATORY CONTROL SAMPLE	1/2/1900	Cadmium Dry Basis	100	% [85-118]	4/10/2008	6010B
2008030195	17	LABORATORY CONTROL SAMPLE	1/2/1900	Chromium Dry Basis	98	% [85-115]	4/10/2008	6010B
2008030195	17	LABORATORY CONTROL SAMPLE	1/2/1900	Cobalt Dry Basis	100	% [80-120]	4/10/2008	6010B
2008030195	17	LABORATORY CONTROL SAMPLE	1/2/1900	Copper Dry Basis	95	% [82-119]	4/10/2008	6010B
2008030195	17	LABORATORY CONTROL SAMPLE	1/2/1900	ICP/AA Batch#/Digest Date	1384	-----	4/8/2008	3050B
2008030195	17	LABORATORY CONTROL SAMPLE	1/2/1900	Iron Dry Basis	110	% [80-120]	4/10/2008	6010B
2008030195	17	LABORATORY CONTROL SAMPLE	1/2/1900	Lead Dry Basis	101	% [85-118]	4/10/2008	6010B
2008030195	17	LABORATORY CONTROL SAMPLE	1/2/1900	Manganese Dry Basis	101	% [84-117]	4/10/2008	6010B
2008030195	17	LABORATORY CONTROL SAMPLE	1/2/1900	Mercury Batch #/Digest Date	839	-----	4/8/2008	7471B
2008030195	17	LABORATORY CONTROL SAMPLE	1/2/1900	Mercury Dry Basis	116	% [82-125]	4/9/2008	7471B
2008030195	17	LABORATORY CONTROL SAMPLE	1/2/1900	Molybdenum Dry Basis	98	% [80-120]	4/10/2008	6010B
2008030195	17	LABORATORY CONTROL SAMPLE	1/2/1900	Nickel Dry Basis	100	% [83-113]	4/10/2008	6010B
2008030195	17	LABORATORY CONTROL SAMPLE	1/2/1900	Selenium Dry Basis	102	% [82-116]	4/10/2008	6010B
2008030195	17	LABORATORY CONTROL SAMPLE	1/2/1900	Silver Dry Basis	96	% [86-112]	4/10/2008	6010B
2008030195	17	LABORATORY CONTROL SAMPLE	1/2/1900	Uranium Dry Basis	106	% [80-120]	4/14/2008	6020
2008030195	17	LABORATORY CONTROL SAMPLE	1/2/1900	Vanadium Dry Basis	98	% [78-123]	4/10/2008	6010B
2008030195	17	LABORATORY CONTROL SAMPLE	1/2/1900	Zinc Dry Basis	102	% [80-120]	4/10/2008	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030195	18	SS-07 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Aluminum Dry Basis	5860	mg/kg	4/10/2008	6010B
2008030195	18	SS-07 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	18	SS-07 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Arsenic Dry Basis	<30*	mg/kg	4/15/2008	6010B
2008030195	18	SS-07 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Barium Dry Basis	162	mg/kg	4/10/2008	6010B
2008030195	18	SS-07 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	18	SS-07 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/15/2008	6010B
2008030195	18	SS-07 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Cadmium Dry Basis	<3*	mg/kg	4/15/2008	6010B
2008030195	18	SS-07 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Chromium Dry Basis	17	mg/kg	4/10/2008	6010B
2008030195	18	SS-07 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Cobalt Dry Basis	8	mg/kg	4/10/2008	6010B
2008030195	18	SS-07 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Copper Dry Basis	162	mg/kg	4/10/2008	6010B
2008030195	18	SS-07 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	28	%	1/2/1900	D421
2008030195	18	SS-07 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Fraction of Total Sample	14	%	1/2/1900	D421
2008030195	18	SS-07 (0.063 mm to 1 mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1385	-----	4/9/2008	3050B
2008030195	18	SS-07 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Iron Dry Basis	26200	mg/kg	4/10/2008	6010B
2008030195	18	SS-07 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Lead Dry Basis	78	mg/kg	4/10/2008	6010B
2008030195	18	SS-07 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Manganese Dry Basis	2190	mg/kg	4/10/2008	6010B
2008030195	18	SS-07 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	840	-----	4/8/2008	7471B
2008030195	18	SS-07 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Mercury Dry Basis	<0.1	mg/kg	4/9/2008	7471B
2008030195	18	SS-07 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/15/2008	6010B
2008030195	18	SS-07 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Nickel Dry Basis	9	mg/kg	4/10/2008	6010B
2008030195	18	SS-07 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Selenium Dry Basis	<30*	mg/kg	4/15/2008	6010B
2008030195	18	SS-07 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/15/2008	6010B
2008030195	18	SS-07 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	18	SS-07 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Vanadium Dry Basis	56	mg/kg	4/10/2008	6010B
2008030195	18	SS-07 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Zinc Dry Basis	572	mg/kg	4/10/2008	6010B
2008030195	19	SS-08 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Aluminum Dry Basis	4050	mg/kg	4/10/2008	6010B
2008030195	19	SS-08 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	19	SS-08 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Arsenic Dry Basis	31	mg/kg	4/15/2008	6010B
2008030195	19	SS-08 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Barium Dry Basis	78	mg/kg	4/10/2008	6010B
2008030195	19	SS-08 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	19	SS-08 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/15/2008	6010B
2008030195	19	SS-08 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Cadmium Dry Basis	<3*	mg/kg	4/15/2008	6010B
2008030195	19	SS-08 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Chromium Dry Basis	33	mg/kg	4/10/2008	6010B
2008030195	19	SS-08 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Cobalt Dry Basis	5	mg/kg	4/10/2008	6010B
2008030195	19	SS-08 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Copper Dry Basis	208	mg/kg	4/10/2008	6010B
2008030195	19	SS-08 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	46	%	1/2/1900	D421
2008030195	19	SS-08 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Fraction of Total Sample	9.2	%	1/2/1900	D421
2008030195	19	SS-08 (0.063 mm to 1 mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1385	-----	4/9/2008	3050B
2008030195	19	SS-08 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Iron Dry Basis	61300	mg/kg	4/10/2008	6010B
2008030195	19	SS-08 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Lead Dry Basis	68	mg/kg	4/10/2008	6010B
2008030195	19	SS-08 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Manganese Dry Basis	609	mg/kg	4/10/2008	6010B
2008030195	19	SS-08 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	840	-----	4/8/2008	7471B
2008030195	19	SS-08 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Mercury Dry Basis	0.5	mg/kg	4/9/2008	7471B
2008030195	19	SS-08 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/15/2008	6010B
2008030195	19	SS-08 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Nickel Dry Basis	7	mg/kg	4/10/2008	6010B
2008030195	19	SS-08 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Selenium Dry Basis	<30*	mg/kg	4/15/2008	6010B
2008030195	19	SS-08 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/15/2008	6010B
2008030195	19	SS-08 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Uranium Dry Basis	5	mg/kg	4/14/2008	6020
2008030195	19	SS-08 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Vanadium Dry Basis	184	mg/kg	4/10/2008	6010B
2008030195	19	SS-08 (0.063 mm to 1 mm Sieve Size)	3/24/2008	Zinc Dry Basis	472	mg/kg	4/10/2008	6010B
2008030195	20	SS-10A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Aluminum Dry Basis	4360	mg/kg	4/10/2008	6010B
2008030195	20	SS-10A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	20	SS-10A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Arsenic Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	20	SS-10A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Barium Dry Basis	127	mg/kg	4/10/2008	6010B
2008030195	20	SS-10A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	20	SS-10A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030195	20	SS-10A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Cadmium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	20	SS-10A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Chromium Dry Basis	12	mg/kg	4/10/2008	6010B
2008030195	20	SS-10A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Cobalt Dry Basis	5	mg/kg	4/10/2008	6010B
2008030195	20	SS-10A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Copper Dry Basis	545	mg/kg	4/10/2008	6010B
2008030195	20	SS-10A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	39	%	1/2/1900	D421
2008030195	20	SS-10A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Fraction of Total Sample	11	%	1/2/1900	D421
2008030195	20	SS-10A (0.063 mm to 1 mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1385	-----	4/9/2008	3050B
2008030195	20	SS-10A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Iron Dry Basis	19400	mg/kg	4/10/2008	6010B
2008030195	20	SS-10A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Lead Dry Basis	24	mg/kg	4/10/2008	6010B
2008030195	20	SS-10A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Manganese Dry Basis	963	mg/kg	4/10/2008	6010B
2008030195	20	SS-10A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	840	-----	4/8/2008	7471B
2008030195	20	SS-10A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Mercury Dry Basis	<0.1	mg/kg	4/9/2008	7471B
2008030195	20	SS-10A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	20	SS-10A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Nickel Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	20	SS-10A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	20	SS-10A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	20	SS-10A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	20	SS-10A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Vanadium Dry Basis	51	mg/kg	4/10/2008	6010B
2008030195	20	SS-10A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Zinc Dry Basis	328	mg/kg	4/10/2008	6010B
2008030195	21	SS-10B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Aluminum Dry Basis	7140	mg/kg	4/10/2008	6010B
2008030195	21	SS-10B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	21	SS-10B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Arsenic Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	21	SS-10B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Barium Dry Basis	204	mg/kg	4/10/2008	6010B
2008030195	21	SS-10B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	21	SS-10B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	21	SS-10B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Cadmium Dry Basis	3	mg/kg	4/10/2008	6010B
2008030195	21	SS-10B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Chromium Dry Basis	16	mg/kg	4/10/2008	6010B
2008030195	21	SS-10B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Cobalt Dry Basis	7	mg/kg	4/10/2008	6010B
2008030195	21	SS-10B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Copper Dry Basis	154	mg/kg	4/10/2008	6010B
2008030195	21	SS-10B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	59	%	1/2/1900	D421
2008030195	21	SS-10B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Fraction of Total Sample	50	%	1/2/1900	D421
2008030195	21	SS-10B (0.063 mm to 1 mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1385	-----	4/9/2008	3050B
2008030195	21	SS-10B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Iron Dry Basis	24200	mg/kg	4/10/2008	6010B
2008030195	21	SS-10B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Lead Dry Basis	41	mg/kg	4/10/2008	6010B
2008030195	21	SS-10B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Manganese Dry Basis	947	mg/kg	4/10/2008	6010B
2008030195	21	SS-10B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	840	-----	4/8/2008	7471B
2008030195	21	SS-10B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Mercury Dry Basis	0.1	mg/kg	4/9/2008	7471B
2008030195	21	SS-10B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	21	SS-10B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Nickel Dry Basis	8	mg/kg	4/10/2008	6010B
2008030195	21	SS-10B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	21	SS-10B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	21	SS-10B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	21	SS-10B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Vanadium Dry Basis	56	mg/kg	4/10/2008	6010B
2008030195	21	SS-10B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Zinc Dry Basis	404	mg/kg	4/10/2008	6010B
2008030195	22	SS-10D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Aluminum Dry Basis	4300	mg/kg	4/10/2008	6010B
2008030195	22	SS-10D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	22	SS-10D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Arsenic Dry Basis	<30*	mg/kg	4/15/2008	6010B
2008030195	22	SS-10D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Barium Dry Basis	132	mg/kg	4/10/2008	6010B
2008030195	22	SS-10D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	22	SS-10D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/15/2008	6010B
2008030195	22	SS-10D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Cadmium Dry Basis	<3*	mg/kg	4/15/2008	6010B
2008030195	22	SS-10D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Chromium Dry Basis	16	mg/kg	4/10/2008	6010B
2008030195	22	SS-10D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Cobalt Dry Basis	5	mg/kg	4/10/2008	6010B
2008030195	22	SS-10D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Copper Dry Basis	57	mg/kg	4/10/2008	6010B
2008030195	22	SS-10D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	58	%	1/2/1900	D421
2008030195	22	SS-10D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Fraction of Total Sample	31	%	1/2/1900	D421

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030195	22	SS-10D (0.063 mm to 1 mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1385	-----	4/9/2008	3050B
2008030195	22	SS-10D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Iron Dry Basis	27100	mg/kg	4/10/2008	6010B
2008030195	22	SS-10D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Lead Dry Basis	18	mg/kg	4/10/2008	6010B
2008030195	22	SS-10D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Manganese Dry Basis	505	mg/kg	4/10/2008	6010B
2008030195	22	SS-10D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	840	-----	4/8/2008	7471B
2008030195	22	SS-10D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Mercury Dry Basis	<0.1	mg/kg	4/9/2008	7471B
2008030195	22	SS-10D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/15/2008	6010B
2008030195	22	SS-10D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Nickel Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	22	SS-10D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Selenium Dry Basis	<30*	mg/kg	4/15/2008	6010B
2008030195	22	SS-10D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/15/2008	6010B
2008030195	22	SS-10D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	22	SS-10D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Vanadium Dry Basis	78	mg/kg	4/10/2008	6010B
2008030195	22	SS-10D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Zinc Dry Basis	132	mg/kg	4/10/2008	6010B
2008030195	23	SS-11C (0.063 mm to 1 mm Sieve Size)	3/24/2008	Aluminum Dry Basis	5370	mg/kg	4/10/2008	6010B
2008030195	23	SS-11C (0.063 mm to 1 mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	23	SS-11C (0.063 mm to 1 mm Sieve Size)	3/24/2008	Arsenic Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	23	SS-11C (0.063 mm to 1 mm Sieve Size)	3/24/2008	Barium Dry Basis	126	mg/kg	4/10/2008	6010B
2008030195	23	SS-11C (0.063 mm to 1 mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	23	SS-11C (0.063 mm to 1 mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	23	SS-11C (0.063 mm to 1 mm Sieve Size)	3/24/2008	Cadmium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	23	SS-11C (0.063 mm to 1 mm Sieve Size)	3/24/2008	Chromium Dry Basis	9	mg/kg	4/10/2008	6010B
2008030195	23	SS-11C (0.063 mm to 1 mm Sieve Size)	3/24/2008	Cobalt Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	23	SS-11C (0.063 mm to 1 mm Sieve Size)	3/24/2008	Copper Dry Basis	25	mg/kg	4/10/2008	6010B
2008030195	23	SS-11C (0.063 mm to 1 mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	40	%	1/2/1900	D421
2008030195	23	SS-11C (0.063 mm to 1 mm Sieve Size)	3/24/2008	Fraction of Total Sample	18	%	1/2/1900	D421
2008030195	23	SS-11C (0.063 mm to 1 mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1385	-----	4/9/2008	3050B
2008030195	23	SS-11C (0.063 mm to 1 mm Sieve Size)	3/24/2008	Iron Dry Basis	10800	mg/kg	4/10/2008	6010B
2008030195	23	SS-11C (0.063 mm to 1 mm Sieve Size)	3/24/2008	Lead Dry Basis	11	mg/kg	4/10/2008	6010B
2008030195	23	SS-11C (0.063 mm to 1 mm Sieve Size)	3/24/2008	Manganese Dry Basis	388	mg/kg	4/10/2008	6010B
2008030195	23	SS-11C (0.063 mm to 1 mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	840	-----	4/8/2008	7471B
2008030195	23	SS-11C (0.063 mm to 1 mm Sieve Size)	3/24/2008	Mercury Dry Basis	<0.1	mg/kg	4/9/2008	7471B
2008030195	23	SS-11C (0.063 mm to 1 mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	23	SS-11C (0.063 mm to 1 mm Sieve Size)	3/24/2008	Nickel Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	23	SS-11C (0.063 mm to 1 mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	23	SS-11C (0.063 mm to 1 mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	23	SS-11C (0.063 mm to 1 mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	23	SS-11C (0.063 mm to 1 mm Sieve Size)	3/24/2008	Vanadium Dry Basis	29	mg/kg	4/10/2008	6010B
2008030195	23	SS-11C (0.063 mm to 1 mm Sieve Size)	3/24/2008	Zinc Dry Basis	81	mg/kg	4/10/2008	6010B
2008030195	24	SS-11D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Aluminum Dry Basis	3600	mg/kg	4/10/2008	6010B
2008030195	24	SS-11D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	24	SS-11D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Arsenic Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	24	SS-11D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Barium Dry Basis	109	mg/kg	4/10/2008	6010B
2008030195	24	SS-11D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	24	SS-11D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	24	SS-11D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Cadmium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	24	SS-11D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Chromium Dry Basis	14	mg/kg	4/10/2008	6010B
2008030195	24	SS-11D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Cobalt Dry Basis	5	mg/kg	4/10/2008	6010B
2008030195	24	SS-11D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Copper Dry Basis	32	mg/kg	4/10/2008	6010B
2008030195	24	SS-11D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	28	%	1/2/1900	D421
2008030195	24	SS-11D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Fraction of Total Sample	8.6	%	1/2/1900	D421
2008030195	24	SS-11D (0.063 mm to 1 mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1385	-----	4/9/2008	3050B
2008030195	24	SS-11D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Iron Dry Basis	21700	mg/kg	4/10/2008	6010B
2008030195	24	SS-11D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Lead Dry Basis	16	mg/kg	4/10/2008	6010B
2008030195	24	SS-11D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Manganese Dry Basis	531	mg/kg	4/10/2008	6010B
2008030195	24	SS-11D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	840	-----	4/8/2008	7471B
2008030195	24	SS-11D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Mercury Dry Basis	<0.1	mg/kg	4/9/2008	7471B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030195	24	SS-11D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	24	SS-11D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Nickel Dry Basis	5	mg/kg	4/10/2008	6010B
2008030195	24	SS-11D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	24	SS-11D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	24	SS-11D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	24	SS-11D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Vanadium Dry Basis	66	mg/kg	4/10/2008	6010B
2008030195	24	SS-11D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Zinc Dry Basis	116	mg/kg	4/10/2008	6010B
2008030195	25	SS-15A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Aluminum Dry Basis	2680	mg/kg	4/10/2008	6010B
2008030195	25	SS-15A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	25	SS-15A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Arsenic Dry Basis	80	mg/kg	4/10/2008	6010B
2008030195	25	SS-15A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Barium Dry Basis	113	mg/kg	4/10/2008	6010B
2008030195	25	SS-15A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	25	SS-15A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	25	SS-15A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Cadmium Dry Basis	3	mg/kg	4/10/2008	6010B
2008030195	25	SS-15A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Chromium Dry Basis	8	mg/kg	4/10/2008	6010B
2008030195	25	SS-15A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Cobalt Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	25	SS-15A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Copper Dry Basis	353	mg/kg	4/10/2008	6010B
2008030195	25	SS-15A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	16	%	1/2/1900	D421
2008030195	25	SS-15A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Fraction of Total Sample	12	%	1/2/1900	D421
2008030195	25	SS-15A (0.063 mm to 1 mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1385	-----	4/9/2008	3050B
2008030195	25	SS-15A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Iron Dry Basis	17300	mg/kg	4/10/2008	6010B
2008030195	25	SS-15A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Lead Dry Basis	171	mg/kg	4/10/2008	6010B
2008030195	25	SS-15A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Manganese Dry Basis	802	mg/kg	4/10/2008	6010B
2008030195	25	SS-15A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	840	-----	4/8/2008	7471B
2008030195	25	SS-15A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Mercury Dry Basis	1	mg/kg	4/9/2008	7471B
2008030195	25	SS-15A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	25	SS-15A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Nickel Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	25	SS-15A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	25	SS-15A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	25	SS-15A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	25	SS-15A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Vanadium Dry Basis	32	mg/kg	4/10/2008	6010B
2008030195	25	SS-15A (0.063 mm to 1 mm Sieve Size)	3/24/2008	Zinc Dry Basis	876	mg/kg	4/10/2008	6010B
2008030195	26	SS-15G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Aluminum Dry Basis	7520	mg/kg	4/10/2008	6010B
2008030195	26	SS-15G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	26	SS-15G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Arsenic Dry Basis	<30*	mg/kg	4/15/2008	6010B
2008030195	26	SS-15G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Barium Dry Basis	132	mg/kg	4/10/2008	6010B
2008030195	26	SS-15G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	26	SS-15G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/15/2008	6010B
2008030195	26	SS-15G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Cadmium Dry Basis	<3*	mg/kg	4/15/2008	6010B
2008030195	26	SS-15G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Chromium Dry Basis	24	mg/kg	4/10/2008	6010B
2008030195	26	SS-15G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Cobalt Dry Basis	6	mg/kg	4/10/2008	6010B
2008030195	26	SS-15G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Copper Dry Basis	31	mg/kg	4/10/2008	6010B
2008030195	26	SS-15G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	54	%	1/2/1900	D421
2008030195	26	SS-15G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Fraction of Total Sample	11	%	1/2/1900	D421
2008030195	26	SS-15G (0.063 mm to 1 mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1385	-----	4/9/2008	3050B
2008030195	26	SS-15G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Iron Dry Basis	29800	mg/kg	4/10/2008	6010B
2008030195	26	SS-15G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Lead Dry Basis	10	mg/kg	4/10/2008	6010B
2008030195	26	SS-15G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Manganese Dry Basis	271	mg/kg	4/10/2008	6010B
2008030195	26	SS-15G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	840	-----	4/8/2008	7471B
2008030195	26	SS-15G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Mercury Dry Basis	<0.1	mg/kg	4/9/2008	7471B
2008030195	26	SS-15G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/15/2008	6010B
2008030195	26	SS-15G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Nickel Dry Basis	9	mg/kg	4/10/2008	6010B
2008030195	26	SS-15G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Selenium Dry Basis	<30*	mg/kg	4/15/2008	6010B
2008030195	26	SS-15G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/15/2008	6010B
2008030195	26	SS-15G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	26	SS-15G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Vanadium Dry Basis	98	mg/kg	4/10/2008	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030195	26	SS-15G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Zinc Dry Basis	57	mg/kg	4/10/2008	6010B
2008030195	27	SS-15B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Aluminum Dry Basis	5020	mg/kg	4/10/2008	6010B
2008030195	27	SS-15B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	27	SS-15B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Arsenic Dry Basis	79	mg/kg	4/10/2008	6010B
2008030195	27	SS-15B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Barium Dry Basis	169	mg/kg	4/10/2008	6010B
2008030195	27	SS-15B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	27	SS-15B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	27	SS-15B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Cadmium Dry Basis	4	mg/kg	4/10/2008	6010B
2008030195	27	SS-15B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Chromium Dry Basis	9	mg/kg	4/10/2008	6010B
2008030195	27	SS-15B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Cobalt Dry Basis	5	mg/kg	4/10/2008	6010B
2008030195	27	SS-15B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Copper Dry Basis	503	mg/kg	4/10/2008	6010B
2008030195	27	SS-15B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	61	%	1/2/1900	D421
2008030195	27	SS-15B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Fraction of Total Sample	46	%	1/2/1900	D421
2008030195	27	SS-15B (0.063 mm to 1 mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1385	-----	4/9/2008	3050B
2008030195	27	SS-15B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Iron Dry Basis	18600	mg/kg	4/10/2008	6010B
2008030195	27	SS-15B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Lead Dry Basis	231	mg/kg	4/10/2008	6010B
2008030195	27	SS-15B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Manganese Dry Basis	822	mg/kg	4/10/2008	6010B
2008030195	27	SS-15B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	840	-----	4/8/2008	7471B
2008030195	27	SS-15B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Mercury Dry Basis	1.3	mg/kg	4/9/2008	7471B
2008030195	27	SS-15B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	27	SS-15B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Nickel Dry Basis	5	mg/kg	4/10/2008	6010B
2008030195	27	SS-15B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	27	SS-15B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	27	SS-15B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	27	SS-15B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Vanadium Dry Basis	31	mg/kg	4/10/2008	6010B
2008030195	27	SS-15B (0.063 mm to 1 mm Sieve Size)	3/24/2008	Zinc Dry Basis	1240	mg/kg	4/10/2008	6010B
2008030195	28	SS-17D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Aluminum Dry Basis	2950	mg/kg	4/10/2008	6010B
2008030195	28	SS-17D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	28	SS-17D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Arsenic Dry Basis	64	mg/kg	4/10/2008	6010B
2008030195	28	SS-17D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Barium Dry Basis	93	mg/kg	4/10/2008	6010B
2008030195	28	SS-17D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	28	SS-17D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	28	SS-17D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Cadmium Dry Basis	2	mg/kg	4/10/2008	6010B
2008030195	28	SS-17D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Chromium Dry Basis	6	mg/kg	4/10/2008	6010B
2008030195	28	SS-17D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Cobalt Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	28	SS-17D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Copper Dry Basis	256	mg/kg	4/10/2008	6010B
2008030195	28	SS-17D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	57	%	1/2/1900	D421
2008030195	28	SS-17D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Fraction of Total Sample	38	%	1/2/1900	D421
2008030195	28	SS-17D (0.063 mm to 1 mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1385	-----	4/9/2008	3050B
2008030195	28	SS-17D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Iron Dry Basis	13800	mg/kg	4/10/2008	6010B
2008030195	28	SS-17D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Lead Dry Basis	102	mg/kg	4/10/2008	6010B
2008030195	28	SS-17D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Manganese Dry Basis	659	mg/kg	4/10/2008	6010B
2008030195	28	SS-17D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	840	-----	4/8/2008	7471B
2008030195	28	SS-17D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Mercury Dry Basis	0.3	mg/kg	4/9/2008	7471B
2008030195	28	SS-17D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	28	SS-17D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Nickel Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	28	SS-17D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	28	SS-17D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008	6010B
2008030195	28	SS-17D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	28	SS-17D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Vanadium Dry Basis	20	mg/kg	4/10/2008	6010B
2008030195	28	SS-17D (0.063 mm to 1 mm Sieve Size)	3/24/2008	Zinc Dry Basis	817	mg/kg	4/10/2008	6010B
2008030195	29	SS-06G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Aluminum Dry Basis	2450	mg/kg	4/10/2008	6010B
2008030195	29	SS-06G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008	6020
2008030195	29	SS-06G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Arsenic Dry Basis	21	mg/kg	4/10/2008	6010B
2008030195	29	SS-06G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Barium Dry Basis	135	mg/kg	4/10/2008	6010B
2008030195	29	SS-06G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030195	29	SS-06G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008	6010B
2008030195	29	SS-06G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Cadmium Dry Basis	<2	mg/kg	4/10/2008	6010B
2008030195	29	SS-06G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Chromium Dry Basis	6	mg/kg	4/10/2008	6010B
2008030195	29	SS-06G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Cobalt Dry Basis	6	mg/kg	4/10/2008	6010B
2008030195	29	SS-06G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Copper Dry Basis	84	mg/kg	4/10/2008	6010B
2008030195	29	SS-06G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	52	%	1/2/1900	D421
2008030195	29	SS-06G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Fraction of Total Sample	49	%	1/2/1900	D421
2008030195	29	SS-06G (0.063 mm to 1 mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1385	-----	4/9/2008 11:07	3050B
2008030195	29	SS-06G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Iron Dry Basis	8420	mg/kg	4/10/2008 18:40	6010B
2008030195	29	SS-06G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Lead Dry Basis	68	mg/kg	4/10/2008 19:39	6010B
2008030195	29	SS-06G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Manganese Dry Basis	2580	mg/kg	4/10/2008 18:40	6010B
2008030195	29	SS-06G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	840	-----	4/8/2008 16:40	7471B
2008030195	29	SS-06G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Mercury Dry Basis	<0.1	mg/kg	4/9/2008 14:35	7471B
2008030195	29	SS-06G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008 19:39	6010B
2008030195	29	SS-06G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Nickel Dry Basis	<5	mg/kg	4/10/2008 19:39	6010B
2008030195	29	SS-06G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008 19:39	6010B
2008030195	29	SS-06G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008 19:39	6010B
2008030195	29	SS-06G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008 13:19	6020
2008030195	29	SS-06G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Vanadium Dry Basis	18	mg/kg	4/10/2008 19:39	6010B
2008030195	29	SS-06G (0.063 mm to 1 mm Sieve Size)	3/24/2008	Zinc Dry Basis	473	mg/kg	4/10/2008 19:39	6010B
2008030195	30	DUPLICATE OF 2008030195-18	3/24/2008	Aluminum Dry Basis	5850	mg/kg	4/10/2008 17:56	6010B
2008030195	30	DUPLICATE OF 2008030195-18	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008 12:42	6020
2008030195	30	DUPLICATE OF 2008030195-18	3/24/2008	Arsenic Dry Basis	<30*	mg/kg	4/15/2008 12:09	6010B
2008030195	30	DUPLICATE OF 2008030195-18	3/24/2008	Barium Dry Basis	159	mg/kg	4/10/2008 18:54	6010B
2008030195	30	DUPLICATE OF 2008030195-18	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008 18:54	6010B
2008030195	30	DUPLICATE OF 2008030195-18	3/24/2008	Boron Dry Basis	<10	mg/kg	4/15/2008 12:09	6010B
2008030195	30	DUPLICATE OF 2008030195-18	3/24/2008	Cadmium Dry Basis	<3*	mg/kg	4/15/2008 12:09	6010B
2008030195	30	DUPLICATE OF 2008030195-18	3/24/2008	Chromium Dry Basis	17	mg/kg	4/10/2008 18:54	6010B
2008030195	30	DUPLICATE OF 2008030195-18	3/24/2008	Cobalt Dry Basis	8	mg/kg	4/10/2008 18:54	6010B
2008030195	30	DUPLICATE OF 2008030195-18	3/24/2008	Copper Dry Basis	162	mg/kg	4/10/2008 18:54	6010B
2008030195	30	DUPLICATE OF 2008030195-18	3/24/2008	ICP/AA Batch#/Digest Date	1385	-----	4/9/2008 11:07	3050B
2008030195	30	DUPLICATE OF 2008030195-18	3/24/2008	Iron Dry Basis	25500	mg/kg	4/10/2008 17:56	6010B
2008030195	30	DUPLICATE OF 2008030195-18	3/24/2008	Lead Dry Basis	78	mg/kg	4/10/2008 18:54	6010B
2008030195	30	DUPLICATE OF 2008030195-18	3/24/2008	Manganese Dry Basis	2170	mg/kg	4/10/2008 17:56	6010B
2008030195	30	DUPLICATE OF 2008030195-18	3/24/2008	Mercury Batch #/Digest Date	840	-----	4/8/2008 16:40	7471B
2008030195	30	DUPLICATE OF 2008030195-18	3/24/2008	Mercury Dry Basis	<0.1	mg/kg	4/9/2008 14:35	7471B
2008030195	30	DUPLICATE OF 2008030195-18	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/15/2008 12:09	6010B
2008030195	30	DUPLICATE OF 2008030195-18	3/24/2008	Nickel Dry Basis	8	mg/kg	4/10/2008 18:54	6010B
2008030195	30	DUPLICATE OF 2008030195-18	3/24/2008	Selenium Dry Basis	<30*	mg/kg	4/15/2008 12:09	6010B
2008030195	30	DUPLICATE OF 2008030195-18	3/24/2008	Silver Dry Basis	<5	mg/kg	4/15/2008 12:09	6010B
2008030195	30	DUPLICATE OF 2008030195-18	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008 12:42	6020
2008030195	30	DUPLICATE OF 2008030195-18	3/24/2008	Vanadium Dry Basis	54	mg/kg	4/10/2008 18:54	6010B
2008030195	30	DUPLICATE OF 2008030195-18	3/24/2008	Zinc Dry Basis	584	mg/kg	4/10/2008 18:54	6010B
2008030195	31	MATRIX SPIKE OF 2008030195-23	3/24/2008	Aluminum Dry Basis	-2	% [75-125]	4/10/2008 18:22	6010B
2008030195	31	MATRIX SPIKE OF 2008030195-23	3/24/2008	Antimony Dry Basis	100	% [61-122]	4/14/2008 12:58	6020
2008030195	31	MATRIX SPIKE OF 2008030195-23	3/24/2008	Arsenic Dry Basis	96	% [69-126]	4/10/2008 19:12	6010B
2008030195	31	MATRIX SPIKE OF 2008030195-23	3/24/2008	Barium Dry Basis	95	% [66-137]	4/10/2008 19:12	6010B
2008030195	31	MATRIX SPIKE OF 2008030195-23	3/24/2008	Beryllium Dry Basis	96	% [77-112]	4/10/2008 19:12	6010B
2008030195	31	MATRIX SPIKE OF 2008030195-23	3/24/2008	Boron Dry Basis	97	% [75-125]	4/10/2008 19:12	6010B
2008030195	31	MATRIX SPIKE OF 2008030195-23	3/24/2008	Cadmium Dry Basis	94	% [77-117]	4/10/2008 19:12	6010B
2008030195	31	MATRIX SPIKE OF 2008030195-23	3/24/2008	Chromium Dry Basis	93	% [75-125]	4/10/2008 19:12	6010B
2008030195	31	MATRIX SPIKE OF 2008030195-23	3/24/2008	Cobalt Dry Basis	93	% [75-125]	4/10/2008 19:12	6010B
2008030195	31	MATRIX SPIKE OF 2008030195-23	3/24/2008	Copper Dry Basis	91	% [66-133]	4/10/2008 19:12	6010B
2008030195	31	MATRIX SPIKE OF 2008030195-23	3/24/2008	ICP/AA Batch#/Digest Date	1385	-----	4/9/2008 11:07	3050B
2008030195	31	MATRIX SPIKE OF 2008030195-23	3/24/2008	Iron Dry Basis	-2	% [75-125]	4/10/2008 18:22	6010B
2008030195	31	MATRIX SPIKE OF 2008030195-23	3/24/2008	Lead Dry Basis	92	% [75-121]	4/10/2008 19:12	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030195	31	MATRIX SPIKE OF 2008030195-23	3/24/2008	Manganese Dry Basis	69	% [67-128]	4/10/2008 19:12	6010B
2008030195	31	MATRIX SPIKE OF 2008030195-23	3/24/2008	Mercury Batch #/Digest Date	840	-----	4/8/2008 16:40	7471B
2008030195	31	MATRIX SPIKE OF 2008030195-23	3/24/2008	Mercury Dry Basis	102	% [55-139]	4/9/2008 14:35	7471B
2008030195	31	MATRIX SPIKE OF 2008030195-23	3/24/2008	Molybdenum Dry Basis	93	% [75-125]	4/10/2008 19:12	6010B
2008030195	31	MATRIX SPIKE OF 2008030195-23	3/24/2008	Nickel Dry Basis	95	% [74-113]	4/10/2008 19:12	6010B
2008030195	31	MATRIX SPIKE OF 2008030195-23	3/24/2008	Selenium Dry Basis	98	% [79-116]	4/10/2008 19:12	6010B
2008030195	31	MATRIX SPIKE OF 2008030195-23	3/24/2008	Silver Dry Basis	93	% [76-119]	4/10/2008 19:12	6010B
2008030195	31	MATRIX SPIKE OF 2008030195-23	3/24/2008	Uranium Dry Basis	101	% [75-125]	4/14/2008 12:58	6020
2008030195	31	MATRIX SPIKE OF 2008030195-23	3/24/2008	Vanadium Dry Basis	93	% [76-117]	4/10/2008 19:12	6010B
2008030195	31	MATRIX SPIKE OF 2008030195-23	3/24/2008	Zinc Dry Basis	91	% [65-133]	4/10/2008 19:12	6010B
2008030195	33	METHOD BLANK	1/2/1900	Aluminum Dry Basis	<1	mg/l	4/10/2008 17:41	6010B
2008030195	33	METHOD BLANK	1/2/1900	Antimony Dry Basis	<0.05	mg/l	4/14/2008 12:24	6020
2008030195	33	METHOD BLANK	1/2/1900	Arsenic Dry Basis	<0.1	mg/l	4/10/2008 17:41	6010B
2008030195	33	METHOD BLANK	1/2/1900	Barium Dry Basis	<0.05	mg/l	4/10/2008 17:41	6010B
2008030195	33	METHOD BLANK	1/2/1900	Beryllium Dry Basis	<0.02	mg/l	4/10/2008 17:41	6010B
2008030195	33	METHOD BLANK	1/2/1900	Boron Dry Basis	<0.1	mg/l	4/10/2008 17:41	6010B
2008030195	33	METHOD BLANK	1/2/1900	Cadmium Dry Basis	<0.02	mg/l	4/10/2008 17:41	6010B
2008030195	33	METHOD BLANK	1/2/1900	Chromium Dry Basis	<0.02	mg/l	4/10/2008 17:41	6010B
2008030195	33	METHOD BLANK	1/2/1900	Cobalt Dry Basis	<0.05	mg/l	4/10/2008 17:41	6010B
2008030195	33	METHOD BLANK	1/2/1900	Copper Dry Basis	<0.1	mg/l	4/10/2008 17:41	6010B
2008030195	33	METHOD BLANK	1/2/1900	ICP/AA Batch#/Digest Date	1385	-----	4/9/2008 11:07	3050B
2008030195	33	METHOD BLANK	1/2/1900	Iron Dry Basis	<1	mg/l	4/10/2008 17:41	6010B
2008030195	33	METHOD BLANK	1/2/1900	Lead Dry Basis	<0.1	mg/l	4/10/2008 17:41	6010B
2008030195	33	METHOD BLANK	1/2/1900	Manganese Dry Basis	<0.02	mg/l	4/10/2008 17:41	6010B
2008030195	33	METHOD BLANK	1/2/1900	Mercury Batch #/Digest Date	840	-----	4/8/2008 16:40	7471B
2008030195	33	METHOD BLANK	1/2/1900	Mercury Dry Basis	<0.002	mg/l	4/9/2008 14:35	7471B
2008030195	33	METHOD BLANK	1/2/1900	Molybdenum Dry Basis	<0.05	mg/l	4/10/2008 17:41	6010B
2008030195	33	METHOD BLANK	1/2/1900	Nickel Dry Basis	<0.05	mg/l	4/10/2008 17:41	6010B
2008030195	33	METHOD BLANK	1/2/1900	Selenium Dry Basis	<0.1	mg/l	4/10/2008 17:41	6010B
2008030195	33	METHOD BLANK	1/2/1900	Silver Dry Basis	<0.05	mg/l	4/10/2008 17:41	6010B
2008030195	33	METHOD BLANK	1/2/1900	Uranium Dry Basis	<0.05	mg/l	4/14/2008 12:24	6020
2008030195	33	METHOD BLANK	1/2/1900	Vanadium Dry Basis	<0.05	mg/l	4/10/2008 17:41	6010B
2008030195	33	METHOD BLANK	1/2/1900	Zinc Dry Basis	<0.01	mg/l	4/10/2008 17:41	6010B
2008030195	34	LABORATORY CONTROL SAMPLE	1/2/1900	Aluminum Dry Basis	102	% [80-120]	4/10/2008 17:44	6010B
2008030195	34	LABORATORY CONTROL SAMPLE	1/2/1900	Antimony Dry Basis	107	% [65-128]	4/14/2008 12:26	6020
2008030195	34	LABORATORY CONTROL SAMPLE	1/2/1900	Arsenic Dry Basis	96	% [86-113]	4/10/2008 17:44	6010B
2008030195	34	LABORATORY CONTROL SAMPLE	1/2/1900	Barium Dry Basis	103	% [84-119]	4/10/2008 17:44	6010B
2008030195	34	LABORATORY CONTROL SAMPLE	1/2/1900	Beryllium Dry Basis	99	% [85-112]	4/10/2008 17:44	6010B
2008030195	34	LABORATORY CONTROL SAMPLE	1/2/1900	Boron Dry Basis	99	% [80-120]	4/10/2008 17:44	6010B
2008030195	34	LABORATORY CONTROL SAMPLE	1/2/1900	Cadmium Dry Basis	98	% [85-118]	4/10/2008 17:44	6010B
2008030195	34	LABORATORY CONTROL SAMPLE	1/2/1900	Chromium Dry Basis	98	% [85-115]	4/10/2008 17:44	6010B
2008030195	34	LABORATORY CONTROL SAMPLE	1/2/1900	Cobalt Dry Basis	98	% [80-120]	4/10/2008 17:44	6010B
2008030195	34	LABORATORY CONTROL SAMPLE	1/2/1900	Copper Dry Basis	93	% [82-119]	4/10/2008 17:44	6010B
2008030195	34	LABORATORY CONTROL SAMPLE	1/2/1900	ICP/AA Batch#/Digest Date	1385	-----	4/9/2008 11:07	3050B
2008030195	34	LABORATORY CONTROL SAMPLE	1/2/1900	Iron Dry Basis	104	% [80-120]	4/10/2008 17:44	6010B
2008030195	34	LABORATORY CONTROL SAMPLE	1/2/1900	Lead Dry Basis	98	% [85-118]	4/10/2008 17:44	6010B
2008030195	34	LABORATORY CONTROL SAMPLE	1/2/1900	Manganese Dry Basis	102	% [84-117]	4/10/2008 17:44	6010B
2008030195	34	LABORATORY CONTROL SAMPLE	1/2/1900	Mercury Batch #/Digest Date	840	-----	4/8/2008 16:40	7471B
2008030195	34	LABORATORY CONTROL SAMPLE	1/2/1900	Mercury Dry Basis	114	% [82-125]	4/9/2008 14:35	7471B
2008030195	34	LABORATORY CONTROL SAMPLE	1/2/1900	Molybdenum Dry Basis	96	% [80-120]	4/10/2008 17:44	6010B
2008030195	34	LABORATORY CONTROL SAMPLE	1/2/1900	Nickel Dry Basis	98	% [83-113]	4/10/2008 17:44	6010B
2008030195	34	LABORATORY CONTROL SAMPLE	1/2/1900	Selenium Dry Basis	102	% [82-116]	4/10/2008 17:44	6010B
2008030195	34	LABORATORY CONTROL SAMPLE	1/2/1900	Silver Dry Basis	96	% [86-112]	4/10/2008 17:44	6010B
2008030195	34	LABORATORY CONTROL SAMPLE	1/2/1900	Uranium Dry Basis	108	% [80-120]	4/14/2008 12:26	6020
2008030195	34	LABORATORY CONTROL SAMPLE	1/2/1900	Vanadium Dry Basis	98	% [78-123]	4/10/2008 17:44	6010B
2008030195	34	LABORATORY CONTROL SAMPLE	1/2/1900	Zinc Dry Basis	100	% [80-120]	4/10/2008 17:44	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030195	35	SS-07 (<0.063 mm Sieve Size)	3/24/2008	Aluminum Dry Basis	15900	mg/kg	4/16/2008 11:45	6010B
2008030195	35	SS-07 (<0.063 mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008 13:37	6020
2008030195	35	SS-07 (<0.063 mm Sieve Size)	3/24/2008	Arsenic Dry Basis	62	mg/kg	4/15/2008 12:41	6010B
2008030195	35	SS-07 (<0.063 mm Sieve Size)	3/24/2008	Barium Dry Basis	309	mg/kg	4/10/2008 20:52	6010B
2008030195	35	SS-07 (<0.063 mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008 20:52	6010B
2008030195	35	SS-07 (<0.063 mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/15/2008 12:41	6010B
2008030195	35	SS-07 (<0.063 mm Sieve Size)	3/24/2008	Cadmium Dry Basis	16	mg/kg	4/15/2008 12:41	6010B
2008030195	35	SS-07 (<0.063 mm Sieve Size)	3/24/2008	Chromium Dry Basis	47	mg/kg	4/10/2008 20:52	6010B
2008030195	35	SS-07 (<0.063 mm Sieve Size)	3/24/2008	Cobalt Dry Basis	14	mg/kg	4/10/2008 20:52	6010B
2008030195	35	SS-07 (<0.063 mm Sieve Size)	3/24/2008	Copper Dry Basis	817	mg/kg	4/10/2008 20:52	6010B
2008030195	35	SS-07 (<0.063 mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	3.1	%	1/2/1900	D421
2008030195	35	SS-07 (<0.063 mm Sieve Size)	3/24/2008	Fraction of Total Sample	1.6	%	1/2/1900	D421
2008030195	35	SS-07 (<0.063 mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1386	-----	4/9/2008	3050B
2008030195	35	SS-07 (<0.063 mm Sieve Size)	3/24/2008	Iron Dry Basis	26400	mg/kg	4/10/2008 19:53	6010B
2008030195	35	SS-07 (<0.063 mm Sieve Size)	3/24/2008	Lead Dry Basis	199	mg/kg	4/10/2008 20:52	6010B
2008030195	35	SS-07 (<0.063 mm Sieve Size)	3/24/2008	Manganese Dry Basis	4520	mg/kg	4/10/2008 19:53	6010B
2008030195	35	SS-07 (<0.063 mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	841	-----	4/8/2008 16:50	7471B
2008030195	35	SS-07 (<0.063 mm Sieve Size)	3/24/2008	Mercury Dry Basis	0.6	mg/kg	4/9/2008 15:55	7471B
2008030195	35	SS-07 (<0.063 mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	8	mg/kg	4/15/2008 12:41	6010B
2008030195	35	SS-07 (<0.063 mm Sieve Size)	3/24/2008	Nickel Dry Basis	29	mg/kg	4/10/2008 20:52	6010B
2008030195	35	SS-07 (<0.063 mm Sieve Size)	3/24/2008	Selenium Dry Basis	<30*	mg/kg	4/15/2008 12:41	6010B
2008030195	35	SS-07 (<0.063 mm Sieve Size)	3/24/2008	Silver Dry Basis	6	mg/kg	4/15/2008 12:41	6010B
2008030195	35	SS-07 (<0.063 mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008 13:37	6020
2008030195	35	SS-07 (<0.063 mm Sieve Size)	3/24/2008	Vanadium Dry Basis	66	mg/kg	4/10/2008 20:52	6010B
2008030195	35	SS-07 (<0.063 mm Sieve Size)	3/24/2008	Zinc Dry Basis	1850	mg/kg	4/10/2008 20:52	6010B
2008030195	36	SS-08 (<0.063 mm Sieve Size)	3/24/2008	Aluminum Dry Basis	14700	mg/kg	4/16/2008 11:48	6010B
2008030195	36	SS-08 (<0.063 mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008 13:43	6020
2008030195	36	SS-08 (<0.063 mm Sieve Size)	3/24/2008	Arsenic Dry Basis	68	mg/kg	4/10/2008 20:58	6010B
2008030195	36	SS-08 (<0.063 mm Sieve Size)	3/24/2008	Barium Dry Basis	362	mg/kg	4/10/2008 20:58	6010B
2008030195	36	SS-08 (<0.063 mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008 20:58	6010B
2008030195	36	SS-08 (<0.063 mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008 20:58	6010B
2008030195	36	SS-08 (<0.063 mm Sieve Size)	3/24/2008	Cadmium Dry Basis	9	mg/kg	4/10/2008 20:58	6010B
2008030195	36	SS-08 (<0.063 mm Sieve Size)	3/24/2008	Chromium Dry Basis	40	mg/kg	4/10/2008 20:58	6010B
2008030195	36	SS-08 (<0.063 mm Sieve Size)	3/24/2008	Cobalt Dry Basis	14	mg/kg	4/10/2008 20:58	6010B
2008030195	36	SS-08 (<0.063 mm Sieve Size)	3/24/2008	Copper Dry Basis	1060	mg/kg	4/10/2008 20:58	6010B
2008030195	36	SS-08 (<0.063 mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	4.3	%	1/2/1900	D421
2008030195	36	SS-08 (<0.063 mm Sieve Size)	3/24/2008	Fraction of Total Sample	0.9	%	1/2/1900	D421
2008030195	36	SS-08 (<0.063 mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1386	-----	4/9/2008	3050B
2008030195	36	SS-08 (<0.063 mm Sieve Size)	3/24/2008	Iron Dry Basis	27200	mg/kg	4/10/2008 20:08	6010B
2008030195	36	SS-08 (<0.063 mm Sieve Size)	3/24/2008	Lead Dry Basis	366	mg/kg	4/10/2008 20:58	6010B
2008030195	36	SS-08 (<0.063 mm Sieve Size)	3/24/2008	Manganese Dry Basis	3120	mg/kg	4/10/2008 20:08	6010B
2008030195	36	SS-08 (<0.063 mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	841	-----	4/8/2008 16:50	7471B
2008030195	36	SS-08 (<0.063 mm Sieve Size)	3/24/2008	Mercury Dry Basis	2.8	mg/kg	4/9/2008 15:55	7471B
2008030195	36	SS-08 (<0.063 mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	8	mg/kg	4/10/2008 20:58	6010B
2008030195	36	SS-08 (<0.063 mm Sieve Size)	3/24/2008	Nickel Dry Basis	23	mg/kg	4/10/2008 20:58	6010B
2008030195	36	SS-08 (<0.063 mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008 20:58	6010B
2008030195	36	SS-08 (<0.063 mm Sieve Size)	3/24/2008	Silver Dry Basis	6	mg/kg	4/10/2008 20:58	6010B
2008030195	36	SS-08 (<0.063 mm Sieve Size)	3/24/2008	Uranium Dry Basis	9	mg/kg	4/14/2008 13:43	6020
2008030195	36	SS-08 (<0.063 mm Sieve Size)	3/24/2008	Vanadium Dry Basis	58	mg/kg	4/10/2008 20:58	6010B
2008030195	36	SS-08 (<0.063 mm Sieve Size)	3/24/2008	Zinc Dry Basis	1940	mg/kg	4/10/2008 20:58	6010B
2008030195	37	SS-10A (<0.063 mm Sieve Size)	3/24/2008	Aluminum Dry Basis	17800	mg/kg	4/16/2008 11:53	6010B
2008030195	37	SS-10A (<0.063 mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008 13:45	6020
2008030195	37	SS-10A (<0.063 mm Sieve Size)	3/24/2008	Arsenic Dry Basis	24	mg/kg	4/10/2008 21:01	6010B
2008030195	37	SS-10A (<0.063 mm Sieve Size)	3/24/2008	Barium Dry Basis	348	mg/kg	4/10/2008 21:01	6010B
2008030195	37	SS-10A (<0.063 mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008 21:01	6010B
2008030195	37	SS-10A (<0.063 mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008 21:01	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030195	37	SS-10A (<0.063 mm Sieve Size)	3/24/2008	Cadmium Dry Basis	6	mg/kg	4/10/2008 21:01	6010B
2008030195	37	SS-10A (<0.063 mm Sieve Size)	3/24/2008	Chromium Dry Basis	19	mg/kg	4/10/2008 21:01	6010B
2008030195	37	SS-10A (<0.063 mm Sieve Size)	3/24/2008	Cobalt Dry Basis	12	mg/kg	4/10/2008 21:01	6010B
2008030195	37	SS-10A (<0.063 mm Sieve Size)	3/24/2008	Copper Dry Basis	760	mg/kg	4/10/2008 21:01	6010B
2008030195	37	SS-10A (<0.063 mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	18	%	1/2/1900	D421
2008030195	37	SS-10A (<0.063 mm Sieve Size)	3/24/2008	Fraction of Total Sample	4.9	%	1/2/1900	D421
2008030195	37	SS-10A (<0.063 mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1386	-----	4/9/2008	3050B
2008030195	37	SS-10A (<0.063 mm Sieve Size)	3/24/2008	Iron Dry Basis	19500	mg/kg	4/10/2008 20:11	6010B
2008030195	37	SS-10A (<0.063 mm Sieve Size)	3/24/2008	Lead Dry Basis	102	mg/kg	4/10/2008 21:01	6010B
2008030195	37	SS-10A (<0.063 mm Sieve Size)	3/24/2008	Manganese Dry Basis	3710	mg/kg	4/10/2008 20:11	6010B
2008030195	37	SS-10A (<0.063 mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	841	-----	4/8/2008 16:50	7471B
2008030195	37	SS-10A (<0.063 mm Sieve Size)	3/24/2008	Mercury Dry Basis	0.7	mg/kg	4/9/2008 15:55	7471B
2008030195	37	SS-10A (<0.063 mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008 21:01	6010B
2008030195	37	SS-10A (<0.063 mm Sieve Size)	3/24/2008	Nickel Dry Basis	13	mg/kg	4/10/2008 21:01	6010B
2008030195	37	SS-10A (<0.063 mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008 21:01	6010B
2008030195	37	SS-10A (<0.063 mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008 21:01	6010B
2008030195	37	SS-10A (<0.063 mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008 13:45	6020
2008030195	37	SS-10A (<0.063 mm Sieve Size)	3/24/2008	Vanadium Dry Basis	36	mg/kg	4/10/2008 21:01	6010B
2008030195	37	SS-10A (<0.063 mm Sieve Size)	3/24/2008	Zinc Dry Basis	1890	mg/kg	4/10/2008 21:01	6010B
2008030195	38	SS-10B (<0.063 mm Sieve Size)	3/24/2008	Aluminum Dry Basis	16500	mg/kg	4/16/2008 11:56	6010B
2008030195	38	SS-10B (<0.063 mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008 13:48	6020
2008030195	38	SS-10B (<0.063 mm Sieve Size)	3/24/2008	Arsenic Dry Basis	35	mg/kg	4/10/2008 21:04	6010B
2008030195	38	SS-10B (<0.063 mm Sieve Size)	3/24/2008	Barium Dry Basis	379	mg/kg	4/10/2008 21:04	6010B
2008030195	38	SS-10B (<0.063 mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008 21:04	6010B
2008030195	38	SS-10B (<0.063 mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008 21:04	6010B
2008030195	38	SS-10B (<0.063 mm Sieve Size)	3/24/2008	Cadmium Dry Basis	8	mg/kg	4/10/2008 21:04	6010B
2008030195	38	SS-10B (<0.063 mm Sieve Size)	3/24/2008	Chromium Dry Basis	22	mg/kg	4/10/2008 21:04	6010B
2008030195	38	SS-10B (<0.063 mm Sieve Size)	3/24/2008	Cobalt Dry Basis	12	mg/kg	4/10/2008 21:04	6010B
2008030195	38	SS-10B (<0.063 mm Sieve Size)	3/24/2008	Copper Dry Basis	609	mg/kg	4/10/2008 21:04	6010B
2008030195	38	SS-10B (<0.063 mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	37	%	1/2/1900	D421
2008030195	38	SS-10B (<0.063 mm Sieve Size)	3/24/2008	Fraction of Total Sample	32	%	1/2/1900	D421
2008030195	38	SS-10B (<0.063 mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1386	-----	4/9/2008	3050B
2008030195	38	SS-10B (<0.063 mm Sieve Size)	3/24/2008	Iron Dry Basis	22300	mg/kg	4/10/2008 20:14	6010B
2008030195	38	SS-10B (<0.063 mm Sieve Size)	3/24/2008	Lead Dry Basis	160	mg/kg	4/10/2008 21:04	6010B
2008030195	38	SS-10B (<0.063 mm Sieve Size)	3/24/2008	Manganese Dry Basis	2400	mg/kg	4/10/2008 20:14	6010B
2008030195	38	SS-10B (<0.063 mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	841	-----	4/8/2008 16:50	7471B
2008030195	38	SS-10B (<0.063 mm Sieve Size)	3/24/2008	Mercury Dry Basis	1.1	mg/kg	4/9/2008 15:55	7471B
2008030195	38	SS-10B (<0.063 mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008 21:04	6010B
2008030195	38	SS-10B (<0.063 mm Sieve Size)	3/24/2008	Nickel Dry Basis	13	mg/kg	4/10/2008 21:04	6010B
2008030195	38	SS-10B (<0.063 mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008 21:04	6010B
2008030195	38	SS-10B (<0.063 mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008 21:04	6010B
2008030195	38	SS-10B (<0.063 mm Sieve Size)	3/24/2008	Uranium Dry Basis	6	mg/kg	4/14/2008 13:48	6020
2008030195	38	SS-10B (<0.063 mm Sieve Size)	3/24/2008	Vanadium Dry Basis	42	mg/kg	4/10/2008 21:04	6010B
2008030195	38	SS-10B (<0.063 mm Sieve Size)	3/24/2008	Zinc Dry Basis	1530	mg/kg	4/10/2008 21:04	6010B
2008030195	39	SS-10D (<0.063 mm Sieve Size)	3/24/2008	Aluminum Dry Basis	18600	mg/kg	4/16/2008 11:59	6010B
2008030195	39	SS-10D (<0.063 mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008 13:51	6020
2008030195	39	SS-10D (<0.063 mm Sieve Size)	3/24/2008	Arsenic Dry Basis	26	mg/kg	4/10/2008 21:07	6010B
2008030195	39	SS-10D (<0.063 mm Sieve Size)	3/24/2008	Barium Dry Basis	309	mg/kg	4/10/2008 21:07	6010B
2008030195	39	SS-10D (<0.063 mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008 21:07	6010B
2008030195	39	SS-10D (<0.063 mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008 21:07	6010B
2008030195	39	SS-10D (<0.063 mm Sieve Size)	3/24/2008	Cadmium Dry Basis	5	mg/kg	4/10/2008 21:07	6010B
2008030195	39	SS-10D (<0.063 mm Sieve Size)	3/24/2008	Chromium Dry Basis	18	mg/kg	4/10/2008 21:07	6010B
2008030195	39	SS-10D (<0.063 mm Sieve Size)	3/24/2008	Cobalt Dry Basis	9	mg/kg	4/10/2008 21:07	6010B
2008030195	39	SS-10D (<0.063 mm Sieve Size)	3/24/2008	Copper Dry Basis	412	mg/kg	4/10/2008 21:07	6010B
2008030195	39	SS-10D (<0.063 mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	19	%	1/2/1900	D421
2008030195	39	SS-10D (<0.063 mm Sieve Size)	3/24/2008	Fraction of Total Sample	10	%	1/2/1900	D421

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030195	39	SS-10D (<0.063 mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1386	-----	4/9/2008	3050B
2008030195	39	SS-10D (<0.063 mm Sieve Size)	3/24/2008	Iron Dry Basis	19800	mg/kg	4/10/2008 20:17	6010B
2008030195	39	SS-10D (<0.063 mm Sieve Size)	3/24/2008	Lead Dry Basis	105	mg/kg	4/10/2008 21:07	6010B
2008030195	39	SS-10D (<0.063 mm Sieve Size)	3/24/2008	Manganese Dry Basis	1360	mg/kg	4/10/2008 21:07	6010B
2008030195	39	SS-10D (<0.063 mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	841	-----	4/8/2008 16:50	7471B
2008030195	39	SS-10D (<0.063 mm Sieve Size)	3/24/2008	Mercury Dry Basis	0.6	mg/kg	4/9/2008 15:55	7471B
2008030195	39	SS-10D (<0.063 mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008 21:07	6010B
2008030195	39	SS-10D (<0.063 mm Sieve Size)	3/24/2008	Nickel Dry Basis	11	mg/kg	4/10/2008 21:07	6010B
2008030195	39	SS-10D (<0.063 mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008 21:07	6010B
2008030195	39	SS-10D (<0.063 mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008 21:07	6010B
2008030195	39	SS-10D (<0.063 mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008 13:51	6020
2008030195	39	SS-10D (<0.063 mm Sieve Size)	3/24/2008	Vanadium Dry Basis	36	mg/kg	4/10/2008 21:07	6010B
2008030195	39	SS-10D (<0.063 mm Sieve Size)	3/24/2008	Zinc Dry Basis	1030	mg/kg	4/10/2008 21:07	6010B
2008030195	40	SS-11C (<0.063 mm Sieve Size)	3/24/2008	Aluminum Dry Basis	21600	mg/kg	4/16/2008 12:02	6010B
2008030195	40	SS-11C (<0.063 mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008 13:53	6020
2008030195	40	SS-11C (<0.063 mm Sieve Size)	3/24/2008	Arsenic Dry Basis	10	mg/kg	4/10/2008 21:10	6010B
2008030195	40	SS-11C (<0.063 mm Sieve Size)	3/24/2008	Barium Dry Basis	274	mg/kg	4/10/2008 21:10	6010B
2008030195	40	SS-11C (<0.063 mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008 21:10	6010B
2008030195	40	SS-11C (<0.063 mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008 21:10	6010B
2008030195	40	SS-11C (<0.063 mm Sieve Size)	3/24/2008	Cadmium Dry Basis	<2	mg/kg	4/10/2008 21:10	6010B
2008030195	40	SS-11C (<0.063 mm Sieve Size)	3/24/2008	Chromium Dry Basis	10	mg/kg	4/10/2008 21:10	6010B
2008030195	40	SS-11C (<0.063 mm Sieve Size)	3/24/2008	Cobalt Dry Basis	<5	mg/kg	4/10/2008 21:10	6010B
2008030195	40	SS-11C (<0.063 mm Sieve Size)	3/24/2008	Copper Dry Basis	77	mg/kg	4/10/2008 21:10	6010B
2008030195	40	SS-11C (<0.063 mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	44	%	1/2/1900	D421
2008030195	40	SS-11C (<0.063 mm Sieve Size)	3/24/2008	Fraction of Total Sample	20	%	1/2/1900	D421
2008030195	40	SS-11C (<0.063 mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1386	-----	4/9/2008	3050B
2008030195	40	SS-11C (<0.063 mm Sieve Size)	3/24/2008	Iron Dry Basis	10600	mg/kg	4/10/2008 20:20	6010B
2008030195	40	SS-11C (<0.063 mm Sieve Size)	3/24/2008	Lead Dry Basis	27	mg/kg	4/10/2008 21:10	6010B
2008030195	40	SS-11C (<0.063 mm Sieve Size)	3/24/2008	Manganese Dry Basis	965	mg/kg	4/10/2008 20:20	6010B
2008030195	40	SS-11C (<0.063 mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	841	-----	4/8/2008 16:50	7471B
2008030195	40	SS-11C (<0.063 mm Sieve Size)	3/24/2008	Mercury Dry Basis	<0.1	mg/kg	4/9/2008 15:55	7471B
2008030195	40	SS-11C (<0.063 mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008 21:10	6010B
2008030195	40	SS-11C (<0.063 mm Sieve Size)	3/24/2008	Nickel Dry Basis	6	mg/kg	4/10/2008 21:10	6010B
2008030195	40	SS-11C (<0.063 mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008 21:10	6010B
2008030195	40	SS-11C (<0.063 mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008 21:10	6010B
2008030195	40	SS-11C (<0.063 mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008 13:53	6020
2008030195	40	SS-11C (<0.063 mm Sieve Size)	3/24/2008	Vanadium Dry Basis	22	mg/kg	4/10/2008 21:10	6010B
2008030195	40	SS-11C (<0.063 mm Sieve Size)	3/24/2008	Zinc Dry Basis	221	mg/kg	4/10/2008 21:10	6010B
2008030195	41	SS-11D (<0.063 mm Sieve Size)	3/24/2008	Aluminum Dry Basis	21400	mg/kg	4/16/2008 12:14	6010B
2008030195	41	SS-11D (<0.063 mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008 13:59	6020
2008030195	41	SS-11D (<0.063 mm Sieve Size)	3/24/2008	Arsenic Dry Basis	15	mg/kg	4/10/2008 21:25	6010B
2008030195	41	SS-11D (<0.063 mm Sieve Size)	3/24/2008	Barium Dry Basis	359	mg/kg	4/10/2008 21:25	6010B
2008030195	41	SS-11D (<0.063 mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008 21:25	6010B
2008030195	41	SS-11D (<0.063 mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008 21:25	6010B
2008030195	41	SS-11D (<0.063 mm Sieve Size)	3/24/2008	Cadmium Dry Basis	7	mg/kg	4/10/2008 21:25	6010B
2008030195	41	SS-11D (<0.063 mm Sieve Size)	3/24/2008	Chromium Dry Basis	19	mg/kg	4/10/2008 21:25	6010B
2008030195	41	SS-11D (<0.063 mm Sieve Size)	3/24/2008	Cobalt Dry Basis	12	mg/kg	4/10/2008 21:25	6010B
2008030195	41	SS-11D (<0.063 mm Sieve Size)	3/24/2008	Copper Dry Basis	299	mg/kg	4/10/2008 21:25	6010B
2008030195	41	SS-11D (<0.063 mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	6.8	%	1/2/1900	D421
2008030195	41	SS-11D (<0.063 mm Sieve Size)	3/24/2008	Fraction of Total Sample	2	%	1/2/1900	D421
2008030195	41	SS-11D (<0.063 mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1386	-----	4/9/2008	3050B
2008030195	41	SS-11D (<0.063 mm Sieve Size)	3/24/2008	Iron Dry Basis	19100	mg/kg	4/10/2008 20:26	6010B
2008030195	41	SS-11D (<0.063 mm Sieve Size)	3/24/2008	Lead Dry Basis	61	mg/kg	4/10/2008 21:25	6010B
2008030195	41	SS-11D (<0.063 mm Sieve Size)	3/24/2008	Manganese Dry Basis	3990	mg/kg	4/10/2008 20:26	6010B
2008030195	41	SS-11D (<0.063 mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	841	-----	4/8/2008 16:50	7471B
2008030195	41	SS-11D (<0.063 mm Sieve Size)	3/24/2008	Mercury Dry Basis	0.3	mg/kg	4/9/2008 15:55	7471B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030195	41	SS-11D (<0.063 mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008 21:25	6010B
2008030195	41	SS-11D (<0.063 mm Sieve Size)	3/24/2008	Nickel Dry Basis	14	mg/kg	4/10/2008 21:25	6010B
2008030195	41	SS-11D (<0.063 mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008 21:25	6010B
2008030195	41	SS-11D (<0.063 mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008 21:25	6010B
2008030195	41	SS-11D (<0.063 mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008 13:59	6020
2008030195	41	SS-11D (<0.063 mm Sieve Size)	3/24/2008	Vanadium Dry Basis	42	mg/kg	4/10/2008 21:25	6010B
2008030195	41	SS-11D (<0.063 mm Sieve Size)	3/24/2008	Zinc Dry Basis	1150	mg/kg	4/10/2008 21:25	6010B
2008030195	42	SS-15A (<0.063 mm Sieve Size)	3/24/2008	Aluminum Dry Basis	15000	mg/kg	4/16/2008 12:17	6010B
2008030195	42	SS-15A (<0.063 mm Sieve Size)	3/24/2008	Antimony Dry Basis	15	mg/kg	4/14/2008 14:02	6020
2008030195	42	SS-15A (<0.063 mm Sieve Size)	3/24/2008	Arsenic Dry Basis	275	mg/kg	4/10/2008 21:28	6010B
2008030195	42	SS-15A (<0.063 mm Sieve Size)	3/24/2008	Barium Dry Basis	432	mg/kg	4/10/2008 21:28	6010B
2008030195	42	SS-15A (<0.063 mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008 21:28	6010B
2008030195	42	SS-15A (<0.063 mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008 21:28	6010B
2008030195	42	SS-15A (<0.063 mm Sieve Size)	3/24/2008	Cadmium Dry Basis	18	mg/kg	4/10/2008 21:28	6010B
2008030195	42	SS-15A (<0.063 mm Sieve Size)	3/24/2008	Chromium Dry Basis	42	mg/kg	4/10/2008 21:28	6010B
2008030195	42	SS-15A (<0.063 mm Sieve Size)	3/24/2008	Cobalt Dry Basis	13	mg/kg	4/10/2008 21:28	6010B
2008030195	42	SS-15A (<0.063 mm Sieve Size)	3/24/2008	Copper Dry Basis	2410	mg/kg	4/10/2008 20:29	6010B
2008030195	42	SS-15A (<0.063 mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	0.3	%	1/2/1900	D421
2008030195	42	SS-15A (<0.063 mm Sieve Size)	3/24/2008	Fraction of Total Sample	0.3	%	1/2/1900	D421
2008030195	42	SS-15A (<0.063 mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1386	-----	4/9/2008	3050B
2008030195	42	SS-15A (<0.063 mm Sieve Size)	3/24/2008	Iron Dry Basis	33400	mg/kg	4/10/2008 20:29	6010B
2008030195	42	SS-15A (<0.063 mm Sieve Size)	3/24/2008	Lead Dry Basis	943	mg/kg	4/10/2008 21:28	6010B
2008030195	42	SS-15A (<0.063 mm Sieve Size)	3/24/2008	Manganese Dry Basis	4570	mg/kg	4/10/2008 20:29	6010B
2008030195	42	SS-15A (<0.063 mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	841	-----	4/8/2008 16:50	7471B
2008030195	42	SS-15A (<0.063 mm Sieve Size)	3/24/2008	Mercury Dry Basis	7.3	mg/kg	4/9/2008 15:55	7471B
2008030195	42	SS-15A (<0.063 mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	7	mg/kg	4/10/2008 21:28	6010B
2008030195	42	SS-15A (<0.063 mm Sieve Size)	3/24/2008	Nickel Dry Basis	27	mg/kg	4/10/2008 21:28	6010B
2008030195	42	SS-15A (<0.063 mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008 21:28	6010B
2008030195	42	SS-15A (<0.063 mm Sieve Size)	3/24/2008	Silver Dry Basis	13	mg/kg	4/10/2008 21:28	6010B
2008030195	42	SS-15A (<0.063 mm Sieve Size)	3/24/2008	Uranium Dry Basis	7	mg/kg	4/14/2008 14:02	6020
2008030195	42	SS-15A (<0.063 mm Sieve Size)	3/24/2008	Vanadium Dry Basis	46	mg/kg	4/10/2008 21:28	6010B
2008030195	42	SS-15A (<0.063 mm Sieve Size)	3/24/2008	Zinc Dry Basis	3980	mg/kg	4/10/2008 20:29	6010B
2008030195	43	SS-15G (<0.063 mm Sieve Size)	3/24/2008	Aluminum Dry Basis	18200	mg/kg	4/16/2008 12:20	6010B
2008030195	43	SS-15G (<0.063 mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008 14:09	6020
2008030195	43	SS-15G (<0.063 mm Sieve Size)	3/24/2008	Arsenic Dry Basis	33	mg/kg	4/10/2008 21:31	6010B
2008030195	43	SS-15G (<0.063 mm Sieve Size)	3/24/2008	Barium Dry Basis	182	mg/kg	4/10/2008 21:31	6010B
2008030195	43	SS-15G (<0.063 mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008 21:31	6010B
2008030195	43	SS-15G (<0.063 mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008 21:31	6010B
2008030195	43	SS-15G (<0.063 mm Sieve Size)	3/24/2008	Cadmium Dry Basis	<2	mg/kg	4/10/2008 21:31	6010B
2008030195	43	SS-15G (<0.063 mm Sieve Size)	3/24/2008	Chromium Dry Basis	26	mg/kg	4/10/2008 21:31	6010B
2008030195	43	SS-15G (<0.063 mm Sieve Size)	3/24/2008	Cobalt Dry Basis	8	mg/kg	4/10/2008 21:31	6010B
2008030195	43	SS-15G (<0.063 mm Sieve Size)	3/24/2008	Copper Dry Basis	87	mg/kg	4/10/2008 21:31	6010B
2008030195	43	SS-15G (<0.063 mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	12	%	1/2/1900	D421
2008030195	43	SS-15G (<0.063 mm Sieve Size)	3/24/2008	Fraction of Total Sample	2.4	%	1/2/1900	D421
2008030195	43	SS-15G (<0.063 mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1386	-----	4/9/2008	3050B
2008030195	43	SS-15G (<0.063 mm Sieve Size)	3/24/2008	Iron Dry Basis	15400	mg/kg	4/10/2008 20:32	6010B
2008030195	43	SS-15G (<0.063 mm Sieve Size)	3/24/2008	Lead Dry Basis	29	mg/kg	4/10/2008 21:31	6010B
2008030195	43	SS-15G (<0.063 mm Sieve Size)	3/24/2008	Manganese Dry Basis	703	mg/kg	4/10/2008 21:31	6010B
2008030195	43	SS-15G (<0.063 mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	841	-----	4/8/2008 16:50	7471B
2008030195	43	SS-15G (<0.063 mm Sieve Size)	3/24/2008	Mercury Dry Basis	0.5	mg/kg	4/9/2008 15:55	7471B
2008030195	43	SS-15G (<0.063 mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008 21:31	6010B
2008030195	43	SS-15G (<0.063 mm Sieve Size)	3/24/2008	Nickel Dry Basis	17	mg/kg	4/10/2008 21:31	6010B
2008030195	43	SS-15G (<0.063 mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008 21:31	6010B
2008030195	43	SS-15G (<0.063 mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008 21:31	6010B
2008030195	43	SS-15G (<0.063 mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008 14:09	6020
2008030195	43	SS-15G (<0.063 mm Sieve Size)	3/24/2008	Vanadium Dry Basis	34	mg/kg	4/10/2008 21:31	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030195	43	SS-15G (<0.063 mm Sieve Size)	3/24/2008	Zinc Dry Basis	124	mg/kg	4/10/2008 21:31	6010B
2008030195	44	SS-15B (<0.063 mm Sieve Size)	3/24/2008	Aluminum Dry Basis	14200	mg/kg	4/16/2008 12:23	6010B
2008030195	44	SS-15B (<0.063 mm Sieve Size)	3/24/2008	Antimony Dry Basis	11	mg/kg	4/14/2008 14:12	6020
2008030195	44	SS-15B (<0.063 mm Sieve Size)	3/24/2008	Arsenic Dry Basis	176	mg/kg	4/10/2008 21:33	6010B
2008030195	44	SS-15B (<0.063 mm Sieve Size)	3/24/2008	Barium Dry Basis	371	mg/kg	4/10/2008 21:33	6010B
2008030195	44	SS-15B (<0.063 mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008 21:33	6010B
2008030195	44	SS-15B (<0.063 mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008 21:33	6010B
2008030195	44	SS-15B (<0.063 mm Sieve Size)	3/24/2008	Cadmium Dry Basis	16	mg/kg	4/10/2008 21:33	6010B
2008030195	44	SS-15B (<0.063 mm Sieve Size)	3/24/2008	Chromium Dry Basis	15	mg/kg	4/10/2008 21:33	6010B
2008030195	44	SS-15B (<0.063 mm Sieve Size)	3/24/2008	Cobalt Dry Basis	8	mg/kg	4/10/2008 21:33	6010B
2008030195	44	SS-15B (<0.063 mm Sieve Size)	3/24/2008	Copper Dry Basis	2140	mg/kg	4/10/2008 20:35	6010B
2008030195	44	SS-15B (<0.063 mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	10	%	1/2/1900	D421
2008030195	44	SS-15B (<0.063 mm Sieve Size)	3/24/2008	Fraction of Total Sample	7.9	%	1/2/1900	D421
2008030195	44	SS-15B (<0.063 mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1386	-----	4/9/2008	3050B
2008030195	44	SS-15B (<0.063 mm Sieve Size)	3/24/2008	Iron Dry Basis	25600	mg/kg	4/10/2008 20:35	6010B
2008030195	44	SS-15B (<0.063 mm Sieve Size)	3/24/2008	Lead Dry Basis	699	mg/kg	4/10/2008 21:33	6010B
2008030195	44	SS-15B (<0.063 mm Sieve Size)	3/24/2008	Manganese Dry Basis	2000	mg/kg	4/10/2008 20:35	6010B
2008030195	44	SS-15B (<0.063 mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	841	-----	4/8/2008 16:50	7471B
2008030195	44	SS-15B (<0.063 mm Sieve Size)	3/24/2008	Mercury Dry Basis	5.8	mg/kg	4/9/2008 15:55	7471B
2008030195	44	SS-15B (<0.063 mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008 21:33	6010B
2008030195	44	SS-15B (<0.063 mm Sieve Size)	3/24/2008	Nickel Dry Basis	9	mg/kg	4/10/2008 21:33	6010B
2008030195	44	SS-15B (<0.063 mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008 21:33	6010B
2008030195	44	SS-15B (<0.063 mm Sieve Size)	3/24/2008	Silver Dry Basis	12	mg/kg	4/10/2008 21:33	6010B
2008030195	44	SS-15B (<0.063 mm Sieve Size)	3/24/2008	Uranium Dry Basis	5	mg/kg	4/14/2008 14:12	6020
2008030195	44	SS-15B (<0.063 mm Sieve Size)	3/24/2008	Vanadium Dry Basis	40	mg/kg	4/10/2008 21:33	6010B
2008030195	44	SS-15B (<0.063 mm Sieve Size)	3/24/2008	Zinc Dry Basis	3460	mg/kg	4/10/2008 20:35	6010B
2008030195	45	SS-17D (<0.063 mm Sieve Size)	3/24/2008	Aluminum Dry Basis	17400	mg/kg	4/16/2008 12:26	6010B
2008030195	45	SS-17D (<0.063 mm Sieve Size)	3/24/2008	Antimony Dry Basis	6	mg/kg	4/14/2008 14:14	6020
2008030195	45	SS-17D (<0.063 mm Sieve Size)	3/24/2008	Arsenic Dry Basis	109	mg/kg	4/10/2008 21:36	6010B
2008030195	45	SS-17D (<0.063 mm Sieve Size)	3/24/2008	Barium Dry Basis	308	mg/kg	4/10/2008 21:36	6010B
2008030195	45	SS-17D (<0.063 mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008 21:36	6010B
2008030195	45	SS-17D (<0.063 mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008 21:36	6010B
2008030195	45	SS-17D (<0.063 mm Sieve Size)	3/24/2008	Cadmium Dry Basis	10	mg/kg	4/10/2008 21:36	6010B
2008030195	45	SS-17D (<0.063 mm Sieve Size)	3/24/2008	Chromium Dry Basis	22	mg/kg	4/10/2008 21:36	6010B
2008030195	45	SS-17D (<0.063 mm Sieve Size)	3/24/2008	Cobalt Dry Basis	10	mg/kg	4/10/2008 21:36	6010B
2008030195	45	SS-17D (<0.063 mm Sieve Size)	3/24/2008	Copper Dry Basis	1130	mg/kg	4/10/2008 20:46	6010B
2008030195	45	SS-17D (<0.063 mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	2.6	%	1/2/1900	D421
2008030195	45	SS-17D (<0.063 mm Sieve Size)	3/24/2008	Fraction of Total Sample	1.7	%	1/2/1900	D421
2008030195	45	SS-17D (<0.063 mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1386	-----	4/9/2008	3050B
2008030195	45	SS-17D (<0.063 mm Sieve Size)	3/24/2008	Iron Dry Basis	24100	mg/kg	4/10/2008 20:46	6010B
2008030195	45	SS-17D (<0.063 mm Sieve Size)	3/24/2008	Lead Dry Basis	303	mg/kg	4/10/2008 21:36	6010B
2008030195	45	SS-17D (<0.063 mm Sieve Size)	3/24/2008	Manganese Dry Basis	2160	mg/kg	4/10/2008 20:46	6010B
2008030195	45	SS-17D (<0.063 mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	841	-----	4/8/2008 16:50	7471B
2008030195	45	SS-17D (<0.063 mm Sieve Size)	3/24/2008	Mercury Dry Basis	2.4	mg/kg	4/9/2008 15:55	7471B
2008030195	45	SS-17D (<0.063 mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	<5	mg/kg	4/10/2008 21:36	6010B
2008030195	45	SS-17D (<0.063 mm Sieve Size)	3/24/2008	Nickel Dry Basis	15	mg/kg	4/10/2008 21:36	6010B
2008030195	45	SS-17D (<0.063 mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008 21:36	6010B
2008030195	45	SS-17D (<0.063 mm Sieve Size)	3/24/2008	Silver Dry Basis	5	mg/kg	4/10/2008 21:36	6010B
2008030195	45	SS-17D (<0.063 mm Sieve Size)	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008 14:14	6020
2008030195	45	SS-17D (<0.063 mm Sieve Size)	3/24/2008	Vanadium Dry Basis	39	mg/kg	4/10/2008 21:36	6010B
2008030195	45	SS-17D (<0.063 mm Sieve Size)	3/24/2008	Zinc Dry Basis	2360	mg/kg	4/10/2008 20:46	6010B
2008030195	46	SS-06G (<0.063 mm Sieve Size)	3/24/2008	Aluminum Dry Basis	15900	mg/kg	4/16/2008 12:32	6010B
2008030195	46	SS-06G (<0.063 mm Sieve Size)	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008 14:17	6020
2008030195	46	SS-06G (<0.063 mm Sieve Size)	3/24/2008	Arsenic Dry Basis	77	mg/kg	4/10/2008 21:39	6010B
2008030195	46	SS-06G (<0.063 mm Sieve Size)	3/24/2008	Barium Dry Basis	532	mg/kg	4/10/2008 21:39	6010B
2008030195	46	SS-06G (<0.063 mm Sieve Size)	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008 21:39	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030195	46	SS-06G (<0.063 mm Sieve Size)	3/24/2008	Boron Dry Basis	<10	mg/kg	4/10/2008 21:39	6010B
2008030195	46	SS-06G (<0.063 mm Sieve Size)	3/24/2008	Cadmium Dry Basis	19	mg/kg	4/10/2008 21:39	6010B
2008030195	46	SS-06G (<0.063 mm Sieve Size)	3/24/2008	Chromium Dry Basis	57	mg/kg	4/10/2008 21:39	6010B
2008030195	46	SS-06G (<0.063 mm Sieve Size)	3/24/2008	Cobalt Dry Basis	25	mg/kg	4/10/2008 21:39	6010B
2008030195	46	SS-06G (<0.063 mm Sieve Size)	3/24/2008	Copper Dry Basis	871	mg/kg	4/10/2008 21:39	6010B
2008030195	46	SS-06G (<0.063 mm Sieve Size)	3/24/2008	Fraction of <2 mm Sample	0.6	%	1/2/1900	D421
2008030195	46	SS-06G (<0.063 mm Sieve Size)	3/24/2008	Fraction of Total Sample	0.6	%	1/2/1900	D421
2008030195	46	SS-06G (<0.063 mm Sieve Size)	3/24/2008	ICP/AA Batch#/Digest Date	1386	-----	4/9/2008	3050B
2008030195	46	SS-06G (<0.063 mm Sieve Size)	3/24/2008	Iron Dry Basis	28700	mg/kg	4/10/2008 20:49	6010B
2008030195	46	SS-06G (<0.063 mm Sieve Size)	3/24/2008	Lead Dry Basis	254	mg/kg	4/10/2008 21:39	6010B
2008030195	46	SS-06G (<0.063 mm Sieve Size)	3/24/2008	Manganese Dry Basis	12400	mg/kg	4/10/2008 20:49	6010B
2008030195	46	SS-06G (<0.063 mm Sieve Size)	3/24/2008	Mercury Batch #/Digest Date	841	-----	4/8/2008 16:50	7471B
2008030195	46	SS-06G (<0.063 mm Sieve Size)	3/24/2008	Mercury Dry Basis	1.1	mg/kg	4/9/2008 15:55	7471B
2008030195	46	SS-06G (<0.063 mm Sieve Size)	3/24/2008	Molybdenum Dry Basis	9	mg/kg	4/10/2008 21:39	6010B
2008030195	46	SS-06G (<0.063 mm Sieve Size)	3/24/2008	Nickel Dry Basis	35	mg/kg	4/10/2008 21:39	6010B
2008030195	46	SS-06G (<0.063 mm Sieve Size)	3/24/2008	Selenium Dry Basis	<10	mg/kg	4/10/2008 21:39	6010B
2008030195	46	SS-06G (<0.063 mm Sieve Size)	3/24/2008	Silver Dry Basis	<5	mg/kg	4/10/2008 21:39	6010B
2008030195	46	SS-06G (<0.063 mm Sieve Size)	3/24/2008	Uranium Dry Basis	6	mg/kg	4/14/2008 14:17	6020
2008030195	46	SS-06G (<0.063 mm Sieve Size)	3/24/2008	Vanadium Dry Basis	88	mg/kg	4/10/2008 21:39	6010B
2008030195	46	SS-06G (<0.063 mm Sieve Size)	3/24/2008	Zinc Dry Basis	2320	mg/kg	4/10/2008 20:49	6010B
2008030195	47	DUPLICATE OF 2008030195-35	3/24/2008	Aluminum Dry Basis	10100	mg/kg	4/16/2008 11:51	6010B
2008030195	47	DUPLICATE OF 2008030195-35	3/24/2008	Antimony Dry Basis	<5	mg/kg	4/14/2008 13:40	6020
2008030195	47	DUPLICATE OF 2008030195-35	3/24/2008	Arsenic Dry Basis	61	mg/kg	4/15/2008 12:47	6010B
2008030195	47	DUPLICATE OF 2008030195-35	3/24/2008	Barium Dry Basis	314	mg/kg	4/10/2008 20:55	6010B
2008030195	47	DUPLICATE OF 2008030195-35	3/24/2008	Beryllium Dry Basis	<2	mg/kg	4/10/2008 20:55	6010B
2008030195	47	DUPLICATE OF 2008030195-35	3/24/2008	Boron Dry Basis	<10	mg/kg	4/15/2008 12:47	6010B
2008030195	47	DUPLICATE OF 2008030195-35	3/24/2008	Cadmium Dry Basis	14	mg/kg	4/15/2008 12:47	6010B
2008030195	47	DUPLICATE OF 2008030195-35	3/24/2008	Chromium Dry Basis	46	mg/kg	4/10/2008 20:55	6010B
2008030195	47	DUPLICATE OF 2008030195-35	3/24/2008	Cobalt Dry Basis	14	mg/kg	4/10/2008 20:55	6010B
2008030195	47	DUPLICATE OF 2008030195-35	3/24/2008	Copper Dry Basis	811	mg/kg	4/10/2008 20:55	6010B
2008030195	47	DUPLICATE OF 2008030195-35	3/24/2008	ICP/AA Batch#/Digest Date	1386	-----	4/9/2008	3050B
2008030195	47	DUPLICATE OF 2008030195-35	3/24/2008	Iron Dry Basis	27900	mg/kg	4/10/2008 19:56	6010B
2008030195	47	DUPLICATE OF 2008030195-35	3/24/2008	Lead Dry Basis	199	mg/kg	4/10/2008 20:55	6010B
2008030195	47	DUPLICATE OF 2008030195-35	3/24/2008	Manganese Dry Basis	4650	mg/kg	4/10/2008 19:56	6010B
2008030195	47	DUPLICATE OF 2008030195-35	3/24/2008	Mercury Batch #/Digest Date	841	-----	4/8/2008 16:50	7471B
2008030195	47	DUPLICATE OF 2008030195-35	3/24/2008	Mercury Dry Basis	0.6	mg/kg	4/9/2008 15:55	7471B
2008030195	47	DUPLICATE OF 2008030195-35	3/24/2008	Molybdenum Dry Basis	6	mg/kg	4/15/2008 12:47	6010B
2008030195	47	DUPLICATE OF 2008030195-35	3/24/2008	Nickel Dry Basis	29	mg/kg	4/10/2008 20:55	6010B
2008030195	47	DUPLICATE OF 2008030195-35	3/24/2008	Selenium Dry Basis	<30*	mg/kg	4/15/2008 12:47	6010B
2008030195	47	DUPLICATE OF 2008030195-35	3/24/2008	Silver Dry Basis	6	mg/kg	4/15/2008 12:47	6010B
2008030195	47	DUPLICATE OF 2008030195-35	3/24/2008	Uranium Dry Basis	<5	mg/kg	4/14/2008 13:40	6020
2008030195	47	DUPLICATE OF 2008030195-35	3/24/2008	Vanadium Dry Basis	67	mg/kg	4/10/2008 20:55	6010B
2008030195	47	DUPLICATE OF 2008030195-35	3/24/2008	Zinc Dry Basis	1830	mg/kg	4/10/2008 20:55	6010B
2008030195	48	MATRIX SPIKE OF 2008030195-40	3/24/2008	Aluminum Dry Basis	-2	% [75-125]	4/16/2008 12:11	6010B
2008030195	48	MATRIX SPIKE OF 2008030195-40	3/24/2008	Antimony Dry Basis	96	% [61-122]	4/14/2008 13:56	6020
2008030195	48	MATRIX SPIKE OF 2008030195-40	3/24/2008	Arsenic Dry Basis	91	% [69-126]	4/10/2008 21:13	6010B
2008030195	48	MATRIX SPIKE OF 2008030195-40	3/24/2008	Barium Dry Basis	90	% [66-137]	4/10/2008 21:13	6010B
2008030195	48	MATRIX SPIKE OF 2008030195-40	3/24/2008	Beryllium Dry Basis	92	% [77-112]	4/10/2008 21:13	6010B
2008030195	48	MATRIX SPIKE OF 2008030195-40	3/24/2008	Boron Dry Basis	88	% [75-125]	4/10/2008 21:13	6010B
2008030195	48	MATRIX SPIKE OF 2008030195-40	3/24/2008	Cadmium Dry Basis	89	% [77-117]	4/10/2008 21:13	6010B
2008030195	48	MATRIX SPIKE OF 2008030195-40	3/24/2008	Chromium Dry Basis	90	% [75-125]	4/10/2008 21:13	6010B
2008030195	48	MATRIX SPIKE OF 2008030195-40	3/24/2008	Cobalt Dry Basis	90	% [75-125]	4/10/2008 21:13	6010B
2008030195	48	MATRIX SPIKE OF 2008030195-40	3/24/2008	Copper Dry Basis	88	% [66-133]	4/10/2008 21:13	6010B
2008030195	48	MATRIX SPIKE OF 2008030195-40	3/24/2008	ICP/AA Batch#/Digest Date	1386	-----	4/9/2008	3050B
2008030195	48	MATRIX SPIKE OF 2008030195-40	3/24/2008	Iron Dry Basis	-2	% [75-125]	4/10/2008 20:23	6010B
2008030195	48	MATRIX SPIKE OF 2008030195-40	3/24/2008	Lead Dry Basis	88	% [75-121]	4/10/2008 21:13	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008030195	48	MATRIX SPIKE OF 2008030195-40	3/24/2008	Manganese Dry Basis	82	% [67-128]	4/10/2008 20:23	6010B
2008030195	48	MATRIX SPIKE OF 2008030195-40	3/24/2008	Mercury Batch #/Digest Date	841	-----	4/8/2008 16:50	7471B
2008030195	48	MATRIX SPIKE OF 2008030195-40	3/24/2008	Mercury Dry Basis	115	% [55-139]	4/9/2008 15:55	7471B
2008030195	48	MATRIX SPIKE OF 2008030195-40	3/24/2008	Molybdenum Dry Basis	90	% [75-125]	4/10/2008 21:13	6010B
2008030195	48	MATRIX SPIKE OF 2008030195-40	3/24/2008	Nickel Dry Basis	89	% [74-113]	4/10/2008 21:13	6010B
2008030195	48	MATRIX SPIKE OF 2008030195-40	3/24/2008	Selenium Dry Basis	91	% [79-116]	4/10/2008 21:13	6010B
2008030195	48	MATRIX SPIKE OF 2008030195-40	3/24/2008	Silver Dry Basis	91	% [76-119]	4/10/2008 21:13	6010B
2008030195	48	MATRIX SPIKE OF 2008030195-40	3/24/2008	Uranium Dry Basis	104	% [75-125]	4/14/2008 13:56	6020
2008030195	48	MATRIX SPIKE OF 2008030195-40	3/24/2008	Vanadium Dry Basis	92	% [76-117]	4/10/2008 21:13	6010B
2008030195	48	MATRIX SPIKE OF 2008030195-40	3/24/2008	Zinc Dry Basis	90	% [65-133]	4/10/2008 21:13	6010B
2008030195	50	METHOD BLANK	1/2/1900	Aluminum Dry Basis	<1	mg/l	4/16/2008 11:36	6010B
2008030195	50	METHOD BLANK	1/2/1900	Antimony Dry Basis	<0.05	mg/l	4/14/2008 13:22	6020
2008030195	50	METHOD BLANK	1/2/1900	Arsenic Dry Basis	<0.1	mg/l	4/10/2008 19:42	6010B
2008030195	50	METHOD BLANK	1/2/1900	Barium Dry Basis	<0.05	mg/l	4/10/2008 19:42	6010B
2008030195	50	METHOD BLANK	1/2/1900	Beryllium Dry Basis	<0.02	mg/l	4/10/2008 19:42	6010B
2008030195	50	METHOD BLANK	1/2/1900	Boron Dry Basis	<0.1	mg/l	4/10/2008 19:42	6010B
2008030195	50	METHOD BLANK	1/2/1900	Cadmium Dry Basis	<0.02	mg/l	4/10/2008 19:42	6010B
2008030195	50	METHOD BLANK	1/2/1900	Chromium Dry Basis	<0.02	mg/l	4/10/2008 19:42	6010B
2008030195	50	METHOD BLANK	1/2/1900	Cobalt Dry Basis	<0.05	mg/l	4/10/2008 19:42	6010B
2008030195	50	METHOD BLANK	1/2/1900	Copper Dry Basis	<0.1	mg/l	4/10/2008 19:42	6010B
2008030195	50	METHOD BLANK	1/2/1900	ICP/AA Batch#/Digest Date	1386	-----	4/9/2008	3050B
2008030195	50	METHOD BLANK	1/2/1900	Iron Dry Basis	<1	mg/l	4/10/2008 19:42	6010B
2008030195	50	METHOD BLANK	1/2/1900	Lead Dry Basis	<0.1	mg/l	4/10/2008 19:42	6010B
2008030195	50	METHOD BLANK	1/2/1900	Manganese Dry Basis	<0.02	mg/l	4/10/2008 19:42	6010B
2008030195	50	METHOD BLANK	1/2/1900	Mercury Batch #/Digest Date	841	-----	4/8/2008 16:50	7471B
2008030195	50	METHOD BLANK	1/2/1900	Mercury Dry Basis	<0.002	mg/l	4/9/2008 15:55	7471B
2008030195	50	METHOD BLANK	1/2/1900	Molybdenum Dry Basis	<0.05	mg/l	4/10/2008 19:42	6010B
2008030195	50	METHOD BLANK	1/2/1900	Nickel Dry Basis	<0.05	mg/l	4/10/2008 19:42	6010B
2008030195	50	METHOD BLANK	1/2/1900	Selenium Dry Basis	<0.1	mg/l	4/10/2008 19:42	6010B
2008030195	50	METHOD BLANK	1/2/1900	Silver Dry Basis	<0.05	mg/l	4/10/2008 19:42	6010B
2008030195	50	METHOD BLANK	1/2/1900	Uranium Dry Basis	<0.05	mg/l	4/14/2008 13:22	6020
2008030195	50	METHOD BLANK	1/2/1900	Vanadium Dry Basis	<0.05	mg/l	4/10/2008 19:42	6010B
2008030195	50	METHOD BLANK	1/2/1900	Zinc Dry Basis	<0.1	mg/l	4/10/2008 19:42	6010B
2008030195	51	LABORATORY CONTROL SAMPLE	1/2/1900	Aluminum Dry Basis	97	% [80-120]	4/16/2008 11:39	6010B
2008030195	51	LABORATORY CONTROL SAMPLE	1/2/1900	Antimony Dry Basis	104	% [65-128]	4/14/2008 13:25	6020
2008030195	51	LABORATORY CONTROL SAMPLE	1/2/1900	Arsenic Dry Basis	92	% [86-113]	4/10/2008 19:44	6010B
2008030195	51	LABORATORY CONTROL SAMPLE	1/2/1900	Barium Dry Basis	98	% [84-119]	4/10/2008 19:44	6010B
2008030195	51	LABORATORY CONTROL SAMPLE	1/2/1900	Beryllium Dry Basis	96	% [85-112]	4/10/2008 19:44	6010B
2008030195	51	LABORATORY CONTROL SAMPLE	1/2/1900	Boron Dry Basis	95	% [80-120]	4/10/2008 19:44	6010B
2008030195	51	LABORATORY CONTROL SAMPLE	1/2/1900	Cadmium Dry Basis	95	% [85-118]	4/10/2008 19:44	6010B
2008030195	51	LABORATORY CONTROL SAMPLE	1/2/1900	Chromium Dry Basis	94	% [85-115]	4/10/2008 19:44	6010B
2008030195	51	LABORATORY CONTROL SAMPLE	1/2/1900	Cobalt Dry Basis	94	% [80-120]	4/10/2008 19:44	6010B
2008030195	51	LABORATORY CONTROL SAMPLE	1/2/1900	Copper Dry Basis	89	% [82-119]	4/10/2008 19:44	6010B
2008030195	51	LABORATORY CONTROL SAMPLE	1/2/1900	ICP/AA Batch#/Digest Date	1386	-----	4/9/2008	3050B
2008030195	51	LABORATORY CONTROL SAMPLE	1/2/1900	Iron Dry Basis	104	% [80-120]	4/10/2008 19:44	6010B
2008030195	51	LABORATORY CONTROL SAMPLE	1/2/1900	Lead Dry Basis	94	% [85-118]	4/10/2008 19:44	6010B
2008030195	51	LABORATORY CONTROL SAMPLE	1/2/1900	Manganese Dry Basis	97	% [84-117]	4/10/2008 19:44	6010B
2008030195	51	LABORATORY CONTROL SAMPLE	1/2/1900	Mercury Batch #/Digest Date	841	-----	4/8/2008 16:50	7471B
2008030195	51	LABORATORY CONTROL SAMPLE	1/2/1900	Mercury Dry Basis	112	% [82-125]	4/9/2008 15:55	7471B
2008030195	51	LABORATORY CONTROL SAMPLE	1/2/1900	Molybdenum Dry Basis	92	% [80-120]	4/10/2008 19:44	6010B
2008030195	51	LABORATORY CONTROL SAMPLE	1/2/1900	Nickel Dry Basis	94	% [83-113]	4/10/2008 19:44	6010B
2008030195	51	LABORATORY CONTROL SAMPLE	1/2/1900	Selenium Dry Basis	96	% [82-116]	4/10/2008 19:44	6010B
2008030195	51	LABORATORY CONTROL SAMPLE	1/2/1900	Silver Dry Basis	92	% [86-112]	4/10/2008 19:44	6010B
2008030195	51	LABORATORY CONTROL SAMPLE	1/2/1900	Uranium Dry Basis	106	% [80-120]	4/14/2008 13:25	6020
2008030195	51	LABORATORY CONTROL SAMPLE	1/2/1900	Vanadium Dry Basis	92	% [78-123]	4/10/2008 19:44	6010B
2008030195	51	LABORATORY CONTROL SAMPLE	1/2/1900	Zinc Dry Basis	94	% [80-120]	4/10/2008 19:44	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070025	1	SS-07 (1mm to 2 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	3300	mg/kg	7/25/2008	6010B
2008070025	1	SS-07 (1mm to 2 mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	7/25/2008	6020
2008070025	1	SS-07 (1mm to 2 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	35	mg/kg	7/24/2008	6010B
2008070025	1	SS-07 (1mm to 2 mm Sieve Size)	6/30/2008	Barium Dry Basis	90	mg/kg	7/24/2008 18:38	6010B
2008070025	1	SS-07 (1mm to 2 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/kg	7/25/2008 17:36	6020
2008070025	1	SS-07 (1mm to 2 mm Sieve Size)	6/30/2008	Boron Dry Basis	<10	mg/kg	7/31/2008 12:27	6010B
2008070025	1	SS-07 (1mm to 2 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	<2	mg/kg	7/24/2008	6010B
2008070025	1	SS-07 (1mm to 2 mm Sieve Size)	6/30/2008	Chromium Dry Basis	8	mg/kg	7/24/2008 18:38	6010B
2008070025	1	SS-07 (1mm to 2 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	<5	mg/kg	7/24/2008 18:38	6010B
2008070025	1	SS-07 (1mm to 2 mm Sieve Size)	6/30/2008	Copper Dry Basis	104	mg/kg	7/24/2008	6010B
2008070025	1	SS-07 (1mm to 2 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	53.4	%	1/2/1900 0:00	D421
2008070025	1	SS-07 (1mm to 2 mm Sieve Size)	6/30/2008	Fraction of Total Sample	40.5	%	1/2/1900 0:00	D421
2008070025	1	SS-07 (1mm to 2 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1647	-----	7/22/2008	3050B SB
2008070025	1	SS-07 (1mm to 2 mm Sieve Size)	6/30/2008	Iron Dry Basis	8670	mg/kg	7/25/2008 15:41	6010B
2008070025	1	SS-07 (1mm to 2 mm Sieve Size)	6/30/2008	Lead Dry Basis	75	mg/kg	7/31/2008	6010B
2008070025	1	SS-07 (1mm to 2 mm Sieve Size)	6/30/2008	Manganese Dry Basis	960	mg/kg	7/25/2008 15:41	6010B
2008070025	1	SS-07 (1mm to 2 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	862	-----	7/23/2008	7471B
2008070025	1	SS-07 (1mm to 2 mm Sieve Size)	6/30/2008	Mercury Dry Basis	<0.1	mg/kg	7/24/2008	7471B
2008070025	1	SS-07 (1mm to 2 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	1	SS-07 (1mm to 2 mm Sieve Size)	6/30/2008	Nickel Dry Basis	<5	mg/kg	7/24/2008 18:38	6010B
2008070025	1	SS-07 (1mm to 2 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	7/25/2008	6020
2008070025	1	SS-07 (1mm to 2 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	1	SS-07 (1mm to 2 mm Sieve Size)	6/30/2008	Uranium Dry Basis	5	mg/kg	7/29/2008	6020
2008070025	1	SS-07 (1mm to 2 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	19	mg/kg	7/24/2008 18:38	6010B
2008070025	1	SS-07 (1mm to 2 mm Sieve Size)	6/30/2008	Zinc Dry Basis	320	mg/kg	7/24/2008 18:38	6010B
2008070025	2	SS-08 (1mm to 2 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	2590	mg/kg	7/25/2008 15:50	6010B
2008070025	2	SS-08 (1mm to 2 mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	7/25/2008	6020
2008070025	2	SS-08 (1mm to 2 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	42	mg/kg	7/24/2008 18:47	6010B
2008070025	2	SS-08 (1mm to 2 mm Sieve Size)	6/30/2008	Barium Dry Basis	66	mg/kg	7/24/2008 18:47	6010B
2008070025	2	SS-08 (1mm to 2 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/kg	7/25/2008	6020
2008070025	2	SS-08 (1mm to 2 mm Sieve Size)	6/30/2008	Boron Dry Basis	<10	mg/kg	7/31/2008 12:36	6010B
2008070025	2	SS-08 (1mm to 2 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	<2	mg/kg	7/24/2008 18:47	6010B
2008070025	2	SS-08 (1mm to 2 mm Sieve Size)	6/30/2008	Chromium Dry Basis	5	mg/kg	7/24/2008	6010B
2008070025	2	SS-08 (1mm to 2 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	<5	mg/kg	7/24/2008 18:47	6010B
2008070025	2	SS-08 (1mm to 2 mm Sieve Size)	6/30/2008	Copper Dry Basis	281	mg/kg	7/24/2008	6010B
2008070025	2	SS-08 (1mm to 2 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	84.3	%	1/2/1900 0:00	D421
2008070025	2	SS-08 (1mm to 2 mm Sieve Size)	6/30/2008	Fraction of Total Sample	15.3	%	1/2/1900	D421
2008070025	2	SS-08 (1mm to 2 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1647	-----	7/22/2008	3050B SB
2008070025	2	SS-08 (1mm to 2 mm Sieve Size)	6/30/2008	Iron Dry Basis	9160	mg/kg	7/25/2008	6010B
2008070025	2	SS-08 (1mm to 2 mm Sieve Size)	6/30/2008	Lead Dry Basis	59	mg/kg	7/31/2008 16:15	6010B
2008070025	2	SS-08 (1mm to 2 mm Sieve Size)	6/30/2008	Manganese Dry Basis	459	mg/kg	7/25/2008	6010B
2008070025	2	SS-08 (1mm to 2 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	862	-----	7/23/2008	7471B
2008070025	2	SS-08 (1mm to 2 mm Sieve Size)	6/30/2008	Mercury Dry Basis	0.3	mg/kg	7/24/2008	7471B
2008070025	2	SS-08 (1mm to 2 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	7/24/2008 18:47	6010B
2008070025	2	SS-08 (1mm to 2 mm Sieve Size)	6/30/2008	Nickel Dry Basis	<5	mg/kg	7/24/2008 18:47	6010B
2008070025	2	SS-08 (1mm to 2 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	7/25/2008 17:53	6020
2008070025	2	SS-08 (1mm to 2 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	7/24/2008 18:47	6010B
2008070025	2	SS-08 (1mm to 2 mm Sieve Size)	6/30/2008	Uranium Dry Basis	<5	mg/kg	7/29/2008 16:01	6020
2008070025	2	SS-08 (1mm to 2 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	21	mg/kg	7/24/2008 18:47	6010B
2008070025	2	SS-08 (1mm to 2 mm Sieve Size)	6/30/2008	Zinc Dry Basis	378	mg/kg	7/24/2008	6010B
2008070025	3	SS-10B (1mm to 2 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	6460	mg/kg	7/25/2008 16:21	6010B
2008070025	3	SS-10B (1mm to 2 mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	7/25/2008 17:56	6020
2008070025	3	SS-10B (1mm to 2 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	<10	mg/kg	7/24/2008 18:50	6010B
2008070025	3	SS-10B (1mm to 2 mm Sieve Size)	6/30/2008	Barium Dry Basis	126	mg/kg	7/24/2008 18:50	6010B
2008070025	3	SS-10B (1mm to 2 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/kg	7/25/2008	6020
2008070025	3	SS-10B (1mm to 2 mm Sieve Size)	6/30/2008	Boron Dry Basis	<10	mg/kg	7/31/2008 12:39	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070025	3	SS-10B (1mm to 2 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	<2	mg/kg	7/24/2008 18:50	6010B
2008070025	3	SS-10B (1mm to 2 mm Sieve Size)	6/30/2008	Chromium Dry Basis	6	mg/kg	7/24/2008 18:50	6010B
2008070025	3	SS-10B (1mm to 2 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	3	SS-10B (1mm to 2 mm Sieve Size)	6/30/2008	Copper Dry Basis	57	mg/kg	7/24/2008	6010B
2008070025	3	SS-10B (1mm to 2 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	23.6	%	1/2/1900 0:00	D421
2008070025	3	SS-10B (1mm to 2 mm Sieve Size)	6/30/2008	Fraction of Total Sample	22.4	%	1/2/1900 0:00	D421
2008070025	3	SS-10B (1mm to 2 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1647	-----	7/22/2008 13:50	3050B SB
2008070025	3	SS-10B (1mm to 2 mm Sieve Size)	6/30/2008	Iron Dry Basis	10800	mg/kg	7/25/2008	6010B
2008070025	3	SS-10B (1mm to 2 mm Sieve Size)	6/30/2008	Lead Dry Basis	20	mg/kg	7/31/2008 16:18	6010B
2008070025	3	SS-10B (1mm to 2 mm Sieve Size)	6/30/2008	Manganese Dry Basis	527	mg/kg	7/25/2008 16:21	6010B
2008070025	3	SS-10B (1mm to 2 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	862	-----	7/23/2008	7471B
2008070025	3	SS-10B (1mm to 2 mm Sieve Size)	6/30/2008	Mercury Dry Basis	<0.1	mg/kg	7/24/2008	7471B
2008070025	3	SS-10B (1mm to 2 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	7/24/2008 18:50	6010B
2008070025	3	SS-10B (1mm to 2 mm Sieve Size)	6/30/2008	Nickel Dry Basis	<5	mg/kg	7/24/2008 18:50	6010B
2008070025	3	SS-10B (1mm to 2 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	7/25/2008 17:56	6020
2008070025	3	SS-10B (1mm to 2 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	3	SS-10B (1mm to 2 mm Sieve Size)	6/30/2008	Uranium Dry Basis	<5	mg/kg	7/29/2008	6020
2008070025	3	SS-10B (1mm to 2 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	19	mg/kg	7/24/2008 18:50	6010B
2008070025	3	SS-10B (1mm to 2 mm Sieve Size)	6/30/2008	Zinc Dry Basis	166	mg/kg	7/24/2008 18:50	6010B
2008070025	4	SS-10A (1mm to 2 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	12600	mg/kg	7/25/2008 16:24	6010B
2008070025	4	SS-10A (1mm to 2 mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	7/25/2008	6020
2008070025	4	SS-10A (1mm to 2 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	12	mg/kg	7/24/2008 18:53	6010B
2008070025	4	SS-10A (1mm to 2 mm Sieve Size)	6/30/2008	Barium Dry Basis	195	mg/kg	7/24/2008	6010B
2008070025	4	SS-10A (1mm to 2 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/kg	7/25/2008 17:59	6020
2008070025	4	SS-10A (1mm to 2 mm Sieve Size)	6/30/2008	Boron Dry Basis	<10	mg/kg	7/31/2008 12:42	6010B
2008070025	4	SS-10A (1mm to 2 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	<2	mg/kg	7/24/2008 18:53	6010B
2008070025	4	SS-10A (1mm to 2 mm Sieve Size)	6/30/2008	Chromium Dry Basis	12	mg/kg	7/24/2008 18:53	6010B
2008070025	4	SS-10A (1mm to 2 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	9	mg/kg	7/24/2008 18:53	6010B
2008070025	4	SS-10A (1mm to 2 mm Sieve Size)	6/30/2008	Copper Dry Basis	270	mg/kg	7/24/2008	6010B
2008070025	4	SS-10A (1mm to 2 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	47.8	%	1/2/1900 0:00	D421
2008070025	4	SS-10A (1mm to 2 mm Sieve Size)	6/30/2008	Fraction of Total Sample	9	%	1/2/1900	D421
2008070025	4	SS-10A (1mm to 2 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1647	-----	7/22/2008	3050B SB
2008070025	4	SS-10A (1mm to 2 mm Sieve Size)	6/30/2008	Iron Dry Basis	19700	mg/kg	7/25/2008	6010B
2008070025	4	SS-10A (1mm to 2 mm Sieve Size)	6/30/2008	Lead Dry Basis	37	mg/kg	7/31/2008 16:21	6010B
2008070025	4	SS-10A (1mm to 2 mm Sieve Size)	6/30/2008	Manganese Dry Basis	846	mg/kg	7/25/2008	6010B
2008070025	4	SS-10A (1mm to 2 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	862	-----	7/23/2008	7471B
2008070025	4	SS-10A (1mm to 2 mm Sieve Size)	6/30/2008	Mercury Dry Basis	<0.1	mg/kg	7/24/2008	7471B
2008070025	4	SS-10A (1mm to 2 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	7/24/2008 18:53	6010B
2008070025	4	SS-10A (1mm to 2 mm Sieve Size)	6/30/2008	Nickel Dry Basis	7	mg/kg	7/24/2008 18:53	6010B
2008070025	4	SS-10A (1mm to 2 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	7/25/2008	6020
2008070025	4	SS-10A (1mm to 2 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	4	SS-10A (1mm to 2 mm Sieve Size)	6/30/2008	Uranium Dry Basis	<5	mg/kg	7/29/2008	6020
2008070025	4	SS-10A (1mm to 2 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	40	mg/kg	7/24/2008	6010B
2008070025	4	SS-10A (1mm to 2 mm Sieve Size)	6/30/2008	Zinc Dry Basis	597	mg/kg	7/24/2008	6010B
2008070025	5	SS-11C (1mm to 2 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	5710	mg/kg	7/25/2008 16:30	6010B
2008070025	5	SS-11C (1mm to 2 mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	7/25/2008 18:02	6020
2008070025	5	SS-11C (1mm to 2 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	<10	mg/kg	7/24/2008	6010B
2008070025	5	SS-11C (1mm to 2 mm Sieve Size)	6/30/2008	Barium Dry Basis	130	mg/kg	7/24/2008	6010B
2008070025	5	SS-11C (1mm to 2 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/kg	7/25/2008 18:02	6020
2008070025	5	SS-11C (1mm to 2 mm Sieve Size)	6/30/2008	Boron Dry Basis	<10	mg/kg	7/31/2008	6010B
2008070025	5	SS-11C (1mm to 2 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	<2	mg/kg	7/24/2008	6010B
2008070025	5	SS-11C (1mm to 2 mm Sieve Size)	6/30/2008	Chromium Dry Basis	12	mg/kg	7/24/2008 18:56	6010B
2008070025	5	SS-11C (1mm to 2 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	<5	mg/kg	7/24/2008 18:56	6010B
2008070025	5	SS-11C (1mm to 2 mm Sieve Size)	6/30/2008	Copper Dry Basis	19	mg/kg	7/24/2008 18:56	6010B
2008070025	5	SS-11C (1mm to 2 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	65.1	%	1/2/1900	D421
2008070025	5	SS-11C (1mm to 2 mm Sieve Size)	6/30/2008	Fraction of Total Sample	20.3	%	1/2/1900 0:00	D421

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070025	5	SS-11C (1mm to 2 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1647	-----	7/22/2008 13:50	3050B SB
2008070025	5	SS-11C (1mm to 2 mm Sieve Size)	6/30/2008	Iron Dry Basis	9570	mg/kg	7/25/2008	6010B
2008070025	5	SS-11C (1mm to 2 mm Sieve Size)	6/30/2008	Lead Dry Basis	<10	mg/kg	7/31/2008	6010B
2008070025	5	SS-11C (1mm to 2 mm Sieve Size)	6/30/2008	Manganese Dry Basis	314	mg/kg	7/25/2008 16:30	6010B
2008070025	5	SS-11C (1mm to 2 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	862	-----	7/23/2008 13:40	7471B
2008070025	5	SS-11C (1mm to 2 mm Sieve Size)	6/30/2008	Mercury Dry Basis	<0.1	mg/kg	7/24/2008 11:05	7471B
2008070025	5	SS-11C (1mm to 2 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	5	SS-11C (1mm to 2 mm Sieve Size)	6/30/2008	Nickel Dry Basis	7	mg/kg	7/24/2008	6010B
2008070025	5	SS-11C (1mm to 2 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	7/25/2008 18:02	6020
2008070025	5	SS-11C (1mm to 2 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	7/24/2008 18:56	6010B
2008070025	5	SS-11C (1mm to 2 mm Sieve Size)	6/30/2008	Uranium Dry Basis	<5	mg/kg	7/29/2008 16:06	6020
2008070025	5	SS-11C (1mm to 2 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	20	mg/kg	7/24/2008	6010B
2008070025	5	SS-11C (1mm to 2 mm Sieve Size)	6/30/2008	Zinc Dry Basis	56	mg/kg	7/31/2008 16:30	6010B
2008070025	6	SS-11D (1mm to 2 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	6980	mg/kg	7/25/2008	6010B
2008070025	6	SS-11D (1mm to 2 mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	7/25/2008 18:05	6020
2008070025	6	SS-11D (1mm to 2 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	<10	mg/kg	7/24/2008 18:59	6010B
2008070025	6	SS-11D (1mm to 2 mm Sieve Size)	6/30/2008	Barium Dry Basis	126	mg/kg	7/24/2008 18:59	6010B
2008070025	6	SS-11D (1mm to 2 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/kg	7/25/2008 18:05	6020
2008070025	6	SS-11D (1mm to 2 mm Sieve Size)	6/30/2008	Boron Dry Basis	<10	mg/kg	7/31/2008 12:54	6010B
2008070025	6	SS-11D (1mm to 2 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	<2	mg/kg	7/24/2008	6010B
2008070025	6	SS-11D (1mm to 2 mm Sieve Size)	6/30/2008	Chromium Dry Basis	14	mg/kg	7/24/2008 18:59	6010B
2008070025	6	SS-11D (1mm to 2 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	5	mg/kg	7/24/2008	6010B
2008070025	6	SS-11D (1mm to 2 mm Sieve Size)	6/30/2008	Copper Dry Basis	33	mg/kg	7/24/2008	6010B
2008070025	6	SS-11D (1mm to 2 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	60.1	%	1/2/1900	D421
2008070025	6	SS-11D (1mm to 2 mm Sieve Size)	6/30/2008	Fraction of Total Sample	3.2	%	1/2/1900 0:00	D421
2008070025	6	SS-11D (1mm to 2 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1647	-----	7/22/2008	3050B SB
2008070025	6	SS-11D (1mm to 2 mm Sieve Size)	6/30/2008	Iron Dry Basis	11300	mg/kg	7/25/2008	6010B
2008070025	6	SS-11D (1mm to 2 mm Sieve Size)	6/30/2008	Lead Dry Basis	16	mg/kg	7/31/2008	6010B
2008070025	6	SS-11D (1mm to 2 mm Sieve Size)	6/30/2008	Manganese Dry Basis	405	mg/kg	7/25/2008	6010B
2008070025	6	SS-11D (1mm to 2 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	862	-----	7/23/2008 13:40	7471B
2008070025	6	SS-11D (1mm to 2 mm Sieve Size)	6/30/2008	Mercury Dry Basis	<0.1	mg/kg	7/24/2008 11:05	7471B
2008070025	6	SS-11D (1mm to 2 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	6	SS-11D (1mm to 2 mm Sieve Size)	6/30/2008	Nickel Dry Basis	8	mg/kg	7/24/2008 18:59	6010B
2008070025	6	SS-11D (1mm to 2 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	7/25/2008 18:05	6020
2008070025	6	SS-11D (1mm to 2 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	6	SS-11D (1mm to 2 mm Sieve Size)	6/30/2008	Uranium Dry Basis	<5	mg/kg	7/29/2008	6020
2008070025	6	SS-11D (1mm to 2 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	21	mg/kg	7/24/2008	6010B
2008070025	6	SS-11D (1mm to 2 mm Sieve Size)	6/30/2008	Zinc Dry Basis	86	mg/kg	7/31/2008	6010B
2008070025	7	SS-15A (1mm to 2 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	3020	mg/kg	7/25/2008 16:39	6010B
2008070025	7	SS-15A (1mm to 2 mm Sieve Size)	6/30/2008	Antimony Dry Basis	11	mg/kg	7/25/2008 18:07	6020
2008070025	7	SS-15A (1mm to 2 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	114	mg/kg	7/24/2008	6010B
2008070025	7	SS-15A (1mm to 2 mm Sieve Size)	6/30/2008	Barium Dry Basis	149	mg/kg	7/24/2008	6010B
2008070025	7	SS-15A (1mm to 2 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/kg	7/25/2008	6020
2008070025	7	SS-15A (1mm to 2 mm Sieve Size)	6/30/2008	Boron Dry Basis	<10	mg/kg	7/31/2008 12:57	6010B
2008070025	7	SS-15A (1mm to 2 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	3	mg/kg	7/24/2008 19:02	6010B
2008070025	7	SS-15A (1mm to 2 mm Sieve Size)	6/30/2008	Chromium Dry Basis	12	mg/kg	7/24/2008 19:02	6010B
2008070025	7	SS-15A (1mm to 2 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	5	mg/kg	7/24/2008	6010B
2008070025	7	SS-15A (1mm to 2 mm Sieve Size)	6/30/2008	Copper Dry Basis	495	mg/kg	7/24/2008 19:02	6010B
2008070025	7	SS-15A (1mm to 2 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	61.8	%	1/2/1900 0:00	D421
2008070025	7	SS-15A (1mm to 2 mm Sieve Size)	6/30/2008	Fraction of Total Sample	46.8	%	1/2/1900	D421
2008070025	7	SS-15A (1mm to 2 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1647	-----	7/22/2008 13:50	3050B SB
2008070025	7	SS-15A (1mm to 2 mm Sieve Size)	6/30/2008	Iron Dry Basis	22100	mg/kg	7/25/2008 16:39	6010B
2008070025	7	SS-15A (1mm to 2 mm Sieve Size)	6/30/2008	Lead Dry Basis	181	mg/kg	7/31/2008	6010B
2008070025	7	SS-15A (1mm to 2 mm Sieve Size)	6/30/2008	Manganese Dry Basis	1140	mg/kg	7/25/2008	6010B
2008070025	7	SS-15A (1mm to 2 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	862	-----	7/23/2008	7471B
2008070025	7	SS-15A (1mm to 2 mm Sieve Size)	6/30/2008	Mercury Dry Basis	0.5	mg/kg	7/24/2008	7471B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070025	7	SS-15A (1mm to 2 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	7/24/2008 19:02	6010B
2008070025	7	SS-15A (1mm to 2 mm Sieve Size)	6/30/2008	Nickel Dry Basis	5	mg/kg	7/24/2008 19:02	6010B
2008070025	7	SS-15A (1mm to 2 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	7/25/2008	6020
2008070025	7	SS-15A (1mm to 2 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	7	SS-15A (1mm to 2 mm Sieve Size)	6/30/2008	Uranium Dry Basis	6	mg/kg	7/29/2008	6020
2008070025	7	SS-15A (1mm to 2 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	51	mg/kg	7/24/2008 19:02	6010B
2008070025	7	SS-15A (1mm to 2 mm Sieve Size)	6/30/2008	Zinc Dry Basis	1160	mg/kg	7/24/2008 19:02	6010B
2008070025	8	SS-15B (1mm to 2 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	4730	mg/kg	7/25/2008 16:42	6010B
2008070025	8	SS-15B (1mm to 2 mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	7/25/2008	6020
2008070025	8	SS-15B (1mm to 2 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	71	mg/kg	7/24/2008 19:06	6010B
2008070025	8	SS-15B (1mm to 2 mm Sieve Size)	6/30/2008	Barium Dry Basis	139	mg/kg	7/24/2008 19:06	6010B
2008070025	8	SS-15B (1mm to 2 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/kg	7/25/2008	6020
2008070025	8	SS-15B (1mm to 2 mm Sieve Size)	6/30/2008	Boron Dry Basis	<10	mg/kg	7/31/2008 13:00	6010B
2008070025	8	SS-15B (1mm to 2 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	<2	mg/kg	7/24/2008 19:06	6010B
2008070025	8	SS-15B (1mm to 2 mm Sieve Size)	6/30/2008	Chromium Dry Basis	10	mg/kg	7/24/2008	6010B
2008070025	8	SS-15B (1mm to 2 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	8	SS-15B (1mm to 2 mm Sieve Size)	6/30/2008	Copper Dry Basis	290	mg/kg	7/24/2008	6010B
2008070025	8	SS-15B (1mm to 2 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	14.4	%	1/2/1900	D421
2008070025	8	SS-15B (1mm to 2 mm Sieve Size)	6/30/2008	Fraction of Total Sample	12.9	%	1/2/1900 0:00	D421
2008070025	8	SS-15B (1mm to 2 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1647	-----	7/22/2008 13:50	3050B SB
2008070025	8	SS-15B (1mm to 2 mm Sieve Size)	6/30/2008	Iron Dry Basis	12600	mg/kg	7/25/2008	6010B
2008070025	8	SS-15B (1mm to 2 mm Sieve Size)	6/30/2008	Lead Dry Basis	160	mg/kg	7/31/2008	6010B
2008070025	8	SS-15B (1mm to 2 mm Sieve Size)	6/30/2008	Manganese Dry Basis	731	mg/kg	7/25/2008	6010B
2008070025	8	SS-15B (1mm to 2 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	862	-----	7/23/2008 13:40	7471B
2008070025	8	SS-15B (1mm to 2 mm Sieve Size)	6/30/2008	Mercury Dry Basis	0.3	mg/kg	7/24/2008 11:05	7471B
2008070025	8	SS-15B (1mm to 2 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	7/24/2008 19:06	6010B
2008070025	8	SS-15B (1mm to 2 mm Sieve Size)	6/30/2008	Nickel Dry Basis	6	mg/kg	7/24/2008	6010B
2008070025	8	SS-15B (1mm to 2 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	7/25/2008 18:10	6020
2008070025	8	SS-15B (1mm to 2 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	7/24/2008 19:06	6010B
2008070025	8	SS-15B (1mm to 2 mm Sieve Size)	6/30/2008	Uranium Dry Basis	<5	mg/kg	7/29/2008 16:18	6020
2008070025	8	SS-15B (1mm to 2 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	20	mg/kg	7/24/2008 19:06	6010B
2008070025	8	SS-15B (1mm to 2 mm Sieve Size)	6/30/2008	Zinc Dry Basis	547	mg/kg	7/24/2008 19:06	6010B
2008070025	9	SS-17D (1mm to 2 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	4250	mg/kg	7/25/2008	6010B
2008070025	9	SS-17D (1mm to 2 mm Sieve Size)	6/30/2008	Antimony Dry Basis	5	mg/kg	7/25/2008	6020
2008070025	9	SS-17D (1mm to 2 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	82	mg/kg	7/24/2008	6010B
2008070025	9	SS-17D (1mm to 2 mm Sieve Size)	6/30/2008	Barium Dry Basis	111	mg/kg	7/24/2008	6010B
2008070025	9	SS-17D (1mm to 2 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/kg	7/25/2008 18:13	6020
2008070025	9	SS-17D (1mm to 2 mm Sieve Size)	6/30/2008	Boron Dry Basis	<50	mg/kg	8/1/2008 15:09	6010B
2008070025	9	SS-17D (1mm to 2 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	<2	mg/kg	7/24/2008	6010B
2008070025	9	SS-17D (1mm to 2 mm Sieve Size)	6/30/2008	Chromium Dry Basis	23	mg/kg	7/24/2008	6010B
2008070025	9	SS-17D (1mm to 2 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	6	mg/kg	7/24/2008	6010B
2008070025	9	SS-17D (1mm to 2 mm Sieve Size)	6/30/2008	Copper Dry Basis	324	mg/kg	7/24/2008	6010B
2008070025	9	SS-17D (1mm to 2 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	16.6	%	1/2/1900	D421
2008070025	9	SS-17D (1mm to 2 mm Sieve Size)	6/30/2008	Fraction of Total Sample	11.3	%	1/2/1900	D421
2008070025	9	SS-17D (1mm to 2 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1647	-----	7/22/2008	3050B SB
2008070025	9	SS-17D (1mm to 2 mm Sieve Size)	6/30/2008	Iron Dry Basis	39900	mg/kg	7/25/2008	6010B
2008070025	9	SS-17D (1mm to 2 mm Sieve Size)	6/30/2008	Lead Dry Basis	111	mg/kg	7/31/2008	6010B
2008070025	9	SS-17D (1mm to 2 mm Sieve Size)	6/30/2008	Manganese Dry Basis	622	mg/kg	7/25/2008	6010B
2008070025	9	SS-17D (1mm to 2 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	862	-----	7/23/2008	7471B
2008070025	9	SS-17D (1mm to 2 mm Sieve Size)	6/30/2008	Mercury Dry Basis	0.3	mg/kg	7/24/2008	7471B
2008070025	9	SS-17D (1mm to 2 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	9	SS-17D (1mm to 2 mm Sieve Size)	6/30/2008	Nickel Dry Basis	8	mg/kg	7/24/2008	6010B
2008070025	9	SS-17D (1mm to 2 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	7/25/2008	6020
2008070025	9	SS-17D (1mm to 2 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	9	SS-17D (1mm to 2 mm Sieve Size)	6/30/2008	Uranium Dry Basis	6	mg/kg	7/29/2008	6020
2008070025	9	SS-17D (1mm to 2 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	115	mg/kg	7/24/2008	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070025	9	SS-17D (1mm to 2 mm Sieve Size)	6/30/2008	Zinc Dry Basis	895	mg/kg	7/24/2008	6010B
2008070025	10	SS-06G (1mm to 2 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	3320	mg/kg	7/25/2008	6010B
2008070025	10	SS-06G (1mm to 2 mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	7/25/2008	6020
2008070025	10	SS-06G (1mm to 2 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	28	mg/kg	7/24/2008	6010B
2008070025	10	SS-06G (1mm to 2 mm Sieve Size)	6/30/2008	Barium Dry Basis	88	mg/kg	7/24/2008	6010B
2008070025	10	SS-06G (1mm to 2 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/kg	7/25/2008	6020
2008070025	10	SS-06G (1mm to 2 mm Sieve Size)	6/30/2008	Boron Dry Basis	<10	mg/kg	7/31/2008	6010B
2008070025	10	SS-06G (1mm to 2 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	<2	mg/kg	7/24/2008	6010B
2008070025	10	SS-06G (1mm to 2 mm Sieve Size)	6/30/2008	Chromium Dry Basis	7	mg/kg	7/24/2008	6010B
2008070025	10	SS-06G (1mm to 2 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	5	mg/kg	7/24/2008	6010B
2008070025	10	SS-06G (1mm to 2 mm Sieve Size)	6/30/2008	Copper Dry Basis	97	mg/kg	7/24/2008	6010B
2008070025	10	SS-06G (1mm to 2 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	40.8	%	1/2/1900	D421
2008070025	10	SS-06G (1mm to 2 mm Sieve Size)	6/30/2008	Fraction of Total Sample	35.7	%	1/2/1900	D421
2008070025	10	SS-06G (1mm to 2 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1647	-----	7/22/2008	3050B SB
2008070025	10	SS-06G (1mm to 2 mm Sieve Size)	6/30/2008	Iron Dry Basis	8900	mg/kg	7/25/2008	6010B
2008070025	10	SS-06G (1mm to 2 mm Sieve Size)	6/30/2008	Lead Dry Basis	81	mg/kg	7/31/2008	6010B
2008070025	10	SS-06G (1mm to 2 mm Sieve Size)	6/30/2008	Manganese Dry Basis	1050	mg/kg	7/25/2008	6010B
2008070025	10	SS-06G (1mm to 2 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	862	-----	7/23/2008	7471B
2008070025	10	SS-06G (1mm to 2 mm Sieve Size)	6/30/2008	Mercury Dry Basis	<0.1	mg/kg	7/24/2008	7471B
2008070025	10	SS-06G (1mm to 2 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	10	SS-06G (1mm to 2 mm Sieve Size)	6/30/2008	Nickel Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	10	SS-06G (1mm to 2 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	7/25/2008	6020
2008070025	10	SS-06G (1mm to 2 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	10	SS-06G (1mm to 2 mm Sieve Size)	6/30/2008	Uranium Dry Basis	<5	mg/kg	7/29/2008	6020
2008070025	10	SS-06G (1mm to 2 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	21	mg/kg	7/24/2008	6010B
2008070025	10	SS-06G (1mm to 2 mm Sieve Size)	6/30/2008	Zinc Dry Basis	323	mg/kg	7/24/2008	6010B
2008070025	11	SS-07 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	3260	mg/kg	7/25/2008	6010B
2008070025	11	SS-07 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	7/25/2008	6020
2008070025	11	SS-07 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	22	mg/kg	7/24/2008	6010B
2008070025	11	SS-07 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Barium Dry Basis	106	mg/kg	7/24/2008	6010B
2008070025	11	SS-07 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/kg	7/25/2008	6020
2008070025	11	SS-07 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Boron Dry Basis	<10	mg/kg	7/31/2008	6010B
2008070025	11	SS-07 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	<2	mg/kg	7/24/2008	6010B
2008070025	11	SS-07 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Chromium Dry Basis	9	mg/kg	7/24/2008	6010B
2008070025	11	SS-07 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	6	mg/kg	7/24/2008	6010B
2008070025	11	SS-07 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Copper Dry Basis	110	mg/kg	7/24/2008	6010B
2008070025	11	SS-07 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	46.6	%	1/2/1900	D421
2008070025	11	SS-07 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Fraction of Total Sample	35.3	%	1/2/1900	D421
2008070025	11	SS-07 (0.063 mm to 1 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1648	-----	7/22/2008	3050B SB
2008070025	11	SS-07 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Iron Dry Basis	11900	mg/kg	7/25/2008	6010B
2008070025	11	SS-07 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Lead Dry Basis	88	mg/kg	7/24/2008	6010B
2008070025	11	SS-07 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Manganese Dry Basis	1470	mg/kg	7/25/2008	6010B
2008070025	11	SS-07 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	863	-----	7/23/2008	7471B
2008070025	11	SS-07 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Dry Basis	<0.1	mg/kg	7/24/2008	7471B
2008070025	11	SS-07 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	11	SS-07 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Nickel Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	11	SS-07 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	7/25/2008	6020
2008070025	11	SS-07 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	11	SS-07 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Uranium Dry Basis	<5	mg/kg	7/25/2008	6020
2008070025	11	SS-07 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	29	mg/kg	7/24/2008	6010B
2008070025	11	SS-07 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Zinc Dry Basis	437	mg/kg	7/24/2008	6010B
2008070025	12	SS-08 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	6090	mg/kg	7/25/2008	6010B
2008070025	12	SS-08 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	7/25/2008	6020
2008070025	12	SS-08 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	42	mg/kg	7/24/2008	6010B
2008070025	12	SS-08 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Barium Dry Basis	118	mg/kg	7/24/2008	6010B
2008070025	12	SS-08 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/kg	7/25/2008	6020

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070025	12	SS-08 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Boron Dry Basis	<50	mg/kg	8/1/2008	6010B
2008070025	12	SS-08 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	3	mg/kg	7/24/2008	6010B
2008070025	12	SS-08 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Chromium Dry Basis	30	mg/kg	7/24/2008	6010B
2008070025	12	SS-08 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	8	mg/kg	7/24/2008	6010B
2008070025	12	SS-08 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Copper Dry Basis	419	mg/kg	7/24/2008	6010B
2008070025	12	SS-08 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	15.4	%	1/2/1900	D421
2008070025	12	SS-08 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Fraction of Total Sample	2.8	%	1/2/1900	D421
2008070025	12	SS-08 (0.063 mm to 1 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1648	-----	7/22/2008	3050B SB
2008070025	12	SS-08 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Iron Dry Basis	44100	mg/kg	7/25/2008	6010B
2008070025	12	SS-08 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Lead Dry Basis	97	mg/kg	7/24/2008	6010B
2008070025	12	SS-08 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Manganese Dry Basis	934	mg/kg	7/25/2008	6010B
2008070025	12	SS-08 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	863	-----	7/23/2008	7471B
2008070025	12	SS-08 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Dry Basis	1.1	mg/kg	7/24/2008	7471B
2008070025	12	SS-08 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	12	SS-08 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Nickel Dry Basis	9	mg/kg	7/24/2008	6010B
2008070025	12	SS-08 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	7/25/2008	6020
2008070025	12	SS-08 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	12	SS-08 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Uranium Dry Basis	<5	mg/kg	7/25/2008	6020
2008070025	12	SS-08 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	146	mg/kg	7/24/2008	6010B
2008070025	12	SS-08 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Zinc Dry Basis	996	mg/kg	7/24/2008	6010B
2008070025	13	SS-10B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	6590	mg/kg	7/25/2008	6010B
2008070025	13	SS-10B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	7/25/2008	6020
2008070025	13	SS-10B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	<10	mg/kg	7/24/2008	6010B
2008070025	13	SS-10B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Barium Dry Basis	135	mg/kg	7/24/2008	6010B
2008070025	13	SS-10B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/kg	7/25/2008	6020
2008070025	13	SS-10B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Boron Dry Basis	<10	mg/kg	7/31/2008	6010B
2008070025	13	SS-10B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	<2	mg/kg	7/24/2008	6010B
2008070025	13	SS-10B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Chromium Dry Basis	9	mg/kg	7/24/2008	6010B
2008070025	13	SS-10B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	5	mg/kg	7/24/2008	6010B
2008070025	13	SS-10B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Copper Dry Basis	106	mg/kg	7/24/2008	6010B
2008070025	13	SS-10B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	75.1	%	1/2/1900	D421
2008070025	13	SS-10B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Fraction of Total Sample	71	%	1/2/1900	D421
2008070025	13	SS-10B (0.063 mm to 1 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1648	-----	7/22/2008	3050B SB
2008070025	13	SS-10B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Iron Dry Basis	12200	mg/kg	7/25/2008	6010B
2008070025	13	SS-10B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Lead Dry Basis	32	mg/kg	7/24/2008	6010B
2008070025	13	SS-10B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Manganese Dry Basis	570	mg/kg	7/25/2008	6010B
2008070025	13	SS-10B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	863	-----	7/23/2008	7471B
2008070025	13	SS-10B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Dry Basis	<0.1	mg/kg	7/24/2008	7471B
2008070025	13	SS-10B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	13	SS-10B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Nickel Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	13	SS-10B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	7/25/2008	6020
2008070025	13	SS-10B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	13	SS-10B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Uranium Dry Basis	<5	mg/kg	7/25/2008	6020
2008070025	13	SS-10B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	26	mg/kg	7/24/2008	6010B
2008070025	13	SS-10B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Zinc Dry Basis	293	mg/kg	7/24/2008	6010B
2008070025	14	SS-10A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	15000	mg/kg	7/25/2008	6010B
2008070025	14	SS-10A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	7/25/2008	6020
2008070025	14	SS-10A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	21	mg/kg	7/24/2008	6010B
2008070025	14	SS-10A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Barium Dry Basis	251	mg/kg	7/24/2008	6010B
2008070025	14	SS-10A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/kg	7/25/2008	6020
2008070025	14	SS-10A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Boron Dry Basis	<10	mg/kg	7/31/2008	6010B
2008070025	14	SS-10A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	3	mg/kg	7/24/2008	6010B
2008070025	14	SS-10A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Chromium Dry Basis	23	mg/kg	7/24/2008	6010B
2008070025	14	SS-10A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	12	mg/kg	7/24/2008	6010B
2008070025	14	SS-10A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Copper Dry Basis	387	mg/kg	7/24/2008	6010B
2008070025	14	SS-10A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	50.2	%	1/2/1900	D421

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070025	14	SS-10A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Fraction of Total Sample	9.5	%	1/2/1900	D421
2008070025	14	SS-10A (0.063 mm to 1 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1648	-----	7/22/2008	3050B SB
2008070025	14	SS-10A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Iron Dry Basis	30600	mg/kg	7/25/2008	6010B
2008070025	14	SS-10A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Lead Dry Basis	88	mg/kg	7/24/2008	6010B
2008070025	14	SS-10A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Manganese Dry Basis	846	mg/kg	7/25/2008	6010B
2008070025	14	SS-10A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	863	-----	7/23/2008	7471B
2008070025	14	SS-10A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Dry Basis	0.5	mg/kg	7/24/2008	7471B
2008070025	14	SS-10A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	14	SS-10A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Nickel Dry Basis	11	mg/kg	7/24/2008	6010B
2008070025	14	SS-10A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	7/25/2008	6020
2008070025	14	SS-10A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	14	SS-10A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Uranium Dry Basis	6	mg/kg	7/25/2008	6020
2008070025	14	SS-10A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	79	mg/kg	7/24/2008	6010B
2008070025	14	SS-10A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Zinc Dry Basis	988	mg/kg	7/24/2008	6010B
2008070025	15	SS-11C (0.063 mm to 1 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	6530	mg/kg	7/25/2008	6010B
2008070025	15	SS-11C (0.063 mm to 1 mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	7/25/2008	6020
2008070025	15	SS-11C (0.063 mm to 1 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	<10	mg/kg	7/24/2008	6010B
2008070025	15	SS-11C (0.063 mm to 1 mm Sieve Size)	6/30/2008	Barium Dry Basis	144	mg/kg	7/24/2008	6010B
2008070025	15	SS-11C (0.063 mm to 1 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/kg	7/25/2008	6020
2008070025	15	SS-11C (0.063 mm to 1 mm Sieve Size)	6/30/2008	Boron Dry Basis	<50	mg/kg	8/1/2008	6010B
2008070025	15	SS-11C (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	<2	mg/kg	7/24/2008	6010B
2008070025	15	SS-11C (0.063 mm to 1 mm Sieve Size)	6/30/2008	Chromium Dry Basis	33	mg/kg	7/24/2008	6010B
2008070025	15	SS-11C (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	8	mg/kg	7/24/2008	6010B
2008070025	15	SS-11C (0.063 mm to 1 mm Sieve Size)	6/30/2008	Copper Dry Basis	48	mg/kg	7/24/2008	6010B
2008070025	15	SS-11C (0.063 mm to 1 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	34.4	%	1/2/1900	D421
2008070025	15	SS-11C (0.063 mm to 1 mm Sieve Size)	6/30/2008	Fraction of Total Sample	10.7	%	1/2/1900	D421
2008070025	15	SS-11C (0.063 mm to 1 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1648	-----	7/22/2008	3050B SB
2008070025	15	SS-11C (0.063 mm to 1 mm Sieve Size)	6/30/2008	Iron Dry Basis	48000	mg/kg	7/25/2008	6010B
2008070025	15	SS-11C (0.063 mm to 1 mm Sieve Size)	6/30/2008	Lead Dry Basis	12	mg/kg	7/24/2008	6010B
2008070025	15	SS-11C (0.063 mm to 1 mm Sieve Size)	6/30/2008	Manganese Dry Basis	543	mg/kg	7/25/2008	6010B
2008070025	15	SS-11C (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	863	-----	7/23/2008	7471B
2008070025	15	SS-11C (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Dry Basis	0.2	mg/kg	7/24/2008	7471B
2008070025	15	SS-11C (0.063 mm to 1 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	15	SS-11C (0.063 mm to 1 mm Sieve Size)	6/30/2008	Nickel Dry Basis	10	mg/kg	7/24/2008	6010B
2008070025	15	SS-11C (0.063 mm to 1 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	7/25/2008	6020
2008070025	15	SS-11C (0.063 mm to 1 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	15	SS-11C (0.063 mm to 1 mm Sieve Size)	6/30/2008	Uranium Dry Basis	<5	mg/kg	7/25/2008	6020
2008070025	15	SS-11C (0.063 mm to 1 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	171	mg/kg	7/24/2008	6010B
2008070025	15	SS-11C (0.063 mm to 1 mm Sieve Size)	6/30/2008	Zinc Dry Basis	153	mg/kg	7/24/2008	6010B
2008070025	16	SS-11D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	8890	mg/kg	7/25/2008	6010B
2008070025	16	SS-11D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	7/25/2008	6020
2008070025	16	SS-11D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	<10	mg/kg	7/24/2008	6010B
2008070025	16	SS-11D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Barium Dry Basis	197	mg/kg	7/24/2008	6010B
2008070025	16	SS-11D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/kg	7/25/2008	6020
2008070025	16	SS-11D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Boron Dry Basis	<10	mg/kg	7/31/2008	6010B
2008070025	16	SS-11D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	<2	mg/kg	7/24/2008	6010B
2008070025	16	SS-11D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Chromium Dry Basis	29	mg/kg	7/24/2008	6010B
2008070025	16	SS-11D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	8	mg/kg	7/24/2008	6010B
2008070025	16	SS-11D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Copper Dry Basis	71	mg/kg	7/24/2008	6010B
2008070025	16	SS-11D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	34.4	%	1/2/1900	D421
2008070025	16	SS-11D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Fraction of Total Sample	1.8	%	1/2/1900	D421
2008070025	16	SS-11D (0.063 mm to 1 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1648	-----	7/22/2008	3050B SB
2008070025	16	SS-11D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Iron Dry Basis	27700	mg/kg	7/25/2008	6010B
2008070025	16	SS-11D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Lead Dry Basis	24	mg/kg	7/24/2008	6010B
2008070025	16	SS-11D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Manganese Dry Basis	797	mg/kg	7/25/2008	6010B
2008070025	16	SS-11D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	863	-----	7/23/2008	7471B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070025	16	SS-11D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Dry Basis	0.1	mg/kg	7/24/2008	7471B
2008070025	16	SS-11D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	16	SS-11D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Nickel Dry Basis	13	mg/kg	7/24/2008	6010B
2008070025	16	SS-11D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	7/25/2008	6020
2008070025	16	SS-11D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	16	SS-11D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Uranium Dry Basis	<5	mg/kg	7/25/2008	6020
2008070025	16	SS-11D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	91	mg/kg	7/24/2008	6010B
2008070025	16	SS-11D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Zinc Dry Basis	238	mg/kg	7/24/2008	6010B
2008070025	17	SS-15A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	2840	mg/kg	7/25/2008	6010B
2008070025	17	SS-15A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Antimony Dry Basis	7	mg/kg	7/25/2008	6020
2008070025	17	SS-15A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	120	mg/kg	7/25/2008	6010B
2008070025	17	SS-15A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Barium Dry Basis	143	mg/kg	7/24/2008	6010B
2008070025	17	SS-15A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/kg	7/25/2008	6020
2008070025	17	SS-15A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Boron Dry Basis	<50	mg/kg	8/1/2008	6010B
2008070025	17	SS-15A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	<10	mg/kg	7/25/2008	6010B
2008070025	17	SS-15A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Chromium Dry Basis	65	mg/kg	7/24/2008	6010B
2008070025	17	SS-15A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	12	mg/kg	7/24/2008	6010B
2008070025	17	SS-15A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Copper Dry Basis	651	mg/kg	7/24/2008	6010B
2008070025	17	SS-15A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	37.9	%	1/2/1900	D421
2008070025	17	SS-15A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Fraction of Total Sample	28.7	%	1/2/1900	D421
2008070025	17	SS-15A (0.063 mm to 1 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1648	-----	7/22/2008	3050B SB
2008070025	17	SS-15A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Iron Dry Basis	120000	mg/kg	7/25/2008	6010B
2008070025	17	SS-15A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Lead Dry Basis	215	mg/kg	7/24/2008	6010B
2008070025	17	SS-15A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Manganese Dry Basis	1320	mg/kg	7/25/2008	6010B
2008070025	17	SS-15A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	863	-----	7/23/2008	7471B
2008070025	17	SS-15A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Dry Basis	0.9	mg/kg	7/24/2008	7471B
2008070025	17	SS-15A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<25	mg/kg	7/25/2008	6010B
2008070025	17	SS-15A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Nickel Dry Basis	13	mg/kg	7/24/2008	6010B
2008070025	17	SS-15A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	7/25/2008	6020
2008070025	17	SS-15A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Silver Dry Basis	<25	mg/kg	7/25/2008	6010B
2008070025	17	SS-15A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Uranium Dry Basis	15	mg/kg	7/25/2008	6020
2008070025	17	SS-15A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	413	mg/kg	7/24/2008	6010B
2008070025	17	SS-15A (0.063 mm to 1 mm Sieve Size)	6/30/2008	Zinc Dry Basis	2320	mg/kg	7/24/2008	6010B
2008070025	18	SS-15B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	3560	mg/kg	7/25/2008	6010B
2008070025	18	SS-15B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	7/25/2008	6020
2008070025	18	SS-15B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	61	mg/kg	7/24/2008	6010B
2008070025	18	SS-15B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Barium Dry Basis	92	mg/kg	7/24/2008	6010B
2008070025	18	SS-15B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/kg	7/25/2008	6020
2008070025	18	SS-15B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Boron Dry Basis	<10	mg/kg	7/31/2008	6010B
2008070025	18	SS-15B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	<2	mg/kg	7/24/2008	6010B
2008070025	18	SS-15B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Chromium Dry Basis	12	mg/kg	7/24/2008	6010B
2008070025	18	SS-15B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	18	SS-15B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Copper Dry Basis	249	mg/kg	7/24/2008	6010B
2008070025	18	SS-15B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	85.5	%	1/2/1900	D421
2008070025	18	SS-15B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Fraction of Total Sample	76.8	%	1/2/1900	D421
2008070025	18	SS-15B (0.063 mm to 1 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1648	-----	7/22/2008	3050B SB
2008070025	18	SS-15B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Iron Dry Basis	16400	mg/kg	7/25/2008	6010B
2008070025	18	SS-15B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Lead Dry Basis	114	mg/kg	7/24/2008	6010B
2008070025	18	SS-15B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Manganese Dry Basis	564	mg/kg	7/25/2008	6010B
2008070025	18	SS-15B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	863	-----	7/23/2008	7471B
2008070025	18	SS-15B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Dry Basis	0.4	mg/kg	7/24/2008	7471B
2008070025	18	SS-15B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	18	SS-15B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Nickel Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	18	SS-15B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	7/25/2008	6020
2008070025	18	SS-15B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	18	SS-15B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Uranium Dry Basis	<5	mg/kg	7/25/2008	6020

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070025	18	SS-15B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	50	mg/kg	7/24/2008	6010B
2008070025	18	SS-15B (0.063 mm to 1 mm Sieve Size)	6/30/2008	Zinc Dry Basis	716	mg/kg	7/24/2008	6010B
2008070025	19	SS-17D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	5190	mg/kg	7/25/2008	6010B
2008070025	19	SS-17D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	7/25/2008	6020
2008070025	19	SS-17D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	75	mg/kg	7/24/2008	6010B
2008070025	19	SS-17D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Barium Dry Basis	147	mg/kg	7/24/2008	6010B
2008070025	19	SS-17D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/kg	7/25/2008	6020
2008070025	19	SS-17D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Boron Dry Basis	<50	mg/kg	8/1/2008	6010B
2008070025	19	SS-17D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	3	mg/kg	7/24/2008	6010B
2008070025	19	SS-17D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Chromium Dry Basis	32	mg/kg	7/24/2008	6010B
2008070025	19	SS-17D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	8	mg/kg	7/24/2008	6010B
2008070025	19	SS-17D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Copper Dry Basis	371	mg/kg	7/24/2008	6010B
2008070025	19	SS-17D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	82.6	%	1/2/1900	D421
2008070025	19	SS-17D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Fraction of Total Sample	56.4	%	1/2/1900	D421
2008070025	19	SS-17D (0.063 mm to 1 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1648	-----	7/22/2008	3050B SB
2008070025	19	SS-17D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Iron Dry Basis	54500	mg/kg	7/25/2008	6010B
2008070025	19	SS-17D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Lead Dry Basis	143	mg/kg	7/24/2008	6010B
2008070025	19	SS-17D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Manganese Dry Basis	762	mg/kg	7/25/2008	6010B
2008070025	19	SS-17D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	863	-----	7/23/2008	7471B
2008070025	19	SS-17D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Dry Basis	0.6	mg/kg	7/24/2008	7471B
2008070025	19	SS-17D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	19	SS-17D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Nickel Dry Basis	9	mg/kg	7/24/2008	6010B
2008070025	19	SS-17D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	7/25/2008	6020
2008070025	19	SS-17D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	19	SS-17D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Uranium Dry Basis	<5	mg/kg	7/25/2008	6020
2008070025	19	SS-17D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	174	mg/kg	7/24/2008	6010B
2008070025	19	SS-17D (0.063 mm to 1 mm Sieve Size)	6/30/2008	Zinc Dry Basis	1300	mg/kg	7/24/2008	6010B
2008070025	20	SS-06G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	2830	mg/kg	7/25/2008	6010B
2008070025	20	SS-06G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	7/25/2008	6020
2008070025	20	SS-06G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	23	mg/kg	7/24/2008	6010B
2008070025	20	SS-06G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Barium Dry Basis	95	mg/kg	7/24/2008	6010B
2008070025	20	SS-06G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/kg	7/25/2008	6020
2008070025	20	SS-06G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Boron Dry Basis	<10	mg/kg	7/31/2008	6010B
2008070025	20	SS-06G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	<2	mg/kg	7/24/2008	6010B
2008070025	20	SS-06G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Chromium Dry Basis	8	mg/kg	7/24/2008	6010B
2008070025	20	SS-06G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	6	mg/kg	7/24/2008	6010B
2008070025	20	SS-06G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Copper Dry Basis	90	mg/kg	7/24/2008	6010B
2008070025	20	SS-06G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	59.1	%	1/2/1900	D421
2008070025	20	SS-06G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Fraction of Total Sample	51.7	%	1/2/1900	D421
2008070025	20	SS-06G (0.063 mm to 1 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1648	-----	7/22/2008	3050B SB
2008070025	20	SS-06G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Iron Dry Basis	9650	mg/kg	7/25/2008	6010B
2008070025	20	SS-06G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Lead Dry Basis	73	mg/kg	7/24/2008	6010B
2008070025	20	SS-06G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Manganese Dry Basis	1540	mg/kg	7/25/2008	6010B
2008070025	20	SS-06G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	863	-----	7/23/2008	7471B
2008070025	20	SS-06G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Dry Basis	<0.1	mg/kg	7/24/2008	7471B
2008070025	20	SS-06G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	20	SS-06G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Nickel Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	20	SS-06G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	7/25/2008	6020
2008070025	20	SS-06G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	7/24/2008	6010B
2008070025	20	SS-06G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Uranium Dry Basis	<5	mg/kg	7/25/2008	6020
2008070025	20	SS-06G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	28	mg/kg	7/24/2008	6010B
2008070025	20	SS-06G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Zinc Dry Basis	418	mg/kg	7/24/2008	6010B
2008070025	21	SS-07 (<0.063 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	9560	mg/kg	7/24/2008	6010B
2008070025	21	SS-07 (<0.063 mm Sieve Size)	6/30/2008	Antimony Dry Basis	7	mg/kg	8/22/2008	6020
2008070025	21	SS-07 (<0.063 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	121	mg/kg	8/22/2008	6020
2008070025	21	SS-07 (<0.063 mm Sieve Size)	6/30/2008	Barium Dry Basis	600	mg/kg	7/24/2008	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070025	21	SS-07 (<0.063 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/l	8/25/2008	200.8
2008070025	21	SS-07 (<0.063 mm Sieve Size)	6/30/2008	Boron Dry Basis	67	mg/kg	7/31/2008	6010B
2008070025	21	SS-07 (<0.063 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	17	mg/kg	8/22/2008	6020
2008070025	21	SS-07 (<0.063 mm Sieve Size)	6/30/2008	Chromium Dry Basis	84	mg/kg	7/31/2008	6010B
2008070025	21	SS-07 (<0.063 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	21	mg/kg	8/22/2008	6020
2008070025	21	SS-07 (<0.063 mm Sieve Size)	6/30/2008	Copper Dry Basis	1470	mg/kg	7/24/2008	6010B
2008070025	21	SS-07 (<0.063 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	<0.1	%	1/2/1900	D421
2008070025	21	SS-07 (<0.063 mm Sieve Size)	6/30/2008	Fraction of Total Sample	<0.1	%	1/2/1900	D421
2008070025	21	SS-07 (<0.063 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1649	-----	7/23/2008	3050B SB
2008070025	21	SS-07 (<0.063 mm Sieve Size)	6/30/2008	Iron Dry Basis	35300	mg/kg	7/24/2008	6010B
2008070025	21	SS-07 (<0.063 mm Sieve Size)	6/30/2008	Lead Dry Basis	350	mg/kg	7/24/2008	6010B
2008070025	21	SS-07 (<0.063 mm Sieve Size)	6/30/2008	Manganese Dry Basis	14600	mg/kg	7/25/2008	6010B
2008070025	21	SS-07 (<0.063 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	864	-----	7/23/2008	7471B
2008070025	21	SS-07 (<0.063 mm Sieve Size)	6/30/2008	Mercury Dry Basis	0.7	mg/kg	7/24/2008	7471B
2008070025	21	SS-07 (<0.063 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	24	mg/kg	8/22/2008	6020
2008070025	21	SS-07 (<0.063 mm Sieve Size)	6/30/2008	Nickel Dry Basis	53	mg/kg	8/22/2008	6020
2008070025	21	SS-07 (<0.063 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	8/22/2008	6020
2008070025	21	SS-07 (<0.063 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	8/22/2008	6020
2008070025	21	SS-07 (<0.063 mm Sieve Size)	6/30/2008	Uranium Dry Basis	9	mg/kg	8/22/2008	6020
2008070025	21	SS-07 (<0.063 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	78	mg/kg	7/31/2008	6010B
2008070025	21	SS-07 (<0.063 mm Sieve Size)	6/30/2008	Zinc Dry Basis	2360	mg/kg	7/24/2008	6010B
2008070025	22	SS-08 (<0.063 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	11400	mg/kg	7/24/2008	6010B
2008070025	22	SS-08 (<0.063 mm Sieve Size)	6/30/2008	Antimony Dry Basis	6	mg/kg	8/22/2008	6020
2008070025	22	SS-08 (<0.063 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	50	mg/kg	8/22/2008	6020
2008070025	22	SS-08 (<0.063 mm Sieve Size)	6/30/2008	Barium Dry Basis	320	mg/kg	7/24/2008	6010B
2008070025	22	SS-08 (<0.063 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/l	8/25/2008	200.8
2008070025	22	SS-08 (<0.063 mm Sieve Size)	6/30/2008	Boron Dry Basis	18	mg/kg	7/31/2008	6010B
2008070025	22	SS-08 (<0.063 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	12	mg/kg	8/22/2008	6020
2008070025	22	SS-08 (<0.063 mm Sieve Size)	6/30/2008	Chromium Dry Basis	24	mg/kg	7/31/2008	6010B
2008070025	22	SS-08 (<0.063 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	20	mg/kg	8/22/2008	6020
2008070025	22	SS-08 (<0.063 mm Sieve Size)	6/30/2008	Copper Dry Basis	840	mg/kg	7/24/2008	6010B
2008070025	22	SS-08 (<0.063 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	0.3	%	1/2/1900	D421
2008070025	22	SS-08 (<0.063 mm Sieve Size)	6/30/2008	Fraction of Total Sample	<0.1	%	1/2/1900	D421
2008070025	22	SS-08 (<0.063 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1649	-----	7/23/2008	3050B SB
2008070025	22	SS-08 (<0.063 mm Sieve Size)	6/30/2008	Iron Dry Basis	29700	mg/kg	7/24/2008	6010B
2008070025	22	SS-08 (<0.063 mm Sieve Size)	6/30/2008	Lead Dry Basis	300	mg/kg	7/24/2008	6010B
2008070025	22	SS-08 (<0.063 mm Sieve Size)	6/30/2008	Manganese Dry Basis	4420	mg/kg	7/25/2008	6010B
2008070025	22	SS-08 (<0.063 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	864	-----	7/23/2008	7471B
2008070025	22	SS-08 (<0.063 mm Sieve Size)	6/30/2008	Mercury Dry Basis	1.2	mg/kg	7/24/2008	7471B
2008070025	22	SS-08 (<0.063 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	13	mg/kg	8/22/2008	6020
2008070025	22	SS-08 (<0.063 mm Sieve Size)	6/30/2008	Nickel Dry Basis	21	mg/kg	8/22/2008	6020
2008070025	22	SS-08 (<0.063 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	8/22/2008	6020
2008070025	22	SS-08 (<0.063 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	8/22/2008	6020
2008070025	22	SS-08 (<0.063 mm Sieve Size)	6/30/2008	Uranium Dry Basis	7	mg/kg	8/22/2008	6020
2008070025	22	SS-08 (<0.063 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	64	mg/kg	7/31/2008	6010B
2008070025	22	SS-08 (<0.063 mm Sieve Size)	6/30/2008	Zinc Dry Basis	2270	mg/kg	7/24/2008	6010B
2008070025	23	SS-10B (<0.063 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	17900	mg/kg	7/24/2008	6010B
2008070025	23	SS-10B (<0.063 mm Sieve Size)	6/30/2008	Antimony Dry Basis	5	mg/kg	8/22/2008	6020
2008070025	23	SS-10B (<0.063 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	27	mg/kg	8/22/2008	6020
2008070025	23	SS-10B (<0.063 mm Sieve Size)	6/30/2008	Barium Dry Basis	350	mg/kg	7/24/2008	6010B
2008070025	23	SS-10B (<0.063 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/l	8/25/2008	200.8
2008070025	23	SS-10B (<0.063 mm Sieve Size)	6/30/2008	Boron Dry Basis	<14	mg/kg	7/31/2008	6010B
2008070025	23	SS-10B (<0.063 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	7	mg/kg	8/22/2008	6020
2008070025	23	SS-10B (<0.063 mm Sieve Size)	6/30/2008	Chromium Dry Basis	24	mg/kg	7/31/2008	6010B
2008070025	23	SS-10B (<0.063 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	10	mg/kg	8/22/2008	6020
2008070025	23	SS-10B (<0.063 mm Sieve Size)	6/30/2008	Copper Dry Basis	410	mg/kg	7/24/2008	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070025	23	SS-10B (<0.063 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	1.3	%	1/2/1900	D421
2008070025	23	SS-10B (<0.063 mm Sieve Size)	6/30/2008	Fraction of Total Sample	1.2	%	1/2/1900	D421
2008070025	23	SS-10B (<0.063 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1649	-----	7/23/2008	3050B SB
2008070025	23	SS-10B (<0.063 mm Sieve Size)	6/30/2008	Iron Dry Basis	28900	mg/kg	7/24/2008	6010B
2008070025	23	SS-10B (<0.063 mm Sieve Size)	6/30/2008	Lead Dry Basis	144	mg/kg	8/22/2008	6020
2008070025	23	SS-10B (<0.063 mm Sieve Size)	6/30/2008	Manganese Dry Basis	1920	mg/kg	7/25/2008	6010B
2008070025	23	SS-10B (<0.063 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	864	-----	7/23/2008	7471B
2008070025	23	SS-10B (<0.063 mm Sieve Size)	6/30/2008	Mercury Dry Basis	0.5	mg/kg	7/24/2008	7471B
2008070025	23	SS-10B (<0.063 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	8/22/2008	6020
2008070025	23	SS-10B (<0.063 mm Sieve Size)	6/30/2008	Nickel Dry Basis	17	mg/kg	8/22/2008	6020
2008070025	23	SS-10B (<0.063 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	8/22/2008	6020
2008070025	23	SS-10B (<0.063 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	8/22/2008	6020
2008070025	23	SS-10B (<0.063 mm Sieve Size)	6/30/2008	Uranium Dry Basis	<5	mg/kg	8/22/2008	6020
2008070025	23	SS-10B (<0.063 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	48	mg/kg	7/31/2008	6010B
2008070025	23	SS-10B (<0.063 mm Sieve Size)	6/30/2008	Zinc Dry Basis	1400	mg/kg	7/24/2008	6010B
2008070025	24	SS-10A (<0.063 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	14400	mg/kg	7/24/2008	6010B
2008070025	24	SS-10A (<0.063 mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	8/22/2008	6020
2008070025	24	SS-10A (<0.063 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	40	mg/kg	8/22/2008	6020
2008070025	24	SS-10A (<0.063 mm Sieve Size)	6/30/2008	Barium Dry Basis	370	mg/kg	7/24/2008	6010B
2008070025	24	SS-10A (<0.063 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/l	8/25/2008	200.8
2008070025	24	SS-10A (<0.063 mm Sieve Size)	6/30/2008	Boron Dry Basis	93	mg/kg	7/31/2008	6010B
2008070025	24	SS-10A (<0.063 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	9	mg/kg	8/22/2008	6020
2008070025	24	SS-10A (<0.063 mm Sieve Size)	6/30/2008	Chromium Dry Basis	19	mg/kg	7/31/2008	6010B
2008070025	24	SS-10A (<0.063 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	10	mg/kg	8/22/2008	6020
2008070025	24	SS-10A (<0.063 mm Sieve Size)	6/30/2008	Copper Dry Basis	580	mg/kg	7/24/2008	6010B
2008070025	24	SS-10A (<0.063 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	2	%	1/2/1900	D421
2008070025	24	SS-10A (<0.063 mm Sieve Size)	6/30/2008	Fraction of Total Sample	0.4	%	1/2/1900	D421
2008070025	24	SS-10A (<0.063 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1649	-----	7/23/2008	3050B SB
2008070025	24	SS-10A (<0.063 mm Sieve Size)	6/30/2008	Iron Dry Basis	25400	mg/kg	7/24/2008	6010B
2008070025	24	SS-10A (<0.063 mm Sieve Size)	6/30/2008	Lead Dry Basis	152	mg/kg	8/22/2008	6020
2008070025	24	SS-10A (<0.063 mm Sieve Size)	6/30/2008	Manganese Dry Basis	1940	mg/kg	7/25/2008	6010B
2008070025	24	SS-10A (<0.063 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	864	-----	7/23/2008	7471B
2008070025	24	SS-10A (<0.063 mm Sieve Size)	6/30/2008	Mercury Dry Basis	0.4	mg/kg	7/24/2008	7471B
2008070025	24	SS-10A (<0.063 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	8	mg/kg	8/22/2008	6020
2008070025	24	SS-10A (<0.063 mm Sieve Size)	6/30/2008	Nickel Dry Basis	23	mg/kg	8/22/2008	6020
2008070025	24	SS-10A (<0.063 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	8/22/2008	6020
2008070025	24	SS-10A (<0.063 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	8/22/2008	6020
2008070025	24	SS-10A (<0.063 mm Sieve Size)	6/30/2008	Uranium Dry Basis	6	mg/kg	8/22/2008	6020
2008070025	24	SS-10A (<0.063 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	45	mg/kg	7/31/2008	6010B
2008070025	24	SS-10A (<0.063 mm Sieve Size)	6/30/2008	Zinc Dry Basis	1860	mg/kg	7/24/2008	6010B
2008070025	25	SS-11C (<0.063 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	18900	mg/kg	7/24/2008	6010B
2008070025	25	SS-11C (<0.063 mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	8/22/2008	6020
2008070025	25	SS-11C (<0.063 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	15	mg/kg	8/22/2008	6020
2008070025	25	SS-11C (<0.063 mm Sieve Size)	6/30/2008	Barium Dry Basis	370	mg/kg	7/24/2008	6010B
2008070025	25	SS-11C (<0.063 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/l	8/25/2008	200.8
2008070025	25	SS-11C (<0.063 mm Sieve Size)	6/30/2008	Boron Dry Basis	38	mg/kg	7/31/2008	6010B
2008070025	25	SS-11C (<0.063 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	9	mg/kg	8/22/2008	6020
2008070025	25	SS-11C (<0.063 mm Sieve Size)	6/30/2008	Chromium Dry Basis	49	mg/kg	7/31/2008	6010B
2008070025	25	SS-11C (<0.063 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	10	mg/kg	8/22/2008	6020
2008070025	25	SS-11C (<0.063 mm Sieve Size)	6/30/2008	Copper Dry Basis	300	mg/kg	7/24/2008	6010B
2008070025	25	SS-11C (<0.063 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	0.4	%	1/2/1900	D421
2008070025	25	SS-11C (<0.063 mm Sieve Size)	6/30/2008	Fraction of Total Sample	0.1	%	1/2/1900	D421
2008070025	25	SS-11C (<0.063 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1649	-----	7/23/2008	3050B SB
2008070025	25	SS-11C (<0.063 mm Sieve Size)	6/30/2008	Iron Dry Basis	28200	mg/kg	7/24/2008	6010B
2008070025	25	SS-11C (<0.063 mm Sieve Size)	6/30/2008	Lead Dry Basis	78	mg/kg	8/22/2008	6020
2008070025	25	SS-11C (<0.063 mm Sieve Size)	6/30/2008	Manganese Dry Basis	3090	mg/kg	7/25/2008	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070025	25	SS-11C (<0.063 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	864	-----	7/23/2008	7471B
2008070025	25	SS-11C (<0.063 mm Sieve Size)	6/30/2008	Mercury Dry Basis	0.3	mg/kg	7/24/2008	7471B
2008070025	25	SS-11C (<0.063 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	5	mg/kg	8/22/2008	6020
2008070025	25	SS-11C (<0.063 mm Sieve Size)	6/30/2008	Nickel Dry Basis	28	mg/kg	8/22/2008	6020
2008070025	25	SS-11C (<0.063 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	8/22/2008	6020
2008070025	25	SS-11C (<0.063 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	8/22/2008	6020
2008070025	25	SS-11C (<0.063 mm Sieve Size)	6/30/2008	Uranium Dry Basis	<5	mg/kg	8/22/2008	6020
2008070025	25	SS-11C (<0.063 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	62	mg/kg	7/31/2008	6010B
2008070025	25	SS-11C (<0.063 mm Sieve Size)	6/30/2008	Zinc Dry Basis	1120	mg/kg	7/24/2008	6010B
2008070025	26	SS-11D (<0.063 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	13200	mg/kg	7/24/2008	6010B
2008070025	26	SS-11D (<0.063 mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	8/22/2008	6020
2008070025	26	SS-11D (<0.063 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	11	mg/kg	8/22/2008	6020
2008070025	26	SS-11D (<0.063 mm Sieve Size)	6/30/2008	Barium Dry Basis	380	mg/kg	7/24/2008	6010B
2008070025	26	SS-11D (<0.063 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/l	8/25/2008	200.8
2008070025	26	SS-11D (<0.063 mm Sieve Size)	6/30/2008	Boron Dry Basis	21	mg/kg	7/31/2008	6010B
2008070025	26	SS-11D (<0.063 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	7	mg/kg	8/22/2008	6020
2008070025	26	SS-11D (<0.063 mm Sieve Size)	6/30/2008	Chromium Dry Basis	19	mg/kg	7/31/2008	6010B
2008070025	26	SS-11D (<0.063 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	10	mg/kg	8/22/2008	6020
2008070025	26	SS-11D (<0.063 mm Sieve Size)	6/30/2008	Copper Dry Basis	250	mg/kg	7/24/2008	6010B
2008070025	26	SS-11D (<0.063 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	5.5	%	1/2/1900	D421
2008070025	26	SS-11D (<0.063 mm Sieve Size)	6/30/2008	Fraction of Total Sample	0.3	%	1/2/1900	D421
2008070025	26	SS-11D (<0.063 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1649	-----	7/23/2008	3050B SB
2008070025	26	SS-11D (<0.063 mm Sieve Size)	6/30/2008	Iron Dry Basis	14800	mg/kg	7/24/2008	6010B
2008070025	26	SS-11D (<0.063 mm Sieve Size)	6/30/2008	Lead Dry Basis	95	mg/kg	8/22/2008	6020
2008070025	26	SS-11D (<0.063 mm Sieve Size)	6/30/2008	Manganese Dry Basis	2620	mg/kg	7/25/2008	6010B
2008070025	26	SS-11D (<0.063 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	864	-----	7/23/2008	7471B
2008070025	26	SS-11D (<0.063 mm Sieve Size)	6/30/2008	Mercury Dry Basis	0.1	mg/kg	7/24/2008	7471B
2008070025	26	SS-11D (<0.063 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	8/22/2008	6020
2008070025	26	SS-11D (<0.063 mm Sieve Size)	6/30/2008	Nickel Dry Basis	19	mg/kg	8/22/2008	6020
2008070025	26	SS-11D (<0.063 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	8/22/2008	6020
2008070025	26	SS-11D (<0.063 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	8/22/2008	6020
2008070025	26	SS-11D (<0.063 mm Sieve Size)	6/30/2008	Uranium Dry Basis	<5	mg/kg	8/22/2008	6020
2008070025	26	SS-11D (<0.063 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	32	mg/kg	7/31/2008	6010B
2008070025	26	SS-11D (<0.063 mm Sieve Size)	6/30/2008	Zinc Dry Basis	1120	mg/kg	7/24/2008	6010B
2008070025	27	SS-15A (<0.063 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	17200	mg/kg	7/24/2008	6010B
2008070025	27	SS-15A (<0.063 mm Sieve Size)	6/30/2008	Antimony Dry Basis	12	mg/kg	8/22/2008	6020
2008070025	27	SS-15A (<0.063 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	250	mg/kg	7/24/2008	6010B
2008070025	27	SS-15A (<0.063 mm Sieve Size)	6/30/2008	Barium Dry Basis	550	mg/kg	7/24/2008	6010B
2008070025	27	SS-15A (<0.063 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/l	8/25/2008	200.8
2008070025	27	SS-15A (<0.063 mm Sieve Size)	6/30/2008	Boron Dry Basis	39	mg/kg	7/31/2008	6010B
2008070025	27	SS-15A (<0.063 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	11	mg/kg	8/22/2008	6020
2008070025	27	SS-15A (<0.063 mm Sieve Size)	6/30/2008	Chromium Dry Basis	48	mg/kg	7/31/2008	6010B
2008070025	27	SS-15A (<0.063 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	10	mg/kg	8/22/2008	6020
2008070025	27	SS-15A (<0.063 mm Sieve Size)	6/30/2008	Copper Dry Basis	2180	mg/kg	7/24/2008	6010B
2008070025	27	SS-15A (<0.063 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	0.3	%	1/2/1900	D421
2008070025	27	SS-15A (<0.063 mm Sieve Size)	6/30/2008	Fraction of Total Sample	0.2	%	1/2/1900	D421
2008070025	27	SS-15A (<0.063 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1649	-----	7/23/2008	3050B SB
2008070025	27	SS-15A (<0.063 mm Sieve Size)	6/30/2008	Iron Dry Basis	40900	mg/kg	7/24/2008	6010B
2008070025	27	SS-15A (<0.063 mm Sieve Size)	6/30/2008	Lead Dry Basis	900	mg/kg	7/24/2008	6010B
2008070025	27	SS-15A (<0.063 mm Sieve Size)	6/30/2008	Manganese Dry Basis	3250	mg/kg	7/25/2008	6010B
2008070025	27	SS-15A (<0.063 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	864	-----	7/23/2008	7471B
2008070025	27	SS-15A (<0.063 mm Sieve Size)	6/30/2008	Mercury Dry Basis	5.8	mg/kg	7/24/2008	7471B
2008070025	27	SS-15A (<0.063 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	7	mg/kg	8/22/2008	6020
2008070025	27	SS-15A (<0.063 mm Sieve Size)	6/30/2008	Nickel Dry Basis	24	mg/kg	8/22/2008	6020
2008070025	27	SS-15A (<0.063 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	8/22/2008	6020
2008070025	27	SS-15A (<0.063 mm Sieve Size)	6/30/2008	Silver Dry Basis	14	mg/kg	8/22/2008	6020

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070025	27	SS-15A (<0.063 mm Sieve Size)	6/30/2008	Uranium Dry Basis	6	mg/kg	8/22/2008	6020
2008070025	27	SS-15A (<0.063 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	59	mg/kg	7/31/2008	6010B
2008070025	27	SS-15A (<0.063 mm Sieve Size)	6/30/2008	Zinc Dry Basis	3480	mg/kg	7/24/2008	6010B
2008070025	28	SS-15B (<0.063 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	16100	mg/kg	7/24/2008	6010B
2008070025	28	SS-15B (<0.063 mm Sieve Size)	6/30/2008	Antimony Dry Basis	9	mg/kg	8/22/2008	6020
2008070025	28	SS-15B (<0.063 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	182	mg/kg	8/22/2008	6020
2008070025	28	SS-15B (<0.063 mm Sieve Size)	6/30/2008	Barium Dry Basis	430	mg/kg	7/24/2008	6010B
2008070025	28	SS-15B (<0.063 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/l	8/25/2008 16:12	200.8
2008070025	28	SS-15B (<0.063 mm Sieve Size)	6/30/2008	Boron Dry Basis	<13	mg/kg	7/31/2008 15:31	6010B
2008070025	28	SS-15B (<0.063 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	12	mg/kg	8/22/2008 16:39	6020
2008070025	28	SS-15B (<0.063 mm Sieve Size)	6/30/2008	Chromium Dry Basis	63	mg/kg	7/31/2008 15:31	6010B
2008070025	28	SS-15B (<0.063 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	10	mg/kg	8/22/2008 16:39	6020
2008070025	28	SS-15B (<0.063 mm Sieve Size)	6/30/2008	Copper Dry Basis	1420	mg/kg	7/24/2008 21:14	6010B
2008070025	28	SS-15B (<0.063 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	<0.1	%	1/2/1900 0:00	D421
2008070025	28	SS-15B (<0.063 mm Sieve Size)	6/30/2008	Fraction of Total Sample	<0.1	%	1/2/1900 0:00	D421
2008070025	28	SS-15B (<0.063 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1649	-----	7/23/2008 13:00	3050B SB
2008070025	28	SS-15B (<0.063 mm Sieve Size)	6/30/2008	Iron Dry Basis	30800	mg/kg	7/24/2008 21:14	6010B
2008070025	28	SS-15B (<0.063 mm Sieve Size)	6/30/2008	Lead Dry Basis	460	mg/kg	7/24/2008 21:14	6010B
2008070025	28	SS-15B (<0.063 mm Sieve Size)	6/30/2008	Manganese Dry Basis	2110	mg/kg	7/25/2008 18:56	6010B
2008070025	28	SS-15B (<0.063 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	864	-----	7/23/2008 11:55	7471B
2008070025	28	SS-15B (<0.063 mm Sieve Size)	6/30/2008	Mercury Dry Basis	4.2	mg/kg	7/24/2008 14:15	7471B
2008070025	28	SS-15B (<0.063 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	6	mg/kg	8/22/2008 16:39	6020
2008070025	28	SS-15B (<0.063 mm Sieve Size)	6/30/2008	Nickel Dry Basis	35	mg/kg	8/22/2008 16:39	6020
2008070025	28	SS-15B (<0.063 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	8/22/2008 16:39	6020
2008070025	28	SS-15B (<0.063 mm Sieve Size)	6/30/2008	Silver Dry Basis	8	mg/kg	8/22/2008 16:39	6020
2008070025	28	SS-15B (<0.063 mm Sieve Size)	6/30/2008	Uranium Dry Basis	<5	mg/kg	8/22/2008 16:39	6020
2008070025	28	SS-15B (<0.063 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	51	mg/kg	7/31/2008 15:31	6010B
2008070025	28	SS-15B (<0.063 mm Sieve Size)	6/30/2008	Zinc Dry Basis	2430	mg/kg	7/24/2008 21:14	6010B
2008070025	29	SS-17D (<0.063 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	14400	mg/kg	7/24/2008 21:17	6010B
2008070025	29	SS-17D (<0.063 mm Sieve Size)	6/30/2008	Antimony Dry Basis	8	mg/kg	8/22/2008 16:46	6020
2008070025	29	SS-17D (<0.063 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	140	mg/kg	8/22/2008 16:46	6020
2008070025	29	SS-17D (<0.063 mm Sieve Size)	6/30/2008	Barium Dry Basis	420	mg/kg	7/24/2008 21:17	6010B
2008070025	29	SS-17D (<0.063 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/l	8/25/2008 16:14	200.8
2008070025	29	SS-17D (<0.063 mm Sieve Size)	6/30/2008	Boron Dry Basis	<13	mg/kg	7/31/2008 15:34	6010B
2008070025	29	SS-17D (<0.063 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	11	mg/kg	8/22/2008 16:46	6020
2008070025	29	SS-17D (<0.063 mm Sieve Size)	6/30/2008	Chromium Dry Basis	28	mg/kg	7/31/2008 15:34	6010B
2008070025	29	SS-17D (<0.063 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	9	mg/kg	8/22/2008 16:46	6020
2008070025	29	SS-17D (<0.063 mm Sieve Size)	6/30/2008	Copper Dry Basis	1170	mg/kg	7/24/2008 21:17	6010B
2008070025	29	SS-17D (<0.063 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	0.8	%	1/2/1900 0:00	D421
2008070025	29	SS-17D (<0.063 mm Sieve Size)	6/30/2008	Fraction of Total Sample	0.5	%	1/2/1900 0:00	D421
2008070025	29	SS-17D (<0.063 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1649	-----	7/23/2008 13:00	3050B SB
2008070025	29	SS-17D (<0.063 mm Sieve Size)	6/30/2008	Iron Dry Basis	30000	mg/kg	7/24/2008 21:17	6010B
2008070025	29	SS-17D (<0.063 mm Sieve Size)	6/30/2008	Lead Dry Basis	390	mg/kg	7/24/2008 21:17	6010B
2008070025	29	SS-17D (<0.063 mm Sieve Size)	6/30/2008	Manganese Dry Basis	1870	mg/kg	7/25/2008 18:59	6010B
2008070025	29	SS-17D (<0.063 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	864	-----	7/23/2008 11:55	7471B
2008070025	29	SS-17D (<0.063 mm Sieve Size)	6/30/2008	Mercury Dry Basis	2.7	mg/kg	7/24/2008 14:15	7471B
2008070025	29	SS-17D (<0.063 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	8/22/2008 16:46	6020
2008070025	29	SS-17D (<0.063 mm Sieve Size)	6/30/2008	Nickel Dry Basis	18	mg/kg	8/22/2008 16:46	6020
2008070025	29	SS-17D (<0.063 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	8/22/2008 16:46	6020
2008070025	29	SS-17D (<0.063 mm Sieve Size)	6/30/2008	Silver Dry Basis	6	mg/kg	8/22/2008 16:46	6020
2008070025	29	SS-17D (<0.063 mm Sieve Size)	6/30/2008	Uranium Dry Basis	<5	mg/kg	8/22/2008 16:46	6020
2008070025	29	SS-17D (<0.063 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	46	mg/kg	7/31/2008 15:34	6010B
2008070025	29	SS-17D (<0.063 mm Sieve Size)	6/30/2008	Zinc Dry Basis	2500	mg/kg	7/24/2008 21:17	6010B
2008070025	30	SS-06G (<0.063 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	13500	mg/kg	7/24/2008 21:20	6010B
2008070025	30	SS-06G (<0.063 mm Sieve Size)	6/30/2008	Antimony Dry Basis	8	mg/kg	8/22/2008 16:52	6020
2008070025	30	SS-06G (<0.063 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	215	mg/kg	8/22/2008 16:52	6020

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070025	30	SS-06G (<0.063 mm Sieve Size)	6/30/2008	Barium Dry Basis	980	mg/kg	7/24/2008 21:20	6010B
2008070025	30	SS-06G (<0.063 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/l	8/25/2008 16:17	200.8
2008070025	30	SS-06G (<0.063 mm Sieve Size)	6/30/2008	Boron Dry Basis	<13	mg/kg	7/31/2008 15:37	6010B
2008070025	30	SS-06G (<0.063 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	18	mg/kg	8/22/2008 16:52	6020
2008070025	30	SS-06G (<0.063 mm Sieve Size)	6/30/2008	Chromium Dry Basis	77	mg/kg	7/31/2008 15:37	6010B
2008070025	30	SS-06G (<0.063 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	36	mg/kg	8/22/2008 16:52	6020
2008070025	30	SS-06G (<0.063 mm Sieve Size)	6/30/2008	Copper Dry Basis	790	mg/kg	7/24/2008 21:20	6010B
2008070025	30	SS-06G (<0.063 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample	<0.1	%	1/2/1900 0:00	D421
2008070025	30	SS-06G (<0.063 mm Sieve Size)	6/30/2008	Fraction of Total Sample	<0.1	%	1/2/1900 0:00	D421
2008070025	30	SS-06G (<0.063 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1649	-----	7/23/2008 13:00	3050B SB
2008070025	30	SS-06G (<0.063 mm Sieve Size)	6/30/2008	Iron Dry Basis	42900	mg/kg	7/24/2008 21:20	6010B
2008070025	30	SS-06G (<0.063 mm Sieve Size)	6/30/2008	Lead Dry Basis	520	mg/kg	7/24/2008 21:20	6010B
2008070025	30	SS-06G (<0.063 mm Sieve Size)	6/30/2008	Manganese Dry Basis	20100	mg/kg	7/25/2008 19:02	6010B
2008070025	30	SS-06G (<0.063 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	864	-----	7/23/2008 11:55	7471B
2008070025	30	SS-06G (<0.063 mm Sieve Size)	6/30/2008	Mercury Dry Basis	3.3	mg/kg	7/24/2008 14:15	7471B
2008070025	30	SS-06G (<0.063 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	13	mg/kg	8/22/2008 16:52	6020
2008070025	30	SS-06G (<0.063 mm Sieve Size)	6/30/2008	Nickel Dry Basis	46	mg/kg	8/22/2008 16:52	6020
2008070025	30	SS-06G (<0.063 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	8/22/2008 16:52	6020
2008070025	30	SS-06G (<0.063 mm Sieve Size)	6/30/2008	Silver Dry Basis	6	mg/kg	8/22/2008 16:52	6020
2008070025	30	SS-06G (<0.063 mm Sieve Size)	6/30/2008	Uranium Dry Basis	6	mg/kg	8/22/2008 16:52	6020
2008070025	30	SS-06G (<0.063 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	100	mg/kg	7/31/2008 15:37	6010B
2008070025	30	SS-06G (<0.063 mm Sieve Size)	6/30/2008	Zinc Dry Basis	3640	mg/kg	7/24/2008 21:20	6010B
2008070025	31	MATRIX SPIKE OF 2008070025-01 (1mm to 2 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	-2	% [75-125]	7/25/2008 15:44	6010B
2008070025	31	MATRIX SPIKE OF 2008070025-01 (1mm to 2 mm Sieve Size)	6/30/2008	Antimony Dry Basis	99	% [61-122]	7/25/2008 17:39	6020
2008070025	31	MATRIX SPIKE OF 2008070025-01 (1mm to 2 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	97	% [69-126]	7/24/2008 18:41	6010B
2008070025	31	MATRIX SPIKE OF 2008070025-01 (1mm to 2 mm Sieve Size)	6/30/2008	Barium Dry Basis	100	% [66-137]	7/24/2008 18:41	6010B
2008070025	31	MATRIX SPIKE OF 2008070025-01 (1mm to 2 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	100	% [75-125]	7/25/2008 17:39	6020
2008070025	31	MATRIX SPIKE OF 2008070025-01 (1mm to 2 mm Sieve Size)	6/30/2008	Boron Dry Basis	97	% [75-125]	7/31/2008 12:30	6010B
2008070025	31	MATRIX SPIKE OF 2008070025-01 (1mm to 2 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	97	% [77-117]	7/24/2008 18:41	6010B
2008070025	31	MATRIX SPIKE OF 2008070025-01 (1mm to 2 mm Sieve Size)	6/30/2008	Chromium Dry Basis	98	% [75-125]	7/24/2008 18:41	6010B
2008070025	31	MATRIX SPIKE OF 2008070025-01 (1mm to 2 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	103	% [75-125]	7/24/2008 18:41	6010B
2008070025	31	MATRIX SPIKE OF 2008070025-01 (1mm to 2 mm Sieve Size)	6/30/2008	Copper Dry Basis	101	% [66-133]	7/24/2008 18:41	6010B
2008070025	31	MATRIX SPIKE OF 2008070025-01 (1mm to 2 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1647	-----	7/22/2008 13:50	3050B SB
2008070025	31	MATRIX SPIKE OF 2008070025-01 (1mm to 2 mm Sieve Size)	6/30/2008	Iron Dry Basis	98	% [75-1255	7/25/2008 15:44	6010B
2008070025	31	MATRIX SPIKE OF 2008070025-01 (1mm to 2 mm Sieve Size)	6/30/2008	Lead Dry Basis	102	% [75-121]	7/31/2008 16:09	6010B
2008070025	31	MATRIX SPIKE OF 2008070025-01 (1mm to 2 mm Sieve Size)	6/30/2008	Manganese Dry Basis	128	% [67-128]	7/25/2008 15:44	6010B
2008070025	31	MATRIX SPIKE OF 2008070025-01 (1mm to 2 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	862	-----	7/23/2008 13:40	7471B
2008070025	31	MATRIX SPIKE OF 2008070025-01 (1mm to 2 mm Sieve Size)	6/30/2008	Mercury Dry Basis	98	% [55-139]	7/24/2008 11:05	7471B
2008070025	31	MATRIX SPIKE OF 2008070025-01 (1mm to 2 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	99	% [75-125]	7/24/2008 18:41	6010B
2008070025	31	MATRIX SPIKE OF 2008070025-01 (1mm to 2 mm Sieve Size)	6/30/2008	Nickel Dry Basis	102	% [74-113]	7/24/2008 18:41	6010B
2008070025	31	MATRIX SPIKE OF 2008070025-01 (1mm to 2 mm Sieve Size)	6/30/2008	Selenium Dry Basis	99	% [69-121]	7/25/2008 17:39	6020
2008070025	31	MATRIX SPIKE OF 2008070025-01 (1mm to 2 mm Sieve Size)	6/30/2008	Silver Dry Basis	99	% [76-119]	7/24/2008 18:41	6010B
2008070025	31	MATRIX SPIKE OF 2008070025-01 (1mm to 2 mm Sieve Size)	6/30/2008	Uranium Dry Basis	75	% [75-125]	7/29/2008 15:57	6020
2008070025	31	MATRIX SPIKE OF 2008070025-01 (1mm to 2 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	101	% [76-117]	7/24/2008 18:41	6010B
2008070025	31	MATRIX SPIKE OF 2008070025-01 (1mm to 2 mm Sieve Size)	6/30/2008	Zinc Dry Basis	95	% [65-133]	7/24/2008 18:41	6010B
2008070025	32	MATRIX SPIKE DUPLICATE OF 2008070035-01 (1mm to 2 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	15 (2)	RPD [0-20]	7/25/2008 15:47	6010B
2008070025	32	MATRIX SPIKE DUPLICATE OF 2008070035-01 (1mm to 2 mm Sieve Size)	6/30/2008	Antimony Dry Basis	1	RPD [0-20]	7/25/2008 17:42	6020
2008070025	32	MATRIX SPIKE DUPLICATE OF 2008070035-01 (1mm to 2 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	0	RPD [0-20]	7/24/2008 18:44	6010B
2008070025	32	MATRIX SPIKE DUPLICATE OF 2008070035-01 (1mm to 2 mm Sieve Size)	6/30/2008	Barium Dry Basis	1	RPD [0-20]	7/24/2008 18:44	6010B
2008070025	32	MATRIX SPIKE DUPLICATE OF 2008070035-01 (1mm to 2 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	1	RPD [0-20]	7/25/2008 17:42	6020
2008070025	32	MATRIX SPIKE DUPLICATE OF 2008070035-01 (1mm to 2 mm Sieve Size)	6/30/2008	Boron Dry Basis	7	RPD [0-20]	7/31/2008 12:33	6010B
2008070025	32	MATRIX SPIKE DUPLICATE OF 2008070035-01 (1mm to 2 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	2	RPD [0-20]	7/24/2008 18:44	6010B
2008070025	32	MATRIX SPIKE DUPLICATE OF 2008070035-01 (1mm to 2 mm Sieve Size)	6/30/2008	Chromium Dry Basis	2	RPD [0-20]	7/24/2008 18:44	6010B
2008070025	32	MATRIX SPIKE DUPLICATE OF 2008070035-01 (1mm to 2 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	3	RPD [0-20]	7/24/2008 18:44	6010B
2008070025	32	MATRIX SPIKE DUPLICATE OF 2008070035-01 (1mm to 2 mm Sieve Size)	6/30/2008	Copper Dry Basis	0	RPD [0-20]	7/24/2008 18:44	6010B
2008070025	32	MATRIX SPIKE DUPLICATE OF 2008070035-01 (1mm to 2 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1647	-----	7/22/2008 13:50	3050B SB

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070025	32	MATRIX SPIKE DUPLICATE OF 2008070035-01 (1mm to 2 mm Sieve Size)	6/30/2008	Iron Dry Basis	3 (2)	RPD [0-20]	7/25/2008 15:47	6010B
2008070025	32	MATRIX SPIKE DUPLICATE OF 2008070035-01 (1mm to 2 mm Sieve Size)	6/30/2008	Lead Dry Basis	1	RPD [0-20]	7/31/2008 16:12	6010B
2008070025	32	MATRIX SPIKE DUPLICATE OF 2008070035-01 (1mm to 2 mm Sieve Size)	6/30/2008	Manganese Dry Basis	3	RPD [0-20]	7/25/2008 15:47	6010B
2008070025	32	MATRIX SPIKE DUPLICATE OF 2008070035-01 (1mm to 2 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	862	-----	7/23/2008 13:40	7471B
2008070025	32	MATRIX SPIKE DUPLICATE OF 2008070035-01 (1mm to 2 mm Sieve Size)	6/30/2008	Mercury Dry Basis	8	RPD [0-20]	7/24/2008 11:05	7471B
2008070025	32	MATRIX SPIKE DUPLICATE OF 2008070035-01 (1mm to 2 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	2	RPD [0-20]	7/24/2008 18:44	6010B
2008070025	32	MATRIX SPIKE DUPLICATE OF 2008070035-01 (1mm to 2 mm Sieve Size)	6/30/2008	Nickel Dry Basis	1	RPD [0-20]	7/24/2008 18:44	6010B
2008070025	32	MATRIX SPIKE DUPLICATE OF 2008070035-01 (1mm to 2 mm Sieve Size)	6/30/2008	Selenium Dry Basis	1	RPD [0-20]	7/25/2008 17:42	6020
2008070025	32	MATRIX SPIKE DUPLICATE OF 2008070035-01 (1mm to 2 mm Sieve Size)	6/30/2008	Silver Dry Basis	3	RPD [0-20]	7/24/2008 18:44	6010B
2008070025	32	MATRIX SPIKE DUPLICATE OF 2008070035-01 (1mm to 2 mm Sieve Size)	6/30/2008	Uranium Dry Basis	0	RPD [0-20]	7/29/2008 15:59	6020
2008070025	32	MATRIX SPIKE DUPLICATE OF 2008070035-01 (1mm to 2 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	1	RPD [0-20]	7/24/2008	6010B
2008070025	32	MATRIX SPIKE DUPLICATE OF 2008070035-01 (1mm to 2 mm Sieve Size)	6/30/2008	Zinc Dry Basis	4	RPD [0-20]	7/24/2008	6010B
2008070025	33	MATRIX SPIKE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	-2	% [75-125]	7/25/2008	6010B
2008070025	33	MATRIX SPIKE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Antimony Dry Basis	97	% [61-122]	7/25/2008 18:45	6020
2008070025	33	MATRIX SPIKE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	104	% [69-126]	7/24/2008 19:39	6010B
2008070025	33	MATRIX SPIKE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Barium Dry Basis	105	% [66-137]	7/24/2008 19:39	6010B
2008070025	33	MATRIX SPIKE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	101	% [75-125]	7/25/2008 18:45	6020
2008070025	33	MATRIX SPIKE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Boron Dry Basis	98	% [75-125]	7/31/2008 14:08	6010B
2008070025	33	MATRIX SPIKE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	98	% [77-117]	7/24/2008 19:39	6010B
2008070025	33	MATRIX SPIKE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Chromium Dry Basis	101	% [75-125]	7/24/2008 19:39	6010B
2008070025	33	MATRIX SPIKE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	103	% [75-125]	7/24/2008 19:39	6010B
2008070025	33	MATRIX SPIKE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Copper Dry Basis	105	% [66-133]	7/24/2008 19:39	6010B
2008070025	33	MATRIX SPIKE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1648	-----	7/22/2008 16:30	3050B SB
2008070025	33	MATRIX SPIKE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Iron Dry Basis	-2	% [75-125]	7/25/2008 17:18	6010B
2008070025	33	MATRIX SPIKE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Lead Dry Basis	87	% [75-121]	7/24/2008 19:39	6010B
2008070025	33	MATRIX SPIKE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Manganese Dry Basis	99	% [67-128]	7/25/2008 17:18	6010B
2008070025	33	MATRIX SPIKE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	863	-----	7/23/2008 13:50	7471B
2008070025	33	MATRIX SPIKE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Dry Basis	114	% [55-139]	7/24/2008 13:05	7471B
2008070025	33	MATRIX SPIKE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	102	% [75-125]	7/24/2008 19:39	6010B
2008070025	33	MATRIX SPIKE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Nickel Dry Basis	104	% [74-113]	7/24/2008 19:39	6010B
2008070025	33	MATRIX SPIKE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Selenium Dry Basis	100	% [69-121]	7/25/2008 18:45	6020
2008070025	33	MATRIX SPIKE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Silver Dry Basis	104	% [76-119]	7/24/2008 19:39	6010B
2008070025	33	MATRIX SPIKE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Uranium Dry Basis	100	% [75-125]	7/25/2008 18:45	6020
2008070025	33	MATRIX SPIKE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	103	% [76-117]	7/24/2008 19:39	6010B
2008070025	33	MATRIX SPIKE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Zinc Dry Basis	103	% [65-133]	7/24/2008 19:39	6010B
2008070025	34	MATRIX SPIKE DUPLICATE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	3 (2)	RPD [0-20]	7/25/2008	6010B
2008070025	34	MATRIX SPIKE DUPLICATE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Antimony Dry Basis	2	RPD [0-20]	7/25/2008	6020
2008070025	34	MATRIX SPIKE DUPLICATE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	0	RPD [0-20]	7/24/2008	6010B
2008070025	34	MATRIX SPIKE DUPLICATE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Barium Dry Basis	0	RPD [0-20]	7/24/2008 19:42	6010B
2008070025	34	MATRIX SPIKE DUPLICATE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	3	RPD [0-20]	7/25/2008 18:48	6020
2008070025	34	MATRIX SPIKE DUPLICATE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Boron Dry Basis	3	RPD [0-20]	7/31/2008 14:11	6010B
2008070025	34	MATRIX SPIKE DUPLICATE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	1	RPD [0-20]	7/24/2008 19:42	6010B
2008070025	34	MATRIX SPIKE DUPLICATE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Chromium Dry Basis	0	RPD [0-20]	7/24/2008 19:42	6010B
2008070025	34	MATRIX SPIKE DUPLICATE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	1	RPD [0-20]	7/24/2008 19:42	6010B
2008070025	34	MATRIX SPIKE DUPLICATE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Copper Dry Basis	2	RPD [0-20]	7/24/2008 19:42	6010B
2008070025	34	MATRIX SPIKE DUPLICATE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1648	-----	7/22/2008 16:30	3050B SB
2008070025	34	MATRIX SPIKE DUPLICATE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Iron Dry Basis	3 (2)	RPD [0-20]	7/25/2008 17:21	6010B
2008070025	34	MATRIX SPIKE DUPLICATE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Lead Dry Basis	3	RPD [0-20]	7/24/2008 19:42	6010B
2008070025	34	MATRIX SPIKE DUPLICATE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Manganese Dry Basis	3	RPD [0-20]	7/25/2008 17:21	6010B
2008070025	34	MATRIX SPIKE DUPLICATE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	863	-----	7/23/2008 13:50	7471B
2008070025	34	MATRIX SPIKE DUPLICATE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Dry Basis	2	RPD [0-20]	7/24/2008 13:05	7471B
2008070025	34	MATRIX SPIKE DUPLICATE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	1	RPD [0-20]	7/24/2008 19:42	6010B
2008070025	34	MATRIX SPIKE DUPLICATE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Nickel Dry Basis	1	RPD [0-20]	7/24/2008 19:42	6010B
2008070025	34	MATRIX SPIKE DUPLICATE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Selenium Dry Basis	2	RPD [0-20]	7/25/2008 18:48	6020
2008070025	34	MATRIX SPIKE DUPLICATE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Silver Dry Basis	1	RPD [0-20]	7/24/2008 19:42	6010B
2008070025	34	MATRIX SPIKE DUPLICATE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Uranium Dry Basis	2	RPD [0-20]	7/25/2008 18:48	6020

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070025	34	MATRIX SPIKE DUPLICATE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	1	RPD [0-20]	7/24/2008 19:42	6010B
2008070025	34	MATRIX SPIKE DUPLICATE OF 2008070035-11 (0.063 mm to 1 mm Sieve Size)	6/30/2008	Zinc Dry Basis	3	RPD [0-20]	7/24/2008 19:42	6010B
2008070025	35	MATRIX SPIKE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	-2	% [75-125]	7/24/2008 21:26	6010B
2008070025	35	MATRIX SPIKE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Antimony Dry Basis	99	% [61-122]	8/22/2008 17:04	6020
2008070025	35	MATRIX SPIKE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	103	% [72-125]	8/22/2008	6020
2008070025	35	MATRIX SPIKE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Barium Dry Basis	103	% [66-137]	7/24/2008	6010B
2008070025	35	MATRIX SPIKE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	84	% [75-125]	8/25/2008	200.8
2008070025	35	MATRIX SPIKE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Boron Dry Basis	96	% [75-125]	7/31/2008 15:43	6010B
2008070025	35	MATRIX SPIKE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	102	% [76-125]	8/22/2008 17:04	6020
2008070025	35	MATRIX SPIKE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Chromium Dry Basis	95	% [75-125]	7/31/2008 15:43	6010B
2008070025	35	MATRIX SPIKE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	107	% [75-125]	8/22/2008 17:04	6020
2008070025	35	MATRIX SPIKE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Copper Dry Basis	104	% [66-133]	7/24/2008 21:26	6010B
2008070025	35	MATRIX SPIKE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1649	-----	7/23/2008 13:00	3050B SB
2008070025	35	MATRIX SPIKE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Iron Dry Basis	-2	% [75-125]	7/24/2008 21:26	6010B
2008070025	35	MATRIX SPIKE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Lead Dry Basis	101	% [76-125]	8/22/2008 17:04	6020
2008070025	35	MATRIX SPIKE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Manganese Dry Basis	96	% [67-128]	7/25/2008 19:08	6010B
2008070025	35	MATRIX SPIKE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	864	-----	7/23/2008 11:55	7471B
2008070025	35	MATRIX SPIKE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Mercury Dry Basis	120	% [55-139]	7/24/2008 14:15	7471B
2008070025	35	MATRIX SPIKE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	103	% [75-125]	8/22/2008 17:04	6020
2008070025	35	MATRIX SPIKE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Nickel Dry Basis	104	% [75-125]	8/22/2008 17:04	6020
2008070025	35	MATRIX SPIKE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Selenium Dry Basis	121	% [69-121]	8/22/2008 17:04	6020
2008070025	35	MATRIX SPIKE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Silver Dry Basis	104	% [73-115]	8/22/2008 17:04	6020
2008070025	35	MATRIX SPIKE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Uranium Dry Basis	104	% [75-125]	8/22/2008 17:04	6020
2008070025	35	MATRIX SPIKE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	95	% [76-117]	7/31/2008 15:43	6010B
2008070025	35	MATRIX SPIKE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Zinc Dry Basis	105	% [65-133]	7/24/2008 21:26	6010B
2008070025	36	MATRIX SPIKE DUPLICATE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	1 (2)	RPD [0-20]	7/24/2008 21:29	6010B
2008070025	36	MATRIX SPIKE DUPLICATE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Antimony Dry Basis	8	RPD [0-20]	8/22/2008 17:09	6020
2008070025	36	MATRIX SPIKE DUPLICATE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	11	RPD [0-20]	8/22/2008 17:09	6020
2008070025	36	MATRIX SPIKE DUPLICATE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Barium Dry Basis	4	RPD [0-20]	7/24/2008 21:29	6010B
2008070025	36	MATRIX SPIKE DUPLICATE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	8	RPD [0-20]	8/25/2008	200.8
2008070025	36	MATRIX SPIKE DUPLICATE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Boron Dry Basis	8	RPD [0-20]	7/31/2008	6010B
2008070025	36	MATRIX SPIKE DUPLICATE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	8	RPD [0-20]	8/22/2008	6020
2008070025	36	MATRIX SPIKE DUPLICATE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Chromium Dry Basis	6	RPD [0-20]	7/31/2008 15:45	6010B
2008070025	36	MATRIX SPIKE DUPLICATE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	10	RPD [0-20]	8/22/2008 17:09	6020
2008070025	36	MATRIX SPIKE DUPLICATE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Copper Dry Basis	7	RPD [0-20]	7/24/2008 21:29	6010B
2008070025	36	MATRIX SPIKE DUPLICATE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1649	-----	7/23/2008 13:00	3050B SB
2008070025	36	MATRIX SPIKE DUPLICATE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Iron Dry Basis	0 (2)	RPD [0-20]	7/24/2008 21:29	6010B
2008070025	36	MATRIX SPIKE DUPLICATE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Lead Dry Basis	5	RPD [0-20]	8/22/2008 17:09	6020
2008070025	36	MATRIX SPIKE DUPLICATE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Manganese Dry Basis	4	RPD [0-20]	7/25/2008 19:11	6010B
2008070025	36	MATRIX SPIKE DUPLICATE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	864	-----	7/23/2008 11:55	7471B
2008070025	36	MATRIX SPIKE DUPLICATE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Mercury Dry Basis	18	RPD [0-20]	7/24/2008 14:15	7471B
2008070025	36	MATRIX SPIKE DUPLICATE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	6	RPD [0-20]	8/22/2008 17:09	6020
2008070025	36	MATRIX SPIKE DUPLICATE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Nickel Dry Basis	9	RPD [0-20]	8/22/2008 17:09	6020
2008070025	36	MATRIX SPIKE DUPLICATE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Selenium Dry Basis	9	RPD [0-20]	8/22/2008 17:09	6020
2008070025	36	MATRIX SPIKE DUPLICATE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Silver Dry Basis	10	RPD [0-20]	8/22/2008 17:09	6020
2008070025	36	MATRIX SPIKE DUPLICATE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Uranium Dry Basis	7	RPD [0-20]	8/22/2008 17:09	6020
2008070025	36	MATRIX SPIKE DUPLICATE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	7	RPD [0-20]	7/31/2008 15:45	6010B
2008070025	36	MATRIX SPIKE DUPLICATE OF 2008070035-21 (<0.063 mm Sieve Size)	6/30/2008	Zinc Dry Basis	6	RPD [0-20]	7/24/2008 21:29	6010B
2008070025	37	METHOD BLANK	1/2/1900	Aluminum Dry Basis	<0.5	mg/l	7/25/2008 15:32	6010B
2008070025	37	METHOD BLANK	1/2/1900	Antimony Dry Basis	<0.1	mg/l	7/25/2008 17:27	6020
2008070025	37	METHOD BLANK	1/2/1900	Arsenic Dry Basis	<0.1	mg/l	7/24/2008 18:23	6010B
2008070025	37	METHOD BLANK	1/2/1900	Barium Dry Basis	<0.05	mg/l	7/24/2008 18:23	6010B
2008070025	37	METHOD BLANK	1/2/1900	Beryllium Dry Basis	<0.1	mg/l	7/25/2008 17:27	6020
2008070025	37	METHOD BLANK	1/2/1900	Boron Dry Basis	<0.1	mg/l	7/31/2008 12:19	6010B
2008070025	37	METHOD BLANK	1/2/1900	Cadmium Dry Basis	<0.02	mg/l	7/24/2008	6010B
2008070025	37	METHOD BLANK	1/2/1900	Chromium Dry Basis	<0.02	mg/l	7/24/2008	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070025	37	METHOD BLANK	1/2/1900	Cobalt Dry Basis	<0.05	mg/l	7/24/2008	6010B
2008070025	37	METHOD BLANK	1/2/1900	Copper Dry Basis	<0.1	mg/l	7/24/2008 18:23	6010B
2008070025	37	METHOD BLANK	1/2/1900	ICP/AA Batch#/Digest Date	1647	-----	7/22/2008 13:50	3050B SB
2008070025	37	METHOD BLANK	1/2/1900	Iron Dry Basis	<0.5	mg/l	7/25/2008 15:32	6010B
2008070025	37	METHOD BLANK	1/2/1900	Lead Dry Basis	<0.1	mg/l	7/31/2008 15:57	6010B
2008070025	37	METHOD BLANK	1/2/1900	Manganese Dry Basis	<0.02	mg/l	7/25/2008 15:32	6010B
2008070025	37	METHOD BLANK	1/2/1900	Mercury Batch #/Digest Date	862	-----	7/23/2008 13:40	7471B
2008070025	37	METHOD BLANK	1/2/1900	Mercury Dry Basis	<0.002	mg/l	7/24/2008 11:05	7471B
2008070025	37	METHOD BLANK	1/2/1900	Molybdenum Dry Basis	<0.05	mg/l	7/24/2008 18:23	6010B
2008070025	37	METHOD BLANK	1/2/1900	Nickel Dry Basis	<0.05	mg/l	7/24/2008 18:23	6010B
2008070025	37	METHOD BLANK	1/2/1900	Selenium Dry Basis	<0.1	mg/l	7/25/2008 17:27	6020
2008070025	37	METHOD BLANK	1/2/1900	Silver Dry Basis	<0.05	mg/l	7/24/2008 18:23	6010B
2008070025	37	METHOD BLANK	1/2/1900	Uranium Dry Basis	<0.1	mg/l	7/29/2008 15:50	6020
2008070025	37	METHOD BLANK	1/2/1900	Vanadium Dry Basis	<0.05	mg/l	7/24/2008 18:23	6010B
2008070025	37	METHOD BLANK	1/2/1900	Zinc Dry Basis	<0.1	mg/l	7/31/2008 15:57	6010B
2008070025	38	LABORATORY CONTROL SAMPLE	1/2/1900	Aluminum Dry Basis	100	% [80-120]	7/25/2008 15:35	6010B
2008070025	38	LABORATORY CONTROL SAMPLE	1/2/1900	Antimony Dry Basis	97	% [65-128]	7/25/2008 17:30	6020
2008070025	38	LABORATORY CONTROL SAMPLE	1/2/1900	Arsenic Dry Basis	105	% [86-113]	7/24/2008 18:26	6010B
2008070025	38	LABORATORY CONTROL SAMPLE	1/2/1900	Barium Dry Basis	107	% [84-119]	7/24/2008 18:26	6010B
2008070025	38	LABORATORY CONTROL SAMPLE	1/2/1900	Beryllium Dry Basis	98	% [80-120]	7/25/2008 17:30	6020
2008070025	38	LABORATORY CONTROL SAMPLE	1/2/1900	Boron Dry Basis	98	% [80-120]	7/31/2008 12:21	6010B
2008070025	38	LABORATORY CONTROL SAMPLE	1/2/1900	Cadmium Dry Basis	100	% [85-118]	7/24/2008 18:26	6010B
2008070025	38	LABORATORY CONTROL SAMPLE	1/2/1900	Chromium Dry Basis	101	% [85-115]	7/24/2008 18:26	6010B
2008070025	38	LABORATORY CONTROL SAMPLE	1/2/1900	Cobalt Dry Basis	104	% [80-120]	7/24/2008	6010B
2008070025	38	LABORATORY CONTROL SAMPLE	1/2/1900	Copper Dry Basis	102	% [82-119]	7/24/2008	6010B
2008070025	38	LABORATORY CONTROL SAMPLE	1/2/1900	ICP/AA Batch#/Digest Date	1647	-----	7/22/2008	3050B SB
2008070025	38	LABORATORY CONTROL SAMPLE	1/2/1900	Iron Dry Basis	112	% [80-120]	7/25/2008 15:35	6010B
2008070025	38	LABORATORY CONTROL SAMPLE	1/2/1900	Lead Dry Basis	109	% [85-118]	7/31/2008 16:00	6010B
2008070025	38	LABORATORY CONTROL SAMPLE	1/2/1900	Manganese Dry Basis	92	% [84-117]	7/25/2008 15:35	6010B
2008070025	38	LABORATORY CONTROL SAMPLE	1/2/1900	Mercury Batch #/Digest Date	862	-----	7/23/2008 13:40	7471B
2008070025	38	LABORATORY CONTROL SAMPLE	1/2/1900	Mercury Dry Basis	119	% [85-125]	7/24/2008 11:05	7471B
2008070025	38	LABORATORY CONTROL SAMPLE	1/2/1900	Molybdenum Dry Basis	101	% [80-120]	7/24/2008 18:26	6010B
2008070025	38	LABORATORY CONTROL SAMPLE	1/2/1900	Nickel Dry Basis	102	% [83-113]	7/24/2008 18:26	6010B
2008070025	38	LABORATORY CONTROL SAMPLE	1/2/1900	Selenium Dry Basis	98	% [74-118]	7/25/2008 17:30	6020
2008070025	38	LABORATORY CONTROL SAMPLE	1/2/1900	Silver Dry Basis	102	% [86-112]	7/24/2008 18:26	6010B
2008070025	38	LABORATORY CONTROL SAMPLE	1/2/1900	Uranium Dry Basis	95	% [80-120]	7/29/2008 15:51	6020
2008070025	38	LABORATORY CONTROL SAMPLE	1/2/1900	Vanadium Dry Basis	103	% [78-123]	7/24/2008 18:26	6010B
2008070025	38	LABORATORY CONTROL SAMPLE	1/2/1900	Zinc Dry Basis	102	% [80-120]	7/31/2008 16:00	6010B
2008070025	39	METHOD BLANK	1/2/1900	Aluminum Dry Basis	<0.5	mg/l	7/25/2008 17:06	6010B
2008070025	39	METHOD BLANK	1/2/1900	Antimony Dry Basis	<0.1	mg/l	7/25/2008 18:33	6020
2008070025	39	METHOD BLANK	1/2/1900	Arsenic Dry Basis	<0.1	mg/l	7/24/2008 19:27	6010B
2008070025	39	METHOD BLANK	1/2/1900	Barium Dry Basis	<0.05	mg/l	7/24/2008 19:27	6010B
2008070025	39	METHOD BLANK	1/2/1900	Beryllium Dry Basis	<0.1	mg/l	7/25/2008 18:33	6020
2008070025	39	METHOD BLANK	1/2/1900	Boron Dry Basis	<0.1	mg/l	7/31/2008 13:42	6010B
2008070025	39	METHOD BLANK	1/2/1900	Cadmium Dry Basis	<0.02	mg/l	7/24/2008 19:27	6010B
2008070025	39	METHOD BLANK	1/2/1900	Chromium Dry Basis	<0.02	mg/l	7/24/2008 19:27	6010B
2008070025	39	METHOD BLANK	1/2/1900	Cobalt Dry Basis	<0.05	mg/l	7/24/2008 19:27	6010B
2008070025	39	METHOD BLANK	1/2/1900	Copper Dry Basis	<0.1	mg/l	7/24/2008 19:27	6010B
2008070025	39	METHOD BLANK	1/2/1900	ICP/AA Batch#/Digest Date	1648	-----	7/22/2008	3050B SB
2008070025	39	METHOD BLANK	1/2/1900	Iron Dry Basis	<0.5	mg/l	7/25/2008	6010B
2008070025	39	METHOD BLANK	1/2/1900	Lead Dry Basis	<0.1	mg/l	7/24/2008	6010B
2008070025	39	METHOD BLANK	1/2/1900	Manganese Dry Basis	<0.02	mg/l	7/25/2008 17:06	6010B
2008070025	39	METHOD BLANK	1/2/1900	Mercury Batch #/Digest Date	863	-----	7/23/2008 13:50	7471B
2008070025	39	METHOD BLANK	1/2/1900	Mercury Dry Basis	<0.002	mg/l	7/24/2008 13:05	7471B
2008070025	39	METHOD BLANK	1/2/1900	Molybdenum Dry Basis	<0.05	mg/l	7/24/2008 19:27	6010B
2008070025	39	METHOD BLANK	1/2/1900	Nickel Dry Basis	<0.05	mg/l	7/24/2008 19:27	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070025	39	METHOD BLANK	1/2/1900	Selenium Dry Basis	<0.1	mg/l	7/25/2008 18:33	6020
2008070025	39	METHOD BLANK	1/2/1900	Silver Dry Basis	<0.05	mg/l	7/24/2008 19:27	6010B
2008070025	39	METHOD BLANK	1/2/1900	Uranium Dry Basis	<0.1	mg/l	7/25/2008 18:33	6020
2008070025	39	METHOD BLANK	1/2/1900	Vanadium Dry Basis	<0.05	mg/l	7/24/2008 19:27	6010B
2008070025	39	METHOD BLANK	1/2/1900	Zinc Dry Basis	<0.1	mg/l	7/24/2008 19:27	6010B
2008070025	40	LABORATORY CONTROL SAMPLE	1/2/1900	Aluminum Dry Basis	101	% [80-120]	7/25/2008 17:09	6010B
2008070025	40	LABORATORY CONTROL SAMPLE	1/2/1900	Antimony Dry Basis	98	% [65-128]	7/25/2008 18:36	6020
2008070025	40	LABORATORY CONTROL SAMPLE	1/2/1900	Arsenic Dry Basis	106	% [86-113]	7/24/2008 19:30	6010B
2008070025	40	LABORATORY CONTROL SAMPLE	1/2/1900	Barium Dry Basis	110	% [84-119]	7/24/2008 19:30	6010B
2008070025	40	LABORATORY CONTROL SAMPLE	1/2/1900	Beryllium Dry Basis	98	% [80-120]	7/25/2008 18:36	6020
2008070025	40	LABORATORY CONTROL SAMPLE	1/2/1900	Boron Dry Basis	99	% [80-120]	7/31/2008 13:53	6010B
2008070025	40	LABORATORY CONTROL SAMPLE	1/2/1900	Cadmium Dry Basis	102	% [85-118]	7/24/2008 19:30	6010B
2008070025	40	LABORATORY CONTROL SAMPLE	1/2/1900	Chromium Dry Basis	104	% [85-115]	7/24/2008 19:30	6010B
2008070025	40	LABORATORY CONTROL SAMPLE	1/2/1900	Cobalt Dry Basis	107	% [80-120]	7/24/2008 19:30	6010B
2008070025	40	LABORATORY CONTROL SAMPLE	1/2/1900	Copper Dry Basis	106	% [82-119]	7/24/2008 19:30	6010B
2008070025	40	LABORATORY CONTROL SAMPLE	1/2/1900	ICP/AA Batch#/Digest Date	1648	-----	7/22/2008 16:30	3050B SB
2008070025	40	LABORATORY CONTROL SAMPLE	1/2/1900	Iron Dry Basis	101	% [80-120]	7/25/2008 17:09	6010B
2008070025	40	LABORATORY CONTROL SAMPLE	1/2/1900	Lead Dry Basis	98	% [85-118]	7/24/2008	6010B
2008070025	40	LABORATORY CONTROL SAMPLE	1/2/1900	Manganese Dry Basis	96	% [84-117]	7/25/2008	6010B
2008070025	40	LABORATORY CONTROL SAMPLE	1/2/1900	Mercury Batch #/Digest Date	863	-----	7/23/2008	7471B
2008070025	40	LABORATORY CONTROL SAMPLE	1/2/1900	Mercury Dry Basis	123	% [85-125]	7/24/2008 13:05	7471B
2008070025	40	LABORATORY CONTROL SAMPLE	1/2/1900	Molybdenum Dry Basis	104	% [80-120]	7/24/2008 19:30	6010B
2008070025	40	LABORATORY CONTROL SAMPLE	1/2/1900	Nickel Dry Basis	105	% [83-113]	7/24/2008 19:30	6010B
2008070025	40	LABORATORY CONTROL SAMPLE	1/2/1900	Selenium Dry Basis	99	% [74-118]	7/25/2008 18:36	6020
2008070025	40	LABORATORY CONTROL SAMPLE	1/2/1900	Silver Dry Basis	106	% [86-112]	7/24/2008 19:30	6010B
2008070025	40	LABORATORY CONTROL SAMPLE	1/2/1900	Uranium Dry Basis	100	% [80-120]	7/25/2008 18:36	6020
2008070025	40	LABORATORY CONTROL SAMPLE	1/2/1900	Vanadium Dry Basis	107	% [78-123]	7/24/2008 19:30	6010B
2008070025	40	LABORATORY CONTROL SAMPLE	1/2/1900	Zinc Dry Basis	108	% [80-120]	7/24/2008 19:30	6010B
2008070025	41	SS-10BB (1mm to 2mm Sieve Size)	6/30/2008	Aluminum Dry Basis	8390	mg/kg	7/25/2008 16:57	6010B
2008070025	41	SS-10BB (1mm to 2mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	7/25/2008 18:19	6020
2008070025	41	SS-10BB (1mm to 2mm Sieve Size)	6/30/2008	Arsenic Dry Basis	15	mg/kg	7/24/2008 19:21	6010B
2008070025	41	SS-10BB (1mm to 2mm Sieve Size)	6/30/2008	Barium Dry Basis	194	mg/kg	7/24/2008 19:21	6010B
2008070025	41	SS-10BB (1mm to 2mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/kg	7/25/2008 18:19	6020
2008070025	41	SS-10BB (1mm to 2mm Sieve Size)	6/30/2008	Boron Dry Basis	<10	mg/kg	7/31/2008 13:13	6010B
2008070025	41	SS-10BB (1mm to 2mm Sieve Size)	6/30/2008	Cadmium Dry Basis	<2	mg/kg	7/24/2008 19:21	6010B
2008070025	41	SS-10BB (1mm to 2mm Sieve Size)	6/30/2008	Chromium Dry Basis	12	mg/kg	7/24/2008 19:21	6010B
2008070025	41	SS-10BB (1mm to 2mm Sieve Size)	6/30/2008	Cobalt Dry Basis	6	mg/kg	7/24/2008 19:21	6010B
2008070025	41	SS-10BB (1mm to 2mm Sieve Size)	6/30/2008	Copper Dry Basis	205	mg/kg	7/24/2008 19:21	6010B
2008070025	41	SS-10BB (1mm to 2mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample		%	1/2/1900 0:00	D421
2008070025	41	SS-10BB (1mm to 2mm Sieve Size)	6/30/2008	Fraction of Total Sample	14.2	%	1/2/1900 0:00	D421
2008070025	41	SS-10BB (1mm to 2mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1647	-----	7/22/2008 13:50	3050B SB
2008070025	41	SS-10BB (1mm to 2mm Sieve Size)	6/30/2008	Iron Dry Basis	16400	mg/kg	7/25/2008 16:57	6010B
2008070025	41	SS-10BB (1mm to 2mm Sieve Size)	6/30/2008	Lead Dry Basis	52	mg/kg	7/31/2008	6010B
2008070025	41	SS-10BB (1mm to 2mm Sieve Size)	6/30/2008	Manganese Dry Basis	685	mg/kg	7/25/2008	6010B
2008070025	41	SS-10BB (1mm to 2mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	862	-----	7/23/2008	7471B
2008070025	41	SS-10BB (1mm to 2mm Sieve Size)	6/30/2008	Mercury Dry Basis	0.2	mg/kg	7/24/2008 11:05	7471B
2008070025	41	SS-10BB (1mm to 2mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	7/24/2008 19:21	6010B
2008070025	41	SS-10BB (1mm to 2mm Sieve Size)	6/30/2008	Nickel Dry Basis	7	mg/kg	7/24/2008 19:21	6010B
2008070025	41	SS-10BB (1mm to 2mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	7/25/2008 18:19	6020
2008070025	41	SS-10BB (1mm to 2mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	7/24/2008 19:21	6010B
2008070025	41	SS-10BB (1mm to 2mm Sieve Size)	6/30/2008	Uranium Dry Basis	<5	mg/kg	7/29/2008 16:23	6020
2008070025	41	SS-10BB (1mm to 2mm Sieve Size)	6/30/2008	Vanadium Dry Basis	33	mg/kg	7/24/2008 19:21	6010B
2008070025	41	SS-10BB (1mm to 2mm Sieve Size)	6/30/2008	Zinc Dry Basis	511	mg/kg	7/24/2008 19:21	6010B
2008070025	42	SS-15G (1mm to 2mm Sieve Size)	6/30/2008	Aluminum Dry Basis	8690	mg/kg	7/25/2008 17:03	6010B
2008070025	42	SS-15G (1mm to 2mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	7/25/2008 18:30	6020
2008070025	42	SS-15G (1mm to 2mm Sieve Size)	6/30/2008	Arsenic Dry Basis	16	mg/kg	7/24/2008 19:24	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070025	42	SS-15G (1mm to 2mm Sieve Size)	6/30/2008	Barium Dry Basis	157	mg/kg	7/24/2008 19:24	6010B
2008070025	42	SS-15G (1mm to 2mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/kg	7/25/2008 18:30	6020
2008070025	42	SS-15G (1mm to 2mm Sieve Size)	6/30/2008	Boron Dry Basis	<10	mg/kg	7/31/2008 13:16	6010B
2008070025	42	SS-15G (1mm to 2mm Sieve Size)	6/30/2008	Cadmium Dry Basis	<2	mg/kg	7/24/2008 19:24	6010B
2008070025	42	SS-15G (1mm to 2mm Sieve Size)	6/30/2008	Chromium Dry Basis	15	mg/kg	7/24/2008 19:24	6010B
2008070025	42	SS-15G (1mm to 2mm Sieve Size)	6/30/2008	Cobalt Dry Basis	6	mg/kg	7/24/2008 19:24	6010B
2008070025	42	SS-15G (1mm to 2mm Sieve Size)	6/30/2008	Copper Dry Basis	28	mg/kg	7/24/2008 19:24	6010B
2008070025	42	SS-15G (1mm to 2mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample		%	1/2/1900 0:00	D421
2008070025	42	SS-15G (1mm to 2mm Sieve Size)	6/30/2008	Fraction of Total Sample	26.8	%	1/2/1900 0:00	D421
2008070025	42	SS-15G (1mm to 2mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1647	-----	7/22/2008 13:50	3050B SB
2008070025	42	SS-15G (1mm to 2mm Sieve Size)	6/30/2008	Iron Dry Basis	11900	mg/kg	7/25/2008 17:03	6010B
2008070025	42	SS-15G (1mm to 2mm Sieve Size)	6/30/2008	Lead Dry Basis	<10	mg/kg	7/31/2008	6010B
2008070025	42	SS-15G (1mm to 2mm Sieve Size)	6/30/2008	Manganese Dry Basis	141	mg/kg	7/25/2008	6010B
2008070025	42	SS-15G (1mm to 2mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	862	-----	7/23/2008	7471B
2008070025	42	SS-15G (1mm to 2mm Sieve Size)	6/30/2008	Mercury Dry Basis	<0.1	mg/kg	7/24/2008 11:05	7471B
2008070025	42	SS-15G (1mm to 2mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	7/24/2008 19:24	6010B
2008070025	42	SS-15G (1mm to 2mm Sieve Size)	6/30/2008	Nickel Dry Basis	10	mg/kg	7/24/2008 19:24	6010B
2008070025	42	SS-15G (1mm to 2mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	7/25/2008 18:30	6020
2008070025	42	SS-15G (1mm to 2mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	7/24/2008 19:24	6010B
2008070025	42	SS-15G (1mm to 2mm Sieve Size)	6/30/2008	Uranium Dry Basis	<5	mg/kg	7/29/2008 16:25	6020
2008070025	42	SS-15G (1mm to 2mm Sieve Size)	6/30/2008	Vanadium Dry Basis	26	mg/kg	7/24/2008 19:24	6010B
2008070025	42	SS-15G (1mm to 2mm Sieve Size)	6/30/2008	Zinc Dry Basis	39	mg/kg	7/31/2008 16:51	6010B
2008070025	43	SS-10BB (0.063 mm to 1 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	12900	mg/kg	7/25/2008 18:01	6010B
2008070025	43	SS-10BB (0.063 mm to 1 mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	7/25/2008 19:25	6020
2008070025	43	SS-10BB (0.063 mm to 1 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	18	mg/kg	7/24/2008 20:19	6010B
2008070025	43	SS-10BB (0.063 mm to 1 mm Sieve Size)	6/30/2008	Barium Dry Basis	246	mg/kg	7/24/2008 20:19	6010B
2008070025	43	SS-10BB (0.063 mm to 1 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/kg	7/25/2008 19:25	6020
2008070025	43	SS-10BB (0.063 mm to 1 mm Sieve Size)	6/30/2008	Boron Dry Basis	<10	mg/kg	7/31/2008 14:49	6010B
2008070025	43	SS-10BB (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	3	mg/kg	7/24/2008 20:19	6010B
2008070025	43	SS-10BB (0.063 mm to 1 mm Sieve Size)	6/30/2008	Chromium Dry Basis	16	mg/kg	7/24/2008 20:19	6010B
2008070025	43	SS-10BB (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	9	mg/kg	7/24/2008 20:19	6010B
2008070025	43	SS-10BB (0.063 mm to 1 mm Sieve Size)	6/30/2008	Copper Dry Basis	291	mg/kg	7/24/2008 20:19	6010B
2008070025	43	SS-10BB (0.063 mm to 1 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample		%	1/2/1900 0:00	D421
2008070025	43	SS-10BB (0.063 mm to 1 mm Sieve Size)	6/30/2008	Fraction of Total Sample	67.9	%	1/2/1900 0:00	D421
2008070025	43	SS-10BB (0.063 mm to 1 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1648	-----	7/22/2008 16:30	3050B SB
2008070025	43	SS-10BB (0.063 mm to 1 mm Sieve Size)	6/30/2008	Iron Dry Basis	23400	mg/kg	7/25/2008 18:01	6010B
2008070025	43	SS-10BB (0.063 mm to 1 mm Sieve Size)	6/30/2008	Lead Dry Basis	72	mg/kg	7/24/2008	6010B
2008070025	43	SS-10BB (0.063 mm to 1 mm Sieve Size)	6/30/2008	Manganese Dry Basis	911	mg/kg	7/25/2008	6010B
2008070025	43	SS-10BB (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	863	-----	7/23/2008	7471B
2008070025	43	SS-10BB (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Dry Basis	0.4	mg/kg	7/24/2008 13:05	7471B
2008070025	43	SS-10BB (0.063 mm to 1 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	7/24/2008 20:19	6010B
2008070025	43	SS-10BB (0.063 mm to 1 mm Sieve Size)	6/30/2008	Nickel Dry Basis	8	mg/kg	7/24/2008 20:19	6010B
2008070025	43	SS-10BB (0.063 mm to 1 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	7/25/2008 19:25	6020
2008070025	43	SS-10BB (0.063 mm to 1 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	7/24/2008 20:19	6010B
2008070025	43	SS-10BB (0.063 mm to 1 mm Sieve Size)	6/30/2008	Uranium Dry Basis	<5	mg/kg	7/25/2008 19:25	6020
2008070025	43	SS-10BB (0.063 mm to 1 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	51	mg/kg	7/24/2008 20:19	6010B
2008070025	43	SS-10BB (0.063 mm to 1 mm Sieve Size)	6/30/2008	Zinc Dry Basis	724	mg/kg	7/24/2008 20:19	6010B
2008070025	44	SS-15G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	7450	mg/kg	7/25/2008 18:13	6010B
2008070025	44	SS-15G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	7/25/2008 19:28	6020
2008070025	44	SS-15G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	26	mg/kg	7/24/2008 20:31	6010B
2008070025	44	SS-15G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Barium Dry Basis	132	mg/kg	7/24/2008 20:31	6010B
2008070025	44	SS-15G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/kg	7/25/2008 19:28	6020
2008070025	44	SS-15G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Boron Dry Basis	<10	mg/kg	7/31/2008 14:52	6010B
2008070025	44	SS-15G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	<2	mg/kg	7/24/2008 20:31	6010B
2008070025	44	SS-15G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Chromium Dry Basis	22	mg/kg	7/24/2008 20:31	6010B
2008070025	44	SS-15G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	7	mg/kg	7/24/2008 20:31	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070025	44	SS-15G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Copper Dry Basis	21	mg/kg	7/24/2008 20:31	6010B
2008070025	44	SS-15G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample		%	1/2/1900 0:00	D421
2008070025	44	SS-15G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Fraction of Total Sample	45.4	%	1/2/1900 0:00	D421
2008070025	44	SS-15G (0.063 mm to 1 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1648	-----	7/22/2008 16:30	3050B SB
2008070025	44	SS-15G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Iron Dry Basis	22100	mg/kg	7/25/2008 18:13	6010B
2008070025	44	SS-15G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Lead Dry Basis	<10	mg/kg	7/24/2008	6010B
2008070025	44	SS-15G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Manganese Dry Basis	152	mg/kg	7/25/2008	6010B
2008070025	44	SS-15G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	863	-----	7/23/2008	7471B
2008070025	44	SS-15G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Mercury Dry Basis	<0.1	mg/kg	7/24/2008 13:05	7471B
2008070025	44	SS-15G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	7/24/2008 20:31	6010B
2008070025	44	SS-15G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Nickel Dry Basis	9	mg/kg	7/24/2008 20:31	6010B
2008070025	44	SS-15G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	7/25/2008 19:28	6020
2008070025	44	SS-15G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	7/24/2008 20:31	6010B
2008070025	44	SS-15G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Uranium Dry Basis	<5	mg/kg	7/25/2008 19:28	6020
2008070025	44	SS-15G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	84	mg/kg	7/24/2008 20:31	6010B
2008070025	44	SS-15G (0.063 mm to 1 mm Sieve Size)	6/30/2008	Zinc Dry Basis	40	mg/kg	7/24/2008 20:31	6010B
2008070025	45	SS-10BB (<0.063 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	11400	mg/kg	7/24/2008 21:23	6010B
2008070025	45	SS-10BB (<0.063 mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	8/22/2008 16:58	6020
2008070025	45	SS-10BB (<0.063 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	41	mg/kg	8/22/2008 16:58	6020
2008070025	45	SS-10BB (<0.063 mm Sieve Size)	6/30/2008	Barium Dry Basis	420	mg/kg	7/24/2008 21:23	6010B
2008070025	45	SS-10BB (<0.063 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	<2	mg/l	8/25/2008 16:19	200.8
2008070025	45	SS-10BB (<0.063 mm Sieve Size)	6/30/2008	Boron Dry Basis	<14	mg/kg	7/31/2008 15:40	6010B
2008070025	45	SS-10BB (<0.063 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	11	mg/kg	8/22/2008 16:58	6020
2008070025	45	SS-10BB (<0.063 mm Sieve Size)	6/30/2008	Chromium Dry Basis	27	mg/kg	7/31/2008 15:40	6010B
2008070025	45	SS-10BB (<0.063 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	10	mg/kg	8/22/2008 16:58	6020
2008070025	45	SS-10BB (<0.063 mm Sieve Size)	6/30/2008	Copper Dry Basis	610	mg/kg	7/24/2008 21:23	6010B
2008070025	45	SS-10BB (<0.063 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample		%	1/2/1900 0:00	D421
2008070025	45	SS-10BB (<0.063 mm Sieve Size)	6/30/2008	Fraction of Total Sample	2	%	1/2/1900 0:00	D421
2008070025	45	SS-10BB (<0.063 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1649	-----	7/23/2008 13:00	3050B SB
2008070025	45	SS-10BB (<0.063 mm Sieve Size)	6/30/2008	Iron Dry Basis	25500	mg/kg	7/24/2008 21:23	6010B
2008070025	45	SS-10BB (<0.063 mm Sieve Size)	6/30/2008	Lead Dry Basis	189	mg/kg	8/22/2008	6020
2008070025	45	SS-10BB (<0.063 mm Sieve Size)	6/30/2008	Manganese Dry Basis	2050	mg/kg	7/25/2008 19:05	6010B
2008070025	45	SS-10BB (<0.063 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	864	-----	7/23/2008 11:55	7471B
2008070025	45	SS-10BB (<0.063 mm Sieve Size)	6/30/2008	Mercury Dry Basis	1	mg/kg	7/24/2008 14:15	7471B
2008070025	45	SS-10BB (<0.063 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	6	mg/kg	8/22/2008 16:58	6020
2008070025	45	SS-10BB (<0.063 mm Sieve Size)	6/30/2008	Nickel Dry Basis	20	mg/kg	8/22/2008 16:58	6020
2008070025	45	SS-10BB (<0.063 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	8/22/2008 16:58	6020
2008070025	45	SS-10BB (<0.063 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	8/22/2008 16:58	6020
2008070025	45	SS-10BB (<0.063 mm Sieve Size)	6/30/2008	Uranium Dry Basis	6	mg/kg	8/22/2008 16:58	6020
2008070025	45	SS-10BB (<0.063 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	48	mg/kg	7/31/2008 15:40	6010B
2008070025	45	SS-10BB (<0.063 mm Sieve Size)	6/30/2008	Zinc Dry Basis	1710	mg/kg	7/24/2008 21:23	6010B
2008070025	46	SS-15G (<0.063 mm Sieve Size)	6/30/2008	Aluminum Dry Basis	13700	mg/kg	7/24/2008 21:32	6010B
2008070025	46	SS-15G (<0.063 mm Sieve Size)	6/30/2008	Antimony Dry Basis	<5	mg/kg	8/22/2008 17:15	6020
2008070025	46	SS-15G (<0.063 mm Sieve Size)	6/30/2008	Arsenic Dry Basis	40	mg/kg	8/22/2008 17:15	6020
2008070025	46	SS-15G (<0.063 mm Sieve Size)	6/30/2008	Barium Dry Basis	240	mg/kg	7/24/2008 21:32	6010B
2008070025	46	SS-15G (<0.063 mm Sieve Size)	6/30/2008	Beryllium Dry Basis	2	mg/l	8/25/2008 16:26	200.8
2008070025	46	SS-15G (<0.063 mm Sieve Size)	6/30/2008	Boron Dry Basis	96	mg/kg	7/31/2008 15:54	6010B
2008070025	46	SS-15G (<0.063 mm Sieve Size)	6/30/2008	Cadmium Dry Basis	3	mg/kg	8/22/2008 17:15	6020
2008070025	46	SS-15G (<0.063 mm Sieve Size)	6/30/2008	Chromium Dry Basis	32	mg/kg	7/31/2008 15:54	6010B
2008070025	46	SS-15G (<0.063 mm Sieve Size)	6/30/2008	Cobalt Dry Basis	9	mg/kg	8/22/2008 17:15	6020
2008070025	46	SS-15G (<0.063 mm Sieve Size)	6/30/2008	Copper Dry Basis	71	mg/kg	8/22/2008 17:15	6020
2008070025	46	SS-15G (<0.063 mm Sieve Size)	6/30/2008	Fraction of <2 mm Sample		%	1/2/1900 0:00	D421
2008070025	46	SS-15G (<0.063 mm Sieve Size)	6/30/2008	Fraction of Total Sample	0.4	%	1/2/1900 0:00	D421
2008070025	46	SS-15G (<0.063 mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	1649	-----	7/23/2008	3050B SB
2008070025	46	SS-15G (<0.063 mm Sieve Size)	6/30/2008	Iron Dry Basis	18500	mg/kg	7/24/2008 21:32	6010B
2008070025	46	SS-15G (<0.063 mm Sieve Size)	6/30/2008	Lead Dry Basis	34	mg/kg	8/22/2008 17:15	6020

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008070025	46	SS-15G (<0.063 mm Sieve Size)	6/30/2008	Manganese Dry Basis	413	mg/kg	7/25/2008 19:14	6010B
2008070025	46	SS-15G (<0.063 mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	864	-----	7/23/2008 11:55	7471B
2008070025	46	SS-15G (<0.063 mm Sieve Size)	6/30/2008	Mercury Dry Basis	<0.1	mg/kg	7/24/2008 14:15	7471B
2008070025	46	SS-15G (<0.063 mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	<5	mg/kg	8/22/2008 17:15	6020
2008070025	46	SS-15G (<0.063 mm Sieve Size)	6/30/2008	Nickel Dry Basis	23	mg/kg	8/22/2008 17:15	6020
2008070025	46	SS-15G (<0.063 mm Sieve Size)	6/30/2008	Selenium Dry Basis	<10	mg/kg	8/22/2008 17:15	6020
2008070025	46	SS-15G (<0.063 mm Sieve Size)	6/30/2008	Silver Dry Basis	<5	mg/kg	8/22/2008 17:15	6020
2008070025	46	SS-15G (<0.063 mm Sieve Size)	6/30/2008	Uranium Dry Basis	<5	mg/kg	8/22/2008 17:15	6020
2008070025	46	SS-15G (<0.063 mm Sieve Size)	6/30/2008	Vanadium Dry Basis	43	mg/kg	7/31/2008 15:54	6010B
2008070025	46	SS-15G (<0.063 mm Sieve Size)	6/30/2008	Zinc Dry Basis	220	mg/kg	7/24/2008 21:32	6010B
2008070025	47	MATRIX SPIKE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Aluminum Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	47	MATRIX SPIKE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Antimony Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	47	MATRIX SPIKE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Arsenic Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	47	MATRIX SPIKE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Barium Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	47	MATRIX SPIKE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Beryllium Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	47	MATRIX SPIKE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Boron Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	47	MATRIX SPIKE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Cadmium Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	47	MATRIX SPIKE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Chromium Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	47	MATRIX SPIKE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Cobalt Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	47	MATRIX SPIKE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Copper Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	47	MATRIX SPIKE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	NA	-----	1/2/1900	
2008070025	47	MATRIX SPIKE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Iron Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	47	MATRIX SPIKE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Lead Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	47	MATRIX SPIKE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Manganese Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	47	MATRIX SPIKE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	864	-----	7/23/2008 11:55	7471B
2008070025	47	MATRIX SPIKE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Mercury Dry Basis	120	% [55-139]	7/24/2008 14:15	7471B
2008070025	47	MATRIX SPIKE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	47	MATRIX SPIKE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Nickel Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	47	MATRIX SPIKE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Selenium Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	47	MATRIX SPIKE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Silver Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	47	MATRIX SPIKE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Uranium Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	47	MATRIX SPIKE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Vanadium Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	47	MATRIX SPIKE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Zinc Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	48	MATRIX SPIKE DUPLICATE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Aluminum Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	48	MATRIX SPIKE DUPLICATE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Antimony Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	48	MATRIX SPIKE DUPLICATE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Arsenic Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	48	MATRIX SPIKE DUPLICATE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Barium Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	48	MATRIX SPIKE DUPLICATE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Beryllium Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	48	MATRIX SPIKE DUPLICATE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Boron Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	48	MATRIX SPIKE DUPLICATE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Cadmium Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	48	MATRIX SPIKE DUPLICATE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Chromium Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	48	MATRIX SPIKE DUPLICATE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Cobalt Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	48	MATRIX SPIKE DUPLICATE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Copper Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	48	MATRIX SPIKE DUPLICATE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	ICP/AA Batch#/Digest Date	NA	-----	1/2/1900	
2008070025	48	MATRIX SPIKE DUPLICATE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Iron Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	48	MATRIX SPIKE DUPLICATE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Lead Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	48	MATRIX SPIKE DUPLICATE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Manganese Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	48	MATRIX SPIKE DUPLICATE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Mercury Batch #/Digest Date	864	-----	7/23/2008 11:55	7471B
2008070025	48	MATRIX SPIKE DUPLICATE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Mercury Dry Basis	18	RPD [0-20]	7/24/2008 14:15	7471B
2008070025	48	MATRIX SPIKE DUPLICATE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Molybdenum Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	48	MATRIX SPIKE DUPLICATE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Nickel Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	48	MATRIX SPIKE DUPLICATE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Selenium Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	48	MATRIX SPIKE DUPLICATE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Silver Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	48	MATRIX SPIKE DUPLICATE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Uranium Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	48	MATRIX SPIKE DUPLICATE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Vanadium Dry Basis	NA	-----	1/2/1900 0:00	
2008070025	48	MATRIX SPIKE DUPLICATE OF 2008070025-41 (1mm to 2mm Sieve Size)	6/30/2008	Zinc Dry Basis	NA	-----	1/2/1900 0:00	

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090203	1	SS-15G (1mm to 2mm Sieve Size)	9/16/2008	Aluminum Dry Basis	5560	mg/kg	10/9/2008	6010B
2008090203	1	SS-15G (1mm to 2mm Sieve Size)	9/16/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	1	SS-15G (1mm to 2mm Sieve Size)	9/16/2008	Arsenic Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	1	SS-15G (1mm to 2mm Sieve Size)	9/16/2008	Barium Dry Basis	128	mg/kg	10/9/2008 12:30	6010B
2008090203	1	SS-15G (1mm to 2mm Sieve Size)	9/16/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008 12:30	6010B
2008090203	1	SS-15G (1mm to 2mm Sieve Size)	9/16/2008	Boron Dry Basis	<10	mg/kg	10/13/2008 15:42	6010B
2008090203	1	SS-15G (1mm to 2mm Sieve Size)	9/16/2008	Cadmium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	1	SS-15G (1mm to 2mm Sieve Size)	9/16/2008	Chromium Dry Basis	12	mg/kg	10/9/2008 12:30	6010B
2008090203	1	SS-15G (1mm to 2mm Sieve Size)	9/16/2008	Cobalt Dry Basis	<5	mg/kg	10/9/2008 12:30	6010B
2008090203	1	SS-15G (1mm to 2mm Sieve Size)	9/16/2008	Copper Dry Basis	19	mg/kg	10/9/2008	6010B
2008090203	1	SS-15G (1mm to 2mm Sieve Size)	9/16/2008	Fraction of <2 mm Sample	31.9	%	1/2/1900 0:00	D421
2008090203	1	SS-15G (1mm to 2mm Sieve Size)	9/16/2008	Fraction of Total Sample	25.5	%	1/2/1900 0:00	D421
2008090203	1	SS-15G (1mm to 2mm Sieve Size)	9/16/2008	ICP/AA Batch#/Digest Date	1689	-----	10/8/2008	3050B SB
2008090203	1	SS-15G (1mm to 2mm Sieve Size)	9/16/2008	Iron Dry Basis	15100	mg/kg	10/13/2008 16:32	6010B
2008090203	1	SS-15G (1mm to 2mm Sieve Size)	9/16/2008	Lead Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	1	SS-15G (1mm to 2mm Sieve Size)	9/16/2008	Manganese Dry Basis	158	mg/kg	10/9/2008 12:30	6010B
2008090203	1	SS-15G (1mm to 2mm Sieve Size)	9/16/2008	Mercury Batch #/Digest Date	883	-----	10/9/2008	7471B
2008090203	1	SS-15G (1mm to 2mm Sieve Size)	9/16/2008	Mercury Dry Basis	<0.1	mg/kg	10/9/2008	7471B
2008090203	1	SS-15G (1mm to 2mm Sieve Size)	9/16/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	1	SS-15G (1mm to 2mm Sieve Size)	9/16/2008	Nickel Dry Basis	8	mg/kg	10/9/2008 12:30	6010B
2008090203	1	SS-15G (1mm to 2mm Sieve Size)	9/16/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	1	SS-15G (1mm to 2mm Sieve Size)	9/16/2008	Silver Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	1	SS-15G (1mm to 2mm Sieve Size)	9/16/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	1	SS-15G (1mm to 2mm Sieve Size)	9/16/2008	Vanadium Dry Basis	18	mg/kg	10/9/2008 12:30	6010B
2008090203	1	SS-15G (1mm to 2mm Sieve Size)	9/16/2008	Zinc Dry Basis	52	mg/kg	10/13/2008 15:42	6010B
2008090203	2	SS-15B (1mm to 2mm Sieve Size)	9/16/2008	Aluminum Dry Basis	1760	mg/kg	10/9/2008 13:35	6010B
2008090203	2	SS-15B (1mm to 2mm Sieve Size)	9/16/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	2	SS-15B (1mm to 2mm Sieve Size)	9/16/2008	Arsenic Dry Basis	82	mg/kg	10/9/2008 12:39	6010B
2008090203	2	SS-15B (1mm to 2mm Sieve Size)	9/16/2008	Barium Dry Basis	77	mg/kg	10/9/2008 12:39	6010B
2008090203	2	SS-15B (1mm to 2mm Sieve Size)	9/16/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	2	SS-15B (1mm to 2mm Sieve Size)	9/16/2008	Boron Dry Basis	<10	mg/kg	10/13/2008 15:51	6010B
2008090203	2	SS-15B (1mm to 2mm Sieve Size)	9/16/2008	Cadmium Dry Basis	3	mg/kg	10/9/2008 12:39	6010B
2008090203	2	SS-15B (1mm to 2mm Sieve Size)	9/16/2008	Chromium Dry Basis	5	mg/kg	10/9/2008	6010B
2008090203	2	SS-15B (1mm to 2mm Sieve Size)	9/16/2008	Cobalt Dry Basis	<5	mg/kg	10/9/2008 12:39	6010B
2008090203	2	SS-15B (1mm to 2mm Sieve Size)	9/16/2008	Copper Dry Basis	357	mg/kg	10/9/2008	6010B
2008090203	2	SS-15B (1mm to 2mm Sieve Size)	9/16/2008	Fraction of <2 mm Sample	57.5	%	1/2/1900 0:00	D421
2008090203	2	SS-15B (1mm to 2mm Sieve Size)	9/16/2008	Fraction of Total Sample	35.2	%	1/2/1900	D421
2008090203	2	SS-15B (1mm to 2mm Sieve Size)	9/16/2008	ICP/AA Batch#/Digest Date	1689	-----	10/8/2008	3050B SB
2008090203	2	SS-15B (1mm to 2mm Sieve Size)	9/16/2008	Iron Dry Basis	12100	mg/kg	10/13/2008	6010B
2008090203	2	SS-15B (1mm to 2mm Sieve Size)	9/16/2008	Lead Dry Basis	151	mg/kg	10/9/2008 12:39	6010B
2008090203	2	SS-15B (1mm to 2mm Sieve Size)	9/16/2008	Manganese Dry Basis	659	mg/kg	10/9/2008	6010B
2008090203	2	SS-15B (1mm to 2mm Sieve Size)	9/16/2008	Mercury Batch #/Digest Date	883	-----	10/9/2008	7471B
2008090203	2	SS-15B (1mm to 2mm Sieve Size)	9/16/2008	Mercury Dry Basis	0.4	mg/kg	10/9/2008	7471B
2008090203	2	SS-15B (1mm to 2mm Sieve Size)	9/16/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008 12:39	6010B
2008090203	2	SS-15B (1mm to 2mm Sieve Size)	9/16/2008	Nickel Dry Basis	<5	mg/kg	10/9/2008 12:39	6010B
2008090203	2	SS-15B (1mm to 2mm Sieve Size)	9/16/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008 12:39	6010B
2008090203	2	SS-15B (1mm to 2mm Sieve Size)	9/16/2008	Silver Dry Basis	<5	mg/kg	10/9/2008 12:39	6010B
2008090203	2	SS-15B (1mm to 2mm Sieve Size)	9/16/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008 16:22	6020
2008090203	2	SS-15B (1mm to 2mm Sieve Size)	9/16/2008	Vanadium Dry Basis	13	mg/kg	10/9/2008 12:39	6010B
2008090203	2	SS-15B (1mm to 2mm Sieve Size)	9/16/2008	Zinc Dry Basis	795	mg/kg	10/9/2008	6010B
2008090203	3	SS-15A (1mm to 2mm Sieve Size)	9/16/2008	Aluminum Dry Basis	1870	mg/kg	10/9/2008 13:38	6010B
2008090203	3	SS-15A (1mm to 2mm Sieve Size)	9/16/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008 16:25	6020
2008090203	3	SS-15A (1mm to 2mm Sieve Size)	9/16/2008	Arsenic Dry Basis	72	mg/kg	10/9/2008 12:42	6010B
2008090203	3	SS-15A (1mm to 2mm Sieve Size)	9/16/2008	Barium Dry Basis	88	mg/kg	10/9/2008 12:42	6010B
2008090203	3	SS-15A (1mm to 2mm Sieve Size)	9/16/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	3	SS-15A (1mm to 2mm Sieve Size)	9/16/2008	Boron Dry Basis	<10	mg/kg	10/13/2008 15:54	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090203	3	SS-15A (1mm to 2mm Sieve Size)	9/16/2008	Cadmium Dry Basis	2	mg/kg	10/9/2008 12:42	6010B
2008090203	3	SS-15A (1mm to 2mm Sieve Size)	9/16/2008	Chromium Dry Basis	5	mg/kg	10/9/2008 12:42	6010B
2008090203	3	SS-15A (1mm to 2mm Sieve Size)	9/16/2008	Cobalt Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	3	SS-15A (1mm to 2mm Sieve Size)	9/16/2008	Copper Dry Basis	359	mg/kg	10/9/2008	6010B
2008090203	3	SS-15A (1mm to 2mm Sieve Size)	9/16/2008	Fraction of <2 mm Sample	61	%	1/2/1900 0:00	D421
2008090203	3	SS-15A (1mm to 2mm Sieve Size)	9/16/2008	Fraction of Total Sample	45.1	%	1/2/1900 0:00	D421
2008090203	3	SS-15A (1mm to 2mm Sieve Size)	9/16/2008	ICP/AA Batch#/Digest Date	1689	-----	10/8/2008 13:00	3050B SB
2008090203	3	SS-15A (1mm to 2mm Sieve Size)	9/16/2008	Iron Dry Basis	13200	mg/kg	10/13/2008	6010B
2008090203	3	SS-15A (1mm to 2mm Sieve Size)	9/16/2008	Lead Dry Basis	151	mg/kg	10/9/2008 12:42	6010B
2008090203	3	SS-15A (1mm to 2mm Sieve Size)	9/16/2008	Manganese Dry Basis	796	mg/kg	10/9/2008 12:42	6010B
2008090203	3	SS-15A (1mm to 2mm Sieve Size)	9/16/2008	Mercury Batch #/Digest Date	883	-----	10/9/2008	7471B
2008090203	3	SS-15A (1mm to 2mm Sieve Size)	9/16/2008	Mercury Dry Basis	0.4	mg/kg	10/9/2008	7471B
2008090203	3	SS-15A (1mm to 2mm Sieve Size)	9/16/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008 12:42	6010B
2008090203	3	SS-15A (1mm to 2mm Sieve Size)	9/16/2008	Nickel Dry Basis	<5	mg/kg	10/9/2008 12:42	6010B
2008090203	3	SS-15A (1mm to 2mm Sieve Size)	9/16/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008 12:42	6010B
2008090203	3	SS-15A (1mm to 2mm Sieve Size)	9/16/2008	Silver Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	3	SS-15A (1mm to 2mm Sieve Size)	9/16/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	3	SS-15A (1mm to 2mm Sieve Size)	9/16/2008	Vanadium Dry Basis	11	mg/kg	10/9/2008 12:42	6010B
2008090203	3	SS-15A (1mm to 2mm Sieve Size)	9/16/2008	Zinc Dry Basis	741	mg/kg	10/9/2008 12:42	6010B
2008090203	4	SS-10B (1mm to 2mm Sieve Size)	9/16/2008	Aluminum Dry Basis	2140	mg/kg	10/9/2008 13:41	6010B
2008090203	4	SS-10B (1mm to 2mm Sieve Size)	9/16/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	4	SS-10B (1mm to 2mm Sieve Size)	9/16/2008	Arsenic Dry Basis	<10	mg/kg	10/9/2008 12:45	6010B
2008090203	4	SS-10B (1mm to 2mm Sieve Size)	9/16/2008	Barium Dry Basis	94	mg/kg	10/9/2008	6010B
2008090203	4	SS-10B (1mm to 2mm Sieve Size)	9/16/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008 12:45	6010B
2008090203	4	SS-10B (1mm to 2mm Sieve Size)	9/16/2008	Boron Dry Basis	<10	mg/kg	10/13/2008 15:57	6010B
2008090203	4	SS-10B (1mm to 2mm Sieve Size)	9/16/2008	Cadmium Dry Basis	<2	mg/kg	10/9/2008 12:45	6010B
2008090203	4	SS-10B (1mm to 2mm Sieve Size)	9/16/2008	Chromium Dry Basis	4	mg/kg	10/9/2008 12:45	6010B
2008090203	4	SS-10B (1mm to 2mm Sieve Size)	9/16/2008	Cobalt Dry Basis	<5	mg/kg	10/9/2008 12:45	6010B
2008090203	4	SS-10B (1mm to 2mm Sieve Size)	9/16/2008	Copper Dry Basis	53	mg/kg	10/9/2008	6010B
2008090203	4	SS-10B (1mm to 2mm Sieve Size)	9/16/2008	Fraction of <2 mm Sample	42.3	%	1/2/1900 0:00	D421
2008090203	4	SS-10B (1mm to 2mm Sieve Size)	9/16/2008	Fraction of Total Sample	12.9	%	1/2/1900	D421
2008090203	4	SS-10B (1mm to 2mm Sieve Size)	9/16/2008	ICP/AA Batch#/Digest Date	1689	-----	10/8/2008	3050B SB
2008090203	4	SS-10B (1mm to 2mm Sieve Size)	9/16/2008	Iron Dry Basis	9890	mg/kg	10/13/2008	6010B
2008090203	4	SS-10B (1mm to 2mm Sieve Size)	9/16/2008	Lead Dry Basis	19	mg/kg	10/9/2008 12:45	6010B
2008090203	4	SS-10B (1mm to 2mm Sieve Size)	9/16/2008	Manganese Dry Basis	439	mg/kg	10/9/2008	6010B
2008090203	4	SS-10B (1mm to 2mm Sieve Size)	9/16/2008	Mercury Batch #/Digest Date	883	-----	10/9/2008	7471B
2008090203	4	SS-10B (1mm to 2mm Sieve Size)	9/16/2008	Mercury Dry Basis	<0.1	mg/kg	10/9/2008	7471B
2008090203	4	SS-10B (1mm to 2mm Sieve Size)	9/16/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008 12:45	6010B
2008090203	4	SS-10B (1mm to 2mm Sieve Size)	9/16/2008	Nickel Dry Basis	<5	mg/kg	10/9/2008 12:45	6010B
2008090203	4	SS-10B (1mm to 2mm Sieve Size)	9/16/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	4	SS-10B (1mm to 2mm Sieve Size)	9/16/2008	Silver Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	4	SS-10B (1mm to 2mm Sieve Size)	9/16/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	4	SS-10B (1mm to 2mm Sieve Size)	9/16/2008	Vanadium Dry Basis	12	mg/kg	10/9/2008	6010B
2008090203	4	SS-10B (1mm to 2mm Sieve Size)	9/16/2008	Zinc Dry Basis	171	mg/kg	10/9/2008	6010B
2008090203	5	SS-11C (1mm to 2mm Sieve Size)	9/16/2008	Aluminum Dry Basis	2750	mg/kg	10/9/2008 13:44	6010B
2008090203	5	SS-11C (1mm to 2mm Sieve Size)	9/16/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008 16:34	6020
2008090203	5	SS-11C (1mm to 2mm Sieve Size)	9/16/2008	Arsenic Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	5	SS-11C (1mm to 2mm Sieve Size)	9/16/2008	Barium Dry Basis	102	mg/kg	10/9/2008	6010B
2008090203	5	SS-11C (1mm to 2mm Sieve Size)	9/16/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008 12:48	6010B
2008090203	5	SS-11C (1mm to 2mm Sieve Size)	9/16/2008	Boron Dry Basis	<10	mg/kg	10/13/2008	6010B
2008090203	5	SS-11C (1mm to 2mm Sieve Size)	9/16/2008	Cadmium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	5	SS-11C (1mm to 2mm Sieve Size)	9/16/2008	Chromium Dry Basis	9	mg/kg	10/9/2008 12:48	6010B
2008090203	5	SS-11C (1mm to 2mm Sieve Size)	9/16/2008	Cobalt Dry Basis	<5	mg/kg	10/9/2008 12:48	6010B
2008090203	5	SS-11C (1mm to 2mm Sieve Size)	9/16/2008	Copper Dry Basis	41	mg/kg	10/9/2008 12:48	6010B
2008090203	5	SS-11C (1mm to 2mm Sieve Size)	9/16/2008	Fraction of <2 mm Sample	68.9	%	1/2/1900	D421
2008090203	5	SS-11C (1mm to 2mm Sieve Size)	9/16/2008	Fraction of Total Sample	18.8	%	1/2/1900 0:00	D421

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090203	5	SS-11C (1mm to 2mm Sieve Size)	9/16/2008	ICP/AA Batch#/Digest Date	1689	-----	10/8/2008 13:00	3050B SB
2008090203	5	SS-11C (1mm to 2mm Sieve Size)	9/16/2008	Iron Dry Basis	11200	mg/kg	10/13/2008	6010B
2008090203	5	SS-11C (1mm to 2mm Sieve Size)	9/16/2008	Lead Dry Basis	10	mg/kg	10/9/2008	6010B
2008090203	5	SS-11C (1mm to 2mm Sieve Size)	9/16/2008	Manganese Dry Basis	666	mg/kg	10/9/2008 12:48	6010B
2008090203	5	SS-11C (1mm to 2mm Sieve Size)	9/16/2008	Mercury Batch #/Digest Date	883	-----	10/9/2008 10:30	7471B
2008090203	5	SS-11C (1mm to 2mm Sieve Size)	9/16/2008	Mercury Dry Basis	<0.1	mg/kg	10/9/2008 14:55	7471B
2008090203	5	SS-11C (1mm to 2mm Sieve Size)	9/16/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	5	SS-11C (1mm to 2mm Sieve Size)	9/16/2008	Nickel Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	5	SS-11C (1mm to 2mm Sieve Size)	9/16/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008 12:48	6010B
2008090203	5	SS-11C (1mm to 2mm Sieve Size)	9/16/2008	Silver Dry Basis	<5	mg/kg	10/9/2008 12:48	6010B
2008090203	5	SS-11C (1mm to 2mm Sieve Size)	9/16/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008 16:34	6020
2008090203	5	SS-11C (1mm to 2mm Sieve Size)	9/16/2008	Vanadium Dry Basis	12	mg/kg	10/9/2008	6010B
2008090203	5	SS-11C (1mm to 2mm Sieve Size)	9/16/2008	Zinc Dry Basis	192	mg/kg	10/9/2008 12:48	6010B
2008090203	6	SS-11D (1mm to 2mm Sieve Size)	9/16/2008	Aluminum Dry Basis	3190	mg/kg	10/9/2008	6010B
2008090203	6	SS-11D (1mm to 2mm Sieve Size)	9/16/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008 16:36	6020
2008090203	6	SS-11D (1mm to 2mm Sieve Size)	9/16/2008	Arsenic Dry Basis	<10	mg/kg	10/9/2008 12:57	6010B
2008090203	6	SS-11D (1mm to 2mm Sieve Size)	9/16/2008	Barium Dry Basis	90	mg/kg	10/9/2008 12:57	6010B
2008090203	6	SS-11D (1mm to 2mm Sieve Size)	9/16/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008 12:57	6010B
2008090203	6	SS-11D (1mm to 2mm Sieve Size)	9/16/2008	Boron Dry Basis	<10	mg/kg	10/13/2008 16:08	6010B
2008090203	6	SS-11D (1mm to 2mm Sieve Size)	9/16/2008	Cadmium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	6	SS-11D (1mm to 2mm Sieve Size)	9/16/2008	Chromium Dry Basis	8	mg/kg	10/9/2008 12:57	6010B
2008090203	6	SS-11D (1mm to 2mm Sieve Size)	9/16/2008	Cobalt Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	6	SS-11D (1mm to 2mm Sieve Size)	9/16/2008	Copper Dry Basis	32	mg/kg	10/9/2008	6010B
2008090203	6	SS-11D (1mm to 2mm Sieve Size)	9/16/2008	Fraction of <2 mm Sample	47.2	%	1/2/1900	D421
2008090203	6	SS-11D (1mm to 2mm Sieve Size)	9/16/2008	Fraction of Total Sample	20.8	%	1/2/1900 0:00	D421
2008090203	6	SS-11D (1mm to 2mm Sieve Size)	9/16/2008	ICP/AA Batch#/Digest Date	1689	-----	10/8/2008	3050B SB
2008090203	6	SS-11D (1mm to 2mm Sieve Size)	9/16/2008	Iron Dry Basis	9090	mg/kg	10/13/2008	6010B
2008090203	6	SS-11D (1mm to 2mm Sieve Size)	9/16/2008	Lead Dry Basis	16	mg/kg	10/9/2008	6010B
2008090203	6	SS-11D (1mm to 2mm Sieve Size)	9/16/2008	Manganese Dry Basis	257	mg/kg	10/9/2008	6010B
2008090203	6	SS-11D (1mm to 2mm Sieve Size)	9/16/2008	Mercury Batch #/Digest Date	883	-----	10/9/2008 10:30	7471B
2008090203	6	SS-11D (1mm to 2mm Sieve Size)	9/16/2008	Mercury Dry Basis	<0.1	mg/kg	10/9/2008 14:55	7471B
2008090203	6	SS-11D (1mm to 2mm Sieve Size)	9/16/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	6	SS-11D (1mm to 2mm Sieve Size)	9/16/2008	Nickel Dry Basis	<5	mg/kg	10/9/2008 12:57	6010B
2008090203	6	SS-11D (1mm to 2mm Sieve Size)	9/16/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008 12:57	6010B
2008090203	6	SS-11D (1mm to 2mm Sieve Size)	9/16/2008	Silver Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	6	SS-11D (1mm to 2mm Sieve Size)	9/16/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	6	SS-11D (1mm to 2mm Sieve Size)	9/16/2008	Vanadium Dry Basis	12	mg/kg	10/9/2008	6010B
2008090203	6	SS-11D (1mm to 2mm Sieve Size)	9/16/2008	Zinc Dry Basis	74	mg/kg	10/13/2008	6010B
2008090203	7	SS-10A (1mm to 2mm Sieve Size)	9/17/2008	Aluminum Dry Basis	2770	mg/kg	10/9/2008 13:50	6010B
2008090203	7	SS-10A (1mm to 2mm Sieve Size)	9/17/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008 16:38	6020
2008090203	7	SS-10A (1mm to 2mm Sieve Size)	9/17/2008	Arsenic Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	7	SS-10A (1mm to 2mm Sieve Size)	9/17/2008	Barium Dry Basis	113	mg/kg	10/9/2008	6010B
2008090203	7	SS-10A (1mm to 2mm Sieve Size)	9/17/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	7	SS-10A (1mm to 2mm Sieve Size)	9/17/2008	Boron Dry Basis	<10	mg/kg	10/13/2008 16:11	6010B
2008090203	7	SS-10A (1mm to 2mm Sieve Size)	9/17/2008	Cadmium Dry Basis	<2	mg/kg	10/9/2008 13:00	6010B
2008090203	7	SS-10A (1mm to 2mm Sieve Size)	9/17/2008	Chromium Dry Basis	5	mg/kg	10/9/2008 13:00	6010B
2008090203	7	SS-10A (1mm to 2mm Sieve Size)	9/17/2008	Cobalt Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	7	SS-10A (1mm to 2mm Sieve Size)	9/17/2008	Copper Dry Basis	408	mg/kg	10/9/2008 13:00	6010B
2008090203	7	SS-10A (1mm to 2mm Sieve Size)	9/17/2008	Fraction of <2 mm Sample	33.1	%	1/2/1900 0:00	D421
2008090203	7	SS-10A (1mm to 2mm Sieve Size)	9/17/2008	Fraction of Total Sample	2.2	%	1/2/1900	D421
2008090203	7	SS-10A (1mm to 2mm Sieve Size)	9/17/2008	ICP/AA Batch#/Digest Date	1689	-----	10/8/2008 13:00	3050B SB
2008090203	7	SS-10A (1mm to 2mm Sieve Size)	9/17/2008	Iron Dry Basis	13900	mg/kg	10/13/2008 17:02	6010B
2008090203	7	SS-10A (1mm to 2mm Sieve Size)	9/17/2008	Lead Dry Basis	24	mg/kg	10/9/2008	6010B
2008090203	7	SS-10A (1mm to 2mm Sieve Size)	9/17/2008	Manganese Dry Basis	977	mg/kg	10/9/2008	6010B
2008090203	7	SS-10A (1mm to 2mm Sieve Size)	9/17/2008	Mercury Batch #/Digest Date	883	-----	10/9/2008	7471B
2008090203	7	SS-10A (1mm to 2mm Sieve Size)	9/17/2008	Mercury Dry Basis	0.2	mg/kg	10/9/2008	7471B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090203	7	SS-10A (1mm to 2mm Sieve Size)	9/17/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008 13:00	6010B
2008090203	7	SS-10A (1mm to 2mm Sieve Size)	9/17/2008	Nickel Dry Basis	<5	mg/kg	10/9/2008 13:00	6010B
2008090203	7	SS-10A (1mm to 2mm Sieve Size)	9/17/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	7	SS-10A (1mm to 2mm Sieve Size)	9/17/2008	Silver Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	7	SS-10A (1mm to 2mm Sieve Size)	9/17/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	7	SS-10A (1mm to 2mm Sieve Size)	9/17/2008	Vanadium Dry Basis	14	mg/kg	10/9/2008 13:00	6010B
2008090203	7	SS-10A (1mm to 2mm Sieve Size)	9/17/2008	Zinc Dry Basis	404	mg/kg	10/9/2008 13:00	6010B
2008090203	8	SS-08 (1mm to 2mm Sieve Size)	9/17/2008	Aluminum Dry Basis	1540	mg/kg	10/9/2008 13:53	6010B
2008090203	8	SS-08 (1mm to 2mm Sieve Size)	9/17/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	8	SS-08 (1mm to 2mm Sieve Size)	9/17/2008	Arsenic Dry Basis	65	mg/kg	10/9/2008 13:03	6010B
2008090203	8	SS-08 (1mm to 2mm Sieve Size)	9/17/2008	Barium Dry Basis	76	mg/kg	10/9/2008 13:03	6010B
2008090203	8	SS-08 (1mm to 2mm Sieve Size)	9/17/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	8	SS-08 (1mm to 2mm Sieve Size)	9/17/2008	Boron Dry Basis	<10	mg/kg	10/13/2008 16:14	6010B
2008090203	8	SS-08 (1mm to 2mm Sieve Size)	9/17/2008	Cadmium Dry Basis	<2	mg/kg	10/9/2008 13:03	6010B
2008090203	8	SS-08 (1mm to 2mm Sieve Size)	9/17/2008	Chromium Dry Basis	6	mg/kg	10/9/2008	6010B
2008090203	8	SS-08 (1mm to 2mm Sieve Size)	9/17/2008	Cobalt Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	8	SS-08 (1mm to 2mm Sieve Size)	9/17/2008	Copper Dry Basis	424	mg/kg	10/9/2008	6010B
2008090203	8	SS-08 (1mm to 2mm Sieve Size)	9/17/2008	Fraction of <2 mm Sample	44.1	%	1/2/1900	D421
2008090203	8	SS-08 (1mm to 2mm Sieve Size)	9/17/2008	Fraction of Total Sample	8.5	%	1/2/1900 0:00	D421
2008090203	8	SS-08 (1mm to 2mm Sieve Size)	9/17/2008	ICP/AA Batch#/Digest Date	1689	-----	10/8/2008 13:00	3050B SB
2008090203	8	SS-08 (1mm to 2mm Sieve Size)	9/17/2008	Iron Dry Basis	8720	mg/kg	10/13/2008	6010B
2008090203	8	SS-08 (1mm to 2mm Sieve Size)	9/17/2008	Lead Dry Basis	75	mg/kg	10/9/2008	6010B
2008090203	8	SS-08 (1mm to 2mm Sieve Size)	9/17/2008	Manganese Dry Basis	715	mg/kg	10/9/2008	6010B
2008090203	8	SS-08 (1mm to 2mm Sieve Size)	9/17/2008	Mercury Batch #/Digest Date	883	-----	10/9/2008 10:30	7471B
2008090203	8	SS-08 (1mm to 2mm Sieve Size)	9/17/2008	Mercury Dry Basis	0.5	mg/kg	10/9/2008 14:55	7471B
2008090203	8	SS-08 (1mm to 2mm Sieve Size)	9/17/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008 13:03	6010B
2008090203	8	SS-08 (1mm to 2mm Sieve Size)	9/17/2008	Nickel Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	8	SS-08 (1mm to 2mm Sieve Size)	9/17/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008 13:03	6010B
2008090203	8	SS-08 (1mm to 2mm Sieve Size)	9/17/2008	Silver Dry Basis	<5	mg/kg	10/9/2008 13:03	6010B
2008090203	8	SS-08 (1mm to 2mm Sieve Size)	9/17/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008 16:40	6020
2008090203	8	SS-08 (1mm to 2mm Sieve Size)	9/17/2008	Vanadium Dry Basis	13	mg/kg	10/9/2008 13:03	6010B
2008090203	8	SS-08 (1mm to 2mm Sieve Size)	9/17/2008	Zinc Dry Basis	468	mg/kg	10/9/2008 13:03	6010B
2008090203	9	SS-06G (1mm to 2mm Sieve Size)	9/17/2008	Aluminum Dry Basis	1940	mg/kg	10/9/2008	6010B
2008090203	9	SS-06G (1mm to 2mm Sieve Size)	9/17/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	9	SS-06G (1mm to 2mm Sieve Size)	9/17/2008	Arsenic Dry Basis	17	mg/kg	10/9/2008	6010B
2008090203	9	SS-06G (1mm to 2mm Sieve Size)	9/17/2008	Barium Dry Basis	89	mg/kg	10/9/2008	6010B
2008090203	9	SS-06G (1mm to 2mm Sieve Size)	9/17/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008 13:06	6010B
2008090203	9	SS-06G (1mm to 2mm Sieve Size)	9/17/2008	Boron Dry Basis	<10	mg/kg	10/13/2008 16:17	6010B
2008090203	9	SS-06G (1mm to 2mm Sieve Size)	9/17/2008	Cadmium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	9	SS-06G (1mm to 2mm Sieve Size)	9/17/2008	Chromium Dry Basis	5	mg/kg	10/9/2008	6010B
2008090203	9	SS-06G (1mm to 2mm Sieve Size)	9/17/2008	Cobalt Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	9	SS-06G (1mm to 2mm Sieve Size)	9/17/2008	Copper Dry Basis	83	mg/kg	10/9/2008	6010B
2008090203	9	SS-06G (1mm to 2mm Sieve Size)	9/17/2008	Fraction of <2 mm Sample	79.2	%	1/2/1900	D421
2008090203	9	SS-06G (1mm to 2mm Sieve Size)	9/17/2008	Fraction of Total Sample	63.8	%	1/2/1900	D421
2008090203	9	SS-06G (1mm to 2mm Sieve Size)	9/17/2008	ICP/AA Batch#/Digest Date	1689	-----	10/8/2008	3050B SB
2008090203	9	SS-06G (1mm to 2mm Sieve Size)	9/17/2008	Iron Dry Basis	8580	mg/kg	10/13/2008	6010B
2008090203	9	SS-06G (1mm to 2mm Sieve Size)	9/17/2008	Lead Dry Basis	64	mg/kg	10/9/2008	6010B
2008090203	9	SS-06G (1mm to 2mm Sieve Size)	9/17/2008	Manganese Dry Basis	1410	mg/kg	10/9/2008	6010B
2008090203	9	SS-06G (1mm to 2mm Sieve Size)	9/17/2008	Mercury Batch #/Digest Date	883	-----	10/9/2008	7471B
2008090203	9	SS-06G (1mm to 2mm Sieve Size)	9/17/2008	Mercury Dry Basis	<0.1	mg/kg	10/9/2008	7471B
2008090203	9	SS-06G (1mm to 2mm Sieve Size)	9/17/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	9	SS-06G (1mm to 2mm Sieve Size)	9/17/2008	Nickel Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	9	SS-06G (1mm to 2mm Sieve Size)	9/17/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	9	SS-06G (1mm to 2mm Sieve Size)	9/17/2008	Silver Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	9	SS-06G (1mm to 2mm Sieve Size)	9/17/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	9	SS-06G (1mm to 2mm Sieve Size)	9/17/2008	Vanadium Dry Basis	13	mg/kg	10/9/2008	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090203	9	SS-06G (1mm to 2mm Sieve Size)	9/17/2008	Zinc Dry Basis	334	mg/kg	10/9/2008	6010B
2008090203	10	SS-07 (1mm to 2mm Sieve Size)	9/17/2008	Aluminum Dry Basis	2290	mg/kg	10/9/2008	6010B
2008090203	10	SS-07 (1mm to 2mm Sieve Size)	9/17/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	10	SS-07 (1mm to 2mm Sieve Size)	9/17/2008	Arsenic Dry Basis	33	mg/kg	10/9/2008	6010B
2008090203	10	SS-07 (1mm to 2mm Sieve Size)	9/17/2008	Barium Dry Basis	79	mg/kg	10/9/2008	6010B
2008090203	10	SS-07 (1mm to 2mm Sieve Size)	9/17/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	10	SS-07 (1mm to 2mm Sieve Size)	9/17/2008	Boron Dry Basis	<10	mg/kg	10/13/2008	6010B
2008090203	10	SS-07 (1mm to 2mm Sieve Size)	9/17/2008	Cadmium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	10	SS-07 (1mm to 2mm Sieve Size)	9/17/2008	Chromium Dry Basis	6	mg/kg	10/9/2008	6010B
2008090203	10	SS-07 (1mm to 2mm Sieve Size)	9/17/2008	Cobalt Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	10	SS-07 (1mm to 2mm Sieve Size)	9/17/2008	Copper Dry Basis	206	mg/kg	10/9/2008	6010B
2008090203	10	SS-07 (1mm to 2mm Sieve Size)	9/17/2008	Fraction of <2 mm Sample	63.7	%	1/2/1900	D421
2008090203	10	SS-07 (1mm to 2mm Sieve Size)	9/17/2008	Fraction of Total Sample	38	%	1/2/1900	D421
2008090203	10	SS-07 (1mm to 2mm Sieve Size)	9/17/2008	ICP/AA Batch#/Digest Date	1689	-----	10/8/2008	3050B SB
2008090203	10	SS-07 (1mm to 2mm Sieve Size)	9/17/2008	Iron Dry Basis	13300	mg/kg	10/13/2008	6010B
2008090203	10	SS-07 (1mm to 2mm Sieve Size)	9/17/2008	Lead Dry Basis	93	mg/kg	10/9/2008	6010B
2008090203	10	SS-07 (1mm to 2mm Sieve Size)	9/17/2008	Manganese Dry Basis	1010	mg/kg	10/9/2008	6010B
2008090203	10	SS-07 (1mm to 2mm Sieve Size)	9/17/2008	Mercury Batch #/Digest Date	883	-----	10/9/2008	7471B
2008090203	10	SS-07 (1mm to 2mm Sieve Size)	9/17/2008	Mercury Dry Basis	<0.1	mg/kg	10/9/2008	7471B
2008090203	10	SS-07 (1mm to 2mm Sieve Size)	9/17/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	10	SS-07 (1mm to 2mm Sieve Size)	9/17/2008	Nickel Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	10	SS-07 (1mm to 2mm Sieve Size)	9/17/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	10	SS-07 (1mm to 2mm Sieve Size)	9/17/2008	Silver Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	10	SS-07 (1mm to 2mm Sieve Size)	9/17/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	10	SS-07 (1mm to 2mm Sieve Size)	9/17/2008	Vanadium Dry Basis	15	mg/kg	10/9/2008	6010B
2008090203	10	SS-07 (1mm to 2mm Sieve Size)	9/17/2008	Zinc Dry Basis	540	mg/kg	10/9/2008	6010B
2008090203	11	SS-17D (1mm to 2mm Sieve Size)	9/16/2008	Aluminum Dry Basis	2380	mg/kg	10/9/2008	6010B
2008090203	11	SS-17D (1mm to 2mm Sieve Size)	9/16/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	11	SS-17D (1mm to 2mm Sieve Size)	9/16/2008	Arsenic Dry Basis	75	mg/kg	10/9/2008	6010B
2008090203	11	SS-17D (1mm to 2mm Sieve Size)	9/16/2008	Barium Dry Basis	71	mg/kg	10/9/2008	6010B
2008090203	11	SS-17D (1mm to 2mm Sieve Size)	9/16/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	11	SS-17D (1mm to 2mm Sieve Size)	9/16/2008	Boron Dry Basis	<10	mg/kg	10/13/2008	6010B
2008090203	11	SS-17D (1mm to 2mm Sieve Size)	9/16/2008	Cadmium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	11	SS-17D (1mm to 2mm Sieve Size)	9/16/2008	Chromium Dry Basis	6	mg/kg	10/9/2008	6010B
2008090203	11	SS-17D (1mm to 2mm Sieve Size)	9/16/2008	Cobalt Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	11	SS-17D (1mm to 2mm Sieve Size)	9/16/2008	Copper Dry Basis	345	mg/kg	10/9/2008	6010B
2008090203	11	SS-17D (1mm to 2mm Sieve Size)	9/16/2008	Fraction of <2 mm Sample	33.1	%	1/2/1900	D421
2008090203	11	SS-17D (1mm to 2mm Sieve Size)	9/16/2008	Fraction of Total Sample	10.5	%	1/2/1900	D421
2008090203	11	SS-17D (1mm to 2mm Sieve Size)	9/16/2008	ICP/AA Batch#/Digest Date	1689	-----	10/8/2008	3050B SB
2008090203	11	SS-17D (1mm to 2mm Sieve Size)	9/16/2008	Iron Dry Basis	16100	mg/kg	10/13/2008	6010B
2008090203	11	SS-17D (1mm to 2mm Sieve Size)	9/16/2008	Lead Dry Basis	114	mg/kg	10/9/2008	6010B
2008090203	11	SS-17D (1mm to 2mm Sieve Size)	9/16/2008	Manganese Dry Basis	540	mg/kg	10/9/2008	6010B
2008090203	11	SS-17D (1mm to 2mm Sieve Size)	9/16/2008	Mercury Batch #/Digest Date	883	-----	10/9/2008	7471B
2008090203	11	SS-17D (1mm to 2mm Sieve Size)	9/16/2008	Mercury Dry Basis	0.3	mg/kg	10/9/2008	7471B
2008090203	11	SS-17D (1mm to 2mm Sieve Size)	9/16/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	11	SS-17D (1mm to 2mm Sieve Size)	9/16/2008	Nickel Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	11	SS-17D (1mm to 2mm Sieve Size)	9/16/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	11	SS-17D (1mm to 2mm Sieve Size)	9/16/2008	Silver Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	11	SS-17D (1mm to 2mm Sieve Size)	9/16/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	11	SS-17D (1mm to 2mm Sieve Size)	9/16/2008	Vanadium Dry Basis	15	mg/kg	10/9/2008	6010B
2008090203	11	SS-17D (1mm to 2mm Sieve Size)	9/16/2008	Zinc Dry Basis	662	mg/kg	10/9/2008	6010B
2008090203	12	SS-17 (1mm to 2mm Sieve Size)	9/16/2008	Aluminum Dry Basis	2910	mg/kg	10/9/2008	6010B
2008090203	12	SS-17 (1mm to 2mm Sieve Size)	9/16/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	12	SS-17 (1mm to 2mm Sieve Size)	9/16/2008	Arsenic Dry Basis	94	mg/kg	10/9/2008	6010B
2008090203	12	SS-17 (1mm to 2mm Sieve Size)	9/16/2008	Barium Dry Basis	84	mg/kg	10/9/2008	6010B
2008090203	12	SS-17 (1mm to 2mm Sieve Size)	9/16/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090203	12	SS-17 (1mm to 2mm Sieve Size)	9/16/2008	Boron Dry Basis	<10	mg/kg	10/13/2008	6010B
2008090203	12	SS-17 (1mm to 2mm Sieve Size)	9/16/2008	Cadmium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	12	SS-17 (1mm to 2mm Sieve Size)	9/16/2008	Chromium Dry Basis	7	mg/kg	10/9/2008	6010B
2008090203	12	SS-17 (1mm to 2mm Sieve Size)	9/16/2008	Cobalt Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	12	SS-17 (1mm to 2mm Sieve Size)	9/16/2008	Copper Dry Basis	344	mg/kg	10/9/2008	6010B
2008090203	12	SS-17 (1mm to 2mm Sieve Size)	9/16/2008	Fraction of <2 mm Sample	38.9	%	1/2/1900	D421
2008090203	12	SS-17 (1mm to 2mm Sieve Size)	9/16/2008	Fraction of Total Sample	12.3	%	1/2/1900	D421
2008090203	12	SS-17 (1mm to 2mm Sieve Size)	9/16/2008	ICP/AA Batch#/Digest Date	1689	-----	10/8/2008	3050B SB
2008090203	12	SS-17 (1mm to 2mm Sieve Size)	9/16/2008	Iron Dry Basis	17600	mg/kg	10/13/2008	6010B
2008090203	12	SS-17 (1mm to 2mm Sieve Size)	9/16/2008	Lead Dry Basis	111	mg/kg	10/9/2008	6010B
2008090203	12	SS-17 (1mm to 2mm Sieve Size)	9/16/2008	Manganese Dry Basis	630	mg/kg	10/9/2008	6010B
2008090203	12	SS-17 (1mm to 2mm Sieve Size)	9/16/2008	Mercury Batch #/Digest Date	883	-----	10/9/2008	7471B
2008090203	12	SS-17 (1mm to 2mm Sieve Size)	9/16/2008	Mercury Dry Basis	0.2	mg/kg	10/9/2008	7471B
2008090203	12	SS-17 (1mm to 2mm Sieve Size)	9/16/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	12	SS-17 (1mm to 2mm Sieve Size)	9/16/2008	Nickel Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	12	SS-17 (1mm to 2mm Sieve Size)	9/16/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	12	SS-17 (1mm to 2mm Sieve Size)	9/16/2008	Silver Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	12	SS-17 (1mm to 2mm Sieve Size)	9/16/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	12	SS-17 (1mm to 2mm Sieve Size)	9/16/2008	Vanadium Dry Basis	16	mg/kg	10/9/2008	6010B
2008090203	12	SS-17 (1mm to 2mm Sieve Size)	9/16/2008	Zinc Dry Basis	711	mg/kg	10/9/2008	6010B
2008090203	13	MATRIX SPIKE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Aluminum Dry Basis	-2	% [75-125]	10/9/2008	6010B
2008090203	13	MATRIX SPIKE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Antimony Dry Basis	96	% [61-122]	10/9/2008	6020
2008090203	13	MATRIX SPIKE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Arsenic Dry Basis	112	% [69-126]	10/9/2008	6010B
2008090203	13	MATRIX SPIKE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Barium Dry Basis	113	% [66-137]	10/9/2008	6010B
2008090203	13	MATRIX SPIKE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Beryllium Dry Basis	102	% [77-112]	10/9/2008	6010B
2008090203	13	MATRIX SPIKE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Boron Dry Basis	102	% [75-125]	10/13/2008	6010B
2008090203	13	MATRIX SPIKE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Cadmium Dry Basis	97	% [77-117]	10/9/2008	6010B
2008090203	13	MATRIX SPIKE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Chromium Dry Basis	96	% [75-125]	10/9/2008	6010B
2008090203	13	MATRIX SPIKE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Cobalt Dry Basis	99	% [75-125]	10/9/2008	6010B
2008090203	13	MATRIX SPIKE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Copper Dry Basis	102	% [66-133]	10/9/2008	6010B
2008090203	13	MATRIX SPIKE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	ICP/AA Batch#/Digest Date	1689	-----	10/8/2008	3050B SB
2008090203	13	MATRIX SPIKE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Iron Dry Basis	-2	% [75-125]	10/13/2008	6010B
2008090203	13	MATRIX SPIKE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Lead Dry Basis	101	% [75-121]	10/9/2008	6010B
2008090203	13	MATRIX SPIKE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Manganese Dry Basis	97	% [67-128]	10/9/2008	6010B
2008090203	13	MATRIX SPIKE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Mercury Batch #/Digest Date	883	-----	10/9/2008	7471B
2008090203	13	MATRIX SPIKE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Mercury Dry Basis	104	% [55-139]	10/9/2008	7471B
2008090203	13	MATRIX SPIKE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Molybdenum Dry Basis	97	% [75-125]	10/9/2008	6010B
2008090203	13	MATRIX SPIKE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Nickel Dry Basis	97	% [74-113]	10/9/2008	6010B
2008090203	13	MATRIX SPIKE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Selenium Dry Basis	116	% [79-116]	10/9/2008	6010B
2008090203	13	MATRIX SPIKE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Silver Dry Basis	99	% [76-119]	10/9/2008	6010B
2008090203	13	MATRIX SPIKE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Uranium Dry Basis	105	% [75-125]	10/9/2008	6020
2008090203	13	MATRIX SPIKE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Vanadium Dry Basis	98	% [76-117]	10/9/2008	6010B
2008090203	13	MATRIX SPIKE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Zinc Dry Basis	104	% [65-133]	10/13/2008	6010B
2008090203	14	MATRIX SPIKE DUPLICATE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Aluminum Dry Basis	2 (2)	RPD [0-20]	10/9/2008	6010B
2008090203	14	MATRIX SPIKE DUPLICATE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Antimony Dry Basis	10	RPD [0-20]	10/9/2008	6020
2008090203	14	MATRIX SPIKE DUPLICATE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Arsenic Dry Basis	0	RPD [0-20]	10/9/2008	6010B
2008090203	14	MATRIX SPIKE DUPLICATE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Barium Dry Basis	2	RPD [0-20]	10/9/2008	6010B
2008090203	14	MATRIX SPIKE DUPLICATE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Beryllium Dry Basis	0	RPD [0-20]	10/9/2008	6010B
2008090203	14	MATRIX SPIKE DUPLICATE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Boron Dry Basis	3	RPD [0-20]	10/13/2008	6010B
2008090203	14	MATRIX SPIKE DUPLICATE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Cadmium Dry Basis	1	RPD [0-20]	10/9/2008	6010B
2008090203	14	MATRIX SPIKE DUPLICATE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Chromium Dry Basis	1	RPD [0-20]	10/9/2008	6010B
2008090203	14	MATRIX SPIKE DUPLICATE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Cobalt Dry Basis	1	RPD [0-20]	10/9/2008	6010B
2008090203	14	MATRIX SPIKE DUPLICATE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Copper Dry Basis	0	RPD [0-20]	10/9/2008	6010B
2008090203	14	MATRIX SPIKE DUPLICATE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	ICP/AA Batch#/Digest Date	1689	-----	10/8/2008	3050B SB
2008090203	14	MATRIX SPIKE DUPLICATE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Iron Dry Basis	1 (2)	RPD [0-20]	10/13/2008	6010B
2008090203	14	MATRIX SPIKE DUPLICATE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Lead Dry Basis	1	RPD [0-16]	10/9/2008	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090203	14	MATRIX SPIKE DUPLICATE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Manganese Dry Basis	1	RPD [0-20]	10/9/2008	6010B
2008090203	14	MATRIX SPIKE DUPLICATE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Mercury Batch #/Digest Date	883	-----	10/9/2008	7471B
2008090203	14	MATRIX SPIKE DUPLICATE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Mercury Dry Basis	2	RPD [0-20]	10/9/2008	7471B
2008090203	14	MATRIX SPIKE DUPLICATE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Molybdenum Dry Basis	1	RPD [0-20]	10/9/2008	6010B
2008090203	14	MATRIX SPIKE DUPLICATE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Nickel Dry Basis	0	RPD [0-20]	10/9/2008	6010B
2008090203	14	MATRIX SPIKE DUPLICATE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Selenium Dry Basis	0	RPD [0-20]	10/9/2008	6010B
2008090203	14	MATRIX SPIKE DUPLICATE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Silver Dry Basis	2	RPD [0-20]	10/9/2008	6010B
2008090203	14	MATRIX SPIKE DUPLICATE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Uranium Dry Basis	9	RPD [0-20]	10/9/2008	6020
2008090203	14	MATRIX SPIKE DUPLICATE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Vanadium Dry Basis	0	RPD [0-20]	10/9/2008	6010B
2008090203	14	MATRIX SPIKE DUPLICATE (BATCH) (1mm to 2mm Sieve Size)	1/2/1900	Zinc Dry Basis	1	RPD [0-20]	10/13/2008	6010B
2008090203	15	METHOD BLANK (1mm to 2mm Sieve Size)	1/2/1900	Aluminum Dry Basis	<0.5	mg/l	10/9/2008	6010B
2008090203	15	METHOD BLANK (1mm to 2mm Sieve Size)	1/2/1900	Antimony Dry Basis	<0.05	mg/l	10/9/2008	6020
2008090203	15	METHOD BLANK (1mm to 2mm Sieve Size)	1/2/1900	Arsenic Dry Basis	<0.1	mg/l	10/9/2008	6010B
2008090203	15	METHOD BLANK (1mm to 2mm Sieve Size)	1/2/1900	Barium Dry Basis	<0.05	mg/l	10/9/2008	6010B
2008090203	15	METHOD BLANK (1mm to 2mm Sieve Size)	1/2/1900	Beryllium Dry Basis	<0.02	mg/l	10/9/2008	6010B
2008090203	15	METHOD BLANK (1mm to 2mm Sieve Size)	1/2/1900	Boron Dry Basis	<0.1	mg/l	10/13/2008	6010B
2008090203	15	METHOD BLANK (1mm to 2mm Sieve Size)	1/2/1900	Cadmium Dry Basis	<0.02	mg/l	10/9/2008	6010B
2008090203	15	METHOD BLANK (1mm to 2mm Sieve Size)	1/2/1900	Chromium Dry Basis	<0.02	mg/l	10/9/2008	6010B
2008090203	15	METHOD BLANK (1mm to 2mm Sieve Size)	1/2/1900	Cobalt Dry Basis	<0.05	mg/l	10/9/2008	6010B
2008090203	15	METHOD BLANK (1mm to 2mm Sieve Size)	1/2/1900	Copper Dry Basis	<0.1	mg/l	10/9/2008	6010B
2008090203	15	METHOD BLANK (1mm to 2mm Sieve Size)	1/2/1900	ICP/AA Batch#/Digest Date	1689	-----	10/8/2008	3050B SB
2008090203	15	METHOD BLANK (1mm to 2mm Sieve Size)	1/2/1900	Iron Dry Basis	<0.5	mg/l	10/13/2008	6010B
2008090203	15	METHOD BLANK (1mm to 2mm Sieve Size)	1/2/1900	Lead Dry Basis	<0.1	mg/l	10/9/2008	6010B
2008090203	15	METHOD BLANK (1mm to 2mm Sieve Size)	1/2/1900	Manganese Dry Basis	<0.1	mg/l	10/9/2008	6010B
2008090203	15	METHOD BLANK (1mm to 2mm Sieve Size)	1/2/1900	Mercury Batch #/Digest Date	883	-----	10/9/2008	7471B
2008090203	15	METHOD BLANK (1mm to 2mm Sieve Size)	1/2/1900	Mercury Dry Basis	<0.0002	mg/l	10/9/2008	7471B
2008090203	15	METHOD BLANK (1mm to 2mm Sieve Size)	1/2/1900	Molybdenum Dry Basis	<0.05	mg/l	10/9/2008	6010B
2008090203	15	METHOD BLANK (1mm to 2mm Sieve Size)	1/2/1900	Nickel Dry Basis	<0.05	mg/l	10/9/2008	6010B
2008090203	15	METHOD BLANK (1mm to 2mm Sieve Size)	1/2/1900	Selenium Dry Basis	<0.1	mg/l	10/9/2008	6010B
2008090203	15	METHOD BLANK (1mm to 2mm Sieve Size)	1/2/1900	Silver Dry Basis	<0.05	mg/l	10/9/2008	6010B
2008090203	15	METHOD BLANK (1mm to 2mm Sieve Size)	1/2/1900	Uranium Dry Basis	<0.05	mg/l	10/9/2008	6020
2008090203	15	METHOD BLANK (1mm to 2mm Sieve Size)	1/2/1900	Vanadium Dry Basis	<0.05	mg/l	10/9/2008	6010B
2008090203	15	METHOD BLANK (1mm to 2mm Sieve Size)	1/2/1900	Zinc Dry Basis	<0.1	mg/l	10/13/2008	6010B
2008090203	16	LABORATORY CONTROL SAMPLE (1mm to 2mm Sieve Size)	1/2/1900	Aluminum Dry Basis	104	% [80-120]	10/9/2008	6010B
2008090203	16	LABORATORY CONTROL SAMPLE (1mm to 2mm Sieve Size)	1/2/1900	Antimony Dry Basis	100	% [65-128]	10/9/2008	6020
2008090203	16	LABORATORY CONTROL SAMPLE (1mm to 2mm Sieve Size)	1/2/1900	Arsenic Dry Basis	104	% [86-113]	10/9/2008	6010B
2008090203	16	LABORATORY CONTROL SAMPLE (1mm to 2mm Sieve Size)	1/2/1900	Barium Dry Basis	106	% [84-119]	10/9/2008	6010B
2008090203	16	LABORATORY CONTROL SAMPLE (1mm to 2mm Sieve Size)	1/2/1900	Beryllium Dry Basis	104	% [85-112]	10/9/2008	6010B
2008090203	16	LABORATORY CONTROL SAMPLE (1mm to 2mm Sieve Size)	1/2/1900	Boron Dry Basis	100	% [80-120]	10/13/2008	6010B
2008090203	16	LABORATORY CONTROL SAMPLE (1mm to 2mm Sieve Size)	1/2/1900	Cadmium Dry Basis	102	% [85-118]	10/9/2008	6010B
2008090203	16	LABORATORY CONTROL SAMPLE (1mm to 2mm Sieve Size)	1/2/1900	Chromium Dry Basis	98	% [85-115]	10/9/2008	6010B
2008090203	16	LABORATORY CONTROL SAMPLE (1mm to 2mm Sieve Size)	1/2/1900	Cobalt Dry Basis	101	% [80-120]	10/9/2008	6010B
2008090203	16	LABORATORY CONTROL SAMPLE (1mm to 2mm Sieve Size)	1/2/1900	Copper Dry Basis	101	% [82-119]	10/9/2008	6010B
2008090203	16	LABORATORY CONTROL SAMPLE (1mm to 2mm Sieve Size)	1/2/1900	ICP/AA Batch#/Digest Date	1689	-----	10/8/2008	3050B SB
2008090203	16	LABORATORY CONTROL SAMPLE (1mm to 2mm Sieve Size)	1/2/1900	Iron Dry Basis	105	% [80-120]	10/13/2008	6010B
2008090203	16	LABORATORY CONTROL SAMPLE (1mm to 2mm Sieve Size)	1/2/1900	Lead Dry Basis	104	% [85-118]	10/9/2008	6010B
2008090203	16	LABORATORY CONTROL SAMPLE (1mm to 2mm Sieve Size)	1/2/1900	Manganese Dry Basis	101	% [84-117]	10/9/2008	6010B
2008090203	16	LABORATORY CONTROL SAMPLE (1mm to 2mm Sieve Size)	1/2/1900	Mercury Batch #/Digest Date	883	-----	10/9/2008	7471B
2008090203	16	LABORATORY CONTROL SAMPLE (1mm to 2mm Sieve Size)	1/2/1900	Mercury Dry Basis	108	% [85-125]	10/9/2008	7471B
2008090203	16	LABORATORY CONTROL SAMPLE (1mm to 2mm Sieve Size)	1/2/1900	Molybdenum Dry Basis	98	% [80-120]	10/9/2008	6010B
2008090203	16	LABORATORY CONTROL SAMPLE (1mm to 2mm Sieve Size)	1/2/1900	Nickel Dry Basis	101	% [83-113]	10/9/2008	6010B
2008090203	16	LABORATORY CONTROL SAMPLE (1mm to 2mm Sieve Size)	1/2/1900	Selenium Dry Basis	116	% [82-116]	10/9/2008	6010B
2008090203	16	LABORATORY CONTROL SAMPLE (1mm to 2mm Sieve Size)	1/2/1900	Silver Dry Basis	101	% [86-112]	10/9/2008	6010B
2008090203	16	LABORATORY CONTROL SAMPLE (1mm to 2mm Sieve Size)	1/2/1900	Uranium Dry Basis	106	% [80-120]	10/9/2008	6020
2008090203	16	LABORATORY CONTROL SAMPLE (1mm to 2mm Sieve Size)	1/2/1900	Vanadium Dry Basis	98	% [78-123]	10/9/2008	6010B
2008090203	16	LABORATORY CONTROL SAMPLE (1mm to 2mm Sieve Size)	1/2/1900	Zinc Dry Basis	110	% [80-120]	10/9/2008	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090203	17	SS-15G (0.063mm to 1mm Sieve Size)	9/16/2008	Aluminum Dry Basis	4060	mg/kg	10/9/2008	6010B
2008090203	17	SS-15G (0.063mm to 1mm Sieve Size)	9/16/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	17	SS-15G (0.063mm to 1mm Sieve Size)	9/16/2008	Arsenic Dry Basis	14	mg/kg	10/9/2008	6010B
2008090203	17	SS-15G (0.063mm to 1mm Sieve Size)	9/16/2008	Barium Dry Basis	87	mg/kg	10/9/2008	6010B
2008090203	17	SS-15G (0.063mm to 1mm Sieve Size)	9/16/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	17	SS-15G (0.063mm to 1mm Sieve Size)	9/16/2008	Boron Dry Basis	<10	mg/kg	10/13/2008	6010B
2008090203	17	SS-15G (0.063mm to 1mm Sieve Size)	9/16/2008	Cadmium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	17	SS-15G (0.063mm to 1mm Sieve Size)	9/16/2008	Chromium Dry Basis	8	mg/kg	10/9/2008	6010B
2008090203	17	SS-15G (0.063mm to 1mm Sieve Size)	9/16/2008	Cobalt Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	17	SS-15G (0.063mm to 1mm Sieve Size)	9/16/2008	Copper Dry Basis	14	mg/kg	10/9/2008	6010B
2008090203	17	SS-15G (0.063mm to 1mm Sieve Size)	9/16/2008	Fraction of <2 mm Sample	67.9	%	1/2/1900	D421
2008090203	17	SS-15G (0.063mm to 1mm Sieve Size)	9/16/2008	Fraction of Total Sample	54.4	%	1/2/1900	D421
2008090203	17	SS-15G (0.063mm to 1mm Sieve Size)	9/16/2008	ICP/AA Batch#/Digest Date	1690	-----	10/9/2008	3050B SB
2008090203	17	SS-15G (0.063mm to 1mm Sieve Size)	9/16/2008	Iron Dry Basis	7980	mg/kg	10/9/2008	6010B
2008090203	17	SS-15G (0.063mm to 1mm Sieve Size)	9/16/2008	Lead Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	17	SS-15G (0.063mm to 1mm Sieve Size)	9/16/2008	Manganese Dry Basis	136	mg/kg	10/9/2008	6010B
2008090203	17	SS-15G (0.063mm to 1mm Sieve Size)	9/16/2008	Mercury Batch #/Digest Date	884	-----	10/9/2008	7471B
2008090203	17	SS-15G (0.063mm to 1mm Sieve Size)	9/16/2008	Mercury Dry Basis	<0.1	mg/kg	10/9/2008	7471B
2008090203	17	SS-15G (0.063mm to 1mm Sieve Size)	9/16/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	17	SS-15G (0.063mm to 1mm Sieve Size)	9/16/2008	Nickel Dry Basis	5	mg/kg	10/9/2008	6010B
2008090203	17	SS-15G (0.063mm to 1mm Sieve Size)	9/16/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	17	SS-15G (0.063mm to 1mm Sieve Size)	9/16/2008	Silver Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	17	SS-15G (0.063mm to 1mm Sieve Size)	9/16/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	17	SS-15G (0.063mm to 1mm Sieve Size)	9/16/2008	Vanadium Dry Basis	17	mg/kg	10/9/2008	6010B
2008090203	17	SS-15G (0.063mm to 1mm Sieve Size)	9/16/2008	Zinc Dry Basis	32	mg/kg	10/13/2008	6010B
2008090203	18	SS-15B (0.063mm to1mm Sieve Size)	9/16/2008	Aluminum Dry Basis	1940	mg/kg	10/9/2008	6010B
2008090203	18	SS-15B (0.063mm to1mm Sieve Size)	9/16/2008	Antimony Dry Basis	6	mg/kg	10/9/2008	6020
2008090203	18	SS-15B (0.063mm to1mm Sieve Size)	9/16/2008	Arsenic Dry Basis	88	mg/kg	10/9/2008	6010B
2008090203	18	SS-15B (0.063mm to1mm Sieve Size)	9/16/2008	Barium Dry Basis	111	mg/kg	10/9/2008	6010B
2008090203	18	SS-15B (0.063mm to1mm Sieve Size)	9/16/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	18	SS-15B (0.063mm to1mm Sieve Size)	9/16/2008	Boron Dry Basis	<10	mg/kg	10/13/2008	6010B
2008090203	18	SS-15B (0.063mm to1mm Sieve Size)	9/16/2008	Cadmium Dry Basis	5	mg/kg	10/9/2008	6010B
2008090203	18	SS-15B (0.063mm to1mm Sieve Size)	9/16/2008	Chromium Dry Basis	7	mg/kg	10/9/2008	6010B
2008090203	18	SS-15B (0.063mm to1mm Sieve Size)	9/16/2008	Cobalt Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	18	SS-15B (0.063mm to1mm Sieve Size)	9/16/2008	Copper Dry Basis	493	mg/kg	10/9/2008	6010B
2008090203	18	SS-15B (0.063mm to1mm Sieve Size)	9/16/2008	Fraction of <2 mm Sample	41.4	%	1/2/1900	D421
2008090203	18	SS-15B (0.063mm to1mm Sieve Size)	9/16/2008	Fraction of Total Sample	25.3	%	1/2/1900	D421
2008090203	18	SS-15B (0.063mm to1mm Sieve Size)	9/16/2008	ICP/AA Batch#/Digest Date	1690	-----	10/9/2008	3050B SB
2008090203	18	SS-15B (0.063mm to1mm Sieve Size)	9/16/2008	Iron Dry Basis	13900	mg/kg	10/9/2008	6010B
2008090203	18	SS-15B (0.063mm to1mm Sieve Size)	9/16/2008	Lead Dry Basis	215	mg/kg	10/9/2008	6010B
2008090203	18	SS-15B (0.063mm to1mm Sieve Size)	9/16/2008	Manganese Dry Basis	938	mg/kg	10/9/2008	6010B
2008090203	18	SS-15B (0.063mm to1mm Sieve Size)	9/16/2008	Mercury Batch #/Digest Date	884	-----	10/9/2008	7471B
2008090203	18	SS-15B (0.063mm to1mm Sieve Size)	9/16/2008	Mercury Dry Basis	1.1	mg/kg	10/9/2008	7471B
2008090203	18	SS-15B (0.063mm to1mm Sieve Size)	9/16/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	18	SS-15B (0.063mm to1mm Sieve Size)	9/16/2008	Nickel Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	18	SS-15B (0.063mm to1mm Sieve Size)	9/16/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	18	SS-15B (0.063mm to1mm Sieve Size)	9/16/2008	Silver Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	18	SS-15B (0.063mm to1mm Sieve Size)	9/16/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	18	SS-15B (0.063mm to1mm Sieve Size)	9/16/2008	Vanadium Dry Basis	21	mg/kg	10/9/2008	6010B
2008090203	18	SS-15B (0.063mm to1mm Sieve Size)	9/16/2008	Zinc Dry Basis	1560	mg/kg	10/9/2008	6010B
2008090203	19	SS-15A (0.063mm to 1mm Sieve Size)	9/16/2008	Aluminum Dry Basis	2220	mg/kg	10/9/2008	6010B
2008090203	19	SS-15A (0.063mm to 1mm Sieve Size)	9/16/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	19	SS-15A (0.063mm to 1mm Sieve Size)	9/16/2008	Arsenic Dry Basis	92	mg/kg	10/9/2008	6010B
2008090203	19	SS-15A (0.063mm to 1mm Sieve Size)	9/16/2008	Barium Dry Basis	128	mg/kg	10/9/2008	6010B
2008090203	19	SS-15A (0.063mm to 1mm Sieve Size)	9/16/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	19	SS-15A (0.063mm to 1mm Sieve Size)	9/16/2008	Boron Dry Basis	<10	mg/kg	10/13/2008	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090203	19	SS-15A (0.063mm to 1mm Sieve Size)	9/16/2008	Cadmium Dry Basis	5	mg/kg	10/9/2008	6010B
2008090203	19	SS-15A (0.063mm to 1mm Sieve Size)	9/16/2008	Chromium Dry Basis	7	mg/kg	10/9/2008	6010B
2008090203	19	SS-15A (0.063mm to 1mm Sieve Size)	9/16/2008	Cobalt Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	19	SS-15A (0.063mm to 1mm Sieve Size)	9/16/2008	Copper Dry Basis	536	mg/kg	10/9/2008	6010B
2008090203	19	SS-15A (0.063mm to 1mm Sieve Size)	9/16/2008	Fraction of <2 mm Sample	38.6	%	1/2/1900	D421
2008090203	19	SS-15A (0.063mm to 1mm Sieve Size)	9/16/2008	Fraction of Total Sample	28.5	%	1/2/1900	D421
2008090203	19	SS-15A (0.063mm to 1mm Sieve Size)	9/16/2008	ICP/AA Batch#/Digest Date	1690	-----	10/9/2008	3050B SB
2008090203	19	SS-15A (0.063mm to 1mm Sieve Size)	9/16/2008	Iron Dry Basis	13800	mg/kg	10/9/2008	6010B
2008090203	19	SS-15A (0.063mm to 1mm Sieve Size)	9/16/2008	Lead Dry Basis	226	mg/kg	10/9/2008	6010B
2008090203	19	SS-15A (0.063mm to 1mm Sieve Size)	9/16/2008	Manganese Dry Basis	982	mg/kg	10/9/2008	6010B
2008090203	19	SS-15A (0.063mm to 1mm Sieve Size)	9/16/2008	Mercury Batch #/Digest Date	884	-----	10/9/2008	7471B
2008090203	19	SS-15A (0.063mm to 1mm Sieve Size)	9/16/2008	Mercury Dry Basis	1.1	mg/kg	10/9/2008	7471B
2008090203	19	SS-15A (0.063mm to 1mm Sieve Size)	9/16/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	19	SS-15A (0.063mm to 1mm Sieve Size)	9/16/2008	Nickel Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	19	SS-15A (0.063mm to 1mm Sieve Size)	9/16/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	19	SS-15A (0.063mm to 1mm Sieve Size)	9/16/2008	Silver Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	19	SS-15A (0.063mm to 1mm Sieve Size)	9/16/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	19	SS-15A (0.063mm to 1mm Sieve Size)	9/16/2008	Vanadium Dry Basis	19	mg/kg	10/9/2008	6010B
2008090203	19	SS-15A (0.063mm to 1mm Sieve Size)	9/16/2008	Zinc Dry Basis	1490	mg/kg	10/9/2008	6010B
2008090203	20	SS-10B (0.063mm to 1mm Sieve Size)	9/16/2008	Aluminum Dry Basis	2770	mg/kg	10/9/2008	6010B
2008090203	20	SS-10B (0.063mm to 1mm Sieve Size)	9/16/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	20	SS-10B (0.063mm to 1mm Sieve Size)	9/16/2008	Arsenic Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	20	SS-10B (0.063mm to 1mm Sieve Size)	9/16/2008	Barium Dry Basis	116	mg/kg	10/9/2008	6010B
2008090203	20	SS-10B (0.063mm to 1mm Sieve Size)	9/16/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	20	SS-10B (0.063mm to 1mm Sieve Size)	9/16/2008	Boron Dry Basis	<10	mg/kg	10/13/2008	6010B
2008090203	20	SS-10B (0.063mm to 1mm Sieve Size)	9/16/2008	Cadmium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	20	SS-10B (0.063mm to 1mm Sieve Size)	9/16/2008	Chromium Dry Basis	6	mg/kg	10/9/2008	6010B
2008090203	20	SS-10B (0.063mm to 1mm Sieve Size)	9/16/2008	Cobalt Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	20	SS-10B (0.063mm to 1mm Sieve Size)	9/16/2008	Copper Dry Basis	80	mg/kg	10/9/2008	6010B
2008090203	20	SS-10B (0.063mm to 1mm Sieve Size)	9/16/2008	Fraction of <2 mm Sample	57.4	%	1/2/1900	D421
2008090203	20	SS-10B (0.063mm to 1mm Sieve Size)	9/16/2008	Fraction of Total Sample	17.4	%	1/2/1900	D421
2008090203	20	SS-10B (0.063mm to 1mm Sieve Size)	9/16/2008	ICP/AA Batch#/Digest Date	1690	-----	10/9/2008	3050B SB
2008090203	20	SS-10B (0.063mm to 1mm Sieve Size)	9/16/2008	Iron Dry Basis	10200	mg/kg	10/9/2008	6010B
2008090203	20	SS-10B (0.063mm to 1mm Sieve Size)	9/16/2008	Lead Dry Basis	31	mg/kg	10/9/2008	6010B
2008090203	20	SS-10B (0.063mm to 1mm Sieve Size)	9/16/2008	Manganese Dry Basis	512	mg/kg	10/9/2008	6010B
2008090203	20	SS-10B (0.063mm to 1mm Sieve Size)	9/16/2008	Mercury Batch #/Digest Date	884	-----	10/9/2008	7471B
2008090203	20	SS-10B (0.063mm to 1mm Sieve Size)	9/16/2008	Mercury Dry Basis	0.1	mg/kg	10/9/2008	7471B
2008090203	20	SS-10B (0.063mm to 1mm Sieve Size)	9/16/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	20	SS-10B (0.063mm to 1mm Sieve Size)	9/16/2008	Nickel Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	20	SS-10B (0.063mm to 1mm Sieve Size)	9/16/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	20	SS-10B (0.063mm to 1mm Sieve Size)	9/16/2008	Silver Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	20	SS-10B (0.063mm to 1mm Sieve Size)	9/16/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	20	SS-10B (0.063mm to 1mm Sieve Size)	9/16/2008	Vanadium Dry Basis	21	mg/kg	10/9/2008	6010B
2008090203	20	SS-10B (0.063mm to 1mm Sieve Size)	9/16/2008	Zinc Dry Basis	242	mg/kg	10/9/2008	6010B
2008090203	21	SS-11C (0.063mm to 1mm Sieve Size)	9/16/2008	Aluminum Dry Basis	2720	mg/kg	10/9/2008	6010B
2008090203	21	SS-11C (0.063mm to 1mm Sieve Size)	9/16/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	21	SS-11C (0.063mm to 1mm Sieve Size)	9/16/2008	Arsenic Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	21	SS-11C (0.063mm to 1mm Sieve Size)	9/16/2008	Barium Dry Basis	100	mg/kg	10/9/2008	6010B
2008090203	21	SS-11C (0.063mm to 1mm Sieve Size)	9/16/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	21	SS-11C (0.063mm to 1mm Sieve Size)	9/16/2008	Boron Dry Basis	<10	mg/kg	10/13/2008	6010B
2008090203	21	SS-11C (0.063mm to 1mm Sieve Size)	9/16/2008	Cadmium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	21	SS-11C (0.063mm to 1mm Sieve Size)	9/16/2008	Chromium Dry Basis	13	mg/kg	10/9/2008	6010B
2008090203	21	SS-11C (0.063mm to 1mm Sieve Size)	9/16/2008	Cobalt Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	21	SS-11C (0.063mm to 1mm Sieve Size)	9/16/2008	Copper Dry Basis	59	mg/kg	10/9/2008	6010B
2008090203	21	SS-11C (0.063mm to 1mm Sieve Size)	9/16/2008	Fraction of <2 mm Sample	30.8	%	1/2/1900	D421
2008090203	21	SS-11C (0.063mm to 1mm Sieve Size)	9/16/2008	Fraction of Total Sample	8.4	%	1/2/1900	D421

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090203	21	SS-11C (0.063mm to 1mm Sieve Size)	9/16/2008	ICP/AA Batch#/Digest Date	1690	-----	10/9/2008	3050B SB
2008090203	21	SS-11C (0.063mm to 1mm Sieve Size)	9/16/2008	Iron Dry Basis	17600	mg/kg	10/9/2008	6010B
2008090203	21	SS-11C (0.063mm to 1mm Sieve Size)	9/16/2008	Lead Dry Basis	17	mg/kg	10/9/2008	6010B
2008090203	21	SS-11C (0.063mm to 1mm Sieve Size)	9/16/2008	Manganese Dry Basis	734	mg/kg	10/9/2008	6010B
2008090203	21	SS-11C (0.063mm to 1mm Sieve Size)	9/16/2008	Mercury Batch #/Digest Date	884	-----	10/9/2008	7471B
2008090203	21	SS-11C (0.063mm to 1mm Sieve Size)	9/16/2008	Mercury Dry Basis	<0.1	mg/kg	10/9/2008	7471B
2008090203	21	SS-11C (0.063mm to 1mm Sieve Size)	9/16/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	21	SS-11C (0.063mm to 1mm Sieve Size)	9/16/2008	Nickel Dry Basis	5	mg/kg	10/9/2008	6010B
2008090203	21	SS-11C (0.063mm to 1mm Sieve Size)	9/16/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	21	SS-11C (0.063mm to 1mm Sieve Size)	9/16/2008	Silver Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	21	SS-11C (0.063mm to 1mm Sieve Size)	9/16/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	21	SS-11C (0.063mm to 1mm Sieve Size)	9/16/2008	Vanadium Dry Basis	50	mg/kg	10/9/2008	6010B
2008090203	21	SS-11C (0.063mm to 1mm Sieve Size)	9/16/2008	Zinc Dry Basis	255	mg/kg	10/9/2008	6010B
2008090203	22	SS-11D (0.063mm to 1mm Sieve Size)	9/16/2008	Aluminum Dry Basis	2580	mg/kg	10/9/2008	6010B
2008090203	22	SS-11D (0.063mm to 1mm Sieve Size)	9/16/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	22	SS-11D (0.063mm to 1mm Sieve Size)	9/16/2008	Arsenic Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	22	SS-11D (0.063mm to 1mm Sieve Size)	9/16/2008	Barium Dry Basis	85	mg/kg	10/9/2008	6010B
2008090203	22	SS-11D (0.063mm to 1mm Sieve Size)	9/16/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	22	SS-11D (0.063mm to 1mm Sieve Size)	9/16/2008	Boron Dry Basis	<10	mg/kg	10/13/2008	6010B
2008090203	22	SS-11D (0.063mm to 1mm Sieve Size)	9/16/2008	Cadmium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	22	SS-11D (0.063mm to 1mm Sieve Size)	9/16/2008	Chromium Dry Basis	10	mg/kg	10/9/2008	6010B
2008090203	22	SS-11D (0.063mm to 1mm Sieve Size)	9/16/2008	Cobalt Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	22	SS-11D (0.063mm to 1mm Sieve Size)	9/16/2008	Copper Dry Basis	40	mg/kg	10/9/2008	6010B
2008090203	22	SS-11D (0.063mm to 1mm Sieve Size)	9/16/2008	Fraction of <2 mm Sample	52.7	%	1/2/1900	D421
2008090203	22	SS-11D (0.063mm to 1mm Sieve Size)	9/16/2008	Fraction of Total Sample	23.2	%	1/2/1900	D421
2008090203	22	SS-11D (0.063mm to 1mm Sieve Size)	9/16/2008	ICP/AA Batch#/Digest Date	1690	-----	10/9/2008	3050B SB
2008090203	22	SS-11D (0.063mm to 1mm Sieve Size)	9/16/2008	Iron Dry Basis	13700	mg/kg	10/9/2008	6010B
2008090203	22	SS-11D (0.063mm to 1mm Sieve Size)	9/16/2008	Lead Dry Basis	23	mg/kg	10/9/2008	6010B
2008090203	22	SS-11D (0.063mm to 1mm Sieve Size)	9/16/2008	Manganese Dry Basis	264	mg/kg	10/9/2008	6010B
2008090203	22	SS-11D (0.063mm to 1mm Sieve Size)	9/16/2008	Mercury Batch #/Digest Date	884	-----	10/9/2008	7471B
2008090203	22	SS-11D (0.063mm to 1mm Sieve Size)	9/16/2008	Mercury Dry Basis	<0.1	mg/kg	10/9/2008	7471B
2008090203	22	SS-11D (0.063mm to 1mm Sieve Size)	9/16/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	22	SS-11D (0.063mm to 1mm Sieve Size)	9/16/2008	Nickel Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	22	SS-11D (0.063mm to 1mm Sieve Size)	9/16/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	22	SS-11D (0.063mm to 1mm Sieve Size)	9/16/2008	Silver Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	22	SS-11D (0.063mm to 1mm Sieve Size)	9/16/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	22	SS-11D (0.063mm to 1mm Sieve Size)	9/16/2008	Vanadium Dry Basis	40	mg/kg	10/9/2008	6010B
2008090203	22	SS-11D (0.063mm to 1mm Sieve Size)	9/16/2008	Zinc Dry Basis	106	mg/kg	10/13/2008	6010B
2008090203	23	SS-10A (0.063mm to 1mm Sieve Size)	9/17/2008	Aluminum Dry Basis	6420	mg/kg	10/9/2008	6010B
2008090203	23	SS-10A (0.063mm to 1mm Sieve Size)	9/17/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	23	SS-10A (0.063mm to 1mm Sieve Size)	9/17/2008	Arsenic Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	23	SS-10A (0.063mm to 1mm Sieve Size)	9/17/2008	Barium Dry Basis	193	mg/kg	10/9/2008	6010B
2008090203	23	SS-10A (0.063mm to 1mm Sieve Size)	9/17/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	23	SS-10A (0.063mm to 1mm Sieve Size)	9/17/2008	Boron Dry Basis	<10	mg/kg	10/13/2008	6010B
2008090203	23	SS-10A (0.063mm to 1mm Sieve Size)	9/17/2008	Cadmium Dry Basis	4	mg/kg	10/9/2008	6010B
2008090203	23	SS-10A (0.063mm to 1mm Sieve Size)	9/17/2008	Chromium Dry Basis	13	mg/kg	10/9/2008	6010B
2008090203	23	SS-10A (0.063mm to 1mm Sieve Size)	9/17/2008	Cobalt Dry Basis	7	mg/kg	10/9/2008	6010B
2008090203	23	SS-10A (0.063mm to 1mm Sieve Size)	9/17/2008	Copper Dry Basis	253	mg/kg	10/9/2008	6010B
2008090203	23	SS-10A (0.063mm to 1mm Sieve Size)	9/17/2008	Fraction of <2 mm Sample	64.9	%	1/2/1900	D421
2008090203	23	SS-10A (0.063mm to 1mm Sieve Size)	9/17/2008	Fraction of Total Sample	4.3	%	1/2/1900	D421
2008090203	23	SS-10A (0.063mm to 1mm Sieve Size)	9/17/2008	ICP/AA Batch#/Digest Date	1690	-----	10/9/2008	3050B SB
2008090203	23	SS-10A (0.063mm to 1mm Sieve Size)	9/17/2008	Iron Dry Basis	18800	mg/kg	10/9/2008	6010B
2008090203	23	SS-10A (0.063mm to 1mm Sieve Size)	9/17/2008	Lead Dry Basis	66	mg/kg	10/9/2008	6010B
2008090203	23	SS-10A (0.063mm to 1mm Sieve Size)	9/17/2008	Manganese Dry Basis	1700	mg/kg	10/9/2008	6010B
2008090203	23	SS-10A (0.063mm to 1mm Sieve Size)	9/17/2008	Mercury Batch #/Digest Date	884	-----	10/9/2008	7471B
2008090203	23	SS-10A (0.063mm to 1mm Sieve Size)	9/17/2008	Mercury Dry Basis	0.4	mg/kg	10/9/2008	7471B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090203	23	SS-10A (0.063mm to 1mm Sieve Size)	9/17/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	23	SS-10A (0.063mm to 1mm Sieve Size)	9/17/2008	Nickel Dry Basis	6	mg/kg	10/9/2008	6010B
2008090203	23	SS-10A (0.063mm to 1mm Sieve Size)	9/17/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	23	SS-10A (0.063mm to 1mm Sieve Size)	9/17/2008	Silver Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	23	SS-10A (0.063mm to 1mm Sieve Size)	9/17/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	23	SS-10A (0.063mm to 1mm Sieve Size)	9/17/2008	Vanadium Dry Basis	36	mg/kg	10/9/2008	6010B
2008090203	23	SS-10A (0.063mm to 1mm Sieve Size)	9/17/2008	Zinc Dry Basis	796	mg/kg	10/9/2008	6010B
2008090203	24	SS-08 (0.063mm to 1mm Sieve Size)	9/17/2008	Aluminum Dry Basis	2280	mg/kg	10/9/2008	6010B
2008090203	24	SS-08 (0.063mm to 1mm Sieve Size)	9/17/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	24	SS-08 (0.063mm to 1mm Sieve Size)	9/17/2008	Arsenic Dry Basis	56	mg/kg	10/9/2008	6010B
2008090203	24	SS-08 (0.063mm to 1mm Sieve Size)	9/17/2008	Barium Dry Basis	90	mg/kg	10/9/2008	6010B
2008090203	24	SS-08 (0.063mm to 1mm Sieve Size)	9/17/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	24	SS-08 (0.063mm to 1mm Sieve Size)	9/17/2008	Boron Dry Basis	<10	mg/kg	10/13/2008	6010B
2008090203	24	SS-08 (0.063mm to 1mm Sieve Size)	9/17/2008	Cadmium Dry Basis	3	mg/kg	10/9/2008	6010B
2008090203	24	SS-08 (0.063mm to 1mm Sieve Size)	9/17/2008	Chromium Dry Basis	10	mg/kg	10/9/2008	6010B
2008090203	24	SS-08 (0.063mm to 1mm Sieve Size)	9/17/2008	Cobalt Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	24	SS-08 (0.063mm to 1mm Sieve Size)	9/17/2008	Copper Dry Basis	383	mg/kg	10/9/2008	6010B
2008090203	24	SS-08 (0.063mm to 1mm Sieve Size)	9/17/2008	Fraction of <2 mm Sample	55.2	%	1/2/1900	D421
2008090203	24	SS-08 (0.063mm to 1mm Sieve Size)	9/17/2008	Fraction of Total Sample	10.6	%	1/2/1900	D421
2008090203	24	SS-08 (0.063mm to 1mm Sieve Size)	9/17/2008	ICP/AA Batch#/Digest Date	1690	-----	10/9/2008	3050B SB
2008090203	24	SS-08 (0.063mm to 1mm Sieve Size)	9/17/2008	Iron Dry Basis	16200	mg/kg	10/9/2008	6010B
2008090203	24	SS-08 (0.063mm to 1mm Sieve Size)	9/17/2008	Lead Dry Basis	96	mg/kg	10/9/2008	6010B
2008090203	24	SS-08 (0.063mm to 1mm Sieve Size)	9/17/2008	Manganese Dry Basis	783	mg/kg	10/9/2008	6010B
2008090203	24	SS-08 (0.063mm to 1mm Sieve Size)	9/17/2008	Mercury Batch #/Digest Date	884	-----	10/9/2008	7471B
2008090203	24	SS-08 (0.063mm to 1mm Sieve Size)	9/17/2008	Mercury Dry Basis	0.9	mg/kg	10/9/2008	7471B
2008090203	24	SS-08 (0.063mm to 1mm Sieve Size)	9/17/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	24	SS-08 (0.063mm to 1mm Sieve Size)	9/17/2008	Nickel Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	24	SS-08 (0.063mm to 1mm Sieve Size)	9/17/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	24	SS-08 (0.063mm to 1mm Sieve Size)	9/17/2008	Silver Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	24	SS-08 (0.063mm to 1mm Sieve Size)	9/17/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	24	SS-08 (0.063mm to 1mm Sieve Size)	9/17/2008	Vanadium Dry Basis	41	mg/kg	10/9/2008	6010B
2008090203	24	SS-08 (0.063mm to 1mm Sieve Size)	9/17/2008	Zinc Dry Basis	766	mg/kg	10/9/2008	6010B
2008090203	25	SS-06G (0.063mm to 1mm Sieve Size)	9/17/2008	Aluminum Dry Basis	2070	mg/kg	10/9/2008	6010B
2008090203	25	SS-06G (0.063mm to 1mm Sieve Size)	9/17/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	25	SS-06G (0.063mm to 1mm Sieve Size)	9/17/2008	Arsenic Dry Basis	23	mg/kg	10/9/2008	6010B
2008090203	25	SS-06G (0.063mm to 1mm Sieve Size)	9/17/2008	Barium Dry Basis	110	mg/kg	10/9/2008	6010B
2008090203	25	SS-06G (0.063mm to 1mm Sieve Size)	9/17/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	25	SS-06G (0.063mm to 1mm Sieve Size)	9/17/2008	Boron Dry Basis	<10	mg/kg	10/13/2008	6010B
2008090203	25	SS-06G (0.063mm to 1mm Sieve Size)	9/17/2008	Cadmium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	25	SS-06G (0.063mm to 1mm Sieve Size)	9/17/2008	Chromium Dry Basis	6	mg/kg	10/9/2008	6010B
2008090203	25	SS-06G (0.063mm to 1mm Sieve Size)	9/17/2008	Cobalt Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	25	SS-06G (0.063mm to 1mm Sieve Size)	9/17/2008	Copper Dry Basis	92	mg/kg	10/9/2008	6010B
2008090203	25	SS-06G (0.063mm to 1mm Sieve Size)	9/17/2008	Fraction of <2 mm Sample	20.7	%	1/2/1900	D421
2008090203	25	SS-06G (0.063mm to 1mm Sieve Size)	9/17/2008	Fraction of Total Sample	16.7	%	1/2/1900	D421
2008090203	25	SS-06G (0.063mm to 1mm Sieve Size)	9/17/2008	ICP/AA Batch#/Digest Date	1690	-----	10/9/2008	3050B SB
2008090203	25	SS-06G (0.063mm to 1mm Sieve Size)	9/17/2008	Iron Dry Basis	8480	mg/kg	10/9/2008	6010B
2008090203	25	SS-06G (0.063mm to 1mm Sieve Size)	9/17/2008	Lead Dry Basis	82	mg/kg	10/9/2008	6010B
2008090203	25	SS-06G (0.063mm to 1mm Sieve Size)	9/17/2008	Manganese Dry Basis	2060	mg/kg	10/9/2008	6010B
2008090203	25	SS-06G (0.063mm to 1mm Sieve Size)	9/17/2008	Mercury Batch #/Digest Date	884	-----	10/9/2008	7471B
2008090203	25	SS-06G (0.063mm to 1mm Sieve Size)	9/17/2008	Mercury Dry Basis	0.1	mg/kg	10/9/2008	7471B
2008090203	25	SS-06G (0.063mm to 1mm Sieve Size)	9/17/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	25	SS-06G (0.063mm to 1mm Sieve Size)	9/17/2008	Nickel Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	25	SS-06G (0.063mm to 1mm Sieve Size)	9/17/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	25	SS-06G (0.063mm to 1mm Sieve Size)	9/17/2008	Silver Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	25	SS-06G (0.063mm to 1mm Sieve Size)	9/17/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	25	SS-06G (0.063mm to 1mm Sieve Size)	9/17/2008	Vanadium Dry Basis	15	mg/kg	10/9/2008	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090203	25	SS-06G (0.063mm to 1mm Sieve Size)	9/17/2008	Zinc Dry Basis	448	mg/kg	10/9/2008	6010B
2008090203	26	SS-07 (0.063mm to 1mm Sieve Size)	9/17/2008	Aluminum Dry Basis	2100	mg/kg	10/9/2008	6010B
2008090203	26	SS-07 (0.063mm to 1mm Sieve Size)	9/17/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	26	SS-07 (0.063mm to 1mm Sieve Size)	9/17/2008	Arsenic Dry Basis	35	mg/kg	10/9/2008	6010B
2008090203	26	SS-07 (0.063mm to 1mm Sieve Size)	9/17/2008	Barium Dry Basis	90	mg/kg	10/9/2008	6010B
2008090203	26	SS-07 (0.063mm to 1mm Sieve Size)	9/17/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	26	SS-07 (0.063mm to 1mm Sieve Size)	9/17/2008	Boron Dry Basis	<10	mg/kg	10/13/2008	6010B
2008090203	26	SS-07 (0.063mm to 1mm Sieve Size)	9/17/2008	Cadmium Dry Basis	2	mg/kg	10/9/2008	6010B
2008090203	26	SS-07 (0.063mm to 1mm Sieve Size)	9/17/2008	Chromium Dry Basis	12	mg/kg	10/9/2008	6010B
2008090203	26	SS-07 (0.063mm to 1mm Sieve Size)	9/17/2008	Cobalt Dry Basis	6	mg/kg	10/9/2008	6010B
2008090203	26	SS-07 (0.063mm to 1mm Sieve Size)	9/17/2008	Copper Dry Basis	282	mg/kg	10/9/2008	6010B
2008090203	26	SS-07 (0.063mm to 1mm Sieve Size)	9/17/2008	Fraction of <2 mm Sample	36.3	%	1/2/1900	D421
2008090203	26	SS-07 (0.063mm to 1mm Sieve Size)	9/17/2008	Fraction of Total Sample	21.7	%	1/2/1900	D421
2008090203	26	SS-07 (0.063mm to 1mm Sieve Size)	9/17/2008	ICP/AA Batch#/Digest Date	1690	-----	10/9/2008	3050B SB
2008090203	26	SS-07 (0.063mm to 1mm Sieve Size)	9/17/2008	Iron Dry Basis	23300	mg/kg	10/9/2008	6010B
2008090203	26	SS-07 (0.063mm to 1mm Sieve Size)	9/17/2008	Lead Dry Basis	94	mg/kg	10/9/2008	6010B
2008090203	26	SS-07 (0.063mm to 1mm Sieve Size)	9/17/2008	Manganese Dry Basis	1280	mg/kg	10/9/2008	6010B
2008090203	26	SS-07 (0.063mm to 1mm Sieve Size)	9/17/2008	Mercury Batch #/Digest Date	884	-----	10/9/2008	7471B
2008090203	26	SS-07 (0.063mm to 1mm Sieve Size)	9/17/2008	Mercury Dry Basis	0.2	mg/kg	10/9/2008	7471B
2008090203	26	SS-07 (0.063mm to 1mm Sieve Size)	9/17/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	26	SS-07 (0.063mm to 1mm Sieve Size)	9/17/2008	Nickel Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	26	SS-07 (0.063mm to 1mm Sieve Size)	9/17/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	26	SS-07 (0.063mm to 1mm Sieve Size)	9/17/2008	Silver Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	26	SS-07 (0.063mm to 1mm Sieve Size)	9/17/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	26	SS-07 (0.063mm to 1mm Sieve Size)	9/17/2008	Vanadium Dry Basis	52	mg/kg	10/9/2008	6010B
2008090203	26	SS-07 (0.063mm to 1mm Sieve Size)	9/17/2008	Zinc Dry Basis	614	mg/kg	10/9/2008	6010B
2008090203	27	SS-17D (0.063mm to 1mm Sieve Size)	9/16/2008	Aluminum Dry Basis	3200	mg/kg	10/9/2008	6010B
2008090203	27	SS-17D (0.063mm to 1mm Sieve Size)	9/16/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	27	SS-17D (0.063mm to 1mm Sieve Size)	9/16/2008	Arsenic Dry Basis	67	mg/kg	10/9/2008	6010B
2008090203	27	SS-17D (0.063mm to 1mm Sieve Size)	9/16/2008	Barium Dry Basis	113	mg/kg	10/9/2008	6010B
2008090203	27	SS-17D (0.063mm to 1mm Sieve Size)	9/16/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008	6010B
2008090203	27	SS-17D (0.063mm to 1mm Sieve Size)	9/16/2008	Boron Dry Basis	<10	mg/kg	10/13/2008	6010B
2008090203	27	SS-17D (0.063mm to 1mm Sieve Size)	9/16/2008	Cadmium Dry Basis	3	mg/kg	10/9/2008	6010B
2008090203	27	SS-17D (0.063mm to 1mm Sieve Size)	9/16/2008	Chromium Dry Basis	9	mg/kg	10/9/2008	6010B
2008090203	27	SS-17D (0.063mm to 1mm Sieve Size)	9/16/2008	Cobalt Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	27	SS-17D (0.063mm to 1mm Sieve Size)	9/16/2008	Copper Dry Basis	313	mg/kg	10/9/2008	6010B
2008090203	27	SS-17D (0.063mm to 1mm Sieve Size)	9/16/2008	Fraction of <2 mm Sample	66.8	%	1/2/1900	D421
2008090203	27	SS-17D (0.063mm to 1mm Sieve Size)	9/16/2008	Fraction of Total Sample	21.1	%	1/2/1900	D421
2008090203	27	SS-17D (0.063mm to 1mm Sieve Size)	9/16/2008	ICP/AA Batch#/Digest Date	1690	-----	10/9/2008	3050B SB
2008090203	27	SS-17D (0.063mm to 1mm Sieve Size)	9/16/2008	Iron Dry Basis	17000	mg/kg	10/9/2008	6010B
2008090203	27	SS-17D (0.063mm to 1mm Sieve Size)	9/16/2008	Lead Dry Basis	134	mg/kg	10/9/2008	6010B
2008090203	27	SS-17D (0.063mm to 1mm Sieve Size)	9/16/2008	Manganese Dry Basis	518	mg/kg	10/9/2008	6010B
2008090203	27	SS-17D (0.063mm to 1mm Sieve Size)	9/16/2008	Mercury Batch #/Digest Date	884	-----	10/9/2008	7471B
2008090203	27	SS-17D (0.063mm to 1mm Sieve Size)	9/16/2008	Mercury Dry Basis	0.6	mg/kg	10/9/2008	7471B
2008090203	27	SS-17D (0.063mm to 1mm Sieve Size)	9/16/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	27	SS-17D (0.063mm to 1mm Sieve Size)	9/16/2008	Nickel Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	27	SS-17D (0.063mm to 1mm Sieve Size)	9/16/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008	6010B
2008090203	27	SS-17D (0.063mm to 1mm Sieve Size)	9/16/2008	Silver Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	27	SS-17D (0.063mm to 1mm Sieve Size)	9/16/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	27	SS-17D (0.063mm to 1mm Sieve Size)	9/16/2008	Vanadium Dry Basis	30	mg/kg	10/9/2008	6010B
2008090203	27	SS-17D (0.063mm to 1mm Sieve Size)	9/16/2008	Zinc Dry Basis	1050	mg/kg	10/9/2008	6010B
2008090203	28	SS-17 (0.063mm to 1mm Sieve Size)	9/16/2008	Aluminum Dry Basis	3130	mg/kg	10/9/2008	6010B
2008090203	28	SS-17 (0.063mm to 1mm Sieve Size)	9/16/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008	6020
2008090203	28	SS-17 (0.063mm to 1mm Sieve Size)	9/16/2008	Arsenic Dry Basis	75	mg/kg	10/9/2008	6010B
2008090203	28	SS-17 (0.063mm to 1mm Sieve Size)	9/16/2008	Barium Dry Basis	122	mg/kg	10/9/2008	6010B
2008090203	28	SS-17 (0.063mm to 1mm Sieve Size)	9/16/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090203	28	SS-17 (0.063mm to 1mm Sieve Size)	9/16/2008	Boron Dry Basis	<10	mg/kg	10/13/2008	6010B
2008090203	28	SS-17 (0.063mm to 1mm Sieve Size)	9/16/2008	Cadmium Dry Basis	3	mg/kg	10/9/2008	6010B
2008090203	28	SS-17 (0.063mm to 1mm Sieve Size)	9/16/2008	Chromium Dry Basis	8	mg/kg	10/9/2008	6010B
2008090203	28	SS-17 (0.063mm to 1mm Sieve Size)	9/16/2008	Cobalt Dry Basis	<5	mg/kg	10/9/2008	6010B
2008090203	28	SS-17 (0.063mm to 1mm Sieve Size)	9/16/2008	Copper Dry Basis	336	mg/kg	10/9/2008	6010B
2008090203	28	SS-17 (0.063mm to 1mm Sieve Size)	9/16/2008	Fraction of <2 mm Sample	60.9	%	1/2/1900	D421
2008090203	28	SS-17 (0.063mm to 1mm Sieve Size)	9/16/2008	Fraction of Total Sample	19.3	%	1/2/1900	D421
2008090203	28	SS-17 (0.063mm to 1mm Sieve Size)	9/16/2008	ICP/AA Batch#/Digest Date	1690	-----	10/9/2008 7:25	3050B SB
2008090203	28	SS-17 (0.063mm to 1mm Sieve Size)	9/16/2008	Iron Dry Basis	16000	mg/kg	10/9/2008 16:17	6010B
2008090203	28	SS-17 (0.063mm to 1mm Sieve Size)	9/16/2008	Lead Dry Basis	144	mg/kg	10/9/2008 15:18	6010B
2008090203	28	SS-17 (0.063mm to 1mm Sieve Size)	9/16/2008	Manganese Dry Basis	595	mg/kg	10/9/2008 15:18	6010B
2008090203	28	SS-17 (0.063mm to 1mm Sieve Size)	9/16/2008	Mercury Batch #/Digest Date	884	-----	10/9/2008 10:45	7471B
2008090203	28	SS-17 (0.063mm to 1mm Sieve Size)	9/16/2008	Mercury Dry Basis	0.6	mg/kg	10/9/2008 16:05	7471B
2008090203	28	SS-17 (0.063mm to 1mm Sieve Size)	9/16/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008 15:18	6010B
2008090203	28	SS-17 (0.063mm to 1mm Sieve Size)	9/16/2008	Nickel Dry Basis	<5	mg/kg	10/9/2008 15:18	6010B
2008090203	28	SS-17 (0.063mm to 1mm Sieve Size)	9/16/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008 15:18	6010B
2008090203	28	SS-17 (0.063mm to 1mm Sieve Size)	9/16/2008	Silver Dry Basis	<5	mg/kg	10/9/2008 15:18	6010B
2008090203	28	SS-17 (0.063mm to 1mm Sieve Size)	9/16/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008 17:38	6020
2008090203	28	SS-17 (0.063mm to 1mm Sieve Size)	9/16/2008	Vanadium Dry Basis	27	mg/kg	10/9/2008 15:18	6010B
2008090203	28	SS-17 (0.063mm to 1mm Sieve Size)	9/16/2008	Zinc Dry Basis	1120	mg/kg	10/9/2008 15:18	6010B
2008090203	29	MATRIX SPIKE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Aluminum Dry Basis	-2	% [75-125]	10/9/2008 15:36	6010B
2008090203	29	MATRIX SPIKE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Antimony Dry Basis	89	% [61-122]	10/9/2008 17:07	6020
2008090203	29	MATRIX SPIKE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Arsenic Dry Basis	110	% [69-126]	10/9/2008 14:36	6010B
2008090203	29	MATRIX SPIKE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Barium Dry Basis	111	% [66-137]	10/9/2008 14:36	6010B
2008090203	29	MATRIX SPIKE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Beryllium Dry Basis	105	% [77-122]	10/9/2008 14:36	6010B
2008090203	29	MATRIX SPIKE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Boron Dry Basis	103	% [75-125]	10/13/2008 17:37	6010B
2008090203	29	MATRIX SPIKE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Cadmium Dry Basis	98	% [77-117]	10/9/2008 14:36	6010B
2008090203	29	MATRIX SPIKE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Chromium Dry Basis	98	% [75-125]	10/9/2008 14:36	6010B
2008090203	29	MATRIX SPIKE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Cobalt Dry Basis	100	% [75-125]	10/9/2008 14:36	6010B
2008090203	29	MATRIX SPIKE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Copper Dry Basis	104	% [66-133]	10/9/2008 14:36	6010B
2008090203	29	MATRIX SPIKE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	ICP/AA Batch#/Digest Date	1690	-----	10/9/2008 7:25	3050B SB
2008090203	29	MATRIX SPIKE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Iron Dry Basis	-2	% [75-125]	10/9/2008 15:36	6010B
2008090203	29	MATRIX SPIKE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Lead Dry Basis	104	% [75-121]	10/9/2008 14:36	6010B
2008090203	29	MATRIX SPIKE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Manganese Dry Basis	106	% [67-128]	10/9/2008 14:36	6010B
2008090203	29	MATRIX SPIKE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Mercury Batch #/Digest Date	884	-----	10/9/2008 10:45	7471B
2008090203	29	MATRIX SPIKE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Mercury Dry Basis	98	% [55-139]	10/9/2008 16:05	7471B
2008090203	29	MATRIX SPIKE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Molybdenum Dry Basis	98	% [75-125]	10/9/2008 14:36	6010B
2008090203	29	MATRIX SPIKE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Nickel Dry Basis	99	% [74-113]	10/9/2008 14:36	6010B
2008090203	29	MATRIX SPIKE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Selenium Dry Basis	114	% [79-116]	10/9/2008 14:36	6010B
2008090203	29	MATRIX SPIKE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Silver Dry Basis	102	% [76-119]	10/9/2008 14:36	6010B
2008090203	29	MATRIX SPIKE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Uranium Dry Basis	100	% [75-125]	10/9/2008 17:07	6020
2008090203	29	MATRIX SPIKE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Vanadium Dry Basis	100	% [76-117]	10/9/2008 14:36	6010B
2008090203	29	MATRIX SPIKE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Zinc Dry Basis	102	% [65-133]	10/13/2008 17:37	6010B
2008090203	30	MATRIX SPIKE DUPLICATE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Aluminum Dry Basis	18 (2)	RPD [0-20]	10/9/2008 15:39	6010B
2008090203	30	MATRIX SPIKE DUPLICATE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Antimony Dry Basis	2	RPD [0-20]	10/9/2008 17:09	6020
2008090203	30	MATRIX SPIKE DUPLICATE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Arsenic Dry Basis	4	RPD [0-20]	10/9/2008 14:39	6010B
2008090203	30	MATRIX SPIKE DUPLICATE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Barium Dry Basis	5	RPD [0-20]	10/9/2008 14:39	6010B
2008090203	30	MATRIX SPIKE DUPLICATE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Beryllium Dry Basis	3	RPD [0-20]	10/9/2008 14:39	6010B
2008090203	30	MATRIX SPIKE DUPLICATE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Boron Dry Basis	2	RPD [0-20]	10/13/2008 17:40	6010B
2008090203	30	MATRIX SPIKE DUPLICATE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Cadmium Dry Basis	2	RPD [0-20]	10/9/2008 14:39	6010B
2008090203	30	MATRIX SPIKE DUPLICATE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Chromium Dry Basis	2	RPD [0-20]	10/9/2008 14:39	6010B
2008090203	30	MATRIX SPIKE DUPLICATE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Cobalt Dry Basis	2	RPD [0-20]	10/9/2008 14:39	6010B
2008090203	30	MATRIX SPIKE DUPLICATE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Copper Dry Basis	3	RPD [0-20]	10/9/2008 14:39	6010B
2008090203	30	MATRIX SPIKE DUPLICATE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	ICP/AA Batch#/Digest Date	1690	-----	10/9/2008 7:25	3050B SB
2008090203	30	MATRIX SPIKE DUPLICATE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Iron Dry Basis	14 (2)	RPD [0-20]	10/9/2008 15:39	6010B
2008090203	30	MATRIX SPIKE DUPLICATE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Lead Dry Basis	2	RPD [0-16]	10/9/2008 14:39	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090203	30	MATRIX SPIKE DUPLICATE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Manganese Dry Basis	3	RPD [0-20]	10/9/2008 14:39	6010B
2008090203	30	MATRIX SPIKE DUPLICATE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Mercury Batch #/Digest Date	884	-----	10/9/2008 10:45	7471B
2008090203	30	MATRIX SPIKE DUPLICATE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Mercury Dry Basis	1	RPD [0-20]	10/9/2008 16:05	7471B
2008090203	30	MATRIX SPIKE DUPLICATE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Molybdenum Dry Basis	3	RPD [0-20]	10/9/2008 14:39	6010B
2008090203	30	MATRIX SPIKE DUPLICATE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Nickel Dry Basis	4	RPD [0-20]	10/9/2008 14:39	6010B
2008090203	30	MATRIX SPIKE DUPLICATE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Selenium Dry Basis	0	RPD [0-20]	10/9/2008 14:39	6010B
2008090203	30	MATRIX SPIKE DUPLICATE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Silver Dry Basis	2	RPD [0-20]	10/9/2008 14:39	6010B
2008090203	30	MATRIX SPIKE DUPLICATE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Uranium Dry Basis	3	RPD [0-20]	10/9/2008 17:09	6020
2008090203	30	MATRIX SPIKE DUPLICATE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Vanadium Dry Basis	2	RPD [0-20]	10/9/2008 14:39	6010B
2008090203	30	MATRIX SPIKE DUPLICATE (BATCH) (0.063mm to 1mm Sieve Size)	1/2/1900	Zinc Dry Basis	1	RPD [0-20]	10/13/2008 17:40	6010B
2008090203	31	METHOD BLANK (0.063mm to 1mm Sieve Size)	1/2/1900	Aluminum Dry Basis	<0.5	mg/l	10/9/2008 14:25	6010B
2008090203	31	METHOD BLANK (0.063mm to 1mm Sieve Size)	1/2/1900	Antimony Dry Basis	<0.05	mg/l	10/9/2008 16:51	6020
2008090203	31	METHOD BLANK (0.063mm to 1mm Sieve Size)	1/2/1900	Arsenic Dry Basis	<0.1	mg/l	10/9/2008 14:25	6010B
2008090203	31	METHOD BLANK (0.063mm to 1mm Sieve Size)	1/2/1900	Barium Dry Basis	<0.05	mg/l	10/9/2008 14:25	6010B
2008090203	31	METHOD BLANK (0.063mm to 1mm Sieve Size)	1/2/1900	Beryllium Dry Basis	<0.02	mg/l	10/9/2008 14:25	6010B
2008090203	31	METHOD BLANK (0.063mm to 1mm Sieve Size)	1/2/1900	Boron Dry Basis	<0.1	mg/l	10/13/2008 17:25	6010B
2008090203	31	METHOD BLANK (0.063mm to 1mm Sieve Size)	1/2/1900	Cadmium Dry Basis	<0.02	mg/l	10/9/2008 14:25	6010B
2008090203	31	METHOD BLANK (0.063mm to 1mm Sieve Size)	1/2/1900	Chromium Dry Basis	<0.02	mg/l	10/9/2008 14:25	6010B
2008090203	31	METHOD BLANK (0.063mm to 1mm Sieve Size)	1/2/1900	Cobalt Dry Basis	<0.05	mg/l	10/9/2008 14:25	6010B
2008090203	31	METHOD BLANK (0.063mm to 1mm Sieve Size)	1/2/1900	Copper Dry Basis	<0.1	mg/l	10/9/2008 14:25	6010B
2008090203	31	METHOD BLANK (0.063mm to 1mm Sieve Size)	1/2/1900	ICP/AA Batch#/Digest Date	1690	-----	10/9/2008 7:25	3050B SB
2008090203	31	METHOD BLANK (0.063mm to 1mm Sieve Size)	1/2/1900	Iron Dry Basis	<0.5	mg/l	10/9/2008 14:25	6010B
2008090203	31	METHOD BLANK (0.063mm to 1mm Sieve Size)	1/2/1900	Lead Dry Basis	<0.1	mg/l	10/9/2008 14:25	6010B
2008090203	31	METHOD BLANK (0.063mm to 1mm Sieve Size)	1/2/1900	Manganese Dry Basis	<0.1	mg/l	10/9/2008 14:25	6010B
2008090203	31	METHOD BLANK (0.063mm to 1mm Sieve Size)	1/2/1900	Mercury Batch #/Digest Date	884	-----	10/9/2008 10:45	7471B
2008090203	31	METHOD BLANK (0.063mm to 1mm Sieve Size)	1/2/1900	Mercury Dry Basis	<0.0002	mg/l	10/9/2008 16:05	7471B
2008090203	31	METHOD BLANK (0.063mm to 1mm Sieve Size)	1/2/1900	Molybdenum Dry Basis	<0.05	mg/l	10/9/2008 14:25	6010B
2008090203	31	METHOD BLANK (0.063mm to 1mm Sieve Size)	1/2/1900	Nickel Dry Basis	<0.05	mg/l	10/9/2008 14:25	6010B
2008090203	31	METHOD BLANK (0.063mm to 1mm Sieve Size)	1/2/1900	Selenium Dry Basis	<0.1	mg/l	10/9/2008 14:25	6010B
2008090203	31	METHOD BLANK (0.063mm to 1mm Sieve Size)	1/2/1900	Silver Dry Basis	<0.05	mg/l	10/9/2008 14:25	6010B
2008090203	31	METHOD BLANK (0.063mm to 1mm Sieve Size)	1/2/1900	Uranium Dry Basis	<0.05	mg/l	10/9/2008 16:51	6020
2008090203	31	METHOD BLANK (0.063mm to 1mm Sieve Size)	1/2/1900	Vanadium Dry Basis	<0.05	mg/l	10/9/2008 14:25	6010B
2008090203	31	METHOD BLANK (0.063mm to 1mm Sieve Size)	1/2/1900	Zinc Dry Basis	<0.1	mg/l	10/13/2008 17:25	6010B
2008090203	32	LABORATORY CONTROL SAMPLE (0.063mm to 1mm Sieve Size)	1/2/1900	Aluminum Dry Basis	99	% [80-120]	10/9/2008 14:28	6010B
2008090203	32	LABORATORY CONTROL SAMPLE (0.063mm to 1mm Sieve Size)	1/2/1900	Antimony Dry Basis	86	% [65-128]	10/9/2008 16:54	6020
2008090203	32	LABORATORY CONTROL SAMPLE (0.063mm to 1mm Sieve Size)	1/2/1900	Arsenic Dry Basis	102	% [86-113]	10/9/2008 14:28	6010B
2008090203	32	LABORATORY CONTROL SAMPLE (0.063mm to 1mm Sieve Size)	1/2/1900	Barium Dry Basis	102	% [84-119]	10/9/2008 14:28	6010B
2008090203	32	LABORATORY CONTROL SAMPLE (0.063mm to 1mm Sieve Size)	1/2/1900	Beryllium Dry Basis	100	% [85-112]	10/9/2008 14:28	6010B
2008090203	32	LABORATORY CONTROL SAMPLE (0.063mm to 1mm Sieve Size)	1/2/1900	Boron Dry Basis	103	% [80-120]	10/13/2008 17:28	6010B
2008090203	32	LABORATORY CONTROL SAMPLE (0.063mm to 1mm Sieve Size)	1/2/1900	Cadmium Dry Basis	98	% [85-118]	10/9/2008 14:28	6010B
2008090203	32	LABORATORY CONTROL SAMPLE (0.063mm to 1mm Sieve Size)	1/2/1900	Chromium Dry Basis	95	% [85-115]	10/9/2008 14:28	6010B
2008090203	32	LABORATORY CONTROL SAMPLE (0.063mm to 1mm Sieve Size)	1/2/1900	Cobalt Dry Basis	98	% [80-120]	10/9/2008 14:28	6010B
2008090203	32	LABORATORY CONTROL SAMPLE (0.063mm to 1mm Sieve Size)	1/2/1900	Copper Dry Basis	98	% [82-119]	10/9/2008 14:28	6010B
2008090203	32	LABORATORY CONTROL SAMPLE (0.063mm to 1mm Sieve Size)	1/2/1900	ICP/AA Batch#/Digest Date	1690	-----	10/9/2008 7:25	3050B SB
2008090203	32	LABORATORY CONTROL SAMPLE (0.063mm to 1mm Sieve Size)	1/2/1900	Iron Dry Basis	105	% [80-120]	10/9/2008 14:28	6010B
2008090203	32	LABORATORY CONTROL SAMPLE (0.063mm to 1mm Sieve Size)	1/2/1900	Lead Dry Basis	99	% [85-118]	10/9/2008 14:28	6010B
2008090203	32	LABORATORY CONTROL SAMPLE (0.063mm to 1mm Sieve Size)	1/2/1900	Manganese Dry Basis	100	% [84-117]	10/9/2008 14:28	6010B
2008090203	32	LABORATORY CONTROL SAMPLE (0.063mm to 1mm Sieve Size)	1/2/1900	Mercury Batch #/Digest Date	884	-----	10/9/2008 10:45	7471B
2008090203	32	LABORATORY CONTROL SAMPLE (0.063mm to 1mm Sieve Size)	1/2/1900	Mercury Dry Basis	114	% [85-125]	10/9/2008 16:05	7471B
2008090203	32	LABORATORY CONTROL SAMPLE (0.063mm to 1mm Sieve Size)	1/2/1900	Molybdenum Dry Basis	95	% [80-120]	10/9/2008 14:28	6010B
2008090203	32	LABORATORY CONTROL SAMPLE (0.063mm to 1mm Sieve Size)	1/2/1900	Nickel Dry Basis	98	% [83-113]	10/9/2008 14:28	6010B
2008090203	32	LABORATORY CONTROL SAMPLE (0.063mm to 1mm Sieve Size)	1/2/1900	Selenium Dry Basis	110	% [82-116]	10/9/2008 14:28	6010B
2008090203	32	LABORATORY CONTROL SAMPLE (0.063mm to 1mm Sieve Size)	1/2/1900	Silver Dry Basis	96	% [86-112]	10/9/2008 14:28	6010B
2008090203	32	LABORATORY CONTROL SAMPLE (0.063mm to 1mm Sieve Size)	1/2/1900	Uranium Dry Basis	94	% [80-120]	10/9/2008 16:54	6020
2008090203	32	LABORATORY CONTROL SAMPLE (0.063mm to 1mm Sieve Size)	1/2/1900	Vanadium Dry Basis	96	% [78-123]	10/9/2008 14:28	6010B
2008090203	32	LABORATORY CONTROL SAMPLE (0.063mm to 1mm Sieve Size)	1/2/1900	Zinc Dry Basis	104	% [80-120]	10/9/2008 14:28	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090203	33	SS-15G (<0.063mm Sieve Size)	9/16/2008	Aluminum Dry Basis	7590	mg/kg	10/9/2008 17:26	6010B
2008090203	33	SS-15G (<0.063mm Sieve Size)	9/16/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008 17:54	6020
2008090203	33	SS-15G (<0.063mm Sieve Size)	9/16/2008	Arsenic Dry Basis	30	mg/kg	10/9/2008 16:30	6010B
2008090203	33	SS-15G (<0.063mm Sieve Size)	9/16/2008	Barium Dry Basis	178	mg/kg	10/9/2008 16:30	6010B
2008090203	33	SS-15G (<0.063mm Sieve Size)	9/16/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008 16:30	6010B
2008090203	33	SS-15G (<0.063mm Sieve Size)	9/16/2008	Boron Dry Basis	140	mg/kg	10/13/2008 18:36	6010B
2008090203	33	SS-15G (<0.063mm Sieve Size)	9/16/2008	Cadmium Dry Basis	<2	mg/kg	10/9/2008 16:30	6010B
2008090203	33	SS-15G (<0.063mm Sieve Size)	9/16/2008	Chromium Dry Basis	22	mg/kg	10/9/2008 16:30	6010B
2008090203	33	SS-15G (<0.063mm Sieve Size)	9/16/2008	Cobalt Dry Basis	9	mg/kg	10/9/2008 16:30	6010B
2008090203	33	SS-15G (<0.063mm Sieve Size)	9/16/2008	Copper Dry Basis	68	mg/kg	10/9/2008 16:30	6010B
2008090203	33	SS-15G (<0.063mm Sieve Size)	9/16/2008	Fraction of <2 mm Sample	0.2	%	1/2/1900	D421
2008090203	33	SS-15G (<0.063mm Sieve Size)	9/16/2008	Fraction of Total Sample	0.2	%	1/2/1900	D421
2008090203	33	SS-15G (<0.063mm Sieve Size)	9/16/2008	ICP/AA Batch#/Digest Date	1691	-----	10/9/2008	3050B SB
2008090203	33	SS-15G (<0.063mm Sieve Size)	9/16/2008	Iron Dry Basis	11300	mg/kg	10/9/2008 17:26	6010B
2008090203	33	SS-15G (<0.063mm Sieve Size)	9/16/2008	Lead Dry Basis	23	mg/kg	10/9/2008 16:30	6010B
2008090203	33	SS-15G (<0.063mm Sieve Size)	9/16/2008	Manganese Dry Basis	809	mg/kg	10/9/2008 16:30	6010B
2008090203	33	SS-15G (<0.063mm Sieve Size)	9/16/2008	Mercury Batch #/Digest Date	885	-----	10/9/2008 11:00	7471B
2008090203	33	SS-15G (<0.063mm Sieve Size)	9/16/2008	Mercury Dry Basis	0.3	mg/kg	10/9/2008 16:50	7471B
2008090203	33	SS-15G (<0.063mm Sieve Size)	9/16/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008 16:30	6010B
2008090203	33	SS-15G (<0.063mm Sieve Size)	9/16/2008	Nickel Dry Basis	12	mg/kg	10/9/2008 16:30	6010B
2008090203	33	SS-15G (<0.063mm Sieve Size)	9/16/2008	Selenium Dry Basis	<30	mg/kg	10/9/2008 16:30	6010B
2008090203	33	SS-15G (<0.063mm Sieve Size)	9/16/2008	Silver Dry Basis	<5	mg/kg	10/9/2008 16:30	6010B
2008090203	33	SS-15G (<0.063mm Sieve Size)	9/16/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008 17:54	6020
2008090203	33	SS-15G (<0.063mm Sieve Size)	9/16/2008	Vanadium Dry Basis	31	mg/kg	10/9/2008 16:30	6010B
2008090203	33	SS-15G (<0.063mm Sieve Size)	9/16/2008	Zinc Dry Basis	248	mg/kg	10/13/2008 18:36	6010B
2008090203	34	SS-15B (<0.063mm Sieve Size)	9/16/2008	Aluminum Dry Basis	5870	mg/kg	10/9/2008 17:29	6010B
2008090203	34	SS-15B (<0.063mm Sieve Size)	9/16/2008	Antimony Dry Basis	5	mg/kg	10/9/2008 18:32	6020
2008090203	34	SS-15B (<0.063mm Sieve Size)	9/16/2008	Arsenic Dry Basis	132	mg/kg	10/9/2008 16:33	6010B
2008090203	34	SS-15B (<0.063mm Sieve Size)	9/16/2008	Barium Dry Basis	347	mg/kg	10/9/2008 16:33	6010B
2008090203	34	SS-15B (<0.063mm Sieve Size)	9/16/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008 16:33	6010B
2008090203	34	SS-15B (<0.063mm Sieve Size)	9/16/2008	Boron Dry Basis	17	mg/kg	10/13/2008 18:39	6010B
2008090203	34	SS-15B (<0.063mm Sieve Size)	9/16/2008	Cadmium Dry Basis	35	mg/kg	10/9/2008 16:33	6010B
2008090203	34	SS-15B (<0.063mm Sieve Size)	9/16/2008	Chromium Dry Basis	19	mg/kg	10/9/2008 16:33	6010B
2008090203	34	SS-15B (<0.063mm Sieve Size)	9/16/2008	Cobalt Dry Basis	13	mg/kg	10/9/2008 16:33	6010B
2008090203	34	SS-15B (<0.063mm Sieve Size)	9/16/2008	Copper Dry Basis	2980	mg/kg	10/9/2008 17:29	6010B
2008090203	34	SS-15B (<0.063mm Sieve Size)	9/16/2008	Fraction of <2 mm Sample	1.1	%	1/2/1900	D421
2008090203	34	SS-15B (<0.063mm Sieve Size)	9/16/2008	Fraction of Total Sample	0.7	%	1/2/1900	D421
2008090203	34	SS-15B (<0.063mm Sieve Size)	9/16/2008	ICP/AA Batch#/Digest Date	1691	-----	10/9/2008	3050B SB
2008090203	34	SS-15B (<0.063mm Sieve Size)	9/16/2008	Iron Dry Basis	16400	mg/kg	10/9/2008 17:29	6010B
2008090203	34	SS-15B (<0.063mm Sieve Size)	9/16/2008	Lead Dry Basis	776	mg/kg	10/9/2008 16:33	6010B
2008090203	34	SS-15B (<0.063mm Sieve Size)	9/16/2008	Manganese Dry Basis	4000	mg/kg	10/9/2008 17:29	6010B
2008090203	34	SS-15B (<0.063mm Sieve Size)	9/16/2008	Mercury Batch #/Digest Date	885	-----	10/9/2008 11:00	7471B
2008090203	34	SS-15B (<0.063mm Sieve Size)	9/16/2008	Mercury Dry Basis	6.4	mg/kg	10/9/2008 16:50	7471B
2008090203	34	SS-15B (<0.063mm Sieve Size)	9/16/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008 16:33	6010B
2008090203	34	SS-15B (<0.063mm Sieve Size)	9/16/2008	Nickel Dry Basis	14	mg/kg	10/9/2008 16:33	6010B
2008090203	34	SS-15B (<0.063mm Sieve Size)	9/16/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008 16:33	6010B
2008090203	34	SS-15B (<0.063mm Sieve Size)	9/16/2008	Silver Dry Basis	13	mg/kg	10/9/2008 16:33	6010B
2008090203	34	SS-15B (<0.063mm Sieve Size)	9/16/2008	Uranium Dry Basis	<5	mg/kg	10/10/2008 9:01	6020
2008090203	34	SS-15B (<0.063mm Sieve Size)	9/16/2008	Vanadium Dry Basis	28	mg/kg	10/9/2008 16:33	6010B
2008090203	34	SS-15B (<0.063mm Sieve Size)	9/16/2008	Zinc Dry Basis	5400	mg/kg	10/9/2008 17:29	6010B
2008090203	35	SS-15A (<0.063mm Sieve Size)	9/16/2008	Aluminum Dry Basis	5000	mg/kg	10/9/2008 17:38	6010B
2008090203	35	SS-15A (<0.063mm Sieve Size)	9/16/2008	Antimony Dry Basis	6	mg/kg	10/9/2008 18:34	6020
2008090203	35	SS-15A (<0.063mm Sieve Size)	9/16/2008	Arsenic Dry Basis	110	mg/kg	10/9/2008 16:48	6010B
2008090203	35	SS-15A (<0.063mm Sieve Size)	9/16/2008	Barium Dry Basis	288	mg/kg	10/9/2008 16:48	6010B
2008090203	35	SS-15A (<0.063mm Sieve Size)	9/16/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008 16:48	6010B
2008090203	35	SS-15A (<0.063mm Sieve Size)	9/16/2008	Boron Dry Basis	92	mg/kg	10/13/2008 18:48	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090203	35	SS-15A (<0.063mm Sieve Size)	9/16/2008	Cadmium Dry Basis	36	mg/kg	10/9/2008 16:48	6010B
2008090203	35	SS-15A (<0.063mm Sieve Size)	9/16/2008	Chromium Dry Basis	15	mg/kg	10/9/2008 16:48	6010B
2008090203	35	SS-15A (<0.063mm Sieve Size)	9/16/2008	Cobalt Dry Basis	14	mg/kg	10/9/2008 16:48	6010B
2008090203	35	SS-15A (<0.063mm Sieve Size)	9/16/2008	Copper Dry Basis	2590	mg/kg	10/9/2008 16:48	6010B
2008090203	35	SS-15A (<0.063mm Sieve Size)	9/16/2008	Fraction of <2 mm Sample	0.4	%	1/2/1900	D421
2008090203	35	SS-15A (<0.063mm Sieve Size)	9/16/2008	Fraction of Total Sample	0.3	%	1/2/1900	D421
2008090203	35	SS-15A (<0.063mm Sieve Size)	9/16/2008	ICP/AA Batch#/Digest Date	1691	-----	10/9/2008	3050B SB
2008090203	35	SS-15A (<0.063mm Sieve Size)	9/16/2008	Iron Dry Basis	14500	mg/kg	10/9/2008 17:38	6010B
2008090203	35	SS-15A (<0.063mm Sieve Size)	9/16/2008	Lead Dry Basis	600	mg/kg	10/9/2008 16:48	6010B
2008090203	35	SS-15A (<0.063mm Sieve Size)	9/16/2008	Manganese Dry Basis	3270	mg/kg	10/9/2008 16:48	6010B
2008090203	35	SS-15A (<0.063mm Sieve Size)	9/16/2008	Mercury Batch #/Digest Date	885	-----	10/9/2008 11:00	7471B
2008090203	35	SS-15A (<0.063mm Sieve Size)	9/16/2008	Mercury Dry Basis	5	mg/kg	10/9/2008 16:50	7471B
2008090203	35	SS-15A (<0.063mm Sieve Size)	9/16/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008 16:48	6010B
2008090203	35	SS-15A (<0.063mm Sieve Size)	9/16/2008	Nickel Dry Basis	10	mg/kg	10/9/2008 16:48	6010B
2008090203	35	SS-15A (<0.063mm Sieve Size)	9/16/2008	Selenium Dry Basis	<30	mg/kg	10/9/2008 16:48	6010B
2008090203	35	SS-15A (<0.063mm Sieve Size)	9/16/2008	Silver Dry Basis	10	mg/kg	10/9/2008 16:48	6010B
2008090203	35	SS-15A (<0.063mm Sieve Size)	9/16/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008 18:34	6020
2008090203	35	SS-15A (<0.063mm Sieve Size)	9/16/2008	Vanadium Dry Basis	25	mg/kg	10/9/2008 16:48	6010B
2008090203	35	SS-15A (<0.063mm Sieve Size)	9/16/2008	Zinc Dry Basis	5470	mg/kg	10/9/2008 17:38	6010B
2008090203	36	SS-10B (<0.063mm Sieve Size)	9/16/2008	Aluminum Dry Basis	8580	mg/kg	10/9/2008 17:41	6010B
2008090203	36	SS-10B (<0.063mm Sieve Size)	9/16/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008 18:05	6020
2008090203	36	SS-10B (<0.063mm Sieve Size)	9/16/2008	Arsenic Dry Basis	30	mg/kg	10/9/2008 16:51	6010B
2008090203	36	SS-10B (<0.063mm Sieve Size)	9/16/2008	Barium Dry Basis	348	mg/kg	10/9/2008 16:51	6010B
2008090203	36	SS-10B (<0.063mm Sieve Size)	9/16/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008 16:51	6010B
2008090203	36	SS-10B (<0.063mm Sieve Size)	9/16/2008	Boron Dry Basis	<10	mg/kg	10/13/2008 18:51	6010B
2008090203	36	SS-10B (<0.063mm Sieve Size)	9/16/2008	Cadmium Dry Basis	8	mg/kg	10/9/2008 16:51	6010B
2008090203	36	SS-10B (<0.063mm Sieve Size)	9/16/2008	Chromium Dry Basis	18	mg/kg	10/9/2008 16:51	6010B
2008090203	36	SS-10B (<0.063mm Sieve Size)	9/16/2008	Cobalt Dry Basis	10	mg/kg	10/9/2008 16:51	6010B
2008090203	36	SS-10B (<0.063mm Sieve Size)	9/16/2008	Copper Dry Basis	602	mg/kg	10/9/2008 16:51	6010B
2008090203	36	SS-10B (<0.063mm Sieve Size)	9/16/2008	Fraction of <2 mm Sample	0.3	%	1/2/1900	D421
2008090203	36	SS-10B (<0.063mm Sieve Size)	9/16/2008	Fraction of Total Sample	0.1	%	1/2/1900	D421
2008090203	36	SS-10B (<0.063mm Sieve Size)	9/16/2008	ICP/AA Batch#/Digest Date	1691	-----	10/9/2008	3050B SB
2008090203	36	SS-10B (<0.063mm Sieve Size)	9/16/2008	Iron Dry Basis	19700	mg/kg	10/9/2008 17:41	6010B
2008090203	36	SS-10B (<0.063mm Sieve Size)	9/16/2008	Lead Dry Basis	198	mg/kg	10/9/2008 16:51	6010B
2008090203	36	SS-10B (<0.063mm Sieve Size)	9/16/2008	Manganese Dry Basis	3000	mg/kg	10/9/2008 16:51	6010B
2008090203	36	SS-10B (<0.063mm Sieve Size)	9/16/2008	Mercury Batch #/Digest Date	885	-----	10/9/2008 11:00	7471B
2008090203	36	SS-10B (<0.063mm Sieve Size)	9/16/2008	Mercury Dry Basis	1.3	mg/kg	10/9/2008 16:50	7471B
2008090203	36	SS-10B (<0.063mm Sieve Size)	9/16/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008 16:51	6010B
2008090203	36	SS-10B (<0.063mm Sieve Size)	9/16/2008	Nickel Dry Basis	9	mg/kg	10/9/2008 16:51	6010B
2008090203	36	SS-10B (<0.063mm Sieve Size)	9/16/2008	Selenium Dry Basis	<30	mg/kg	10/9/2008 16:51	6010B
2008090203	36	SS-10B (<0.063mm Sieve Size)	9/16/2008	Silver Dry Basis	<5	mg/kg	10/9/2008 16:51	6010B
2008090203	36	SS-10B (<0.063mm Sieve Size)	9/16/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008 18:05	6020
2008090203	36	SS-10B (<0.063mm Sieve Size)	9/16/2008	Vanadium Dry Basis	31	mg/kg	10/9/2008 16:51	6010B
2008090203	36	SS-10B (<0.063mm Sieve Size)	9/16/2008	Zinc Dry Basis	1640	mg/kg	10/9/2008 16:51	6010B
2008090203	37	SS-11C (<0.063mm Sieve Size)	9/16/2008	Aluminum Dry Basis	5820	mg/kg	10/9/2008 17:44	6010B
2008090203	37	SS-11C (<0.063mm Sieve Size)	9/16/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008 18:07	6020
2008090203	37	SS-11C (<0.063mm Sieve Size)	9/16/2008	Arsenic Dry Basis	<30	mg/kg	10/9/2008 16:54	6010B
2008090203	37	SS-11C (<0.063mm Sieve Size)	9/16/2008	Barium Dry Basis	331	mg/kg	10/9/2008 16:54	6010B
2008090203	37	SS-11C (<0.063mm Sieve Size)	9/16/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008 16:54	6010B
2008090203	37	SS-11C (<0.063mm Sieve Size)	9/16/2008	Boron Dry Basis	17	mg/kg	10/13/2008 18:54	6010B
2008090203	37	SS-11C (<0.063mm Sieve Size)	9/16/2008	Cadmium Dry Basis	15	mg/kg	10/9/2008 16:54	6010B
2008090203	37	SS-11C (<0.063mm Sieve Size)	9/16/2008	Chromium Dry Basis	22	mg/kg	10/9/2008 16:54	6010B
2008090203	37	SS-11C (<0.063mm Sieve Size)	9/16/2008	Cobalt Dry Basis	13	mg/kg	10/9/2008 16:54	6010B
2008090203	37	SS-11C (<0.063mm Sieve Size)	9/16/2008	Copper Dry Basis	533	mg/kg	10/9/2008 16:54	6010B
2008090203	37	SS-11C (<0.063mm Sieve Size)	9/16/2008	Fraction of <2 mm Sample	0.2	%	1/2/1900	D421
2008090203	37	SS-11C (<0.063mm Sieve Size)	9/16/2008	Fraction of Total Sample	<0.1	%	1/2/1900	D421

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090203	37	SS-11C (<0.063mm Sieve Size)	9/16/2008	ICP/AA Batch#/Digest Date	1691	-----	10/9/2008	3050B SB
2008090203	37	SS-11C (<0.063mm Sieve Size)	9/16/2008	Iron Dry Basis	13300	mg/kg	10/9/2008 17:44	6010B
2008090203	37	SS-11C (<0.063mm Sieve Size)	9/16/2008	Lead Dry Basis	98	mg/kg	10/9/2008 16:54	6010B
2008090203	37	SS-11C (<0.063mm Sieve Size)	9/16/2008	Manganese Dry Basis	5950	mg/kg	10/9/2008 16:54	6010B
2008090203	37	SS-11C (<0.063mm Sieve Size)	9/16/2008	Mercury Batch #/Digest Date	885	-----	10/9/2008 11:00	7471B
2008090203	37	SS-11C (<0.063mm Sieve Size)	9/16/2008	Mercury Dry Basis	0.7	mg/kg	10/9/2008 16:50	7471B
2008090203	37	SS-11C (<0.063mm Sieve Size)	9/16/2008	Molybdenum Dry Basis	8	mg/kg	10/9/2008 16:54	6010B
2008090203	37	SS-11C (<0.063mm Sieve Size)	9/16/2008	Nickel Dry Basis	12	mg/kg	10/9/2008 16:54	6010B
2008090203	37	SS-11C (<0.063mm Sieve Size)	9/16/2008	Selenium Dry Basis	<30	mg/kg	10/9/2008 16:54	6010B
2008090203	37	SS-11C (<0.063mm Sieve Size)	9/16/2008	Silver Dry Basis	<5	mg/kg	10/9/2008 16:54	6010B
2008090203	37	SS-11C (<0.063mm Sieve Size)	9/16/2008	Uranium Dry Basis	10	mg/kg	10/9/2008 18:07	6020
2008090203	37	SS-11C (<0.063mm Sieve Size)	9/16/2008	Vanadium Dry Basis	37	mg/kg	10/9/2008 16:54	6010B
2008090203	37	SS-11C (<0.063mm Sieve Size)	9/16/2008	Zinc Dry Basis	2900	mg/kg	10/9/2008 16:54	6010B
2008090203	38	SS-11D (<0.063mm Sieve Size)	9/16/2008	Aluminum Dry Basis	10500	mg/kg	10/9/2008 17:47	6010B
2008090203	38	SS-11D (<0.063mm Sieve Size)	9/16/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008 18:09	6020
2008090203	38	SS-11D (<0.063mm Sieve Size)	9/16/2008	Arsenic Dry Basis	<20	mg/kg	10/9/2008 16:57	6010B
2008090203	38	SS-11D (<0.063mm Sieve Size)	9/16/2008	Barium Dry Basis	303	mg/kg	10/9/2008 16:57	6010B
2008090203	38	SS-11D (<0.063mm Sieve Size)	9/16/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008 16:57	6010B
2008090203	38	SS-11D (<0.063mm Sieve Size)	9/16/2008	Boron Dry Basis	<10	mg/kg	10/13/2008 18:57	6010B
2008090203	38	SS-11D (<0.063mm Sieve Size)	9/16/2008	Cadmium Dry Basis	8	mg/kg	10/9/2008 16:57	6010B
2008090203	38	SS-11D (<0.063mm Sieve Size)	9/16/2008	Chromium Dry Basis	21	mg/kg	10/9/2008 16:57	6010B
2008090203	38	SS-11D (<0.063mm Sieve Size)	9/16/2008	Cobalt Dry Basis	9	mg/kg	10/9/2008 16:57	6010B
2008090203	38	SS-11D (<0.063mm Sieve Size)	9/16/2008	Copper Dry Basis	395	mg/kg	10/9/2008 16:57	6010B
2008090203	38	SS-11D (<0.063mm Sieve Size)	9/16/2008	Fraction of <2 mm Sample	0.2	%	1/2/1900	D421
2008090203	38	SS-11D (<0.063mm Sieve Size)	9/16/2008	Fraction of Total Sample	<0.1	%	1/2/1900	D421
2008090203	38	SS-11D (<0.063mm Sieve Size)	9/16/2008	ICP/AA Batch#/Digest Date	1691	-----	10/9/2008	3050B SB
2008090203	38	SS-11D (<0.063mm Sieve Size)	9/16/2008	Iron Dry Basis	17700	mg/kg	10/9/2008 17:47	6010B
2008090203	38	SS-11D (<0.063mm Sieve Size)	9/16/2008	Lead Dry Basis	130	mg/kg	10/9/2008 16:57	6010B
2008090203	38	SS-11D (<0.063mm Sieve Size)	9/16/2008	Manganese Dry Basis	1770	mg/kg	10/9/2008 16:57	6010B
2008090203	38	SS-11D (<0.063mm Sieve Size)	9/16/2008	Mercury Batch #/Digest Date	885	-----	10/9/2008 11:00	7471B
2008090203	38	SS-11D (<0.063mm Sieve Size)	9/16/2008	Mercury Dry Basis	1	mg/kg	10/9/2008 16:50	7471B
2008090203	38	SS-11D (<0.063mm Sieve Size)	9/16/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008 16:57	6010B
2008090203	38	SS-11D (<0.063mm Sieve Size)	9/16/2008	Nickel Dry Basis	12	mg/kg	10/9/2008 16:57	6010B
2008090203	38	SS-11D (<0.063mm Sieve Size)	9/16/2008	Selenium Dry Basis	<30	mg/kg	10/9/2008 16:57	6010B
2008090203	38	SS-11D (<0.063mm Sieve Size)	9/16/2008	Silver Dry Basis	<5	mg/kg	10/9/2008 16:57	6010B
2008090203	38	SS-11D (<0.063mm Sieve Size)	9/16/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008 18:09	6020
2008090203	38	SS-11D (<0.063mm Sieve Size)	9/16/2008	Vanadium Dry Basis	41	mg/kg	10/9/2008 16:57	6010B
2008090203	38	SS-11D (<0.063mm Sieve Size)	9/16/2008	Zinc Dry Basis	625	mg/kg	10/9/2008 16:57	6010B
2008090203	39	SS-10A (<0.063mm Sieve Size)	9/17/2008	Aluminum Dry Basis	6920	mg/kg	10/9/2008 17:56	6010B
2008090203	39	SS-10A (<0.063mm Sieve Size)	9/17/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008 18:12	6020
2008090203	39	SS-10A (<0.063mm Sieve Size)	9/17/2008	Arsenic Dry Basis	40	mg/kg	10/9/2008 17:00	6010B
2008090203	39	SS-10A (<0.063mm Sieve Size)	9/17/2008	Barium Dry Basis	278	mg/kg	10/9/2008 17:00	6010B
2008090203	39	SS-10A (<0.063mm Sieve Size)	9/17/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008 17:00	6010B
2008090203	39	SS-10A (<0.063mm Sieve Size)	9/17/2008	Boron Dry Basis	17	mg/kg	10/13/2008 19:06	6010B
2008090203	39	SS-10A (<0.063mm Sieve Size)	9/17/2008	Cadmium Dry Basis	11	mg/kg	10/9/2008 17:00	6010B
2008090203	39	SS-10A (<0.063mm Sieve Size)	9/17/2008	Chromium Dry Basis	15	mg/kg	10/9/2008 17:00	6010B
2008090203	39	SS-10A (<0.063mm Sieve Size)	9/17/2008	Cobalt Dry Basis	9	mg/kg	10/9/2008 17:00	6010B
2008090203	39	SS-10A (<0.063mm Sieve Size)	9/17/2008	Copper Dry Basis	442	mg/kg	10/9/2008 17:00	6010B
2008090203	39	SS-10A (<0.063mm Sieve Size)	9/17/2008	Fraction of <2 mm Sample	2	%	1/2/1900	D421
2008090203	39	SS-10A (<0.063mm Sieve Size)	9/17/2008	Fraction of Total Sample	0.1	%	1/2/1900	D421
2008090203	39	SS-10A (<0.063mm Sieve Size)	9/17/2008	ICP/AA Batch#/Digest Date	1691	-----	10/9/2008	3050B SB
2008090203	39	SS-10A (<0.063mm Sieve Size)	9/17/2008	Iron Dry Basis	17400	mg/kg	10/9/2008 17:56	6010B
2008090203	39	SS-10A (<0.063mm Sieve Size)	9/17/2008	Lead Dry Basis	120	mg/kg	10/9/2008 17:00	6010B
2008090203	39	SS-10A (<0.063mm Sieve Size)	9/17/2008	Manganese Dry Basis	4410	mg/kg	10/9/2008 17:00	6010B
2008090203	39	SS-10A (<0.063mm Sieve Size)	9/17/2008	Mercury Batch #/Digest Date	885	-----	10/9/2008 11:00	7471B
2008090203	39	SS-10A (<0.063mm Sieve Size)	9/17/2008	Mercury Dry Basis	1.2	mg/kg	10/9/2008 16:50	7471B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090203	39	SS-10A (<0.063mm Sieve Size)	9/17/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008 17:00	6010B
2008090203	39	SS-10A (<0.063mm Sieve Size)	9/17/2008	Nickel Dry Basis	7	mg/kg	10/9/2008 17:00	6010B
2008090203	39	SS-10A (<0.063mm Sieve Size)	9/17/2008	Selenium Dry Basis	<30	mg/kg	10/9/2008 17:00	6010B
2008090203	39	SS-10A (<0.063mm Sieve Size)	9/17/2008	Silver Dry Basis	<5	mg/kg	10/9/2008 17:00	6010B
2008090203	39	SS-10A (<0.063mm Sieve Size)	9/17/2008	Uranium Dry Basis	5	mg/kg	10/9/2008 18:12	6020
2008090203	39	SS-10A (<0.063mm Sieve Size)	9/17/2008	Vanadium Dry Basis	29	mg/kg	10/9/2008 17:00	6010B
2008090203	39	SS-10A (<0.063mm Sieve Size)	9/17/2008	Zinc Dry Basis	1910	mg/kg	10/9/2008 17:00	6010B
2008090203	40	SS-08 (<0.063mm Sieve Size)	9/17/2008	Aluminum Dry Basis	10600	mg/kg	10/9/2008 17:59	6010B
2008090203	40	SS-08 (<0.063mm Sieve Size)	9/17/2008	Antimony Dry Basis	<5	mg/kg	10/9/2008 18:14	6020
2008090203	40	SS-08 (<0.063mm Sieve Size)	9/17/2008	Arsenic Dry Basis	54	mg/kg	10/9/2008 17:03	6010B
2008090203	40	SS-08 (<0.063mm Sieve Size)	9/17/2008	Barium Dry Basis	242	mg/kg	10/9/2008 17:03	6010B
2008090203	40	SS-08 (<0.063mm Sieve Size)	9/17/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008 17:03	6010B
2008090203	40	SS-08 (<0.063mm Sieve Size)	9/17/2008	Boron Dry Basis	<10	mg/kg	10/13/2008 19:09	6010B
2008090203	40	SS-08 (<0.063mm Sieve Size)	9/17/2008	Cadmium Dry Basis	5	mg/kg	10/9/2008 17:03	6010B
2008090203	40	SS-08 (<0.063mm Sieve Size)	9/17/2008	Chromium Dry Basis	28	mg/kg	10/9/2008 17:03	6010B
2008090203	40	SS-08 (<0.063mm Sieve Size)	9/17/2008	Cobalt Dry Basis	11	mg/kg	10/9/2008 17:03	6010B
2008090203	40	SS-08 (<0.063mm Sieve Size)	9/17/2008	Copper Dry Basis	786	mg/kg	10/9/2008 17:03	6010B
2008090203	40	SS-08 (<0.063mm Sieve Size)	9/17/2008	Fraction of <2 mm Sample	0.7	%	1/2/1900	D421
2008090203	40	SS-08 (<0.063mm Sieve Size)	9/17/2008	Fraction of Total Sample	0.1	%	1/2/1900	D421
2008090203	40	SS-08 (<0.063mm Sieve Size)	9/17/2008	ICP/AA Batch#/Digest Date	1691	-----	10/9/2008	3050B SB
2008090203	40	SS-08 (<0.063mm Sieve Size)	9/17/2008	Iron Dry Basis	26300	mg/kg	10/9/2008 17:59	6010B
2008090203	40	SS-08 (<0.063mm Sieve Size)	9/17/2008	Lead Dry Basis	341	mg/kg	10/9/2008 17:03	6010B
2008090203	40	SS-08 (<0.063mm Sieve Size)	9/17/2008	Manganese Dry Basis	2240	mg/kg	10/9/2008 17:03	6010B
2008090203	40	SS-08 (<0.063mm Sieve Size)	9/17/2008	Mercury Batch #/Digest Date	885	-----	10/9/2008 11:00	7471B
2008090203	40	SS-08 (<0.063mm Sieve Size)	9/17/2008	Mercury Dry Basis	3.4	mg/kg	10/9/2008 16:50	7471B
2008090203	40	SS-08 (<0.063mm Sieve Size)	9/17/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008 17:03	6010B
2008090203	40	SS-08 (<0.063mm Sieve Size)	9/17/2008	Nickel Dry Basis	17	mg/kg	10/9/2008 17:03	6010B
2008090203	40	SS-08 (<0.063mm Sieve Size)	9/17/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008 17:03	6010B
2008090203	40	SS-08 (<0.063mm Sieve Size)	9/17/2008	Silver Dry Basis	5	mg/kg	10/9/2008 17:03	6010B
2008090203	40	SS-08 (<0.063mm Sieve Size)	9/17/2008	Uranium Dry Basis	9	mg/kg	10/9/2008 18:14	6020
2008090203	40	SS-08 (<0.063mm Sieve Size)	9/17/2008	Vanadium Dry Basis	42	mg/kg	10/9/2008 17:03	6010B
2008090203	40	SS-08 (<0.063mm Sieve Size)	9/17/2008	Zinc Dry Basis	1510	mg/kg	10/9/2008 17:03	6010B
2008090203	41	SS-06G (<0.063mm Sieve Size)	9/17/2008	Aluminum Dry Basis	10000	mg/kg	10/9/2008 18:02	6010B
2008090203	41	SS-06G (<0.063mm Sieve Size)	9/17/2008	Antimony Dry Basis	6	mg/kg	10/9/2008 18:21	6020
2008090203	41	SS-06G (<0.063mm Sieve Size)	9/17/2008	Arsenic Dry Basis	70	mg/kg	10/9/2008 17:06	6010B
2008090203	41	SS-06G (<0.063mm Sieve Size)	9/17/2008	Barium Dry Basis	751	mg/kg	10/9/2008 17:06	6010B
2008090203	41	SS-06G (<0.063mm Sieve Size)	9/17/2008	Beryllium Dry Basis	<3	mg/kg	10/9/2008 17:06	6010B
2008090203	41	SS-06G (<0.063mm Sieve Size)	9/17/2008	Boron Dry Basis	43	mg/kg	10/13/2008 19:12	6010B
2008090203	41	SS-06G (<0.063mm Sieve Size)	9/17/2008	Cadmium Dry Basis	12	mg/kg	10/9/2008 17:06	6010B
2008090203	41	SS-06G (<0.063mm Sieve Size)	9/17/2008	Chromium Dry Basis	90	mg/kg	10/9/2008 17:06	6010B
2008090203	41	SS-06G (<0.063mm Sieve Size)	9/17/2008	Cobalt Dry Basis	23	mg/kg	10/9/2008 17:06	6010B
2008090203	41	SS-06G (<0.063mm Sieve Size)	9/17/2008	Copper Dry Basis	1000	mg/kg	10/9/2008 17:06	6010B
2008090203	41	SS-06G (<0.063mm Sieve Size)	9/17/2008	Fraction of <2 mm Sample	<0.1	%	1/2/1900	D421
2008090203	41	SS-06G (<0.063mm Sieve Size)	9/17/2008	Fraction of Total Sample	<0.1	%	1/2/1900	D421
2008090203	41	SS-06G (<0.063mm Sieve Size)	9/17/2008	ICP/AA Batch#/Digest Date	1691	-----	10/9/2008	3050B SB
2008090203	41	SS-06G (<0.063mm Sieve Size)	9/17/2008	Iron Dry Basis	37200	mg/kg	10/9/2008 18:02	6010B
2008090203	41	SS-06G (<0.063mm Sieve Size)	9/17/2008	Lead Dry Basis	331	mg/kg	10/9/2008 17:06	6010B
2008090203	41	SS-06G (<0.063mm Sieve Size)	9/17/2008	Manganese Dry Basis	20500	mg/kg	10/9/2008 18:02	6010B
2008090203	41	SS-06G (<0.063mm Sieve Size)	9/17/2008	Mercury Batch #/Digest Date	885	-----	10/9/2008 11:00	7471B
2008090203	41	SS-06G (<0.063mm Sieve Size)	9/17/2008	Mercury Dry Basis	<1	mg/kg	10/9/2008 16:50	7471B
2008090203	41	SS-06G (<0.063mm Sieve Size)	9/17/2008	Molybdenum Dry Basis	11	mg/kg	10/9/2008 17:06	6010B
2008090203	41	SS-06G (<0.063mm Sieve Size)	9/17/2008	Nickel Dry Basis	54	mg/kg	10/9/2008 17:06	6010B
2008090203	41	SS-06G (<0.063mm Sieve Size)	9/17/2008	Selenium Dry Basis	<70	mg/kg	10/9/2008 17:06	6010B
2008090203	41	SS-06G (<0.063mm Sieve Size)	9/17/2008	Silver Dry Basis	<7	mg/kg	10/9/2008 17:06	6010B
2008090203	41	SS-06G (<0.063mm Sieve Size)	9/17/2008	Uranium Dry Basis	6	mg/kg	10/9/2008 18:21	6020
2008090203	41	SS-06G (<0.063mm Sieve Size)	9/17/2008	Vanadium Dry Basis	80	mg/kg	10/9/2008 17:06	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090203	41	SS-06G (<0.063mm Sieve Size)	9/17/2008	Zinc Dry Basis	3090	mg/kg	10/9/2008 17:06	6010B
2008090203	42	SS-07 (<0.063mm Sieve Size)	9/17/2008	Aluminum Dry Basis	7190	mg/kg	10/9/2008 18:05	6010B
2008090203	42	SS-07 (<0.063mm Sieve Size)	9/17/2008	Antimony Dry Basis	5	mg/kg	10/9/2008 18:23	6020
2008090203	42	SS-07 (<0.063mm Sieve Size)	9/17/2008	Arsenic Dry Basis	40	mg/kg	10/9/2008 17:09	6010B
2008090203	42	SS-07 (<0.063mm Sieve Size)	9/17/2008	Barium Dry Basis	460	mg/kg	10/9/2008 17:09	6010B
2008090203	42	SS-07 (<0.063mm Sieve Size)	9/17/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008 17:09	6010B
2008090203	42	SS-07 (<0.063mm Sieve Size)	9/17/2008	Boron Dry Basis	23	mg/kg	10/13/2008 19:15	6010B
2008090203	42	SS-07 (<0.063mm Sieve Size)	9/17/2008	Cadmium Dry Basis	40	mg/kg	10/9/2008 17:09	6010B
2008090203	42	SS-07 (<0.063mm Sieve Size)	9/17/2008	Chromium Dry Basis	36	mg/kg	10/9/2008 17:09	6010B
2008090203	42	SS-07 (<0.063mm Sieve Size)	9/17/2008	Cobalt Dry Basis	24	mg/kg	10/9/2008 17:09	6010B
2008090203	42	SS-07 (<0.063mm Sieve Size)	9/17/2008	Copper Dry Basis	2160	mg/kg	10/9/2008 17:09	6010B
2008090203	42	SS-07 (<0.063mm Sieve Size)	9/17/2008	Fraction of <2 mm Sample	<0.1	%	1/2/1900	D421
2008090203	42	SS-07 (<0.063mm Sieve Size)	9/17/2008	Fraction of Total Sample	<0.1	%	1/2/1900	D421
2008090203	42	SS-07 (<0.063mm Sieve Size)	9/17/2008	ICP/AA Batch#/Digest Date	1691	-----	10/9/2008	3050B SB
2008090203	42	SS-07 (<0.063mm Sieve Size)	9/17/2008	Iron Dry Basis	19500	mg/kg	10/9/2008 18:05	6010B
2008090203	42	SS-07 (<0.063mm Sieve Size)	9/17/2008	Lead Dry Basis	328	mg/kg	10/9/2008 17:09	6010B
2008090203	42	SS-07 (<0.063mm Sieve Size)	9/17/2008	Manganese Dry Basis	22400	mg/kg	10/9/2008 18:05	6010B
2008090203	42	SS-07 (<0.063mm Sieve Size)	9/17/2008	Mercury Batch #/Digest Date	885	-----	10/9/2008 11:00	7471B
2008090203	42	SS-07 (<0.063mm Sieve Size)	9/17/2008	Mercury Dry Basis	2	mg/kg	10/9/2008 16:50	7471B
2008090203	42	SS-07 (<0.063mm Sieve Size)	9/17/2008	Molybdenum Dry Basis	45	mg/kg	10/9/2008 17:09	6010B
2008090203	42	SS-07 (<0.063mm Sieve Size)	9/17/2008	Nickel Dry Basis	24	mg/kg	10/9/2008 17:09	6010B
2008090203	42	SS-07 (<0.063mm Sieve Size)	9/17/2008	Selenium Dry Basis	<40	mg/kg	10/9/2008 17:09	6010B
2008090203	42	SS-07 (<0.063mm Sieve Size)	9/17/2008	Silver Dry Basis	17	mg/kg	10/9/2008 17:09	6010B
2008090203	42	SS-07 (<0.063mm Sieve Size)	9/17/2008	Uranium Dry Basis	14	mg/kg	10/9/2008 18:23	6020
2008090203	42	SS-07 (<0.063mm Sieve Size)	9/17/2008	Vanadium Dry Basis	60	mg/kg	10/9/2008 17:09	6010B
2008090203	42	SS-07 (<0.063mm Sieve Size)	9/17/2008	Zinc Dry Basis	3650	mg/kg	10/9/2008 17:09	6010B
2008090203	43	SS-17D (<0.063mm Sieve Size)	9/16/2008	Aluminum Dry Basis	10600	mg/kg	10/9/2008 18:08	6010B
2008090203	43	SS-17D (<0.063mm Sieve Size)	9/16/2008	Antimony Dry Basis	7	mg/kg	10/9/2008 18:25	6020
2008090203	43	SS-17D (<0.063mm Sieve Size)	9/16/2008	Arsenic Dry Basis	140	mg/kg	10/9/2008 17:12	6010B
2008090203	43	SS-17D (<0.063mm Sieve Size)	9/16/2008	Barium Dry Basis	310	mg/kg	10/9/2008 17:12	6010B
2008090203	43	SS-17D (<0.063mm Sieve Size)	9/16/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008 17:12	6010B
2008090203	43	SS-17D (<0.063mm Sieve Size)	9/16/2008	Boron Dry Basis	<10	mg/kg	10/13/2008 19:18	6010B
2008090203	43	SS-17D (<0.063mm Sieve Size)	9/16/2008	Cadmium Dry Basis	20	mg/kg	10/9/2008 17:12	6010B
2008090203	43	SS-17D (<0.063mm Sieve Size)	9/16/2008	Chromium Dry Basis	32	mg/kg	10/9/2008 17:12	6010B
2008090203	43	SS-17D (<0.063mm Sieve Size)	9/16/2008	Cobalt Dry Basis	11	mg/kg	10/9/2008 17:12	6010B
2008090203	43	SS-17D (<0.063mm Sieve Size)	9/16/2008	Copper Dry Basis	1900	mg/kg	10/9/2008 18:08	6010B
2008090203	43	SS-17D (<0.063mm Sieve Size)	9/16/2008	Fraction of <2 mm Sample	<0.1	%	1/2/1900	D421
2008090203	43	SS-17D (<0.063mm Sieve Size)	9/16/2008	Fraction of Total Sample	<0.1	%	1/2/1900	D421
2008090203	43	SS-17D (<0.063mm Sieve Size)	9/16/2008	ICP/AA Batch#/Digest Date	1691	-----	10/9/2008	3050B SB
2008090203	43	SS-17D (<0.063mm Sieve Size)	9/16/2008	Iron Dry Basis	29100	mg/kg	10/9/2008 18:08	6010B
2008090203	43	SS-17D (<0.063mm Sieve Size)	9/16/2008	Lead Dry Basis	537	mg/kg	10/9/2008 17:12	6010B
2008090203	43	SS-17D (<0.063mm Sieve Size)	9/16/2008	Manganese Dry Basis	1830	mg/kg	10/9/2008 17:12	6010B
2008090203	43	SS-17D (<0.063mm Sieve Size)	9/16/2008	Mercury Batch #/Digest Date	885	-----	10/9/2008 11:00	7471B
2008090203	43	SS-17D (<0.063mm Sieve Size)	9/16/2008	Mercury Dry Basis	3.6	mg/kg	10/9/2008 16:50	7471B
2008090203	43	SS-17D (<0.063mm Sieve Size)	9/16/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008 17:12	6010B
2008090203	43	SS-17D (<0.063mm Sieve Size)	9/16/2008	Nickel Dry Basis	19	mg/kg	10/9/2008 17:12	6010B
2008090203	43	SS-17D (<0.063mm Sieve Size)	9/16/2008	Selenium Dry Basis	<10	mg/kg	10/9/2008 17:12	6010B
2008090203	43	SS-17D (<0.063mm Sieve Size)	9/16/2008	Silver Dry Basis	7	mg/kg	10/9/2008 17:12	6010B
2008090203	43	SS-17D (<0.063mm Sieve Size)	9/16/2008	Uranium Dry Basis	<5	mg/kg	10/10/2008 9:07	6020
2008090203	43	SS-17D (<0.063mm Sieve Size)	9/16/2008	Vanadium Dry Basis	46	mg/kg	10/9/2008 17:12	6010B
2008090203	43	SS-17D (<0.063mm Sieve Size)	9/16/2008	Zinc Dry Basis	3720	mg/kg	10/9/2008 17:12	6010B
2008090203	44	SS-17 (<0.063mm Sieve Size)	9/16/2008	Aluminum Dry Basis	7600	mg/kg	10/9/2008 18:11	6010B
2008090203	44	SS-17 (<0.063mm Sieve Size)	9/16/2008	Antimony Dry Basis	5	mg/kg	10/9/2008 18:27	6020
2008090203	44	SS-17 (<0.063mm Sieve Size)	9/16/2008	Arsenic Dry Basis	112	mg/kg	10/9/2008 17:20	6010B
2008090203	44	SS-17 (<0.063mm Sieve Size)	9/16/2008	Barium Dry Basis	260	mg/kg	10/9/2008 17:20	6010B
2008090203	44	SS-17 (<0.063mm Sieve Size)	9/16/2008	Beryllium Dry Basis	<2	mg/kg	10/9/2008 17:20	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090203	44	SS-17 (<0.063mm Sieve Size)	9/16/2008	Boron Dry Basis	<10	mg/kg	10/13/2008 19:21	6010B
2008090203	44	SS-17 (<0.063mm Sieve Size)	9/16/2008	Cadmium Dry Basis	15	mg/kg	10/9/2008 17:20	6010B
2008090203	44	SS-17 (<0.063mm Sieve Size)	9/16/2008	Chromium Dry Basis	23	mg/kg	10/9/2008 17:20	6010B
2008090203	44	SS-17 (<0.063mm Sieve Size)	9/16/2008	Cobalt Dry Basis	10	mg/kg	10/9/2008 17:20	6010B
2008090203	44	SS-17 (<0.063mm Sieve Size)	9/16/2008	Copper Dry Basis	1390	mg/kg	10/9/2008 17:20	6010B
2008090203	44	SS-17 (<0.063mm Sieve Size)	9/16/2008	Fraction of <2 mm Sample	0.2	%	1/2/1900	D421
2008090203	44	SS-17 (<0.063mm Sieve Size)	9/16/2008	Fraction of Total Sample	<0.1	%	1/2/1900	D421
2008090203	44	SS-17 (<0.063mm Sieve Size)	9/16/2008	ICP/AA Batch#/Digest Date	1691	-----	10/9/2008	3050B SB
2008090203	44	SS-17 (<0.063mm Sieve Size)	9/16/2008	Iron Dry Basis	20400	mg/kg	10/9/2008 18:11	6010B
2008090203	44	SS-17 (<0.063mm Sieve Size)	9/16/2008	Lead Dry Basis	379	mg/kg	10/9/2008 17:20	6010B
2008090203	44	SS-17 (<0.063mm Sieve Size)	9/16/2008	Manganese Dry Basis	2490	mg/kg	10/9/2008 17:20	6010B
2008090203	44	SS-17 (<0.063mm Sieve Size)	9/16/2008	Mercury Batch #/Digest Date	885	-----	10/9/2008 11:00	7471B
2008090203	44	SS-17 (<0.063mm Sieve Size)	9/16/2008	Mercury Dry Basis	3.2	mg/kg	10/9/2008 16:50	7471B
2008090203	44	SS-17 (<0.063mm Sieve Size)	9/16/2008	Molybdenum Dry Basis	<5	mg/kg	10/9/2008 17:20	6010B
2008090203	44	SS-17 (<0.063mm Sieve Size)	9/16/2008	Nickel Dry Basis	14	mg/kg	10/9/2008 17:20	6010B
2008090203	44	SS-17 (<0.063mm Sieve Size)	9/16/2008	Selenium Dry Basis	<20	mg/kg	10/9/2008 17:20	6010B
2008090203	44	SS-17 (<0.063mm Sieve Size)	9/16/2008	Silver Dry Basis	5	mg/kg	10/9/2008 17:20	6010B
2008090203	44	SS-17 (<0.063mm Sieve Size)	9/16/2008	Uranium Dry Basis	<5	mg/kg	10/9/2008 18:27	6020
2008090203	44	SS-17 (<0.063mm Sieve Size)	9/16/2008	Vanadium Dry Basis	33	mg/kg	10/9/2008 17:20	6010B
2008090203	44	SS-17 (<0.063mm Sieve Size)	9/16/2008	Zinc Dry Basis	2670	mg/kg	10/9/2008 17:20	6010B
2008090203	45	MATRIX SPIKE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Aluminum Dry Basis	-2	% [75-125]	10/9/2008 17:32	6010B
2008090203	45	MATRIX SPIKE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Antimony Dry Basis	87	% [61-122]	10/9/2008 17:58	6020
2008090203	45	MATRIX SPIKE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Arsenic Dry Basis	114	% [69-126]	10/9/2008 16:36	6010B
2008090203	45	MATRIX SPIKE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Barium Dry Basis	111	% [66-137]	10/9/2008 16:36	6010B
2008090203	45	MATRIX SPIKE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Beryllium Dry Basis	100	% [77-112]	10/9/2008 16:36	6010B
2008090203	45	MATRIX SPIKE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Boron Dry Basis	107	% [75-125]	10/13/2008 18:42	6010B
2008090203	45	MATRIX SPIKE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Cadmium Dry Basis	94	% [77-117]	10/9/2008 16:36	6010B
2008090203	45	MATRIX SPIKE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Chromium Dry Basis	94	% [75-125]	10/9/2008 16:36	6010B
2008090203	45	MATRIX SPIKE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Cobalt Dry Basis	93	% [75-125]	10/9/2008 16:36	6010B
2008090203	45	MATRIX SPIKE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Copper Dry Basis	-2	% [66-133]	10/9/2008 17:32	6010B
2008090203	45	MATRIX SPIKE (BATCH) (<0.063mm Sieve Size)	1/2/1900	ICP/AA Batch#/Digest Date	1691	-----	10/9/2008	3050B SB
2008090203	45	MATRIX SPIKE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Iron Dry Basis	-2	% [75-125]	10/9/2008 17:32	6010B
2008090203	45	MATRIX SPIKE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Lead Dry Basis	103	% [75-121]	10/9/2008 16:36	6010B
2008090203	45	MATRIX SPIKE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Manganese Dry Basis	-2	% [67-128]	10/9/2008 17:32	6010B
2008090203	45	MATRIX SPIKE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Mercury Batch #/Digest Date	885	-----	10/9/2008 11:00	7471B
2008090203	45	MATRIX SPIKE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Mercury Dry Basis	63	% [55-139]	10/9/2008 16:50	7471B
2008090203	45	MATRIX SPIKE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Molybdenum Dry Basis	93	% [75-125]	10/9/2008 16:36	6010B
2008090203	45	MATRIX SPIKE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Nickel Dry Basis	94	% [74-113]	10/9/2008 16:36	6010B
2008090203	45	MATRIX SPIKE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Selenium Dry Basis	109	% [79-116]	10/9/2008 16:36	6010B
2008090203	45	MATRIX SPIKE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Silver Dry Basis	98	% [76-119]	10/9/2008 16:36	6010B
2008090203	45	MATRIX SPIKE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Uranium Dry Basis	97	% [75-125]	10/10/2008 9:03	6020
2008090203	45	MATRIX SPIKE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Vanadium Dry Basis	99	% [76-117]	10/9/2008 16:36	6010B
2008090203	45	MATRIX SPIKE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Zinc Dry Basis	-2	% [65-133]	10/9/2008 17:32	6010B
2008090203	46	MATRIX SPIKE DUPLICATE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Aluminum Dry Basis	5 (2)	RPD [0-20]	10/9/2008 17:35	6010B
2008090203	46	MATRIX SPIKE DUPLICATE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Antimony Dry Basis	0	RPD [0-20]	10/9/2008 18:01	6020
2008090203	46	MATRIX SPIKE DUPLICATE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Arsenic Dry Basis	1	RPD [0-20]	10/9/2008 16:45	6010B
2008090203	46	MATRIX SPIKE DUPLICATE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Barium Dry Basis	2	RPD [0-20]	10/9/2008 16:45	6010B
2008090203	46	MATRIX SPIKE DUPLICATE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Beryllium Dry Basis	4	RPD [0-20]	10/9/2008 16:45	6010B
2008090203	46	MATRIX SPIKE DUPLICATE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Boron Dry Basis	5	RPD [0-20]	10/13/2008 18:45	6010B
2008090203	46	MATRIX SPIKE DUPLICATE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Cadmium Dry Basis	2	RPD [0-20]	10/9/2008 16:45	6010B
2008090203	46	MATRIX SPIKE DUPLICATE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Chromium Dry Basis	1	RPD [0-20]	10/9/2008 16:45	6010B
2008090203	46	MATRIX SPIKE DUPLICATE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Cobalt Dry Basis	1	RPD [0-20]	10/9/2008 16:45	6010B
2008090203	46	MATRIX SPIKE DUPLICATE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Copper Dry Basis	2 (2)	RPD [0-20]	10/9/2008 17:35	6010B
2008090203	46	MATRIX SPIKE DUPLICATE (BATCH) (<0.063mm Sieve Size)	1/2/1900	ICP/AA Batch#/Digest Date	1691	-----	10/9/2008	3050B SB
2008090203	46	MATRIX SPIKE DUPLICATE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Iron Dry Basis	3 (2)	RPD [0-20]	10/9/2008 17:35	6010B
2008090203	46	MATRIX SPIKE DUPLICATE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Lead Dry Basis	1	RPD [0-16]	10/9/2008 16:45	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
2008090203	46	MATRIX SPIKE DUPLICATE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Manganese Dry Basis	2 (2)	RPD [0-20]	10/9/2008 17:35	6010B
2008090203	46	MATRIX SPIKE DUPLICATE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Mercury Batch #/Digest Date	885	-----	10/9/2008 11:00	7471B
2008090203	46	MATRIX SPIKE DUPLICATE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Mercury Dry Basis	2	RPD [0-20]	10/9/2008 16:50	7471B
2008090203	46	MATRIX SPIKE DUPLICATE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Molybdenum Dry Basis	2	RPD [0-20]	10/9/2008 16:45	6010B
2008090203	46	MATRIX SPIKE DUPLICATE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Nickel Dry Basis	1	RPD [0-20]	10/9/2008 16:45	6010B
2008090203	46	MATRIX SPIKE DUPLICATE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Selenium Dry Basis	3	RPD [0-20]	10/9/2008 16:45	6010B
2008090203	46	MATRIX SPIKE DUPLICATE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Silver Dry Basis	0	RPD [0-20]	10/9/2008 16:45	6010B
2008090203	46	MATRIX SPIKE DUPLICATE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Uranium Dry Basis	3	RPD [0-20]	10/10/2008 9:05	6020
2008090203	46	MATRIX SPIKE DUPLICATE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Vanadium Dry Basis	1	RPD [0-20]	10/9/2008 16:45	6010B
2008090203	46	MATRIX SPIKE DUPLICATE (BATCH) (<0.063mm Sieve Size)	1/2/1900	Zinc Dry Basis	2 (2)	RPD [0-20]	10/9/2008 17:35	6010B
2008090203	47	METHOD BLANK (<0.063mm Sieve Size)	1/2/1900	Aluminum Dry Basis	<0.5	mg/l	10/9/2008 16:20	6010B
2008090203	47	METHOD BLANK (<0.063mm Sieve Size)	1/2/1900	Antimony Dry Basis	<0.05	mg/l	10/9/2008 17:41	6020
2008090203	47	METHOD BLANK (<0.063mm Sieve Size)	1/2/1900	Arsenic Dry Basis	<0.1	mg/l	10/9/2008 16:20	6010B
2008090203	47	METHOD BLANK (<0.063mm Sieve Size)	1/2/1900	Barium Dry Basis	<0.05	mg/l	10/9/2008 16:20	6010B
2008090203	47	METHOD BLANK (<0.063mm Sieve Size)	1/2/1900	Beryllium Dry Basis	<0.02	mg/l	10/9/2008 16:20	6010B
2008090203	47	METHOD BLANK (<0.063mm Sieve Size)	1/2/1900	Boron Dry Basis	<0.1	mg/l	10/13/2008 18:21	6010B
2008090203	47	METHOD BLANK (<0.063mm Sieve Size)	1/2/1900	Cadmium Dry Basis	<0.02	mg/l	10/9/2008 16:20	6010B
2008090203	47	METHOD BLANK (<0.063mm Sieve Size)	1/2/1900	Chromium Dry Basis	<0.02	mg/l	10/9/2008 16:20	6010B
2008090203	47	METHOD BLANK (<0.063mm Sieve Size)	1/2/1900	Cobalt Dry Basis	<0.05	mg/l	10/9/2008 16:20	6010B
2008090203	47	METHOD BLANK (<0.063mm Sieve Size)	1/2/1900	Copper Dry Basis	<0.1	mg/l	10/9/2008 16:20	6010B
2008090203	47	METHOD BLANK (<0.063mm Sieve Size)	1/2/1900	ICP/AA Batch#/Digest Date	1691	-----	10/9/2008	3050B SB
2008090203	47	METHOD BLANK (<0.063mm Sieve Size)	1/2/1900	Iron Dry Basis	<0.5	mg/l	10/9/2008 16:20	6010B
2008090203	47	METHOD BLANK (<0.063mm Sieve Size)	1/2/1900	Lead Dry Basis	<0.1	mg/l	10/9/2008 16:20	6010B
2008090203	47	METHOD BLANK (<0.063mm Sieve Size)	1/2/1900	Manganese Dry Basis	<0.1	mg/l	10/9/2008 16:20	6010B
2008090203	47	METHOD BLANK (<0.063mm Sieve Size)	1/2/1900	Mercury Batch #/Digest Date	885	-----	10/9/2008 11:00	7471B
2008090203	47	METHOD BLANK (<0.063mm Sieve Size)	1/2/1900	Mercury Dry Basis	<0.0002	mg/l	10/9/2008 16:50	7471B
2008090203	47	METHOD BLANK (<0.063mm Sieve Size)	1/2/1900	Molybdenum Dry Basis	<0.05	mg/l	10/9/2008 16:20	6010B
2008090203	47	METHOD BLANK (<0.063mm Sieve Size)	1/2/1900	Nickel Dry Basis	<0.05	mg/l	10/9/2008 16:20	6010B
2008090203	47	METHOD BLANK (<0.063mm Sieve Size)	1/2/1900	Selenium Dry Basis	<0.1	mg/l	10/9/2008 16:20	6010B
2008090203	47	METHOD BLANK (<0.063mm Sieve Size)	1/2/1900	Silver Dry Basis	<0.05	mg/l	10/9/2008 16:20	6010B
2008090203	47	METHOD BLANK (<0.063mm Sieve Size)	1/2/1900	Uranium Dry Basis	<0.05	mg/l	10/9/2008 17:41	6020
2008090203	47	METHOD BLANK (<0.063mm Sieve Size)	1/2/1900	Vanadium Dry Basis	<0.05	mg/l	10/9/2008 16:20	6010B
2008090203	47	METHOD BLANK (<0.063mm Sieve Size)	1/2/1900	Zinc Dry Basis	<0.1	mg/l	10/13/2008 18:21	6010B
2008090203	48	LABORATORY CONTROL SAMPLE (<0.063mm Sieve Size)	1/2/1900	Aluminum Dry Basis	98	% [80-120]	10/9/2008 16:23	6010B
2008090203	48	LABORATORY CONTROL SAMPLE (<0.063mm Sieve Size)	1/2/1900	Antimony Dry Basis	89	% [65-128]	10/9/2008 17:43	6020
2008090203	48	LABORATORY CONTROL SAMPLE (<0.063mm Sieve Size)	1/2/1900	Arsenic Dry Basis	102	% [86-113]	10/9/2008 16:23	6010B
2008090203	48	LABORATORY CONTROL SAMPLE (<0.063mm Sieve Size)	1/2/1900	Barium Dry Basis	102	% [84-119]	10/9/2008 16:23	6010B
2008090203	48	LABORATORY CONTROL SAMPLE (<0.063mm Sieve Size)	1/2/1900	Beryllium Dry Basis	102	% [85-112]	10/9/2008 16:23	6010B
2008090203	48	LABORATORY CONTROL SAMPLE (<0.063mm Sieve Size)	1/2/1900	Boron Dry Basis	103	% [80-120]	10/13/2008 18:30	6010B
2008090203	48	LABORATORY CONTROL SAMPLE (<0.063mm Sieve Size)	1/2/1900	Cadmium Dry Basis	98	% [85-118]	10/9/2008 16:23	6010B
2008090203	48	LABORATORY CONTROL SAMPLE (<0.063mm Sieve Size)	1/2/1900	Chromium Dry Basis	95	% [85-115]	10/9/2008 16:23	6010B
2008090203	48	LABORATORY CONTROL SAMPLE (<0.063mm Sieve Size)	1/2/1900	Cobalt Dry Basis	98	% [80-120]	10/9/2008 16:23	6010B
2008090203	48	LABORATORY CONTROL SAMPLE (<0.063mm Sieve Size)	1/2/1900	Copper Dry Basis	98	% [82-119]	10/9/2008 16:23	6010B
2008090203	48	LABORATORY CONTROL SAMPLE (<0.063mm Sieve Size)	1/2/1900	ICP/AA Batch#/Digest Date	1691	-----	10/9/2008	3050B SB
2008090203	48	LABORATORY CONTROL SAMPLE (<0.063mm Sieve Size)	1/2/1900	Iron Dry Basis	102	% [80-120]	10/9/2008 16:23	6010B
2008090203	48	LABORATORY CONTROL SAMPLE (<0.063mm Sieve Size)	1/2/1900	Lead Dry Basis	100	% [85-118]	10/9/2008 16:23	6010B
2008090203	48	LABORATORY CONTROL SAMPLE (<0.063mm Sieve Size)	1/2/1900	Manganese Dry Basis	98	% [84-117]	10/9/2008 16:23	6010B
2008090203	48	LABORATORY CONTROL SAMPLE (<0.063mm Sieve Size)	1/2/1900	Mercury Batch #/Digest Date	885	-----	10/9/2008 11:00	7471B
2008090203	48	LABORATORY CONTROL SAMPLE (<0.063mm Sieve Size)	1/2/1900	Mercury Dry Basis	108	% [85-125]	10/9/2008 16:50	7471B
2008090203	48	LABORATORY CONTROL SAMPLE (<0.063mm Sieve Size)	1/2/1900	Molybdenum Dry Basis	94	% [80-120]	10/9/2008 16:23	6010B
2008090203	48	LABORATORY CONTROL SAMPLE (<0.063mm Sieve Size)	1/2/1900	Nickel Dry Basis	97	% [83-113]	10/9/2008 16:23	6010B
2008090203	48	LABORATORY CONTROL SAMPLE (<0.063mm Sieve Size)	1/2/1900	Selenium Dry Basis	113	% [82-116]	10/9/2008 16:23	6010B
2008090203	48	LABORATORY CONTROL SAMPLE (<0.063mm Sieve Size)	1/2/1900	Silver Dry Basis	98	% [86-112]	10/9/2008 16:23	6010B
2008090203	48	LABORATORY CONTROL SAMPLE (<0.063mm Sieve Size)	1/2/1900	Uranium Dry Basis	100	% [80-120]	10/9/2008 17:43	6020
2008090203	48	LABORATORY CONTROL SAMPLE (<0.063mm Sieve Size)	1/2/1900	Vanadium Dry Basis	95	% [78-123]	10/9/2008 16:23	6010B
2008090203	48	LABORATORY CONTROL SAMPLE (<0.063mm Sieve Size)	1/2/1900	Zinc Dry Basis	100	% [80-120]	10/9/2008 16:23	6010B

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086960	1086960001	SS-15A 1-2mm Sieve Size	12/09/08	Mercury	0.17	mg/kg	01/07/09	EPA 7471
1086960	1086960001	SS-15A 1-2mm Sieve Size	12/09/08	Aluminum	2620	mg/kg	12/30/08	EPA 6020
1086960	1086960001	SS-15A 1-2mm Sieve Size	12/09/08	Arsenic	66.7	mg/kg	12/30/08	EPA 6020
1086960	1086960001	SS-15A 1-2mm Sieve Size	12/09/08	Barium	62.0	mg/kg	12/30/08	EPA 6020
1086960	1086960001	SS-15A 1-2mm Sieve Size	12/09/08	Beryllium	0.25	mg/kg	12/30/08	EPA 6020
1086960	1086960001	SS-15A 1-2mm Sieve Size	12/09/08	Boron	ND	mg/kg	12/30/08	EPA 6020
1086960	1086960001	SS-15A 1-2mm Sieve Size	12/09/08	Cadmium	6.4	mg/kg	12/30/08	EPA 6020
1086960	1086960001	SS-15A 1-2mm Sieve Size	12/09/08	Chromium	5.9	mg/kg	12/30/08	EPA 6020
1086960	1086960001	SS-15A 1-2mm Sieve Size	12/09/08	Cobalt	2.5	mg/kg	12/30/08	EPA 6020
1086960	1086960001	SS-15A 1-2mm Sieve Size	12/09/08	Copper	268	mg/kg	12/30/08	EPA 6020
1086960	1086960001	SS-15A 1-2mm Sieve Size	12/09/08	Iron	10900	mg/kg	12/30/08	EPA 6020
1086960	1086960001	SS-15A 1-2mm Sieve Size	12/09/08	Molybdenum	1.9	mg/kg	12/30/08	EPA 6020
1086960	1086960001	SS-15A 1-2mm Sieve Size	12/09/08	Nickel	2.8	mg/kg	12/30/08	EPA 6020
1086960	1086960001	SS-15A 1-2mm Sieve Size	12/09/08	Selenium	0.42J	mg/kg	12/30/08	EPA 6020
1086960	1086960001	SS-15A 1-2mm Sieve Size	12/09/08	Vanadium	14.2	mg/kg	12/30/08	EPA 6020
1086960	1086960001	SS-15A 1-2mm Sieve Size	12/09/08	Antimony	2.0	mg/kg	12/31/08	EPA 6020
1086960	1086960001	SS-15A 1-2mm Sieve Size	12/09/08	Lead	237	mg/kg	12/31/08	EPA 6020
1086960	1086960001	SS-15A 1-2mm Sieve Size	12/09/08	Manganese	701	mg/kg	12/31/08	EPA 6020
1086960	1086960001	SS-15A 1-2mm Sieve Size	12/09/08	Silver	4.8	mg/kg	12/31/08	EPA 6020
1086960	1086960001	SS-15A 1-2mm Sieve Size	12/09/08	Uranium-238	3.3J	mg/kg	12/31/08	EPA 6020
1086960	1086960001	SS-15A 1-2mm Sieve Size	12/09/08	Zinc	2140	mg/kg	12/31/08	EPA 6020
1086960	1086960002	SS-17D 1-2mm Sieve Size	12/09/08	Mercury	0.065	mg/kg	01/07/09	EPA 7471
1086960	1086960002	SS-17D 1-2mm Sieve Size	12/09/08	Aluminum	4450	mg/kg	12/30/08	EPA 6020
1086960	1086960002	SS-17D 1-2mm Sieve Size	12/09/08	Arsenic	78.5	mg/kg	12/30/08	EPA 6020
1086960	1086960002	SS-17D 1-2mm Sieve Size	12/09/08	Barium	92.4	mg/kg	12/30/08	EPA 6020
1086960	1086960002	SS-17D 1-2mm Sieve Size	12/09/08	Beryllium	0.36	mg/kg	12/30/08	EPA 6020
1086960	1086960002	SS-17D 1-2mm Sieve Size	12/09/08	Boron	<0.90	mg/kg	12/30/08	EPA 6020
1086960	1086960002	SS-17D 1-2mm Sieve Size	12/09/08	Cadmium	2.6	mg/kg	12/30/08	EPA 6020
1086960	1086960002	SS-17D 1-2mm Sieve Size	12/09/08	Chromium	9.6	mg/kg	12/30/08	EPA 6020
1086960	1086960002	SS-17D 1-2mm Sieve Size	12/09/08	Cobalt	5.0	mg/kg	12/30/08	EPA 6020
1086960	1086960002	SS-17D 1-2mm Sieve Size	12/09/08	Copper	317	mg/kg	12/30/08	EPA 6020
1086960	1086960002	SS-17D 1-2mm Sieve Size	12/09/08	Iron	17100	mg/kg	12/30/08	EPA 6020
1086960	1086960002	SS-17D 1-2mm Sieve Size	12/09/08	Molybdenum	2.5	mg/kg	12/30/08	EPA 6020
1086960	1086960002	SS-17D 1-2mm Sieve Size	12/09/08	Nickel	5.4	mg/kg	12/30/08	EPA 6020
1086960	1086960002	SS-17D 1-2mm Sieve Size	12/09/08	Selenium	0.79	mg/kg	12/30/08	EPA 6020
1086960	1086960002	SS-17D 1-2mm Sieve Size	12/09/08	Vanadium	20.3	mg/kg	12/30/08	EPA 6020
1086960	1086960002	SS-17D 1-2mm Sieve Size	12/09/08	Antimony	2.4	mg/kg	12/31/08	EPA 6020
1086960	1086960002	SS-17D 1-2mm Sieve Size	12/09/08	Lead	124	mg/kg	12/31/08	EPA 6020
1086960	1086960002	SS-17D 1-2mm Sieve Size	12/09/08	Manganese	786	mg/kg	12/31/08	EPA 6020
1086960	1086960002	SS-17D 1-2mm Sieve Size	12/09/08	Silver	1.3	mg/kg	12/31/08	EPA 6020
1086960	1086960002	SS-17D 1-2mm Sieve Size	12/09/08	Uranium-238	3.2J	mg/kg	12/31/08	EPA 6020
1086960	1086960002	SS-17D 1-2mm Sieve Size	12/09/08	Zinc	998	mg/kg	12/31/08	EPA 6020
1086960	1086960003	SS-15B 1-2mm Sieve Size	12/09/08	Mercury	0.28	mg/kg	01/07/09	EPA 7471
1086960	1086960003	SS-15B 1-2mm Sieve Size	12/09/08	Aluminum	4400	mg/kg	12/30/08	EPA 6020
1086960	1086960003	SS-15B 1-2mm Sieve Size	12/09/08	Arsenic	93.5	mg/kg	12/30/08	EPA 6020
1086960	1086960003	SS-15B 1-2mm Sieve Size	12/09/08	Barium	106	mg/kg	12/30/08	EPA 6020
1086960	1086960003	SS-15B 1-2mm Sieve Size	12/09/08	Beryllium	0.38	mg/kg	12/30/08	EPA 6020
1086960	1086960003	SS-15B 1-2mm Sieve Size	12/09/08	Boron	<0.86	mg/kg	12/30/08	EPA 6020
1086960	1086960006	SS-11C 1-2mm Sieve Size	12/09/08	Chromium	10.0	mg/kg	12/30/08	EPA 6020
1086960	1086960006	SS-11C 1-2mm Sieve Size	12/09/08	Cobalt	3.3	mg/kg	12/30/08	EPA 6020
1086960	1086960006	SS-11C 1-2mm Sieve Size	12/09/08	Copper	34.1	mg/kg	12/30/08	EPA 6020
1086960	1086960006	SS-11C 1-2mm Sieve Size	12/09/08	Iron	10500	mg/kg	12/30/08	EPA 6020
1086960	1086960006	SS-11C 1-2mm Sieve Size	12/09/08	Lead	13.3	mg/kg	12/30/08	EPA 6020
1086960	1086960006	SS-11C 1-2mm Sieve Size	12/09/08	Manganese	358	mg/kg	12/30/08	EPA 6020
1086960	1086960006	SS-11C 1-2mm Sieve Size	12/09/08	Molybdenum	0.64	mg/kg	12/30/08	EPA 6020
1086960	1086960006	SS-11C 1-2mm Sieve Size	12/09/08	Nickel	5.4	mg/kg	12/30/08	EPA 6020

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086960	1086960006	SS-11C 1-2mm Sieve Size	12/09/08	Selenium	0.91	mg/kg	12/30/08	EPA 6020
1086960	1086960006	SS-11C 1-2mm Sieve Size	12/09/08	Uranium-238	0.89J	mg/kg	12/30/08	EPA 6020
1086960	1086960006	SS-11C 1-2mm Sieve Size	12/09/08	Vanadium	24.4	mg/kg	12/30/08	EPA 6020
1086960	1086960006	SS-11C 1-2mm Sieve Size	12/09/08	Zinc	135	mg/kg	12/30/08	EPA 6020
1086960	1086960006	SS-11C 1-2mm Sieve Size	12/09/08	Antimony	0.49	mg/kg	12/31/08	EPA 6020
1086960	1086960006	SS-11C 1-2mm Sieve Size	12/09/08	Silver	ND	mg/kg	12/31/08	EPA 6020
1086960	1086960007	SS-10A 1-2mm Sieve Size	12/09/08	Mercury	0.059	mg/kg	01/07/09	EPA 7471
1086960	1086960007	SS-10A 1-2mm Sieve Size	12/09/08	Aluminum	2680	mg/kg	12/30/08	EPA 6020
1086960	1086960007	SS-10A 1-2mm Sieve Size	12/09/08	Arsenic	19.5	mg/kg	12/30/08	EPA 6020
1086960	1086960007	SS-10A 1-2mm Sieve Size	12/09/08	Barium	39.9	mg/kg	12/30/08	EPA 6020
1086960	1086960007	SS-10A 1-2mm Sieve Size	12/09/08	Beryllium	0.20	mg/kg	12/30/08	EPA 6020
1086960	1086960007	SS-10A 1-2mm Sieve Size	12/09/08	Boron	ND	mg/kg	12/30/08	EPA 6020
1086960	1086960007	SS-10A 1-2mm Sieve Size	12/09/08	Cadmium	0.56	mg/kg	12/30/08	EPA 6020
1086960	1086960007	SS-10A 1-2mm Sieve Size	12/09/08	Chromium	3.1	mg/kg	12/30/08	EPA 6020
1086960	1086960007	SS-10A 1-2mm Sieve Size	12/09/08	Cobalt	1.7	mg/kg	12/30/08	EPA 6020
1086960	1086960007	SS-10A 1-2mm Sieve Size	12/09/08	Copper	89.4	mg/kg	12/30/08	EPA 6020
1086960	1086960007	SS-10A 1-2mm Sieve Size	12/09/08	Iron	4950	mg/kg	12/30/08	EPA 6020
1086960	1086960007	SS-10A 1-2mm Sieve Size	12/09/08	Lead	20.5	mg/kg	12/30/08	EPA 6020
1086960	1086960007	SS-10A 1-2mm Sieve Size	12/09/08	Molybdenum	0.79	mg/kg	12/30/08	EPA 6020
1086960	1086960007	SS-10A 1-2mm Sieve Size	12/09/08	Nickel	1.9	mg/kg	12/30/08	EPA 6020
1086960	1086960007	SS-10A 1-2mm Sieve Size	12/09/08	Selenium	0.42	mg/kg	12/30/08	EPA 6020
1086960	1086960007	SS-10A 1-2mm Sieve Size	12/09/08	Uranium-238	0.91J	mg/kg	12/30/08	EPA 6020
1086960	1086960007	SS-10A 1-2mm Sieve Size	12/09/08	Vanadium	8.1	mg/kg	12/30/08	EPA 6020
1086960	1086960007	SS-10A 1-2mm Sieve Size	12/09/08	Zinc	123	mg/kg	12/30/08	EPA 6020
1086960	1086960007	SS-10A 1-2mm Sieve Size	12/09/08	Antimony	1.7	mg/kg	12/31/08	EPA 6020
1086960	1086960007	SS-10A 1-2mm Sieve Size	12/09/08	Manganese	642	mg/kg	12/31/08	EPA 6020
1086960	1086960007	SS-10A 1-2mm Sieve Size	12/09/08	Silver	0.35J	mg/kg	12/31/08	EPA 6020
1086960	1086960008	SS-08 1-2mm Sieve Size	12/09/08	Mercury	0.19	mg/kg	01/07/09	EPA 7471
1086960	1086960008	SS-08 1-2mm Sieve Size	12/09/08	Aluminum	3870	mg/kg	12/30/08	EPA 6020
1086960	1086960008	SS-08 1-2mm Sieve Size	12/09/08	Arsenic	84.3	mg/kg	12/30/08	EPA 6020
1086960	1086960008	SS-08 1-2mm Sieve Size	12/09/08	Barium	69.8	mg/kg	12/30/08	EPA 6020
1086960	1086960008	SS-08 1-2mm Sieve Size	12/09/08	Beryllium	0.23	mg/kg	12/30/08	EPA 6020
1086960	1086960008	SS-08 1-2mm Sieve Size	12/09/08	Boron	<0.78	mg/kg	12/30/08	EPA 6020
1086960	1086960008	SS-08 1-2mm Sieve Size	12/09/08	Cadmium	0.93	mg/kg	12/30/08	EPA 6020
1086960	1086960008	SS-08 1-2mm Sieve Size	12/09/08	Chromium	5.2	mg/kg	12/30/08	EPA 6020
1086960	1086960008	SS-08 1-2mm Sieve Size	12/09/08	Cobalt	2.9	mg/kg	12/30/08	EPA 6020
1086960	1086960008	SS-08 1-2mm Sieve Size	12/09/08	Iron	9700	mg/kg	12/30/08	EPA 6020
1086960	1086960008	SS-08 1-2mm Sieve Size	12/09/08	Lead	97.5	mg/kg	12/30/08	EPA 6020
1086960	1086960008	SS-08 1-2mm Sieve Size	12/09/08	Molybdenum	1.1	mg/kg	12/30/08	EPA 6020
1086960	1086960008	SS-08 1-2mm Sieve Size	12/09/08	Nickel	2.7	mg/kg	12/30/08	EPA 6020
1086960	1086960008	SS-08 1-2mm Sieve Size	12/09/08	Selenium	0.50	mg/kg	12/30/08	EPA 6020
1086960	1086960008	SS-08 1-2mm Sieve Size	12/09/08	Uranium-238	1.3J	mg/kg	12/30/08	EPA 6020
1086960	1086960008	SS-08 1-2mm Sieve Size	12/09/08	Vanadium	18.3	mg/kg	12/30/08	EPA 6020
1086960	1086960008	SS-08 1-2mm Sieve Size	12/09/08	Zinc	238	mg/kg	12/30/08	EPA 6020
1086960	1086960008	SS-08 1-2mm Sieve Size	12/09/08	Antimony	2.0	mg/kg	12/31/08	EPA 6020
1086960	1086960008	SS-08 1-2mm Sieve Size	12/09/08	Copper	452	mg/kg	12/31/08	EPA 6020
1086960	1086960008	SS-08 1-2mm Sieve Size	12/09/08	Manganese	835	mg/kg	12/31/08	EPA 6020
1086960	1086960008	SS-08 1-2mm Sieve Size	12/09/08	Silver	2.0	mg/kg	12/31/08	EPA 6020
1086960	1086960009	SS-11C Dup 1-2mm Sieve Size	12/09/08	Mercury	0.014J	mg/kg	01/07/09	EPA 7471
1086960	1086960009	SS-11C Dup 1-2mm Sieve Size	12/09/08	Aluminum	4100	mg/kg	12/30/08	EPA 6020
1086960	1086960009	SS-11C Dup 1-2mm Sieve Size	12/09/08	Arsenic	2.4	mg/kg	12/30/08	EPA 6020
1086960	1086960009	SS-11C Dup 1-2mm Sieve Size	12/09/08	Barium	80.1	mg/kg	12/30/08	EPA 6020
1086960	1086960009	SS-11C Dup 1-2mm Sieve Size	12/09/08	Beryllium	0.18	mg/kg	12/30/08	EPA 6020
1086960	1086960009	SS-11C Dup 1-2mm Sieve Size	12/09/08	Boron	<0.85	mg/kg	12/30/08	EPA 6020
1086960	1086960009	SS-11C Dup 1-2mm Sieve Size	12/09/08	Cadmium	0.40	mg/kg	12/30/08	EPA 6020
1086960	1086960009	SS-11C Dup 1-2mm Sieve Size	12/09/08	Chromium	8.6	mg/kg	12/30/08	EPA 6020

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086960	1086960003	SS-15B 1-2mm Sieve Size	12/09/08	Cadmium	2.8	mg/kg	12/30/08	EPA 6020
1086960	1086960003	SS-15B 1-2mm Sieve Size	12/09/08	Chromium	7.9	mg/kg	12/30/08	EPA 6020
1086960	1086960003	SS-15B 1-2mm Sieve Size	12/09/08	Cobalt	3.5	mg/kg	12/30/08	EPA 6020
1086960	1086960003	SS-15B 1-2mm Sieve Size	12/09/08	Copper	377	mg/kg	12/30/08	EPA 6020
1086960	1086960003	SS-15B 1-2mm Sieve Size	12/09/08	Iron	14400	mg/kg	12/30/08	EPA 6020
1086960	1086960003	SS-15B 1-2mm Sieve Size	12/09/08	Molybdenum	2.0	mg/kg	12/30/08	EPA 6020
1086960	1086960003	SS-15B 1-2mm Sieve Size	12/09/08	Nickel	4.6	mg/kg	12/30/08	EPA 6020
1086960	1086960003	SS-15B 1-2mm Sieve Size	12/09/08	Selenium	1.1	mg/kg	12/30/08	EPA 6020
1086960	1086960003	SS-15B 1-2mm Sieve Size	12/09/08	Vanadium	22.5	mg/kg	12/30/08	EPA 6020
1086960	1086960003	SS-15B 1-2mm Sieve Size	12/09/08	Antimony	1.4	mg/kg	12/31/08	EPA 6020
1086960	1086960003	SS-15B 1-2mm Sieve Size	12/09/08	Lead	314	mg/kg	12/31/08	EPA 6020
1086960	1086960003	SS-15B 1-2mm Sieve Size	12/09/08	Manganese	724	mg/kg	12/31/08	EPA 6020
1086960	1086960003	SS-15B 1-2mm Sieve Size	12/09/08	Silver	2.2	mg/kg	12/31/08	EPA 6020
1086960	1086960003	SS-15B 1-2mm Sieve Size	12/09/08	Uranium-238	2.8J	mg/kg	12/31/08	EPA 6020
1086960	1086960003	SS-15B 1-2mm Sieve Size	12/09/08	Zinc	973	mg/kg	12/31/08	EPA 6020
1086960	1086960004	SS-15G 1-2mm Sieve Size	12/09/08	Mercury	ND	mg/kg	01/07/09	EPA 7471
1086960	1086960004	SS-15G 1-2mm Sieve Size	12/09/08	Aluminum	10100	mg/kg	12/30/08	EPA 6020
1086960	1086960004	SS-15G 1-2mm Sieve Size	12/09/08	Arsenic	13.5	mg/kg	12/30/08	EPA 6020
1086960	1086960004	SS-15G 1-2mm Sieve Size	12/09/08	Barium	160	mg/kg	12/30/08	EPA 6020
1086960	1086960004	SS-15G 1-2mm Sieve Size	12/09/08	Beryllium	0.34	mg/kg	12/30/08	EPA 6020
1086960	1086960004	SS-15G 1-2mm Sieve Size	12/09/08	Boron	ND	mg/kg	12/30/08	EPA 6020
1086960	1086960004	SS-15G 1-2mm Sieve Size	12/09/08	Cadmium	0.094	mg/kg	12/30/08	EPA 6020
1086960	1086960004	SS-15G 1-2mm Sieve Size	12/09/08	Chromium	15.5	mg/kg	12/30/08	EPA 6020
1086960	1086960004	SS-15G 1-2mm Sieve Size	12/09/08	Cobalt	5.1	mg/kg	12/30/08	EPA 6020
1086960	1086960004	SS-15G 1-2mm Sieve Size	12/09/08	Copper	25.8	mg/kg	12/30/08	EPA 6020
1086960	1086960004	SS-15G 1-2mm Sieve Size	12/09/08	Iron	16000	mg/kg	12/30/08	EPA 6020
1086960	1086960004	SS-15G 1-2mm Sieve Size	12/09/08	Manganese	222	mg/kg	12/30/08	EPA 6020
1086960	1086960004	SS-15G 1-2mm Sieve Size	12/09/08	Molybdenum	0.23J	mg/kg	12/30/08	EPA 6020
1086960	1086960004	SS-15G 1-2mm Sieve Size	12/09/08	Nickel	10.3	mg/kg	12/30/08	EPA 6020
1086960	1086960004	SS-15G 1-2mm Sieve Size	12/09/08	Selenium	1.1	mg/kg	12/30/08	EPA 6020
1086960	1086960004	SS-15G 1-2mm Sieve Size	12/09/08	Vanadium	26.7	mg/kg	12/30/08	EPA 6020
1086960	1086960004	SS-15G 1-2mm Sieve Size	12/09/08	Zinc	45.9	mg/kg	12/30/08	EPA 6020
1086960	1086960004	SS-15G 1-2mm Sieve Size	12/09/08	Antimony	0.14	mg/kg	12/31/08	EPA 6020
1086960	1086960004	SS-15G 1-2mm Sieve Size	12/09/08	Lead	5.0	mg/kg	12/31/08	EPA 6020
1086960	1086960004	SS-15G 1-2mm Sieve Size	12/09/08	Silver	ND	mg/kg	12/31/08	EPA 6020
1086960	1086960004	SS-15G 1-2mm Sieve Size	12/09/08	Uranium-238	0.67J	mg/kg	12/31/08	EPA 6020
1086960	1086960005	SS-11D 1-2mm Sieve Size	12/09/08	Mercury	0.011J	mg/kg	01/07/09	EPA 7471
1086960	1086960005	SS-11D 1-2mm Sieve Size	12/09/08	Aluminum	4460	mg/kg	12/30/08	EPA 6020
1086960	1086960005	SS-11D 1-2mm Sieve Size	12/09/08	Arsenic	2.8	mg/kg	12/30/08	EPA 6020
1086960	1086960005	SS-11D 1-2mm Sieve Size	12/09/08	Barium	86.2	mg/kg	12/30/08	EPA 6020
1086960	1086960005	SS-11D 1-2mm Sieve Size	12/09/08	Beryllium	0.13J	mg/kg	12/30/08	EPA 6020
1086960	1086960005	SS-11D 1-2mm Sieve Size	12/09/08	Boron	<0.73	mg/kg	12/30/08	EPA 6020
1086960	1086960005	SS-11D 1-2mm Sieve Size	12/09/08	Cadmium	0.37	mg/kg	12/30/08	EPA 6020
1086960	1086960005	SS-11D 1-2mm Sieve Size	12/09/08	Chromium	10.2	mg/kg	12/30/08	EPA 6020
1086960	1086960005	SS-11D 1-2mm Sieve Size	12/09/08	Cobalt	2.5	mg/kg	12/30/08	EPA 6020
1086960	1086960005	SS-11D 1-2mm Sieve Size	12/09/08	Copper	16.5	mg/kg	12/30/08	EPA 6020
1086960	1086960005	SS-11D 1-2mm Sieve Size	12/09/08	Iron	6100	mg/kg	12/30/08	EPA 6020
1086960	1086960005	SS-11D 1-2mm Sieve Size	12/09/08	Molybdenum	0.46	mg/kg	12/30/08	EPA 6020
1086960	1086960005	SS-11D 1-2mm Sieve Size	12/09/08	Nickel	5.3	mg/kg	12/30/08	EPA 6020
1086960	1086960005	SS-11D 1-2mm Sieve Size	12/09/08	Selenium	0.67	mg/kg	12/30/08	EPA 6020
1086960	1086960005	SS-11D 1-2mm Sieve Size	12/09/08	Vanadium	11.9	mg/kg	12/30/08	EPA 6020
1086960	1086960005	SS-11D 1-2mm Sieve Size	12/09/08	Zinc	69.5	mg/kg	12/30/08	EPA 6020
1086960	1086960005	SS-11D 1-2mm Sieve Size	12/09/08	Antimony	0.060J	mg/kg	12/31/08	EPA 6020
1086960	1086960005	SS-11D 1-2mm Sieve Size	12/09/08	Lead	6.6	mg/kg	12/31/08	EPA 6020
1086960	1086960005	SS-11D 1-2mm Sieve Size	12/09/08	Manganese	409	mg/kg	12/31/08	EPA 6020
1086960	1086960005	SS-11D 1-2mm Sieve Size	12/09/08	Silver	<0.19	mg/kg	12/31/08	EPA 6020

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086960	1086960005	SS-11D 1-2mm Sieve Size	12/09/08	Uranium-238	1.6J	mg/kg	12/31/08	EPA 6020
1086960	1086960006	SS-11C 1-2mm Sieve Size	12/09/08	Mercury	0.045	mg/kg	01/07/09	EPA 7471
1086960	1086960006	SS-11C 1-2mm Sieve Size	12/09/08	Aluminum	5910	mg/kg	12/30/08	EPA 6020
1086960	1086960006	SS-11C 1-2mm Sieve Size	12/09/08	Arsenic	5.1	mg/kg	12/30/08	EPA 6020
1086960	1086960006	SS-11C 1-2mm Sieve Size	12/09/08	Barium	95.6	mg/kg	12/30/08	EPA 6020
1086960	1086960006	SS-11C 1-2mm Sieve Size	12/09/08	Beryllium	0.27	mg/kg	12/30/08	EPA 6020
1086960	1086960006	SS-11C 1-2mm Sieve Size	12/09/08	Boron	ND	mg/kg	12/30/08	EPA 6020
1086960	1086960006	SS-11C 1-2mm Sieve Size	12/09/08	Cadmium	0.71	mg/kg	12/30/08	EPA 6020
1086960	1086960020	SS-11CDup 0.063-1mm Sieve Size	12/09/08	Aluminum	4240	mg/kg	12/31/08	EPA 6020
1086960	1086960020	SS-11CDup 0.063-1mm Sieve Size	12/09/08	Antimony	0.22	mg/kg	12/31/08	EPA 6020
1086960	1086960020	SS-11CDup 0.063-1mm Sieve Size	12/09/08	Arsenic	28.1	mg/kg	12/31/08	EPA 6020
1086960	1086960020	SS-11CDup 0.063-1mm Sieve Size	12/09/08	Barium	89.0	mg/kg	12/31/08	EPA 6020
1086960	1086960020	SS-11CDup 0.063-1mm Sieve Size	12/09/08	Beryllium	0.22	mg/kg	12/31/08	EPA 6020
1086960	1086960020	SS-11CDup 0.063-1mm Sieve Size	12/09/08	Boron	1.4J	mg/kg	12/31/08	EPA 6020
1086960	1086960020	SS-11CDup 0.063-1mm Sieve Size	12/09/08	Cadmium	1.0	mg/kg	12/31/08	EPA 6020
1086960	1086960020	SS-11CDup 0.063-1mm Sieve Size	12/09/08	Chromium	17.4	mg/kg	12/31/08	EPA 6020
1086960	1086960020	SS-11CDup 0.063-1mm Sieve Size	12/09/08	Cobalt	4.7	mg/kg	12/31/08	EPA 6020
1086960	1086960020	SS-11CDup 0.063-1mm Sieve Size	12/09/08	Copper	40.8	mg/kg	12/31/08	EPA 6020
1086960	1086960020	SS-11CDup 0.063-1mm Sieve Size	12/09/08	Iron	29600	mg/kg	12/31/08	EPA 6020
1086960	1086960020	SS-11CDup 0.063-1mm Sieve Size	12/09/08	Lead	12.5	mg/kg	12/31/08	EPA 6020
1086960	1086960020	SS-11CDup 0.063-1mm Sieve Size	12/09/08	Manganese	576	mg/kg	12/31/08	EPA 6020
1086960	1086960020	SS-11CDup 0.063-1mm Sieve Size	12/09/08	Molybdenum	0.56	mg/kg	12/31/08	EPA 6020
1086960	1086960020	SS-11CDup 0.063-1mm Sieve Size	12/09/08	Nickel	5.2	mg/kg	12/31/08	EPA 6020
1086960	1086960020	SS-11CDup 0.063-1mm Sieve Size	12/09/08	Selenium	0.54	mg/kg	12/31/08	EPA 6020
1086960	1086960020	SS-11CDup 0.063-1mm Sieve Size	12/09/08	Silver	0.17J	mg/kg	12/31/08	EPA 6020
1086960	1086960020	SS-11CDup 0.063-1mm Sieve Size	12/09/08	Uranium-238	3.8	mg/kg	12/31/08	EPA 6020
1086960	1086960020	SS-11CDup 0.063-1mm Sieve Size	12/09/08	Vanadium	79.8	mg/kg	12/31/08	EPA 6020
1086960	1086960020	SS-11CDup 0.063-1mm Sieve Size	12/09/08	Zinc	149	mg/kg	12/31/08	EPA 6020
1086960	1086960021	SS-10B 0.063-1mm Sieve Size	12/09/08	Mercury	0.26	mg/kg	01/07/09	EPA 7471
1086960	1086960021	SS-10B 0.063-1mm Sieve Size	12/09/08	Aluminum	7770	mg/kg	12/31/08	EPA 6020
1086960	1086960021	SS-10B 0.063-1mm Sieve Size	12/09/08	Antimony	0.27	mg/kg	12/31/08	EPA 6020
1086960	1086960021	SS-10B 0.063-1mm Sieve Size	12/09/08	Arsenic	10.3	mg/kg	12/31/08	EPA 6020
1086960	1086960021	SS-10B 0.063-1mm Sieve Size	12/09/08	Barium	128	mg/kg	12/31/08	EPA 6020
1086960	1086960021	SS-10B 0.063-1mm Sieve Size	12/09/08	Beryllium	0.43	mg/kg	12/31/08	EPA 6020
1086960	1086960021	SS-10B 0.063-1mm Sieve Size	12/09/08	Boron	2.3J	mg/kg	12/31/08	EPA 6020
1086960	1086960021	SS-10B 0.063-1mm Sieve Size	12/09/08	Cadmium	2.2	mg/kg	12/31/08	EPA 6020
1086960	1086960021	SS-10B 0.063-1mm Sieve Size	12/09/08	Chromium	8.8	mg/kg	12/31/08	EPA 6020
1086960	1086960021	SS-10B 0.063-1mm Sieve Size	12/09/08	Cobalt	4.5	mg/kg	12/31/08	EPA 6020
1086960	1086960021	SS-10B 0.063-1mm Sieve Size	12/09/08	Copper	150	mg/kg	12/31/08	EPA 6020
1086960	1086960021	SS-10B 0.063-1mm Sieve Size	12/09/08	Iron	13500	mg/kg	12/31/08	EPA 6020
1086960	1086960021	SS-10B 0.063-1mm Sieve Size	12/09/08	Lead	46.4	mg/kg	12/31/08	EPA 6020
1086960	1086960021	SS-10B 0.063-1mm Sieve Size	12/09/08	Manganese	627	mg/kg	12/31/08	EPA 6020
1086960	1086960021	SS-10B 0.063-1mm Sieve Size	12/09/08	Molybdenum	1.4	mg/kg	12/31/08	EPA 6020
1086960	1086960021	SS-10B 0.063-1mm Sieve Size	12/09/08	Nickel	4.8	mg/kg	12/31/08	EPA 6020
1086960	1086960021	SS-10B 0.063-1mm Sieve Size	12/09/08	Selenium	0.82	mg/kg	12/31/08	EPA 6020
1086960	1086960021	SS-10B 0.063-1mm Sieve Size	12/09/08	Silver	0.68	mg/kg	12/31/08	EPA 6020
1086960	1086960021	SS-10B 0.063-1mm Sieve Size	12/09/08	Uranium-238	2.1J	mg/kg	12/31/08	EPA 6020
1086960	1086960021	SS-10B 0.063-1mm Sieve Size	12/09/08	Vanadium	26.3	mg/kg	12/31/08	EPA 6020
1086960	1086960021	SS-10B 0.063-1mm Sieve Size	12/09/08	Zinc	413	mg/kg	12/31/08	EPA 6020
1086960	1086960022	SS-07 0.063-1mm Sieve Size	12/09/08	Mercury	0.22	mg/kg	01/07/09	EPA 7471
1086960	1086960022	SS-07 0.063-1mm Sieve Size	12/09/08	Aluminum	5360	mg/kg	12/31/08	EPA 6020
1086960	1086960022	SS-07 0.063-1mm Sieve Size	12/09/08	Antimony	0.62	mg/kg	12/31/08	EPA 6020
1086960	1086960022	SS-07 0.063-1mm Sieve Size	12/09/08	Arsenic	29.7	mg/kg	12/31/08	EPA 6020
1086960	1086960022	SS-07 0.063-1mm Sieve Size	12/09/08	Barium	145	mg/kg	12/31/08	EPA 6020
1086960	1086960022	SS-07 0.063-1mm Sieve Size	12/09/08	Beryllium	0.26	mg/kg	12/31/08	EPA 6020
1086960	1086960022	SS-07 0.063-1mm Sieve Size	12/09/08	Boron	2.3J	mg/kg	12/31/08	EPA 6020

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086960	1086960009	SS-11C Dup 1-2mm Sieve Size	12/09/08	Cobalt	2.1	mg/kg	12/30/08	EPA 6020
1086960	1086960009	SS-11C Dup 1-2mm Sieve Size	12/09/08	Copper	16.3	mg/kg	12/30/08	EPA 6020
1086960	1086960009	SS-11C Dup 1-2mm Sieve Size	12/09/08	Iron	6140	mg/kg	12/30/08	EPA 6020
1086960	1086960009	SS-11C Dup 1-2mm Sieve Size	12/09/08	Lead	4.5	mg/kg	12/30/08	EPA 6020
1086960	1086960009	SS-11C Dup 1-2mm Sieve Size	12/09/08	Manganese	336	mg/kg	12/30/08	EPA 6020
1086960	1086960009	SS-11C Dup 1-2mm Sieve Size	12/09/08	Molybdenum	0.33J	mg/kg	12/30/08	EPA 6020
1086960	1086960009	SS-11C Dup 1-2mm Sieve Size	12/09/08	Nickel	4.8	mg/kg	12/30/08	EPA 6020
1086960	1086960009	SS-11C Dup 1-2mm Sieve Size	12/09/08	Selenium	0.50	mg/kg	12/30/08	EPA 6020
1086960	1086960009	SS-11C Dup 1-2mm Sieve Size	12/09/08	Uranium-238	1.1J	mg/kg	12/30/08	EPA 6020
1086960	1086960009	SS-11C Dup 1-2mm Sieve Size	12/09/08	Vanadium	12.7	mg/kg	12/30/08	EPA 6020
1086960	1086960009	SS-11C Dup 1-2mm Sieve Size	12/09/08	Zinc	84.1	mg/kg	12/30/08	EPA 6020
1086960	1086960009	SS-11C Dup 1-2mm Sieve Size	12/09/08	Antimony	0.11	mg/kg	12/31/08	EPA 6020
1086960	1086960009	SS-11C Dup 1-2mm Sieve Size	12/09/08	Silver	<0.22	mg/kg	12/31/08	EPA 6020
1086960	1086960010	SS-10B 1-2mm Sieve Size	12/09/08	Mercury	0.077	mg/kg	01/07/09	EPA 7471
1086960	1086960010	SS-10B 1-2mm Sieve Size	12/09/08	Aluminum	7580	mg/kg	12/30/08	EPA 6020
1086960	1086960010	SS-10B 1-2mm Sieve Size	12/09/08	Arsenic	7.3	mg/kg	12/30/08	EPA 6020
1086960	1086960010	SS-10B 1-2mm Sieve Size	12/09/08	Barium	91.6	mg/kg	12/30/08	EPA 6020
1086960	1086960010	SS-10B 1-2mm Sieve Size	12/09/08	Beryllium	0.45	mg/kg	12/30/08	EPA 6020
1086960	1086960010	SS-10B 1-2mm Sieve Size	12/09/08	Boron	<0.74	mg/kg	12/30/08	EPA 6020
1086960	1086960010	SS-10B 1-2mm Sieve Size	12/09/08	Cadmium	1.3	mg/kg	12/30/08	EPA 6020
1086960	1086960010	SS-10B 1-2mm Sieve Size	12/09/08	Chromium	7.7	mg/kg	12/30/08	EPA 6020
1086960	1086960010	SS-10B 1-2mm Sieve Size	12/09/08	Cobalt	3.8	mg/kg	12/30/08	EPA 6020
1086960	1086960010	SS-10B 1-2mm Sieve Size	12/09/08	Copper	88.8	mg/kg	12/30/08	EPA 6020
1086960	1086960010	SS-10B 1-2mm Sieve Size	12/09/08	Iron	11100	mg/kg	12/30/08	EPA 6020
1086960	1086960010	SS-10B 1-2mm Sieve Size	12/09/08	Lead	22.1	mg/kg	12/30/08	EPA 6020
1086960	1086960010	SS-10B 1-2mm Sieve Size	12/09/08	Molybdenum	1.3	mg/kg	12/30/08	EPA 6020
1086960	1086960010	SS-10B 1-2mm Sieve Size	12/09/08	Nickel	4.4	mg/kg	12/30/08	EPA 6020
1086960	1086960010	SS-10B 1-2mm Sieve Size	12/09/08	Selenium	0.91	mg/kg	12/30/08	EPA 6020
1086960	1086960010	SS-10B 1-2mm Sieve Size	12/09/08	Uranium-238	1.9J	mg/kg	12/30/08	EPA 6020
1086960	1086960010	SS-10B 1-2mm Sieve Size	12/09/08	Vanadium	18.2	mg/kg	12/30/08	EPA 6020
1086960	1086960010	SS-10B 1-2mm Sieve Size	12/09/08	Zinc	254	mg/kg	12/30/08	EPA 6020
1086960	1086960010	SS-10B 1-2mm Sieve Size	12/09/08	Antimony	0.18	mg/kg	12/31/08	EPA 6020
1086960	1086960010	SS-10B 1-2mm Sieve Size	12/09/08	Manganese	422	mg/kg	12/31/08	EPA 6020
1086960	1086960010	SS-10B 1-2mm Sieve Size	12/09/08	Silver	0.36J	mg/kg	12/31/08	EPA 6020
1086960	1086960011	SS-07 1-2mm Sieve Size	12/09/08	Mercury	0.051	mg/kg	01/07/09	EPA 7471
1086960	1086960011	SS-07 1-2mm Sieve Size	12/09/08	Aluminum	3620	mg/kg	12/30/08	EPA 6020
1086960	1086960011	SS-07 1-2mm Sieve Size	12/09/08	Arsenic	18.1	mg/kg	12/30/08	EPA 6020
1086960	1086960011	SS-07 1-2mm Sieve Size	12/09/08	Barium	97.3	mg/kg	12/30/08	EPA 6020
1086960	1086960011	SS-07 1-2mm Sieve Size	12/09/08	Beryllium	0.15J	mg/kg	12/30/08	EPA 6020
1086960	1086960011	SS-07 1-2mm Sieve Size	12/09/08	Boron	<0.84	mg/kg	12/30/08	EPA 6020
1086960	1086960011	SS-07 1-2mm Sieve Size	12/09/08	Cadmium	1.3	mg/kg	12/30/08	EPA 6020
1086960	1086960011	SS-07 1-2mm Sieve Size	12/09/08	Chromium	5.3	mg/kg	12/30/08	EPA 6020
1086960	1086960011	SS-07 1-2mm Sieve Size	12/09/08	Cobalt	5.2	mg/kg	12/30/08	EPA 6020
1086960	1086960011	SS-07 1-2mm Sieve Size	12/09/08	Copper	128	mg/kg	12/30/08	EPA 6020
1086960	1086960011	SS-07 1-2mm Sieve Size	12/09/08	Iron	9630	mg/kg	12/30/08	EPA 6020
1086960	1086960011	SS-07 1-2mm Sieve Size	12/09/08	Lead	44.6	mg/kg	12/30/08	EPA 6020
1086960	1086960011	SS-07 1-2mm Sieve Size	12/09/08	Molybdenum	1.9	mg/kg	12/30/08	EPA 6020
1086960	1086960011	SS-07 1-2mm Sieve Size	12/09/08	Nickel	3.1	mg/kg	12/30/08	EPA 6020
1086960	1086960011	SS-07 1-2mm Sieve Size	12/09/08	Selenium	0.62	mg/kg	12/30/08	EPA 6020
1086960	1086960011	SS-07 1-2mm Sieve Size	12/09/08	Uranium-238	1.0J	mg/kg	12/30/08	EPA 6020
1086960	1086960011	SS-07 1-2mm Sieve Size	12/09/08	Vanadium	17.6	mg/kg	12/30/08	EPA 6020
1086960	1086960011	SS-07 1-2mm Sieve Size	12/09/08	Zinc	386	mg/kg	12/30/08	EPA 6020
1086960	1086960011	SS-07 1-2mm Sieve Size	12/09/08	Antimony	0.23	mg/kg	12/31/08	EPA 6020
1086960	1086960011	SS-07 1-2mm Sieve Size	12/09/08	Manganese	1410	mg/kg	12/31/08	EPA 6020
1086960	1086960011	SS-07 1-2mm Sieve Size	12/09/08	Silver	0.96	mg/kg	12/31/08	EPA 6020
1086960	1086960012	SS-15A 0.063-1mm Sieve Size	12/09/08	Mercury	0.40	mg/kg	01/07/09	EPA 7471

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086960	1086960012	SS-15A 0.063-1mm Sieve Size	12/09/08	Aluminum	3080	mg/kg	12/30/08	EPA 6020
1086960	1086960012	SS-15A 0.063-1mm Sieve Size	12/09/08	Arsenic	97.6	mg/kg	12/30/08	EPA 6020
1086960	1086960012	SS-15A 0.063-1mm Sieve Size	12/09/08	Barium	64.8	mg/kg	12/30/08	EPA 6020
1086960	1086960012	SS-15A 0.063-1mm Sieve Size	12/09/08	Beryllium	0.30	mg/kg	12/30/08	EPA 6020
1086960	1086960012	SS-15A 0.063-1mm Sieve Size	12/09/08	Boron	0.94J	mg/kg	12/30/08	EPA 6020
1086960	1086960012	SS-15A 0.063-1mm Sieve Size	12/09/08	Cadmium	3.7	mg/kg	12/30/08	EPA 6020
1086960	1086960012	SS-15A 0.063-1mm Sieve Size	12/09/08	Chromium	11.8	mg/kg	12/30/08	EPA 6020
1086960	1086960012	SS-15A 0.063-1mm Sieve Size	12/09/08	Cobalt	3.9	mg/kg	12/30/08	EPA 6020
1086960	1086960012	SS-15A 0.063-1mm Sieve Size	12/09/08	Lead	177	mg/kg	12/30/08	EPA 6020
1086960	1086960012	SS-15A 0.063-1mm Sieve Size	12/09/08	Molybdenum	3.8	mg/kg	12/30/08	EPA 6020
1086960	1086960012	SS-15A 0.063-1mm Sieve Size	12/09/08	Nickel	3.9	mg/kg	12/30/08	EPA 6020
1086960	1086960012	SS-15A 0.063-1mm Sieve Size	12/09/08	Selenium	1.2	mg/kg	12/30/08	EPA 6020
1086960	1086960012	SS-15A 0.063-1mm Sieve Size	12/09/08	Uranium-238	4.4	mg/kg	12/30/08	EPA 6020
1086960	1086960012	SS-15A 0.063-1mm Sieve Size	12/09/08	Vanadium	50.0	mg/kg	12/30/08	EPA 6020
1086960	1086960012	SS-15A 0.063-1mm Sieve Size	12/09/08	Antimony	2.1	mg/kg	12/31/08	EPA 6020
1086960	1086960012	SS-15A 0.063-1mm Sieve Size	12/09/08	Copper	359	mg/kg	12/31/08	EPA 6020
1086960	1086960012	SS-15A 0.063-1mm Sieve Size	12/09/08	Iron	21500	mg/kg	12/31/08	EPA 6020
1086960	1086960012	SS-15A 0.063-1mm Sieve Size	12/09/08	Manganese	990	mg/kg	12/31/08	EPA 6020
1086960	1086960012	SS-15A 0.063-1mm Sieve Size	12/09/08	Silver	3.3	mg/kg	12/31/08	EPA 6020
1086960	1086960012	SS-15A 0.063-1mm Sieve Size	12/09/08	Zinc	1480	mg/kg	12/31/08	EPA 6020
1086960	1086960013	SS-17D 0.063-1mm Sieve Size	12/09/08	Mercury	0.42	mg/kg	01/07/09	EPA 7471
1086960	1086960013	SS-17D 0.063-1mm Sieve Size	12/09/08	Aluminum	6250	mg/kg	12/30/08	EPA 6020
1086960	1086960013	SS-17D 0.063-1mm Sieve Size	12/09/08	Arsenic	88.6	mg/kg	12/30/08	EPA 6020
1086960	1086960013	SS-17D 0.063-1mm Sieve Size	12/09/08	Barium	140	mg/kg	12/30/08	EPA 6020
1086960	1086960013	SS-17D 0.063-1mm Sieve Size	12/09/08	Beryllium	0.38	mg/kg	12/30/08	EPA 6020
1086960	1086960013	SS-17D 0.063-1mm Sieve Size	12/09/08	Boron	1.2J	mg/kg	12/30/08	EPA 6020
1086960	1086960013	SS-17D 0.063-1mm Sieve Size	12/09/08	Cadmium	4.6	mg/kg	12/30/08	EPA 6020
1086960	1086960013	SS-17D 0.063-1mm Sieve Size	12/09/08	Chromium	17.6	mg/kg	12/30/08	EPA 6020
1086960	1086960013	SS-17D 0.063-1mm Sieve Size	12/09/08	Cobalt	6.8	mg/kg	12/30/08	EPA 6020
1086960	1086960013	SS-17D 0.063-1mm Sieve Size	12/09/08	Lead	197	mg/kg	12/30/08	EPA 6020
1086960	1086960013	SS-17D 0.063-1mm Sieve Size	12/09/08	Molybdenum	3.0	mg/kg	12/30/08	EPA 6020
1086960	1086960013	SS-17D 0.063-1mm Sieve Size	12/09/08	Nickel	7.5	mg/kg	12/30/08	EPA 6020
1086960	1086960013	SS-17D 0.063-1mm Sieve Size	12/09/08	Selenium	1.2	mg/kg	12/30/08	EPA 6020
1086960	1086960013	SS-17D 0.063-1mm Sieve Size	12/09/08	Uranium-238	3.5	mg/kg	12/30/08	EPA 6020
1086960	1086960013	SS-17D 0.063-1mm Sieve Size	12/09/08	Vanadium	58.6	mg/kg	12/30/08	EPA 6020
1086960	1086960013	SS-17D 0.063-1mm Sieve Size	12/09/08	Antimony	1.3	mg/kg	12/31/08	EPA 6020
1086960	1086960013	SS-17D 0.063-1mm Sieve Size	12/09/08	Copper	356	mg/kg	12/31/08	EPA 6020
1086960	1086960013	SS-17D 0.063-1mm Sieve Size	12/09/08	Iron	28300	mg/kg	12/31/08	EPA 6020
1086960	1086960013	SS-17D 0.063-1mm Sieve Size	12/09/08	Manganese	1120	mg/kg	12/31/08	EPA 6020
1086960	1086960013	SS-17D 0.063-1mm Sieve Size	12/09/08	Silver	2.9	mg/kg	12/31/08	EPA 6020
1086960	1086960013	SS-17D 0.063-1mm Sieve Size	12/09/08	Zinc	1520	mg/kg	12/31/08	EPA 6020
1086960	1086960014	SS-15B 0.063-1mm Sieve Size	12/09/08	Mercury	0.77	mg/kg	01/07/09	EPA 7471
1086960	1086960014	SS-15B 0.063-1mm Sieve Size	12/09/08	Aluminum	7300	mg/kg	12/30/08	EPA 6020
1086960	1086960014	SS-15B 0.063-1mm Sieve Size	12/09/08	Arsenic	79.5	mg/kg	12/30/08	EPA 6020
1086960	1086960014	SS-15B 0.063-1mm Sieve Size	12/09/08	Barium	153	mg/kg	12/30/08	EPA 6020
1086960	1086960014	SS-15B 0.063-1mm Sieve Size	12/09/08	Beryllium	0.52	mg/kg	12/30/08	EPA 6020
1086960	1086960014	SS-15B 0.063-1mm Sieve Size	12/09/08	Boron	<0.84	mg/kg	12/30/08	EPA 6020
1086960	1086960014	SS-15B 0.063-1mm Sieve Size	12/09/08	Cadmium	3.3	mg/kg	12/30/08	EPA 6020
1086960	1086960014	SS-15B 0.063-1mm Sieve Size	12/09/08	Chromium	14.8	mg/kg	12/30/08	EPA 6020
1086960	1086960014	SS-15B 0.063-1mm Sieve Size	12/09/08	Cobalt	5.7	mg/kg	12/30/08	EPA 6020
1086960	1086960014	SS-15B 0.063-1mm Sieve Size	12/09/08	Lead	244	mg/kg	12/30/08	EPA 6020
1086960	1086960014	SS-15B 0.063-1mm Sieve Size	12/09/08	Molybdenum	2.1	mg/kg	12/30/08	EPA 6020
1086960	1086960014	SS-15B 0.063-1mm Sieve Size	12/09/08	Nickel	6.5	mg/kg	12/30/08	EPA 6020
1086960	1086960014	SS-15B 0.063-1mm Sieve Size	12/09/08	Selenium	1.1	mg/kg	12/30/08	EPA 6020
1086960	1086960014	SS-15B 0.063-1mm Sieve Size	12/09/08	Uranium-238	2.4J	mg/kg	12/30/08	EPA 6020
1086960	1086960014	SS-15B 0.063-1mm Sieve Size	12/09/08	Vanadium	44.7	mg/kg	12/30/08	EPA 6020

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086960	1086960014	SS-15B 0.063-1mm Sieve Size	12/09/08	Antimony	1.5	mg/kg	12/31/08	EPA 6020
1086960	1086960014	SS-15B 0.063-1mm Sieve Size	12/09/08	Copper	501	mg/kg	12/31/08	EPA 6020
1086960	1086960014	SS-15B 0.063-1mm Sieve Size	12/09/08	Iron	24000	mg/kg	12/31/08	EPA 6020
1086960	1086960014	SS-15B 0.063-1mm Sieve Size	12/09/08	Manganese	638	mg/kg	12/31/08	EPA 6020
1086960	1086960014	SS-15B 0.063-1mm Sieve Size	12/09/08	Silver	4.0	mg/kg	12/31/08	EPA 6020
1086960	1086960014	SS-15B 0.063-1mm Sieve Size	12/09/08	Zinc	1220	mg/kg	12/31/08	EPA 6020
1086960	1086960015	SS-15G 0.063-1mm Sieve Size	12/09/08	Mercury	0.014J	mg/kg	01/07/09	EPA 7471
1086960	1086960015	SS-15G 0.063-1mm Sieve Size	12/09/08	Aluminum	6770	mg/kg	12/30/08	EPA 6020
1086960	1086960015	SS-15G 0.063-1mm Sieve Size	12/09/08	Arsenic	23.4	mg/kg	12/30/08	EPA 6020
1086960	1086960015	SS-15G 0.063-1mm Sieve Size	12/09/08	Barium	88.4	mg/kg	12/30/08	EPA 6020
1086960	1086960015	SS-15G 0.063-1mm Sieve Size	12/09/08	Beryllium	0.30	mg/kg	12/30/08	EPA 6020
1086960	1086960015	SS-15G 0.063-1mm Sieve Size	12/09/08	Boron	<0.77	mg/kg	12/30/08	EPA 6020
1086960	1086960015	SS-15G 0.063-1mm Sieve Size	12/09/08	Cadmium	0.10	mg/kg	12/30/08	EPA 6020
1086960	1086960015	SS-15G 0.063-1mm Sieve Size	12/09/08	Chromium	15.7	mg/kg	12/30/08	EPA 6020
1086960	1086960015	SS-15G 0.063-1mm Sieve Size	12/09/08	Cobalt	4.1	mg/kg	12/30/08	EPA 6020
1086960	1086960015	SS-15G 0.063-1mm Sieve Size	12/09/08	Copper	20.9	mg/kg	12/30/08	EPA 6020
1086960	1086960015	SS-15G 0.063-1mm Sieve Size	12/09/08	Iron	16100	mg/kg	12/30/08	EPA 6020
1086960	1086960015	SS-15G 0.063-1mm Sieve Size	12/09/08	Lead	5.4	mg/kg	12/30/08	EPA 6020
1086960	1086960015	SS-15G 0.063-1mm Sieve Size	12/09/08	Manganese	128	mg/kg	12/30/08	EPA 6020
1086960	1086960015	SS-15G 0.063-1mm Sieve Size	12/09/08	Molybdenum	0.26J	mg/kg	12/30/08	EPA 6020
1086960	1086960015	SS-15G 0.063-1mm Sieve Size	12/09/08	Nickel	7.8	mg/kg	12/30/08	EPA 6020
1086960	1086960015	SS-15G 0.063-1mm Sieve Size	12/09/08	Selenium	0.71	mg/kg	12/30/08	EPA 6020
1086960	1086960015	SS-15G 0.063-1mm Sieve Size	12/09/08	Uranium-238	<0.66	mg/kg	12/30/08	EPA 6020
1086960	1086960015	SS-15G 0.063-1mm Sieve Size	12/09/08	Vanadium	43.0	mg/kg	12/30/08	EPA 6020
1086960	1086960015	SS-15G 0.063-1mm Sieve Size	12/09/08	Zinc	36.0	mg/kg	12/30/08	EPA 6020
1086960	1086960015	SS-15G 0.063-1mm Sieve Size	12/09/08	Antimony	0.26	mg/kg	12/31/08	EPA 6020
1086960	1086960015	SS-15G 0.063-1mm Sieve Size	12/09/08	Silver	<0.20	mg/kg	12/31/08	EPA 6020
1086960	1086960016	SS-11D 0.063-1mm Sieve Size	12/09/08	Mercury	0.061	mg/kg	01/07/09	EPA 7471
1086960	1086960016	SS-11D 0.063-1mm Sieve Size	12/09/08	Manganese	653	mg/kg	01/06/09	EPA 6020
1086960	1086960016	SS-11D 0.063-1mm Sieve Size	12/09/08	Aluminum	5960	mg/kg	12/30/08	EPA 6020
1086960	1086960016	SS-11D 0.063-1mm Sieve Size	12/09/08	Arsenic	4.8	mg/kg	12/30/08	EPA 6020
1086960	1086960016	SS-11D 0.063-1mm Sieve Size	12/09/08	Barium	121	mg/kg	12/30/08	EPA 6020
1086960	1086960016	SS-11D 0.063-1mm Sieve Size	12/09/08	Beryllium	0.22	mg/kg	12/30/08	EPA 6020
1086960	1086960016	SS-11D 0.063-1mm Sieve Size	12/09/08	Boron	<0.81	mg/kg	12/30/08	EPA 6020
1086960	1086960016	SS-11D 0.063-1mm Sieve Size	12/09/08	Cadmium	1.1	mg/kg	12/30/08	EPA 6020
1086960	1086960016	SS-11D 0.063-1mm Sieve Size	12/09/08	Chromium	13.0	mg/kg	12/30/08	EPA 6020
1086960	1086960016	SS-11D 0.063-1mm Sieve Size	12/09/08	Cobalt	4.4	mg/kg	12/30/08	EPA 6020
1086960	1086960016	SS-11D 0.063-1mm Sieve Size	12/09/08	Copper	44.9	mg/kg	12/30/08	EPA 6020
1086960	1086960016	SS-11D 0.063-1mm Sieve Size	12/09/08	Iron	14700	mg/kg	12/30/08	EPA 6020
1086960	1086960016	SS-11D 0.063-1mm Sieve Size	12/09/08	Lead	13.7	mg/kg	12/30/08	EPA 6020
1086960	1086960016	SS-11D 0.063-1mm Sieve Size	12/09/08	Molybdenum	0.56	mg/kg	12/30/08	EPA 6020
1086960	1086960016	SS-11D 0.063-1mm Sieve Size	12/09/08	Nickel	5.6	mg/kg	12/30/08	EPA 6020
1086960	1086960016	SS-11D 0.063-1mm Sieve Size	12/09/08	Selenium	1.0	mg/kg	12/30/08	EPA 6020
1086960	1086960016	SS-11D 0.063-1mm Sieve Size	12/09/08	Uranium-238	0.96J	mg/kg	12/30/08	EPA 6020
1086960	1086960016	SS-11D 0.063-1mm Sieve Size	12/09/08	Vanadium	40.2	mg/kg	12/30/08	EPA 6020
1086960	1086960016	SS-11D 0.063-1mm Sieve Size	12/09/08	Zinc	153	mg/kg	12/30/08	EPA 6020
1086960	1086960016	SS-11D 0.063-1mm Sieve Size	12/09/08	Antimony	0.15	mg/kg	12/31/08	EPA 6020
1086960	1086960016	SS-11D 0.063-1mm Sieve Size	12/09/08	Silver	<0.21	mg/kg	12/31/08	EPA 6020
1086960	1086960017	SS-11C 0.063-1mm Sieve Size	12/09/08	Mercury	0.14	mg/kg	01/07/09	EPA 7471
1086960	1086960017	SS-11C 0.063-1mm Sieve Size	12/09/08	Aluminum	9250	mg/kg	12/30/08	EPA 6020
1086960	1086960017	SS-11C 0.063-1mm Sieve Size	12/09/08	Arsenic	8.2	mg/kg	12/30/08	EPA 6020
1086960	1086960017	SS-11C 0.063-1mm Sieve Size	12/09/08	Barium	143	mg/kg	12/30/08	EPA 6020
1086960	1086960017	SS-11C 0.063-1mm Sieve Size	12/09/08	Beryllium	0.36	mg/kg	12/30/08	EPA 6020
1086960	1086960017	SS-11C 0.063-1mm Sieve Size	12/09/08	Boron	<0.88	mg/kg	12/30/08	EPA 6020
1086960	1086960017	SS-11C 0.063-1mm Sieve Size	12/09/08	Cadmium	2.0	mg/kg	12/30/08	EPA 6020
1086960	1086960017	SS-11C 0.063-1mm Sieve Size	12/09/08	Chromium	20.9	mg/kg	12/30/08	EPA 6020

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086960	1086960017	SS-11C 0.063-1mm Sieve Size	12/09/08	Cobalt	7.1	mg/kg	12/30/08	EPA 6020
1086960	1086960017	SS-11C 0.063-1mm Sieve Size	12/09/08	Copper	91.3	mg/kg	12/30/08	EPA 6020
1086960	1086960017	SS-11C 0.063-1mm Sieve Size	12/09/08	Lead	24.7	mg/kg	12/30/08	EPA 6020
1086960	1086960017	SS-11C 0.063-1mm Sieve Size	12/09/08	Molybdenum	1.3	mg/kg	12/30/08	EPA 6020
1086960	1086960017	SS-11C 0.063-1mm Sieve Size	12/09/08	Nickel	7.8	mg/kg	12/30/08	EPA 6020
1086960	1086960017	SS-11C 0.063-1mm Sieve Size	12/09/08	Selenium	1.4	mg/kg	12/30/08	EPA 6020
1086960	1086960017	SS-11C 0.063-1mm Sieve Size	12/09/08	Uranium-238	1.9J	mg/kg	12/30/08	EPA 6020
1086960	1086960017	SS-11C 0.063-1mm Sieve Size	12/09/08	Vanadium	77.3	mg/kg	12/30/08	EPA 6020
1086960	1086960017	SS-11C 0.063-1mm Sieve Size	12/09/08	Zinc	326	mg/kg	12/30/08	EPA 6020
1086960	1086960017	SS-11C 0.063-1mm Sieve Size	12/09/08	Antimony	0.38	mg/kg	12/31/08	EPA 6020
1086960	1086960017	SS-11C 0.063-1mm Sieve Size	12/09/08	Iron	26200	mg/kg	12/31/08	EPA 6020
1086960	1086960017	SS-11C 0.063-1mm Sieve Size	12/09/08	Manganese	543	mg/kg	12/31/08	EPA 6020
1086960	1086960017	SS-11C 0.063-1mm Sieve Size	12/09/08	Silver	0.40J	mg/kg	12/31/08	EPA 6020
1086960	1086960018	SS-10A 0.063-1mm Sieve Size	12/09/08	Mercury	0.44	mg/kg	01/07/09	EPA 7471
1086960	1086960018	SS-10A 0.063-1mm Sieve Size	12/09/08	Aluminum	13200	mg/kg	12/30/08	EPA 6020
1086960	1086960018	SS-10A 0.063-1mm Sieve Size	12/09/08	Arsenic	28.5	mg/kg	12/30/08	EPA 6020
1086960	1086960018	SS-10A 0.063-1mm Sieve Size	12/09/08	Barium	319	mg/kg	12/30/08	EPA 6020
1086960	1086960018	SS-10A 0.063-1mm Sieve Size	12/09/08	Beryllium	0.73	mg/kg	12/30/08	EPA 6020
1086960	1086960018	SS-10A 0.063-1mm Sieve Size	12/09/08	Boron	4.2J	mg/kg	12/30/08	EPA 6020
1086960	1086960018	SS-10A 0.063-1mm Sieve Size	12/09/08	Cadmium	7.1	mg/kg	12/30/08	EPA 6020
1086960	1086960018	SS-10A 0.063-1mm Sieve Size	12/09/08	Chromium	22.1	mg/kg	12/30/08	EPA 6020
1086960	1086960018	SS-10A 0.063-1mm Sieve Size	12/09/08	Cobalt	10.9	mg/kg	12/30/08	EPA 6020
1086960	1086960018	SS-10A 0.063-1mm Sieve Size	12/09/08	Lead	131	mg/kg	12/30/08	EPA 6020
1086960	1086960018	SS-10A 0.063-1mm Sieve Size	12/09/08	Molybdenum	5.9	mg/kg	12/30/08	EPA 6020
1086960	1086960018	SS-10A 0.063-1mm Sieve Size	12/09/08	Nickel	11.8	mg/kg	12/30/08	EPA 6020
1086960	1086960018	SS-10A 0.063-1mm Sieve Size	12/09/08	Selenium	1.8	mg/kg	12/30/08	EPA 6020
1086960	1086960018	SS-10A 0.063-1mm Sieve Size	12/09/08	Uranium-238	5.5	mg/kg	12/30/08	EPA 6020
1086960	1086960018	SS-10A 0.063-1mm Sieve Size	12/09/08	Vanadium	52.1	mg/kg	12/30/08	EPA 6020
1086960	1086960018	SS-10A 0.063-1mm Sieve Size	12/09/08	Antimony	0.73	mg/kg	12/31/08	EPA 6020
1086960	1086960018	SS-10A 0.063-1mm Sieve Size	12/09/08	Copper	469	mg/kg	12/31/08	EPA 6020
1086960	1086960018	SS-10A 0.063-1mm Sieve Size	12/09/08	Iron	27100	mg/kg	12/31/08	EPA 6020
1086960	1086960018	SS-10A 0.063-1mm Sieve Size	12/09/08	Manganese	5010	mg/kg	12/31/08	EPA 6020
1086960	1086960018	SS-10A 0.063-1mm Sieve Size	12/09/08	Silver	2.4	mg/kg	12/31/08	EPA 6020
1086960	1086960018	SS-10A 0.063-1mm Sieve Size	12/09/08	Zinc	1220	mg/kg	12/31/08	EPA 6020
1086960	1086960019	SS-08 0.063-1mm Sieve Size	12/09/08	Mercury	0.72	mg/kg	01/07/09	EPA 7471
1086960	1086960019	SS-08 0.063-1mm Sieve Size	12/09/08	Aluminum	6300	mg/kg	12/31/08	EPA 6020
1086960	1086960019	SS-08 0.063-1mm Sieve Size	12/09/08	Antimony	0.67	mg/kg	12/31/08	EPA 6020
1086960	1086960019	SS-08 0.063-1mm Sieve Size	12/09/08	Arsenic	31.1	mg/kg	12/31/08	EPA 6020
1086960	1086960019	SS-08 0.063-1mm Sieve Size	12/09/08	Barium	118	mg/kg	12/31/08	EPA 6020
1086960	1086960019	SS-08 0.063-1mm Sieve Size	12/09/08	Beryllium	0.36	mg/kg	12/31/08	EPA 6020
1086960	1086960019	SS-08 0.063-1mm Sieve Size	12/09/08	Boron	3.4J	mg/kg	12/31/08	EPA 6020
1086960	1086960019	SS-08 0.063-1mm Sieve Size	12/09/08	Cadmium	4.7	mg/kg	12/31/08	EPA 6020
1086960	1086960019	SS-08 0.063-1mm Sieve Size	12/09/08	Chromium	11.0	mg/kg	12/31/08	EPA 6020
1086960	1086960019	SS-08 0.063-1mm Sieve Size	12/09/08	Cobalt	5.8	mg/kg	12/31/08	EPA 6020
1086960	1086960019	SS-08 0.063-1mm Sieve Size	12/09/08	Copper	421	mg/kg	12/31/08	EPA 6020
1086960	1086960019	SS-08 0.063-1mm Sieve Size	12/09/08	Iron	16800	mg/kg	12/31/08	EPA 6020
1086960	1086960019	SS-08 0.063-1mm Sieve Size	12/09/08	Lead	136	mg/kg	12/31/08	EPA 6020
1086960	1086960019	SS-08 0.063-1mm Sieve Size	12/09/08	Manganese	1500	mg/kg	12/31/08	EPA 6020
1086960	1086960019	SS-08 0.063-1mm Sieve Size	12/09/08	Molybdenum	2.2	mg/kg	12/31/08	EPA 6020
1086960	1086960019	SS-08 0.063-1mm Sieve Size	12/09/08	Nickel	5.1	mg/kg	12/31/08	EPA 6020
1086960	1086960019	SS-08 0.063-1mm Sieve Size	12/09/08	Selenium	0.88	mg/kg	12/31/08	EPA 6020
1086960	1086960019	SS-08 0.063-1mm Sieve Size	12/09/08	Silver	4.0	mg/kg	12/31/08	EPA 6020
1086960	1086960019	SS-08 0.063-1mm Sieve Size	12/09/08	Uranium-238	3.1	mg/kg	12/31/08	EPA 6020
1086960	1086960019	SS-08 0.063-1mm Sieve Size	12/09/08	Vanadium	36.0	mg/kg	12/31/08	EPA 6020
1086960	1086960019	SS-08 0.063-1mm Sieve Size	12/09/08	Zinc	955	mg/kg	12/31/08	EPA 6020
1086960	1086960020	SS-11CDup 0.063-1mm Sieve Size	12/09/08	Mercury	0.080	mg/kg	01/07/09	EPA 7471

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086960	1086960022	SS-07 0.063-1mm Sieve Size	12/09/08	Cadmium	1.8	mg/kg	12/31/08	EPA 6020
1086960	1086960022	SS-07 0.063-1mm Sieve Size	12/09/08	Chromium	12.0	mg/kg	12/31/08	EPA 6020
1086960	1086960022	SS-07 0.063-1mm Sieve Size	12/09/08	Cobalt	8.5	mg/kg	12/31/08	EPA 6020
1086960	1086960022	SS-07 0.063-1mm Sieve Size	12/09/08	Copper	154	mg/kg	12/31/08	EPA 6020
1086960	1086960022	SS-07 0.063-1mm Sieve Size	12/09/08	Iron	20900	mg/kg	12/31/08	EPA 6020
1086960	1086960022	SS-07 0.063-1mm Sieve Size	12/09/08	Lead	153	mg/kg	12/31/08	EPA 6020
1086960	1086960022	SS-07 0.063-1mm Sieve Size	12/09/08	Manganese	1330	mg/kg	12/31/08	EPA 6020
1086960	1086960022	SS-07 0.063-1mm Sieve Size	12/09/08	Molybdenum	2.1	mg/kg	12/31/08	EPA 6020
1086960	1086960022	SS-07 0.063-1mm Sieve Size	12/09/08	Nickel	6.2	mg/kg	12/31/08	EPA 6020
1086960	1086960022	SS-07 0.063-1mm Sieve Size	12/09/08	Selenium	1.1	mg/kg	12/31/08	EPA 6020
1086960	1086960022	SS-07 0.063-1mm Sieve Size	12/09/08	Silver	1.4	mg/kg	12/31/08	EPA 6020
1086960	1086960022	SS-07 0.063-1mm Sieve Size	12/09/08	Uranium-238	2.9J	mg/kg	12/31/08	EPA 6020
1086960	1086960022	SS-07 0.063-1mm Sieve Size	12/09/08	Vanadium	43.8	mg/kg	12/31/08	EPA 6020
1086960	1086960022	SS-07 0.063-1mm Sieve Size	12/09/08	Zinc	682	mg/kg	12/31/08	EPA 6020
1086960	1086960023	SS-15A <0.063mm Sieve Size	12/09/08	Manganese	4870	mg/kg	01/05/09	EPA 6020
1086960	1086960023	SS-15A <0.063mm Sieve Size	12/09/08	Aluminum	17700	mg/kg	12/31/08	EPA 6020
1086960	1086960023	SS-15A <0.063mm Sieve Size	12/09/08	Antimony	4.0	mg/kg	12/31/08	EPA 6020
1086960	1086960023	SS-15A <0.063mm Sieve Size	12/09/08	Arsenic	230	mg/kg	12/31/08	EPA 6020
1086960	1086960023	SS-15A <0.063mm Sieve Size	12/09/08	Barium	496	mg/kg	12/31/08	EPA 6020
1086960	1086960023	SS-15A <0.063mm Sieve Size	12/09/08	Beryllium	1.3	mg/kg	12/31/08	EPA 6020
1086960	1086960023	SS-15A <0.063mm Sieve Size	12/09/08	Boron	26.1	mg/kg	12/31/08	EPA 6020
1086960	1086960023	SS-15A <0.063mm Sieve Size	12/09/08	Cadmium	23.6	mg/kg	12/31/08	EPA 6020
1086960	1086960023	SS-15A <0.063mm Sieve Size	12/09/08	Chromium	38.7	mg/kg	12/31/08	EPA 6020
1086960	1086960023	SS-15A <0.063mm Sieve Size	12/09/08	Cobalt	13.9	mg/kg	12/31/08	EPA 6020
1086960	1086960023	SS-15A <0.063mm Sieve Size	12/09/08	Copper	2630	mg/kg	12/31/08	EPA 6020
1086960	1086960023	SS-15A <0.063mm Sieve Size	12/09/08	Iron	38400	mg/kg	12/31/08	EPA 6020
1086960	1086960023	SS-15A <0.063mm Sieve Size	12/09/08	Lead	825	mg/kg	12/31/08	EPA 6020
1086960	1086960023	SS-15A <0.063mm Sieve Size	12/09/08	Molybdenum	9.4	mg/kg	12/31/08	EPA 6020
1086960	1086960023	SS-15A <0.063mm Sieve Size	12/09/08	Nickel	26.1	mg/kg	12/31/08	EPA 6020
1086960	1086960023	SS-15A <0.063mm Sieve Size	12/09/08	Selenium	2.6	mg/kg	12/31/08	EPA 6020
1086960	1086960023	SS-15A <0.063mm Sieve Size	12/09/08	Silver	14.5	mg/kg	12/31/08	EPA 6020
1086960	1086960023	SS-15A <0.063mm Sieve Size	12/09/08	Uranium-238	7.5J	mg/kg	12/31/08	EPA 6020
1086960	1086960023	SS-15A <0.063mm Sieve Size	12/09/08	Vanadium	57.7	mg/kg	12/31/08	EPA 6020
1086960	1086960023	SS-15A <0.063mm Sieve Size	12/09/08	Zinc	4170	mg/kg	12/31/08	EPA 6020
1086960	1086960024	SS-17D <0.063mm Sieve Size	12/09/08	Mercury	2.9	mg/kg	01/07/09	EPA 7471
1086960	1086960024	SS-17D <0.063mm Sieve Size	12/09/08	Aluminum	16500	mg/kg	12/31/08	EPA 6020
1086960	1086960024	SS-17D <0.063mm Sieve Size	12/09/08	Antimony	2.7	mg/kg	12/31/08	EPA 6020
1086960	1086960024	SS-17D <0.063mm Sieve Size	12/09/08	Arsenic	123	mg/kg	12/31/08	EPA 6020
1086960	1086960024	SS-17D <0.063mm Sieve Size	12/09/08	Barium	362	mg/kg	12/31/08	EPA 6020
1086960	1086960024	SS-17D <0.063mm Sieve Size	12/09/08	Beryllium	0.80	mg/kg	12/31/08	EPA 6020
1086960	1086960024	SS-17D <0.063mm Sieve Size	12/09/08	Boron	14.1	mg/kg	12/31/08	EPA 6020
1086960	1086960024	SS-17D <0.063mm Sieve Size	12/09/08	Cadmium	9.6	mg/kg	12/31/08	EPA 6020
1086960	1086960024	SS-17D <0.063mm Sieve Size	12/09/08	Chromium	29.6	mg/kg	12/31/08	EPA 6020
1086960	1086960024	SS-17D <0.063mm Sieve Size	12/09/08	Cobalt	9.7	mg/kg	12/31/08	EPA 6020
1086960	1086960024	SS-17D <0.063mm Sieve Size	12/09/08	Copper	952	mg/kg	12/31/08	EPA 6020
1086960	1086960024	SS-17D <0.063mm Sieve Size	12/09/08	Iron	35800	mg/kg	12/31/08	EPA 6020
1086960	1086960024	SS-17D <0.063mm Sieve Size	12/09/08	Lead	386	mg/kg	12/31/08	EPA 6020
1086960	1086960024	SS-17D <0.063mm Sieve Size	12/09/08	Manganese	2590	mg/kg	12/31/08	EPA 6020
1086960	1086960024	SS-17D <0.063mm Sieve Size	12/09/08	Molybdenum	5.5	mg/kg	12/31/08	EPA 6020
1086960	1086960024	SS-17D <0.063mm Sieve Size	12/09/08	Nickel	16.5	mg/kg	12/31/08	EPA 6020
1086960	1086960024	SS-17D <0.063mm Sieve Size	12/09/08	Selenium	2.2	mg/kg	12/31/08	EPA 6020
1086960	1086960024	SS-17D <0.063mm Sieve Size	12/09/08	Silver	8.1	mg/kg	12/31/08	EPA 6020
1086960	1086960024	SS-17D <0.063mm Sieve Size	12/09/08	Uranium-238	4.6J	mg/kg	12/31/08	EPA 6020
1086960	1086960024	SS-17D <0.063mm Sieve Size	12/09/08	Vanadium	58.0	mg/kg	12/31/08	EPA 6020
1086960	1086960024	SS-17D <0.063mm Sieve Size	12/09/08	Zinc	2960	mg/kg	12/31/08	EPA 6020
1086960	1086960025	SS-15B <0.063mm Sieve Size	12/09/08	Mercury	6.1	mg/kg	01/07/09	EPA 7471

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086960	1086960025	SS-15B <0.063mm Sieve Size	12/09/08	Aluminum	21100	mg/kg	12/31/08	EPA 6020
1086960	1086960025	SS-15B <0.063mm Sieve Size	12/09/08	Antimony	3.2	mg/kg	12/31/08	EPA 6020
1086960	1086960025	SS-15B <0.063mm Sieve Size	12/09/08	Arsenic	247	mg/kg	12/31/08	EPA 6020
1086960	1086960025	SS-15B <0.063mm Sieve Size	12/09/08	Barium	444	mg/kg	12/31/08	EPA 6020
1086960	1086960025	SS-15B <0.063mm Sieve Size	12/09/08	Beryllium	1.4	mg/kg	12/31/08	EPA 6020
1086960	1086960025	SS-15B <0.063mm Sieve Size	12/09/08	Boron	19.8	mg/kg	12/31/08	EPA 6020
1086960	1086960025	SS-15B <0.063mm Sieve Size	12/09/08	Cadmium	13.4	mg/kg	12/31/08	EPA 6020
1086960	1086960025	SS-15B <0.063mm Sieve Size	12/09/08	Chromium	26.8	mg/kg	12/31/08	EPA 6020
1086960	1086960025	SS-15B <0.063mm Sieve Size	12/09/08	Cobalt	11.8	mg/kg	12/31/08	EPA 6020
1086960	1086960025	SS-15B <0.063mm Sieve Size	12/09/08	Copper	2150	mg/kg	12/31/08	EPA 6020
1086960	1086960025	SS-15B <0.063mm Sieve Size	12/09/08	Iron	37500	mg/kg	12/31/08	EPA 6020
1086960	1086960025	SS-15B <0.063mm Sieve Size	12/09/08	Lead	965	mg/kg	12/31/08	EPA 6020
1086960	1086960025	SS-15B <0.063mm Sieve Size	12/09/08	Manganese	1710	mg/kg	12/31/08	EPA 6020
1086960	1086960025	SS-15B <0.063mm Sieve Size	12/09/08	Molybdenum	3.7	mg/kg	12/31/08	EPA 6020
1086960	1086960025	SS-15B <0.063mm Sieve Size	12/09/08	Nickel	14.8	mg/kg	12/31/08	EPA 6020
1086960	1086960025	SS-15B <0.063mm Sieve Size	12/09/08	Selenium	2.9	mg/kg	12/31/08	EPA 6020
1086960	1086960025	SS-15B <0.063mm Sieve Size	12/09/08	Silver	12.5	mg/kg	12/31/08	EPA 6020
1086960	1086960025	SS-15B <0.063mm Sieve Size	12/09/08	Uranium-238	6.0	mg/kg	12/31/08	EPA 6020
1086960	1086960025	SS-15B <0.063mm Sieve Size	12/09/08	Vanadium	55.6	mg/kg	12/31/08	EPA 6020
1086960	1086960025	SS-15B <0.063mm Sieve Size	12/09/08	Zinc	2870	mg/kg	12/31/08	EPA 6020
1086960	1086960027	SS-11D <0.063mm Sieve Size	12/09/08	Mercury	0.78	mg/kg	01/07/09	EPA 7471
1086960	1086960027	SS-11D <0.063mm Sieve Size	12/09/08	Manganese	4170	mg/kg	01/05/09	EPA 6020
1086960	1086960027	SS-11D <0.063mm Sieve Size	12/09/08	Aluminum	22400	mg/kg	12/31/08	EPA 6020
1086960	1086960027	SS-11D <0.063mm Sieve Size	12/09/08	Antimony	0.80	mg/kg	12/31/08	EPA 6020
1086960	1086960027	SS-11D <0.063mm Sieve Size	12/09/08	Arsenic	28.6	mg/kg	12/31/08	EPA 6020
1086960	1086960027	SS-11D <0.063mm Sieve Size	12/09/08	Barium	383	mg/kg	12/31/08	EPA 6020
1086960	1086960027	SS-11D <0.063mm Sieve Size	12/09/08	Beryllium	1.3	mg/kg	12/31/08	EPA 6020
1086960	1086960027	SS-11D <0.063mm Sieve Size	12/09/08	Boron	11.1	mg/kg	12/31/08	EPA 6020
1086960	1086960027	SS-11D <0.063mm Sieve Size	12/09/08	Cadmium	9.8	mg/kg	12/31/08	EPA 6020
1086960	1086960027	SS-11D <0.063mm Sieve Size	12/09/08	Chromium	33.0	mg/kg	12/31/08	EPA 6020
1086960	1086960027	SS-11D <0.063mm Sieve Size	12/09/08	Cobalt	12.0	mg/kg	12/31/08	EPA 6020
1086960	1086960027	SS-11D <0.063mm Sieve Size	12/09/08	Copper	402	mg/kg	12/31/08	EPA 6020
1086960	1086960027	SS-11D <0.063mm Sieve Size	12/09/08	Iron	24500	mg/kg	12/31/08	EPA 6020
1086960	1086960027	SS-11D <0.063mm Sieve Size	12/09/08	Lead	119	mg/kg	12/31/08	EPA 6020
1086960	1086960027	SS-11D <0.063mm Sieve Size	12/09/08	Molybdenum	5.3	mg/kg	12/31/08	EPA 6020
1086960	1086960027	SS-11D <0.063mm Sieve Size	12/09/08	Nickel	20.7	mg/kg	12/31/08	EPA 6020
1086960	1086960027	SS-11D <0.063mm Sieve Size	12/09/08	Selenium	2.1	mg/kg	12/31/08	EPA 6020
1086960	1086960027	SS-11D <0.063mm Sieve Size	12/09/08	Silver	2.5	mg/kg	12/31/08	EPA 6020
1086960	1086960027	SS-11D <0.063mm Sieve Size	12/09/08	Uranium-238	7.1	mg/kg	12/31/08	EPA 6020
1086960	1086960027	SS-11D <0.063mm Sieve Size	12/09/08	Vanadium	55.0	mg/kg	12/31/08	EPA 6020
1086960	1086960027	SS-11D <0.063mm Sieve Size	12/09/08	Zinc	1230	mg/kg	12/31/08	EPA 6020
1086960	1086960028	SS-11C <0.063mm Sieve Size	12/09/08	Mercury	0.77	mg/kg	01/07/09	EPA 7471
1086960	1086960028	SS-11C <0.063mm Sieve Size	12/09/08	Manganese	2110	mg/kg	01/05/09	EPA 6020
1086960	1086960028	SS-11C <0.063mm Sieve Size	12/09/08	Aluminum	23000	mg/kg	12/31/08	EPA 6020
1086960	1086960028	SS-11C <0.063mm Sieve Size	12/09/08	Antimony	0.83	mg/kg	12/31/08	EPA 6020
1086960	1086960028	SS-11C <0.063mm Sieve Size	12/09/08	Arsenic	28.6	mg/kg	12/31/08	EPA 6020
1086960	1086960028	SS-11C <0.063mm Sieve Size	12/09/08	Barium	347	mg/kg	12/31/08	EPA 6020
1086960	1086960028	SS-11C <0.063mm Sieve Size	12/09/08	Beryllium	1.5	mg/kg	12/31/08	EPA 6020
1086960	1086960028	SS-11C <0.063mm Sieve Size	12/09/08	Boron	10.9	mg/kg	12/31/08	EPA 6020
1086960	1086960028	SS-11C <0.063mm Sieve Size	12/09/08	Cadmium	7.8	mg/kg	12/31/08	EPA 6020
1086960	1086960028	SS-11C <0.063mm Sieve Size	12/09/08	Chromium	24.5	mg/kg	12/31/08	EPA 6020
1086960	1086960028	SS-11C <0.063mm Sieve Size	12/09/08	Cobalt	13.2	mg/kg	12/31/08	EPA 6020
1086960	1086960028	SS-11C <0.063mm Sieve Size	12/09/08	Copper	384	mg/kg	12/31/08	EPA 6020
1086960	1086960028	SS-11C <0.063mm Sieve Size	12/09/08	Iron	28100	mg/kg	12/31/08	EPA 6020
1086960	1086960028	SS-11C <0.063mm Sieve Size	12/09/08	Lead	100	mg/kg	12/31/08	EPA 6020
1086960	1086960028	SS-11C <0.063mm Sieve Size	12/09/08	Molybdenum	5.6	mg/kg	12/31/08	EPA 6020

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086960	1086960028	SS-11C <0.063mm Sieve Size	12/09/08	Nickel	18.1	mg/kg	12/31/08	EPA 6020
1086960	1086960028	SS-11C <0.063mm Sieve Size	12/09/08	Selenium	2.2	mg/kg	12/31/08	EPA 6020
1086960	1086960028	SS-11C <0.063mm Sieve Size	12/09/08	Silver	1.7	mg/kg	12/31/08	EPA 6020
1086960	1086960028	SS-11C <0.063mm Sieve Size	12/09/08	Uranium-238	4.7	mg/kg	12/31/08	EPA 6020
1086960	1086960028	SS-11C <0.063mm Sieve Size	12/09/08	Vanadium	56.0	mg/kg	12/31/08	EPA 6020
1086960	1086960028	SS-11C <0.063mm Sieve Size	12/09/08	Zinc	1540	mg/kg	12/31/08	EPA 6020
1086960	1086960029	SS-10A <0.063mm Sieve Size	12/09/08	Mercury	6.5	mg/kg	01/07/09	EPA 7471
1086960	1086960029	SS-10A <0.063mm Sieve Size	12/09/08	Manganese	6780	mg/kg	01/05/09	EPA 6020
1086960	1086960029	SS-10A <0.063mm Sieve Size	12/09/08	Aluminum	18500	mg/kg	12/31/08	EPA 6020
1086960	1086960029	SS-10A <0.063mm Sieve Size	12/09/08	Antimony	1.3	mg/kg	12/31/08	EPA 6020
1086960	1086960029	SS-10A <0.063mm Sieve Size	12/09/08	Arsenic	49.1	mg/kg	12/31/08	EPA 6020
1086960	1086960029	SS-10A <0.063mm Sieve Size	12/09/08	Barium	409	mg/kg	12/31/08	EPA 6020
1086960	1086960029	SS-10A <0.063mm Sieve Size	12/09/08	Beryllium	1.1	mg/kg	12/31/08	EPA 6020
1086960	1086960029	SS-10A <0.063mm Sieve Size	12/09/08	Boron	16.7	mg/kg	12/31/08	EPA 6020
1086960	1086960029	SS-10A <0.063mm Sieve Size	12/09/08	Cadmium	11.2	mg/kg	12/31/08	EPA 6020
1086960	1086960029	SS-10A <0.063mm Sieve Size	12/09/08	Chromium	30.5	mg/kg	12/31/08	EPA 6020
1086960	1086960029	SS-10A <0.063mm Sieve Size	12/09/08	Cobalt	16.5	mg/kg	12/31/08	EPA 6020
1086960	1086960029	SS-10A <0.063mm Sieve Size	12/09/08	Copper	652	mg/kg	12/31/08	EPA 6020
1086960	1086960029	SS-10A <0.063mm Sieve Size	12/09/08	Iron	30300	mg/kg	12/31/08	EPA 6020
1086960	1086960029	SS-10A <0.063mm Sieve Size	12/09/08	Lead	209	mg/kg	12/31/08	EPA 6020
1086960	1086960029	SS-10A <0.063mm Sieve Size	12/09/08	Molybdenum	26.3	mg/kg	12/31/08	EPA 6020
1086960	1086960029	SS-10A <0.063mm Sieve Size	12/09/08	Nickel	18.1	mg/kg	12/31/08	EPA 6020
1086960	1086960029	SS-10A <0.063mm Sieve Size	12/09/08	Selenium	2.7	mg/kg	12/31/08	EPA 6020
1086960	1086960029	SS-10A <0.063mm Sieve Size	12/09/08	Silver	4.0	mg/kg	12/31/08	EPA 6020
1086960	1086960029	SS-10A <0.063mm Sieve Size	12/09/08	Uranium-238	13.2	mg/kg	12/31/08	EPA 6020
1086960	1086960029	SS-10A <0.063mm Sieve Size	12/09/08	Vanadium	58.3	mg/kg	12/31/08	EPA 6020
1086960	1086960029	SS-10A <0.063mm Sieve Size	12/09/08	Zinc	1770	mg/kg	12/31/08	EPA 6020
1086960	1086960030	SS-08 <0.063mm Sieve Size	12/09/08	Mercury	1.2	mg/kg	01/07/09	EPA 7471
1086960	1086960030	SS-08 <0.063mm Sieve Size	12/09/08	Manganese	5400	mg/kg	01/05/09	EPA 6020
1086960	1086960030	SS-08 <0.063mm Sieve Size	12/09/08	Aluminum	17900	mg/kg	12/31/08	EPA 6020
1086960	1086960030	SS-08 <0.063mm Sieve Size	12/09/08	Antimony	1.8	mg/kg	12/31/08	EPA 6020
1086960	1086960030	SS-08 <0.063mm Sieve Size	12/09/08	Arsenic	52.1	mg/kg	12/31/08	EPA 6020
1086960	1086960030	SS-08 <0.063mm Sieve Size	12/09/08	Barium	388	mg/kg	12/31/08	EPA 6020
1086960	1086960030	SS-08 <0.063mm Sieve Size	12/09/08	Beryllium	0.85	mg/kg	12/31/08	EPA 6020
1086960	1086960030	SS-08 <0.063mm Sieve Size	12/09/08	Boron	17.0	mg/kg	12/31/08	EPA 6020
1086960	1086960030	SS-08 <0.063mm Sieve Size	12/09/08	Cadmium	9.8	mg/kg	12/31/08	EPA 6020
1086960	1086960030	SS-08 <0.063mm Sieve Size	12/09/08	Chromium	35.2	mg/kg	12/31/08	EPA 6020
1086960	1086960030	SS-08 <0.063mm Sieve Size	12/09/08	Cobalt	16.2	mg/kg	12/31/08	EPA 6020
1086960	1086960030	SS-08 <0.063mm Sieve Size	12/09/08	Copper	704	mg/kg	12/31/08	EPA 6020
1086960	1086960030	SS-08 <0.063mm Sieve Size	12/09/08	Iron	28500	mg/kg	12/31/08	EPA 6020
1086960	1086960030	SS-08 <0.063mm Sieve Size	12/09/08	Lead	293	mg/kg	12/31/08	EPA 6020
1086960	1086960030	SS-08 <0.063mm Sieve Size	12/09/08	Molybdenum	28.8	mg/kg	12/31/08	EPA 6020
1086960	1086960030	SS-08 <0.063mm Sieve Size	12/09/08	Nickel	17.4	mg/kg	12/31/08	EPA 6020
1086960	1086960030	SS-08 <0.063mm Sieve Size	12/09/08	Selenium	2.7	mg/kg	12/31/08	EPA 6020
1086960	1086960030	SS-08 <0.063mm Sieve Size	12/09/08	Silver	5.5	mg/kg	12/31/08	EPA 6020
1086960	1086960030	SS-08 <0.063mm Sieve Size	12/09/08	Uranium-238	23.5	mg/kg	12/31/08	EPA 6020
1086960	1086960030	SS-08 <0.063mm Sieve Size	12/09/08	Vanadium	71.5	mg/kg	12/31/08	EPA 6020
1086960	1086960030	SS-08 <0.063mm Sieve Size	12/09/08	Zinc	1640	mg/kg	12/31/08	EPA 6020
1086960	1086960031	SS-11C Dup <0.063mm Sieve Size	12/09/08	Mercury	0.72	mg/kg	01/07/09	EPA 7471
1086960	1086960031	SS-11C Dup <0.063mm Sieve Size	12/09/08	Manganese	5240	mg/kg	01/05/09	EPA 6020
1086960	1086960031	SS-11C Dup <0.063mm Sieve Size	12/09/08	Aluminum	24600	mg/kg	12/31/08	EPA 6020
1086960	1086960031	SS-11C Dup <0.063mm Sieve Size	12/09/08	Antimony	0.67	mg/kg	12/31/08	EPA 6020
1086960	1086960031	SS-11C Dup <0.063mm Sieve Size	12/09/08	Arsenic	28.0	mg/kg	12/31/08	EPA 6020
1086960	1086960031	SS-11C Dup <0.063mm Sieve Size	12/09/08	Barium	442	mg/kg	12/31/08	EPA 6020
1086960	1086960031	SS-11C Dup <0.063mm Sieve Size	12/09/08	Beryllium	1.2	mg/kg	12/31/08	EPA 6020
1086960	1086960031	SS-11C Dup <0.063mm Sieve Size	12/09/08	Boron	8.5	mg/kg	12/31/08	EPA 6020

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086960	1086960031	SS-11C Dup <0.063mm Sieve Size	12/09/08	Cadmium	8.8	mg/kg	12/31/08	EPA 6020
1086960	1086960031	SS-11C Dup <0.063mm Sieve Size	12/09/08	Chromium	31.0	mg/kg	12/31/08	EPA 6020
1086960	1086960031	SS-11C Dup <0.063mm Sieve Size	12/09/08	Cobalt	15.1	mg/kg	12/31/08	EPA 6020
1086960	1086960031	SS-11C Dup <0.063mm Sieve Size	12/09/08	Copper	389	mg/kg	12/31/08	EPA 6020
1086960	1086960031	SS-11C Dup <0.063mm Sieve Size	12/09/08	Iron	31500	mg/kg	12/31/08	EPA 6020
1086960	1086960031	SS-11C Dup <0.063mm Sieve Size	12/09/08	Lead	96.4	mg/kg	12/31/08	EPA 6020
1086960	1086960031	SS-11C Dup <0.063mm Sieve Size	12/09/08	Molybdenum	7.5	mg/kg	12/31/08	EPA 6020
1086960	1086960031	SS-11C Dup <0.063mm Sieve Size	12/09/08	Nickel	64.1	mg/kg	12/31/08	EPA 6020
1086960	1086960031	SS-11C Dup <0.063mm Sieve Size	12/09/08	Selenium	2.2	mg/kg	12/31/08	EPA 6020
1086960	1086960031	SS-11C Dup <0.063mm Sieve Size	12/09/08	Silver	2.1	mg/kg	12/31/08	EPA 6020
1086960	1086960031	SS-11C Dup <0.063mm Sieve Size	12/09/08	Uranium-238	4.6	mg/kg	12/31/08	EPA 6020
1086960	1086960031	SS-11C Dup <0.063mm Sieve Size	12/09/08	Vanadium	62.8	mg/kg	12/31/08	EPA 6020
1086960	1086960031	SS-11C Dup <0.063mm Sieve Size	12/09/08	Zinc	1410	mg/kg	12/31/08	EPA 6020
1086960	1086960032	SS-10B <0.063mm Sieve Size	12/09/08	Mercury	0.87	mg/kg	01/07/09	EPA 7471
1086960	1086960032	SS-10B <0.063mm Sieve Size	12/09/08	Manganese	2190	mg/kg	01/05/09	EPA 6020
1086960	1086960032	SS-10B <0.063mm Sieve Size	12/09/08	Aluminum	21900	mg/kg	12/31/08	EPA 6020
1086960	1086960032	SS-10B <0.063mm Sieve Size	12/09/08	Antimony	1.2	mg/kg	12/31/08	EPA 6020
1086960	1086960032	SS-10B <0.063mm Sieve Size	12/09/08	Arsenic	43.1	mg/kg	12/31/08	EPA 6020
1086960	1086960032	SS-10B <0.063mm Sieve Size	12/09/08	Barium	397	mg/kg	12/31/08	EPA 6020
1086960	1086960032	SS-10B <0.063mm Sieve Size	12/09/08	Beryllium	1.4	mg/kg	12/31/08	EPA 6020
1086960	1086960032	SS-10B <0.063mm Sieve Size	12/09/08	Boron	10.6	mg/kg	12/31/08	EPA 6020
1086960	1086960032	SS-10B <0.063mm Sieve Size	12/09/08	Cadmium	8.4	mg/kg	12/31/08	EPA 6020
1086960	1086960032	SS-10B <0.063mm Sieve Size	12/09/08	Chromium	27.0	mg/kg	12/31/08	EPA 6020
1086960	1086960032	SS-10B <0.063mm Sieve Size	12/09/08	Cobalt	20.7	mg/kg	12/31/08	EPA 6020
1086960	1086960032	SS-10B <0.063mm Sieve Size	12/09/08	Copper	574	mg/kg	12/31/08	EPA 6020
1086960	1086960032	SS-10B <0.063mm Sieve Size	12/09/08	Iron	30400	mg/kg	12/31/08	EPA 6020
1086960	1086960032	SS-10B <0.063mm Sieve Size	12/09/08	Lead	192	mg/kg	12/31/08	EPA 6020
1086960	1086960032	SS-10B <0.063mm Sieve Size	12/09/08	Molybdenum	8.4	mg/kg	12/31/08	EPA 6020
1086960	1086960032	SS-10B <0.063mm Sieve Size	12/09/08	Nickel	15.5	mg/kg	12/31/08	EPA 6020
1086960	1086960032	SS-10B <0.063mm Sieve Size	12/09/08	Selenium	2.5	mg/kg	12/31/08	EPA 6020
1086960	1086960032	SS-10B <0.063mm Sieve Size	12/09/08	Silver	3.3	mg/kg	12/31/08	EPA 6020
1086960	1086960032	SS-10B <0.063mm Sieve Size	12/09/08	Uranium-238	9.1	mg/kg	12/31/08	EPA 6020
1086960	1086960032	SS-10B <0.063mm Sieve Size	12/09/08	Vanadium	53.2	mg/kg	12/31/08	EPA 6020
1086960	1086960032	SS-10B <0.063mm Sieve Size	12/09/08	Zinc	1640	mg/kg	12/31/08	EPA 6020
1086960	1086960033	SS-07 <0.063mm Sieve Size	12/09/08	Mercury	0.81	mg/kg	01/07/09	EPA 7471
1086960	1086960033	SS-07 <0.063mm Sieve Size	12/09/08	Manganese	4850	mg/kg	01/05/09	EPA 6020
1086960	1086960033	SS-07 <0.063mm Sieve Size	12/09/08	Aluminum	15900	mg/kg	12/31/08	EPA 6020
1086960	1086960033	SS-07 <0.063mm Sieve Size	12/09/08	Antimony	1.6	mg/kg	12/31/08	EPA 6020
1086960	1086960033	SS-07 <0.063mm Sieve Size	12/09/08	Arsenic	56.4	mg/kg	12/31/08	EPA 6020
1086960	1086960033	SS-07 <0.063mm Sieve Size	12/09/08	Barium	408	mg/kg	12/31/08	EPA 6020
1086960	1086960033	SS-07 <0.063mm Sieve Size	12/09/08	Beryllium	0.64	mg/kg	12/31/08	EPA 6020
1086960	1086960033	SS-07 <0.063mm Sieve Size	12/09/08	Boron	15.2	mg/kg	12/31/08	EPA 6020
1086960	1086960033	SS-07 <0.063mm Sieve Size	12/09/08	Cadmium	13.8	mg/kg	12/31/08	EPA 6020
1086960	1086960033	SS-07 <0.063mm Sieve Size	12/09/08	Chromium	47.7	mg/kg	12/31/08	EPA 6020
1086960	1086960033	SS-07 <0.063mm Sieve Size	12/09/08	Cobalt	19.1	mg/kg	12/31/08	EPA 6020
1086960	1086960033	SS-07 <0.063mm Sieve Size	12/09/08	Copper	798	mg/kg	12/31/08	EPA 6020
1086960	1086960033	SS-07 <0.063mm Sieve Size	12/09/08	Iron	31400	mg/kg	12/31/08	EPA 6020
1086960	1086960033	SS-07 <0.063mm Sieve Size	12/09/08	Lead	330	mg/kg	12/31/08	EPA 6020
1086960	1086960033	SS-07 <0.063mm Sieve Size	12/09/08	Molybdenum	19.2	mg/kg	12/31/08	EPA 6020
1086960	1086960033	SS-07 <0.063mm Sieve Size	12/09/08	Nickel	23.2	mg/kg	12/31/08	EPA 6020
1086960	1086960033	SS-07 <0.063mm Sieve Size	12/09/08	Selenium	2.7	mg/kg	12/31/08	EPA 6020
1086960	1086960033	SS-07 <0.063mm Sieve Size	12/09/08	Silver	4.9	mg/kg	12/31/08	EPA 6020
1086960	1086960033	SS-07 <0.063mm Sieve Size	12/09/08	Uranium-238	8.9	mg/kg	12/31/08	EPA 6020
1086960	1086960033	SS-07 <0.063mm Sieve Size	12/09/08	Vanadium	86.1	mg/kg	12/31/08	EPA 6020
1086960	1086960033	SS-07 <0.063mm Sieve Size	12/09/08	Zinc	1940	mg/kg	12/31/08	EPA 6020
1086960	568560	BLANK		Mercury	ND	mg/kg	01/07/09	EPA 7471

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086960	568565	BLANK		Mercury	<0.0094	mg/kg	01/07/09	EPA 7471
1086960	569743	BLANK		Aluminum	ND	mg/kg	12/30/08	EPA 6020
1086960	569743	BLANK		Arsenic	ND	mg/kg	12/30/08	EPA 6020
1086960	569743	BLANK		Barium	ND	mg/kg	12/30/08	EPA 6020
1086960	569743	BLANK		Beryllium	ND	mg/kg	12/30/08	EPA 6020
1086960	569743	BLANK		Boron	ND	mg/kg	12/30/08	EPA 6020
1086960	569743	BLANK		Cadmium	ND	mg/kg	12/30/08	EPA 6020
1086960	569743	BLANK		Chromium	ND	mg/kg	12/30/08	EPA 6020
1086960	569743	BLANK		Cobalt	ND	mg/kg	12/30/08	EPA 6020
1086960	569743	BLANK		Copper	ND	mg/kg	12/30/08	EPA 6020
1086960	569743	BLANK		Iron	ND	mg/kg	12/30/08	EPA 6020
1086960	569743	BLANK		Manganese	0.51	mg/kg	12/30/08	EPA 6020
1086960	569743	BLANK		Molybdenum	0.072J	mg/kg	12/30/08	EPA 6020
1086960	569743	BLANK		Nickel	ND	mg/kg	12/30/08	EPA 6020
1086960	569743	BLANK		Selenium	ND	mg/kg	12/30/08	EPA 6020
1086960	569743	BLANK		Vanadium	0.39	mg/kg	12/30/08	EPA 6020
1086960	569743	BLANK		Zinc	ND	mg/kg	12/30/08	EPA 6020
1086960	569743	BLANK		Antimony	0.0029J	mg/kg	12/31/08	EPA 6020
1086960	569743	BLANK		Lead	ND	mg/kg	12/31/08	EPA 6020
1086960	569743	BLANK		Silver	ND	mg/kg	12/31/08	EPA 6020
1086960	569743	BLANK		Uranium-238	ND	mg/kg	12/31/08	EPA 6020
1086960	569748	BLANK		Aluminum	<1.6	mg/kg	12/31/08	EPA 6020
1086960	569748	BLANK		Antimony	<0.039	mg/kg	12/31/08	EPA 6020
1086960	569748	BLANK		Arsenic	<0.099	mg/kg	12/31/08	EPA 6020
1086960	569748	BLANK		Barium	<0.050	mg/kg	12/31/08	EPA 6020
1086960	569748	BLANK		Beryllium	<0.016	mg/kg	12/31/08	EPA 6020
1086960	569748	BLANK		Boron	1.2J	mg/kg	12/31/08	EPA 6020
1086960	569748	BLANK		Cadmium	<0.063	mg/kg	12/31/08	EPA 6020
1086960	569748	BLANK		Chromium	0.079J	mg/kg	12/31/08	EPA 6020
1086960	569748	BLANK		Cobalt	<0.018	mg/kg	12/31/08	EPA 6020
1086960	569748	BLANK		Copper	<0.090	mg/kg	12/31/08	EPA 6020
1086960	569748	BLANK		Iron	<6.8	mg/kg	12/31/08	EPA 6020
1086960	569748	BLANK		Lead	<0.037	mg/kg	12/31/08	EPA 6020
1086960	569748	BLANK		Manganese	0.16J	mg/kg	12/31/08	EPA 6020
1086960	569748	BLANK		Molybdenum	<0.037	mg/kg	12/31/08	EPA 6020
1086960	569748	BLANK		Nickel	<0.043	mg/kg	12/31/08	EPA 6020
1086960	569748	BLANK		Selenium	0.097J	mg/kg	12/31/08	EPA 6020
1086960	569748	BLANK		Silver	<0.23	mg/kg	12/31/08	EPA 6020
1086960	569748	BLANK		Uranium-238	<0.73	mg/kg	12/31/08	EPA 6020
1086960	569748	BLANK		Vanadium	0.43	mg/kg	12/31/08	EPA 6020
1086960	569748	BLANK		Zinc	<0.99	mg/kg	12/31/08	EPA 6020
1086960	568561	LCS		Mercury	104	%	01/07/09	EPA 7471
1086960	568566	LCS		Mercury	104	%	01/07/09	EPA 7471
1086960	569744	LCS		Aluminum	116	%	12/30/08	EPA 6020
1086960	569744	LCS		Arsenic	110	%	12/30/08	EPA 6020
1086960	569744	LCS		Barium	104	%	12/30/08	EPA 6020
1086960	569744	LCS		Beryllium	106	%	12/30/08	EPA 6020
1086960	569744	LCS		Boron	103	%	12/30/08	EPA 6020
1086960	569744	LCS		Cadmium	110	%	12/30/08	EPA 6020
1086960	569744	LCS		Chromium	110	%	12/30/08	EPA 6020
1086960	569744	LCS		Cobalt	112	%	12/30/08	EPA 6020
1086960	569744	LCS		Copper	113	%	12/30/08	EPA 6020
1086960	569744	LCS		Iron	116	%	12/30/08	EPA 6020
1086960	569744	LCS		Manganese	105	%	12/30/08	EPA 6020
1086960	569744	LCS		Molybdenum	117	%	12/30/08	EPA 6020
1086960	569744	LCS		Nickel	105	%	12/30/08	EPA 6020

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086960	569744	LCS		Selenium	97	%	12/30/08	EPA 6020
1086960	569744	LCS		Vanadium	109	%	12/30/08	EPA 6020
1086960	569744	LCS		Zinc	100	%	12/30/08	EPA 6020
1086960	569744	LCS		Antimony	106	%	12/31/08	EPA 6020
1086960	569744	LCS		Lead	105	%	12/31/08	EPA 6020
1086960	569744	LCS		Silver	102	%	12/31/08	EPA 6020
1086960	569744	LCS		Uranium-238	106	%	12/31/08	EPA 6020
1086960	569749	LCS		Aluminum	100	%	12/31/08	EPA 6020
1086960	569749	LCS		Antimony	93	%	12/31/08	EPA 6020
1086960	569749	LCS		Arsenic	92	%	12/31/08	EPA 6020
1086960	569749	LCS		Barium	87	%	12/31/08	EPA 6020
1086960	569749	LCS		Beryllium	94	%	12/31/08	EPA 6020
1086960	569749	LCS		Boron	92	%	12/31/08	EPA 6020
1086960	569749	LCS		Cadmium	92	%	12/31/08	EPA 6020
1086960	569749	LCS		Chromium	90	%	12/31/08	EPA 6020
1086960	569749	LCS		Cobalt	92	%	12/31/08	EPA 6020
1086960	569749	LCS		Copper	95	%	12/31/08	EPA 6020
1086960	569749	LCS		Iron	95	%	12/31/08	EPA 6020
1086960	569749	LCS		Lead	90	%	12/31/08	EPA 6020
1086960	569749	LCS		Manganese	87	%	12/31/08	EPA 6020
1086960	569749	LCS		Molybdenum	93	%	12/31/08	EPA 6020
1086960	569749	LCS		Nickel	90	%	12/31/08	EPA 6020
1086960	569749	LCS		Selenium	86	%	12/31/08	EPA 6020
1086960	569749	LCS		Silver	98	%	12/31/08	EPA 6020
1086960	569749	LCS		Uranium-238	88	%	12/31/08	EPA 6020
1086960	569749	LCS		Vanadium	89	%	12/31/08	EPA 6020
1086960	569749	LCS		Zinc	87	%	12/31/08	EPA 6020
1086960	568564	MS		Mercury	69	%	01/07/09	EPA 7471
1086960	568567	MS		Mercury	131	%	01/07/09	EPA 7471
1086960	569745	MS		Aluminum	3430	%	12/30/08	EPA 6020
1086960	569745	MS		Arsenic	101	%	12/30/08	EPA 6020
1086960	569745	MS		Barium	52	%	12/30/08	EPA 6020
1086960	569745	MS		Beryllium	114	%	12/30/08	EPA 6020
1086960	569745	MS		Boron	106	%	12/30/08	EPA 6020
1086960	569745	MS		Cadmium	92	%	12/30/08	EPA 6020
1086960	569745	MS		Chromium	128	%	12/30/08	EPA 6020
1086960	569745	MS		Cobalt	125	%	12/30/08	EPA 6020
1086960	569745	MS		Copper	-225	%	12/30/08	EPA 6020
1086960	569745	MS		Iron	98	%	12/30/08	EPA 6020
1086960	569745	MS		Manganese	-574	%	12/30/08	EPA 6020
1086960	569745	MS		Molybdenum	121	%	12/30/08	EPA 6020
1086960	569745	MS		Nickel	120	%	12/30/08	EPA 6020
1086960	569745	MS		Selenium	109	%	12/30/08	EPA 6020
1086960	569745	MS		Vanadium	112	%	12/30/08	EPA 6020
1086960	569745	MS		Zinc	-8390	%	12/30/08	EPA 6020
1086960	569745	MS		Antimony	93	%	12/31/08	EPA 6020
1086960	569745	MS		Lead	-792	%	12/31/08	EPA 6020
1086960	569745	MS		Silver	79	%	12/31/08	EPA 6020
1086960	569745	MS		Uranium-238	101	%	12/31/08	EPA 6020
1086960	569746	MS		Aluminum	4690	%	12/30/08	EPA 6020
1086960	569746	MS		Arsenic	288	%	12/30/08	EPA 6020
1086960	569746	MS		Barium	86	%	12/30/08	EPA 6020
1086960	569746	MS		Beryllium	115	%	12/30/08	EPA 6020
1086960	569746	MS		Boron	107	%	12/30/08	EPA 6020
1086960	569746	MS		Cadmium	117	%	12/30/08	EPA 6020
1086960	569746	MS		Chromium	120	%	12/30/08	EPA 6020

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086960	569746	MS		Cobalt	121	%	12/30/08	EPA 6020
1086960	569746	MS		Copper	1160	%	12/30/08	EPA 6020
1086960	569746	MS		Iron	1640	%	12/30/08	EPA 6020
1086960	569746	MS		Lead	803	%	12/30/08	EPA 6020
1086960	569746	MS		Manganese	998	%	12/30/08	EPA 6020
1086960	569746	MS		Molybdenum	98	%	12/30/08	EPA 6020
1086960	569746	MS		Nickel	107	%	12/30/08	EPA 6020
1086960	569746	MS		Selenium	98	%	12/30/08	EPA 6020
1086960	569746	MS		Uranium-238	94	%	12/30/08	EPA 6020
1086960	569746	MS		Vanadium	143	%	12/30/08	EPA 6020
1086960	569746	MS		Zinc	3310	%	12/30/08	EPA 6020
1086960	569746	MS		Antimony	79	%	12/31/08	EPA 6020
1086960	569746	MS		Silver	109	%	12/31/08	EPA 6020
1086960	569750	MS		Aluminum	9910	%	12/31/08	EPA 6020
1086960	569750	MS		Antimony	50	%	12/31/08	EPA 6020
1086960	569750	MS		Arsenic	232	%	12/31/08	EPA 6020
1086960	569750	MS		Barium	106	%	12/31/08	EPA 6020
1086960	569750	MS		Beryllium	84	%	12/31/08	EPA 6020
1086960	569750	MS		Boron	83	%	12/31/08	EPA 6020
1086960	569750	MS		Cadmium	90	%	12/31/08	EPA 6020
1086960	569750	MS		Chromium	92	%	12/31/08	EPA 6020
1086960	569750	MS		Cobalt	88	%	12/31/08	EPA 6020
1086960	569750	MS		Copper	17	%	12/31/08	EPA 6020
1086960	569750	MS		Iron	120	%	12/31/08	EPA 6020
1086960	569750	MS		Lead	-52	%	12/31/08	EPA 6020
1086960	569750	MS		Manganese	-869	%	12/31/08	EPA 6020
1086960	569750	MS		Molybdenum	89	%	12/31/08	EPA 6020
1086960	569750	MS		Nickel	88	%	12/31/08	EPA 6020
1086960	569750	MS		Selenium	85	%	12/31/08	EPA 6020
1086960	569750	MS		Silver	84	%	12/31/08	EPA 6020
1086960	569750	MS		Uranium-238	85	%	12/31/08	EPA 6020
1086960	569750	MS		Vanadium	100	%	12/31/08	EPA 6020
1086960	569750	MS		Zinc	66	%	12/31/08	EPA 6020
1086960	569751	MS		Aluminum	49100	%	12/31/08	EPA 6020
1086960	569751	MS		Antimony	32	%	12/31/08	EPA 6020
1086960	569751	MS		Arsenic	126	%	12/31/08	EPA 6020
1086960	569751	MS		Barium	449	%	12/31/08	EPA 6020
1086960	569751	MS		Beryllium	108	%	12/31/08	EPA 6020
1086960	569751	MS		Boron	117	%	12/31/08	EPA 6020
1086960	569751	MS		Cadmium	115	%	12/31/08	EPA 6020
1086960	569751	MS		Chromium	136	%	12/31/08	EPA 6020
1086960	569751	MS		Cobalt	121	%	12/31/08	EPA 6020
1086960	569751	MS		Copper	350	%	12/31/08	EPA 6020
1086960	569751	MS		Iron	1130	%	12/31/08	EPA 6020
1086960	569751	MS		Lead	157	%	12/31/08	EPA 6020
1086960	569751	MS		Manganese	1340	%	12/31/08	EPA 6020
1086960	569751	MS		Molybdenum	113	%	12/31/08	EPA 6020
1086960	569751	MS		Nickel	177	%	12/31/08	EPA 6020
1086960	569751	MS		Selenium	100	%	12/31/08	EPA 6020
1086960	569751	MS		Silver	113	%	12/31/08	EPA 6020
1086960	569751	MS		Uranium-238	107	%	12/31/08	EPA 6020
1086960	569751	MS		Vanadium	181	%	12/31/08	EPA 6020
1086960	569751	MS		Zinc	786	%	12/31/08	EPA 6020
1086960	569793	MS		Mercury	231	%	01/07/09	EPA 7471
1086960	569807	MS		Mercury	107	%	01/07/09	EPA 7471
1086960	568568	MSD		Mercury	123	%	01/07/09	EPA 7471

2008 Sediment Data

Lab ID	Sample	Sample Station	Date	Parameter	Value	Units	Lab Date	Method
1086960	569747	MSD		Aluminum	3220	%	12/30/08	EPA 6020
1086960	569747	MSD		Arsenic	109	%	12/30/08	EPA 6020
1086960	569747	MSD		Barium	146	%	12/30/08	EPA 6020
1086960	569747	MSD		Beryllium	113	%	12/30/08	EPA 6020
1086960	569747	MSD		Boron	104	%	12/30/08	EPA 6020
1086960	569747	MSD		Cadmium	110	%	12/30/08	EPA 6020
1086960	569747	MSD		Chromium	98	%	12/30/08	EPA 6020
1086960	569747	MSD		Cobalt	108	%	12/30/08	EPA 6020
1086960	569747	MSD		Copper	672	%	12/30/08	EPA 6020
1086960	569747	MSD		Iron	-539	%	12/30/08	EPA 6020
1086960	569747	MSD		Lead	87	%	12/30/08	EPA 6020
1086960	569747	MSD		Manganese	-247	%	12/30/08	EPA 6020
1086960	569747	MSD		Molybdenum	103	%	12/30/08	EPA 6020
1086960	569747	MSD		Nickel	100	%	12/30/08	EPA 6020
1086960	569747	MSD		Selenium	96	%	12/30/08	EPA 6020
1086960	569747	MSD		Uranium-238	94	%	12/30/08	EPA 6020
1086960	569747	MSD		Vanadium	52	%	12/30/08	EPA 6020
1086960	569747	MSD		Zinc	-436	%	12/30/08	EPA 6020
1086960	569747	MSD		Antimony	83	%	12/31/08	EPA 6020
1086960	569747	MSD		Silver	99	%	12/31/08	EPA 6020
1086960	569752	MSD		Aluminum	51900	%	12/31/08	EPA 6020
1086960	569752	MSD		Antimony	32	%	12/31/08	EPA 6020
1086960	569752	MSD		Arsenic	131	%	12/31/08	EPA 6020
1086960	569752	MSD		Barium	569	%	12/31/08	EPA 6020
1086960	569752	MSD		Beryllium	108	%	12/31/08	EPA 6020
1086960	569752	MSD		Boron	115	%	12/31/08	EPA 6020
1086960	569752	MSD		Cadmium	117	%	12/31/08	EPA 6020
1086960	569752	MSD		Chromium	142	%	12/31/08	EPA 6020
1086960	569752	MSD		Cobalt	127	%	12/31/08	EPA 6020
1086960	569752	MSD		Copper	396	%	12/31/08	EPA 6020
1086960	569752	MSD		Iron	1530	%	12/31/08	EPA 6020
1086960	569752	MSD		Lead	170	%	12/31/08	EPA 6020
1086960	569752	MSD		Manganese	1810	%	12/31/08	EPA 6020
1086960	569752	MSD		Molybdenum	116	%	12/31/08	EPA 6020
1086960	569752	MSD		Nickel	189	%	12/31/08	EPA 6020
1086960	569752	MSD		Selenium	104	%	12/31/08	EPA 6020
1086960	569752	MSD		Silver	116	%	12/31/08	EPA 6020
1086960	569752	MSD		Uranium-238	110	%	12/31/08	EPA 6020
1086960	569752	MSD		Vanadium	193	%	12/31/08	EPA 6020
1086960	569752	MSD		Zinc	949	%	12/31/08	EPA 6020
1086960	569794	MSD		Mercury	121	%	01/07/09	EPA 7471

Appendix M

2008 Biological Data

Analysis of biological samples:
Technical summary of methods and quality assurance procedures
Prepared for Confluence Consulting, Inc.
Brian Sandefur, Project Manager
October 30, 2008

by
W. Bollman, Chief Biologist
Rhithron Associates, Inc.
Missoula, Montana

METHODS

Sample processing

Eleven macroinvertebrate samples and 11 periphyton samples were delivered to Rhithron's laboratory facility in Missoula, Montana on September 19, 2008. All samples arrived in good condition. An inventory document containing sample identification information was provided by Confluence Consulting, Inc. (CC). Upon arrival, samples were unpacked and examined, and checked against the CC inventory. An electronic inventory spreadsheet was created and sent to the CC Project Manager. This spreadsheet included project code and internal laboratory identification numbers and was verified by the CC Project Manager prior to upload into the Rhithron database.

Subsamples of a minimum of 300 organisms were obtained using methods consistent with Montana Department of Environmental Quality (MDEQ) standard procedures (MDEQ 2006): Caton sub-sampling devices (Caton 1991), divided into 30 grids, each approximately 5 cm by 6 cm were used. Each individual sample was thoroughly mixed in its jar(s), poured out and evenly spread into the Caton tray, and individual grids were randomly selected. The contents of each grid were examined under stereoscopic microscopes using 10x-30x magnification. All aquatic invertebrates from each selected grid were sorted from the substrate, and placed in 95% ethanol for subsequent identification. Grid selection, examination, and sorting continued until at least 300 organisms were sorted. The final grid was completely sorted of all organisms. All unsorted sample fractions were retained and stored at the Rhithron laboratory.

Organisms were individually examined by certified taxonomists, using 10x – 80x stereoscopic dissecting scopes (Leica S8E and S6E) and identified to the lowest practical level consistent with MDEQ (MDEQ 2006) data requirements, using appropriate published taxonomic references and keys. Identification, counts, life stages, and information about the condition of specimens were recorded on bench sheets. To obtain accuracy in richness measures, organisms that could not be identified to the target level specified in MDEQ protocols were designated as "not unique" if other specimens from the same group could be taken to target levels. Organisms designated as "unique" were those that could be definitively distinguished from other organisms in the sample. Identified organisms were preserved in 95% ethanol in labeled vials, and archived at the Rhithron laboratory.

Midges and worms were carefully morphotyped using 10x – 80x stereoscopic dissecting microscopes (Leica S8E and S6E) and representative specimens were slide mounted and examined at 200x – 1000x magnification using an Olympus BX 51 compound microscope. Slide mounted organisms were archived at the Rhithron laboratory.

Eleven periphyton samples, preserved with Lugol's solution, were topped-off upon arrival at the laboratory. Samples were thoroughly mixed by shaking. Permanent diatom slides were prepared: subsamples were taken and treated with concentrated H_2SO_4 and 30% H_2O_2. Samples were neutralized by rinses with distilled water, and

subsample volumes were adjusted to obtain adequate densities. Small amounts of each sample were dried onto 22-mm square coverslips. Coverslips were mounted on slides using Naphrax diatom mount. To ensure a high quality mount for identification and to make replicates available for archives, 3 slide mounts were made from each sample. One of the replicates was selected from each sample batch for identification. A diamond scribe mark was made to define a transect line on the cover slip, and a minimum of 600 diatom valves were identified along the transect mark. A Leica DM 2500 compound microscope, Nomarski contrast, and 1000x magnification were used for identifications. Diatoms were identified to the lowest possible taxonomic level, generally species, following standard taxonomic references.

For soft-bodied (non-diatom) algae samples, the raw periphyton sample was manually homogenized and emptied into a porcelain evaporating dish. A small, random sub-sample of algal material was pipetted onto a standard glass microscope slide using a disposable dropper or soda straw. Visible (macroscopic) algae were also sub-sampled, in proportion to their estimated importance relative to the total volume of algal material in the sample, and added to the liquid fraction on the slide. The wet mount was then covered with a 22X30 mm cover slip.

Soft-bodied (non-diatom) algae were identified to genus using an Olympus BHT compound microscope under 200X and 400X. The relative abundance of each algal genus (and of all diatom genera collectively) was estimated for comparative purposes, according to the following system:

- rare (r): represented by a single occurrence in the sub-sample
- occasional (o): multiple occurrences, but infrequently seen
- common (c): multiple occurrences, regularly seen
- frequent (f): present in nearly every field of view
- abundant (a): multiple occurrences in every field of view, but well within limits of enumeration
- dominant (d): multiple occurrences in every field of view, but generally beyond practical limits of enumeration

Soft-bodied genera (and the diatom component) were also ranked according to their estimated contribution to the total algal biovolume present in the sample.

Quality control procedures

Quality control procedures for initial sample processing and subsampling involved checking sorting efficiency. These checks were conducted on 100% of the samples by independent observers who microscopically re-examined 20% of sorted substrate from each sample. All organisms that were missed were counted and this number was added to the total number obtained in the original sort. Sorting efficiency was evaluated by applying the following calculation:

$$SE = \frac{n_1}{n_{1+2}} \times 100$$

where: SE is the sorting efficiency, expressed as a percentage, n_1 is the total number of specimens in the first sort, and n_{1+2} is the total number of specimens in the first and second sorts combined.

Quality control procedures for taxonomic determinations of invertebrates involved checking accuracy, precision and enumeration. One sample was randomly selected and all organisms re-identified and counted by an independent taxonomist. Taxa lists and enumerations were compared by calculating a Bray-Curtis similarity statistic (Bray and Curtis 1957) for each selected sample. Routinely, discrepancies between the original identifications and the QC identifications are discussed among the taxonomists, and necessary rectifications to the data are made. Discrepancies that cannot be rectified by discussions are routinely sent out to taxonomic specialists for

identification. However, taxonomic certainty for identifications in this project was high and no external verifications were necessary.

Quality control procedures for periphyton taxonomy involved the re-identification of diatoms and non-diatom algae from a randomly selected sample by an independent taxonomist. Re-identifications of diatoms were made by Diane M. Winter (University of Nebraska, Lincoln, Nebraska). Re-identifications of non-diatom algae were made by Erich Weber (PhycoLogic, Helena, Montana). Bray-Curtis similarity statistics were generated by comparing the original identifications with the re-identifications, and adjustments to taxonomy were made where appropriate. Discrepancies in identifications were discussed, and rectifications were made to the data.

Data analysis

Taxa lists and counts for each sample were constructed. Standard metric calculations for aquatic invertebrate and periphyton assemblages were made using Rhithron's customized database software, and a multimetric index developed for montane ecoregions of Montana (MVFP index) (Bollman 1998) was calculated and scored.

RESULTS

Quality Control Procedures

Results of quality control procedures for subsampling and taxonomy are given in Table 1. Sorting efficiency averaged 98.22% for macroinvertebrate samples, taxonomic precision for identification and enumeration was 99.67% for the randomly selected macroinvertebrate QA sample, and data entry efficiency averaged 100% for the project. Taxonomic precision for identification and enumeration was 77.52% for the randomly selected periphyton QA sample. These similarity statistics fall within acceptable industry criteria (aquatic invertebrates: Stribling et al. 2003; periphyton: Bahls pers. comm.)

Data analysis

Taxa lists and counts, and values and scores for various standard bioassessment metrics and indices calculated by Rhithron are given in the Appendix.

Sites-by-taxa and sites-by-metrics matrices for both aquatic invertebrates and diatoms as well as non-diatom algae identifications were provided to the CC Project Manager via email. Results of the MVFP index and impairment categories taken from Bollman (1998) were also included in the aquatic invertebrate spreadsheet.

Table 1. *Results of internal quality control procedures for subsampling and taxonomy.*

RAI Sample ID	Station name	Site ID	Biotic group	Sorting efficiency	Bray-Curtis similarity for taxonomy and enumeration
CC08SBC001	Above Butte WWTP	SS-06G	macroinvertebrate	100.00%	99.67%
CC08SBC002	Below Butte WWTP	SS-07	macroinvertebrate	100.00%	
CC08SBC003	at Rocker	SS-08	macroinvertebrate	96.98%	
CC08SBC004	above Sand Creek	SS-10A	macroinvertebrate	95.45%	
CC08SBC005	below Sand Creek	SS-10B	macroinvertebrate	95.66%	
CC08SBC006	above Brown's Gulch	SS-11C	macroinvertebrate	100.00%	
CC08SBC007	below Brown's Gulch	SS-11D	macroinvertebrate	98.45%	
CC08SBC008	Mouth @ confluence	SS-15G	macroinvertebrate	98.44%	
CC08SBC009	above German Gulch	SS-15A	macroinvertebrate	96.97%	
CC08SBC010	below German Gulch	SS-15B	macroinvertebrate	98.48%	
CC08SBC011	at Opportunity Gage	SS-17	macroinvertebrate	100.00%	
CC08SBCP001	Above Butte WWTP	SS-06G	periphyton	-	77.52%
CC08SBCP002	Below Butte WWTP	SS-07	periphyton	-	
CC08SBCP003	at Rocker	SS-08	periphyton	-	
CC08SBCP004	above Sand Creek	SS-10A	periphyton	-	
CC08SBCP005	below Sand Creek	SS-10B	periphyton	-	
CC08SBCP006	above Brown's Gulch	SS-11C	periphyton	-	
CC08SBCP007	below Brown's Gulch	SS-11D	periphyton	-	
CC08SBCP008	Mouth @ confluence	SS-15G	periphyton	-	
CC08SBCP009	above German Gulch	SS-15A	periphyton	-	
CC08SBCP010	below German Gulch	SS-15B	periphyton	-	
CC08SBCP011	at Opportunity Gage	SS-17	periphyton	-	

REFERENCES

Bollman, W. 1998. Improving Stream Bioassessment Methods for the Montana Valleys and Foothill Prairies Ecoregion. Master's Thesis (MS). University of Montana. Missoula, Montana.

Bray, J. R. and J. T. Curtis. 1957. An ordination of upland forest communities of southern Wisconsin. Ecological Monographs 27: 325-349.

Caton, L. W. 1991. Improving subsampling methods for the EPA's "Rapid Bioassessment" benthic protocols. Bulletin of the North American Benthological Society. 8(3): 317-319.

MDEQ. 2006. Sample Collection, Sorting, and Taxonomic Identification of Benthic Macroinvertebrates. Montana Department of Environmental Quality. Water Quality Planning Bureau. Standard Operating Procedure. WQPBWQM-009. Helena, Montana.

Stribling, J.B., S.R Moulton II and G.T. Lester. 2003. Determining the quality of taxonomic data. J.N. Am. Benthol. Soc. 22(4): 621-631.

APPENDIX

Taxa lists and metric summaries

Silver Bow Creek

2008

Taxa Listing

Project ID: CC08SBC
RAI No.: CC08SBC001

RAI No.: CC08SBC001 **Sta. Name:** Above Butte WWTP
Client ID: SS-06G
Date Coll.: 9/15/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Unique	Stage	Qualifier	BI	Function
Non-Insect							
Acari	1	0.31%	Yes	Unknown		5	PR
Enchytraeidae							
Enchytraeus sp.	1	0.31%	Yes	Unknown		4	CG
Lymnaeidae							
Stagnicola sp.	42	12.96%	Yes	Unknown		6	SC
Naididae							
Naididae (Tubificinae) - with capillary setae	2	0.62%	Yes	Immature	Damaged	11	CG
Sphaeriidae							
Sphaeriidae	4	1.23%	Yes	Unknown		8	CF
Ephemeroptera							
Baetidae							
Baetis tricaudatus	5	1.54%	Yes	Larva		4	CG
Trichoptera							
Brachycentridae							
Brachycentrus americanus	2	0.62%	Yes	Larva		1	CF
Hydropsychidae							
Cheumatopsyche sp.	4	1.23%	Yes	Larva		5	CF
Hydropsyche sp.	202	62.35%	Yes	Larva		5	CF
Leptoceridae							
Oecetis sp.	3	0.93%	Yes	Larva		8	PR
Coleoptera							
Elmidae							
Microcylloepus sp.	1	0.31%	Yes	Adult		5	CG
Optioservus sp.	3	0.93%	Yes	Adult		5	SC
Optioservus sp.	14	4.32%	No	Larva		5	SC
Zaitzevia sp.	1	0.31%	Yes	Adult		5	CG
Diptera							
Simuliidae							
Simulium sp.	9	2.78%	Yes	Larva		6	CF
Tipulidae							
Tipula sp.	20	6.17%	Yes	Larva		4	SH
Chironomidae							
Chironomidae							
Cricotopus (Cricotopus) sp.	1	0.31%	Yes	Larva		7	SH
Eukiefferiella Pseudomontana Gr.	2	0.62%	Yes	Larva		8	CG
Orthocladius sp.	5	1.54%	Yes	Larva		6	CG
Thienemanniella sp.	1	0.31%	Yes	Larva		6	CG
Thienemannimyia Gr.	1	0.31%	Yes	Larva		5	PR
Sample Count	**324**						

Taxa Listing

Project ID: CC08SBC
RAI No.: CC08SBC002

RAI No.: CC08SBC002 **Sta. Name:** Below Butte WWTP
Client ID: SS-07
Date Coll.: 9/15/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Unique	Stage	Qualifier	BI	Function
Non-Insect							
Acari	2	0.63%	Yes	Unknown		5	PR
Nematoda	4	1.26%	Yes	Unknown		5	PA
Enchytraeidae							
Enchytraeus sp.	1	0.31%	Yes	Unknown		4	CG
Lymnaeidae							
Stagnicola sp.	29	9.12%	Yes	Unknown		6	SC
Naididae							
Naididae (Naidinae)	2	0.63%	Yes	Immature	Damaged	8	CG
Naididae (Tubificinae) - with capillary setae	10	3.14%	Yes	Immature		11	CG
Naididae (Tubificinae) - without capillary setae	1	0.31%	Yes	Immature	Damaged	11	CG
Nais sp.	90	28.30%	Yes	Unknown		8	CG
Sphaeriidae							
Sphaeriidae	3	0.94%	Yes	Unknown		8	CF
Ephemeroptera							
Baetidae							
Baetis tricaudatus	2	0.63%	Yes	Larva		4	CG
Trichoptera							
Brachycentridae							
Amiocentrus aspilus	1	0.31%	Yes	Larva		3	CG
Hydropsychidae							
Cheumatopsyche sp.	2	0.63%	Yes	Larva		5	CF
Hydropsyche sp.	32	10.06%	Yes	Larva		5	CF
Leptoceridae							
Oecetis sp.	2	0.63%	Yes	Larva		8	PR
Coleoptera							
Elmidae							
Optioservus sp.	8	2.52%	Yes	Larva		5	SC
Diptera							
Muscidae							
Muscidae	1	0.31%	Yes	Larva		10	PR
Simuliidae							
Simulium sp.	23	7.23%	Yes	Larva		6	CF
Tipulidae							
Tipula sp.	16	5.03%	Yes	Larva		4	SH
Chironomidae							
Chironomidae							
Chironomidae	2	0.63%	No	Pupa		10	CG
Chironomini	2	0.63%	No	Larva	Early Instar	6	CG
Chironomus sp.	43	13.52%	Yes	Larva		10	CG
Cricotopus (Cricotopus) sp.	5	1.57%	Yes	Larva		7	SH
Cricotopus (Isocladius) sp.	4	1.26%	Yes	Larva		7	SH
Cricotopus bicinctus	1	0.31%	Yes	Larva		7	SH
Eukiefferiella Pseudomontana Gr.	23	7.23%	Yes	Larva		8	CG
Micropsectra sp.	1	0.31%	Yes	Larva		4	CG
Orthocladiinae	8	2.52%	No	Larva	Early Instar	6	CG

Taxa Listing

Project ID: CC08SBC
RAI No.: CC08SBC002

RAI No.:	CC08SBC002			**Sta. Name:**	Below Butte WWTP
Client ID:	SS-07				
Date Coll.:	9/15/2008	**No. Jars:**	1	**STORET ID:**	

Taxonomic Name	Count	PRA	Unique	Stage	Qualifier	BI	Function
Sample Count	318						

Taxa Listing

Project ID: CC08SBC
RAI No.: CC08SBC003

RAI No.: CC08SBC003 **Sta. Name:** at Rocker
Client ID: SS-08
Date Coll.: 9/15/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Unique	Stage	Qualifier	BI	Function
Non-Insect							
Acari	5	1.57%	Yes	Unknown		5	PR
Copepoda	1	0.31%	Yes	Unknown		8	CG
Nematoda	8	2.52%	Yes	Unknown		5	PA
Glossiphoniidae							
Helobdella stagnalis	71	22.33%	Yes	Unknown		10	PR
Naididae							
Naididae (Tubificinae) - with capillary setae	2	0.63%	Yes	Immature	Damaged	11	CG
Coleoptera							
Haliplidae							
Haliplus sp.	1	0.31%	Yes	Larva		5	PH
Diptera							
Simuliidae							
Simuliidae	13	4.09%	No	Pupa		6	CF
Simulium sp.	11	3.46%	Yes	Larva		6	CF
Chironomidae							
Chironomidae							
Cardiocladius sp.	1	0.31%	Yes	Larva		5	PR
Chironomidae	28	8.81%	No	Pupa		10	CG
Chironomus sp.	1	0.31%	Yes	Larva		10	CG
Cricotopus (Cricotopus) sp.	39	12.26%	Yes	Larva		7	SH
Cricotopus bicinctus	51	16.04%	Yes	Larva		7	SH
Dicrotendipes sp.	7	2.20%	Yes	Larva		8	CG
Eukiefferiella Brehmi Gr.	8	2.52%	Yes	Larva		8	CG
Eukiefferiella Pseudomontana Gr.	39	12.26%	Yes	Larva		8	CG
Micropsectra sp.	22	6.92%	Yes	Larva		4	CG
Orthocladius sp.	4	1.26%	Yes	Larva		6	CG
Parametriocnemus sp.	5	1.57%	Yes	Larva		5	CG
Psectrocladius sp.	1	0.31%	Yes	Larva		8	CG
Sample Count	**318**						

Taxa Listing

Project ID: CC08SBC
RAI No.: CC08SBC004

RAI No.: CC08SBC004 **Sta. Name:** above Sand Creek
Client ID: SS-10A
Date Coll.: 9/15/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Unique	Stage	Qualifier	BI	Function
Non-Insect							
Acari	5	1.75%	Yes	Unknown		5	PR
Nematoda	5	1.75%	Yes	Unknown		5	PA
Enchytraeidae							
Enchytraeus sp.	6	2.11%	Yes	Unknown		4	CG
Glossiphoniidae							
Helobdella stagnalis	14	4.91%	Yes	Unknown		10	PR
Lumbriculidae							
Lumbriculidae	2	0.70%	Yes	Immature	Damaged	4	CG
Lymnaeidae							
Lymnaeidae	1	0.35%	Yes	Immature		6	SC
Naididae							
Naididae (Tubificinae) - with capillary setae	2	0.70%	Yes	Immature		11	CG
Naididae (Tubificinae) - without capillary setae	11	3.86%	Yes	Immature		11	CG
Nais sp.	7	2.46%	Yes	Unknown		8	CG
Ephemeroptera							
Baetidae							
Callibaetis sp.	7	2.46%	Yes	Larva		9	CG
Heteroptera							
Corixidae							
Sigara sp.	1	0.35%	Yes	Adult		5	PH
Trichoptera							
Hydropsychidae							
Cheumatopsyche sp.	1	0.35%	Yes	Larva		5	CF
Hydropsyche sp.	1	0.35%	Yes	Larva		5	CF
Limnephilidae							
Limnephilidae	1	0.35%	Yes	Larva	Early Instar	3	SH
Diptera							
Muscidae							
Muscidae	1	0.35%	Yes	Larva		10	PR
Simuliidae							
Simuliidae	5	1.75%	No	Pupa		6	CF
Simulium sp.	3	1.05%	Yes	Larva		6	CF

Taxa Listing

Project ID: CC08SBC
RAI No.: CC08SBC004

RAI No.: CC08SBC004 **Sta. Name:** above Sand Creek
Client ID: SS-10A
Date Coll.: 9/15/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Unique	Stage	Qualifier	BI	Function
Chironomidae							
Chironomidae							
Chironomidae	12	4.21%	No	Pupa		10	CG
Chironomus sp.	1	0.35%	Yes	Larva		10	CG
Cricotopus bicinctus	2	0.70%	Yes	Larva		7	SH
Cricotopus trifascia	22	7.72%	Yes	Larva		7	SH
Dicrotendipes sp.	3	1.05%	Yes	Larva		8	CG
Eukiefferiella Claripennis Gr.	1	0.35%	Yes	Larva		8	CG
Eukiefferiella Pseudomontana Gr.	1	0.35%	Yes	Larva		8	CG
Micropsectra sp.	142	49.82%	Yes	Larva		4	CG
Nanocladius sp.	2	0.70%	Yes	Larva		3	CG
Orthocladiinae	5	1.75%	No	Larva	Early Instar	6	CG
Orthocladius sp.	2	0.70%	Yes	Larva		6	CG
Parametriocnemus sp.	5	1.75%	Yes	Larva		5	CG
Pentaneura sp.	1	0.35%	Yes	Larva		6	PR
Phaenopsectra sp.	7	2.46%	Yes	Larva		7	SC
Tanypodinae	2	0.70%	Yes	Larva	Early Instar	7	PR
Tanytarsus sp.	1	0.35%	Yes	Larva		6	CF
Tvetenia Bavarica Gr.	3	1.05%	Yes	Larva		5	CG
Sample Count	**285**						

Taxa Listing

Project ID: CC08SBC
RAI No.: CC08SBC005

RAI No.: CC08SBC005 **Sta. Name:** below Sand Creek
Client ID: SS-10B
Date Coll.: 9/15/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Unique	Stage	Qualifier	BI	Function
Non-Insect							
Acari	1	0.30%	Yes	Unknown		5	PR
Nematoda	4	1.21%	Yes	Unknown		5	PA
Glossiphoniidae							
Helobdella stagnalis	27	8.18%	Yes	Unknown		10	PR
Lymnaeidae							
Lymnaeidae	1	0.30%	Yes	Immature		6	SC
Naididae							
Naididae (Tubificinae) - without capillary setae	2	0.61%	Yes	Immature	Damaged	11	CG
Nais sp.	4	1.21%	Yes	Unknown		8	CG
Odonata							
Coenagrionidae							
Enallagma sp.	1	0.30%	Yes	Larva		7	PR
Ephemeroptera							
Baetidae							
Callibaetis sp.	25	7.58%	Yes	Larva		9	CG
Heteroptera							
Corixidae							
Corixidae	2	0.61%	Yes	Adult	Damaged	10	PH
Corixidae	1	0.30%	No	Larva		10	PH
Trichoptera							
Hydropsychidae							
Hydropsyche sp.	1	0.30%	Yes	Larva		5	CF
Coleoptera							
Haliplidae							
Haliplus sp.	1	0.30%	Yes	Larva		5	PH
Diptera							
Simuliidae							
Simuliidae	2	0.61%	Yes	Pupa		6	CF

Taxa Listing

Project ID: CC08SBC
RAI No.: CC08SBC005

RAI No.: CC08SBC005 **Sta. Name:** below Sand Creek
Client ID: SS-10B
Date Coll.: 9/15/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Unique	Stage	Qualifier	BI	Function
Chironomidae							
Chironomidae							
Apedilum sp.	2	0.61%	Yes	Larva		11	CG
Chironomidae	11	3.33%	No	Pupa		10	CG
Chironomini	4	1.21%	No	Larva	Early Instar	6	CG
Chironomus sp.	2	0.61%	Yes	Larva		10	CG
Corynoneura sp.	1	0.30%	Yes	Larva		7	CG
Cricotopus (Cricotopus) sp.	1	0.30%	Yes	Larva		7	SH
Cricotopus bicinctus	7	2.12%	Yes	Larva		7	SH
Cricotopus trifascia	16	4.85%	Yes	Larva		7	SH
Dicrotendipes sp.	13	3.94%	Yes	Larva		8	CG
Eukiefferiella Pseudomontana Gr.	4	1.21%	Yes	Larva		8	CG
Micropsectra sp.	171	51.82%	Yes	Larva		4	CG
Orthocladiinae	8	2.42%	No	Larva	Early Instar	6	CG
Orthocladius sp.	2	0.61%	Yes	Larva		6	CG
Parametriocnemus sp.	4	1.21%	Yes	Larva		5	CG
Phaenopsectra sp.	4	1.21%	Yes	Larva		7	SC
Pseudochironomus sp.	2	0.61%	Yes	Larva		5	CG
Tanypodinae	1	0.30%	Yes	Larva	Early Instar	7	PR
Tanytarsus sp.	3	0.91%	Yes	Larva		6	CF
Thienemanniella sp.	1	0.30%	Yes	Larva		6	CG
Tvetenia Bavarica Gr.	1	0.30%	Yes	Larva		5	CG
Sample Count	**330**						

Taxa Listing

Project ID: CC08SBC
RAI No.: CC08SBC006

RAI No.: CC08SBC006 **Sta. Name:** above Brown's Gulch
Client ID: SS-11C
Date Coll.: 9/15/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Unique	Stage	Qualifier	BI	Function
Non-Insect							
Acari	19	5.76%	Yes	Unknown		5	PR
Glossiphoniidae							
Helobdella stagnalis	27	8.18%	Yes	Unknown		10	PR
Hyalellidae							
Hyalella sp.	1	0.30%	Yes	Unknown		8	CG
Lymnaeidae							
Stagnicola sp.	1	0.30%	Yes	Unknown		6	SC
Naididae							
Naididae (Tubificinae) - without capillary setae	4	1.21%	Yes	Immature	Damaged	11	CG
Physidae							
Physidae	3	0.91%	Yes	Unknown		8	SC
Ephemeroptera							
Baetidae							
Baetis sp.	1	0.30%	Yes	Larva	Damaged	5	CG
Callibaetis sp.	4	1.21%	Yes	Larva		9	CG
Plauditus sp.	2	0.61%	Yes	Larva		4	CG
Heteroptera							
Corixidae							
Cenocorixa sp.	1	0.30%	Yes	Adult		8	PR
Sigara sp.	1	0.30%	Yes	Adult		5	PH
Trichoptera							
Brachycentridae							
Brachycentrus occidentalis	1	0.30%	Yes	Larva		2	CF
Helicopsychidae							
Helicopsyche borealis	1	0.30%	Yes	Larva		3	SC
Hydropsychidae							
Cheumatopsyche sp.	3	0.91%	Yes	Larva		5	CF
Hydropsyche sp.	20	6.06%	Yes	Larva		5	CF
Leptoceridae							
Nectopsyche sp.	1	0.30%	Yes	Larva		2	SH
Limnephilidae							
Limnephilidae	1	0.30%	Yes	Larva	Early Instar	3	SH
Limnephilidae	1	0.30%	No	Pupa		3	SH
Coleoptera							
Haliplidae							
Haliplus sp.	1	0.30%	Yes	Larva		5	PH
Diptera							
Muscidae							
Muscidae	2	0.61%	Yes	Larva		10	PR
Simuliidae							
Simuliidae	2	0.61%	Yes	Pupa		6	CF
Tipulidae							
Tipula sp.	12	3.64%	Yes	Larva		4	SH

Taxa Listing

Project ID: CC08SBC
RAI No.: CC08SBC006

RAI No.: CC08SBC006 **Sta. Name:** above Brown's Gulch
Client ID: SS-11C
Date Coll.: 9/15/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Unique	Stage	Qualifier	BI	Function
Chironomidae							
Chironomidae							
Chironomidae	18	5.45%	No	Pupa		10	CG
Chironomini	1	0.30%	No	Larva	Early Instar	6	CG
Chironomus sp.	1	0.30%	Yes	Larva		10	CG
Cladotanytarsus sp.	1	0.30%	Yes	Larva		7	CG
Cricotopus (Cricotopus) sp.	16	4.85%	Yes	Larva		7	SH
Cricotopus trifascia	40	12.12%	Yes	Larva		7	SH
Cryptochironomus sp.	3	0.91%	Yes	Larva		8	PR
Dicrotendipes sp.	6	1.82%	Yes	Larva		8	CG
Eukiefferiella Brehmi Gr.	3	0.91%	Yes	Larva		8	CG
Eukiefferiella Pseudomontana Gr.	16	4.85%	Yes	Larva		8	CG
Glyptotendipes sp.	1	0.30%	Yes	Larva		10	SH
Micropsectra sp.	77	23.33%	Yes	Larva		4	CG
Microtendipes sp.	2	0.61%	Yes	Larva		6	CF
Orthocladius sp.	25	7.58%	Yes	Larva		6	CG
Parametriocnemus sp.	2	0.61%	Yes	Larva		5	CG
Paratanytarsus sp.	4	1.21%	Yes	Larva		6	CG
Pentaneura sp.	1	0.30%	Yes	Larva		6	PR
Thienemannimyia Gr.	3	0.91%	Yes	Larva		5	PR
Tvetenia Bavarica Gr.	1	0.30%	Yes	Larva		5	CG
Sample Count	**330**						

Taxa Listing

Project ID: CC08SBC
RAI No.: CC08SBC007

RAI No.: CC08SBC007 **Sta. Name:** below Brown's Gulch
Client ID: SS-11D
Date Coll.: 9/15/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Unique	Stage	Qualifier	BI	Function
Non-Insect							
Acari	41	12.77%	Yes	Unknown		5	PR
Glossiphoniidae							
Helobdella stagnalis	2	0.62%	Yes	Unknown		10	PR
Hyalellidae							
Hyalella sp.	4	1.25%	Yes	Unknown		8	CG
Naididae							
Naididae (Tubificinae) - without capillary setae	8	2.49%	Yes	Immature	Damaged	11	CG
Nais sp.	1	0.31%	Yes	Unknown		8	CG
Physidae							
Physidae	1	0.31%	Yes	Unknown		8	SC
Ephemeroptera							
Baetidae							
Baetis tricaudatus	2	0.62%	Yes	Larva		4	CG
Plauditus sp.	1	0.31%	Yes	Larva		4	CG
Trichoptera							
Hydropsychidae							
Cheumatopsyche sp.	21	6.54%	Yes	Larva		5	CF
Hydropsyche sp.	34	10.59%	Yes	Larva		5	CF
Hydroptilidae							
Hydroptilidae	1	0.31%	Yes	Pupa		4	PH
Leptoceridae							
Leptoceridae	1	0.31%	Yes	Larva	Early Instar	4	CG
Coleoptera							
Elmidae							
Elmidae	1	0.31%	No	Larva	Early Instar	4	CG
Zaitzevia sp.	1	0.31%	Yes	Adult		5	CG
Diptera							
Ceratopogonidae							
Ceratopogoninae	1	0.31%	Yes	Larva		6	PR
Muscidae							
Muscidae	3	0.93%	Yes	Larva		10	PR
Tipulidae							
Tipula sp.	8	2.49%	Yes	Larva		4	SH

Taxa Listing

Project ID: CC08SBC
RAI No.: CC08SBC007

RAI No.: CC08SBC007 **Sta. Name:** below Brown's Gulch
Client ID: SS-11D
Date Coll.: 9/15/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Unique	Stage	Qualifier	BI	Function
Chironomidae							
Chironomidae							
Chironomidae	6	1.87%	No	Pupa		10	CG
Cricotopus (Cricotopus) sp.	6	1.87%	Yes	Larva		7	SH
Cricotopus trifascia	15	4.67%	Yes	Larva		7	SH
Diamesa sp.	1	0.31%	Yes	Larva		5	CG
Dicrotendipes sp.	3	0.93%	Yes	Larva		8	CG
Eukiefferiella Brehmi Gr.	7	2.18%	Yes	Larva		8	CG
Eukiefferiella Devonica Gr.	3	0.93%	Yes	Larva		8	CG
Eukiefferiella Pseudomontana Gr.	12	3.74%	Yes	Larva		8	CG
Micropsectra sp.	60	18.69%	Yes	Larva		4	CG
Microtendipes sp.	1	0.31%	Yes	Larva		6	CF
Orthocladius sp.	59	18.38%	Yes	Larva		6	CG
Parametriocnemus sp.	2	0.62%	Yes	Larva		5	CG
Phaenopsectra sp.	2	0.62%	Yes	Larva		7	SC
Potthastia Longimana Gr.	1	0.31%	Yes	Larva		2	CG
Psectrocladius sp.	1	0.31%	Yes	Larva		8	CG
Tanypodinae	2	0.62%	No	Larva	Early Instar	7	PR
Tanytarsini	1	0.31%	No	Larva	Early Instar	6	CF
Thienemannimyia Gr.	6	1.87%	Yes	Larva		5	PR
Tvetenia Bavarica Gr.	2	0.62%	Yes	Larva		5	CG
Sample Count	**321**						

Taxa Listing

Project ID: CC08SBC
RAI No.: CC08SBC008

RAI No.: CC08SBC008 **Sta. Name:** Mouth @ confluence
Client ID: SS-15G
Date Coll.: 9/16/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Unique	Stage	Qualifier	BI	Function
Non-Insect							
Acari	2	0.64%	Yes	Unknown		5	PR
Ostracoda	6	1.92%	Yes	Unknown		8	CG
Sphaeriidae							
Sphaeriidae	6	1.92%	Yes	Unknown		8	CF
Ephemeroptera							
Ameletidae							
Ameletus sp.	1	0.32%	Yes	Larva		0	CG
Baetidae							
Baetis tricaudatus	39	12.50%	Yes	Larva		4	CG
Ephemerellidae							
Drunella doddsii	1	0.32%	Yes	Larva		1	SC
Drunella spinifera	2	0.64%	Yes	Larva		0	PR
Serratella tibialis	1	0.32%	Yes	Larva		2	CG
Heptageniidae							
Cinygmula sp.	5	1.60%	Yes	Larva		0	SC
Rhithrogena sp.	4	1.28%	Yes	Larva		0	CG
Leptophlebiidae							
Leptophlebiidae	1	0.32%	Yes	Larva	Early Instar	2	CG
Plecoptera							
Capniidae							
Capniidae	1	0.32%	Yes	Larva		1	SH
Chloroperlidae							
Chloroperlidae	1	0.32%	Yes	Larva	Early Instar	1	PR
Nemouridae							
Zapada cinctipes	19	6.09%	Yes	Larva		3	SH
Perlidae							
Doroneuria sp.	3	0.96%	Yes	Larva		0	PR
Hesperoperla pacifica	17	5.45%	Yes	Larva		1	PR
Trichoptera							
Glossosomatidae							
Glossosomatidae	1	0.32%	Yes	Pupa		0	SC
Hydropsychidae							
Cheumatopsyche sp.	9	2.88%	Yes	Larva		5	CF
Hydropsyche sp.	2	0.64%	Yes	Larva		5	CF
Coleoptera							
Elmidae							
Heterlimnius sp.	10	3.21%	Yes	Adult		3	CG
Heterlimnius sp.	18	5.77%	No	Larva		3	CG
Lara avara	3	0.96%	Yes	Larva		1	SH
Optioservus sp.	2	0.64%	No	Larva		5	SC
Optioservus sp.	1	0.32%	Yes	Adult		5	SC
Zaitzevia sp.	3	0.96%	Yes	Adult		5	CG
Zaitzevia sp.	6	1.92%	No	Larva		5	CG

Taxa Listing

Project ID: CC08SBC
RAI No.: CC08SBC008

RAI No.: CC08SBC008 **Sta. Name:** Mouth @ confluence
Client ID: SS-15G
Date Coll.: 9/16/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Unique	Stage	Qualifier	BI	Function
Diptera							
Ceratopogonidae							
Ceratopogoninae	1	0.32%	Yes	Larva		6	PR
Ephydridae							
Ephydridae	1	0.32%	Yes	Pupa		6	CG
Psychodidae							
Psychodidae	1	0.32%	Yes	Larva		4	CG
Ptychopteridae							
Ptychoptera sp.	5	1.60%	Yes	Larva		7	CG
Simuliidae							
Simuliidae	2	0.64%	No	Pupa		6	CF
Simulium sp.	2	0.64%	Yes	Larva		6	CF
Tipulidae							
Hexatoma sp.	2	0.64%	Yes	Larva		2	PR
Tipula sp.	1	0.32%	Yes	Larva		4	SH
Chironomidae							
Chironomidae							
Apsectrotanypus sp.	3	0.96%	Yes	Larva		8	PR
Brillia sp.	11	3.53%	Yes	Larva		4	SH
Cardiocladius sp.	1	0.32%	Yes	Larva		5	PR
Chironomidae	9	2.88%	No	Pupa		10	CG
Cricotopus (Nostococladius) sp.	1	0.32%	Yes	Larva		6	SH
Eukiefferiella sp.	1	0.32%	No	Larva	Early Instar	8	CG
Eukiefferiella Gracei Gr.	1	0.32%	Yes	Larva		8	CG
Eukiefferiella Pseudomontana Gr.	1	0.32%	Yes	Larva		8	CG
Hydrobaenus sp.	13	4.17%	Yes	Larva		8	SC
Micropsectra sp.	36	11.54%	Yes	Larva		4	CG
Odontomesa sp.	1	0.32%	Yes	Larva		4	CG
Orthocladius sp.	8	2.56%	Yes	Larva		6	CG
Pagastia sp.	1	0.32%	Yes	Larva		1	CG
Polypedilum sp.	15	4.81%	Yes	Larva		6	SH
Prodiamesa sp.	8	2.56%	Yes	Larva		3	CG
Stempellinella sp.	1	0.32%	Yes	Larva		4	CG
Stictochironomus sp.	9	2.88%	Yes	Larva		5	CG
Tanypodinae	1	0.32%	No	Larva	Early Instar	7	PR
Thienemanniella sp.	1	0.32%	Yes	Larva		6	CG
Tvetenia Bavarica Gr.	11	3.53%	Yes	Larva		5	CG
Sample Count	**312**						

Taxa Listing

Project ID: CC08SBC
RAI No.: CC08SBC009

RAI No.: CC08SBC009 **Sta. Name:** above German Gulch
Client ID: SS-15A
Date Coll.: 9/16/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Unique	Stage	Qualifier	BI	Function
Non-Insect							
Cladocera	1	0.32%	Yes	Unknown		8	CF
Enchytraeidae							
Enchytraeus sp.	1	0.32%	Yes	Unknown		4	CG
Naididae							
Nais sp.	1	0.32%	Yes	Unknown		8	CG
Ephemeroptera							
Baetidae							
Baetis sp.	1	0.32%	Yes	Larva	Early Instar	5	CG
Plecoptera							
Nemouridae							
Zapada cinctipes	1	0.32%	Yes	Larva		3	SH
Trichoptera							
Hydropsychidae							
Hydropsyche sp.	158	50.16%	Yes	Larva		5	CF
Hydropsychidae	18	5.71%	No	Larva	Early Instar	4	CF
Coleoptera							
Dytiscidae							
Oreodytes sp.	3	0.95%	Yes	Adult		5	PR
Stictotarsus sp.	2	0.63%	Yes	Adult		5	PR
Diptera							
Athericidae							
Atherix sp.	21	6.67%	Yes	Larva		5	PR
Simuliidae							
Simuliidae	16	5.08%	No	Pupa		6	CF
Simulium sp.	23	7.30%	Yes	Larva		6	CF
Tipulidae							
Tipula sp.	8	2.54%	Yes	Larva		4	SH
Chironomidae							
Chironomidae							
Cardiocladius sp.	5	1.59%	Yes	Larva		5	PR
Chironomidae	6	1.90%	No	Pupa		10	CG
Cricotopus trifascia	1	0.32%	Yes	Larva		7	SH
Eukiefferiella sp.	1	0.32%	No	Larva	Damaged	8	CG
Eukiefferiella Brehmi Gr.	18	5.71%	Yes	Larva		8	CG
Eukiefferiella Claripennis Gr.	5	1.59%	Yes	Larva		8	CG
Eukiefferiella Devonica Gr.	6	1.90%	Yes	Larva		8	CG
Eukiefferiella Pseudomontana Gr.	2	0.63%	Yes	Larva		8	CG
Micropsectra sp.	1	0.32%	Yes	Larva		4	CG
Orthocladius sp.	14	4.44%	Yes	Larva		6	CG
Tvetenia Bavarica Gr.	2	0.63%	Yes	Larva		5	CG
Sample Count	**315**						

Taxa Listing

Project ID: CC08SBC
RAI No.: CC08SBC010

RAI No.: CC08SBC010 **Sta. Name:** below German Gulch
Client ID: SS-15B
Date Coll.: 9/16/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Unique	Stage	Qualifier	BI	Function
Ephemeroptera							
Baetidae							
Callibaetis sp.	1	0.30%	Yes	Larva		9	CG
Trichoptera							
Hydropsychidae							
Hydropsyche sp.	176	53.33%	Yes	Larva		5	CF
Leptoceridae							
Oecetis sp.	1	0.30%	Yes	Larva		8	PR
Coleoptera							
Dytiscidae							
Oreodytes sp.	12	3.64%	Yes	Adult		5	PR
Stictotarsus sp.	1	0.30%	Yes	Adult		5	PR
Elmidae							
Optioservus sp.	1	0.30%	Yes	Adult		5	SC
Zaitzevia sp.	1	0.30%	Yes	Adult		5	CG
Diptera							
Athericidae							
Atherix sp.	55	16.67%	Yes	Larva		5	PR
Simuliidae							
Simuliidae	1	0.30%	No	Pupa		6	CF
Simulium sp.	10	3.03%	Yes	Larva		6	CF
Tipulidae							
Antocha sp.	1	0.30%	Yes	Larva		3	CG
Tipula sp.	17	5.15%	Yes	Larva		4	SH
Chironomidae							
Chironomidae							
Cardiocladius sp.	1	0.30%	Yes	Larva		5	PR
Chironomidae	7	2.12%	No	Pupa		10	CG
Cricotopus (Cricotopus) sp.	1	0.30%	Yes	Larva		7	SH
Eukiefferiella Brehmi Gr.	8	2.42%	Yes	Larva		8	CG
Eukiefferiella Claripennis Gr.	3	0.91%	Yes	Larva		8	CG
Eukiefferiella Devonica Gr.	3	0.91%	Yes	Larva		8	CG
Eukiefferiella Pseudomontana Gr.	2	0.61%	Yes	Larva		8	CG
Micropsectra sp.	2	0.61%	Yes	Larva		4	CG
Orthocladius sp.	18	5.45%	Yes	Larva		6	CG
Pagastia sp.	2	0.61%	Yes	Larva		1	CG
Phaenopsectra sp.	2	0.61%	Yes	Larva		7	SC
Thienemannimyia Gr.	2	0.61%	Yes	Larva		5	PR
Tvetenia Bavarica Gr.	2	0.61%	Yes	Larva		5	CG
Sample Count	**330**						

Taxa Listing

Project ID: CC08SBC
RAI No.: CC08SBC011

RAI No.: CC08SBC011 **Sta. Name:** at Opportunity Gage
Client ID: SS-17
Date Coll.: 9/16/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Unique	Stage	Qualifier	BI	Function
Non-Insect							
Acari	1	0.30%	Yes	Unknown		5	PR
Naididae							
Naididae (Tubificinae) - with capillary setae	4	1.22%	Yes	Immature	Damaged	11	CG
Naididae (Tubificinae) - without capillary setae	2	0.61%	Yes	Immature		11	CG
Planorbidae							
Gyraulus sp.	1	0.30%	Yes	Unknown		8	SC
Sphaeriidae							
Sphaeriidae	1	0.30%	Yes	Unknown		8	CF
Odonata							
Gomphidae							
Ophiogomphus sp.	2	0.61%	Yes	Larva		5	PR
Ephemeroptera							
Baetidae							
Baetis tricaudatus	2	0.61%	Yes	Larva		4	CG
Ephemerellidae							
Ephemerella sp.	1	0.30%	Yes	Larva	Early Instar	1.5	SC
Leptohyphidae							
Tricorythodes sp.	5	1.52%	Yes	Larva		4	CG
Heteroptera							
Corixidae							
Sigara sp.	3	0.91%	Yes	Adult		5	PH
Trichoptera							
Brachycentridae							
Brachycentridae	1	0.30%	No	Pupa		1	CG
Brachycentrus occidentalis	9	2.74%	Yes	Larva		2	CF
Helicopsychidae							
Helicopsyche borealis	125	38.11%	Yes	Larva		3	SC
Hydropsychidae							
Cheumatopsyche sp.	1	0.30%	Yes	Larva		5	CF
Hydropsyche sp.	76	23.17%	Yes	Larva		5	CF
Hydropsychidae	20	6.10%	No	Larva	Early Instar	4	CF
Leptoceridae							
Nectopsyche sp.	3	0.91%	Yes	Larva		2	SH
Coleoptera							
Dytiscidae							
Dytiscidae	1	0.30%	No	Larva		5	PR
Oreodytes sp.	2	0.61%	Yes	Adult		5	PR
Elmidae							
Optioservus sp.	1	0.30%	Yes	Adult		5	SC
Optioservus sp.	1	0.30%	No	Larva		5	SC

Taxa Listing

Project ID: CC08SBC
RAI No.: CC08SBC011

RAI No.: CC08SBC011 **Sta. Name:** at Opportunity Gage
Client ID: SS-17
Date Coll.: 9/16/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Unique	Stage	Qualifier	BI	Function
Diptera							
Athericidae							
Atherix sp.	1	0.30%	Yes	Larva		5	PR
Simuliidae							
Simuliidae	2	0.61%	No	Pupa		6	CF
Simulium sp.	4	1.22%	Yes	Larva		6	CF
Tipulidae							
Antocha sp.	1	0.30%	Yes	Larva		3	CG
Chironomidae							
Chironomidae							
Chironomidae	3	0.91%	No	Pupa		10	CG
Chironomus sp.	2	0.61%	Yes	Larva		10	CG
Cricotopus (Cricotopus) sp.	1	0.30%	Yes	Larva		7	SH
Eukiefferiella sp.	1	0.30%	No	Larva	Damaged	8	CG
Eukiefferiella Brehmi Gr.	6	1.83%	Yes	Larva		8	CG
Eukiefferiella Claripennis Gr.	11	3.35%	Yes	Larva		8	CG
Eukiefferiella Devonica Gr.	15	4.57%	Yes	Larva		8	CG
Eukiefferiella Pseudomontana Gr.	4	1.22%	Yes	Larva		8	CG
Microtendipes sp.	4	1.22%	Yes	Larva		6	CF
Odontomesa sp.	1	0.30%	Yes	Larva		4	CG
Orthocladius sp.	5	1.52%	Yes	Larva		6	CG
Pagastia sp.	2	0.61%	Yes	Larva		1	CG
Phaenopsectra sp.	2	0.61%	Yes	Larva		7	SC
Tvetenia Bavarica Gr.	1	0.30%	Yes	Larva		5	CG
Sample Count	**328**						

Metrics Report

Project ID: CC08SBC
RAI No.: CC08SBC001
Sta. Name: Above Butte WWTP
Client ID: SS-06G
STORET ID:
Coll. Date: 9/15/2008

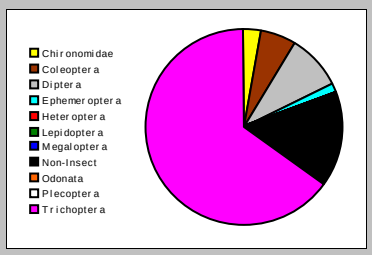
Abundance Measures

Sample Count: 324
Sample Abundance: 9,720.00 3.33% of sample used

Coll. Procedure: KICK
Sample Notes:

Taxonomic Composition

Category	R	A	PRA
Non-Insect	5	50	15.43%
Odonata			
Ephemeroptera	1	5	1.54%
Plecoptera			
Heteroptera			
Megaloptera			
Trichoptera	4	211	65.12%
Lepidoptera			
Coleoptera	3	19	5.86%
Diptera	2	29	8.95%
Chironomidae	5	10	3.09%

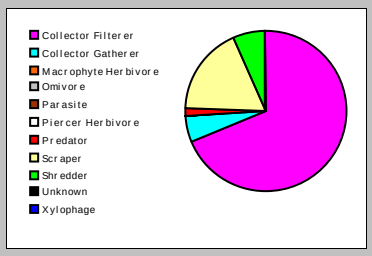


Dominant Taxa

Category	A	PRA
Hydropsyche	202	62.35%
Stagnicola	42	12.96%
Tipula	20	6.17%
Optioservus	17	5.25%
Simulium	9	2.78%
Orthocladius	5	1.54%
Baetis tricaudatus	5	1.54%
Sphaeriidae	4	1.23%
Cheumatopsyche	4	1.23%
Oecetis	3	0.93%
Naididae (Tubificinae) - with capill	2	0.62%
Eukiefferiella Pseudomontana Gr.	2	0.62%
Brachycentrus americanus	2	0.62%
Enchytraeus	1	0.31%
Cricotopus (Cricotopus)	1	0.31%

Functional Composition

Category	R	A	PRA
Predator	3	5	1.54%
Parasite			
Collector Gatherer	8	18	5.56%
Collector Filterer	5	221	68.21%
Macrophyte Herbivore			
Piercer Herbivore			
Xylophage			
Scraper	2	59	18.21%
Shredder	2	21	6.48%
Omivore			
Unknown			

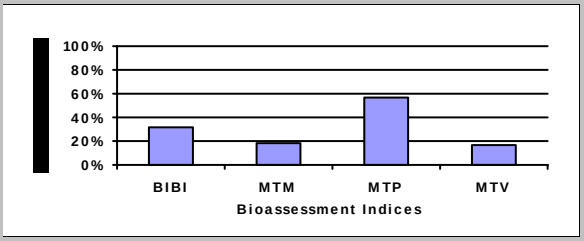


Metric Values and Scores

Metric	Value	BIBI	MTP	MTV	MTM
Composition					
Taxa Richness	20	3	2		1
Non-Insect Percent	15.43%				
E Richness	1	1		0	
P Richness	0	1		0	
T Richness	4	1		2	
EPT Richness	5		1		0
EPT Percent	66.67%		3		2
Oligochaeta+Hirudinea Percent	0.93%				
Baetidae/Ephemeroptera	1.000				
Hydropsychidae/Trichoptera	0.976				
Dominance					
Dominant Taxon Percent	62.35%		0		0
Dominant Taxa (2) Percent	75.31%				
Dominant Taxa (3) Percent	81.48%	1			
Dominant Taxa (10) Percent	95.99%				
Diversity					
Shannon H (loge)	1.392				
Shannon H (log2)	2.008		1		
Margalef D	3.312				
Simpson D	0.447				
Evenness	0.080				
Function					
Predator Richness	3		1		
Predator Percent	1.54%	1			
Filterer Richness	5				
Filterer Percent	68.21%			0	
Collector Percent	73.77%		2		1
Scraper+Shredder Percent	24.69%		2		0
Scraper/Filterer	0.267				
Scraper/Scraper+Filterer	0.211				
Habit					
Burrower Richness	1				
Burrower Percent	6.17%				
Swimmer Richness	1				
Swimmer Percent	1.54%				
Clinger Richness	8	1			
Clinger Percent	73.15%				
Characteristics					
Cold Stenotherm Richness	0				
Cold Stenotherm Percent	0.00%				
Hemoglobin Bearer Richness					
Hemoglobin Bearer Percent					
Air Breather Richness	1				
Air Breather Percent	6.17%				
Voltinism					
Univoltine Richness	8				
Semivoltine Richness	4	3			
Multivoltine Percent	4.94%		3		
Tolerance					
Sediment Tolerant Richness	2				
Sediment Tolerant Percent	19.14%				
Sediment Sensitive Richness	0				
Sediment Sensitive Percent	0.00%				
Metals Tolerance Index	4.614				
Pollution Sensitive Richness	0	1		0	
Pollution Tolerant Percent	20.99%	3		1	
Hilsenhoff Biotic Index	5.161		2		0
Intolerant Percent	0.62%				
Supertolerant Percent	2.78%				
CTQa	91.875				

Bioassessment Indices

BioIndex	Description	Score	Pct	Rating
BIBI	B-IBI (Karr et al.)	16	32.00%	
MTP	Montana DEQ Plains (Bukantis 1998)	17	56.67%	Slight
MTV	Montana Revised Valleys/Foothills (Bollman 1998)	3	16.67%	Severe
MTM	Montana DEQ Mountains (Bukantis 1998)	4	19.05%	Severe



Metrics Report

Project ID: CC08SBC
RAI No.: CC08SBC002
Sta. Name: Below Butte WWTP
Client ID: SS-07
STORET ID:
Coll. Date: 9/15/2008

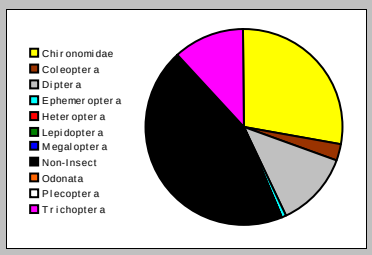
Abundance Measures

Sample Count: 318
Sample Abundance: 19,080.00 1.67% of sample used

Coll. Procedure: KICK
Sample Notes:

Taxonomic Composition

Category	R	A	PRA
Non-Insect	9	142	44.65%
Odonata			
Ephemeroptera	1	2	0.63%
Plecoptera			
Heteroptera			
Megaloptera			
Trichoptera	4	37	11.64%
Lepidoptera			
Coleoptera	1	8	2.52%
Diptera	3	40	12.58%
Chironomidae	6	89	27.99%

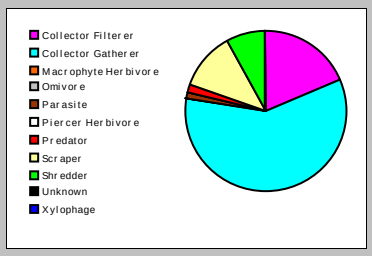


Dominant Taxa

Category	A	PRA
Nais	90	28.30%
Chironomus	43	13.52%
Hydropsyche	32	10.06%
Stagnicola	29	9.12%
Simulium	23	7.23%
Eukiefferiella Pseudomontana Gr.	23	7.23%
Tipula	16	5.03%
Naididae (Tubificinae) - with capill	10	3.14%
Orthocladiinae	8	2.52%
Optioservus	8	2.52%
Cricotopus (Cricotopus)	5	1.57%
Nematoda	4	1.26%
Cricotopus (Isocladius)	4	1.26%
Sphaeriidae	3	0.94%
Naididae (Naidinae)	2	0.63%

Functional Composition

Category	R	A	PRA
Predator	3	5	1.57%
Parasite	1	4	1.26%
Collector Gatherer	10	186	58.49%
Collector Filterer	4	60	18.87%
Macrophyte Herbivore			
Piercer Herbivore			
Xylophage			
Scraper	2	37	11.64%
Shredder	4	26	8.18%
Omivore			
Unknown			

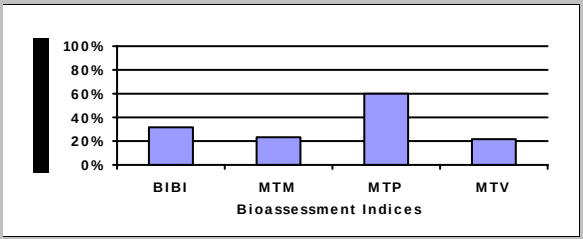


Metric Values and Scores

Metric	Value	BIBI	MTP	MTV	MTM
Composition					
Taxa Richness	24	3	2		2
Non-Insect Percent	44.65%				
E Richness	1	1		0	
P Richness	0	1		0	
T Richness	4	1		2	
EPT Richness	5		1		0
EPT Percent	12.26%		1		0
Oligochaeta+Hirudinea Percent	32.70%				
Baetidae/Ephemeroptera	1.000				
Hydropsychidae/Trichoptera	0.919				
Dominance					
Dominant Taxon Percent	28.30%		3		2
Dominant Taxa (2) Percent	41.82%				
Dominant Taxa (3) Percent	51.89%	3			
Dominant Taxa (10) Percent	88.68%				
Diversity					
Shannon H (loge)	2.348				
Shannon H (log2)	3.388		3		
Margalef D	4.018				
Simpson D	0.140				
Evenness	0.075				
Function					
Predator Richness	3		1		
Predator Percent	1.57%	1			
Filterer Richness	4				
Filterer Percent	18.87%			1	
Collector Percent	77.36%		2		1
Scraper+Shredder Percent	19.81%		2		0
Scraper/Filterer	0.617				
Scraper/Scraper+Filterer	0.381				
Habit					
Burrower Richness	2				
Burrower Percent	19.18%				
Swimmer Richness	1				
Swimmer Percent	0.63%				
Clinger Richness	8	1			
Clinger Percent	23.90%				
Characteristics					
Cold Stenotherm Richness	0				
Cold Stenotherm Percent	0.00%				
Hemoglobin Bearer Richness	1				
Hemoglobin Bearer Percent	13.52%				
Air Breather Richness	1				
Air Breather Percent	5.03%				
Voltinism					
Univoltine Richness	11				
Semivoltine Richness	1	1			
Multivoltine Percent	30.50%		3		
Tolerance					
Sediment Tolerant Richness	2				
Sediment Tolerant Percent	14.15%				
Sediment Sensitive Richness	0				
Sediment Sensitive Percent	0.00%				
Metals Tolerance Index	4.196				
Pollution Sensitive Richness	0	1		0	
Pollution Tolerant Percent	26.73%	3		1	
Hilsenhoff Biotic Index	7.117		0		0
Intolerant Percent	0.00%				
Supertolerant Percent	52.20%				
CTQa	91.333				

Bioassessment Indices

BioIndex	Description	Score	Pct	Rating
BIBI	B-IBI (Karr et al.)	16	32.00%	
MTP	Montana DEQ Plains (Bukantis 1998)	18	60.00%	Slight
MTV	Montana Revised Valleys/Foothills (Bollman 1998)	4	22.22%	Moderate
MTM	Montana DEQ Mountains (Bukantis 1998)	5	23.81%	Moderate



Metrics Report

Project ID: CC08SBC
RAI No.: CC08SBC003
Sta. Name: at Rocker
Client ID: SS-08
STORET ID:
Coll. Date: 9/15/2008

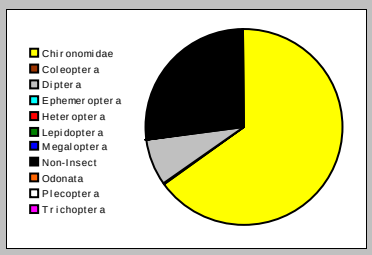
Abundance Measures

Sample Count: 318
Sample Abundance: 5,451.43 5.83% of sample used

Coll. Procedure: KICK
Sample Notes:

Taxonomic Composition

Category	R	A	PRA
Non-Insect	5	87	27.36%
Odonata			
Ephemeroptera			
Plecoptera			
Heteroptera			
Megaloptera			
Trichoptera			
Lepidoptera			
Coleoptera	1	1	0.31%
Diptera	1	24	7.55%
Chironomidae	11	206	64.78%

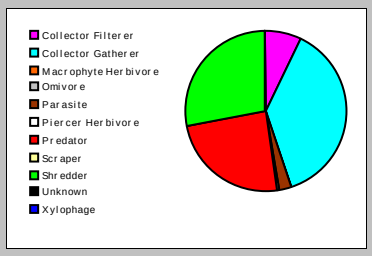


Dominant Taxa

Category	A	PRA
Helobdella stagnalis	71	22.33%
Cricotopus bicinctus	51	16.04%
Eukiefferiella Pseudomontana Gr.	39	12.26%
Cricotopus (Cricotopus)	39	12.26%
Chironomidae	28	8.81%
Micropsectra	22	6.92%
Simuliidae	13	4.09%
Simulium	11	3.46%
Nematoda	8	2.52%
Eukiefferiella Brehmi Gr.	8	2.52%
Dicrotendipes	7	2.20%
Parametriocnemus	5	1.57%
Acari	5	1.57%
Orthocladius	4	1.26%
Naididae (Tubificinae) - with capill	2	0.63%

Functional Composition

Category	R	A	PRA
Predator	3	77	24.21%
Parasite	1	8	2.52%
Collector Gatherer	10	118	37.11%
Collector Filterer	1	24	7.55%
Macrophyte Herbivore			
Piercer Herbivore	1	1	0.31%
Xylophage			
Scraper			
Shredder	2	90	28.30%
Omivore			
Unknown			

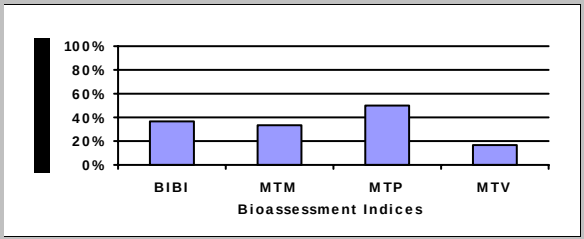


Metric Values and Scores

Metric	Value	BIBI	MTP	MTV	MTM
Composition					
Taxa Richness	18	1	2		0
Non-Insect Percent	27.36%				
E Richness	0	1		0	
P Richness	0	1		0	
T Richness	0	1		0	
EPT Richness	0		0		0
EPT Percent	0.00%		0		0
Oligochaeta+Hirudinea Percent	22.96%				
Baetidae/Ephemeroptera	0.000				
Hydropsychidae/Trichoptera	0.000				
Dominance					
Dominant Taxon Percent	22.33%		3		3
Dominant Taxa (2) Percent	38.36%				
Dominant Taxa (3) Percent	50.63%	3			
Dominant Taxa (10) Percent	91.19%				
Diversity					
Shannon H (loge)	2.183				
Shannon H (log2)	3.149		3		
Margalef D	3.023				
Simpson D	0.147				
Evenness	0.089				
Function					
Predator Richness	3		1		
Predator Percent	24.21%	5			
Filterer Richness	1				
Filterer Percent	7.55%			2	
Collector Percent	44.65%		3		3
Scraper+Shredder Percent	28.30%		2		1
Scraper/Filterer	0.000				
Scraper/Scraper+Filterer	0.000				
Habit					
Burrower Richness	3				
Burrower Percent	2.83%				
Swimmer Richness	1				
Swimmer Percent	0.31%				
Clinger Richness	3	1			
Clinger Percent	35.85%				
Characteristics					
Cold Stenotherm Richness	0				
Cold Stenotherm Percent	0.00%				
Hemoglobin Bearer Richness	2				
Hemoglobin Bearer Percent	2.52%				
Air Breather Richness	0				
Air Breather Percent	0.00%				
Voltinism					
Univoltine Richness	2				
Semivoltine Richness	1	1			
Multivoltine Percent	69.18%		1		
Tolerance					
Sediment Tolerant Richness	0				
Sediment Tolerant Percent	0.00%				
Sediment Sensitive Richness	0				
Sediment Sensitive Percent	0.00%				
Metals Tolerance Index	3.807				
Pollution Sensitive Richness	0	1		0	
Pollution Tolerant Percent	25.47%	3		1	
Hilsenhoff Biotic Index	7.703		0		0
Intolerant Percent	0.00%				
Supertolerant Percent	49.06%				
CTQa	103.500				

Bioassessment Indices

BioIndex	Description	Score	Pct	Rating
BIBI	B-IBI (Karr et al.)	18	36.00%	
MTP	Montana DEQ Plains (Bukantis 1998)	15	50.00%	Moderate
MTV	Montana Revised Valleys/Foothills (Bollman 1998)	3	16.67%	Severe
MTM	Montana DEQ Mountains (Bukantis 1998)	7	33.33%	Moderate



Metrics Report

Project ID: CC08SBC
RAI No.: CC08SBC004
Sta. Name: above Sand Creek
Client ID: SS-10A
STORET ID:
Coll. Date: 9/15/2008

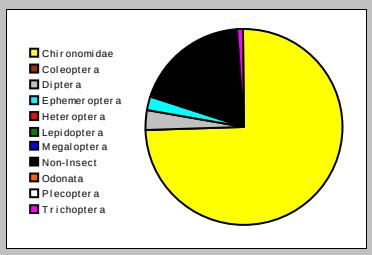
Abundance Measures

Sample Count: 285
Sample Abundance: 8,550.00 3.33% of sample used

Coll. Procedure: KICK
Sample Notes:

Taxonomic Composition

Category	R	A	PRA
Non-Insect	9	53	18.60%
Odonata			
Ephemeroptera	1	7	2.46%
Plecoptera			
Heteroptera	1	1	0.35%
Megaloptera			
Trichoptera	3	3	1.05%
Lepidoptera			
Coleoptera			
Diptera	2	9	3.16%
Chironomidae	15	212	74.39%

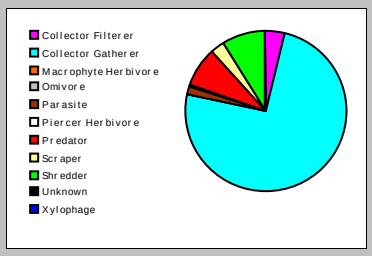


Dominant Taxa

Category	A	PRA
Micropsectra	142	49.82%
Cricotopus trifascia	22	7.72%
Helobdella stagnalis	14	4.91%
Chironomidae	12	4.21%
Naididae (Tubificinae) - without c	11	3.86%
Phaenopsectra	7	2.46%
Nais	7	2.46%
Callibaetis	7	2.46%
Enchytraeus	6	2.11%
Simuliidae	5	1.75%
Parametriocnemus	5	1.75%
Orthocladiinae	5	1.75%
Nematoda	5	1.75%
Acari	5	1.75%
Dicrotendipes	3	1.05%

Functional Composition

Category	R	A	PRA
Predator	5	23	8.07%
Parasite	1	5	1.75%
Collector Gatherer	15	212	74.39%
Collector Filterer	4	11	3.86%
Macrophyte Herbivore			
Piercer Herbivore	1	1	0.35%
Xylophage			
Scraper	2	8	2.81%
Shredder	3	25	8.77%
Omivore			
Unknown			

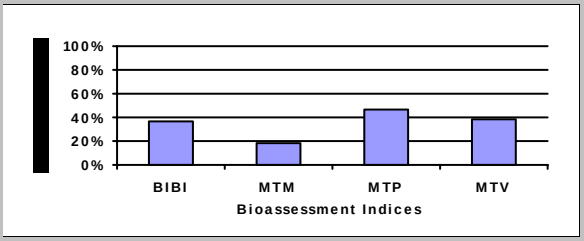


Metric Values and Scores

Metric	Value	BIBI	MTP	MTV	MTM
Composition					
Taxa Richness	31	3	3		3
Non-Insect Percent	18.60%				
E Richness	1	1		0	
P Richness	0	1		0	
T Richness	3	1		2	
EPT Richness	4		1		0
EPT Percent	3.51%		0		0
Oligochaeta+Hirudinea Percent	14.74%				
Baetidae/Ephemeroptera	1.000				
Hydropsychidae/Trichoptera	0.667				
Dominance					
Dominant Taxon Percent	49.82%		1		0
Dominant Taxa (2) Percent	57.54%				
Dominant Taxa (3) Percent	62.46%	3			
Dominant Taxa (10) Percent	81.75%				
Diversity					
Shannon H (loge)	2.040				
Shannon H (log2)	2.943		2		
Margalef D	5.384				
Simpson D	0.305				
Evenness	0.067				
Function					
Predator Richness	5		2		
Predator Percent	8.07%	1			
Filterer Richness	4				
Filterer Percent	3.86%			3	
Collector Percent	78.25%		2		1
Scraper+Shredder Percent	11.58%		1		0
Scraper/Filterer	0.727				
Scraper/Scraper+Filterer	0.421				
Habit					
Burrower Richness	2				
Burrower Percent	1.40%				
Swimmer Richness	2				
Swimmer Percent	2.81%				
Clinger Richness	7	1			
Clinger Percent	14.74%				
Characteristics					
Cold Stenotherm Richness	0				
Cold Stenotherm Percent	0.00%				
Hemoglobin Bearer Richness	3				
Hemoglobin Bearer Percent	3.86%				
Air Breather Richness	0				
Air Breather Percent	0.00%				
Voltinism					
Univoltine Richness	11				
Semivoltine Richness	0	1			
Multivoltine Percent	80.35%		0		
Tolerance					
Sediment Tolerant Richness	2				
Sediment Tolerant Percent	1.05%				
Sediment Sensitive Richness	0				
Sediment Sensitive Percent	0.00%				
Metals Tolerance Index	1.853				
Pollution Sensitive Richness	0	1		0	
Pollution Tolerant Percent	9.82%	5		2	
Hilsenhoff Biotic Index	5.485		2		0
Intolerant Percent	0.00%				
Supertolerant Percent	16.49%				
CTQa	106.435				

Bioassessment Indices

BioIndex	Description	Score	Pct	Rating
BIBI	B-IBI (Karr et al.)	18	36.00%	
MTP	Montana DEQ Plains (Bukantis 1998)	14	46.67%	Moderate
MTV	Montana Revised Valleys/Foothills (Bollman 1998)	7	38.89%	Moderate
MTM	Montana DEQ Mountains (Bukantis 1998)	4	19.05%	Severe



Metrics Report

Project ID: CC08SBC
RAI No.: CC08SBC005
Sta. Name: below Sand Creek
Client ID: SS-10B
STORET ID:
Coll. Date: 9/15/2008

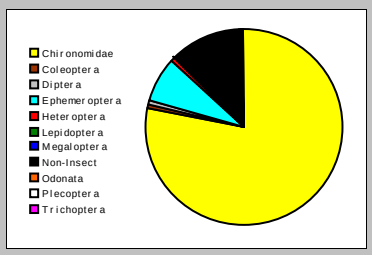
Abundance Measures

Sample Count: 330
Sample Abundance: 9,900.00 3.33% of sample used

Coll. Procedure: KICK
Sample Notes:

Taxonomic Composition

Category	R	A	PRA
Non-Insect	6	39	11.82%
Odonata	1	1	0.30%
Ephemeroptera	1	25	7.58%
Plecoptera			
Heteroptera	1	3	0.91%
Megaloptera			
Trichoptera	1	1	0.30%
Lepidoptera			
Coleoptera	1	1	0.30%
Diptera	1	2	0.61%
Chironomidae	17	258	78.18%

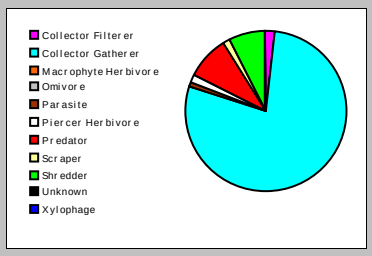


Dominant Taxa

Category	A	PRA
Micropsectra	171	51.82%
Helobdella stagnalis	27	8.18%
Callibaetis	25	7.58%
Cricotopus trifascia	16	4.85%
Dicrotendipes	13	3.94%
Chironomidae	11	3.33%
Orthocladiinae	8	2.42%
Cricotopus bicinctus	7	2.12%
Phaenopsectra	4	1.21%
Parametriocnemus	4	1.21%
Nematoda	4	1.21%
Nais	4	1.21%
Eukiefferiella Pseudomontana Gr.	4	1.21%
Chironomini	4	1.21%
Tanytarsus	3	0.91%

Functional Composition

Category	R	A	PRA
Predator	4	30	9.09%
Parasite	1	4	1.21%
Collector Gatherer	14	257	77.88%
Collector Filterer	3	6	1.82%
Macrophyte Herbivore			
Piercer Herbivore	2	4	1.21%
Xylophage			
Scraper	2	5	1.52%
Shredder	3	24	7.27%
Omivore			
Unknown			

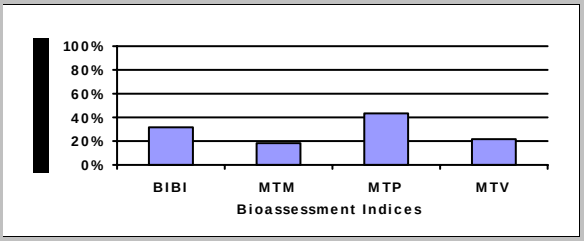


Metric Values and Scores

Metric	Value	BIBI	MTP	MTV	MTM
Composition					
Taxa Richness	29	3	3		3
Non-Insect Percent	11.82%				
E Richness	1	1		0	
P Richness	0	1		0	
T Richness	1	1		0	
EPT Richness	2		0		0
EPT Percent	7.88%		0		0
Oligochaeta+Hirudinea Percent	10.00%				
Baetidae/Ephemeroptera	1.000				
Hydropsychidae/Trichoptera	1.000				
Dominance					
Dominant Taxon Percent	51.82%		1		0
Dominant Taxa (2) Percent	60.00%				
Dominant Taxa (3) Percent	67.58%	3			
Dominant Taxa (10) Percent	86.67%				
Diversity					
Shannon H (loge)	1.865				
Shannon H (log2)	2.691		2		
Margalef D	4.892				
Simpson D	0.331				
Evenness	0.071				
Function					
Predator Richness	4		2		
Predator Percent	9.09%	1			
Filterer Richness	3				
Filterer Percent	1.82%			3	
Collector Percent	79.70%		2		1
Scraper+Shredder Percent	8.79%		1		0
Scraper/Filterer	0.833				
Scraper/Scraper+Filterer	0.455				
Habit					
Burrower Richness	3				
Burrower Percent	6.36%				
Swimmer Richness	3				
Swimmer Percent	8.79%				
Clinger Richness	7	1			
Clinger Percent	10.30%				
Characteristics					
Cold Stenotherm Richness	0				
Cold Stenotherm Percent	0.00%				
Hemoglobin Bearer Richness	5				
Hemoglobin Bearer Percent	6.97%				
Air Breather Richness	0				
Air Breather Percent	0.00%				
Voltinism					
Univoltine Richness	7				
Semivoltine Richness	1	1			
Multivoltine Percent	87.27%		0		
Tolerance					
Sediment Tolerant Richness	1				
Sediment Tolerant Percent	0.30%				
Sediment Sensitive Richness	0				
Sediment Sensitive Percent	0.00%				
Metals Tolerance Index	1.861				
Pollution Sensitive Richness	0	1		0	
Pollution Tolerant Percent	20.91%	3		1	
Hilsenhoff Biotic Index	5.890		2		0
Intolerant Percent	0.00%				
Supertolerant Percent	26.97%				
CTQa	103.909				

Bioassessment Indices

BioIndex	Description	Score	Pct	Rating
BIBI	B-IBI (Karr et al.)	16	32.00%	
MTP	Montana DEQ Plains (Bukantis 1998)	13	43.33%	Moderate
MTV	Montana Revised Valleys/Foothills (Bollman 1998)	4	22.22%	Moderate
MTM	Montana DEQ Mountains (Bukantis 1998)	4	19.05%	Severe



Metrics Report

Project ID: CC08SBC
RAI No.: CC08SBC006
Sta. Name: above Brown's Gulch
Client ID: SS-11C
STORET ID:
Coll. Date: 9/15/2008

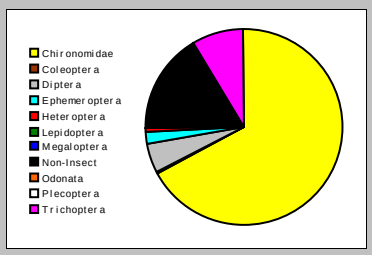
Abundance Measures

Sample Count: 330
Sample Abundance: 9,900.00 3.33% of sample used

Coll. Procedure: KICK
Sample Notes:

Taxonomic Composition

Category	R	A	PRA
Non-Insect	6	55	16.67%
Odonata			
Ephemeroptera	3	7	2.12%
Plecoptera			
Heteroptera	2	2	0.61%
Megaloptera			
Trichoptera	6	28	8.48%
Lepidoptera			
Coleoptera	1	1	0.30%
Diptera	3	16	4.85%
Chironomidae	17	221	66.97%

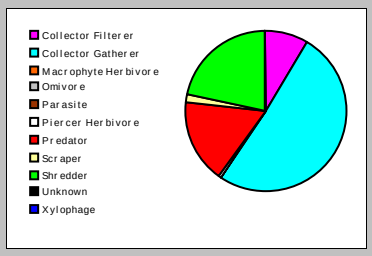


Dominant Taxa

Category	A	PRA
Micropsectra	77	23.33%
Cricotopus trifascia	40	12.12%
Helobdella stagnalis	27	8.18%
Orthocladius	25	7.58%
Hydropsyche	20	6.06%
Acari	19	5.76%
Chironomidae	18	5.45%
Eukiefferiella Pseudomontana Gr.	16	4.85%
Cricotopus (Cricotopus)	16	4.85%
Tipula	12	3.64%
Dicrotendipes	6	1.82%
Paratanytarsus	4	1.21%
Naididae (Tubificinae) - without c	4	1.21%
Callibaetis	4	1.21%
Thienemannimyia Gr.	3	0.91%

Functional Composition

Category	R	A	PRA
Predator	7	56	16.97%
Parasite			
Collector Gatherer	15	167	50.61%
Collector Filterer	5	28	8.48%
Macrophyte Herbivore			
Piercer Herbivore	2	2	0.61%
Xylophage			
Scraper	3	5	1.52%
Shredder	6	72	21.82%
Omivore			
Unknown			

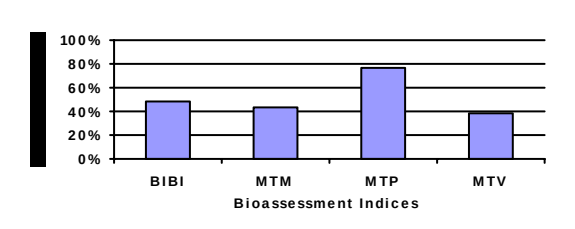


Metric Values and Scores

Metric	Value	BIBI	MTP	MTV	MTM
Composition					
Taxa Richness	38	3	3		3
Non-Insect Percent	16.67%				
E Richness	3	1		1	
P Richness	0	1		0	
T Richness	6	3		3	
EPT Richness	9		3		0
EPT Percent	10.61%		1		0
Oligochaeta+Hirudinea Percent	9.39%				
Baetidae/Ephemeroptera	1.000				
Hydropsychidae/Trichoptera	0.821				
Dominance					
Dominant Taxon Percent	23.33%		3		3
Dominant Taxa (2) Percent	35.45%				
Dominant Taxa (3) Percent	43.64%	5			
Dominant Taxa (10) Percent	81.82%				
Diversity					
Shannon H (loge)	2.715				
Shannon H (log2)	3.917		3		
Margalef D	6.450				
Simpson D	0.106				
Evenness	0.056				
Function					
Predator Richness	7		3		
Predator Percent	16.97%	3			
Filterer Richness	5				
Filterer Percent	8.48%			2	
Collector Percent	59.09%		3		3
Scraper+Shredder Percent	23.33%		2		0
Scraper/Filterer	0.179				
Scraper/Scraper+Filterer	0.152				
Habit					
Burrower Richness	4				
Burrower Percent	6.36%				
Swimmer Richness	6				
Swimmer Percent	2.73%				
Clinger Richness	8	1			
Clinger Percent	25.76%				
Characteristics					
Cold Stenotherm Richness	0				
Cold Stenotherm Percent	0.00%				
Hemoglobin Bearer Richness	5				
Hemoglobin Bearer Percent	3.94%				
Air Breather Richness	1				
Air Breather Percent	3.64%				
Voltinism					
Univoltine Richness	14				
Semivoltine Richness	2	1			
Multivoltine Percent	74.85%		1		
Tolerance					
Sediment Tolerant Richness	2				
Sediment Tolerant Percent	3.94%				
Sediment Sensitive Richness	0				
Sediment Sensitive Percent	0.00%				
Metals Tolerance Index	3.138				
Pollution Sensitive Richness	0	1		0	
Pollution Tolerant Percent	16.36%	5		1	
Hilsenhoff Biotic Index	6.248		1		0
Intolerant Percent	0.61%				
Supertolerant Percent	26.06%				
CTQa	91.500				

Bioassessment Indices

BioIndex	Description	Score	Pct	Rating
BIBI	B-IBI (Karr et al.)	24	48.00%	
MTP	Montana DEQ Plains (Bukantis 1998)	23	76.67%	Slight
MTV	Montana Revised Valleys/Foothills (Bollman 1998)	7	38.89%	Moderate
MTM	Montana DEQ Mountains (Bukantis 1998)	9	42.86%	Moderate



Metrics Report

Project ID: CC08SBC
RAI No.: CC08SBC007
Sta. Name: below Brown's Gulch
Client ID: SS-11D
STORET ID:
Coll. Date: 9/15/2008

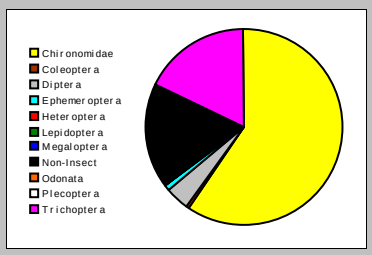
Abundance Measures

Sample Count: 321
Sample Abundance: 9,630.00 3.33% of sample used

Coll. Procedure: KICK
Sample Notes:

Taxonomic Composition

Category	R	A	PRA
Non-Insect	6	57	17.76%
Odonata			
Ephemeroptera	2	3	0.93%
Plecoptera			
Heteroptera			
Megaloptera			
Trichoptera	4	57	17.76%
Lepidoptera			
Coleoptera	1	2	0.62%
Diptera	3	12	3.74%
Chironomidae	16	190	59.19%

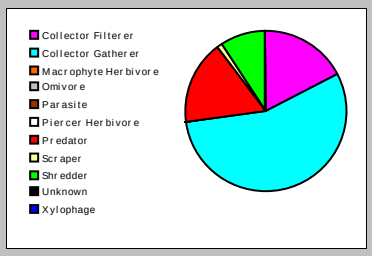


Dominant Taxa

Category	A	PRA
Micropsectra	60	18.69%
Orthocladius	59	18.38%
Acari	41	12.77%
Hydropsyche	34	10.59%
Cheumatopsyche	21	6.54%
Cricotopus trifascia	15	4.67%
Eukiefferiella Pseudomontana Gr.	12	3.74%
Tipula	8	2.49%
Naididae (Tubificinae) - without c	8	2.49%
Eukiefferiella Brehmi Gr.	7	2.18%
Thienemannimyia Gr.	6	1.87%
Cricotopus (Cricotopus)	6	1.87%
Chironomidae	6	1.87%
Hyalella	4	1.25%
Dicrotendipes	3	0.93%

Functional Composition

Category	R	A	PRA
Predator	5	55	17.13%
Parasite			
Collector Gatherer	18	176	54.83%
Collector Filterer	3	57	17.76%
Macrophyte Herbivore			
Piercer Herbivore	1	1	0.31%
Xylophage			
Scraper	2	3	0.93%
Shredder	3	29	9.03%
Omivore			
Unknown			

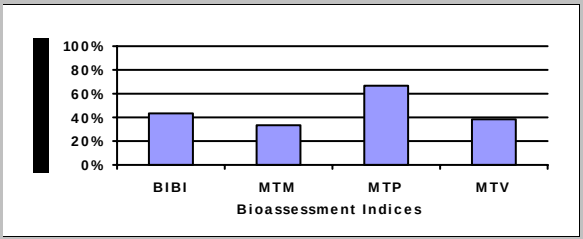


Metric Values and Scores

Metric	Value	BIBI	MTP	MTV	MTM
Composition					
Taxa Richness	32	3	3		3
Non-Insect Percent	17.76%				
E Richness	2	1		1	
P Richness	0	1		0	
T Richness	4	1		2	
EPT Richness	6		2		0
EPT Percent	18.69%		1		0
Oligochaeta+Hirudinea Percent	3.43%				
Baetidae/Ephemeroptera	1.000				
Hydropsychidae/Trichoptera	0.965				
Dominance					
Dominant Taxon Percent	18.69%		3		3
Dominant Taxa (2) Percent	37.07%				
Dominant Taxa (3) Percent	49.84%	5			
Dominant Taxa (10) Percent	82.55%				
Diversity					
Shannon H (loge)	2.577				
Shannon H (log2)	3.718		3		
Margalef D	5.401				
Simpson D	0.111				
Evenness	0.064				
Function					
Predator Richness	5		2		
Predator Percent	17.13%	3			
Filterer Richness	3				
Filterer Percent	17.76%			1	
Collector Percent	72.59%		2		1
Scraper+Shredder Percent	9.97%		1		0
Scraper/Filterer	0.053				
Scraper/Scraper+Filterer	0.050				
Habit					
Burrower Richness	3				
Burrower Percent	3.74%				
Swimmer Richness	1				
Swimmer Percent	0.62%				
Clinger Richness	8	1			
Clinger Percent	25.55%				
Characteristics					
Cold Stenotherm Richness	0				
Cold Stenotherm Percent	0.00%				
Hemoglobin Bearer Richness	3				
Hemoglobin Bearer Percent	1.87%				
Air Breather Richness	1				
Air Breather Percent	2.49%				
Voltinism					
Univoltine Richness	10				
Semivoltine Richness	1	1			
Multivoltine Percent	73.21%		1		
Tolerance					
Sediment Tolerant Richness	1				
Sediment Tolerant Percent	2.49%				
Sediment Sensitive Richness	0				
Sediment Sensitive Percent	0.00%				
Metals Tolerance Index	3.959				
Pollution Sensitive Richness	1	1		1	
Pollution Tolerant Percent	9.97%	5		2	
Hilsenhoff Biotic Index	5.594		2		0
Intolerant Percent	0.31%				
Supertolerant Percent	13.40%				
CTQa	101.565				

Bioassessment Indices

BioIndex	Description	Score	Pct	Rating
BIBI	B-IBI (Karr et al.)	22	44.00%	
MTP	Montana DEQ Plains (Bukantis 1998)	20	66.67%	Slight
MTV	Montana Revised Valleys/Foothills (Bollman 1998)	7	38.89%	Moderate
MTM	Montana DEQ Mountains (Bukantis 1998)	7	33.33%	Moderate



Wednesday, October 29, 2008

Metrics Report

Project ID: CC08SBC
RAI No.: CC08SBC008
Sta. Name: Mouth @ confluence
Client ID: SS-15G
STORET ID:
Coll. Date: 9/16/2008

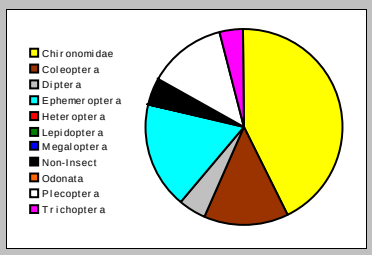
Abundance Measures

Sample Count: 312
Sample Abundance: 3,120.00 10.00% of sample used

Coll. Procedure: KICK
Sample Notes:

Taxonomic Composition

Category	R	A	PRA
Non-Insect	3	14	4.49%
Odonata			
Ephemeroptera	8	54	17.31%
Plecoptera	5	41	13.14%
Heteroptera			
Megaloptera			
Trichoptera	3	12	3.85%
Lepidoptera			
Coleoptera	4	43	13.78%
Diptera	7	15	4.81%
Chironomidae	17	133	42.63%

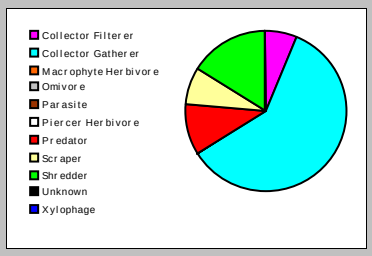


Dominant Taxa

Category	A	PRA
Baetis tricaudatus	39	12.50%
Micropsectra	36	11.54%
Heterlimnius	28	8.97%
Zapada cinctipes	19	6.09%
Hesperoperla pacifica	17	5.45%
Polypedilum	15	4.81%
Hydrobaenus	13	4.17%
Tvetenia Bavarica Gr.	11	3.53%
Brillia	11	3.53%
Zaitzevia	9	2.88%
Stictochironomus	9	2.88%
Chironomidae	9	2.88%
Cheumatopsyche	9	2.88%
Prodiamesa	8	2.56%
Orthocladius	8	2.56%

Functional Composition

Category	R	A	PRA
Predator	9	33	10.58%
Parasite			
Collector Gatherer	22	184	58.97%
Collector Filterer	4	21	6.73%
Macrophyte Herbivore			
Piercer Herbivore			
Xylophage			
Scraper	5	23	7.37%
Shredder	7	51	16.35%
Omivore			
Unknown			

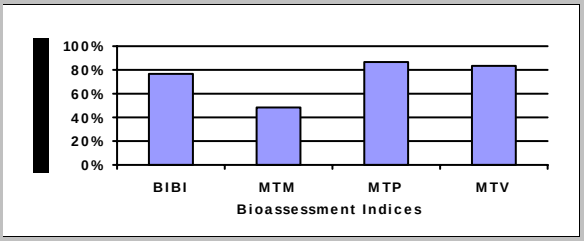


Metric Values and Scores

Metric	Value	BIBI	MTP	MTV	MTM
Composition					
Taxa Richness	47	5	3		3
Non-Insect Percent	4.49%				
E Richness	8	3		3	
P Richness	5	3		3	
T Richness	3	1		2	
EPT Richness	16		3		1
EPT Percent	34.29%		2		0
Oligochaeta+Hirudinea Percent					
Baetidae/Ephemeroptera	0.722				
Hydropsychidae/Trichoptera	0.917				
Dominance					
Dominant Taxon Percent	12.50%		3		3
Dominant Taxa (2) Percent	24.04%				
Dominant Taxa (3) Percent	33.01%	5			
Dominant Taxa (10) Percent	63.46%				
Diversity					
Shannon H (loge)	3.185				
Shannon H (log2)	4.595		3		
Margalef D	8.200				
Simpson D	0.060				
Evenness	0.040				
Function					
Predator Richness	9		3		
Predator Percent	10.58%	3			
Filterer Richness	4				
Filterer Percent	6.73%			2	
Collector Percent	65.71%		2		2
Scraper+Shredder Percent	23.72%		2		0
Scraper/Filterer	1.095				
Scraper/Scraper+Filterer	0.523				
Habit					
Burrower Richness	9				
Burrower Percent	13.14%				
Swimmer Richness	2				
Swimmer Percent	12.82%				
Clinger Richness	15	3			
Clinger Percent	28.21%				
Characteristics					
Cold Stenotherm Richness	4				
Cold Stenotherm Percent	2.24%				
Hemoglobin Bearer Richness	3				
Hemoglobin Bearer Percent	8.65%				
Air Breather Richness	4				
Air Breather Percent	2.88%				
Voltinism					
Univoltine Richness	22				
Semivoltine Richness	5	5			
Multivoltine Percent	57.69%		2		
Tolerance					
Sediment Tolerant Richness	2				
Sediment Tolerant Percent	0.96%				
Sediment Sensitive Richness	1				
Sediment Sensitive Percent	0.32%				
Metals Tolerance Index	3.262				
Pollution Sensitive Richness	4	5		3	
Pollution Tolerant Percent	9.62%	5		2	
Hilsenhoff Biotic Index	4.337		3		1
Intolerant Percent	14.10%				
Supertolerant Percent	12.82%				
CTQa	78.634				

Bioassessment Indices

BioIndex	Description	Score	Pct	Rating
BIBI	B-IBI (Karr et al.)	38	76.00%	
MTP	Montana DEQ Plains (Bukantis 1998)	26	86.67%	None
MTV	Montana Revised Valleys/Foothills (Bollman 1998)	15	83.33%	None
MTM	Montana DEQ Mountains (Bukantis 1998)	10	47.62%	Moderate



Metrics Report

Project ID: CC08SBC
RAI No.: CC08SBC009
Sta. Name: above German Gulch
Client ID: SS-15A
STORET ID:
Coll. Date: 9/16/2008

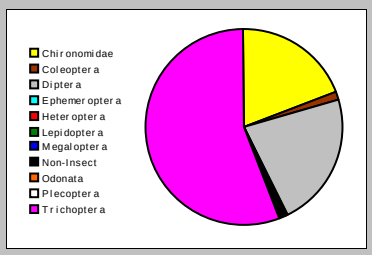
Abundance Measures

Sample Count: 315
Sample Abundance: 6,300.00 5.00% of sample used

Coll. Procedure: KICK
Sample Notes:

Taxonomic Composition

Category	R	A	PRA
Non-Insect	3	3	0.95%
Odonata			
Ephemeroptera	1	1	0.32%
Plecoptera	1	1	0.32%
Heteroptera			
Megaloptera			
Trichoptera	1	176	55.87%
Lepidoptera			
Coleoptera	2	5	1.59%
Diptera	3	68	21.59%
Chironomidae	9	61	19.37%

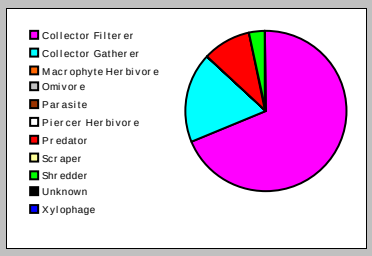


Dominant Taxa

Category	A	PRA
Hydropsyche	158	50.16%
Simulium	23	7.30%
Atherix	21	6.67%
Hydropsychidae	18	5.71%
Eukiefferiella Brehmi Gr.	18	5.71%
Simuliidae	16	5.08%
Orthocladius	14	4.44%
Tipula	8	2.54%
Eukiefferiella Devonica Gr.	6	1.90%
Chironomidae	6	1.90%
Eukiefferiella Claripennis Gr.	5	1.59%
Cardiocladius	5	1.59%
Oreodytes	3	0.95%
Stictotarsus	2	0.63%
Eukiefferiella Pseudomontana Gr.	2	0.63%

Functional Composition

Category	R	A	PRA
Predator	4	31	9.84%
Parasite			
Collector Gatherer	10	58	18.41%
Collector Filterer	3	216	68.57%
Macrophyte Herbivore			
Piercer Herbivore			
Xylophage			
Scraper			
Shredder	3	10	3.17%
Omivore			
Unknown			

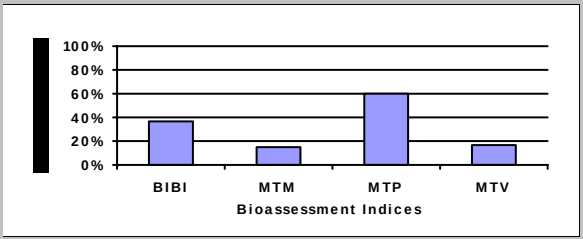


Metric Values and Scores

Metric	Value	BIBI	MTP	MTV	MTM
Composition					
Taxa Richness	20	3	2		1
Non-Insect Percent	0.95%				
E Richness	1	1		0	
P Richness	1	1		1	
T Richness	1	1		0	
EPT Richness	3		1		0
EPT Percent	56.51%		3		2
Oligochaeta+Hirudinea Percent	0.63%				
Baetidae/Ephemeroptera	1.000				
Hydropsychidae/Trichoptera	1.000				
Dominance					
Dominant Taxon Percent	50.16%		1		0
Dominant Taxa (2) Percent	57.46%				
Dominant Taxa (3) Percent	64.13%	3			
Dominant Taxa (10) Percent	91.43%				
Diversity					
Shannon H (loge)	1.687				
Shannon H (log2)	2.433		2		
Margalef D	3.385				
Simpson D	0.352				
Evenness	0.082				
Function					
Predator Richness	4		2		
Predator Percent	9.84%	1			
Filterer Richness	3				
Filterer Percent	68.57%			0	
Collector Percent	86.98%		1		0
Scraper+Shredder Percent	3.17%		1		0
Scraper/Filterer	0.000				
Scraper/Scraper+Filterer	0.000				
Habit					
Burrower Richness	2				
Burrower Percent	4.13%				
Swimmer Richness	3				
Swimmer Percent	1.90%				
Clinger Richness	3	1			
Clinger Percent	68.57%				
Characteristics					
Cold Stenotherm Richness	0				
Cold Stenotherm Percent	0.00%				
Hemoglobin Bearer Richness					
Hemoglobin Bearer Percent					
Air Breather Richness	3				
Air Breather Percent	4.13%				
Voltinism					
Univoltine Richness	7				
Semivoltine Richness	2	1			
Multivoltine Percent	20.00%		3		
Tolerance					
Sediment Tolerant Richness	1				
Sediment Tolerant Percent	2.54%				
Sediment Sensitive Richness	0				
Sediment Sensitive Percent	0.00%				
Metals Tolerance Index	5.112				
Pollution Sensitive Richness	0	1		0	
Pollution Tolerant Percent	6.67%	5		2	
Hilsenhoff Biotic Index	5.498		2		0
Intolerant Percent	0.00%				
Supertolerant Percent	12.70%				
CTQa	84.333				

Bioassessment Indices

BioIndex	Description	Score	Pct	Rating
BIBI	B-IBI (Karr et al.)	18	36.00%	
MTP	Montana DEQ Plains (Bukantis 1998)	18	60.00%	Slight
MTV	Montana Revised Valleys/Foothills (Bollman 1998)	3	16.67%	Severe
MTM	Montana DEQ Mountains (Bukantis 1998)	3	14.29%	Severe



Metrics Report

Project ID: CC08SBC
RAI No.: CC08SBC010
Sta. Name: below German Gulch
Client ID: SS-15B
STORET ID:
Coll. Date: 9/16/2008

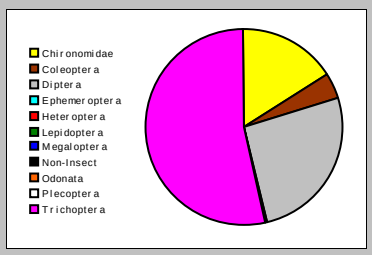
Abundance Measures

Sample Count: 330
Sample Abundance: 9,900.00 3.33% of sample used

Coll. Procedure: KICK
Sample Notes:

Taxonomic Composition

Category	R	A	PRA
Non-Insect			
Odonata			
Ephemeroptera	1	1	0.30%
Plecoptera			
Heteroptera			
Megaloptera			
Trichoptera	2	177	53.64%
Lepidoptera			
Coleoptera	4	15	4.55%
Diptera	4	84	25.45%
Chironomidae	12	53	16.06%

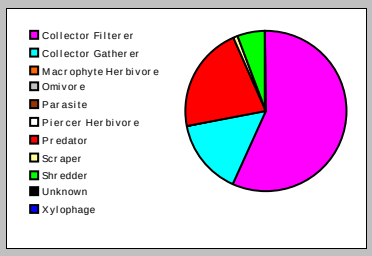


Dominant Taxa

Category	A	PRA
Hydropsyche	176	53.33%
Atherix	55	16.67%
Orthocladius	18	5.45%
Tipula	17	5.15%
Oreodytes	12	3.64%
Simulium	10	3.03%
Eukiefferiella Brehmi Gr.	8	2.42%
Chironomidae	7	2.12%
Eukiefferiella Devonica Gr.	3	0.91%
Eukiefferiella Claripennis Gr.	3	0.91%
Tvetenia Bavarica Gr.	2	0.61%
Thienemannimyia Gr.	2	0.61%
Phaenopsectra	2	0.61%
Pagastia	2	0.61%
Micropsectra	2	0.61%

Functional Composition

Category	R	A	PRA
Predator	6	72	21.82%
Parasite			
Collector Gatherer	11	50	15.15%
Collector Filterer	2	187	56.67%
Macrophyte Herbivore			
Piercer Herbivore			
Xylophage			
Scraper	2	3	0.91%
Shredder	2	18	5.45%
Omivore			
Unknown			

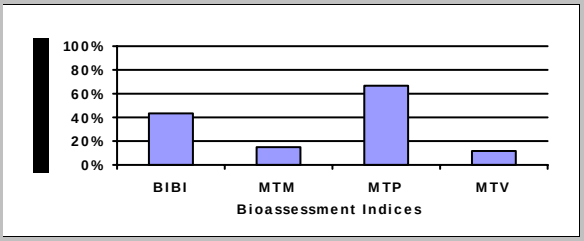


Metric Values and Scores

Metric	Value	BIBI	MTP	MTV	MTM
Composition					
Taxa Richness	23	3	2		1
Non-Insect Percent	0.00%				
E Richness	1	1		0	
P Richness	0	1		0	
T Richness	2	1		1	
EPT Richness	3		1		0
EPT Percent	53.94%		3		1
Oligochaeta+Hirudinea Percent					
Baetidae/Ephemeroptera	1.000				
Hydropsychidae/Trichoptera	0.994				
Dominance					
Dominant Taxon Percent	53.33%		1		0
Dominant Taxa (2) Percent	70.00%				
Dominant Taxa (3) Percent	75.45%	1			
Dominant Taxa (10) Percent	93.64%				
Diversity					
Shannon H (loge)	1.691				
Shannon H (log2)	2.439		2		
Margalef D	3.810				
Simpson D	0.335				
Evenness	0.084				
Function					
Predator Richness	6		3		
Predator Percent	21.82%	5			
Filterer Richness	2				
Filterer Percent	56.67%			0	
Collector Percent	71.82%		2		1
Scraper+Shredder Percent	6.36%		1		0
Scraper/Filterer	0.016				
Scraper/Scraper+Filterer	0.016				
Habit					
Burrower Richness	2				
Burrower Percent	5.45%				
Swimmer Richness	3				
Swimmer Percent	4.24%				
Clinger Richness	7	1			
Clinger Percent	58.48%				
Characteristics					
Cold Stenotherm Richness	0				
Cold Stenotherm Percent	0.00%				
Hemoglobin Bearer Richness	1				
Hemoglobin Bearer Percent	0.61%				
Air Breather Richness	4				
Air Breather Percent	9.39%				
Voltinism					
Univoltine Richness	6				
Semivoltine Richness	4	3			
Multivoltine Percent	16.36%		3		
Tolerance					
Sediment Tolerant Richness	2				
Sediment Tolerant Percent	5.45%				
Sediment Sensitive Richness	0				
Sediment Sensitive Percent	0.00%				
Metals Tolerance Index	5.026				
Pollution Sensitive Richness	0	1		0	
Pollution Tolerant Percent	17.88%	5		1	
Hilsenhoff Biotic Index	5.291		2		0
Intolerant Percent	0.61%				
Supertolerant Percent	7.58%				
CTQa	86.875				

Bioassessment Indices

BioIndex	Description	Score	Pct	Rating
BIBI	B-IBI (Karr et al.)	22	44.00%	
MTP	Montana DEQ Plains (Bukantis 1998)	20	66.67%	Slight
MTV	Montana Revised Valleys/Foothills (Bollman 1998)	2	11.11%	Severe
MTM	Montana DEQ Mountains (Bukantis 1998)	3	14.29%	Severe



Wednesday, October 29, 2008

Metrics Report

Project ID: CC08SBC
RAI No.: CC08SBC011
Sta. Name: at Opportunity Gage
Client ID: SS-17
STORET ID:
Coll. Date: 9/16/2008

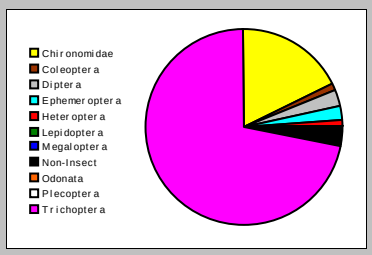
Abundance Measures

Sample Count: 328
Sample Abundance: 4,920.00 6.67% of sample used

Coll. Procedure: KICK
Sample Notes:

Taxonomic Composition

Category	R	A	PRA
Non-Insect	5	9	2.74%
Odonata	1	2	0.61%
Ephemeroptera	3	8	2.44%
Plecoptera			
Heteroptera	1	3	0.91%
Megaloptera			
Trichoptera	5	235	71.65%
Lepidoptera			
Coleoptera	2	5	1.52%
Diptera	3	8	2.44%
Chironomidae	12	58	17.68%

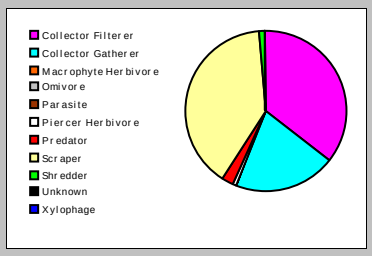


Dominant Taxa

Category	A	PRA
Helicopsyche borealis	125	38.11%
Hydropsyche	76	23.17%
Hydropsychidae	20	6.10%
Eukiefferiella Devonica Gr.	15	4.57%
Eukiefferiella Claripennis Gr.	11	3.35%
Brachycentrus occidentalis	9	2.74%
Eukiefferiella Brehmi Gr.	6	1.83%
Tricorythodes	5	1.52%
Orthocladius	5	1.52%
Simulium	4	1.22%
Naididae (Tubificinae) - with capill	4	1.22%
Microtendipes	4	1.22%
Eukiefferiella Pseudomontana Gr.	4	1.22%
Nectopsyche	3	0.91%
Chironomidae	3	0.91%

Functional Composition

Category	R	A	PRA
Predator	4	7	2.13%
Parasite			
Collector Gatherer	14	66	20.12%
Collector Filterer	6	117	35.67%
Macrophyte Herbivore			
Piercer Herbivore	1	3	0.91%
Xylophage			
Scraper	5	131	39.94%
Shredder	2	4	1.22%
Omivore			
Unknown			

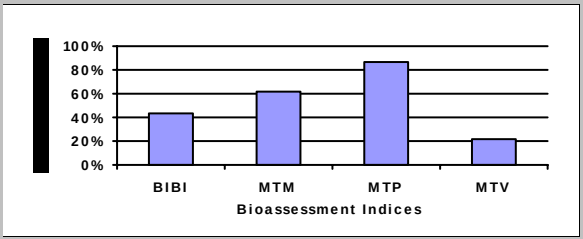


Metric Values and Scores

Metric	Value	BIBI	MTP	MTV	MTM
Composition					
Taxa Richness	32	3	3		3
Non-Insect Percent	2.74%				
E Richness	3	1		1	
P Richness	0	1		0	
T Richness	5	3		3	
EPT Richness	8		2		0
EPT Percent	74.09%		3		3
Oligochaeta+Hirudinea Percent	1.83%				
Baetidae/Ephemeroptera	0.250				
Hydropsychidae/Trichoptera	0.413				
Dominance					
Dominant Taxon Percent	38.11%		2		1
Dominant Taxa (2) Percent	61.28%				
Dominant Taxa (3) Percent	67.38%	3			
Dominant Taxa (10) Percent	84.15%				
Diversity					
Shannon H (loge)	2.072				
Shannon H (log2)	2.990		2		
Margalef D	5.438				
Simpson D	0.244				
Evenness	0.077				
Function					
Predator Richness	4		2		
Predator Percent	2.13%	1			
Filterer Richness	6				
Filterer Percent	35.67%			0	
Collector Percent	55.79%		3		3
Scraper+Shredder Percent	41.16%		3		2
Scraper/Filterer	1.120				
Scraper/Scraper+Filterer	0.528				
Habit					
Burrower Richness	2				
Burrower Percent	1.22%				
Swimmer Richness	4				
Swimmer Percent	3.05%				
Clinger Richness	11	3			
Clinger Percent	75.91%				
Characteristics					
Cold Stenotherm Richness	0				
Cold Stenotherm Percent	0.00%				
Hemoglobin Bearer Richness	4				
Hemoglobin Bearer Percent	2.74%				
Air Breather Richness	2				
Air Breather Percent	1.22%				
Voltinism					
Univoltine Richness	12				
Semivoltine Richness	4	3			
Multivoltine Percent	18.60%		3		
Tolerance					
Sediment Tolerant Richness	4				
Sediment Tolerant Percent	2.74%				
Sediment Sensitive Richness	0				
Sediment Sensitive Percent	0.00%				
Metals Tolerance Index	4.074				
Pollution Sensitive Richness	0	1		0	
Pollution Tolerant Percent	43.60%	3		0	
Hilsenhoff Biotic Index	4.477		3		1
Intolerant Percent	4.88%				
Supertolerant Percent	13.41%				
CTQa	86.435				

Bioassessment Indices

BioIndex	Description	Score	Pct	Rating
BIBI	B-IBI (Karr et al.)	22	44.00%	
MTP	Montana DEQ Plains (Bukantis 1998)	26	86.67%	None
MTV	Montana Revised Valleys/Foothills (Bollman 1998)	4	22.22%	Moderate
MTM	Montana DEQ Mountains (Bukantis 1998)	13	61.90%	Slight



Taxa Listing

Project ID: CC08SBCP
RAI No.: CC08SBCP001

RAI No.: CC08SBCP001 **Sta. Name:** Above Butte WWTP
Client ID: SS-06G
Date Coll.: 9/15/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Abnorm.	Comment
Diatoms				
Bacillariophyta				
Achnanthidium minutissimum	9	1.46%	0.00	
Amphora veneta	2	0.32%	0.00	
Caloneis bacillum	1	0.16%	0.00	
Cocconeis placentula	2	0.32%	0.00	
Cyclostephanos invisitatus	1	0.16%	0.00	
Encyonema silesiacum	22	3.56%	0.00	
Eolimna minima	50	8.09%	0.00	
Fragilaria vaucheriae	12	1.94%	0.00	
Geissleria decussis	4	0.65%	0.00	
Gomphonema affine	2	0.32%	0.00	
Gomphonema parvulum	16	2.59%	0.00	
Mayamaea atomus	9	1.46%	0.00	
Melosira varians	8	1.29%	0.00	
Navicula lanceolata	1	0.16%	0.00	
Navicula reichardtiana	2	0.32%	0.00	
Navicula trivialis	6	0.97%	0.00	
Nitzschia amphibia	5	0.81%	0.00	
Nitzschia dissipata	18	2.91%	0.00	
Nitzschia dissipata v. media	4	0.65%	0.00	
Nitzschia fonticola	21	3.40%	0.00	
Nitzschia frustulum	23	3.72%	0.00	
Nitzschia inconspicua	130	21.04%	0.00	
Nitzschia linearis	3	0.49%	0.00	
Nitzschia palea	108	17.48%	0.00	
Nitzschia paleacea	2	0.32%	0.00	
Planothidium frequentissimum	14	2.27%	0.00	
Planothidium lanceolatum	11	1.78%	0.00	
Planothidium rostratum	1	0.16%	0.00	
Pseudostaurosira brevistriata	22	3.56%	0.00	
Pseudostaurosira parasitica	2	0.32%	0.00	
Reimeria sinuata	8	1.29%	0.00	
Rhoicosphenia abbreviata	16	2.59%	0.00	
Sellaphora pupula	1	0.16%	0.00	
Staurosira construens	11	1.78%	0.00	
Staurosira construens v. venter	53	8.58%	0.00	
Staurosirella leptostauron	3	0.49%	0.00	
Staurosirella pinnata	2	0.32%	0.00	
Stephanocyclus meneghiniana	12	1.94%	0.00	
Synedra ulna	1	0.16%	0.00	
Sample Count	**618**			

Taxa Listing

Project ID: CC08SBCP
RAI No.: CC08SBCP002

RAI No.: CC08SBCP002 **Sta. Name:** Below Butte WWTP
Client ID: SS-07
Date Coll.: 9/15/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Abnorm.	Comment
Diatoms				
Bacillariophyta				
Achnanthidium minutissimum	16	2.58%	0.00	
Amphora veneta	1	0.16%	0.00	
Cocconeis placentula	1	0.16%	0.00	
Encyonema silesiacum	14	2.26%	0.00	
Eolimna minima	97	15.67%	0.00	
Fragilaria vaucheriae	2	0.32%	0.00	
Geissleria acceptata	3	0.48%	0.00	
Geissleria decussis	6	0.97%	0.00	
Gomphonema parvulum	153	24.72%	0.00	
Mayamaea atomus	13	2.10%	0.00	
Melosira varians	5	0.81%	0.00	
Navicula capitatoradiata	2	0.32%	0.00	
Navicula lanceolata	2	0.32%	0.00	
Navicula trivialis	2	0.32%	0.00	
Nitzschia amphibia	3	0.48%	0.00	
Nitzschia dissipata	1	0.16%	0.00	
Nitzschia frustulum	17	2.75%	0.00	
Nitzschia inconspicua	62	10.02%	0.00	
Nitzschia linearis	4	0.65%	0.00	
Nitzschia palea	17	2.75%	0.00	
Planothidium frequentissimum	7	1.13%	0.00	
Planothidium lanceolatum	13	2.10%	0.00	
Pseudostaurosira brevistriata	6	0.97%	0.00	
Reimeria sinuata	8	1.29%	0.00	
Rhoicosphenia abbreviata	20	3.23%	0.00	
Sellaphora pupula	6	0.97%	0.00	
Sellaphora seminulum	21	3.39%	0.00	
Staurosira construens	18	2.91%	0.00	
Staurosira construens v. binodis	15	2.42%	0.00	
Staurosira construens v. venter	72	11.63%	0.00	
Staurosirella leptostauron	4	0.65%	0.00	
Staurosirella pinnata	2	0.32%	0.00	
Stephanocyclus meneghiniana	6	0.97%	0.00	
Sample Count	**619**			

Taxa Listing

Project ID: CC08SBCP
RAI No.: CC08SBCP003

RAI No.: CC08SBCP003 **Sta. Name:** at Rocker
Client ID: SS-08
Date Coll.: 9/15/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Abnorm.	Comment
Diatoms				
Bacillariophyta				
Achnanthidium minutissimum	4	0.64%	0.00	
Encyonema silesiacum	33	5.26%	0.00	
Eolimna minima	251	40.03%	0.00	
Fragilaria vaucheriae	13	2.07%	0.00	
Frustulia vulgaris	1	0.16%	0.00	
Geissleria decussis	1	0.16%	0.00	
Gomphonema parvulum	34	5.42%	0.00	
Mayamaea atomus	13	2.07%	0.00	
Melosira varians	10	1.59%	0.00	
Meridion circulare	1	0.16%	0.00	
Navicula trivialis	4	0.64%	0.00	
Nitzschia amphibia	5	0.80%	0.00	
Nitzschia dissipata	2	0.32%	0.00	
Nitzschia fonticola	2	0.32%	0.00	
Nitzschia frustulum	4	0.64%	0.00	
Nitzschia inconspicua	10	1.59%	0.00	
Nitzschia palea	60	9.57%	0.00	
Pinnularia brebissonii	2	0.32%	0.00	
Planothidium frequentissimum	18	2.87%	0.00	
Planothidium lanceolatum	4	0.64%	0.00	
Pseudostaurosira brevistriata	28	4.47%	0.00	
Reimeria sinuata	2	0.32%	0.00	
Rhoicosphenia abbreviata	2	0.32%	0.00	
Sellaphora laevissima	2	0.32%	0.00	
Sellaphora pupula	2	0.32%	0.00	
Sellaphora seminulum	47	7.50%	0.00	
Staurosira construens	10	1.59%	0.00	
Staurosira construens v. venter	29	4.63%	0.00	
Staurosirella pinnata	8	1.28%	0.00	
Stephanocyclus meneghiniana	7	1.12%	0.00	
Synedra ulna	18	2.87%	0.00	
Sample Count	**627**			

Taxa Listing

Project ID: CC08SBCP
RAI No.: CC08SBCP004

RAI No.: CC08SBCP004 **Sta. Name:** above Sand Creek
Client ID: SS-10A
Date Coll.: 9/15/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Abnorm.	Comment
Diatoms				
Bacillariophyta				
Achnanthidium minutissimum	2	0.32%	0.00	
Adlafia minuscula	10	1.62%	0.00	
Chamaepinnularia bremensis	2	0.32%	0.00	
Encyonema silesiacum	61	9.87%	0.00	
Eolimna minima	135	21.84%	0.00	
Fragilaria vaucheriae	16	2.59%	0.00	
Geissleria acceptata	1	0.16%	0.00	
Gomphonema parvulum	17	2.75%	0.00	
Hantzschia amphioxys	2	0.32%	0.00	
Melosira varians	11	1.78%	0.00	
Meridion circulare	3	0.49%	0.00	
Navicula libonensis	2	0.32%	0.00	
Navicula trivialis	3	0.49%	0.00	
Nitzschia amphibia	11	1.78%	0.00	
Nitzschia dissipata	3	0.49%	0.00	
Nitzschia fonticola	2	0.32%	0.00	
Nitzschia frustulum	2	0.32%	0.00	
Nitzschia inconspicua	23	3.72%	0.00	
Nitzschia linearis	1	0.16%	0.00	
Nitzschia palea	23	3.72%	0.00	
Nitzschia perminuta	3	0.49%	0.00	
Planothidium frequentissimum	19	3.07%	0.00	
Planothidium lanceolatum	2	0.32%	0.00	
Pseudostaurosira brevistriata	16	2.59%	0.00	
Pseudostaurosira parasitica	2	0.32%	0.00	
Rhoicosphenia abbreviata	6	0.97%	0.00	
Sellaphora pupula	2	0.32%	0.00	
Sellaphora seminulum	22	3.56%	0.00	
Staurosira construens	39	6.31%	0.00	
Staurosira construens v. binodis	1	0.16%	0.00	
Staurosira construens v. venter	88	14.24%	0.00	
Staurosirella leptostauron	2	0.32%	0.00	
Staurosirella pinnata	16	2.59%	0.00	
Stephanocyclus meneghiniana	54	8.74%	0.00	
Synedra ulna	14	2.27%	0.00	
Synedra ulna v. contracta	1	0.16%	0.00	
Tabellaria flocculosa	1	0.16%	0.00	
Sample Count	**618**			

Taxa Listing

Project ID: CC08SBCP
RAI No.: CC08SBCP005

RAI No.: CC08SBCP005 **Sta. Name:** below Sand Creek
Client ID: SS-10B
Date Coll.: 9/15/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Abnorm.	Comment
Diatoms				
Bacillariophyta				
Achnanthidium minutissimum	2	0.32%	0.00	
Adlafia minuscula	2	0.32%	0.00	
Chamaepinnularia bremensis	1	0.16%	0.00	
Encyonema silesiacum	62	9.90%	0.00	
Eolimna minima	208	33.23%	0.00	
Fragilaria bicapitata	4	0.64%	0.00	
Fragilaria vaucheriae	4	0.64%	0.00	
Gomphonema parvulum	3	0.48%	0.00	
Mayamaea atomus	13	2.08%	0.00	
Melosira varians	7	1.12%	0.00	
Meridion circulare	1	0.16%	0.00	
Navicula gregaria	2	0.32%	0.00	
Nitzschia amphibia	9	1.44%	0.00	
Nitzschia dissipata	2	0.32%	0.00	
Nitzschia fonticola	4	0.64%	0.00	
Nitzschia frustulum	1	0.16%	0.00	
Nitzschia inconspicua	27	4.31%	0.00	
Nitzschia linearis	1	0.16%	0.00	
Nitzschia palea	9	1.44%	0.00	
Nitzschia paleacea	2	0.32%	0.00	
Nitzschia perminuta	2	0.32%	0.00	
Pinnularia sp.	2	0.32%	0.00	
Placoneis exigua	1	0.16%	0.00	
Planothidium frequentissimum	8	1.28%	0.00	
Planothidium lanceolatum	2	0.32%	0.00	
Planothidium rostratum	2	0.32%	0.00	
Pseudostaurosira brevistriata	28	4.47%	0.00	
Rhoicosphenia abbreviata	40	6.39%	0.00	
Sellaphora seminulum	41	6.55%	0.00	
Stauroneis kriegeri	1	0.16%	0.00	
Staurosira construens	18	2.88%	0.00	
Staurosira construens v. binodis	3	0.48%	0.00	
Staurosira construens v. venter	91	14.54%	0.00	
Staurosirella leptostauron	4	0.64%	0.00	
Stephanocyclus meneghiniana	15	2.40%	0.00	
Synedra rumpens	1	0.16%	0.00	
Synedra ulna	3	0.48%	0.00	
Sample Count	**626**			

Taxa Listing

Project ID: CC08SBCP
RAI No.: CC08SBCP006

RAI No.: CC08SBCP006 **Sta. Name:** above Brown's Gulch
Client ID: SS-11C
Date Coll.: 9/15/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Abnorm.	Comment
Diatoms				
Bacillariophyta				
Adlafia minuscula	2	0.32%	0.00	
Amphora veneta	1	0.16%	0.00	
Encyonema silesiacum	110	17.57%	0.00	
Eolimna minima	87	13.90%	0.00	
Fragilaria vaucheriae	6	0.96%	0.00	
Geissleria decussis	2	0.32%	0.00	
Gomphonema parvulum	2	0.32%	0.00	
Mayamaea atomus	10	1.60%	0.00	
Melosira varians	11	1.76%	0.00	
Nitzschia amphibia	7	1.12%	0.00	
Nitzschia dissipata	4	0.64%	0.00	
Nitzschia fonticola	5	0.80%	0.00	
Nitzschia frustulum	2	0.32%	0.00	
Nitzschia inconspicua	17	2.72%	0.00	
Nitzschia linearis	5	0.80%	0.00	
Nitzschia palea	31	4.95%	0.00	
Nitzschia paleacea	18	2.88%	0.00	
Planothidium frequentissimum	10	1.60%	0.00	
Pseudostaurosira brevistriata	30	4.79%	0.00	
Pseudostaurosira parasitica	2	0.32%	0.00	
Sellaphora pupula	3	0.48%	0.00	
Sellaphora seminulum	2	0.32%	0.00	
Staurosira construens	67	10.70%	0.00	
Staurosira construens v. venter	95	15.18%	0.00	
Staurosirella leptostauron	4	0.64%	0.00	
Staurosirella pinnata	8	1.28%	0.00	
Stephanocyclus meneghiniana	76	12.14%	0.00	
Synedra rumpens	3	0.48%	0.00	
Synedra ulna	4	0.64%	0.00	
Synedra ulna v. contracta	2	0.32%	0.00	
Sample Count	**626**			

Taxa Listing

Project ID: CC08SBCP
RAI No.: CC08SBCP007

RAI No.: CC08SBCP007 **Sta. Name:** below Brown's Gulch
Client ID: SS-11D
Date Coll.: 9/15/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Abnorm.	Comment
Diatoms				
Bacillariophyta				
Adlafia minuscula	1	0.16%	0.00	
Cocconeis placentula	4	0.64%	0.00	
Denticula valida	1	0.16%	0.00	
Diatoma moniliformis	1	0.16%	0.00	
Diatoma vulgaris	1	0.16%	0.00	
Encyonema minutum	3	0.48%	0.00	
Encyonema prostratum	2	0.32%	0.00	
Encyonema silesiacum	118	18.94%	0.00	
Eolimna minima	23	3.69%	0.00	
Fragilaria vaucheriae	14	2.25%	0.00	
Geissleria decussis	1	0.16%	0.00	
Gomphonema olivaceum	2	0.32%	0.00	
Gomphonema parvulum	4	0.64%	0.00	
Hippodonta capitata	1	0.16%	0.00	
Luticola sp.	1	0.16%	0.00	
Mayamaea atomus	2	0.32%	0.00	
Melosira varians	25	4.01%	0.00	
Navicula capitatoradiata	2	0.32%	0.00	
Navicula lanceolata	1	0.16%	0.00	
Nitzschia amphibia	6	0.96%	0.00	
Nitzschia dissipata	7	1.12%	0.00	
Nitzschia frustulum	2	0.32%	0.00	
Nitzschia inconspicua	6	0.96%	0.00	
Nitzschia linearis	5	0.80%	0.00	
Nitzschia palea	33	5.30%	0.00	
Nitzschia paleacea	2	0.32%	0.00	
Planothidium frequentissimum	13	2.09%	0.00	
Pseudostaurosira brevistriata	39	6.26%	0.00	
Reimeria sinuata	1	0.16%	0.00	
Rhoicosphenia abbreviata	2	0.32%	0.00	
Sellaphora seminulum	8	1.28%	0.00	
Staurosira construens	14	2.25%	0.00	
Staurosira construens v. venter	165	26.48%	0.00	
Staurosirella pinnata	2	0.32%	0.00	
Stephanocyclus meneghiniana	93	14.93%	0.00	
Surirella angusta	5	0.80%	0.00	
Surirella ovalis	1	0.16%	0.00	
Synedra rumpens	3	0.48%	0.00	
Synedra ulna	7	1.12%	0.00	
Synedra ulna v. contracta	2	0.32%	0.00	
Sample Count	**623**			

Taxa Listing

Project ID: CC08SBCP
RAI No.: CC08SBCP008

RAI No.: CC08SBCP008 **Sta. Name:** Mouth @ confluence
Client ID: SS-15G
Date Coll.: 9/16/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Abnorm.	Comment
Diatoms				
Bacillariophyta				
Achnanthidium minutissimum	10	1.59%	0.00	
Adlafia minuscula	1	0.16%	0.00	
Amphora pediculus	7	1.11%	0.00	
Cocconeis pediculus	89	14.17%	0.00	
Cocconeis placentula	213	33.92%	0.00	
Cymbella excisa	1	0.16%	0.00	
Diatoma mesodon	2	0.32%	0.00	
Diatoma moniliformis	8	1.27%	0.00	
Encyonema silesiacum	12	1.91%	0.00	
Eolimna minima	7	1.11%	0.00	
Epithemia sorex	1	0.16%	0.00	
Fragilaria vaucheriae	1	0.16%	0.00	
Geissleria acceptata	4	0.64%	0.00	
Gomphoneis minuta	2	0.32%	0.00	
Gomphonema kobayasii	26	4.14%	0.00	
Gomphonema minusculum	9	1.43%	0.00	
Gomphonema minutum	21	3.34%	0.00	
Gomphonema olivaceum	4	0.64%	0.00	
Gomphonema parvulum	2	0.32%	0.00	
Gomphonema pumilum	10	1.59%	0.00	
Gomphonema rhombicum	7	1.11%	0.00	
Gomphonema subclavatum	8	1.27%	0.00	
Navicula cryptotenelloides	2	0.32%	0.00	
Navicula gregaria	1	0.16%	0.00	
Navicula libonensis	1	0.16%	0.00	
Navicula menisculus	2	0.32%	0.00	
Navicula reichardtiana	6	0.96%	0.00	
Navicula tripunctata	21	3.34%	0.00	
Navicula trivialis	2	0.32%	0.00	
Nitzschia dissipata	4	0.64%	0.00	
Nitzschia frustulum	2	0.32%	0.00	
Nitzschia inconspicua	4	0.64%	0.00	
Nitzschia linearis	3	0.48%	0.00	
Nitzschia palea	1	0.16%	0.00	
Nitzschia perminuta	2	0.32%	0.00	
Pinnularia borealis	1	0.16%	0.00	
Planothidium frequentissimum	3	0.48%	0.00	
Planothidium lanceolatum	11	1.75%	0.00	
Planothidium rostratum	3	0.48%	0.00	
Pseudostaurosira brevistriata	3	0.48%	0.00	
Reimeria sinuata	6	0.96%	0.00	
Rhoicosphenia abbreviata	93	14.81%	0.00	
Sellaphora pupula	2	0.32%	0.00	
Staurosira construens	1	0.16%	0.00	
Staurosirella leptostauron	7	1.11%	0.00	

Taxa Listing

Project ID: CC08SBCP
RAI No.: CC08SBCP008

RAI No.:	CC08SBCP008			**Sta. Name:**	Mouth @ confluence
Client ID:	SS-15G				
Date Coll.:	9/16/2008	**No. Jars:**	1	**STORET ID:**	

Taxonomic Name	Count	PRA	Abnorm.	Comment
Staurosirella pinnata	2	0.32%	0.00	
Sample Count	**628**			

Taxa Listing

Project ID: CC08SBCP
RAI No.: CC08SBCP009

RAI No.: CC08SBCP009 **Sta. Name:** above German Gulch
Client ID: SS-15A
Date Coll.: 9/16/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Abnorm.	Comment
Diatoms				
Bacillariophyta				
Achnanthidium minutissimum	23	3.59%	0.00	
Adlafia minuscula	6	0.94%	0.00	
Amphora veneta	1	0.16%	0.00	
Cocconeis placentula	2	0.31%	0.00	
Encyonema silesiacum	273	42.59%	0.00	
Eolimna minima	95	14.82%	0.00	
Fragilaria capucina	1	0.16%	0.00	
Fragilaria vaucheriae	6	0.94%	0.00	
Geissleria decussis	2	0.31%	0.00	
Gomphonema parvulum	5	0.78%	0.00	
Mayamaea atomus	1	0.16%	0.00	
Navicula veneta	2	0.31%	0.00	
Nitzschia inconspicua	3	0.47%	0.00	
Nitzschia linearis	8	1.25%	0.00	
Nitzschia palea	104	16.22%	0.00	
Nitzschia perminuta	1	0.16%	0.00	
Planothidium frequentissimum	2	0.31%	0.00	
Planothidium lanceolatum	1	0.16%	0.00	
Sellaphora pupula	1	0.16%	0.00	
Sellaphora seminulum	30	4.68%	0.00	
Staurosira construens	5	0.78%	0.00	
Staurosira construens v. venter	27	4.21%	0.00	
Staurosirella pinnata	1	0.16%	0.00	
Stephanocyclus meneghiniana	23	3.59%	0.00	
Surirella angusta	10	1.56%	0.00	
Surirella ovalis	8	1.25%	0.00	
Sample Count	**641**			

Taxa Listing

Project ID: CC08SBCP
RAI No.: CC08SBCP010

RAI No.: CC08SBCP010 **Sta. Name:** below German Gulch
Client ID: SS-15B
Date Coll.: 9/16/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Abnorm.	Comment
Diatoms				
Bacillariophyta				
Achnanthidium minutissimum	40	6.31%	0.00	
Adlafia minuscula	4	0.63%	0.00	
Amphora veneta	1	0.16%	0.00	
Caloneis bacillum	2	0.32%	0.00	
Caloneis tenuis	2	0.32%	0.00	
Cocconeis placentula	3	0.47%	0.00	
Encyonema silesiacum	113	17.82%	0.00	
Eolimna minima	112	17.67%	0.00	
Fragilaria vaucheriae	13	2.05%	0.00	
Gomphonema parvulum	2	0.32%	0.00	
Mayamaea atomus	42	6.62%	0.00	
Meridion circulare	1	0.16%	0.00	
Nitzschia dissipata	2	0.32%	0.00	
Nitzschia linearis	4	0.63%	0.00	
Nitzschia palea	141	22.24%	0.00	
Nitzschia paleacea	9	1.42%	0.00	
Planothidium lanceolatum	2	0.32%	0.00	
Sellaphora seminulum	40	6.31%	0.00	
Staurosira construens v. venter	13	2.05%	0.00	
Staurosirella pinnata	20	3.15%	0.00	
Stephanocyclus meneghiniana	34	5.36%	0.00	
Surirella angusta	18	2.84%	0.00	
Surirella ovalis	13	2.05%	0.00	
Synedra ulna v. contracta	3	0.47%	0.00	
Sample Count	**634**			

Taxa Listing

Project ID: CC08SBCP
RAI No.: CC08SBCP011

RAI No.: CC08SBCP011 **Sta. Name:** at Opportunity Gage
Client ID: SS-17
Date Coll.: 9/16/2008 **No. Jars:** 1 **STORET ID:**

Taxonomic Name	Count	PRA	Abnorm.	Comment
Diatoms				
Bacillariophyta				
Achnanthidium minutissimum	2	0.32%	0.00	
Adlafia minuscula	3	0.48%	0.00	
Cocconeis placentula	1	0.16%	0.00	
Encyonema silesiacum	192	30.57%	0.00	
Eolimna minima	61	9.71%	0.00	
Fragilaria vaucheriae	32	5.10%	0.00	
Gomphonema parvulum	5	0.80%	0.00	
Mayamaea atomus	12	1.91%	0.00	
Melosira varians	1	0.16%	0.00	
Navicula cryptocephala	4	0.64%	0.00	
Nitzschia dissipata	1	0.16%	0.00	
Nitzschia fonticola	3	0.48%	0.00	
Nitzschia frustulum	10	1.59%	0.00	
Nitzschia inconspicua	1	0.16%	0.00	
Nitzschia linearis	1	0.16%	0.00	
Nitzschia palea	84	13.38%	0.00	
Nitzschia paleacea	15	2.39%	0.00	
Pinnularia obscura	3	0.48%	0.00	
Planothidium frequentissimum	4	0.64%	0.00	
Planothidium lanceolatum	1	0.16%	0.00	
Pseudostaurosira brevistriata	32	5.10%	0.00	
Sellaphora pupula	1	0.16%	0.00	
Sellaphora seminulum	19	3.03%	0.00	
Staurosira construens	6	0.96%	0.00	
Staurosira construens v. venter	20	3.18%	0.00	
Staurosirella pinnata	9	1.43%	0.00	
Stephanocyclus meneghiniana	33	5.25%	0.00	
Surirella angusta	17	2.71%	0.00	
Surirella ovalis	53	8.44%	0.00	
Synedra ulna	1	0.16%	0.00	
Synedra ulna v. contracta	1	0.16%	0.00	
Sample Count	**628**			

Metrics Report

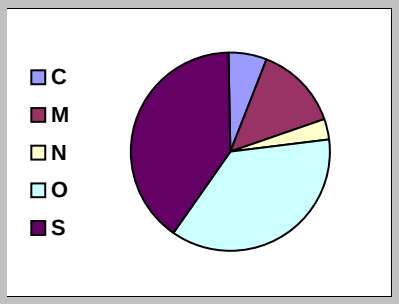
Project ID:	CC08SBCP
Sample ID:	CC08SBCP001
Station Name:	Above Butte WWTP
Client ID:	SS-06G
STORET ID:	
Date Collected:	9/15/2008
Count Of Taxon:	39
Sum Of Count:	618

Table 1 Metrics

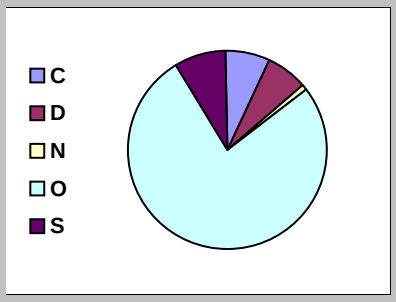
Metric	Value	MTM	MTP
Community Structure			
Shannon H (log2)	4.076	Excellent	Excellent
Species Richness	39	Excellent	Good
Native Taxa Percent	0.00%		
Cosmopolitan Taxa Percent	97.90%		
Mountains Rare Taxa Percent	0.00%		
Plains Rare Taxa Percent	0.00%		
Dominant Taxon Percent	21.04%	Excellent	Excellent
Sediment			
Siltation Taxa Percent	62.62%	Poor	Good
Motile Taxa Percent	64.40%		
Mountains Brackish Taxa Percent	53.88%		
Plains Brackish Taxa Percent	0.00%		
Organic Nutrients			
Pollution Index	1.984	Fair	Good
Nitrogen Heterotroph Taxa Percent	58.74%		
Polysaprobous Taxa Percent	66.83%		
Low DO Taxa Percent	30.10%		
Inorganic Nutrients			
Nitrogen Autotroph Taxa Percent	40.13%		
Eutraphentic Taxa Percent	66.99%		
Rhopalodiales Percent	0.00%		
Metals			
Disturbance Taxa Percent	1.46%	Excellent	Excellent
Acidophilous Taxa Percent	0.00%		
Metals Tolerant Taxa Percent	37.38%		
Abnormal Cells Percent	0.00%	Excellent	

Increaser/Decreaser Taxa

Metric	Value	Prob.
Mountains General Increasers Taxa Percent	64.24%	97.83%
Mountains Metals Increasers Taxa Percent	20.06%	29.46%
Mountains Nutrient Increasers Taxa Percent	9.55%	13.35%
Mountains Sediment Increasers Taxa Percent	47.25%	96.49%



Metric	Value	Prob.
Plains General Decreasers Taxa Percent	6.47%	79.67%
Plains General Increasers Taxa Percent	17.15%	12.30%



BioIndex	Description	Rating
MTM	Montana DEQ Mountains (Bahls 1992)	Poor
MTP	Montana DEQ Plains (Bahls 1992)	Good

Wednesday, October 29, 2008

Metrics Report

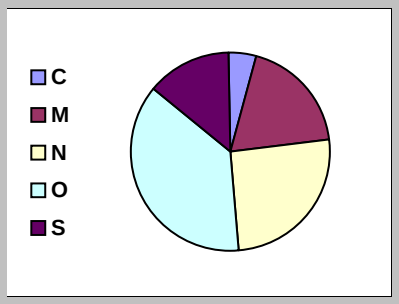
Project ID:	CC08SBCP
Sample ID:	CC08SBCP002
Station Name:	Below Butte WWTP
Client ID:	SS-07
STORET ID:	
Date Collected:	9/15/2008
Count Of Taxon:	33
Sum Of Count:	619

Table 1 Metrics

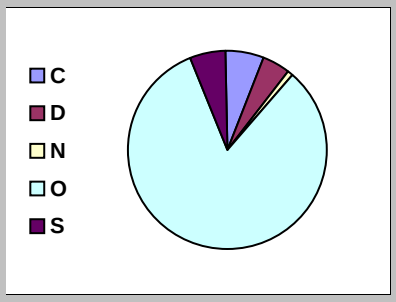
Metric	Value	MTM	MTP
Community Structure			
Shannon H (log2)	3.811	Excellent	Good
Species Richness	33	Excellent	Good
Native Taxa Percent	0.00%		
Cosmopolitan Taxa Percent	96.61%		
Mountains Rare Taxa Percent	0.00%		
Plains Rare Taxa Percent	0.00%		
Dominant Taxon Percent	24.72%	Excellent	Excellent
Sediment			
Siltation Taxa Percent	41.36%	Fair	Excellent
Motile Taxa Percent	42.81%		
Mountains Brackish Taxa Percent	82.71%		
Plains Brackish Taxa Percent	0.48%		
Organic Nutrients			
Pollution Index	1.785	Fair	Good
Nitrogen Heterotroph Taxa Percent	63.65%		
Polysaprobous Taxa Percent	68.82%		
Low DO Taxa Percent	47.50%		
Inorganic Nutrients			
Nitrogen Autotroph Taxa Percent	35.86%		
Eutraphentic Taxa Percent	70.60%		
Rhopalodiales Percent	0.00%		
Metals			
Disturbance Taxa Percent	2.58%	Excellent	Excellent
Acidophilous Taxa Percent	0.00%		
Metals Tolerant Taxa Percent	53.31%		
Abnormal Cells Percent	0.00%	Excellent	

Increaser/Decreaser Taxa

Metric	Value	Prob.
Mountains General Increasers Taxa Percent	62.36%	97.26%
Mountains Metals Increasers Taxa Percent	23.42%	37.45%
Mountains Nutrient Increasers Taxa Percent	29.40%	56.75%
Mountains Sediment Increasers Taxa Percent	18.58%	44.04%



Metric	Value	Prob.
Plains General Decreasers Taxa Percent	4.85%	82.38%
Plains General Increasers Taxa Percent	12.60%	6.81%



BioIndex	Description	Rating
MTM	Montana DEQ Mountains (Bahls 1992)	Fair
MTP	Montana DEQ Plains (Bahls 1992)	Good

Wednesday, October 29, 2008

Metrics Report

Project ID:	CC08SBCP
Sample ID:	CC08SBCP003
Station Name:	at Rocker
Client ID:	SS-08
STORET ID:	
Date Collected:	9/15/2008
Count Of Taxon:	31
Sum Of Count:	627

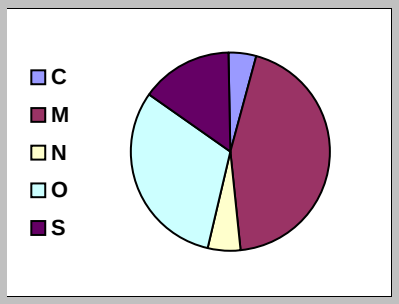
Table 1 Metrics

Metric	Value	MTM	MTP
Community Structure			
Shannon H (log2)	3.425	Excellent	Good
Species Richness	31	Excellent	Good
Native Taxa Percent	0.00%		
Cosmopolitan Taxa Percent	98.56%		
Mountains Rare Taxa Percent	0.00%		
Plains Rare Taxa Percent	0.00%		
Dominant Taxon Percent	40.03%	Good	Good
Sediment			
Siltation Taxa Percent	64.27%	Poor	Good
Motile Taxa Percent	65.07%		
Mountains Brackish Taxa Percent	86.44%		
Plains Brackish Taxa Percent	0.32%		
Organic Nutrients			
Pollution Index	1.499	Poor	Fair
Nitrogen Heterotroph Taxa Percent	70.33%		
Polysaprobous Taxa Percent	84.69%		
Low DO Taxa Percent	63.64%		
Inorganic Nutrients			
Nitrogen Autotroph Taxa Percent	29.35%		
Eutraphentic Taxa Percent	74.32%		
Rhopalodiales Percent	0.00%		
Metals			
Disturbance Taxa Percent	0.64%	Excellent	Excellent
Acidophilous Taxa Percent	0.00%		
Metals Tolerant Taxa Percent	75.44%		
Abnormal Cells Percent	0.00%	Excellent	

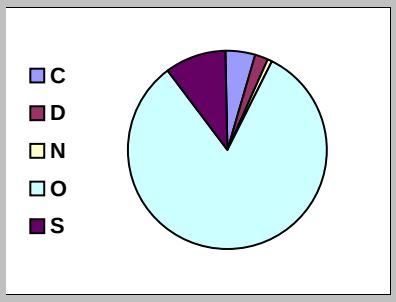
BioIndex	Description	Rating
MTM	Montana DEQ Mountains (Bahls 1992)	Poor
MTP	Montana DEQ Plains (Bahls 1992)	Fair

Increaser/Decreaser Taxa

Metric	Value	Prob.
Mountains General Increasers Taxa Percent	68.58%	98.75%
Mountains Metals Increasers Taxa Percent	48.01%	90.66%
Mountains Nutrient Increasers Taxa Percent	10.21%	14.46%
Mountains Sediment Increasers Taxa Percent	19.94%	47.61%



Metric	Value	Prob.
Plains General Decreasers Taxa Percent	1.75%	87.08%
Plains General Increasers Taxa Percent	16.27%	10.94%



Wednesday, October 29, 2008

Metrics Report

Project ID:	CC08SBCP
Sample ID:	CC08SBCP004
Station Name:	above Sand Creek
Client ID:	SS-10A
STORET ID:	
Date Collected:	9/15/2008
Count Of Taxon:	37
Sum Of Count:	618

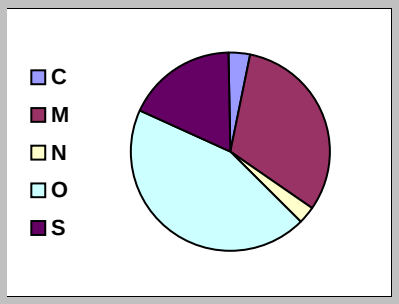
Table 1 Metrics

Metric	Value	MTM	MTP
Community Structure			
Shannon H (log2)	3.983	Excellent	Good
Species Richness	37	Excellent	Good
Native Taxa Percent	0.00%		
Cosmopolitan Taxa Percent	95.31%		
Mountains Rare Taxa Percent	0.00%		
Plains Rare Taxa Percent	0.00%		
Dominant Taxon Percent	21.84%	Excellent	Excellent
Sediment			
Siltation Taxa Percent	39.64%	Good	Excellent
Motile Taxa Percent	39.97%		
Mountains Brackish Taxa Percent	82.36%		
Plains Brackish Taxa Percent	1.94%		
Organic Nutrients			
Pollution Index	1.976	Fair	Good
Nitrogen Heterotroph Taxa Percent	48.22%		
Polysaprobous Taxa Percent	67.31%		
Low DO Taxa Percent	40.61%		
Inorganic Nutrients			
Nitrogen Autotroph Taxa Percent	49.35%		
Eutraphentic Taxa Percent	52.59%		
Rhopalodiales Percent	0.00%		
Metals			
Disturbance Taxa Percent	0.32%	Excellent	Excellent
Acidophilous Taxa Percent	0.16%		
Metals Tolerant Taxa Percent	48.71%		
Abnormal Cells Percent	0.00%	Excellent	

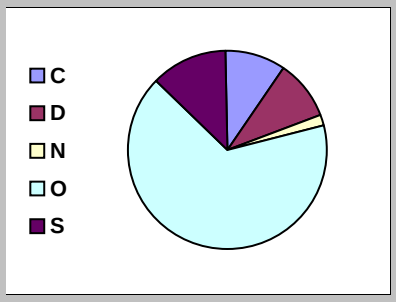
BioIndex	Description	Rating
MTM	Montana DEQ Mountains (Bahls 1992)	Fair
MTP	Montana DEQ Plains (Bahls 1992)	Good

Increaser/Decreaser Taxa

Metric	Value	Prob.
Mountains General Increasers Taxa Percent	55.83%	94.41%
Mountains Metals Increasers Taxa Percent	34.63%	66.64%
Mountains Nutrient Increasers Taxa Percent	6.31%	9.51%
Mountains Sediment Increasers Taxa Percent	22.01%	53.19%



Metric	Value	Prob.
Plains General Decreasers Taxa Percent	9.71%	73.24%
Plains General Increasers Taxa Percent	24.60%	26.43%



Wednesday, October 29, 2008

Metrics Report

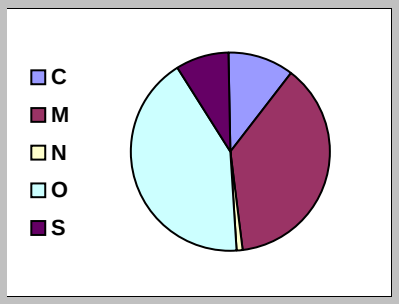
Project ID:	CC08SBCP
Sample ID:	CC08SBCP005
Station Name:	below Sand Creek
Client ID:	SS-10B
STORET ID:	
Date Collected:	9/15/2008
Count Of Taxon:	37
Sum Of Count:	626

Table 1 Metrics

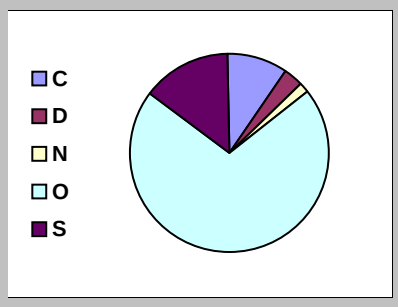
Metric	Value	MTM	MTP
Community Structure			
Shannon H (log2)	3.531	Excellent	Good
Species Richness	37	Excellent	Good
Native Taxa Percent	0.16%		
Cosmopolitan Taxa Percent	95.53%		
Mountains Rare Taxa Percent	0.00%		
Plains Rare Taxa Percent	0.00%		
Dominant Taxon Percent	33.23%	Good	Good
Sediment			
Siltation Taxa Percent	51.92%	Fair	Good
Motile Taxa Percent	52.40%		
Mountains Brackish Taxa Percent	90.58%		
Plains Brackish Taxa Percent	0.48%		
Organic Nutrients			
Pollution Index	1.887	Fair	Good
Nitrogen Heterotroph Taxa Percent	53.51%		
Polysaprobous Taxa Percent	66.61%		
Low DO Taxa Percent	44.41%		
Inorganic Nutrients			
Nitrogen Autotroph Taxa Percent	45.53%		
Eutraphentic Taxa Percent	61.66%		
Rhopalodiales Percent	0.00%		
Metals			
Disturbance Taxa Percent	0.32%	Excellent	Excellent
Acidophilous Taxa Percent	0.00%		
Metals Tolerant Taxa Percent	55.91%		
Abnormal Cells Percent	0.00%	Excellent	

Increaser/Decreaser Taxa

Metric	Value	Prob.
Mountains General Increasers Taxa Percent	57.51%	95.35%
Mountains Metals Increasers Taxa Percent	47.76%	90.49%
Mountains Nutrient Increasers Taxa Percent	11.66%	16.60%
Mountains Sediment Increasers Taxa Percent	19.81%	47.21%



Metric	Value	Prob.
Plains General Decreasers Taxa Percent	3.35%	84.85%
Plains General Increasers Taxa Percent	26.20%	30.15%



BioIndex	Description	Rating
MTM	Montana DEQ Mountains (Bahls 1992)	Fair
MTP	Montana DEQ Plains (Bahls 1992)	Good

Wednesday, October 29, 2008

Metrics Report

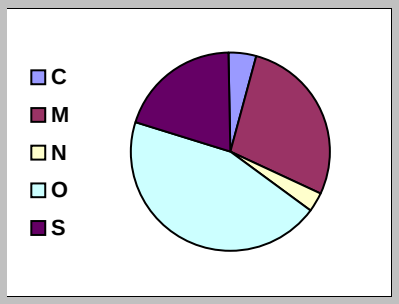
Project ID:	CC08SBCP
Sample ID:	CC08SBCP006
Station Name:	above Brown's Gulch
Client ID:	SS-11C
STORET ID:	
Date Collected:	9/15/2008
Count Of Taxon:	30
Sum Of Count:	626

Table 1 Metrics

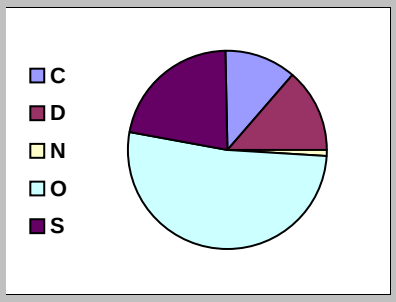
Metric	Value	MTM	MTP
Community Structure			
Shannon H (log2)	3.712	Excellent	Good
Species Richness	30	Excellent	Good
Native Taxa Percent	0.00%		
Cosmopolitan Taxa Percent	97.76%		
Mountains Rare Taxa Percent	0.00%		
Plains Rare Taxa Percent	0.00%		
Dominant Taxon Percent	17.57%	Excellent	Excellent
Sediment			
Siltation Taxa Percent	31.15%	Good	Excellent
Motile Taxa Percent	31.31%		
Mountains Brackish Taxa Percent	76.84%		
Plains Brackish Taxa Percent	0.32%		
Organic Nutrients			
Pollution Index	2.131	Good	Good
Nitrogen Heterotroph Taxa Percent	42.01%		
Polysaprobous Taxa Percent	63.42%		
Low DO Taxa Percent	31.63%		
Inorganic Nutrients			
Nitrogen Autotroph Taxa Percent	57.19%		
Eutraphentic Taxa Percent	43.13%		
Rhopalodiales Percent	0.00%		
Metals			
Disturbance Taxa Percent	0.00%	Excellent	Excellent
Acidophilous Taxa Percent	0.00%		
Metals Tolerant Taxa Percent	44.25%		
Abnormal Cells Percent	0.00%	Excellent	

Increaser/Decreaser Taxa

Metric	Value	Prob.
Mountains General Increasers Taxa Percent	55.59%	94.30%
Mountains Metals Increasers Taxa Percent	31.95%	59.87%
Mountains Nutrient Increasers Taxa Percent	7.99%	11.31%
Mountains Sediment Increasers Taxa Percent	25.24%	62.17%



Metric	Value	Prob.
Plains General Decreasers Taxa Percent	13.26%	65.17%
Plains General Increasers Taxa Percent	35.46%	55.96%



BioIndex	Description	Rating
MTM	Montana DEQ Mountains (Bahls 1992)	Good
MTP	Montana DEQ Plains (Bahls 1992)	Good

Wednesday, October 29, 2008

Metrics Report

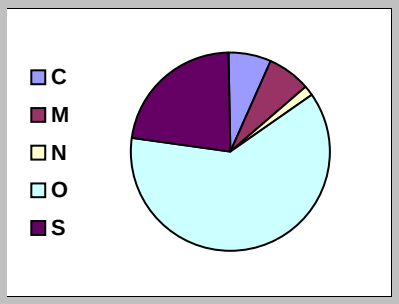
Project ID:	CC08SBCP
Sample ID:	CC08SBCP007
Station Name:	below Brown's Gulch
Client ID:	SS-11D
STORET ID:	
Date Collected:	9/15/2008
Count Of Taxon:	40
Sum Of Count:	623

Table 1 Metrics

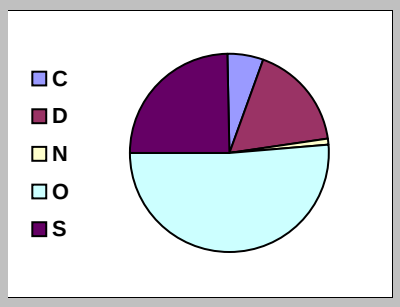
Metric	Value	MTM	MTP
Community Structure			
Shannon H (log2)	3.594	Excellent	Good
Species Richness	40	Excellent	Excellent
Native Taxa Percent	0.00%		
Cosmopolitan Taxa Percent	96.31%		
Mountains Rare Taxa Percent	0.00%		
Plains Rare Taxa Percent	0.00%		
Dominant Taxon Percent	26.48%	Good	Good
Sediment			
Siltation Taxa Percent	17.17%	Excellent	Excellent
Motile Taxa Percent	17.50%		
Mountains Brackish Taxa Percent	77.37%		
Plains Brackish Taxa Percent	0.16%		
Organic Nutrients			
Pollution Index	2.266	Good	Excellent
Nitrogen Heterotroph Taxa Percent	32.74%		
Polysaprobous Taxa Percent	58.59%		
Low DO Taxa Percent	26.00%		
Inorganic Nutrients			
Nitrogen Autotroph Taxa Percent	66.29%		
Eutraphentic Taxa Percent	38.20%		
Rhopalodiales Percent	0.00%		
Metals			
Disturbance Taxa Percent	0.00%	Excellent	Excellent
Acidophilous Taxa Percent	0.00%		
Metals Tolerant Taxa Percent	36.12%		
Abnormal Cells Percent	0.00%	Excellent	

Increaser/Decreaser Taxa

Metric	Value	Prob.
Mountains General Increasers Taxa Percent	38.84%	76.42%
Mountains Metals Increasers Taxa Percent	14.13%	17.36%
Mountains Nutrient Increasers Taxa Percent	8.67%	12.30%
Mountains Sediment Increasers Taxa Percent	29.86%	73.24%



Metric	Value	Prob.
Plains General Decreasers Taxa Percent	17.17%	55.96%
Plains General Increasers Taxa Percent	31.94%	46.02%



BioIndex	Description	Rating
MTM	Montana DEQ Mountains (Bahls 1992)	Good
MTP	Montana DEQ Plains (Bahls 1992)	Good

Wednesday, October 29, 2008

Metrics Report

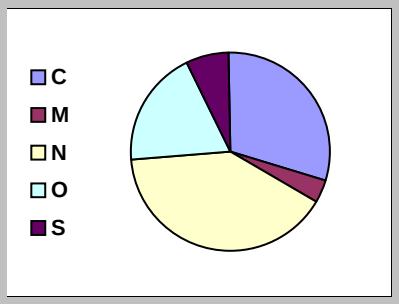
Project ID:	CC08SBCP
Sample ID:	CC08SBCP008
Station Name:	Mouth @ confluence
Client ID:	SS-15G
STORET ID:	
Date Collected:	9/16/2008
Count Of Taxon:	46
Sum Of Count:	628

Table 1 Metrics

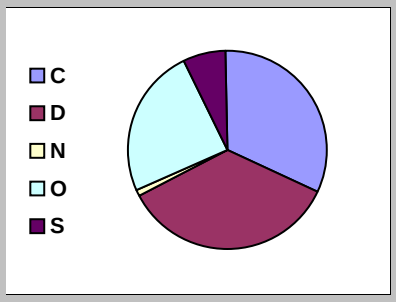
Metric	Value	MTM	MTP
Community Structure			
Shannon H (log2)	3.652	Excellent	Good
Species Richness	46	Excellent	Excellent
Native Taxa Percent	5.57%		
Cosmopolitan Taxa Percent	87.90%		
Mountains Rare Taxa Percent	0.00%		
Plains Rare Taxa Percent	4.46%		
Dominant Taxon Percent	33.92%	Good	Good
Sediment			
Siltation Taxa Percent	10.35%	Excellent	Excellent
Motile Taxa Percent	12.74%		
Mountains Brackish Taxa Percent	79.62%		
Plains Brackish Taxa Percent	1.11%		
Organic Nutrients			
Pollution Index	2.846	Excellent	Excellent
Nitrogen Heterotroph Taxa Percent	2.55%		
Polysaprobous Taxa Percent	10.35%		
Low DO Taxa Percent	1.75%		
Inorganic Nutrients			
Nitrogen Autotroph Taxa Percent	83.28%		
Eutraphentic Taxa Percent	78.66%		
Rhopalodiales Percent	0.16%		
Metals			
Disturbance Taxa Percent	1.59%	Excellent	Excellent
Acidophilous Taxa Percent	0.00%		
Metals Tolerant Taxa Percent	5.57%		
Abnormal Cells Percent	0.00%	Excellent	

Increaser/Decreaser Taxa

Metric	Value	Prob.
Mountains General Increasers Taxa Percent	80.25%	99.38%
Mountains Metals Increasers Taxa Percent	33.28%	63.31%
Mountains Nutrient Increasers Taxa Percent	69.90%	99.38%
Mountains Sediment Increasers Taxa Percent	36.94%	86.65%



Metric	Value	Prob.
Plains General Decreasers Taxa Percent	35.19%	15.87%
Plains General Increasers Taxa Percent	40.13%	68.44%



BioIndex	Description	Rating
MTM	Montana DEQ Mountains (Bahls 1992)	Good
MTP	Montana DEQ Plains (Bahls 1992)	Good

Wednesday, October 29, 2008

Metrics Report

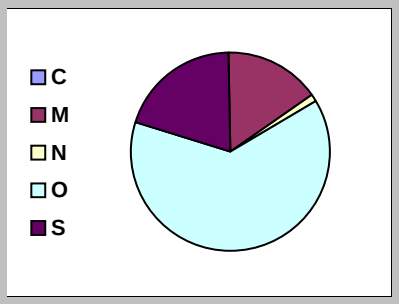
Project ID:	CC08SBCP
Sample ID:	CC08SBCP009
Station Name:	above German Gulch
Client ID:	SS-15A
STORET ID:	
Date Collected:	9/16/2008
Count Of Taxon:	26
Sum Of Count:	641

Table 1 Metrics

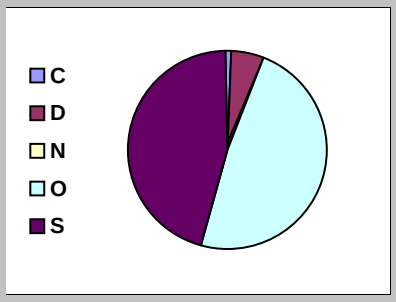
Metric	Value	MTM	MTP
Community Structure			
Shannon H (log2)	2.831	Good	Fair
Species Richness	26	Good	Fair
Native Taxa Percent	0.00%		
Cosmopolitan Taxa Percent	96.10%		
Mountains Rare Taxa Percent	0.00%		
Plains Rare Taxa Percent	0.00%		
Dominant Taxon Percent	42.59%	Good	Good
Sediment			
Siltation Taxa Percent	42.28%	Fair	Excellent
Motile Taxa Percent	42.43%		
Mountains Brackish Taxa Percent	78.00%		
Plains Brackish Taxa Percent	0.94%		
Organic Nutrients			
Pollution Index	1.708	Fair	Fair
Nitrogen Heterotroph Taxa Percent	40.72%		
Polysaprobous Taxa Percent	86.58%		
Low DO Taxa Percent	41.65%		
Inorganic Nutrients			
Nitrogen Autotroph Taxa Percent	58.19%		
Eutraphentic Taxa Percent	45.40%		
Rhopalodiales Percent	0.00%		
Metals			
Disturbance Taxa Percent	3.59%	Excellent	Excellent
Acidophilous Taxa Percent	0.00%		
Metals Tolerant Taxa Percent	83.00%		
Abnormal Cells Percent	0.00%	Excellent	

Increaser/Decreaser Taxa

Metric	Value	Prob.
Mountains General Increasers Taxa Percent	37.13%	73.57%
Mountains Metals Increasers Taxa Percent	15.76%	20.33%
Mountains Nutrient Increasers Taxa Percent	1.09%	4.95%
Mountains Sediment Increasers Taxa Percent	20.28%	48.80%



Metric	Value	Prob.
Plains General Decreasers Taxa Percent	5.62%	81.06%
Plains General Increasers Taxa Percent	46.96%	83.40%



BioIndex	Description	Rating
MTM	Montana DEQ Mountains (Bahls 1992)	Fair
MTP	Montana DEQ Plains (Bahls 1992)	Fair

Wednesday, October 29, 2008

Metrics Report

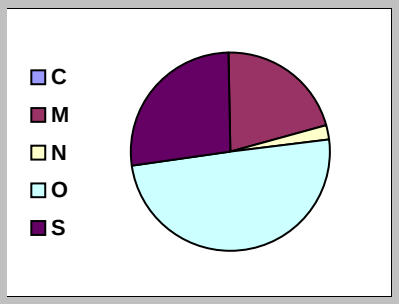
Project ID:	CC08SBCP
Sample ID:	CC08SBCP010
Station Name:	below German Gulch
Client ID:	SS-15B
STORET ID:	
Date Collected:	9/16/2008
Count Of Taxon:	24
Sum Of Count:	634

Table 1 Metrics

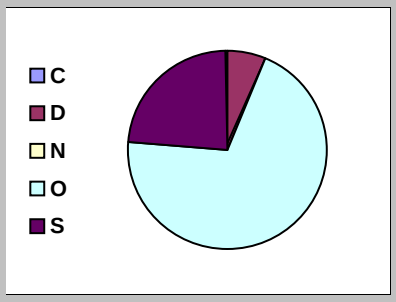
Metric	Value	MTM	MTP
Community Structure			
Shannon H (log2)	3.417	Excellent	Good
Species Richness	24	Good	Fair
Native Taxa Percent	0.00%		
Cosmopolitan Taxa Percent	93.38%		
Mountains Rare Taxa Percent	0.00%		
Plains Rare Taxa Percent	0.00%		
Dominant Taxon Percent	22.24%	Excellent	Excellent
Sediment			
Siltation Taxa Percent	60.73%	Poor	Good
Motile Taxa Percent	61.51%		
Mountains Brackish Taxa Percent	68.77%		
Plains Brackish Taxa Percent	0.63%		
Organic Nutrients			
Pollution Index	1.566	Fair	Fair
Nitrogen Heterotroph Taxa Percent	59.94%		
Polysaprobous Taxa Percent	82.81%		
Low DO Taxa Percent	53.94%		
Inorganic Nutrients			
Nitrogen Autotroph Taxa Percent	39.43%		
Eutraphentic Taxa Percent	67.82%		
Rhopalodiales Percent	0.00%		
Metals			
Disturbance Taxa Percent	6.31%	Excellent	Excellent
Acidophilous Taxa Percent	0.00%		
Metals Tolerant Taxa Percent	78.71%		
Abnormal Cells Percent	0.00%	Excellent	

Increaser/Decreaser Taxa

Metric	Value	Prob.
Mountains General Increasers Taxa Percent	50.95%	90.99%
Mountains Metals Increasers Taxa Percent	21.14%	31.92%
Mountains Nutrient Increasers Taxa Percent	2.21%	5.71%
Mountains Sediment Increasers Taxa Percent	27.60%	68.08%



Metric	Value	Prob.
Plains General Decreasers Taxa Percent	6.47%	79.67%
Plains General Increasers Taxa Percent	24.45%	26.11%



BioIndex	Description	Rating
MTM	Montana DEQ Mountains (Bahls 1992)	Poor
MTP	Montana DEQ Plains (Bahls 1992)	Fair

Wednesday, October 29, 2008

Metrics Report

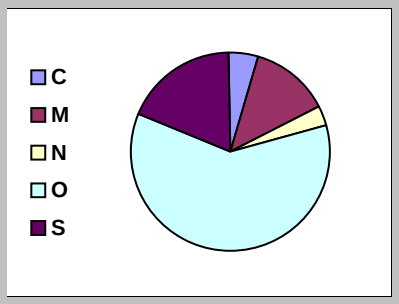
Project ID:	CC08SBCP
Sample ID:	CC08SBCP011
Station Name:	at Opportunity Gage
Client ID:	SS-17
STORET ID:	
Date Collected:	9/16/2008
Count Of Taxon:	31
Sum Of Count:	628

Table 1 Metrics

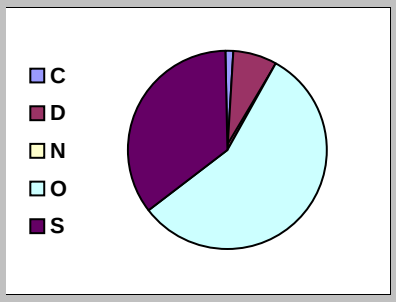
Metric	Value	MTM	MTP
Community Structure			
Shannon H (log2)	3.555	Excellent	Good
Species Richness	31	Excellent	Good
Native Taxa Percent	0.00%		
Cosmopolitan Taxa Percent	88.22%		
Mountains Rare Taxa Percent	0.00%		
Plains Rare Taxa Percent	0.00%		
Dominant Taxon Percent	30.57%	Good	Good
Sediment			
Siltation Taxa Percent	45.38%	Fair	Excellent
Motile Taxa Percent	45.86%		
Mountains Brackish Taxa Percent	68.79%		
Plains Brackish Taxa Percent	0.48%		
Organic Nutrients			
Pollution Index	1.809	Fair	Good
Nitrogen Heterotroph Taxa Percent	38.38%		
Polysaprobous Taxa Percent	82.80%		
Low DO Taxa Percent	40.61%		
Inorganic Nutrients			
Nitrogen Autotroph Taxa Percent	61.15%		
Eutraphentic Taxa Percent	54.94%		
Rhopalodiales Percent	0.00%		
Metals			
Disturbance Taxa Percent	0.32%	Excellent	Excellent
Acidophilous Taxa Percent	0.00%		
Metals Tolerant Taxa Percent	70.54%		
Abnormal Cells Percent	0.00%	Excellent	

Increaser/Decreaser Taxa

Metric	Value	Prob.
Mountains General Increasers Taxa Percent	39.97%	78.23%
Mountains Metals Increasers Taxa Percent	17.68%	24.20%
Mountains Nutrient Increasers Taxa Percent	8.44%	11.90%
Mountains Sediment Increasers Taxa Percent	24.04%	58.71%



Metric	Value	Prob.
Plains General Decreasers Taxa Percent	7.17%	78.23%
Plains General Increasers Taxa Percent	37.26%	61.03%



BioIndex	Description	Rating
MTM	Montana DEQ Mountains (Bahls 1992)	Fair
MTP	Montana DEQ Plains (Bahls 1992)	Good

Wednesday, October 29, 2008

Appendix N

2008 Fisheries Data

Appendix 1. Description of fish sampling sections in Silver Bow Creek from 2002 through 2007.

Section 1. Father Sheehan Section – Above the SSTOU
Section Length: 500 ft
Years Sampled: Fall 2005, 2007
GPS: N45.98524 W112.50719 (Bottom of 500 ft section)

Section 2. Montana Street Section – Above the SSTOU
Section Length: Approx. 500 ft
Years Sampled: Fall 2002
GPS: N/A (Montana Avenue to confluence with metro storm drain)

Section 3. Lower Area One Section – Above the SSTOU
Section Length: 1000 ft
Years Sampled: Fall 2005, 2006, 2007
GPS: N45.99489 W112.54819 (Bottom); N45.99550 W112.54564 (Top)

Section 4. Rocker Section – Remediated in 2001
Section Length: 1000 ft
Years Sampled: Fall 2002, 2003, 2004, 2005, 2006, 2007
GPS: N46.00.070 W112.35.601 (Top of section; bottom near concrete block on north bank)

Section 5. Above Ramsay Section (Reach F) – Remediated in 2004
Section Length: Approx. 1000 ft
Years Sampled: Fall 2005
GPS: N46.00311 W112.39756 (Bottom); N46.00388 W112.39907 (Top)

Section 6. Ramsay Section – Remediated in 2005
Section Length: Approx. 1000 ft
Years Sampled: Fall 2002, 2003, 2004 (reconstruction during 2005), 2006, 2007
GPS: N46º 00.000' W112º 41.109' (bottom) N46º 00.057' W112º 40.902' (top)

Section 7. Below Ramsay Section (Miles Crossing) - Unremediated
Section Length: Approx. 1000 ft
Year Sampled: Fall 2005
GPS: N46.00756 W112.43591 (Bottom/RR crossing); N46.00678 W112.43719 (Top/road)

Section 8. Below German Gulch - Unremediated
Section Length: 1000 ft
Years Sampled: Fall 2003, 2004, 2005, 2006, 2007 /
Spring 2004, 2005, 2007
GPS: N/A Start 700 ft below bridge; End 300 ft above bridge crossing

Section 9. Above Highway 1 Crossing – Unremediated
Section Length:250 m (820 ft)
Years Sampled:2008
GPS: Latitude (DD) N46.09396 Longitude (DD) W112.80338 (Top of section)

Appendix N-2. Catch-Per-Unit-Effort values in number of fish per 100 seconds of electrofishing time for all species and sections sampled in Silver Bow Creek from 2002 through 2007. WCT = Westslope Cutthroat Trout, RB = Rainbow Trout, EB = Brook Trout, LN SU = Longnose Sucker, SL COT = Slimy Sculpin, CM MN = Central Mudminnow.

Section	Species	2002	2003	2004	2005	2006	2007	2008
Father Sheehan	WCT	n/a	n/a	n/a	0	n/a	0	0
	EB	n/a	n/a	n/a	1.9	n/a	2.33	3.59
	LN SU	n/a	n/a	n/a	1	n/a	2.15	0.51
	SL COT	n/a	n/a	n/a	3.8	n/a	4.85	3.59
	CM MN	n/a	n/a	n/a	0	n/a	1.42	0.68
Lower Area One	WCT	n/a	n/a	n/a	0	0	0	0
	EB	n/a	n/a	n/a	0	0	0.1	0
	LN SU	n/a	n/a	n/a	12	3.1	1.41	1.66
	SL COT	n/a	n/a	n/a	0.74	6.9	7.78	4.62
	CM MN	n/a	n/a	n/a	0.16	0.14	0.34	0.24
MT Avenue	WCT	0	n/a	n/a	n/a	n/a	n/a	n/a
	EB	0	n/a	n/a	n/a	n/a	n/a	n/a
	LN SU	2.6	n/a	n/a	n/a	n/a	n/a	n/a
	SL COT	3.5	n/a	n/a	n/a	n/a	n/a	n/a
	CM MN	0.002	n/a	n/a	n/a	n/a	n/a	n/a
Rocker	WCT	0	0	0	0	0	0	0
	EB	0	0	0	0	0	0	0
	LN SU	4.9	3	1.2	4.7	8.7	4.35	8.92
	SL COT	0.1	0.06	0.06	0	0.16	0.2	0
	CM MN	0	0	0	0	0	0	0
Above Ramsay	WCT	n/a	n/a	n/a	0	n/a	n/a	n/a
	EB	n/a	n/a	n/a	0	n/a	n/a	n/a
	LN SU	n/a	n/a	n/a	5.5	n/a	n/a	n/a
	SL COT	n/a	n/a	n/a	0.08	n/a	n/a	n/a
	CM MN	n/a	n/a	n/a	0.04	n/a	n/a	n/a
Ramsay	WCT	n/a	0	0	n/a	0	0	0.13
	EB	n/a	0	0	n/a	0	0.05	0.06
	LN SU	n/a	0	0	n/a	7.2	2.01	2.02
	SL COT	n/a	0	0	n/a	0.1	0.14	0.32
	CM MN	n/a	0	0	n/a	0	0	0
Below Ramsay	WCT	n/a	n/a	n/a	0	n/a	n/a	n/a
	EB	n/a	n/a	n/a	0	n/a	n/a	n/a
	LN SU	n/a	n/a	n/a	0	n/a	n/a	n/a
	SL COT	n/a	n/a	n/a	0	n/a	n/a	n/a
	CM MN	n/a	n/a	n/a	0	n/a	n/a	n/a
German Gulch - Fall	WCT/RB	n/a	0	0	0	0	0.08	0.11
	EB	n/a	0	0	0	0.045	1.51	0.11
	LN SU	n/a	0	0	0.05	0.5	1.78	1.88
	SL COT	n/a	0	0	0.153	0.135	0.7	0.21
	CM MN	n/a	0	0	0	0	0	0
German Gulch – Spr.	WCT	n/a	n/a	0.11	0	n/a	0.07	n/a
	EB	n/a	n/a	0.05	1.58	n/a	0.13	n/a
	LN SU	n/a	n/a	0.11	0	n/a	0.5	n/a
	SL COT	n/a	n/a	0	0.05	n/a	0.1	n/a
	CM MN	n/a	n/a	0	0	n/a	0.03	n/a
Above Highway 1	RB	n/a	n/a	n/a	n/a	n/a	n/a	0.12
	EB	n/a	n/a	n/a	n/a	n/a	n/a	0
	LN SU	n/a	n/a	n/a	n/a	n/a	n/a	0.70
	SL COT	n/a	n/a	n/a	n/a	n/a	n/a	0.89
	CM MN	n/a	n/a	n/a	n/a	n/a	n/a	0

Appendix N-3.

Longnose suckers were collected for liver metal analysis from five sections of upper Silver Bow Creek, October 10, 2007. Livers were removed from five suckers at each site, and composite samples were analyzed for metals using ICP (EPA methods 3051 and 200.8). The mean length of fish collected at each of the five sections was plotted using 95% confidence intervals (CI; Figure 1). Confidence intervals that overlap would not be considered significantly different ($p<0.05$). Overall, fish collected from Lower Area One (LAO) had the smallest mean size (mean length=131.6 (10.7) mm TL); fish collected from the Rocker section (ROK) had the largest mean size (mean length=199.6 (7.5) mm TL; Figure 1).

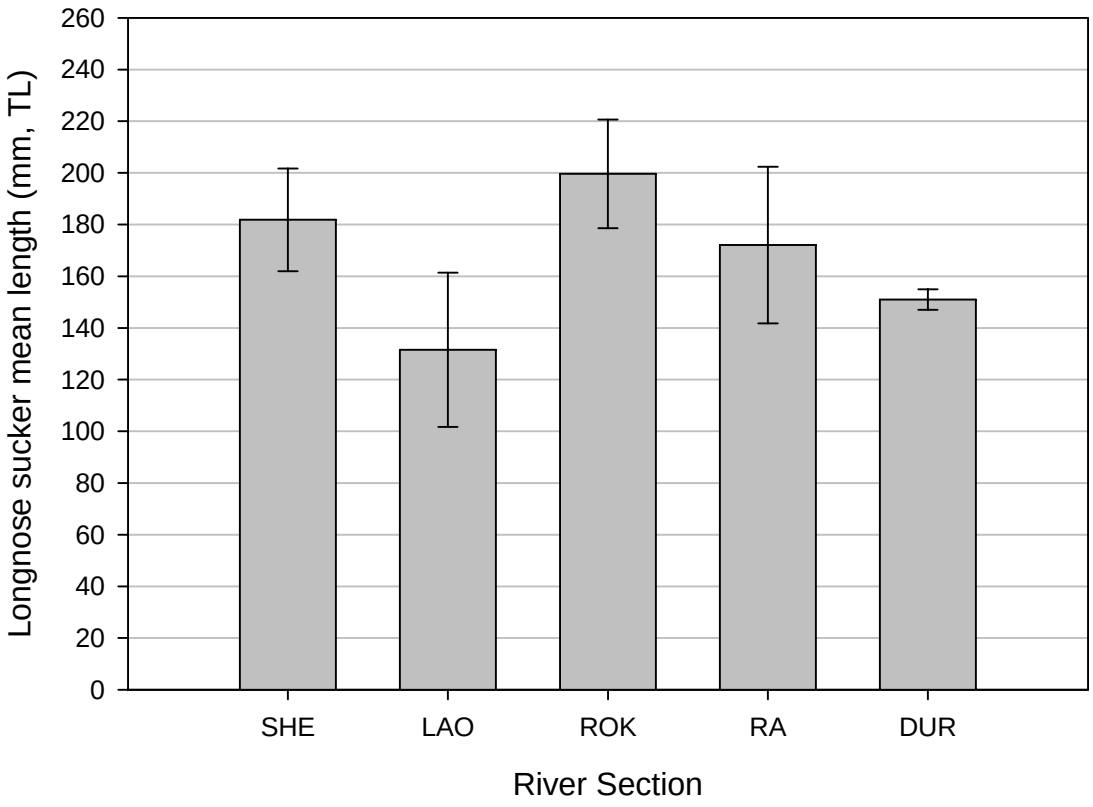


Figure 1. Longitudinal trend in mean length (mm, TL) of longnose suckers (*Catostomus catostomus*) collected in the fall, 2007 from five sections of upper Silver Bow Creek for liver metal analysis. Sites listed include: Father Shehan (SHE), Lower Area One (LAO), Rocker (ROK), Ramsey (RA), and Durant Canyon – below German Gulch (DUR). Error bars represent 95% confidence intervals (CI).

Results from ICP metal analysis on longnose sucker livers are shown in Table 2. Of the 17 metals analyzed, only eight were found to be above the minimum detection limit based on sample quantity. Fish livers from the Father Shehan section (SHE) contained the highest concentrations of chromium, iron, selenium, strontium, and zinc. The Ramsey section (RA) contained the highest cadmium and copper concentrations, and the Rocker section (ROK) contained the highest concentration of manganese (Table 2). Concentrations of key trace elements in longnose sucker livers collected at the Rocker section (ROK) in 2007 were compared with fish collected in 2004 (Table 2). Copper and zinc concentrations in fish livers from 2007 were lower than concentrations found in 2004 fish. All other metals analyzed in 2007 (arsenic, cadmium, and lead) were below minimum detection limits (Table 2). Mean length of fish collected in 2007 were larger than those captured in 2004 (Table 2), suggesting lower metal concentrations found in 2007 fish livers were not the result of analyzing smaller fish.

Continued monitoring of the bio-concentration of metals in fish is important in documenting the restoration and recovery of Silver Bow Creek. More specifically, the continuation of spatial and temporal sampling of longnose suckers conducted at standardized sites along the Creek will allow for interpretable comparisons in future years. However, as higher trophic-level species (i.e., westslope cutthroat trout and brook trout) re-establish viable populations within the main-stem of Silver Bow Creek, documenting site specific macro-invertebrate recovery and metal concentrations, and corresponding fish abundance and liver metal concentrations may provide further insight into the toxicological dynamics of the system.

Appendix 3 (continued).

Table 1. ***Concentrations of metals (μg/g dry weight) in longnose suckers (Catostomus catostomus) collected in the fall, 2007 from five sections of upper Silver Bow Creek. Sites are listed on a longitudinal gradient from the upper most section: Father Shehan (SHE), Lower Area One (LAO), Rocker (ROK), Ramsey (RA), and Durant Canyon – below German Gulch (DUR). Liver concentrations represent mean composite values from 5 fish captured in each river section. (*) Only 4 fish were analyzed from the Ramsey section. Results listed with a < represent samples with concentrations below minimum detection limits based on sample quantity.***

Section	Al	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Ni	Pb	Se	Sr	Ti	V	Zn
SHE	<10.0	<0.80	<0.80	<0.80	<0.80	<0.80	1.54	27.4	238.0	7.64	<2.00	<0.80	4.8	2.0	<2.0	<0.80	89.8
LAO	<10.0	<0.80	<0.80	<0.80	<0.80	<0.80	1.10	24.4	80.2	8.21	<2.00	<0.80	3.0	2.0	<2.0	<0.80	67.1
ROK	<10.0	<0.80	<0.80	<0.80	<0.80	<0.80	1.02	15.0	76.0	8.86	<2.00	<0.80	3.2	2.0	<2.0	<0.80	71.0
RA*	<10.0	<0.80	<0.80	<0.80	0.82	<0.80	0.92	67.7	78.8	5.98	<2.00	<0.80	4.0	2.0	<2.0	<0.80	87.1
DUR	<10.0	<0.80	<0.80	<0.80	<0.80	<0.80	1.06	46.4	90.0	8.74	2.07	<0.80	<2.0	2.0	<2.0	<0.80	68.9

Table 2. ***Concentrations of key trace elements (μg/g dry weight) in Longnose sucker (Catostomus catostomus) livers collected at the Rocker site (ROK), Silver Bow Creek, in the fall of 2004 and 2007. Results listed with a < represent samples with concentrations below minimum detection limits based on sample quantity.***

Date of collection	Mean length (mm, TL)	Arsenic	Cadmium	Copper	Lead	Zinc
2004	188.0	<0.20	0.98	20.9	0.38	74.3
2007	199.6	<0.80	<0.80	15.0	<0.80	71.0