



# BASELINE STUDY: 2008 SLOCAN LAKE WATER QUALITY MONITORING PROGRAM



**Prepared for:**  
**SLOCAN LAKE STEWARDSHIP SOCIETY**  
P.O. Box 322, NEW DENVER, BC, V0G 1S0



**Prepared by:**  
**GALENA ENVIRONMENTAL LTD**  
P.O. Box 37, SILVERTON, BC, V0G 2B0

January 2009

## EXECUTIVE SUMMARY

Galena Environmental Ltd was retained by the Slovan Lake Stewardship Society (SLSS) to conduct a water quality sampling program on Slovan Lake as well as to provide recommendations for future sampling. The study was performed in the fall of 2008 as part of the Slovan Lake Baseline Study.

The 2008 water sampling program was carried out in order to establish a comprehensive description of the current water status of Slovan Lake and to gather baseline data on water quality that will contribute to a greater understanding of the lake ambient conditions, an essential requirement for a proper assessment of future trends. The 2008 water program had two components: an offshore and a nearshore sampling program. This study represents the results of the 2008 sampling program.

Water quality is the basic gauge for measuring aquatic health and ecosystem integrity. There is, unfortunately, very little limnological information on any aspect of Slovan Lake aside from some government lake surveys conducted in 1965 and 1991 and a two-year limnology study conducted by the Ministry of Environment of British Columbia and University of British Columbia in 2000-2001. The results of the latter study were presented in a collection of reports, three of which were particularly useful for comparison purposes with the results of the present study (Andrusak 2006, Pieters 2004, and Pieters and Eskooch, 2006). These three reports contain data on the general parameters of the lake and on the concentrations of certain nutrients and metals. Some parameters were also compared to available data on Upper Arrow Lake.

The present 2008 survey analysed water samples for seven general water quality parameters, 36 metals, five nutrients, and coliforms. Comparison, where possible, with the 2000–2001 survey report indicated little variability between those and the 2008 results. The Andrusak limnological survey of Slovan Lake was primarily initiated because the relatively pristine condition of the lake made it a good control for comparison purposes with the fertilization experiments on nearby Arrow Lakes and Kootenay Lake. The present lake survey results confirm, for the most part, that Slovan Lake remains oligotrophic and relatively pristine. In all instances where water quality guidelines could be assessed (i.e., detection limits were sufficiently low), all guidelines were met for both aquatic life and recreation (the two primary uses of Slovan Lake).

## CONTRIBUTORS

### FUNDING:

The project would not been possible without the generosity of several funding programs. Funding for this project was provided by :

- CBT Community Development Program:
  - Columbia Basin Trust (CBT)
  
- Columbia Kootenay Fisheries Renewal Partnership & Columbia Basin Trust Environmental Initiatives Program:
  - Columbia Basin Trust (CBT)
  - Columbia Kootenay Fisheries Renewal Partnership (CKFRP)
  - The Ktunaxa Nation Council
  
- Columbia Power Corporation's Community Funding Program:
  - Columbia Power Corporation (CPC)

## ACKNOWLEDGEMENTS

### 1. IN-KIND ASSISTANCE

- RDCK: use of the multi-meter and help in making copies of this report
- MOE Nelson: use of a 4.2 liter beta bottle sampler
- Jennifer Yeow, microbiologist (Passmore Laboratory Ltd.): professional input into the planning of the sampling program and preferential rates for the microbiological analyses

### 2. VOLUNTEERS AND FIELD WORK

This project would not have been possible without the volunteer help and contributions of the members of the SLSS and several non-members as well, on both the nearshore and offshore components.

- Offshore sampling program: field work planning, preparation and coordination was conducted by Luce Paquin, biologist
- Nearshore sampling program: Field work planning and preparation was conducted by Luce Paquin, biologist, and field work coordination was carried out by Lane Haywood and Luce Paquin
- Offshore sampling was conducted by Hillary Elliott, Peter Rouslton, Jody Cliff, Kevin Heschdahl and Luce Paquin
- Nearshore sampling was conducted by Lane Haywood, Hank Hastings, Richard Johnson, Linda Hastings and Jane Murphy

### 3. PEER REVIEW

- This report was peer reviewed by Burke Phippen, of BWP Consulting Inc, Kamloops, BC

### 4. SPECIAL THANKS

- to Jody Cliff for providing the photograph on the cover page

**Alkalinity:** Capacity of a lake to neutralize acid.

**Epilimnion:** Most lakes form three distinct layers of water during summertime weather. The epilimnion is the upper layer and is characterized by warmer and less-dense water.

**Eutrophic Lake:** A nutrient-rich lake – usually shallow, “green” and with limited oxygen in the bottom layer of water.

**Fall Turnover:** Cooling surface waters, activated by wind action, sink to mix with lower levels of water. As in spring turnover, all water is now at the same temperature.

**Freshets:** A flood resulting from heavy rain or a spring thaw. Whereas heavy rain often causes a flash flood, a spring thaw event is generally a more incremental process, depending upon local climate and topography.

**Hypolimnion:** The bottom layer of lake water during the summer months. The water in the hypolimnion is denser and much colder than the water in the upper two layers.

**Isothermal Lake:** a lake without water stratification and with the same water temperatures along the water column.

**Macrophytes:** Aquatic plants growing in a lake, river or wetland.

**Oligotrophic Lake:** A relatively nutrient-poor lake, it is clear and deep with bottom waters high in dissolved oxygen.

**Photosynthesis:** The process by which green plants produce oxygen from sunlight, water and carbon dioxide.

**Phytoplankton:** Algae – the base of the lake’s food chain, it also produces oxygen.

**Thermocline:** During summertime, the middle layer of lake water. Lying below the epilimnion, temperatures decrease rapidly with depth in this layer.

**TABLE OF CONTENTS**

EXECUTIVE SUMMARY ..... I

CONTRIBUTORS ..... II

ACKNOWLEDGEMENTS..... III

GLOSSARY ..... IV

**LIST OF TABLES ..... VI**

**LIST OF FIGURES ..... VII**

**APPENDICES ..... VII**

1 INTRODUCTION ..... 1

2 STUDY AREA.....2

3 METHODOLOGY .....4

    3.1 PROGRAM PROTOCOL ..... 4

    3.2 NEARSHORE SAMPLING PROGRAM ..... 6

        3.2.1 SITE SELECTION ..... 6

        3.2.2 DISCRETE WATER SAMPLING METHODOLOGY ..... 7

        3.2.3 ANALYTICAL METHODS AND DATA INTERPRETATION ..... 9

    3.3 OFFSHORE SAMPLING PROGRAM..... 9

        3.3.1 PARAMETER SELECTION ..... 9

        3.3.2 RATIONALE FOR SELECTION OF SAMPLING SITES & FOR SAMPLING DEPTHS ..... 10

        3.3.3 SAMPLING METHODOLOGY ..... 12

        3.3.4 DATA ANALYSIS, LABORATORY ANALYTICAL STANDARDS ..... 13

        3.3.5 DATA INTERPRETATION ..... 13

    3.4 QUALITY ASSURANCE (QA) & QUALITY CONTROL (QC) ..... 14

        3.4.1 QUALITY ASSURANCE ..... 14

        3.4.2 QUALITY CONTROL ..... 14

4 RESULTS & ANALYSIS .....16

    4.1 MICROBIOLOGY .....16

    4.2 GENERAL CHEMISTRY .....16

        4.2.1 WATER TEMPERATURE..... 17

        4.2.2 DISSOLVED OXYGEN (DO) .....20

        4.2.3 CONDUCTIVITY (EC) .....23

        4.2.4 PH .....24

        4.2.5 TOTAL DISSOLVED SOLIDS (TDS) .....25

        4.2.6 TOTAL SUSPENDED SOLIDS (TSS) .....25

        4.2.7 TOTAL HARDNESS .....26

4.3	NUTRIENTS .....	30
4.3.1	<i>NITRATE (NO<sub>3</sub>) &amp; NITRITE (NO<sub>2</sub>)</i> .....	31
4.3.2	<i>TOTAL NITROGEN</i> .....	32
4.3.3	<i>TOTAL PHOSPHORUS (TP)</i> .....	32
4.4	TOTAL METALS .....	37
4.4.1	<i>PECULIARITIES OF SITE 4</i> .....	40
4.4.2	<i>OTHER METALS</i> .....	42
5	RECOMMENDATIONS .....	54
6	CONCLUSION .....	56
7	REFERENCES .....	57
	APPENDICES .....	59

**LIST OF TABLES**

Table 1:	Description of the seven nearshore sampling sites .....	8
Table 2:	General chemistry, nutrients and total metals parameters sampled during the 2008 offshore program.....	10
Table 3:	Sample sites at the project location .....	11
Table 4:	Water Quality Guidelines for microbiological parameters (WQG) .....	16
Table 5:	Water Quality Guidelines for general chemistry (WQG).....	17
Table 6:	Optimum temperature ranges for specific life history stages of salmonids and other species .....	18
Table 7:	Results for general chemistry at 5m .....	27
Table 8:	Results for general chemistry at 50m .....	28
Table 9:	T-test results for general chemistry at 5 m .....	29
Table 10:	T-test results for general chemistry at 50m .....	29
Table 11:	Water quality guidelines for nutrients (WQG) .....	30
Table 12:	Results for nutrients at 5m .....	34
Table 13:	Results for nutrients at 50m .....	35
Table 14:	T-test results for nutrients at 5 m .....	36
Table 15:	T-test results for nutrients at 50 m .....	36
Table 16:	Water quality guidelines for total metals (WQG) .....	38
Table 17:	Metals with RDL set higher than the Water Quality Guidelines for Aquatic Life .....	40
Table 18:	Comparison of total metal results between 2000-2001 and 2008 sampling programs.....	43
Table 19:	Results for total metals at 5m .....	44
Table 20:	Results for total metals at 50 m .....	48
Table 21:	T-test results for total metals at 5 m .....	52
Table 22:	T-test results for total metals at 50 m .....	53

**LIST OF FIGURES**

Figure 1: Location of Slocan Lake ..... 3  
Figure 2: Slocan Lake and the offshore and nearshore sampling sites ..... 5  
Figure 3: Average water temperature profiles during the 2008 five week monitoring program .....19  
Figure 4: Water temperature profiles for each sampling date during the five-week program .....20  
Figure 5: Average dissolved oxygen profiles during the 2008 5-week monitoring program.....22  
Figure 6: Average temperature and DO concentrations for the four sampling sites during October and November 2008 .....23  
Figure 7: Copper, lead and zinc averages for the epilimnion of Sites 1 to 4.....41

**APPENDICES**

- Appendix A – Passmore Laboratory Microbiology Results & Interpretation
- Appendix B – Results of general parameters
- Appendix C – CARO Laboratory results
- Appendix D – Results of nutrient parameters
- Appendix E – Results of total metal parameters



# 1 INTRODUCTION

The pristine waters and impressive mountain views make Slocan Lake very attractive to cottagers and tourists throughout the summer months. Responding to local public concerns about water quality in Slocan Lake and the increasing recreational use of the lake, local residents formed the Slocan Lake Stewardship Society (SLSS) in June 2006. Ever-expanding development pressures in the Slocan Lake area and increasing demands made of the foreshore areas provided the impetus to develop a strategy that will serve to direct lake and foreshore use in a manner which would respect community values and protect the existing ecosystem. The goal of the SLSS is to develop a community-driven plan encompassing both foreshore and offshore waters of Slocan Lake which would then serve as a set of guidelines for land and water use in and around the lake, thereby directing and coordinating initiatives of developers, local governments, the tourism industry and local residents.

Slocan Lake is one of the few remaining large lakes in British Columbia for which very little scientific information has been gathered to date (Pieters & Eskooh, 2006), and it is obvious that a comprehensive lake management plan cannot be drawn up without the requisite collection of scientific data which serves to act as the basis for any proposals, recommendations and conclusions. Thus, after some research and consultations with representatives of the provincial and federal governments, the SLSS undertook the development of a baseline study before it could continue with its management plan project. A baseline study is a lake data collection project describing the current state of the lake from an ecological perspective. The recent increase in housing developments along the shore of the lake and the concomitant increase in recreational use of the lake itself demand that such a project be undertaken in order to avoid any serious negative impacts upon the ecology of the lake.

This water quality sampling program is one of the components of the Slocan Lake baseline study. The objective of the baseline study was to gather information necessary for the future development of a comprehensive lake management plan for Slocan Lake. The study focused on two main components: a Fish and Wildlife Foreshore Habitat Assessment and a Water Quality Assessment in the offshore and nearshore zones. This report describes the results of the 2008 water quality sampling program on Slocan Lake. The water sampling results will serve to describe the present state of the lake and help identify and evaluate any future trends in water quality.

## 2 STUDY AREA

Slocan Lake is located in the West Kootenay Region in the southern interior of British Columbia. The lake follows Highway 6 and is positioned in a north-south axis between the Selkirk and the Valhalla mountain ranges (Figure 1). The lake drains south into its only outlet, the Slocan River, which flows into the Kootenay River, which in turn flows into the Columbia River in Castlegar, BC. The lake is at an elevation of 541 m and is located within the ICHmw2 (Interior Cedar Hemlock, moist, warm) biogeoclimatic zone (Ministry of Forests, 2002). The upland ecosystem is characterized as being in the ESSF (Engelmann Spruce-Subalpine Fir) and the AT (Alpine Tundra) biogeoclimatic zones containing pockets of open forest.

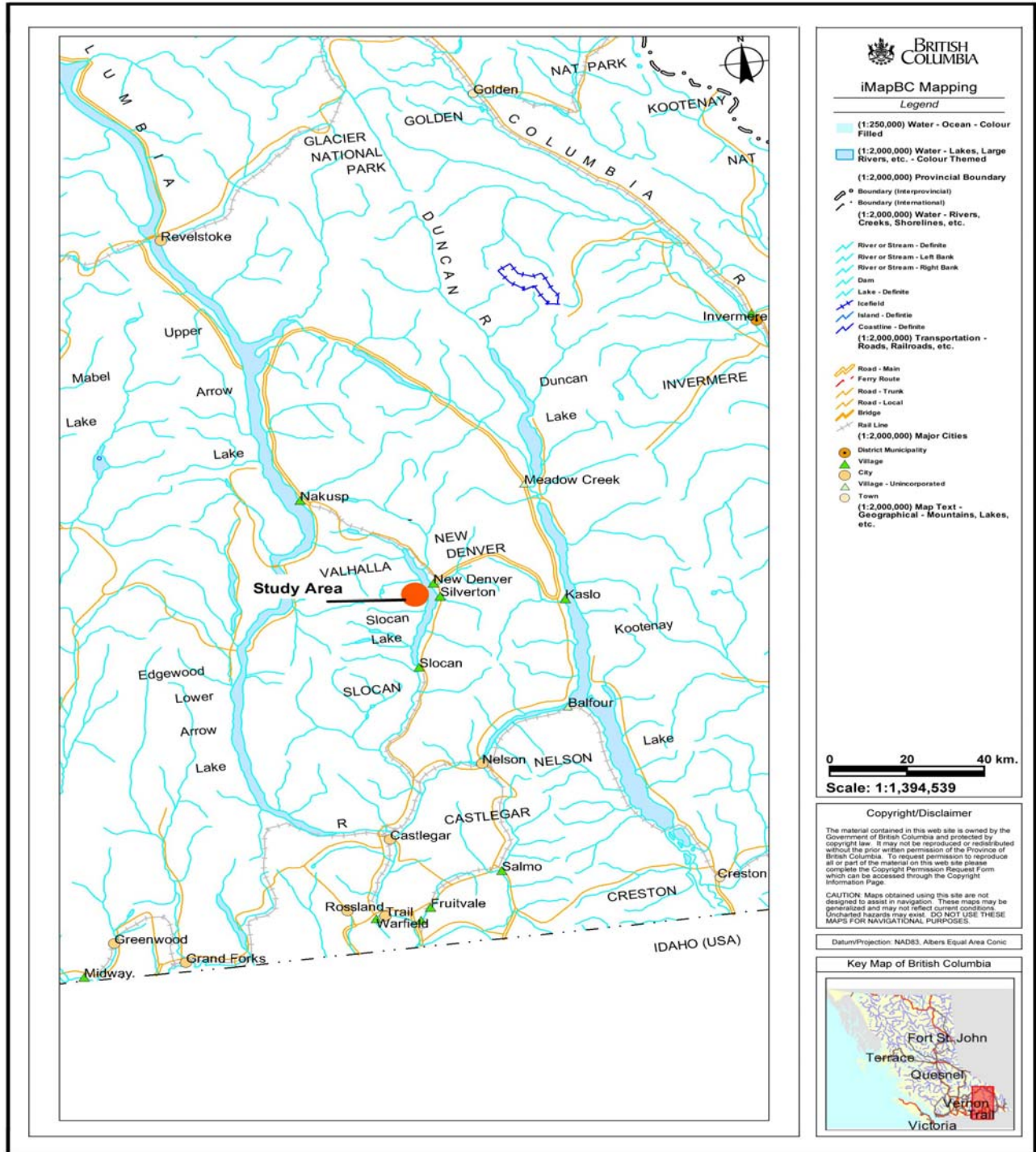


Figure 1: Location of Slocan Lake

## 3 METHODOLOGY

### 3.1 PROGRAM PROTOCOL

The 2008 Slocan Lake water quality monitoring program had two separate components: offshore and nearshore. The former was sampled for general chemistry, nutrients and total metals, and the latter for bacteriological parameters. The timing of the funding for the program dictated that the sampling processes be carried out during the fall. Both offshore and nearshore sampling programs were conducted on five different sample dates over a 30-day period in October and November 2008. Figure 2 shows the location of the four sampling sites for the offshore program and the seven sampling sites for the nearshore sampling program.

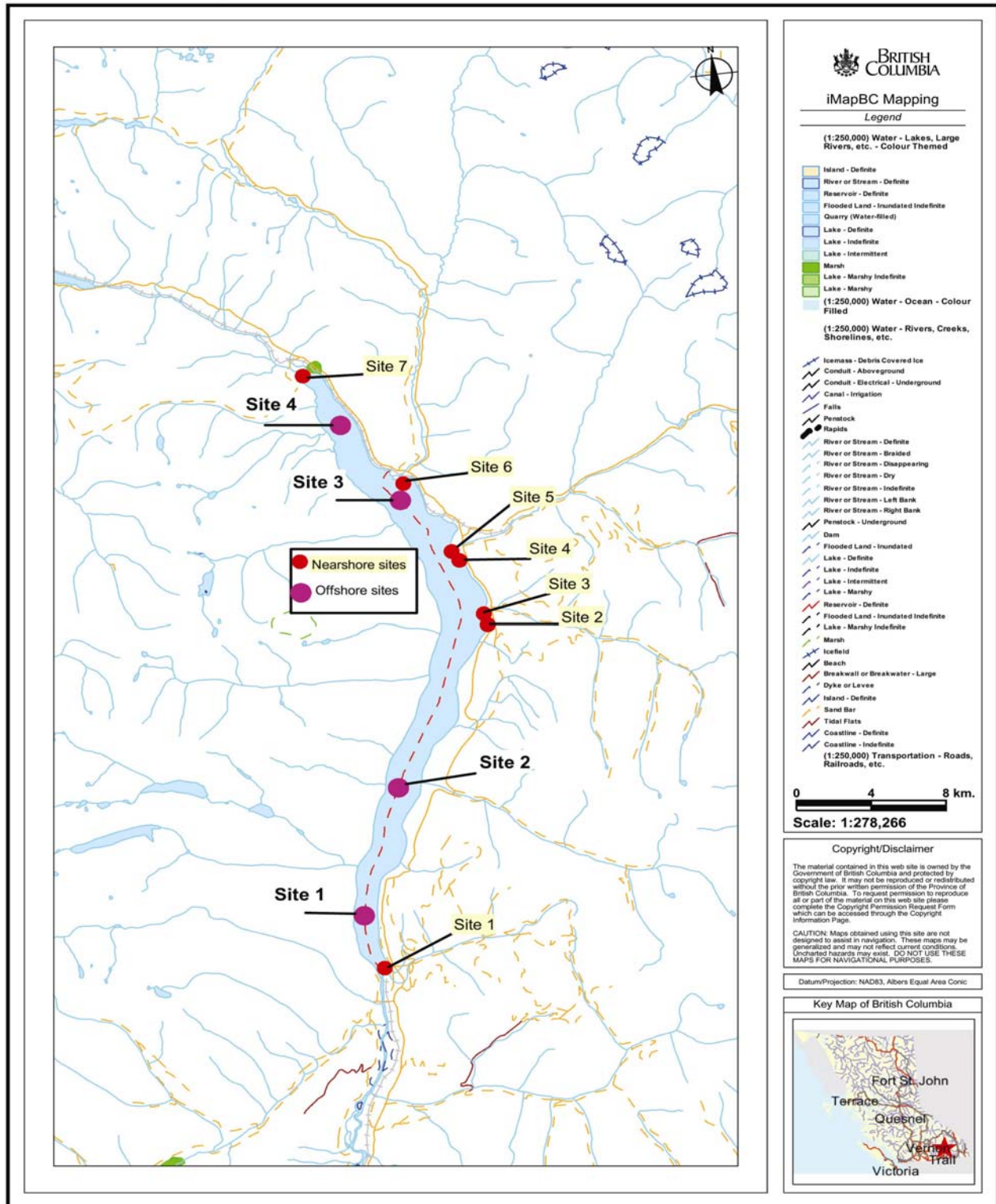


Figure 2: Slokan Lake and the offshore and nearshore sampling sites



## 3.2 NEARSHORE SAMPLING PROGRAM

Microbiological monitoring evaluates the degree of contamination from human and animal waste, and wastewater. The three bacteriological parameters analyzed in this study were faecal coliforms, *E. coli*, and total coliforms. The total coliform group (micro-organisms) include: faecal coliforms, common to the intestinal tract of both human and warm-blooded animals, and the non-faecal coliforms that are naturally present in soils and vegetation (RISC 1998). *Escherichia coli*, or *E. coli*, is a sub-group of faecal coliforms. Coliform results are reported as Colony Forming Units (CFU) per 100 millilitres.

In general, nearshore sampling stations serve to provide information about substances being brought into a lake from streams, groundwater and runoff, and residential and commercial drainage or sewage. Total coliforms are not a good indicator of faecal contamination due to leaching from septic systems since they include bacteria that are commonly found in soil. Testing for faecal coliforms is the better indicator as it includes only waste from humans and warm-blooded animals. For this reason, faecal coliform monitoring is currently being carried out at several West Kootenay beach sites by the Interior Health Authority (IHA). According to Giesler (RDCK, pers., comm., 2009), none of the Slocan Lake beaches have been previously monitored.

### 3.2.1 SITE SELECTION

The microbiological water sampling was conducted at seven sites along the nearshore of the lake (Figure 2). Three criteria were used to select the nearshore sampling sites: their strategic location in front of zones with highest population (such as a village), areas downstream of creek outlets along the lake nearshore, and sites with high concentrations of macrophyte growth (Table 1). The main goal of the microbiological water sampling program was to determine the presence of bacteria within the Slocan Lake watershed originating from private septic systems.

Defective septic systems or "slow processing" septic systems will leach into groundwater and bacteria will subsequently be transported into an adjacent creek or lake. According to microbiologist Yeow (Pers., comm., 2008), coliforms from leaching septic systems often appear in adjacent surface waters after a heavy rain event.

Along with fecal coliforms, leachate from septic systems often releases nutrients into adjacent surface water. Nutrients transported into a stream or a lake can either be assimilated by free-floating plants, stimulating their growth in the water column, or they can settle on the bottom and accelerate the growth of macrophyte roots (Wetzel, 1985). Since the Slocan Lake macrophyte population is relatively low, areas that exhibited substantial (that is, higher than normal) aquatic plant growth were chosen as sites for coliform testing, as they suggested the potential presence of leachate.

The sampling station in Slocan (Site 1) was located in front of the public beach, at the end of the breakwater. As the villages of Silverton and New Denver spread out along the lake-shore, two sampling sites were selected near each of them; one in front of each town (Sites 3 & 5, respectively), one near the mouth of Silverton Creek (Site 2), and one near the mouth of Carpenter Creek (Site 4). Silverton Creek flows through the community of Silverton, while Carpenter Creek flows through New Denver. In Rosebery, Site 6 was located near the mouth of Wilson Creek. Site 7 was located in Hills, in front of the area with the highest concentration of cottages and dwellings (Figure 2). Table 1 describes each of these nearshore sites.

### 3.2.2 DISCRETE WATER SAMPLING METHODOLOGY

Ideally, bacteriological parameters are measured during both the summer and the fall. Since bacterial growth is temperature dependent, higher water temperatures during the summer contribute to higher concentrations of bacteria, and recreational use (another potential source of coliforms) is highest during this time. During the fall, runoff from rain events can wash fecal material from livestock, domestic pets and wildlife in to the water, thus increasing bacteriological concentrations. As mentioned above, the timing of the funding dictated the sampling dates for the present project. As there was no previous data available for nearshore coliforms on Slocan Lake, the data collected in this survey contributes significantly to our knowledge of the present status of the lake. Sampling was conducted on October 9<sup>th</sup>, 14<sup>th</sup>, and 22<sup>nd</sup> and on November 3<sup>rd</sup> and 5<sup>th</sup>. Results and data interpretation for the bacteriological sampling program can be found in Appendix A.

A non-motorized canoe or kayak was used to collect samples for the nearshore program and every precaution was taken to avoid contamination of the grab samples from turbulence caused by the boat.

The nearshore sampling was entirely conducted by volunteer members of the Slocan Lake Stewardship Society. Prior to the commencement of sampling, volunteers were trained by a professional biologist to ensure an accurate and uniform sampling methodology.

All seven sampling stations were sampled on the same day. Weather conditions were recorded in a logbook – on all sampling dates, the water was relatively calm and there was little or no rainfall. Prior to sample collection, surface water temperature was measured at each site using a standard water thermometer, and recorded in a logbook. Grab samples were collected in sterilized *Nasco Whirl Pak* sampling bags at a uniform depth, approximately five to ten cm below the surface, and approximately 10 - 20 m from the shore, depending on the site (Table 1). All grab samples were then shipped the same day, and on ice, to an approved laboratory for analysis.

Table 1: Description of the seven nearshore sampling sites

Nearshore Sample Sites
<p><b>Site #1-Slocan</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> located approximately 10m from the shore, at the end of the public dock</li> <li><input type="checkbox"/> Lat: 49° 46' 10" N, Lon: 117° 28' 23" W</li> <li><input type="checkbox"/> Site is located within the town, in front of the public beach</li> </ul>
<p><b>Site #2-Silverton</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> located approximately 15m offshore</li> <li><input type="checkbox"/> Lat: 49° 56' 54" N, Lon: 117° 21' 26" W</li> <li><input type="checkbox"/> Site is located within the town, in a bay in front of the Silverton Hotel</li> <li><input type="checkbox"/> Site has abundant macrophytes</li> </ul>
<p><b>Site #3-Silverton</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> located approximately 20m south of Silverton Creek and approximately 20m offshore</li> <li><input type="checkbox"/> Lat: 49° 57' 06" N, Lon: 117° 21' 44" W</li> <li><input type="checkbox"/> Site will provide information on coliforms transport from septic system to the creek</li> </ul>
<p><b>Site #4-New Denver</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> located in front of the Slocan Lake hospital, at approximately 20m offshore</li> <li><input type="checkbox"/> Lat: 49° 58' 59" N, Lon: 117° 22' 31" W</li> <li><input type="checkbox"/> Site has some macrophytes</li> </ul>
<p><b>Site #5-New Denver</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> located approximately 20m south of Carpenter Creek and approximately 20m offshore</li> <li><input type="checkbox"/> Lat: 49° 59' 16" N, Lon: 117° 22' 48" W</li> <li><input type="checkbox"/> Site will provide information on coliforms transport from septic system to the creek</li> </ul>
<p><b>Site #6-Rosebery</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> located approximately 20m south of Wilson Creek and approximately 20m offshore</li> <li><input type="checkbox"/> Lat: 50° 01' 44" N, Lon: 117° 24' 54" W</li> <li><input type="checkbox"/> Site will provide information on coliforms transport from septic system to the creek</li> </ul>
<p><b>Site #7-Hills</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> located in front of Hills public beach and cottage area at approximately 15m offshore</li> <li><input type="checkbox"/> Lat: 50° 05' 18" N, Lon: 117° 28' 12" W</li> <li><input type="checkbox"/> Site has abundant macrophytes</li> </ul>



### **3.2.3 ANALYTICAL METHODS AND DATA INTERPRETATION**

Passmore Laboratory Ltd from Winlaw was retained to conduct the analyses of the water samples. Analyses were performed in accordance with methods outlined in the "*Standard methods of Examination of Water and Wastewater*" published by the American Public Health Association. All tests were done using membrane filtration.

Passmore Laboratory Ltd also conducted the interpretation of the results. The results from the analyses and data interpretation can be found in Appendix A.

## **3.3 OFFSHORE SAMPLING PROGRAM**

The sampling program conducted on Slocan Lake can be described as a *Survey Monitoring Program* (inventory), which is typically used to characterize existing water quality conditions over a specified geographic area. This type of sampling is usually conducted within watersheds where there has been no previous sampling or where little information exists on the state of the water. The program was designed based on established Resource Inventory Standards Committee (RISC) standards presented in *Guidelines for Designing and Implementing a Water Quality Monitoring Program in British Columbia* (Cavanagh et al. 2004).

Water samples were collected at two different depths at each of four sampling stations. Five sets of samples were collected within a 30-day period, a requirement for some water quality parameters under the Provincial Water Quality Guidelines (Cavanagh, 2004). These guidelines were used to assess the physical and chemical water quality. Sampling was conducted on October 13th, 19th, and 26th and November 2nd and 9th, 2008.

### **3.3.1 PARAMETER SELECTION**

The selection of water quality parameters for a given monitoring program is dependent on the objectives of the program, the budget of the program, current and proposed human activities affecting water quality, and watershed characteristics. Variables likely to be the most sensitive indicators of potential change or trends, based on the *Guidelines for Designing and Implementing a Water Quality Program in British Columbia* (Cavanagh, 2004), were selected for use in the 2008 program.

The parameters surveyed during the offshore sampling are described in Table 2. These include seven general chemistry parameters, four nutrients and 36 total metals.

Table 2: General chemistry, nutrients and total metals parameters sampled during the 2008 offshore program

General Chemistry	Nutrients	Total Metals	
Water Temperature	Nitrite as N	Aluminium	Antimony
Dissolved Oxygen (DO)	Nitrate as N	Arsenic	Barium
Conductivity	Total Nitrogen	Beryllium	Bismuth
pH	Total Phosphorus	Boron	Cadmium
Total Dissolved Solids (TDS)		Calcium	Chromium
Total suspended solids (TSS)		Cobalt	Copper
Total Hardness		Iron	Lead
		Lithium	Magnesium
		Manganese	Mercury
		Molybdenum	Nickel
		Phosphorus	Potassium
		Selenium	Silicon
		Silver	Sodium
		Strontium	Tellurium
		Thallium	Thorium
		Tin	Titanium
		Uranium	Vanadium
		Zinc	Zirconium

### 3.3.2 RATIONALE FOR SELECTION OF SAMPLING SITES & FOR SAMPLING DEPTHS

#### *Selection of Sampling Sites*

Slocan Lake is a large deep lake for which very little limnological information is available. In order to ensure representative sampling within the lake's considerable surface area, four sampling sites were chosen, spread out equidistantly along a north-south axis down the middle of the lake.

Specific hydrological data on main and local currents on Slocan Lake is not available. According to Westcott (Pers., comm., 2008), major flow patterns in the Upper Arrow Lake and other large lakes are often suspected to travel in a straight and uniform direction when deep bays are not common. Deep bays can sometimes create water turbulence and back eddies and therefore influence flow patterns. With the assumption that the main water current was traveling in a straight pattern it was important to select the sites in the middle of the lake.

It was also important to replicate, as closely as possible, the site selection of the 2000-2001 UBC-MOE limnology study (Andursak 2006, Pieters and Eskooch 2006) to permit accurate comparison of those results with the present 2008 survey. The sites were identified following the RISC protocol. Sites were numbered in a downstream to upstream direction where the most downstream site has the lowest number (Site 1), and the most upstream the highest (Site 4) (Cavanagh *et al.*, 2004). Site 2 in this study is a duplicate of Site SL2 in the 2000-2001 MOE-UBC study while Site 3 is a duplicate of the 2000-2001 Site SL1 (Table3).

Table 3: Sample sites at the project location

Offshore Sample Sites
<p><b>Site #1</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> located 5.3 km north of the town of Slocan, in front of Cape Horn &amp; Evans Creek</li> <li><input type="checkbox"/> Lat: 49<sup>0</sup> 48' 51" N, Lon: 117<sup>0</sup> 28' 26" W</li> </ul>
<p><b>Site #2</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> located at 11 km from the lake outlet, slightly downstream of Enterprise Creek</li> <li><input type="checkbox"/> Lat: 49<sup>0</sup> 51' 46" N, Lon: 117<sup>0</sup> 26' 17" W</li> <li><input type="checkbox"/> Site is the same as Site # SL2 in the UBC-MOE collection of reports</li> </ul>
<p><b>Site #3</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> located 23.2 km from the lake outlet, slightly upstream of Wee Sandy Creek</li> <li><input type="checkbox"/> Lat: 50<sup>0</sup> 00' 35" N, Lon: 117<sup>0</sup> 24' 39" W</li> <li><input type="checkbox"/> Site is the same as Site # SL1 in the UBC-MOE collection of reports</li> </ul>
<p><b>Site #4</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> located at 27.6 km north from the lake outlet, in front of Shannon Creek</li> <li><input type="checkbox"/> Lat: 50<sup>0</sup> 04' 20" N, Lon: 117<sup>0</sup> 27' 22" W</li> </ul>

### *Selection of Sampling Depths*

One of the most important features of any large body of water, especially in temperate zones, is vertical stratification, or the difference in water quality at different depths (Horne & Goldman, 1994). During the spring and summer months, solar radiation heats the surface waters of a lake faster than that heat can be distributed throughout the entire body of the lake by natural mixing processes. As the surface waters are warmed and become less dense, the lake becomes stratified into different temperature zones; the epilimnion (an upper stratum of less

dense, more or less uniformly warm, circulating, and fairly turbulent water), and the hypolimnion (the lower stratum of more dense, cooler and relatively quiescent water lying below the epilimnion). There is a transitional zone between the two, called the metalimnion or the thermocline. The thermocline generally descends during the summer months, with the epilimnion therefore becoming larger and the hypolimnion decreasing in size, until the lake turns over in the autumn due to cooling temperatures and mixing energy from fall storms.

Changes in water temperature (and therefore water density) within these three layers make it likely that there will be important differences in some water quality variables in the epilimnion and in the hypolimnion. Epilimnion warmer water will cease to mix with the lower, colder hypolimnion layer as the summer wears on and therefore, usually, the bottom layer acquires less and less oxygen. Since the objective of the water sampling program is to establish the basic status of Slocan Lake so as to be able to compare, in the future, any trends and changes in water conditions, it is crucial to find out the present physical characteristics of both the epilimnion and hypolimnion layers.

Slocan Lake Reservoir exhibits isothermal temperatures from early winter to early spring and stratification during the summer months. The lake is nearly isothermal at 4°Celsius (the temperature at which fresh water is most dense) from 0-100m from January to March (Andrusak, 2006). As the lake warms up a thermocline gradually develops between 0 and 40m depth. A well defined thermocline is observable by June and remains fairly stable until October. Locating the hypolimnion was essential prior to the start of the sampling program. This was done using the water temperature and dissolved oxygen data collected during the 2000-2001 UBC-MOE study. Pieters & Eskooch (2006) indicate that the thermocline reached an approximate depth of 40m in the summer months. To ensure that our deep water sample was indeed taken from the hypolimnion, the sample depth was established at 50m, at least 10m below the assumed level of the thermocline during the summer months.

### **3.3.3 SAMPLING METHODOLOGY**

A motorized craft was used for transportation during the entire water sampling program. The water sampling sequence was from south (Site 1) to north (Site 4). Prior to sampling, sampling site locations were verified with a handheld GPS (Table3).

The offshore sampling was conducted entirely by volunteers and members of the SLSS. Prior to the beginning of the sampling, volunteers were trained by a professional biologist to ensure an accurate and uniform sampling methodology. Sampling, field measurement readings and data recording were conducted by the same five persons

during the entire survey. The sampling crew was comprised of a boat operator and two or three samplers. Sampling at all four sampling stations was generally completed within approximately five hours.

### ***Multi-meter Monitoring***

Water temperature, dissolved oxygen (% and mg/L), pH, conductivity and total dissolved solids (TDS) were measured in the field using a YSI6000 multi-meter equipped with a 60 m cable. Readings were taken at twelve different depths (5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55 and 60m) at each of the four sampling sites.

### ***Grab Sampling***

Grab samples were taken at two depths: 5 and 50m. At both depths, samples were obtained by using a 4.2 liter *Beta* bottle attached to a 60m marked cable.

## **3.3.4 DATA ANALYSIS, LABORATORY ANALYTICAL STANDARDS**

CARO Analytical Services Ltd from Kelowna was retained to conduct the water sampling analysis. The Reported Detection Limit (RDL) denotes a value below which the parameter cannot be reliably differentiated from zero, determined by the level of resolution of the method or equipment used for analysis. The detection limit for each parameter can be found in the result tables for general chemistry (Tables 7 & 8), nutrients (Tables 12 & 13) and total metals (Tables 19 & 20).

## **3.3.5 DATA INTERPRETATION**

Interpretation of water sampling data was conducted by Galena Environmental. Previous data collected in 2000-2001 by the UBC-MOE (2006) on Slocan Lake were compared to the parameters sampled in 2008. Data were also compared to the results in the Arrow Lake Reservoir (Pieters *et al.*, 2004) study and to the water sampling program conducted on the Upper Arrow Lake (Galena Environmental, 2008) in 2008. The UBC-MOE collection of reports presents the data collection of five studies conducted on Slocan Lake in 2000 and 2001. This compilation of several studies furnishes a background database on the existing status of water in the Slocan Lake. Analysis of the 2008 data was then compared to the *Aquatic Life Guidelines* and *Recreational Guidelines* in the *British Columbia Approved Water Quality Guidelines (WQG)* outlined on the Ministry of Environment website. Student's T-tests were completed to determine if there were significant differences between the sites ( $p= 0.05$ ).

Specific information about seemingly unimportant facts such as the time of day or weather conditions are often important when interpreting data. Environmental conditions can often affect the results of a water test or help understanding an unusual result. Weather events, however, did not impact the 2008 sampling program. Weather variability was minimal between sampling events, with wave actions and rain events absent or very minimal.

### **3.4 QUALITY ASSURANCE (QA) & QUALITY CONTROL (QC)**

Quality assurance (QA) and quality control (QC) were essential components of this water quality sampling program. The QA/QC program was used to define confidence levels in the results.

#### **3.4.1 QUALITY ASSURANCE**

Before undertaking the sampling program, field staff was trained to maintain consistency and to be diligent in collecting, preserving and shipping samples.

Data for water temperature, dissolved oxygen (% and mg/L), pH, conductivity and total dissolved solids (TDS) conducted with the multi-meter was recorded on waterproof sheets. To ensure accurate readings, the multi-meter was calibrated five times during the 5-week field period.

To avoid sample contamination during the grab samples at 5 and 50m depth, the inside of the beta bottle was rinsed with distilled water before the beginning of each sampling day. Sample bottles and preservatives were issued by the laboratory. Samples were sent by courier to CARO Laboratory in Kelowna, where they arrived the same day they were collected.

#### **3.4.2 QUALITY CONTROL**

Equipment was cleaned and calibrated regularly during the entire program. Sample sites were selected so as to ensure representative sampling results. Sampling sites in the middle of the lake were confirmed each time with a GPS. During the sampling period, weather conditions remained good and there was no turbulence due to wave action. Precautions were taken during deep-water sampling to ensure that there was no contamination from the boat.

At the lab, samples were analyzed in conjunction with quality control samples to ensure data of high quality. After the results of the first week's sampling were received from the lab, it was evident that they were well below levels of

concern and that they also demonstrated very little variability with the results from the 2000 -20001 surveys. It was consequently deemed unnecessary to channel funds from the project's limited budget to collecting and analyzing field blanks, in addition to the laboratory blanks already being used. All samples were collected by trained personnel using standard RISC methodology

## 4 RESULTS & ANALYSIS

### 4.1 MICROBIOLOGY

The list of bacteriological parameters and the water quality guidelines for aquatic life and recreational activities are provided in Table 4 below. Analysis and interpretation were conducted by Passmore Laboratory and can be found in Appendix A.

Table 4: Water Quality Guidelines for microbiological parameters (WQG)

PARAMETERS	AQUATIC LIFE (LAKES)	RECREATIONAL (LAKES)
	ALLOWABLE CONCENTRATIONS	ALLOWABLE CONCENTRATIONS
Faecal Coliform	Not applicable	less than or equal to 200
<i>E. coli</i>	Not applicable	less than or equal to 77
Total Coliforms	Not applicable	less than or equal to 500

### 4.2 GENERAL CHEMISTRY

The list of general parameters, and water quality guidelines for aquatic life and recreational activities is provided in Table 5. Table 6 shows the optimum temperature ranges of specific life history stages of salmonids and other species found in Slocan Lake. Laboratory reported detection limits and statistical results can be found in Tables 7, 8, 9 and 10. Summary results can be found in Appendix B and laboratory results in Appendix C.

T-tests were carried out for each parameter in order to identify variability in measurements between the sites. T-test results will only be described in the sections below when there is an indication of variability, a relatively rare occurrence in the present findings. When no such description is offered, it may be assumed that there was no variability in the readings. A large deep lake like Slocan Lake cannot be expected to be homogeneous, and so the fact that one parameter might be consistently different in one area compared with another doesn't really matter, as long as the values are not close to the guidelines.



Table 5: Water Quality Guidelines for general chemistry (WQG)

PARAMETERS	SPECIFICATIONS	AQUATIC LIFE (LAKES)		RECREATIONAL (LAKES)
		CONSIDERATIONS	ALLOWABLE CONCENTRATIONS	ALLOWABLE CONCENTRATIONS
Water Temperature	°C	General aquatic life	±1 degree Celsius change from natural ambient background	30°C maximum
Dissolved Oxygen (DO)	30-day geometric mean (mg/L)	All aquatic life stages other than buried embryo/alevin in water column	minimum 8.0	No guideline
Conductivity	µS/cm	General aquatic life	No guideline	No guideline
PH	Known pH range from 6.5 to 9 (pH units)	General aquatic life: This component of the freshwater guidelines should be used cautiously if the pH change causes the carbon dioxide concentration to decrease below a 10 µmol/L minimum or exceed a 1360 µmol/L maximum	Unrestricted change permitted within this range minimum and maximum between 6.5 to 9	6.5 to 8.5
Total Dissolved Solids (TDS)			No guideline	No guideline
Total Suspended Solids (TSS)	30-day average (mg/L)	General aquatic life	mean ≤ 5mg/L in 30 days when background is ≤ 25	No guideline
Total Hardness	30-daymedian <sup>3</sup> (mg/L)	General aquatic life	±20% of the median background concentration	No guideline

1. The geometric mean is based on at least 5 approximately evenly spaced samples taken during a period not exceeding 30 days
2. 30-day average is the arithmetic mean of all results based on at least 5 approximately evenly spaced samples taken during a period not exceeding 30 days
3. 30-daymedian is the median of a 5-week sampling program taken during a period not exceeding 30 days

#### 4.2.1 WATER TEMPERATURE

Water temperature is a critical factor for all forms of aquatic life, directly affecting the activity and physiological processes of fish and invertebrates during all of their life stages. Table 6 outlines the optimal temperature ranges for some of the more common freshwater fish species at different stages of their life cycles. Increases in water temperature can also encourage the replication of pathogenic organisms in both fish and humans. It also has a direct influence on the toxicity of certain chemical parameters, such as ammonia, and on the solubility of chemical compounds. In particular, dissolved oxygen (DO) and water temperature are closely related parameters. The solubility of oxygen is affected by temperature, and increases considerably in cold water. High water temperatures increase the metabolic oxygen demand which, in conjunction with reduced oxygen solubility, impacts many species (RISC, 1998).

Table 6: Optimum temperature ranges for specific life history stages of salmonids and other species

Species	Incubation	Rearing	Spawning
Cutthroat		7.0-16.0 Celsius	
Rainbow		16.0-18.0 Celsius	
Bull Trout		6.0-14.0 Celsius	
Kokanee	5.0 -10.5 Celsius	10.0 – 15.0 Celsius	5.0 – 10.5 Celsius
Mountain whitefish		9.0-12.0 Celsius	
Burbot	4.0 -7.0 Celsius	15.6-18.3 Celsius	0.6-1.7 Celsius
White Sturgeon	14.0-17.0 Celsius	—	14.0 Celsius

### ***Temperature Results***

Results in Figure 3 show normal water temperature patterns for a stratified lake in the northern hemisphere in early fall. The well established thermocline can be observed between approximately 20 and 30 m. Table 6 indicates water temperature requirements for specific life history stage for fish species suspected to rear or spawn in Slocan Lake. Because the water sampling for this study was conducted well into the fall, temperatures for aquatic life and recreational were obviously all below the provincial allowable concentrations (Tables 5 & 6). Summer high water surface temperatures can cause stress on fish, but the cool and well oxygenated thermocline and hypolimnion of deep lakes like Slocan, will compensate and act as refugia for fish.

In 2008, temperatures ranged from 9.46°C to 13.11°C in the epilimnion and from 4.19° C to 4.70°C in the hypolimnion (Figure 4), similar to the data collected in the 2000-2001 Pieters and Eskooch (2006) study. When compared with the 2007 Upper Arrow Lake water temperatures (Galena, 2008), temperatures in Upper Arrow Lake were warmer than Slocan Lake at the surface but became much colder immediately within the first 2 to 3m of depth. Unlike Upper Arrow Lake, which is essentially a widening of the Columbia River, Slocan Lake water temperatures are not affected by massive inflows of cold water.

T-tests performed for each site revealed a slight difference between Sites #1 and #2 ( $p=0.0002$ ), between Sites #2 and #3 ( $p=0.0532$ ) and between Sites#2 and #4 ( $p=0.0042$ ). As in the Pieters and Eskooch

report, Site #2, in 2008 had a warmer epilimnion. Hypolimnion values were all above 0.005 (Table 8). All water temperatures met requirements set in the aquatic life and recreational guidelines.

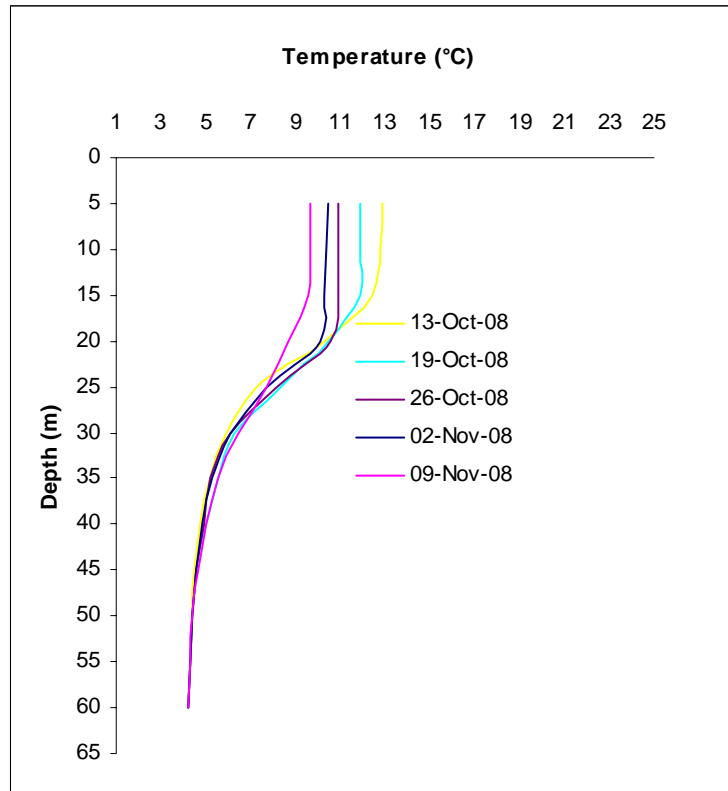


Figure 3: Average water temperature profiles during the 2008 five week monitoring program

As in Pieters and Eskooch (2006), sampling station 2 (SL2), revealed warmer water temperatures during the entire sampling program while Site 4 had the coldest water temperatures (Appendix B). Figure 4 illustrates the results of the five week sampling program, with water temperatures for each site.

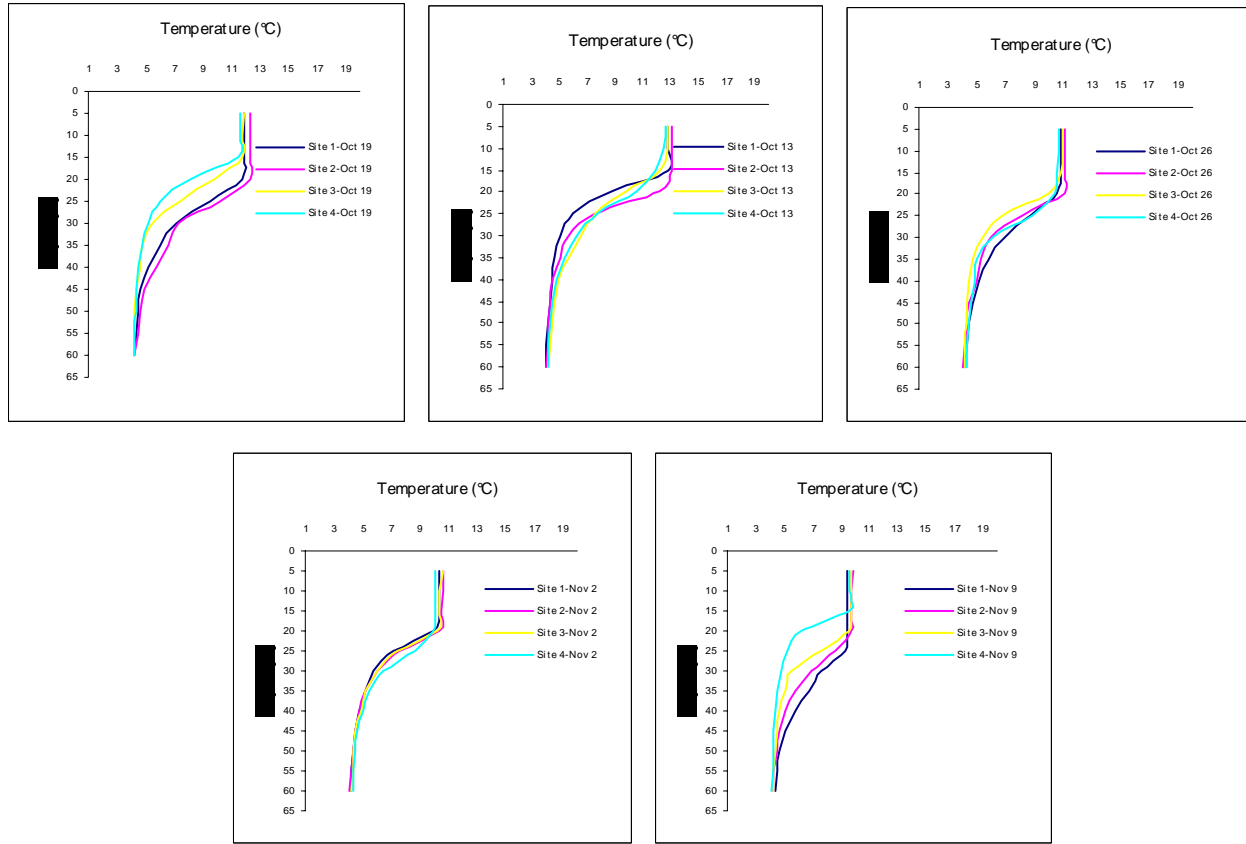


Figure 4: Water temperature profiles for each sampling date during the five-week program

#### 4.2.2 DISSOLVED OXYGEN (DO)

As mentioned previously, dissolved oxygen and temperature are closely-related parameters. As temperature increases, oxygen solubility decreases. Photosynthesis and respiration are other factors that influence oxygen concentrations. Photosynthesis is the process whereby plants and algae use light energy to fix carbon. This process takes place only during the daylight hours and results in the release of oxygen. During the night, these same plants and algae consume oxygen. As a result, the levels of DO may vary over the course of a day depending on photosynthesis and respiration rates.

Dissolved oxygen concentrations are also determined by the physical processes which permit gas exchange with the atmosphere. The weather can be an important factor influencing DO concentrations during sampling. Clear, calm, warm weather will result in reduced water column mixing and thus in a greater temperature gradient from surface to lake bottom and, correspondingly, greater dissolved oxygen gradients. DO is measured in mg/L and also as a percentage of saturation.

### *Dissolved Oxygen Results*

The 2008 DO results ranged from 9.47mg/L to 10.48mg/L in the epilimnion and from 9.98mg/L to 11.38mg/L in the deeper layer. Dissolved oxygen in Figure 5 indicates average concentrations are uniformly high and exhibit minimal vertical stratification. The 2008 sampling results are similar to those found in the 2000-2001 Pieters and Eskooch (2006) report. These DO levels indicate that Slocan Lake is well oxygenated lake throughout, consistent with an oligotrophic system. Lower concentrations near the surface (Figure 6) are a result of lower oxygen solubility associated with water with higher temperatures, as evidenced by the relatively high percent saturation. All DO readings were higher than the minimum DO concentrations set out by the provincial water quality guidelines for aquatic life.

Oligotrophic lakes, such as Slocan Lake, are typically nutrient poor, with dissolved oxygen concentrations near 100% saturation, indicating that those concentrations are minimally affected by biological processes, such as photosynthesis and respiration, and primarily affected by atmospheric exchange. In a lake in which water quality is declining due to an increase in nutrient loads, there are greater variations in dissolved oxygen concentrations. Waters can become supersaturated (with concentrations over 100%) in areas of high photosynthetic activity, and may have concentrations near 0 mg/L when respiration is dominant. These types of variability can even be seen in the same place on a daily cycle – high concentrations during the day, and low concentrations at night (when photosynthesis is no longer occurring). The 2008 dissolved oxygen percent saturation readings in Slocan Lake indicate average concentrations of over 90% at 5m, and over 80% at 50m, as would be expected (Appendix B).

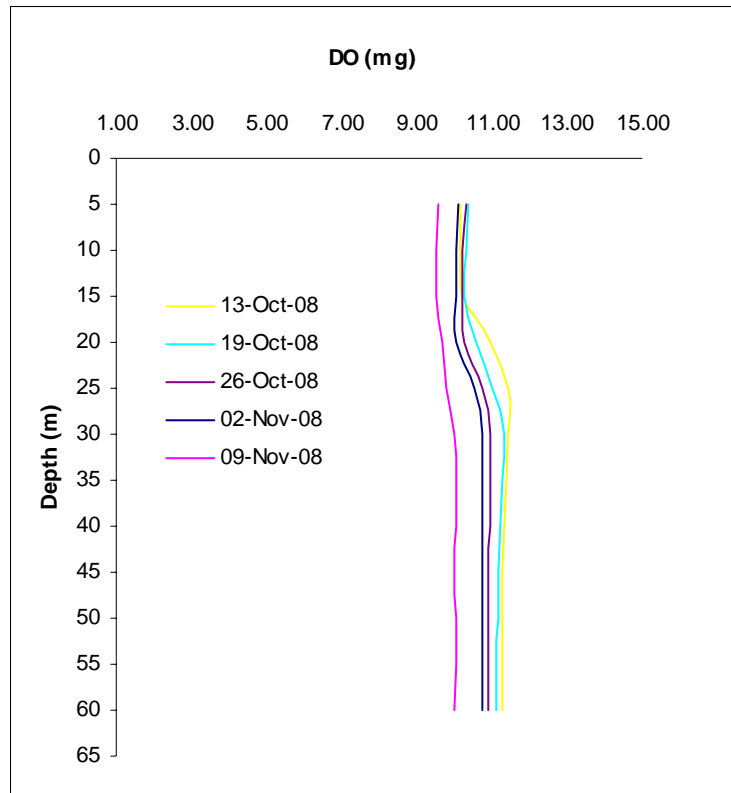


Figure 5: Average dissolved oxygen profiles during the 2008 5-week monitoring program

The DO profiles in Figure 6 demonstrate an orthograde DO curve typical of large oligotrophic lakes in the late summer, early fall. The curve is characterized by no appreciable decrease or increase in oxygen concentration according to depth (Horne & Goldman, 1994). With higher water temperatures in the upper layer (epilimnion), DO is less soluble and with decreasing temperatures in the middle layer (metalimnion), DO solubility and concentrations increases. In the deepest layers, temperatures decreased rapidly but changes in DO concentrations were less dramatic.

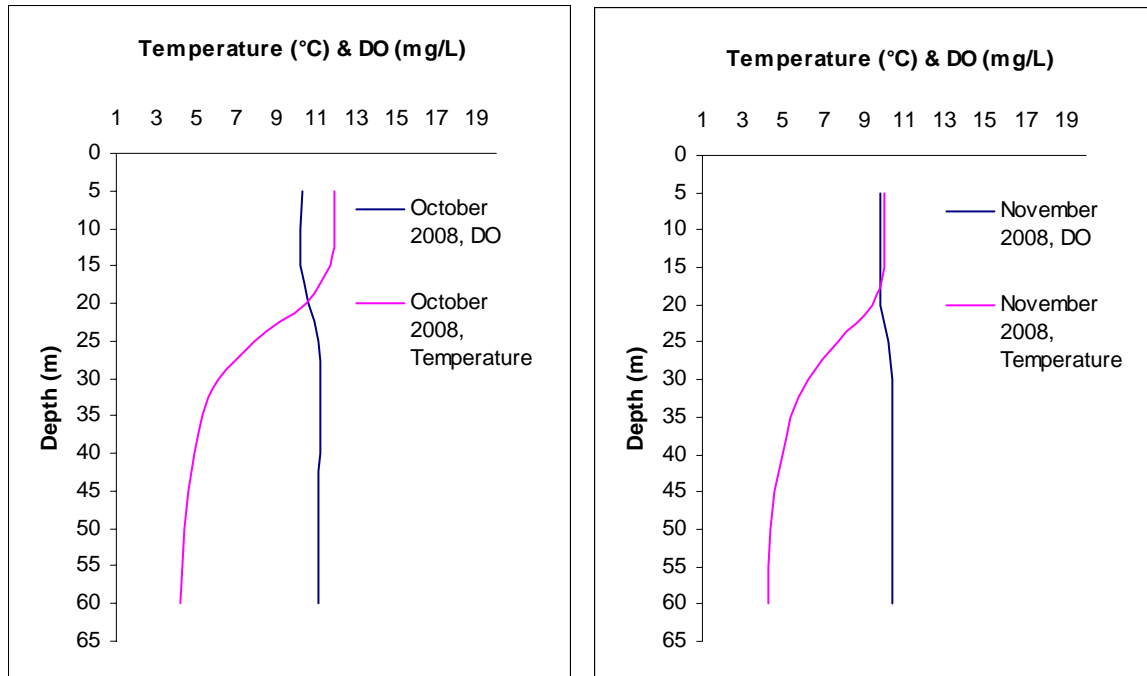


Figure 6: Average temperature and DO concentrations for the four sampling sites during October and November 2008

2008 data also revealed DO concentrations higher than the minimum concentrations required for aquatic life as set out in the water quality guidelines. Data in 2008 indicated DO values more clustered around the 100% saturation point in the 5 to 20m water column.

The DO (% & mg/L) levels were lower at the 50m depth for Sites 2 and 4 ( $p=0.0264$  &  $p=0.0398$ ) and Sites 3 and 4 ( $p=0.0370$ ). Low "p" values are attributed to the lowest DO levels found in the hypolimnion of Site 4. T-tests indicated no significant differences in the epilimnion (Table 9).

#### 4.2.3 CONDUCTIVITY (EC)

Conductivity, or specific conductance, is a measure of the resistance of a solution to electrical flow. Basically, the greater the ion content in the water, the higher its ability to conduct electricity. Conversely, the purer the water, the greater its resistance to electrical flow. Temperature can affect conductivity, and for this reason specific conductance (rather than simple conductance) is used, because this measurement compensates for temperature. Other influences include increased flows resulting from precipitation or freshets which dilute the ions and consequently

decrease specific conductivity. Due to the high natural variability in conductivity, there are no set water quality guidelines to assess this parameter for recreation or aquatic life. Specific conductivity in freshwater lakes in the interior of British Columbia typically vary between 50 and 500  $\mu\text{s}/\text{cm}$  (Pieters *et al.*, 2004).

### ***Conductivity Results***

The conductivity readings at 5m averaged between 86 and 90.4  $\mu\text{s}/\text{cm}$  at the four sampling sites. At 50m, averages varied between 97 and 98  $\mu\text{s}/\text{cm}$ . According to Pieters and Eskooch (2006), specific conductance in the upper 50m layer likely decreases as a result of seasonally reduced specific conductance of inflowing tributaries.

Slocan Lake conductivity averaged 92  $\mu\text{s}/\text{cm}$  in the 2000-2001 survey (Pieters and Eskooch 2006) while specific conductivity for the Upper Arrow Lake averaged from 109 to 149 $\mu\text{s}/\text{cm}$  (Pieters *et al.*, 2004). Overall, the 2008 results were comparable to the results of the 2000-2001 Slocan Lake study, but were much lower than the ones for Upper Arrow Lake. Lower conductivity readings for Slocan Lake could be associated with the influx of less mineralized and more acidic ground water into the lake (Horne & Goldman, 1994).

#### **4.2.4 PH**

The relative acidity of water is generally measured in pH units. It is a measure of the concentration of the hydrogen ions. A pH of less than 7 is considered acidic, while a pH of greater than 7 is considered alkaline.

### ***pH Results***

The pH in Slocan Lake is weakly alkaline. Average readings at 5m, at the four sites, were similar, ranging from 7.54 to 7.75. Similarly, at 50m, the averages varied from 7.57 to 7.63. pH levels met the Water Quality Guidelines for both aquatic life and recreational activities.

Data collected in 2008 were consistent with the previous studies on Slocan Lake. In the 2006 Pieters study, the pH of Slocan Lake was also slightly alkaline, averaging 7.4 and showing little variability. Previous data on Upper Arrow Lake indicated a pH slightly higher, ranging from 7.40 to 8.10.



#### 4.2.5 TOTAL DISSOLVED SOLIDS (TDS)

Total dissolved solids (TDS) are composed primarily of the various inorganic anions ( $\text{Cl}$ ,  $\text{SO}_4$ ,  $\text{CO}_3$ ,  $\text{HCO}_3$ ) and cations (Ca, Mg, Na, K) which are the primary contributors to salinity in surface waters. TDS concentrations are largely a function of watershed geology and climate. Although TDS can be elevated due to pollution, it is not a very sensitive measure compared to the other parameters used in this study.

##### *TDS Results*

All readings at both depths and at all the sites were consistently low with little variability. The average at all sites and at both depths was 0.06mg/L. There is no previous data for TDS concentrations for Slocan Lake or the Upper Arrow Lake.

T-tests indicated odd results for epilimnetic TDS. Sites 1 and 3 ( $p=0.0032$ ), Sites 1 and 4 ( $p=0.0002$ ), Sites 2 and 3 ( $p=0.0028$ ) and Sites 2 and 4 ( $p=0.0006$ ) demonstrated a significant difference between these sites. Even though the differences are statistically significant, they would have no impact whatsoever on aquatic life or recreation or any other use, and for all intents and purposes are the same.

#### 4.2.6 TOTAL SUSPENDED SOLIDS (TSS)

TSS (also referred to as non-filterable residue, or NFR) is a measure of the particulate matter that is suspended within the water column. High concentrations of non-filterable residue increase turbidity, restrict light penetration and hinder photosynthetic activity. There are no maximum allowable criteria for TSS. Instead, criteria for TSS are stated in terms of increases above ambient conditions, which are not known for Slocan Lake. High TSS can be harmful to aquatic life. Fish populations can be affected by clogging of gills, and the settling of solids onto the lake bottom can cover fish spawning substrates, rearing, and feeding habitats, and impact invertebrate life cycles.

##### *TSS Results*

Concentrations of TSS were consistently below detection limits ( $< 1 \text{ mg/L}$ ) at all of the sites and at both depths. TSS analyses conducted during the summer of 2008 on Upper Arrow Lake showed identical results (Galena, 2008). There are no TSS historical data for Slocan Lake, but all values were well below guideline limits and therefore TSS is not a concern.

#### 4.2.7 TOTAL HARDNESS

In open lakes with an outlet, the chemical composition of the water is mostly determined by the composition of influents from the drainage basin and the atmosphere. *Soft waters* refer to waters of low salinity (low ionic composition), which are usually derived from drainage of acidic igneous rocks. *Hard waters* contain large concentrations of alkaline earths, usually derived from drainage of calcareous deposits. Hardness concentrations are measured in milligrams per litre, and are calculated based on the concentrations of calcium and magnesium. Hardness values exceeding 120mg/L are considered "hard" or acidic, while values below 60mg/L are considered "soft" or alkaline (RISC, 1998).

##### *Total Hardness Results*

The water of Slocan Lake was found to be consistently "soft" with average readings at the 5m depth at the four sites between 39.5 and 40.7mg/L and average readings varying between 42.7 and 43.8mg/L at 50m (Figure 7). Hardness concentrations were slightly lower in the epilimnion, likely due to dilution from surface runoff. Total hardness levels were within the water quality guidelines for aquatic life.

Previous data for total hardness were not available for Slocan Lake. Total hardness in the Upper Arrow Lake showed slightly "harder" water than that found in Slocan Lake. Upper Arrow epilimnion hardness varied from 43.3 to 61.6mg/L and from 51.8 to 73.6 mg/L in the deeper layer (Pieters *et al.*, 2004).

Table 7: Results for general chemistry at 5m

VARIABLES			SITE # 1 (5 M depth)					SITE # 2 (5 M depth)				
	Units	RDL units	AV	VAR	STD	MIN	MAX	AV	VAR	STD	MIN	MAX
General Chemistry												
Water Temperature	°celsius	N/A	11.1	1.7	1.3	9.5	12.9	11.4	1.7	1.3	9.8	13.1
Dissolved Oxygen	%	N/A	91.5	26.0	5.1	83.5	97.5	92.1	28.9	5.4	83.6	96.4
Dissolved Oxygen	mg/L	N/A	10.1	0.1	0.3	9.5	10.3	10.0	0.1	0.3	9.5	10.3
Conductivity	µS/cm	5µS/cm	86	1	1	85	87	87	0	1	86	87
Ph	pH units	0.1 pH units	7.8	0	0.2	7.5	7.9	7.6	0	0.1	7.5	7.7
Total Suspended Solids (TSS)	mg/L	1 mg/L	<1	0	0	<1	<1	<1	0	0	<1	<1
Total Dissolved Solids (TDS)	mg/L	1mg/L	0.1	0	0	0.1	0.1	0.1	0	0	0.1	0.1
Total Hardness	mg/L	2.07 mg/L	39.6	5.5	2.3	37.0	43.3	39.5	2.9	1.7	36.5	40.6

VARIABLES			SITE # 3 (5 M depth)					SITE # 4 (5 M depth)				
	Units	RDL units	AV	VAR	STD	MIN	MAX	AV	VAR	STD	MIN	MAX
General Chemistry												
Water Temperature	°celsius	N/A	11.2	1.4	1.2	9.7	12.8	10.9	1.5	1.2	9.6	12.6
Dissolved Oxygen	%	N/A	92.5	30.7	5.5	84.0	97.5	92.5	25.0	5.0	85.3	97.6
Dissolved Oxygen	mg/L	N/A	10.1	0.2	0.4	9.5	10.5	10.2	0.1	0.4	9.7	10.6
Conductivity	µS/cm	5µS/cm	89	1	1	88	91	90	1	1	89	91
Ph	pH units	0.1 pH units	7.6	0	0.1	7.5	7.8	7.5	0.1	0.2	7.1	78.8
Total Suspended Solids (TSS)	mg/L	1 mg/L	<1	0	0	<1	<1	<1	0	0	<1	<1
Total Dissolved Solids (TDS)	mg/L	1mg/L	0.1	0	0	0.1	0.1	0.1	0	0	0.1	0.1
Total Hardness	mg/L	2.07 mg/L	40.2	4.8	2.2	37.2	42.8	40.7	7.1	2.7	37.1	43.6

Table 8: Results for general chemistry at 50m

VARIABLES			SITE # 1 (50 M depth)					SITE # 2 (50 M depth)				
	General Chemistry	Units	RDL unit	AV	VAR	STD	MIN	MAX	AV	VAR	STD	MIN
Water Temperature	°Celsius	N/A	4.4	0	0.2	4.2	4.7	4.4	0	0.1	4.3	4.6
Dissolved Oxygen	%	N/A	83.1	11.8	3.4	77.6	86.8	84.2	17.4	4.2	77.6	87.9
Dissolved Oxygen	mg/L	N/A	10.8	0.2	0.5	10.0	11.3	10.9	0.3	0.5	10.1	11.4
Conductivity	µS/cm	5	97	0	0	97	97	97	0	0	97	97
pH	pH units	0.1	7.6	0	0.1	7.4	7.7	7.6	0	0.1	7.4	7.7
Total Suspended Solids (TSS)	mg/L	1	<1	0	0	<1	<1	<1	0	0	<1	<1
Total Dissolved Solids (TDS)	mg/L	1	0.1	0	0	0.1	0.1	0.1	0	0	0.1	0.1
Total Hardness	mg/L	2.07	42.7	4.0	2.0	40.2	45.0	43.1	3.0	1.7	41.5	45.9

VARIABLES			SITE # 3 (50 M depth)					SITE # 4 (50 M depth)				
	General Chemistry	Units	RDL unit	AV	VAR	STD	MIN	MAX	AV	VAR	STD	MIN
Water Temperature	°Celsius	N/A	4.4	0	0.1	4.3	4.5	4.4	0	0.1	4.2	4.5
Dissolved Oxygen	%	N/A	83.8	16.3	4.0	77.2	87.4	82.7	10.9	3.3	77.5	85.8
Dissolved Oxygen	mg/L	N/A	10.9	0.3	0.5	10.0	11.3	10.7	0.2	0.4	10.1	11.3
Conductivity	µS/cm	5	97	0	0	97	98	98	3	2	95	99
pH	pH units	0.1	7.5	0	0.1	7.4	7.7	7.5	0	0	7.4	7.7
Total Suspended Solids (TSS)	mg/L	1	<1	0	0	<1	<1	<1	0	0	<1	<1
Total Dissolved Solids (TDS)	mg/L	1	0.1	0	0	0.1	0.1	0.1	0	0	0.1	0.1
Total Hardness	mg/L	2.07	43.2	5.0	2.2	40.9	46.5	43.8	2.9	1.7	41.2	45.7

Table 9: T-test results for general chemistry at 5 m

VARIABLES	T-TESTS CONDUCTED BETWEEN SITES AT 5 M					
	T-TEST Sites 1 & 2	T-Test Sites 1 & 3	T-Test Sites 1 & 4	T-Test Sites 2 & 3	T-Test Sites 2 & 4	T-Test Sites 3 & 4
General Chemistry						
Water Temperature	<0.01	0.21	0.15	0.05	<0.01	0.03
Dissolved Oxygen	0.57	0.48	0.55	0.28	0.61	0.96
Dissolved Oxygen	0.87	0.57	0.41	0.12	0.08	0.21
Conductivity	0.07	<0.01	<0.01	0.01	<0.01	0.09
pH	0.35	0.31	0.03	0.95	0.45	0.34
Total Suspended Solids	N/A*	N/A	N/A	N/A	N/A	N/A
Total Dissolved Solids	0.18	<0.01	<0.01	<0.01	<0.1	0.10
Total Hardness	0.85	0.19	0.09	0.18	0.11	0.14

N/A\*: indicates consistent values at both sites

Table 10: T-test results for general chemistry at 50m

VARIABLES	T-TESTS CONDUCTED BETWEEN SITES AT 50 M					
	T-TEST Sites 1 & 2	T-Test Sites 1 & 3	T-Test Sites 1 & 4	T-Test Sites 2 & 3	T-Test Sites 2 & 4	T-Test Sites 3 & 4
General Chemistry						
Water Temperature	0.66	0.57	0.73	0.73	0.95	0.66
Dissolved Oxygen	0.12	0.16	0.27	0.17	0.03	0.04
Dissolved Oxygen	0.06	0.16	0.57	0.05	0.04	0.07
Conductivity	N/A	0.07	0.27	0.07	0.27	0.67
Ph	0.26	0.69	0.20	0.34	0.14	0.17
Total Suspended Solids	N/A	N/A	N/A	N/A	N/A	N/A
Total Dissolved Solids	N/A	0.07	N/A	0.07	N/A	0.18
Total Hardness	0.39	0.38	0.07	0.94	0.16	0.23

### 4.3 NUTRIENTS

The term “nutrients” refers broadly to the chemical elements essential to life. Nitrogen, carbon, hydrogen and phosphorous are the major constituents of cellular protoplasm in organisms and of these, nitrogen and phosphorus are most likely to become limiting factors for growth in aquatic environments. This baseline study has consequently focused its analyses on nitrogen and phosphorous. Dominant forms of nitrogen in fresh waters include dissolved molecular nitrogen, nitrite and nitrate. Nitrite is quickly oxidized and rarely accumulates unless organic pollution is high. Nitrate is the common form of inorganic nitrogen entering fresh waters from the drainage basin in surface run-off, ground water and precipitation. It is subsequently assimilated into organic nitrogenous compounds within organisms. During normal metabolism of these organisms, and at death, their nitrogen is liberated as ammonia.

T-test results for the readings described below indicated very low variability in all parameters. The list of nutrients and the water quality guidelines for aquatic life and recreational activities are provided in Table 11. Laboratory report detection limits and statistical results can be found in Tables 12, 13, 14 and 15. Summary results can be found in Appendix D and laboratory results in Appendix C.

Table 11: Water quality guidelines for nutrients (WQG)

PARAMETERS	SPECIFICATIONS	AQUATIC LIFE (LAKES)		RECREATIONAL (LAKES)
		CONSIDERATIONS	ALLOWABLE CONCENTRATIONS	ALLOWABLE CONCENTRATIONS
Nitrite (NO <sub>2</sub> )	30-day average (mg/L)	General aquatic life	Average ≤0.02mg/L max: ≤0.06mg/L	maximum ≤ 1mg/L
Nitrate (NO <sub>3</sub> )	30-day average (mg/L)	General aquatic life	Average ≤40mg/L max: ≤200mg/L	maximum ≤ 10mg/L
Total Nitrogen	mg/L	General aquatic life	No guideline	No guideline
Total Phosphorus	mg/L	Salmonids are the predominant fish species	0.005 to 0.015mg/L (5 to 15 µg/L inclusive)	maximum ≤ 0.01mg/L (10µg/L)

1. 30-day average is the arithmetic mean of all results based on at least 5 approximately evenly spaced samples taken during a period not exceeding 30 days
2. 30-day geometric mean is based on at least 5 approximately evenly spaced samples taken during a period not exceeding 30 days

#### 4.3.1 NITRATE (NO<sub>3</sub>) & NITRITE (NO<sub>2</sub>)

Nitrate and nitrite are a part of the nitrogen cycle in lakes. The major source of nitrogen in lakes is nitrate in rainfall and runoff from the watershed. Nitrite is generally present only in trace quantities in water exposed to oxygen because it is rapidly transformed to nitrate.

In summer, concentrations of these nutrients are often very low. Algae and aquatic plants assimilate nitrite and nitrate, often reducing concentrations to near zero. Water decomposes wastes containing organic nitrogen into ammonia, which is then oxidized into nitrite and nitrate. Because nitrite is easily oxidized into nitrate, nitrate is the compound predominantly found in surface waters (Hammer & Harmmer, 2001). While nitrite can be very toxic to humans, it is an unstable form and concentrations are generally low enough to be of no concern (Nagpal *et al.* 1998).

##### *Nitrite (N02) Results*

Nitrite concentrations were constant at both the 5m and 50m depths at all the sample sites, with concentrations of <0.01mg/L, lower than the laboratory detection limit. These concentrations were also well below the allowable maximum concentrations for aquatic life and recreation.

Concentrations of nitrite were identical with the results for Upper Arrow Lake (Galena, 2008) where nitrite concentrations were constant both the epilimnion and the hypolimnion.

##### *Nitrate (N03) Results*

At the 5m depth, at all four sites, averages were consistent at 0.03mg/L. At 50m, the averages were 0.08mg/L at all four sites.

The 2008 nitrate results during the Slocan Lake (Appendix D) correspond exactly to the results found in the Pieters and Eskooch (2006) report. Nitrate concentrations were slightly higher in the hypolimnion, likely due to the presence of bacteria in the aquatic sediments and a well aerated hypolimnion accelerating the nitrification process. Concentrations below 0.025mg/L are considered limiting to phytoplankton (Wetzel, 1985). According to Pieters and Eskooch, nitrate levels in 2000-2001 were lower in the Slocan Lake than in the Arrow Lake Reservoir (where the average 0.14mg/L). The 2000-2001 study also stated that the surface nitrate declines from spring levels of 0.09mg/L (90µg/L) to 0.03-0.04 mg/L (30-40µg/L) in the fall.

### 4.3.2 TOTAL NITROGEN

Total nitrogen is the combined measurement of various forms of nitrogen in water including nitrate, nitrite, ammonia and organic nitrogen. Such nitrogenous compounds, along with other nutrients, serve as an important nutrient base for primary productivity. When the concentration of these nutrients consistently exceeds natural levels, however, a nutrient imbalance is produced. This imbalance can lead to undesirable changes in the biological community and can drive an aquatic system into an accelerated rate of eutrophication. There are no baseline criteria for total nitrogen for aquatic life or recreational use. The established baseline criteria target each individual concentration of nitrogen, nitrite (as N), nitrate (as N) and ammonia (as N).

#### *Total Nitrogen Results*

In the epilimnion, nitrogen concentrations averaged between 0.11 mg/L and 0.15mg/L. Averages in the hypolimnion ranged from 0.12 to 0.14mg/L.

Upper Arrow Lake revealed higher total nitrogen concentrations within its water column. Results from the 2000-2001 survey ranged from 0.10mg/L, in the epilimnion and 0.26mg/L in the hypolimnion (Andrusak, 2006). High levels were observed again in 2008, with epilimnetic averages from 0.21 to 0.26mg/L and from 0.21 to 0.27mg/L for the hypolimnion layer (Galena, 2008).

### 4.3.3 TOTAL PHOSPHORUS (TP)

Phosphorous plays a major role in biological metabolism. In freshwater aquatic environments, phosphorous is typically the least abundant nutrient and therefore generally limits biological productivity. Phosphorous enters fresh waters from atmospheric precipitation and from groundwater and surface run-off. Zooplankton also excrete phosphorous and ammonia which are rapidly utilized by algae and bacteria. Total phosphorus (TP) is composed of total dissolved phosphorus (TDP) and particulate phosphorus (PP).

#### *Total Phosphorus Results*

In 2008, the total phosphorus concentrations ranged from <0.01 to 0.02mg/L in the epilimnion, and from <0.01 to 0.09mg/L in the hypolimnion. Slocan Lake in 2000-2001 showed a low mean concentration of 4.6 µg/L (0.0046mg/L), which was considered evidence of the nutrient impoverishment of the lake (Andrusak, 2006). Andrusak also added that the level of TP observed in



Slocan Lake is similar to values for ultraoligotrophic lakes in general. According to Wetzel (1985), the total phosphorus concentrations in non-polluted oligotrophic lakes such as Slocan Lake are between 5µg/L (0.005mg/L) and 10µg/L (0.01mg/L). Variations can be attributed to differences in regional geology. The laboratory detection limit used for the total phosphorus concentrations is set too high (at 0.01 mg/L) to allow comparison with a guideline range of 5 to 15 µg/L (0.005mg/L to 0.015mg/L). According to Horne & Goldman (1994), in oligotrophic lakes, almost all TP sinks out of the epilimnion layer by the end of summer. In deep oligotrophic lakes, winter or spring mixing is most important in returning phosphorus to the epilimnion. The higher TP results in the Slocan Lake hypolimnion may be explained by the late timing of the lake sampling.

Results from the 2008 Upper Arrow Lake sampling indicated that most TP concentrations were below 0.01mg/L and concentrations were slightly higher in the hypolimnion, averaging from 0.01 to 0.04mg/L.

Table 12: Results for nutrients at 5m

VARIABLES			SITE # 1 (5 M depth)					SITE # 2 (5 M depth)				
Nutrients	Units	RDL unit	AV	VAR	STD	MIN	MAX	AV	VAR	STD	MIN	MAX
Nitrite as N	mg/L	0.1	<0.01	0	0	<0.01	<0.01	<0.01	0	0	<0.01	<0.01
Nitrate as N	mg/L	0.1	0.03	0	0	0.02	0.03	0.03	0	0	<0.01	0.04
Total Nitrogen	mg/L	0.07	0.13	0	0.05	<0.05	0.19	0.14	0.01	0.11	0.06	0.34
Total Phosphorus	mg/L	0.01	0.01	0	0.01	<0.01	0.02	0.02	0	0.01	<0.01	0.02

VARIABLES			SITE # 3 (5 M depth)					SITE # 4 (5 M depth)				
Nutrients	Units	RDL unit	AV	VAR	STD	MIN	MAX	AV	VAR	STD	MIN	MAX
Nitrite as N	mg/L	0.1	<0.01	0	0	<0.01	<0.01	<0.01	0	0	<0.01	<0.01
Nitrate as N	mg/L	0.1	0.03	0	0	0.02	0.03	0.03	0	0	0.03	0.03
Total Nitrogen	mg/L	0.07	0.09	0	0.04	<0.05	0.16	0.12	0	0.06	<0.05	0.22
Total Phosphorus	mg/L	0.01	0.02	0	<0.01	0.01	0.02	0.01	0	0.01	<0.01	0.02

Table 13: Results for nutrients at 50m

VARIABLES			SITE # 1 (50 M depth)					SITE # 2 (50 M depth)				
	Nutrients	Units	RDL unit	AV	VAR	STD	MIN	MAX	AV	VAR	STD	MIN
Nitrite as N	mg/L	0.1	<0.01	0	0	<0.01	<0.01	<0.01	0	0	<0.01	<0.01
Nitrate as N	mg/L	0.1	0.08	0	0.01	0.07	0.09	0.08	0	0.01	0.07	0.09
Total Nitrogen	mg/L	0.07	0.14	0	0.07	0.08	0.25	0.13	0	0.07	0.07	0.21
Total Phosphorus	mg/L	0.01	0.03	0	0.03	<0.01	0.09	0.02	0	0.01	<0.01	0.02

VARIABLES			SITE # 3 (50 M depth)					SITE # 4 (50 M depth)				
	Nutrients	Units	RDL unit	AV	VAR	STD	MIN	MAX	AV	VAR	STD	MIN
Nitrite as N	mg/L	0.1	<0.01	0	0	<0.01	<0.01	<0.01	0	0	<0.01	<0.01
Nitrate as N	mg/L	0.1	0.08	0	0	0.08	0.09	0.08	0	0	0.08	0.09
Total Nitrogen	mg/L	0.07	0.13	0	0.07	0.08	0.24	0.12	0	0.06	0.08	0.21
Total Phosphorus	mg/L	0.01	0.02	0	0.01	<0.01	0.03	0.02	0	0.01	<0.01	0.04

Table 14: T-test results for nutrients at 5 m

VARIABLES	T-TESTS CONDUCTED BETWEEN SITES AT 5 M					
Nutrients	T-TEST Sites 1 & 2	T-Test Sites 1 & 3	T-Test Sites 1 & 4	T-Test Sites 2 & 3	T-Test Sites 2 & 4	T-Test Sites 3 & 4
Nitrite as N	N/A*	N/A	N/A	N/A	N/A	N/A
Nitrate as N	0.70	N/A	0.37	0.70	0.48	0.37
Total Nitrogen	0.70	0.23	0.67	0.23	0.54	0.24
Total Phosphorus	0.37	0.37	1.00	N/A	0.37	0.37

N/A\*: indicates consistent values at both sites

Table 15: T-test results for nutrients at 50 m

VARIABLES	T-TESTS CONDUCTED BETWEEN SITES AT 50 M					
Nutrients	T-TEST Sites 1 & 2	T-Test Sites 1 & 3	T-Test Sites 1 & 4	T-Test Sites 2 & 3	T-Test Sites 2 & 4	T-Test Sites 3 & 4
Nitrite as N	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate as N	0.37	1.00	1.00	0.62	0.37	1.00
Total Nitrogen	0.75	0.65	0.35	1.00	0.73	0.14
Total Phosphorus	0.37	0.45	0.55	1.00	0.37	0.48

#### 4.4 TOTAL METALS

Total metals refers to the measurement of metals in all their forms (both dissolved and suspended). Trace quantities of many metals are important constituents of most waters, but many of these metals are also classified as priority pollutants when concentrations are too high. Some are necessary for the growth of biological life, and their absence limits the growth of certain species (Metcalf & Eddy, 2003). Aquatic organisms are highly sensitive to elevated concentrations of some metals. Aquatic organisms ingest metal-laden sediments and organic material and the metals are then released in these organisms' intestinal tract and absorbed in the tissues which will then be damaged by metal toxicity. In keeping with the purpose of this study, water samples were analysed for a wide variety of metals in order to assure a comprehensive data-base with which to evaluate the present water quality of Slocan Lake and assess any possible future alterations in water quality.

The list of metal parameters and the water quality guidelines for aquatic life and recreational activities is provided in Table 16. Table 17 provides information on metals with Reported Detection Limits (RDL) higher, at CARO Lab, than the WQG for aquatic life. Table 18 compares the 2008 results and the 2000-2001 results. Laboratory reported detection limits and statistical results can be found in Tables 19, 20, 21 and 22, a summary of the results is in Appendix E and laboratory results appear in Appendix C.

Table 16: Water quality guidelines for total metals (WQG)

METALS	RECOMMENDED GUIDELINES	AQUATIC LIFE (LAKES)		RECREATIONAL (LAKES)
		CONSIDERATIONS	ALLOWABLE CONCENTRATIONS	ALLOWABLE CONCENTRATIONS
Aluminium (Al)	mg/L		0.1mg/L for a pH greater than or equal to 6.5	0.2mg/L dissolved
Antimony (Sb)			None	None
Arsenic (As)	µg/L of Total Arsenic	Maximum	5µg/L (0.005mg/L)	
Barium (Ba)			None	None
Beryllium (Be)			None	None
Bismuth (Bi)			None	None
Boron (B)	mg/L Total Boron		1.2 mg/L	None
Cadmium (Cd)			None	None
Calcium (Ca)			None	None
Chromium (Cr)	µg/L of Total Chromium		1 µg/L (0.001mg/L), maximum	None
Cobalt (Co)	µg/L Total Cobalt	Maximum= 30-d average (5-weekly measurements)=	110µg/L (0.11mg/L)  4µg/L (0.004mg/L)	None
Copper (Cu)	30-day average µg/L Total Copper	when average water hardness as CaCO <sub>3</sub> is less than or equal to 50 mg/L	less than or equal to 2µg/L (0.002mg/L)	None
Iron (Fe)			None	None
Lead (Pb)	30-day average µg/L Total Lead	water hardness as CaCO <sub>3</sub> less than equal to 50mg/L	5 µg/L (0.005mg/L)	None
Lithium (Li)			None	None
Magnesium (Mg)			None	None
Manganese (Mn)	mg/L	Maximum at Specified CaCO <sub>3</sub> Hardness of 50mg/L	1.1mg/L	None
Mercury (Hg)	30-day average µg/L Total Hg	max at any time=	0.02µg/L (0.00002mg/L)  0.1µg/L (0.001mg/L)	Primary contact recreation:0.1µg/L (0.001mg/L)

Table16 continued...

METALS	RECOMMENDED GUIDELINES	AQUATIC LIFE (LAKES)		RECREATIONAL (LAKES)
		CONSIDERATIONS	ALLOWABLE CONCENTRATIONS	ALLOWABLE CONCENTRATIONS
Molybdenum	30-day average mg/L Total Moly		less than or equal to 1 mg/L	None
Nickel			None	None
Phosphorus			None	None
Potassium			None	None
Selenium (Se)	30-day average µg/L Total Lead		2.0 µg/L (0.002mg/L) mean	None
Silicon (Si)			None	None
Silver (Ag)	0.05 µg/L as a 30-day mean	hardness less than or equal to 100 mg/L	0.05µg/L (0.00005mg/L)	None
Sodium (Na)			None	None
Strontium (St)			None	None
Tellurium (Te)			None	None
Thallium (Tl)			None	None
Thorium (Th)			None	None
Tin (Sn)			None	None
Titanium (Ti)			None	None
Uranium (U)			None	None
Vanadium (V)			None	None
Zinc (Zn)	µg/L Total Zinc	the average concentration of total zinc (µg/L) should not exceed 7.5 µg/L when water hardness is less than or equal to 90 mg/L	7.5µg/l (0.0075mg/L)	5000µg/l (5 mg/L)
Zirconium (Zr)			None	None

1. The average is calculated from at least 5-weekly samples taken in a period of 30 days.
2. 30-day average is the arithmetic mean of all results based on at least five approximately evenly spaced samples taken during a period not to exceed 30 days

Of the 36 metals tested, five (chromium, copper, mercury, selenium and zinc), appear to be present in concentrations higher than their applicable guidelines. However, because the RDL for these metals is equal to or higher than the guideline levels, it is not possible to assess guideline compliance for these metals. It is recommended that in future studies, more sensitive analytical methods be utilized, with detection limits at least 10 times lower than the guideline levels.

Table 17: Metals with RDL set higher than the Water Quality Guidelines for Aquatic Life

Metals	Reported detection limit (RDL)	Water Quality Guidelines Allowable concentrations for Aquatic Life
Chromium	0.015mg/L	0.001 mg/L
Copper	0.003 mg/L	0.002 mg/L
Mercury	0.0003 mg/L	0.00002 mg/L
Selenium	0.005 mg/L	0.002 mg/L
Zinc	0.01 mg/L	0.0075 mg/L

Six of the parameters showed some significant differences in concentrations between the sites: calcium, sodium, strontium, copper, lead and zinc. It is impossible to speculate on the causes for these differences. Continued monitoring in the upcoming years will serve to determine whether this is a steady trend or just a one-time anomaly.

#### 4.4.1 PECULIARITIES OF SITE 4

On October 13, Site 4 exhibited noticeably higher concentrations of copper, lead and zinc in its epilimnion layer (Figure 7). Of the three metals, only lead concentrations remained under the water quality guidelines for aquatic life (Table 16). Zinc concentrations were unusually high and above the water quality guidelines. Local prospectors and miners speak of a vein rich in copper and zinc which comes down the mountainside in an east-west direction and into the lake in that area. A tributary might also cause localized increases in some metals, but if all values are well below guideline levels and there is no indication of human contamination (a mine, a permitted discharge, etc), it can likely be attributed to natural variability. There is also the possibility of sample contamination. As mentioned previously, these readings cannot be interpreted properly until, and unless, future studies indicate a trend.



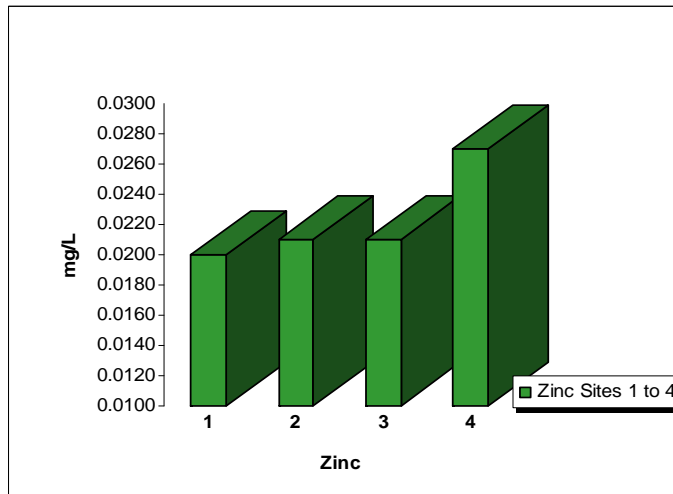
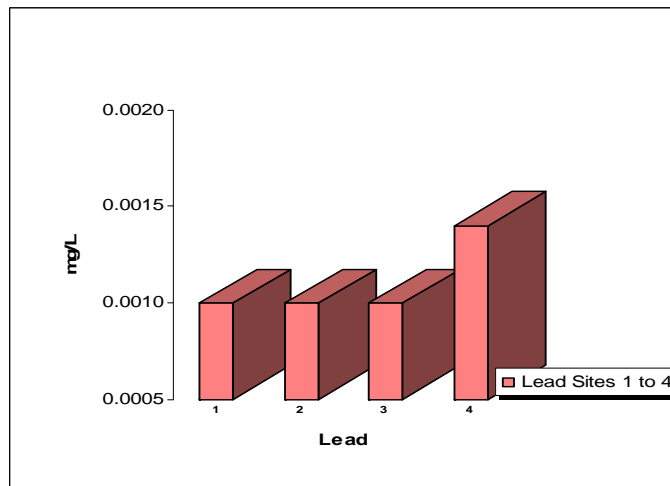
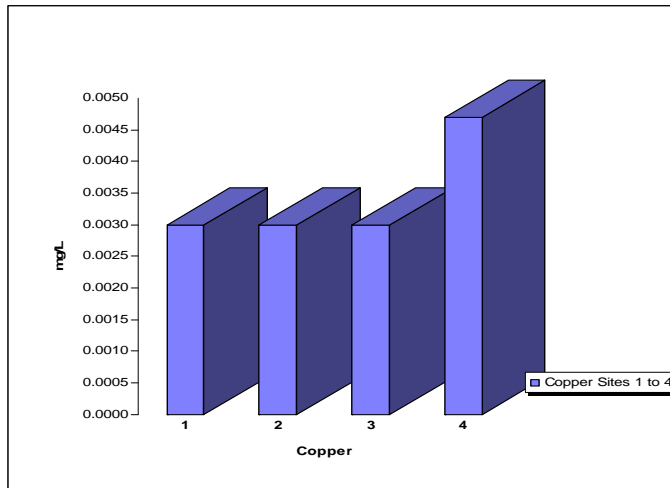


Figure 7: Copper, lead and zinc averages for the epilimnion of Sites 1 to 4

#### **4.4.2 OTHER METALS**

Table 18 shows that 2008 values were generally comparable to those of the 2000-2001 survey conducted on Slocan Lake by UBC-MOE (Andrusak 2006, Pieters and Eskooch 2006). Where the 2008 readings were lower (cadmium, cobalt, lead, selenium and silver), and where they were higher (iron and titanium), the readings were nevertheless at or below the detection level, as was the case for many of the metals tested. Vertical stratification of metals was very slight. Calcium levels increased slightly with depth, which is reflected in an increase in specific conductivity. Concentrations were well within the established water quality guidelines for aquatic life and recreational activities.

When compared with the Upper Arrow Lake (Galena, 2008), Slocan Lake exhibited lower calcium and magnesium concentrations and higher sodium concentrations.

Table 18: Comparison of total metal results between 2000-2001 and 2008 sampling programs

Parameters	Units	2008 Data Averages		2001 Data Averages
		Depth (5 m)	Depth (50 meters)	
Aluminum	mg/L	0.05	0.05	0.06
Antimony	mg/L	0	0	0.06
Arsenic	mg/L	0.01	0.01	0.06
Barium	mg/L	0.02	0.03	0.27
Beryllium	mg/L	0	0	0.001
Bismuth	mg/L	0	0	n/a
Boron	mg/L	0.02	0.02	0.01
Cadmium	mg/L	0.00016	0.00018	0.006
Calcium	mg/L	12.95	13.90	14.40
Chromium	mg/L	0.015	0.015	0.006
Cobalt	mg/L	0.0005	0.0005	0.006
Copper	mg/L	0.0034	0.003	0.006
Iron	mg/L	0.20	0.20	0.007
Lead	mg/L	0.001	0.001	0.06
Lithium	mg/L	0.002	0.002	n/a
Magnesium	mg/L	1.85	2.07	2.10
Manganese	mg/L	0.005	0.005	0.002
Mercury	mg/L	0.0003	0.0003	n/a
Molybdenum	mg/L	0.001	0.001	0.01
Nickel	mg/L	0.005	0.005	0.02
Phosphorous	mg/L	0.20	0.20	0.01
Potassium	mg/L	0.49	0.52	0.50
Selenium	mg/L	0.005	0.005	0.06
Silicon	mg/L	2.89	3.22	2.75
Silver	mg/L	0.0004	0.0004	0.01
Sodium	mg/L	0.99	1.13	1.10
Strontium	mg/L	0.205	0.216	0.217
Tellurium	mg/L	0.003	0.003	n/a
Thallium	mg/L	0.0005	0.0005	n/a
Thorium	mg/L	0.003	0.003	n/a
Tin	mg/L	0.002	0.002	0.06
Titanium	mg/L	0.10	0.10	0.002
Uranium	mg/L	0.0005	0.0005	n/a
Vanadium	mg/L	0.01	0.01	0.01
Zinc	mg/L	0.03	0.022	0.036
Zirconium	mg/L	0.005	0.005	n/a

Table 19: Results for total metals at 5m

VARIABLES			SITE # 1 (5 M depth)					SITE # 2 (5 M depth)				
			AV	VAR	STD	MIN	MAX	AV	VAR	STD	MIN	MAX
Total Metals	Units	RDL unit										
Aluminum	mg/L	0.05	<0.05	0	0	<0.05	<0.05	<0.05	0	0	<0.05	0.05
Antimony	mg/L	0.003	<0.003	0	0	<0.003	<0.003	<0.003	0	0	<0.003	<0.003
Arsenic	mg/L	0.005	<0.005	0	0	<0.005	<0.005	<0.005	0	0	<0.005	<0.005
Barium	mg/L	0.005	0.02	0	0.001	0.023	0.025	0.02	0	0.001	0.022	0.025
Beryllium	mg/L	0.002	<0.00.2	0	0	<0.00.2	<0.00.2	<0.00.2	0	0	<0.00.2	<0.00.2
Bismuth	mg/L	0.0005	<0.0005	0	0	<0.0005	<0.0005	<0.0005	0	0	<0.0005	<0.0005
Boron	mg/L	0.02	<0.02	0	0	<0.02	<0.02	<0.02	0	0	<0.02	<0.02
Cadmium	mg/L	0.0001	0.00016	0	0.00007	0.00014	0.00028	0.00016	0	0.00005	0.00012	0.00023
Calcium	mg/L	0.5	12.80	0.20	0.447	12.20	13.40	12.78	0.23	0.480	12.00	13.40
Chromium	mg/L	0.015	<0.015	0	0	<0.015	<0.015	<0.015	0	0	<0.015	<0.015
Cobalt	mg/L	0.0005	<0.0005	0	0	<0.0005	<0.0005	<0.0005	0	0	<0.0005	<0.0005
Copper	mg/L	0.003	<0.003	0	0	<0.003	<0.003	<0.003	0	0	<0.003	<0.003
Iron	mg/L	0.2	<0.2	0	0	<0.2	<0.2	0.20	0	0	<0.2	<0.2
Lead	mg/L	0.001	<0.001	0	0	<0.001	<0.001	<0.001	0	0	<0.001	<0.001
Lithium	mg/L	0.002	<0.002	0	0	<0.002	<0.002	<0.002	0	0	<0.002	<0.002
Magnesium	mg/L	0.2	1.86	0.09	0.300	1.62	2.38	1.83	0.04	0.194	1.59	2.13
Manganese	mg/L	0.005	<0.005	0	0	<0.005	<0.005	<0.005	0	0	<0.005	<0.005
Mercury	mg/L	0.0003	<0.0003	0	0	<0.0003	<0.0003	<0.0003	0	0	<0.0003	<0.0003

Table 19 continued ...

VARIABLES			SITE # 3 (5 M depth)					SITE # 4 (5 M depth)				
			AV	VAR	STD	MIN	MAX	AV	VAR	STD	MIN	MAX
Total Metals	Units	RDL unit										
Aluminum	mg/L	0.05	<0.05	0	0	<0.05	<0.05	<0.05	0	0	<0.05	<0.05
Antimony	mg/L	0.003	<0.003	0	0	<0.003	<0.003	<0.003	0	0	<0.003	<0.003
Arsenic	mg/L	0.005	<0.005	0	0	<0.005	<0.005	<0.005	0	0	<0.005	<0.005
Barium	mg/L	0.005	0.02	0	0.001	0.023	0.026	0.03	0	0.002	0.023	0.027
Beryllium	mg/L	0.002	<0.002	0	0	<0.002	<0.002	<0.002	0	0	<0.002	<0.002
Bismuth	mg/L	0.0005	<0.0005	0	0	<0.0005	<0.0005	<0.0005	0	0	<0.0005	<0.0005
Boron	mg/L	0.02	<0.02	0	0	<0.02	<0.02	<0.02	0	0	<0.02	<0.02
Cadmium	mg/L	0.0001	0.00018	0	0.00007	0.00013	0.00022	0.00057	0	0.00099	0.00012	0.00023
Calcium	mg/L	0.5	13.02	0.26	0.507	12.30	13.50	13.22	0.53	0.729	12.20	13.80
Chromium	mg/L	0.015	<0.015	0	0	<0.015	<0.015	<0.015	0	0	<0.015	<0.015
Cobalt	mg/L	0.0005	<0.0005	0	0	<0.0005	<0.0005	<0.0005	0	0	<0.0005	<0.0005
Copper	mg/L	0.003	<0.003	0	0	<0.003	<0.003	<0.003	0	0.004	<0.003	<0.003
Iron	mg/L	0.2	<0.2	0	0	<0.2	<0.2	<0.2	0	0	<0.2	<0.2
Lead	mg/L	0.001	<0.001	0	0	<0.001	<0.001	<0.001	0	0	<0.001	<0.001
Lithium	mg/L	0.002	<0.002	0	0	<0.002	<0.002	<0.002	0	0	<0.002	<0.002
Magnesium	mg/L	0.2	1.87	0.05	0.219	1.62	2.20	1.87	0.06	0.245	1.61	2.25
Manganese	mg/L	0.005	<0.005	0	0	<0.005	<0.005	<0.005	0	0	<0.005	<0.005
Mercury	mg/L	0.0003	<0.0003	0	0	<0.0003	<0.0003	<0.0003	0	0	<0.0003	<0.0003

Table 19 continued ...

VARIABLES			SITE # 1 (5 M depth)					SITE # 2 (5 M depth)				
	Units	RDL unit	AV	VAR	STD	MIN	MAX	AV	VAR	STD	MIN	MAX
Molybdenum	mg/L	0.001	<0.001	0	0	<0.001	<0.001	<0.001	0	0	<0.001	<0.001
Nickel	mg/L	0.005	<0.005	0	0	<0.005	<0.005	<0.005	0	0	<0.005	<0.005
Phosphorus	mg/L	0.2	<0.20	0	0	<0.20	<0.20	<0.20	0	0	<0.20	<0.20
Potassium	mg/L	0.2	0.49	0	0.0421	0.45	0.56	0.49	0.00	0.0358	0.44	0.54
Selenium	mg/L	0.005	<0.005	0	0	<0.005	<0.005	<0.005	0	0	<0.005	<0.005
Silicon	mg/L	1	2.90	0.39	0.6245	2.10	3.80	2.92	0.53	0.7259	2.00	4.00
Silver	mg/L	0.0004	<0.0004	0	0	<0.0004	<0.0004	<0.0004	0	0	<0.0004	<0.0004
Sodium	mg/L	0.2	1.02	0.02	0.1579	0.88	1.22	0.98	0.01	0.1163	0.86	1.15
Strontium	mg/L	0.005	0.20	0.00	0.0052	0.19	0.21	0.20	0	0.0051	0.192	0.219
Tellurium	mg/L	0.003	<0.003	0	0	<0.003	<0.003	<0.003	0	0	<0.003	<0.003
Thallium	mg/L	0.0005	<0.0005	0	0	<0.0005	<0.0005	<0.0005	0	0	<0.0005	<0.0005
Thorium	mg/L	0.003	<0.003	0	0	<0.003	<0.003	<0.003	0	0	<0.003	<0.003
Tin	mg/L	0.002	<0.002	0	0	<0.002	<0.002	<0.002	0	0	<0.002	<0.002
Titanium	mg/L	0.1	<0.1	0	0	<0.1	<0.1	<0.1	0	0	<0.1	<0.1
Uranium	mg/L	0.0005	<0.0005	0	0	<0.0005	<0.0005	<0.0005		0	<0.0005	<0.0005
Vanadium	mg/L	0.01	<0.01	0	0	<0.01	<0.01	<0.01	0	0	<0.01	<0.01
Zinc	mg/L	0.01	0.02	0	0.0056	0.012	0.027	0.02	0	0.0022	0.016	0.018
Zirconium	mg/L	0.005	<0.0050	0	0	<0.005	<0.005	<0.005	0	0	<0.005	<0.005

Table 19 continued ...

VARIABLES			SITE # 3 (5 M depth)					SITE # 4 (5 M depth)				
	Total Metals	Units	RDL unit	AV	VAR	STD	MIN	MAX	AV	VAR	STD	MIN
Molybdenum	mg/L	0.001	<0.001	0	0	<0.001	<0.001	<0.001	0	0	<0.001	<0.001
Nickel	mg/L	0.005	<0.005	0	0	<0.005	<0.005	<0.005	0	0	<0.005	0.025
Phosphorus	mg/L	0.2	<0.2	0	0	<0.2	<0.2	<0.2	0	0	<0.2	<0.2
Potassium	mg/L	0.2	0.48	0.00	0.0456	0.44	0.56	0.49	0.00	0.0492	0.45	0.57
Selenium	mg/L	0.005	<0.005	0	0	<0.005	<0.005	<0.005	0	0	<0.005	<0.005
Silicon	mg/L	1	2.86	0.55	0.7436	2.10	4.00	2.90	0.53	0.7280	2.10	4.00
Silver	mg/L	0.0004	<0.0004	0	0	<0.0004	<0.0004	<0.0004	0	0	<0.0004	<0.0004
Sodium	mg/L	0.2	0.98	0.02	0.1404	0.83	1.18	0.99	0.02	0.1402	0.84	1.19
Strontium	mg/L	0.005	0.21	0.00	0.0094	0.196	0.212	0.21	0.00	0.0106	0.20	0.22
Tellurium	mg/L	0.003	<0.003	0	0	<0.003	<0.003	<0.003	0	0	<0.003	<0.003
Thallium	mg/L	0.0005	<0.0005	0	0	<0.0005	<0.0005	<0.0005	0	0	<0.0005	<0.0005
Thorium	mg/L	0.003	<0.003	0	0	<0.003	<0.003	<0.003	0	0	<0.003	<0.003
Tin	mg/L	0.002	<0.002	0	0	<0.002	<0.002	<0.002	0	0	<0.002	<0.002
Titanium	mg/L	0.1	<0.1	0	0	<0.1	<0.1	<0.1	0	0	<0.1	<0.1
Uranium	mg/L	0.0005	<0.0005	0	0	<0.0005	<0.0005	<0.0005	0	0	<0.0005	<0.0005
Vanadium	mg/L	0.01	<0.01	0	0	<0.01	<0.01	<0.01	0	0	<0.01	<0.01
Zinc	mg/L	0.01	0.02	0	0.0025	0.016	0.021	0.07	0.01	0.1112	0.016	0.26
Zirconium	mg/L	0.005	<0.005	0	0	<0.005	<0.005	<0.005	0	0	<0.005	<0.005

Table 20: Results for total metals at 50 m

VARIABLES			SITE # 1 (50 M depth)					SITE # 2 (50 M depth)				
	Total Metals	Units	RDL unit	AV	VAR	STD	MIN	MAX	AV	VAR	STD	MIN
Aluminum	mg/L	0.05	<0.05	0	0	<0.05	<0.05	<0.05	0	0	<0.05	<0.05
Antimony	mg/L	0.003	<0.003	0	0	<0.003	<0.003	<0.003	0	0	<0.003	<0.003
Arsenic	mg/L	0.005	<0.005	0	0	<0.005	<0.005	<0.005	0	0	<0.005	<0.005
Barium	mg/L	0.005	0.02	0	0.001	0.023	0.026	0.03	0	0.001	0.024	0.025
Beryllium	mg/L	0.002	<0.002	0	0	<0.002	<0.002	<0.002	0	0	<0.002	<0.002
Bismuth	mg/L	0.0005	<0.0005	0	0	<0.0005	<0.0005	<0.0005	0	0	<0.0005	<0.0005
Boron	mg/L	0.02	<0.02	0	0	<0.02	<0.02	<0.02	0	0	<0.02	<0.02
Cadmium	mg/L	0.0001	0.00016	0	0.00004	0.00013	0.00022	0.00015	0	0.00002	0.00013	0.00022
Calcium	mg/L	0.5	13.76	0.22	0.472	13.20	14.20	13.90	0.12	0.346	13.60	14.40
Chromium	mg/L	0.015	<0.015	0	0	<0.015	<0.015	<0.015	0	0	<0.015	<0.015
Cobalt	mg/L	0.0005	<0.0005	0	0	<0.0005	<0.0005	<0.0005	0	0	<0.0005	<0.0005
Copper	mg/L	0.003	<0.003	0	0	<0.003	<0.003	<0.003	0	0	<0.003	<0.003
Iron	mg/L	0.2	<0.2	0	0	<0.2	<0.2	<0.2	0	0	<0.2	<0.2
Lead	mg/L	0.001	<0.001	0	0	<0.001	<0.001	<0.001	0	0	<0.001	<0.001
Lithium	mg/L	0.002	<0.002	0	0	<0.002	<0.002	<0.002	0	0	<0.002	<0.002
Magnesium	mg/L	0.2	2.03	0.06	0.242	1.77	2.42	2.05	0.05	0.227	1.85	2.44
Manganese	mg/L	0.005	<0.005	0	0	<0.005	<0.005	<0.005	0	0	<0.005	<0.005
Mercury	mg/L	0.0003	<0.0003	0	0	<0.0003	<0.0003	<0.0003	0	0	<0.0003	<0.0003



Table 20 continued ....

VARIABLES			SITE # 3 (50 M depth)					SITE # 4 (50 M depth)				
			AV	VAR	STD	MIN	MAX	AV	VAR	STD	MIN	MAX
Total Metals	Units	RDL unit										
Aluminum	mg/L	0.05	<0.05	0	0	<0.05	<0.05	<0.05	0	0	<0.05	<0.05
Antimony	mg/L	0.003	<0.003	0	0	<0.003	<0.003	<0.003	0	0	<0.003	<0.003
Arsenic	mg/L	0.005	<0.005	0	0	<0.005	<0.005	<0.005	0	0	<0.005	<0.005
Barium	mg/L	0.005	0.03	0	0.002	0.023	0.027	0.03	0.00	0.001	0.02	0.03
Beryllium	mg/L	0.002	0.00	0	0	<0.002	<0.002	<0.002	0	0	<0.002	<0.002
Bismuth	mg/L	0.0005	0.00	0	0	<0.0005	<0.0005	<0.0005	0	0	<0.0005	<0.0005
Boron	mg/L	0.02	<0.02	0	0	<0.02	<0.02	<0.02	0	0	<0.02	<0.02
Cadmium	mg/L	0.0001	0.00017	0	0.00003	0.00013	0.00234	0.00022	0	0.00014	0.00014	0.00047
Calcium	mg/L	0.5	13.88	0.40	0.630	13.30	14.70	14.06	0.20	0.451	13.40	14.60
Chromium	mg/L	0.015	<0.015	0	0	<0.015	<0.015	<0.015	0	0	<0.015	<0.015
Cobalt	mg/L	0.0005	<0.0005	0	0	<0.0005	<0.0005	<0.0005	0	0	<0.0005	<0.0005
Copper	mg/L	0.003	<0.003	0	0	<0.003	<0.003	<0.003	0	0	<0.003	<0.003
Iron	mg/L	0.2	<0.2	0	0	<0.2	<0.2	<0.2	0	0	<0.2	<0.2
Lead	mg/L	0.001	<0.001	0	0	<0.001	<0.001	<0.001	0	0	<0.001	<0.001
Lithium	mg/L	0.002	<0.002	0	0	<0.002	<0.002	<0.002	0	0	<0.002	<0.002
Magnesium	mg/L	0.2	2.07	0.05	0.216	1.80	2.40	2.11	0.05	0.222	1.85	2.43
Manganese	mg/L	0.005	<0.005	0	0	<0.005	<0.005	<0.005	0	0	<0.005	<0.005
Mercury	mg/L	0.0003	<0.0003	0	0	<0.0003	<0.0003	<0.0003	0	0	<0.0003	<0.0003

Table 20 continued ....

VARIABLES			SITE # 1 (50 M depth)					SITE # 2 (50 M depth)				
			AV	VAR	STD	MIN	MAX	AV	VAR	STD	MIN	MAX
Total Metals	Units	RDL unit										
Molybdenum	mg/L	0.001	<0.001	0	0	<0.001	<0.001	<0.001	0	0	<0.001	<0.001
Nickel	mg/L	0.005	<0.005	0	0	<0.005	<0.005	<0.005	0	0	<0.005	<0.005
Phosphorus	mg/L	0.2	<0.2	0	0	<0.2	<0.2	<0.2	0	0	<0.2	<0.2
Potassium	mg/L	0.2	0.51	0	0.0391	0.48	0.58	0.52	0	0.0396	0.49	0.59
Selenium	mg/L	0.005	<0.005	0	0	<0.005	<0.005	<0.005	0	0	<0.005	<0.005
Silicon	mg/L	1	3.06	0.91	0.9529	2.10	4.50	3.16	0.61	0.7829	2.40	4.40
Silver	mg/L	0.0004	<0.0004	0	0	<0.0004	<0.0004	<0.0004	0	0	<0.0004	<0.0004
Sodium	mg/L	0.2	1.12	0.03	0.1615	0.95	1.36	1.12	0.02	0.1276	1.02	1.34
Strontium	mg/L	0.005	0.21	0	0.0061	0.21	0.22	0.22	0	0.0023	0.21	0.22
Tellurium	mg/L	0.003	<0.003	0	0	<0.003	<0.003	<0.003	0	0	<0.003	<0.003
Thallium	mg/L	0.0005	<0.0005	0	0	<0.0005	<0.0005	<0.0005	0	0	<0.0005	<0.0005
Thorium	mg/L	0.003	<0.003	0	0	<0.003	<0.003	<0.003	0	0	<0.003	<0.003
Tin	mg/L	0.002	<0.002	0	0	<0.002	<0.002	<0.002	0	0	<0.002	<0.002
Titanium	mg/L	0.1	<0.1	0	0	<0.1	<0.1	<0.1	0	0	<0.1	<0.1
Uranium	mg/L	0.0005	<0.0005	0	0	<0.0005	<0.0005	<0.0005	0	0	<0.0005	<0.0005
Vanadium	mg/L	0.01	<0.01	0	0	<0.01	<0.01	<0.01	0	0	<0.01	<0.01
Zinc	mg/L	0.01	0.02	0.00	0.0030	0.016	0.024	0.02	0	0.0031	0.02	0.02
Zirconium	mg/L	0.005	<0.005	0	0	<0.005	<0.005	<0.005	0	0	<0.005	<0.005

Table 20 continued ...

VARIABLES			SITE # 3 (50M depth)					SITE # 4 (50M depth)				
			AV	VAR	STD	MIN	MAX	AV	VAR	STD	MIN	MAX
Total Metals	Units	RDL unit										
Molybdenum	mg/L	0.001	<0.001	0	0	<0.001	<0.001	0.00	0	0	<0.001	<0.001
Nickel	mg/L	0.005	<0.005	0	0	<0.005	<0.005	0.01	0	0	<0.005	<0.005
Phosphorus	mg/L	0.2	<0.2	0	0	<0.2	<0.2	0.20	0	0	<0.2	<0.2
Potassium	mg/L	0.2	0.52	0	0.0507	0.48	0.61	0.52	0	0.0418	0.48	0.59
Selenium	mg/L	0.005	<0.005	0	0	<0.005	<0.005	0.01	0	0	<0.005	<0.005
Silicon	mg/L	1	3.28	0.52	0.7225	2.70	4.50	3.40	0.57	0.7517	2.60	4.60
Silver	mg/L	0.0004	<0.0004	0	0	<0.0004	<0.0004	0.00	0	0	<0.0004	<0.0004
Sodium	mg/L	0.2	1.13	0.01	0.1155	0.99	1.31	1.14	0.01	0.1083	1.01	1.31
Strontium	mg/L	0.005	0.22	0	0.0043	0.21	0.22	0.22	0.00	0.0049	0.21	0.22
Tellurium	mg/L	0.003	<0.003	0	0	<0.003	<0.003	0.00	0	0	<0.003	<0.003
Thallium	mg/L	0.0005	<0.0005	0	0	<0.0005	<0.0005	0.00	0	0	<0.0005	<0.0005
Thorium	mg/L	0.003	<0.003	0	0	<0.003	<0.003	0.00	0	0	<0.003	<0.003
Tin	mg/L	0.002	<0.002	0	0	<0.002	<0.002	0.00	0	0	<0.002	<0.002
Titanium	mg/L	0.1	<0.1	0	0	<0.1	<0.1	0.10	0	0	<0.1	<0.1
Uranium	mg/L	0.0005	<0.0005	0	0	<0.0005	<0.0005	0.00	0	0	<0.0005	<0.0005
Vanadium	mg/L	0.01	<0.01	0	0	<0.01	<0.01	0.01	0	0	<0.01	<0.01
Zinc	mg/L	0.01	0.02	0	0.0025	0.02	0.03	0.03	0.00	0.0115	0.019	0.047
Zirconium	mg/L	0.005	0.01	0	0	<0.005	<0.005	0.01	0	0	<0.005	<0.005

Table 21: T-test results for total metals at 5 m

Parameters	T-tests conducted between Sites at 5 m				
	T-Test Sites 1 & 3	T-Test Sites 1 & 4	T-Test Sites 2 & 3	T-Test Sites 2 & 4	T-Test Sites 3 & 4
Aluminum	N/A	N/A	N/A	N/A	N/A
Antimony	N/A	N/A	N/A	N/A	N/A
Arsenic	N/A	N/A	N/A	N/A	N/A
Barium	1.0000	0.3046	0.0800	0.3046	0.0249
Beryllium	N/A	N/A	N/A	N/A	N/A
Bismuth	N/A	N/A	N/A	N/A	N/A
Boron	N/A	N/A	N/A	N/A	N/A
Cadmium	0.9659	0.7458	0.4125	0.3572	0.3869
Calcium	0.9246	0.0858	0.0673	0.2151	0.1167
Chromium	N/A	N/A	N/A	N/A	N/A
Cobalt	N/A	N/A	N/A	N/A	N/A
Copper	N/A	N/A	0.3739	N/A	0.3739
Iron	N/A	N/A	N/A	N/A	N/A
Lead	N/A	N/A	0.3739	N/A	0.3739
Lithium	N/A	N/A	N/A	N/A	N/A
Magnesium	0.6063	0.9387	0.8193	0.1882	0.2635
Manganese	N/A	N/A	N/A	N/A	N/A
Mercury	N/A	N/A	N/A	N/A	N/A
Molybdenum	N/A	N/A	N/A	N/A	N/A
Nickel	N/A	N/A	N/A	N/A	N/A
Phosphorous	N/A	N/A	N/A	N/A	N/A
Potassium	0.7489	0.1778	1.0000	0.7780	0.8466
Selenium	N/A	N/A	N/A	N/A	N/A
Silicon	0.7990	0.7717	1.0000	0.7102	0.9113
Silver	N/A	N/A	N/A	N/A	N/A
Sodium	0.2012	0.2005	0.3462	0.8928	0.4581
Strontium	0.7040	0.0434	0.0094	0.0641	0.0099
Tellurium	N/A	N/A	N/A	N/A	N/A
Thallium	N/A	N/A	N/A	N/A	N/A
Thorium	N/A	N/A	N/A	N/A	N/A
Tin	N/A	N/A	N/A	N/A	N/A
Titanium	N/A	N/A	N/A	N/A	N/A
Uranium	N/A	N/A	N/A	N/A	N/A
Vanadium	N/A	N/A	N/A	N/A	N/A
Zinc	0.6517	0.9057	0.4111	0.5886	0.3870
Zirconium	N/A	N/A	N/A	N/A	N/A

Table 22: T-test results for total metals at 50 m

Parameters	T-tests conducted between Sites at 50 m				
	T-Test Sites 1 & 3	T-Test Sites 1 & 4	T-Test Sites 2 & 3	T-Test Sites 2 & 4	T-Test Sites 3 & 4
Aluminum	N/A	N/A	N/A	N/A	N/A
Antimony	N/A	N/A	N/A	N/A	N/A
Arsenic	N/A	N/A	N/A	N/A	N/A
Barium	0.7040	0.2080	0.0890	0.5415	0.0161
Beryllium	N/A	N/A	N/A	N/A	N/A
Bismuth	N/A	N/A	N/A	N/A	N/A
Boron	N/A	N/A	N/A	N/A	N/A
Cadmium	0.5185	0.8033	0.4034	0.2455	0.3406
Calcium	0.3846	0.5685	0.0399	0.8868	0.2943
Chromium	N/A	N/A	N/A	N/A	N/A
Cobalt	N/A	N/A	N/A	N/A	N/A
Copper	N/A	N/A	N/A	N/A	N/A
Iron	N/A	N/A	N/A	N/A	N/A
Lead	N/A	N/A	N/A	N/A	N/A
Lithium	N/A	N/A	N/A	N/A	N/A
Magnesium	0.5816	0.3831	0.2544	0.5352	0.2274
Manganese	N/A	N/A	N/A	N/A	N/A
Mercury	N/A	N/A	N/A	N/A	N/A
Molybdenum	N/A	N/A	N/A	N/A	N/A
Nickel	N/A	N/A	N/A	N/A	N/A
Phosphorous	N/A	N/A	N/A	N/A	N/A
Potassium	0.3375	0.3375	0.3046	1.0000	0.7040
Selenium	N/A	N/A	N/A	N/A	N/A
Silicon	0.2980	0.1802	0.2262	0.1087	0.2420
Silver	N/A	N/A	N/A	N/A	N/A
Sodium	0.7396	0.8071	0.6371	0.9395	0.6428
Strontium	0.3383	0.0375	0.0779	0.3274	0.3554
Tellurium	N/A	N/A	N/A	N/A	N/A
Thallium	N/A	N/A	N/A	N/A	N/A
Thorium	N/A	N/A	N/A	N/A	N/A
Tin	N/A	N/A	N/A	N/A	N/A
Titanium	N/A	N/A	N/A	N/A	N/A
Uranium	N/A	N/A	N/A	N/A	N/A
Vanadium	N/A	N/A	N/A	N/A	N/A
Zinc	0.7717	0.4766	0.3664	0.6885	0.3938
Zirconium	N/A	N/A	N/A	N/A	N/A

## 5 RECOMMENDATIONS

Continued and regular monitoring of Slocan Lake is obviously the best way to maintain up-to-date records on the status of the lake and to gauge any variations due to natural causes or to developments in land use around the lake. This recommendation was echoed in the Slocan Lake FIM report (Arnett, 2008), which suggested that a baseline monitoring program for Slocan Lake be put in place in cooperation with governing agencies (MOE & RDCK) and the involvement of the Slocan Lake Stewardship Society. A community based monitoring program serves both to accumulate valuable data and increase awareness within the local population of water quality and shoreline issues. Findings from these studies are important tools for land planners to use in determining future development possibilities within the area.

### *Recommendations for the Offshore Sampling*

- The high total phosphorous readings in 2008 may be due to the fact that the water sampling was conducted so late in the season. Before the actual nutrient status of Slocan Lake can be accurately established, spring turnover phosphorous should be measured at three different depths, using lower detection limits,
- Monitoring should focus on lake productivity, assess the overall water quality state of the lake and determine trends (Arnett, 2008),
- Future monitoring programs should include other parameters which were tested during the MOE-UBC 2000-2001 study but not during the present 2008 study, due to budgetary constraints. Important parameters to add to the program would be silica, an important nutrient for diatoms, and chlorophyll *a*, to help assess the phytoplankton biomass,
- Sampling during the summer would provide a more accurate assessment of phytoplankton biomass and of the vertical distribution of water temperature, and
- Future monitoring programs should use the same sampling sites used in this study to maintain uniformity in the comparison of results.

### *Recommendations for the Nearshore Sampling*

- With only one season of sampling, it is not possible to make definite conclusions about water quality in Slocan Lake. Environmental factors (mean annual temperatures, spring freshet, fall run-off, total annual precipitation, etc) can contribute to a high degree of annual variability in some watersheds, especially for specific parameters. For this reason, a minimum of two more year of monitoring is warranted to develop an understanding of natural variability within Slocan Lake,
- Monitoring should continue to focus on septic runoff entering the lake and determine any patterns in the coliform leaching. Bacterial source tracking would also differentiate between septic leaching and wildlife sources.
- The three parameters analyzed during the 2008 program should be included in future monitoring,
- Future monitoring programs should use the same sampling sites used in this study to maintain uniformity in the comparison of results, and
- In terms of suitable timing for nearshore monitoring, future monitoring should be conducted during summer and fall. Summer is when temperatures and recreation use are highest, and in the fall, water levels are usually at their lowest and with autumn rain events, accumulated summer fecal material is washed into the lake.

## 6 CONCLUSION

The purpose of this study was to collect comprehensive data on the present condition of Slocan Lake. To that end, water samples were taken at four different sites in the middle of the lake to test for general chemistry parameters, nutrients and metals, in both the epilimnion and the hypolimnion. Seven sites along the foreshore were also sampled to analyze coliform concentrations. Samples were collected weekly over a period of five weeks.

All the parameters tested proved to be well within the Provincial Water Quality Guidelines, indicating that this oligotrophic lake had maintained its pristine condition. Test results were also compared with the less extensive data provided by the 2000-2001 UBC-MOE (Andrusak 2006, Pieters and Eskooch 2006) study. The parameters that could be compared gave evidence of little or no change over the last eight years.

The information collected in the present study is intended to be used as baseline information to help identify and evaluate any future trends or variations in water quality as development along the shores of Slocan Lake progresses, and to help establish guidelines and recommendations for such development which will serve to maintain the present status of the lake.



## 7 REFERENCES

- Andrusak, H. 2006.** *Slocan Lake Limnology & Trophic Status 2000-2002*. Redfish Consulting Ltd. Nelson, BC  
Slocan Lake 200/2001 Collection of reports, Fisheries Renewal BC
- Arnett, T. 2008.** *Slocan Lake Foreshore Inventory and Mapping*. Consultant report prepared for Fisheries and Oceans Canada, BC Interior. Prepared by Interior Reforestation Co. Ltd, Cranbrook, BC.
- BC Hydro. Hydrometer Station Datacenter.** Columbia Basin Hydro Stations. BC Hydro Website, 2007.  
[www.bchydro.com/info/res\\_hydromet/res\\_hydromet9820.html](http://www.bchydro.com/info/res_hydromet/res_hydromet9820.html)
- Cavanagh, N., R.N. Nordin, Pommen & L.G. Swain. 2004.** *Guidelines for Designing & Implementing a Water Quality Monitoring Program in British Columbia*. Aquatic Inventory Task Force of the Resource Inventory Commission, Forest Renewal BC Resource Information Standards Committee (RISC). 2004.  
<http://www.ilmb.gov.bc.ca/risc/pubs/aquatic/design/index.htm>
- Canadian Environmental Quality Guidelines, 1998.** *Canadian Water Quality Guidelines & Aesthetics*. Canadian Council of ministers of the Environment, 1998
- Environment Canada, 2008.** *Canadian Environmental Quality Guidelines Website*. Recreational Water & Protection of Aquatic Life. <http://www.ec.gc.ca/ceqg-rcqe/English/Ceqg/Water/default.cfm>
- Galena Environmental Ltd. 2008.** *Village of Nakusp Sewage Treatment Plant Upgrade : 2008 Upper Arrow Lake Water Quality Monitoring Program*. Addendum 1. Village of Nakusp, BC
- Giesler, P. 2009.** *Personal communication*. Regional District of Central Kootenay. Nelson, BC
- Hammer, M., J. & M., J., Hammer, 2001.** *Water and Wastewater Technology*, Fourth Edition, Prentice-Hall Inc., New Jersey, USA
- Health and Welfare Canada. 1998.** *Guidelines for Canadian Recreational Water Quality*. Cat. No. H49-70/1991E. Canadian Council of ministers of the Environment (CCmE). 2007. 5. Webber, T.N.
- Horne, J., C., Goldman.1994.** *Limnology*. Second edition. McGraw-Hill Inc. USA
- Metcalf & Eddy, 2003.** *Wastewater Engineering – Treatment and Reuse*. Fourth Edition, McGraw-Hill Company Inc. Boston, USA.
- MOE, 2007.** *Environmental Laboratory Manuel*. Section C Metals. BC. Environmental Quality Branch. Water and Air Monitoring and Reporting
- MOE, 2006.** *British Columbia Approved Water Quality Guidelines (WQG)*. Science Information Branch. Section 2, Environment Management Act, Environment and Lands Division, BC  
[http://www.env.gov.bc.ca/wat/wq/BCguidelines/approv\\_wq\\_guide/approved.html](http://www.env.gov.bc.ca/wat/wq/BCguidelines/approv_wq_guide/approved.html)

**MOE, 2003.** *Water & Wastewater Sampling*. Technical document. Right of the Province of British Columbia. All rights Reserved

**Ministry of Forests & Ranges BC. 2002.** A Field Guide for Site Identification & Interpretation for the Nelson Forest Region. Land Management Handbook 20, Forest Sciences Program, BC

**Nagpal, N.K., L.W. Pommen and L.G. Swain. 1998.** *British Columbia Approved Water Quality Guidelines (criteria)*. Water management Branch, Environment and Resource management Department, Ministry of Environment, Lands and Parks, Victoria, BC.

**National Science Foundation. 2005.** *Barium & Barium Compounds*. Source: FEDRIP 2005

**Nordin, R. N. 1985.** *Water quality criteria for nutrients and algae*. Ministry of Environment, Victoria, BC.

**Oliver, G.G. and L.E. Fidler. 2001.** *Towards a water quality guideline for temperature in British Columbia*. Prepared for the Ministry of Environment, Lands and Parks, Water management Branch, Water Quality Section. Victoria, BC.

**Pieters. R. 2004.** *Hydrology of Arrow Lakes Reservoir (2002 and 2003)*. Department of Earth and Ocean Sciences, University of British Columbia, BC, Collection of reports

**Pieters. R., Amin Eskooch. 2006.** *Slocan Lake Water Quality (2000-2001)*. Department of Civil Engineering, UBC & Department of Earth and Ocean Sciences, UBC, Collection of reports

**Reid & Wood, 1976.** *Guidelines for Safe Recreational Water Environments: Coastal and Freshwater*. World Health Organization, California, USA

**RISC. 2008.** *Reconnaissance Fish & Fish Habitat Inventory (1:20000): Lake Survey Form & Field Guide*, Resource Information Standard Committee, Ministry of Environment of British Columbia

**RISC. 1998.** *Freshwater Biological Manual*. Resource Information Standard Committee, Ministry of Environment of British Columbia

**US Environmental Protection Agency. 2008.** *Ground Water & Drinking Water-cadmium*. website

**Westscott, B. 2008.** Personal communication. BC Hydro, Castlegar, BC

**Wetzel, R. 1985.** *Limnology*. Second edition. Michigan State University. Saunders Publishing. USA

**Yeow, J. 2008.** Personal communication. Passmore Laboratory Ltd. Winlaw, BC.

APPENDICES

APPENDIX A  
PASSMORE LAB  
Microbiology Results &  
Interpretation

APPENDIX B  
Results of the general  
parameters

APPENDIX C  
CARO Laboratory Results

APPENDIX D  
Results of the nutrient  
parameters

APPENDIX E  
Results of the total metal  
parameters

## APPENDIX A:

### PASSMORE LABORATORY MICROBIOLOGY RESULTS & INTERPRETATION

**Client: Slocan Lake Stewardship Society**

**Email:** laneliz@netidea.com; galena@netidea.com;  
[helliott@netidea.com](mailto:helliott@netidea.com)

Attn: Hillary Elliot, Lane Haywood, Luce Paquin

Date: November 8, 2008

**Report on Microbiological Tests – Slocan Lake Water, 5 over 30 days**

We have tested the samples of water submitted by you and report as follows:

*Method of Testing:*

Analyses was performed in accordance with methods outlined in the "Standard Methods of Examination of Water and Wastewater", 17th edition, 1989 Published by the American Public Health Association, Specifically, Section 9222D. All tests were done using Membrane Filtration

*Results of Testing:*

*Fecal (Thermotolerant) Coliforms  
per 100 milliliters*

Site Location	Oct. 9-10 th	Oct. 14th	Oct. 22nd	Nov. 3rd	Nov. 5th
<b>1. Slocan, dock next to beach</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>
Time/Water Temperature/weather	9:10AM 13.6° Clear, windy	2:00PM 11.0° Sunny, calm	4:45PM 12.1° Sunny	2:08PM 11° Rainy	3:35PM 11.6° Rain yesterday
<b>2. Silvertown, in front of hotel</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
49°56'54"N, 117°21'26"W +/- 15m offshore Time/Water Temperature/weather	2:00PM 11.0° Sunny, Clear	10:20PM 13.2° Sunny, windy, Rain	12:30AM 12.3° Rain 2 days ago	9:38PM 11.7° Sun and rain	2:15PM 11.8° Cloudy with sun
<b>3. Silvertown, day park</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>
49°57'06"N, 117°21'44"W Time/Water Temperature/weather	12:40PM 14.2° Sunny, Clear	10:30PM 12.2 ° Sunny, calm	12:20AM 11.6° Sunny, calm	9:25PM 11.59° Cloudy, calm	2:55PM 11.8° Cloudy with sun
<b>4. New Denver, Front of Hospital</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
49°36'54" N 117°21'26" Time/Water Temperature/weather	1:10PM 14.9° Sunny, Clear	3:20PM 14.8 ° Sunny, calm	11:55AM 12.3° Sunny, calm	10:15AM 11.7° Calm,, high cloud	12:40PM 11.5° Cloudy calm

5. Downstream from Carpenter Creek	0	0	0	0	0
	1:50PM 14.6° Sunny, Clear	4:30PM 13.1 ° Sunny, windy	11:40AM 11:4° Sunny, calm	10:05AM 11.8° Calm overcast	12:30PM 10.5° Cloudy calm
6. Roseberry, downstream Wilson Creek	0	38	0	0	0
	3:10PM 12:6 Windy	9:40AM 12.3 ° Clear, Sunny,	10:00AM 11:9° Sunny, calm	10:45AM 11.5° Calm overcast	1:05PM 11.5° Cloudy calm
7. Hills, in weed bed in front of houses	1	0	2	0	0
	4:10PM 14.9 Sunny, calm	4:00PM 13.0° Clear, Sunny, windy	10:55AM 10:55° Sunny, calm	11:45AM 11.5° Calm overcast	1:45PM 10.5° Cloudy calm

**Passmore Laboratory Ltd. complies with methods and certification through the Standards Council of Canada**

*Background:*

Due to the fact that sample filtrates are cultured and 44.5° C, the presence of Fecal coliforms indicate recent contamination from a warm blooded animal/human source. Although the test has a long history in assessing water quality, Fecal coliforms per se. are not implicated in human infection. The presence of E.coli, a sub group of the Fecal Coliform group is considered a better indication for human illness. In fact, a study that correlated Fecal counts with E.coli in Slocan River samples was done in 1997-2000. Findings suggest a high correlation between these groups e.g. the majority of Fecal counts were E.coli.(1).

*Comment on Findings:*

The Provincial Standard for Fecal counts in “direct contact” water is 200/100ml. Drinking water standards are 0/100ml. Fecal coliforms counts are expected to be low in pristine lakes like the Slocan. However, older studies (1975 –1981) done on Windermere lake in our region, showed relatively high levels (3.3 MPN/100 ml geometric mean). Here, residential shoreline development is a concern. (2). Historically, studies done on the Slocan River, show elevated counts after rain events during late Summer and early Fall. This is likely due to runoff from agriculture and/or septic leaching. The counts drop quickly with lower water temperatures in Fall with few organisms detected when water temperatures drop below 10 °degrees C. (1).

Regarding the two high counts (New Denver, Oct 9<sup>th</sup> and Roseberry Oct 14<sup>th</sup>) - these kind of events are seen in other local lakes. Specifically, the west arm of Kootenay lake where a Health Inspector informed us that occasional elevated counts do occur and that counts may be the result of sporadic nutrient input from animal/human sources.

Regarding the counts at two sites - Silvertown and Hills: a trend may exist, however counts are low and seasonally appropriate sampling (late August, September) is recommended

1. Winlaw Watershed Committee, 2001 Slocan Valley Water Quantity and Quality Monitoring Program, Year 5
2. Ambient Water Quality Objectives for Columbia Lake and Windermere Lake, overview report, Ministry of Environment , 1981.

Respectfully Submitted,  
Jennifer Yeow, Microbiologist, Passmore Laboratory

## APPENDIX B:

### RESULTS OF GENERAL PARAMETERS

Depth	13-Oct-08				Averages per depth	19-Oct-08				Averages per depth
	site #1	site #2	site #3	site #4		site #1	site #2	site #3	site #4	
	Conduct	Conduct	Conduct	Conduct		Conduct	Conduct	Conduct	Conduct	
5	85	86	89.00	89.00	87.25	86	86	90	91	88.25
10	85	86	89.00	90.00	87.50	86	86	90	91	88.25
15	86	86	89.00	92.00	88.25	86	86	90	92	88.50
20	92	87	91.00	93.00	90.75	86	86	92	93	89.25
25	95	94	93.00	94.00	94.00	90	89	94	96	92.25
30	97	96	95.00	99.00	96.75	94	93	97	98	95.50
35	97	97	96.00	98.00	97.00	95	94	98	99	96.50
40	97	97	97.00	99.00	97.50	96	95	98	99	97.00
45	97	97	97.00	98.00	97.25	97	96	98	98	97.25
50	97	97	97.00	98.00	97.25	97	97	98	95	96.75
55	97	97	98.00	98.00	97.50	97	97	98	99	97.75
60	97	97	98.00	98.00	97.50	97	97	98	99	97.75

Depth	26-Oct-08				Averages per depth	02-Nov-08				Averages per depth
	site #1	site #2	site #3	site #4		site #1	site #2	site #3	site #4	
	Conduct	Conduct	Conduct	Conduct		Conduct	Conduct	Conduct	Conduct	
5	86.00	87.00	88.00	90.00	87.75	86.00	87.00	89.00	91.00	88.25
10	86.00	87.00	89.00	91.00	88.25	86.00	87.00	90.00	91.00	88.50
15	86.00	87.00	90.00	91.00	88.50	86.00	87.00	90.00	92.00	88.75
20	87.00	87.00	91.00	91.00	89.00	85.00	87.00	91.00	92.00	88.75
25	90.00	92.00	95.00	94.00	92.75	94.00	93.00	94.00	97.00	94.50
30	94.00	95.00	96.00	96.00	95.25	96.00	96.00	96.00	96.00	96.00
35	96.00	97.00	97.00	99.00	97.25	97.00	97.00	97.00	98.00	97.25
40	96.00	97.00	97.00	99.00	97.25	97.00	97.00	98.00	98.00	97.50
45	97.00	97.00	97.00	99.00	97.50	97.00	97.00	98.00	99.00	97.75
50	97.00	97.00	97.00	99.00	97.50	97.00	97.00	98.00	99.00	97.75
55	97.00	97.00	98.00	99.00	97.75	97.00	97.00	98.00	99.00	97.75
60	97.00	97.00	97.00	98	97.25	97.00	97.00	98.00	99.00	97.75

Depth	09-Nov-08				Averages per depth
	site #1	site #2	site #3	site #4	
	Conduct	Conduct	Conduct	Conduct	
5	87.00	87.00	91.00	91.00	89.00
10	87.00	87.00	91.00	91.00	89.00
15	87.00	87.00	91.00	93.00	89.50
20	87.00	87.00	91.00	97.00	90.50
25	87.00	91.00	95.00	99.00	93.00
30	93.00	94.00	97.00	98.00	95.50
35	94.00	96.00	98.00	99.00	96.75
40	96.00	97.00	98.00	98.00	97.25
45	97.00	97.00	98.00	98.00	97.50
50	97.00	97.00	98.00	99.00	97.75
55	97.00	97.00	98.00	98.00	97.50
60	97.00	97.00	98.00	98.00	97.50



Depth	13-Oct-08				Averages per depth	19-Oct-08				Averages per depth
	site #1	site #2	site #3	site #4		site #1	site #2	site #3	site #4	
	DO %	DO %	DO %	DO %		DO %	DO %	DO %	DO %	
5	97.5	96.4	96.1	94.9	96.23	93.4	96.1	97.5	97.6	96.15
10	96.8	96.4	95.9	95.6	96.18	92.9	95.2	96.5	96.6	95.30
15	96.4	96.1	96.6	94.7	95.95	92.7	94.9	96.1	95.9	94.90
20	97.7	96.2	99.3	96.9	97.53	92.6	94.6	96.2	95.2	94.65
25	93.7	96.7	96.7	93.5	95.15	94.1	95.6	94.5	91.3	93.88
30	90.4	92.9	92.5	90.8	91.65	92.5	95	91.7	88.3	91.88
35	89.6	90.7	90.2	88.0	89.63	90.3	93.2	88.9	86.4	89.70
40	88.4	88.9	88.8	86.3	88.10	88	91.4	87.6	85.5	88.13
45	87.2	88.0	87.8	85.7	87.18	85.9	89.2	86.8	85.3	86.80
50	86.8	87.5	87.4	85.8	86.88	84.9	87.9	86.5	85.1	86.10
55	86.6	87.3	86.6	86.1	86.65	84.5	86.9	86.3	84.8	85.63
60	86.3	87.1	86.8	85.9	86.53	84.4	85.9	86	84.8	85.28

Depth	26-Oct-08				Averages per depth	02-Nov-08				Averages per depth
	site #1	site #2	site #3	site #4		site #1	site #2	site #3	site #4	
	DO %	DO %	DO %	DO %		DO %	DO %	DO %	DO %	
5	91.20	94.40	95.00	95.20	93.95	92.00	90.20	90.00	89.50	90.43
10	90.90	92.20	93.60	93.70	92.60	90.90	89.90	89.80	89.40	90.00
15	90.60	92.10	93.40	93.30	92.35	90.20	89.50	89.50	89.30	89.63
20	90.70	91.60	93.40	93.10	92.20	90.10	89.00	89.30	89.00	89.35
25	90.00	92.60	90.40	92.50	91.38	89.40	88.80	88.70	87.70	88.65
30	89.10	90.10	86.30	87.20	88.18	88.00	87.10	85.60	86.20	86.73
35	87.50	87.40	85.60	84.10	86.15	86.10	85.60	84.60	83.50	84.95
40	86.10	86.50	85.20	83.80	85.40	84.70	84.80	83.70	82.60	83.95
45	84.70	85.40	84.70	83.60	84.60	83.80	83.80	83.30	81.90	83.20
50	83.20	84.80	84.70	83.40	84.03	83.00	83.20	83.10	81.80	82.78
55	82.60	84.40	84.60	83.40	83.75	82.60	82.90	83.00	81.80	82.58
60	82.6	84.2	84.4	83.4	83.65	82.5	82.7	83	81.9	82.53

Depth	09-Nov-08				Averages per depth
	site #1	site #2	site #3	site #4	
	DO %	DO %	DO %	DO %	
5	83.50	83.60	84.00	85.30	84.10
10	83.10	83.30	83.70	84.80	83.73
15	83.00	83.20	83.50	84.60	83.58
20	82.90	83.10	83.50	82.40	82.98
25	82.70	83.00	82.90	79.00	81.90
30	82.40	82.40	80.00	77.90	80.68
35	81.90	81.10	78.40	77.40	79.70
40	80.70	79.40	78.00	77.20	78.83
45	78.30	78.50	77.70	77.00	77.88
50	77.60	77.60	77.20	77.50	77.48
55	77.20	77.10	77.10	77.50	77.23
60	75.40	76.80	77.10	77.60	76.73

13-Oct-08

19-Oct-08

Depth	site #1	site #2	site #3	site #4	Averages per depth	site #1	site #2	site #3	site #4	Averages per depth
	DO mg	DO mg	DO mg	DO mg		DO mg	DO mg	DO mg	DO mg	
5	10.29	10.13	10.17	10.09	10.17	10.07	10.26	10.54	10.58	10.36
10	10.24	10.13	10.16	10.20	10.18	10.03	10.2	10.43	10.51	10.29
15	10.22	10.13	10.37	10.22	10.24	10.02	10.15	10.4	10.46	10.26
20	11.34	10.36	11.26	10.80	10.94	10.02	10.14	10.92	11.27	10.59
25	11.64	11.58	11.50	11.10	11.46	10.63	10.73	11.39	11.3	11.01
30	11.53	11.61	11.33	11.23	11.43	11.17	11.4	11.56	11.22	11.34
35	11.51	11.55	11.26	11.10	11.36	11.23	11.37	11.38	11.1	11.27
40	11.42	11.46	11.32	11.06	11.32	11.16	11.45	11.28	11.06	11.24
45	11.32	11.38	11.28	11.06	11.26	11.06	11.37	11.25	11.08	11.19
50	11.31	11.38	11.29	11.12	11.28	11	11.31	11.25	11.06	11.16
55	11.3	11.38	11.23	11.20	11.28	10.99	11.25	11.25	11.03	11.13
60	11.28	11.37	11.28	11.18	11.28	11	11.2	11.23	11.05	11.12

26-Oct-08

02-Nov-08

Depth	site #1	site #2	site #3	site #4	Averages per depth	site #1	site #2	site #3	site #4	Averages per depth
	DO mg	DO mg	DO mg	DO mg		DO mg	DO mg	DO mg	DO mg	
5	10.08	10.29	10.43	10.56	10.34	10.28	10.03	10.01	10.07	10.10
10	10.06	10.13	10.32	10.41	10.23	10.17	9.99	10.03	10.07	10.07
15	10.02	10.11	10.33	10.38	10.21	10.12	9.97	10.01	10.06	10.04
20	10.01	10.08	10.53	10.39	10.25	10.16	9.95	10.03	10.05	10.05
25	10.38	10.93	11.01	10.72	10.76	10.80	10.63	10.62	10.17	10.56
30	10.85	11.16	10.92	10.81	10.94	10.99	10.81	10.64	10.58	10.76
35	10.93	11.07	11.01	10.73	10.94	10.93	10.89	10.72	10.53	10.77
40	10.94	11.06	11.01	10.76	10.94	10.89	10.89	10.72	10.54	10.76
45	10.88	11.06	11.00	10.77	10.93	10.84	10.84	10.76	10.53	10.74
50	10.78	11.03	11.03	10.77	10.90	10.78	10.81	10.77	10.59	10.74
55	10.74	11.01	11.01	10.81	10.89	10.76	10.80	10.80	10.61	10.74
60	10.75	11.01	11.01	10.84	10.90	10.77	10.80	10.81	10.64	10.76

09-Nov-08

Depth	site #1	site #2	site #3	site #4	Averages per depth
	DO mg	DO mg	DO mg	DO mg	
5	9.54	9.47	9.54	9.70	9.56
10	9.50	9.45	9.51	9.65	9.53
15	9.49	9.44	9.51	9.64	9.52
20	9.48	9.45	9.51	10.22	9.67
25	9.50	9.66	9.94	10.01	9.78
30	9.84	10.06	10.08	10.03	10.00
35	10.00	10.14	10.00	10.01	10.04
40	10.00	10.12	10.06	10.02	10.05
45	9.90	10.10	10.06	10.01	10.02
50	9.98	10.05	10.03	10.11	10.04
55	9.98	10.02	10.03	10.11	10.04
60	9.79	10.01	10.05	10.12	9.99

Depth	13-Oct-08				Averages per depth	19-Oct-08				Averages per depth
	site #1	site #2	site #3	site #4		site #1	site #2	site #3	site #4	
	pH	pH	pH	pH		pH	pH	pH	pH	
5	7.45	7.7	7.60	7.14	7.47	7.81	7.68	7.77	7.69	7.74
10	7.58	7.72	7.67	7.25	7.56	7.82	7.76	7.78	7.74	7.78
15	7.66	7.76	7.69	7.37	7.62	7.8	7.78	7.8	7.74	7.78
20	7.69	7.78	7.70	7.38	7.64	7.81	7.81	7.84	7.79	7.81
25	7.65	7.83	7.69	7.41	7.65	7.77	7.83	7.84	7.71	7.79
30	7.64	7.77	7.66	7.39	7.62	7.76	7.82	7.81	7.67	7.77
35	7.61	7.73	7.62	7.57	7.63	7.73	7.77	7.76	7.65	7.73
40	7.6	7.71	7.61	7.54	7.62	7.69	7.74	7.71	7.61	7.69
45	7.59	7.69	7.59	7.53	7.60	7.68	7.71	7.67	7.6	7.67
50	7.58	7.66	7.52	7.52	7.57	7.65	7.67	7.65	7.6	7.64
55	7.57	7.67	7.53	7.51	7.57	7.63	7.66	7.64	7.58	7.63
60	7.57	7.66	7.52	7.50	7.56	7.63	7.66	7.63	7.58	7.63

Depth	26-Oct-08				Averages per depth	02-Nov-08				Averages per depth
	site #1	site #2	site #3	site #4		site #1	site #2	site #3	site #4	
	pH	pH	pH	pH		pH	pH	pH	pH	
5	7.80	7.70	7.73	7.76	7.75	7.91	7.50	7.50	7.50	7.60
10	7.75	7.77	7.76	7.78	7.77	7.78	7.54	7.56	7.53	7.60
15	7.74	7.78	7.80	7.80	7.78	7.70	7.57	7.57	7.56	7.60
20	7.75	7.81	7.79	7.83	7.80	7.69	7.56	7.61	7.58	7.61
25	7.73	7.75	7.79	7.80	7.77	7.62	7.61	7.66	7.60	7.62
30	7.73	7.77	7.77	7.74	7.75	7.61	7.55	7.57	7.62	7.59
35	7.69	7.74	7.67	7.70	7.70	7.54	7.51	7.53	7.53	7.53
40	7.66	7.70	7.66	7.68	7.68	7.50	7.46	7.49	7.49	7.49
45	7.64	7.68	7.63	7.67	7.66	7.46	7.43	7.46	7.44	7.45
50	7.63	7.68	7.65	7.66	7.66	7.44	7.40	7.44	7.42	7.43
55	7.62	7.67	7.63	7.66	7.65	7.41	7.38	7.42	7.41	7.41
60	7.61	7.67	7.63	7.65	7.64	7.41	7.38	7.41	7.41	7.40

Depth	09-Nov-08				Averages per depth
	site #1	site #2	site #3	site #4	
	pH	pH	pH	pH	
5	7.80	7.63	7.62	7.63	7.67
10	7.70	7.64	7.66	7.65	7.66
15	7.70	7.64	7.69	7.67	7.68
20	7.70	7.65	7.67	7.69	7.68
25	7.70	7.64	7.71	7.61	7.67
30	7.60	7.64	7.67	7.57	7.62
35	7.60	7.62	7.59	7.54	7.59
40	7.60	7.58	7.56	7.51	7.56
45	7.50	7.54	7.54	7.49	7.52
50	7.50	7.52	7.51	7.48	7.50
55	7.49	7.48	7.49	7.46	7.48
60	7.45	7.48	7.47	7.46	7.47

13-Oct-08

19-Oct-08

Depth	site #1	site #2	site #3	site #4	Averages per depth	site #1	site #2	site #3	site #4	Averages per depth
	TDS	TDS	TDS	TDS		TDS	TDS	TDS	TDS	
5	0.056	0.056	0.058	0.058	0.057	0.056	0.056	0.058	0.059	0.057
10	0.056	0.056	0.058	0.059	0.057	0.056	0.056	0.058	0.059	0.057
15	0.056	0.056	0.058	0.060	0.058	0.056	0.056	0.058	0.060	0.058
20	0.059	0.056	0.059	0.060	0.059	0.056	0.056	0.060	0.061	0.058
25	0.062	0.061	0.061	0.061	0.061	0.058	0.058	0.061	0.063	0.060
30	0.063	0.062	0.062	0.065	0.063	0.061	0.061	0.063	0.064	0.062
35	0.063	0.063	0.063	0.064	0.063	0.061	0.061	0.063	0.064	0.062
40	0.063	0.063	0.063	0.064	0.063	0.062	0.062	0.065	0.064	0.063
45	0.063	0.063	0.063	0.064	0.063	0.063	0.063	0.064	0.064	0.064
50	0.063	0.063	0.063	0.064	0.063	0.063	0.063	0.064	0.064	0.064
55	0.063	0.063	0.064	0.064	0.064	0.063	0.063	0.063	0.064	0.063
60	0.063	0.063	0.063	0.064	0.063	0.063	0.063	0.064	0.064	0.064

26-Oct-08

02-Nov-08

Depth	site #1	site #2	site #3	site #4	Averages per depth	site #1	site #2	site #3	site #4	Averages per depth
	TDS	TDS	TDS	TDS		TDS	TDS	TDS	TDS	
5	0.056	0.056	0.057	0.059	0.057	0.056	0.057	0.058	0.059	0.058
10	0.056	0.057	0.058	0.059	0.058	0.056	0.057	0.058	0.059	0.058
15	0.056	0.056	0.058	0.059	0.057	0.056	0.056	0.059	0.060	0.058
20	0.056	0.056	0.059	0.059	0.058	0.055	0.056	0.059	0.060	0.058
25	0.058	0.060	0.062	0.061	0.060	0.061	0.061	0.061	0.063	0.062
30	0.061	0.062	0.063	0.063	0.062	0.062	0.062	0.062	0.062	0.062
35	0.062	0.063	0.063	0.064	0.063	0.063	0.063	0.063	0.064	0.063
40	0.063	0.063	0.063	0.064	0.063	0.063	0.063	0.064	0.064	0.064
45	0.063	0.063	0.063	0.064	0.063	0.063	0.063	0.064	0.064	0.064
50	0.063	0.063	0.063	0.064	0.063	0.063	0.063	0.064	0.064	0.064
55	0.063	0.063	0.063	0.064	0.063	0.063	0.063	0.064	0.064	0.064
60	0.063	0.063	0.063	0.064	0.063	0.063	0.063	0.063	0.064	0.063

09-Nov-08

Depth	site #1	site #2	site #3	site #4	Averages per depth
	TDS	TDS	TDS	TDS	
5	0.056	0.057	0.059	0.059	0.058
10	0.056	0.057	0.059	0.059	0.058
15	0.057	0.057	0.059	0.060	0.058
20	0.057	0.057	0.059	0.063	0.059
25	0.056	0.059	0.062	0.064	0.060
30	0.060	0.061	0.063	0.064	0.062
35	0.061	0.062	0.063	0.064	0.063
40	0.062	0.063	0.063	0.064	0.063
45	0.063	0.063	0.064	0.064	0.064
50	0.063	0.063	0.064	0.064	0.064
55	0.063	0.063	0.064	0.064	0.064
60	0.063	0.063	0.064	0.064	0.064

13-Oct-08					19-Oct-08					
Depth	site #1	site #2	site #3	site #4	Averages per depth (Oct 13)	site #1	site #2	site #3	site #4	Averages per depth (Oct 19)
	Temp. (celsius)	Temp. (celsius)	Temp. (celsius)	Temp. (celsius)		Temp. (celsius)	Temp. (celsius)	Temp. (celsius)	Temp. (celsius)	
5	12.85	13.11	12.77	12.63	12.84	11.88	12.28	11.83	11.65	11.91
10	12.80	13.08	12.71	12.50	12.77	11.88	12.28	11.8	11.55	11.88
15	12.72	13.01	12.18	11.93	12.46	11.84	12.29	11.78	11.46	11.84
20	8.75	12.14	9.78	10.54	10.30	11.82	12.27	9.76	8.13	10.50
25	6.03	7.63	7.65	7.80	7.28	9.49	10.21	7.4	6.09	8.30
30	5.07	5.77	6.57	6.27	5.92	7.12	7.35	5.44	5.14	6.26
35	4.69	5.06	5.78	5.42	5.24	6.05	6.65	4.84	4.74	5.57
40	4.51	4.58	5.04	4.77	4.73	5.22	5.8	4.6	4.47	5.02
45	4.32	4.45	4.68	4.58	4.51	4.62	4.98	4.4	4.36	4.59
50	4.19	4.29	4.51	4.43	4.36	4.45	4.62	4.27	4.31	4.41
55	4.14	4.22	4.41	4.29	4.27	4.3	4.45	4.2	4.28	4.31
60	4.11	4.13	4.31	4.26	4.20	4.22	4.21	4.15	4.23	4.20

26-Oct-08					02-Nov-08					
Depth	site #1	site #2	site #3	site #4	Averages per depth (Oct 26)	site #1	site #2	site #3	site #4	Averages per depth (Nov 2)
	Temp. (celsius)	Temp. (celsius)	Temp. (celsius)	Temp. (celsius)		Temp. (celsius)	Temp. (celsius)	Temp. (celsius)	Temp. (celsius)	
5	10.85	11.15	11.01	10.68	10.92	10.36	10.66	10.61	10.10	10.43
10	10.84	11.15	11.01	10.66	10.92	10.36	10.64	10.42	10.09	10.38
15	10.83	11.15	10.90	10.59	10.87	10.30	10.55	10.36	10.06	10.32
20	10.59	11.10	10.05	10.47	10.55	10.01	10.36	10.16	9.90	10.11
25	8.83	8.15	6.81	8.93	8.18	7.16	7.55	7.48	8.69	7.72
30	6.93	6.04	5.38	6.17	6.13	5.79	5.99	5.98	6.49	6.06
35	5.83	5.29	4.73	5.03	5.22	5.17	5.13	5.20	5.54	5.26
40	5.20	4.99	4.51	4.83	4.88	4.72	4.80	4.85	5.06	4.86
45	4.75	4.46	4.39	4.67	4.57	4.49	4.49	4.54	4.70	4.56
50	4.46	4.27	4.27	4.50	4.38	4.35	4.32	4.41	4.46	4.39
55	4.33	4.17	4.23	4.39	4.28	4.23	4.20	4.29	4.41	4.28
60	4.24	4.12	4.18	4.30	4.21	4.15	4.10	4.22	4.33	4.20

09-Nov-08					
Depth	site #1	site #2	site #3	site #4	Averages per depth (Nov 9)
	Temp. (celsius)	Temp. (celsius)	Temp. (celsius)	Temp. (celsius)	
5	9.46	9.80	9.72	9.63	9.65
10	9.44	9.78	9.69	9.62	9.63
15	9.41	9.75	9.66	9.56	9.60
20	9.40	9.66	9.62	6.15	8.71
25	9.29	8.64	7.61	5.20	7.69
30	7.65	6.88	5.48	4.73	6.19
35	6.80	5.85	5.03	4.48	5.54
40	5.81	5.07	4.64	4.38	4.98
45	5.05	4.68	4.47	4.29	4.62
50	4.70	4.46	4.32	4.22	4.43
55	4.51	4.30	4.28	4.17	4.32
60	4.39	4.21	4.21	4.16	4.24

Date	site #1		site #2		site #3		site #4		AVER	VAR	STDEV	MIN	MAX	T-TESTS						
	Depth (m)	Total Hardness	Total Hardness	Total Hardness	Total Hardness	Total Hardness	Sites # 1 & 2	Sites # 1 & 3						Sites # 1 & 4	Sites # 2 & 3	Sites # 2 & 4	Sites # 3 & 4			
13-Oct	5	37.0	36.5	37.2	37.1															
19-Oct	5	43.3	40.6	42.8	43.6			39.6	5.5	2.3	37.0	43.3	Site 1	0.8510	0.1865	0.0944	0.1838	0.1135	0.1369	
26-Oct	5	38.4	39.6	38.9	38.9			39.5	2.9	1.7	36.5	40.6	Site 2							
02-Nov	5	39.7	40.2	40.8	42.3			40.2	4.8	2.2	37.2	42.8	Site 3							
09-Nov	5	39.6	40.4	41.3	41.8			40.7	7.1	2.7	37.1	43.6	Site 4							

Date	site #1		site #2		site #3		site #4		AVER	VAR	STDEV	MIN	MAX	T-TESTS						
	Depth (m)	Total Hardness	Total Hardness	Total Hardness	Total Hardness	Total Hardness	Sites # 1 & 2	Sites # 1 & 3						Sites # 1 & 4	Sites # 2 & 3	Sites # 2 & 4	Sites # 3 & 4			
13-Oct	50	40.2	41.5	40.9	41.2															
19-Oct	50	45.0	45.9	46.5	45.7			42.7	4.0	2.0	40.2	45.0	Site 1	0.3936	0.3783	0.0724	0.9435	0.1580	0.2304	
26-Oct	50	41.1	42.2	41.8	43.9			43.1	3.0	1.7	41.5	45.9	Site 2							
02-Nov	50	43.8	43.6	44.3	44.9			43.2	5.0	2.2	40.9	46.5	Site 3							
09-Nov	50	43.5	42.5	42.3	43.5			43.8	2.9	1.7	41.2	45.7	Site 4							

Date	site #1		site #2		site #3		site #4		AVER	VAR	STDEV	MIN	MAX	T-TESTS						
	Depth (m)	Conductivity	Conductivity	Conductivity	Conductivity	Conductivity	Sites # 1 & 2	Sites # 1 & 3						Sites # 1 & 4	Sites # 2 & 3	Sites # 2 & 4	Sites # 3 & 4			
13-Oct	5	85	86	89	89															
19-Oct	5	86	86	90	91			86	1	1	85	87	Site 1	0.0705	0.0011	0.0001	0.0086	0.0005	0.0890	
26-Oct	5	86	87	88	90			87	0	1	86	87	Site 2							
02-Nov	5	86	87	89	91			89	1	1	88	91	Site 3							
09-Nov	5	87	87	91	91			90	1	1	89	91	Site 4							

Date	site #1		site #2		site #3		site #4		AVER	VAR	STDEV	MIN	MAX	T-TESTS						
	Depth (m)	Conductivity	Conductivity	Conductivity	Conductivity	Conductivity	Sites # 1 & 2	Sites # 1 & 3						Sites # 1 & 4	Sites # 2 & 3	Sites # 2 & 4	Sites # 3 & 4			
13-Oct	50	97	97	97	98															
19-Oct	50	97	97	98	95			97	0	0	97	97	Site 1	#DIV/0!	0.0705	0.2663	0.0705	0.2663	0.6702	
26-Oct	50	97	97	97	99			97	0	0	97	97	Site 2							
02-Nov	50	97	97	98	99			98	0	1	97	98	Site 3							
09-Nov	50	97	97	98	99			98	3	2	95	99	Site 4							

Date	site #1		site #2		site #3		site #4		AVER	VAR	STDEV	MIN	MAX	T-TESTS						
	Depth (m)	Temperature	Temperature	Temperature	Temperature	Temperature	Sites # 1 & 2	Sites # 1 & 3						Sites # 1 & 4	Sites # 2 & 3	Sites # 2 & 4	Sites # 3 & 4			
13-Oct	5	12.85	13.11	12.77	12.63															
19-Oct	5	11.88	12.28	11.83	11.65			11.08	1.74	1.32	9.46	12.85	Site 1	0.0002	0.2126	0.1480	0.0532	0.0042	0.0307	
26-Oct	5	10.85	11.15	11.01	10.68			11.40	1.72	1.31	9.80	13.11	Site 2							
02-Nov	5	10.36	10.66	10.61	10.10			11.19	1.36	1.17	9.72	12.77	Site 3							
09-Nov	5	9.46	9.80	9.72	9.63			10.94	1.46	1.21	9.63	12.63	Site 4							

Date	site #1		site #2		site #3		site #4		AVER	VAR	STDEV	MIN	MAX	T-TESTS						
	Depth (m)	Temperature	Temperature	Temperature	Temperature	Temperature	Sites # 1 & 2	Sites # 1 & 3						Sites # 1 & 4	Sites # 2 & 3	Sites # 2 & 4	Sites # 3 & 4			
13-Oct	50	4.19	4.29	4.51	4.43															
19-Oct	50	4.45	4.62	4.27	4.31			4.43	0.03	0.19	4.19	4.70	Site 1	0.6575	0.5731	0.7308	0.7320	0.9459	0.6595	
26-Oct	50	4.46	4.27	4.27	4.50			4.39	0.02	0.15	4.27	4.62	Site 2							
02-Nov	50	4.35	4.32	4.41	4.46			4.36	0.01	0.10	4.27	4.51	Site 3							
09-Nov	50	4.70	4.46	4.32	4.22			4.38	0.01	0.12	4.22	4.50	Site 4							

Date	site #1		site #2		site #3		site #4		AVER	VAR	STDEV	MIN	MAX	T-TESTS						
	Depth (m)	pH	pH	pH	pH	pH	Sites # 1 & 2	Sites # 1 & 3						Sites # 1 & 4	Sites # 2 & 3	Sites # 2 & 4	Sites # 3 & 4			
13-Oct	5	7.45	7.70	7.60	7.14															
19-Oct	5	7.81	7.68	7.77	7.69			7.75	0.03	0.18	7.45	7.91	Site 1	0.3493	0.2975	0.0343	0.9515	0.4459	0.3378	
26-Oct	5	7.80	7.70	7.73	7.76			7.64	0.01	0.08	7.50	7.70	Site 2							
02-Nov	5	7.91	7.50	7.50	7.50			7.64	0.01	0.11	7.50	7.77	Site 3							
09-Nov	5	7.80	7.63	7.62	7.63			7.54	0.06	0.25	7.14	7.76	Site 4							

Date	site #1		site #2		site #3		site #4		AVER	VAR	STDEV	MIN	MAX	T-TESTS						
	Depth (m)	pH	pH	pH	pH	pH	Sites # 1 & 2	Sites # 1 & 3						Sites # 1 & 4	Sites # 2 & 3	Sites # 2 & 4	Sites # 3 & 4			
13-Oct	50	7.58	7.66	7.52	7.52															
19-Oct	50	7.65	7.67	7.65	7.60			7.56	0.01	0.09	7.44	7.65	Site 1	0.2614	0.6903	0.2007	0.3400	0.1359	0.1671	
26-Oct	50	7.63	7.68	7.65	7.66			7.59	0.02	0.12	7.40	7.68	Site 2							
02-Nov	50	7.44	7.40	7.44	7.42			7.55	0.01	0.09	7.44	7.65	Site 3							
09-Nov	50	7.50	7.52	7.51	7.48			7.54	0.01	0.10	7.42	7.66	Site 4							







## APPENDIX C:

### CARO LABORATORY RESULTS

## CERTIFICATE OF ANALYSIS

**CLIENT****Galena Environmental Ltd.**

8075 Upper Galena Farm Road- PO Box 37

Silverton BC

VOG 2B0

TEL

1-250-358-2872

FAX

1-250-358-2114

**ATTENTION****Luce Paquin****RECEIVED / TEMP  
REPORTED**

Oct-15-08 09:35 / 3 °C

Jan-28-09

**COC #(s)**

05144

**WORK ORDER #**

K8J0469

**PROJECT FILE**

Slocan Lake Stewardship Society

**General Comments:**

CARO Analytical Services employs methods which are based on those found in "Standard Methods for the Examination of Water and Wastewater", 21st Edition, 2005, published by the American Public Health Association (APHA); US EPA protocols found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846", 3rd Edition; and protocols published by the British Columbia Ministry of Environment (BCMOE).

Methods not described in these publications are conducted according to procedures accepted by appropriate regulatory agencies, and/or are done in accordance with recognized professional standards using accepted testing methodologies and quality control efforts except where otherwise agreed to by the client.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Samples will be disposed of 30 days after the test report has been issued unless otherwise agreed to in writing.

- All solids results are reported on a dry weight basis unless otherwise noted
- Units:
  - mg/kg = milligrams per kilogram, equivalent to parts per million (ppm)
  - mg/L = milligrams per litre, equivalent to parts per million (ppm)
  - ug/L = micrograms per litre, equivalent to parts per billion (ppb)
  - ug/g = micrograms per gram, equivalent to parts per million (ppm)
  - ug/m<sup>3</sup> Air = micrograms per cubic meter of air
- "RDL" Reported detection limit
- "<" Less than reported detection limit
- "AO" Aesthetic objective
- "MAC" Maximum acceptable concentration (health-related guideline)
- "LAB" RMD = CARO - Richmond location, KEL = CARO - Kelowna location, SUB = Subcontracted

**Please contact CARO if more information is needed.**

**CARO Analytical Services**

Final Review Per:

**Jennifer Shanko, ASCT**

Coordinator, Operations/Admin

CARO Analytical Services (Kelowna)

102 - 3677 Highway 97N Kelowna, BC Canada V1X 5C3

Tel: (250) 765-9646 Fax: (250) 765-3893 Web: www.caro.ca

Page 1 of 18

## NOTES AND COMMENTS

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewardship Society

**WORK ORDER #**  
**REPORTED**

K8J0469  
Jan-28-09

---

This is an amended report. QC data has been attached, as per clients request.

## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0469  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### General Parameters

**Site #1 - 5 meters (K8J0469-01) Matrix: Water Sampled: Oct-13-08 12:30**

Hardness, Total (Total as CaCO <sub>3</sub> )	<b>37.0</b>	2.07	mg/L	Oct-21-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.03</b>	0.01	mg/L	Oct-16-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.03</b>	0.01	mg/L	Oct-16-08	APHA 4110 B	KEL	HT
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Oct-16-08	APHA 4110 B	KEL	HT
Nitrogen, Total Kjeldahl	<b>0.11</b>	0.05	mg/L	Oct-16-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.14</b>	0.05	mg/L	Oct-16-08	Calc	KEL	
Phosphorus, Total	<0.01	0.01	mg/L	Oct-20-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Oct-17-08	APHA 2540 D	KEL	

**Site #1 - 50 meters (K8J0469-02) Matrix: Water Sampled: Oct-13-08 12:35**

Hardness, Total (Total as CaCO <sub>3</sub> )	<b>40.2</b>	2.07	mg/L	Oct-21-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.08</b>	0.01	mg/L	Oct-16-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.08</b>	0.01	mg/L	Oct-16-08	APHA 4110 B	KEL	HT
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Oct-16-08	APHA 4110 B	KEL	HT
Nitrogen, Total Kjeldahl	<b>0.06</b>	0.05	mg/L	Oct-16-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.13</b>	0.05	mg/L	Oct-16-08	Calc	KEL	
Phosphorus, Total	<0.01	0.01	mg/L	Oct-20-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Oct-17-08	APHA 2540 D	KEL	

**Site #2 - 5 meters (K8J0469-03) Matrix: Water Sampled: Oct-13-08 11:55**

Hardness, Total (Total as CaCO <sub>3</sub> )	<b>36.5</b>	2.07	mg/L	Oct-21-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<0.01	0.01	mg/L	Oct-16-08	Calc	KEL	
Nitrogen, Nitrate as N	<0.01	0.01	mg/L	Oct-16-08	APHA 4110 B	KEL	HT
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Oct-16-08	APHA 4110 B	KEL	HT
Nitrogen, Total Kjeldahl	<b>0.06</b>	0.05	mg/L	Oct-16-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.06</b>	0.05	mg/L	Oct-16-08	Calc	KEL	
Phosphorus, Total	<0.01	0.01	mg/L	Oct-20-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Oct-17-08	APHA 2540 D	KEL	

**Site #2 - 50 meters (K8J0469-04) Matrix: Water Sampled: Oct-13-08 11:55**

Hardness, Total (Total as CaCO <sub>3</sub> )	<b>41.5</b>	2.07	mg/L	Oct-21-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.08</b>	0.01	mg/L	Oct-16-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.08</b>	0.01	mg/L	Oct-16-08	APHA 4110 B	KEL	HT
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Oct-16-08	APHA 4110 B	KEL	HT
Nitrogen, Total Kjeldahl	<0.05	0.05	mg/L	Oct-16-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.08</b>	0.05	mg/L	Oct-16-08	Calc	KEL	
Phosphorus, Total	<0.01	0.01	mg/L	Oct-20-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Oct-17-08	APHA 2540 D	KEL	

**Site #3 - 5 meters (K8J0469-05) Matrix: Water Sampled: Oct-13-08 10:39**

Hardness, Total (Total as CaCO <sub>3</sub> )	<b>37.2</b>	2.07	mg/L	Oct-21-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.03</b>	0.01	mg/L	Oct-16-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.03</b>	0.01	mg/L	Oct-16-08	APHA 4110 B	KEL	HT
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Oct-16-08	APHA 4110 B	KEL	HT
Nitrogen, Total Kjeldahl	<b>0.06</b>	0.05	mg/L	Oct-16-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.09</b>	0.05	mg/L	Oct-16-08	Calc	KEL	

## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0469  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### General Parameters, Continued

**Site #3 - 5 meters (K8J0469-05) Matrix: Water Sampled: Oct-13-08 10:39, Continued**

Phosphorus, Total	<0.01	0.01	mg/L	Oct-20-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Oct-17-08	APHA 2540 D	KEL	

**Site #3 - 50 meters (K8J0469-06) Matrix: Water Sampled: Oct-13-08 10:45**

Hardness, Total (Total as CaCO3)	<b>40.9</b>	2.07	mg/L	Oct-21-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.08</b>	0.01	mg/L	Oct-16-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.08</b>	0.01	mg/L	Oct-16-08	APHA 4110 B	KEL	HT
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Oct-16-08	APHA 4110 B	KEL	HT
Nitrogen, Total Kjeldahl	<0.05	0.05	mg/L	Oct-16-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.08</b>	0.05	mg/L	Oct-16-08	Calc	KEL	
Phosphorus, Total	<0.01	0.01	mg/L	Oct-20-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Oct-17-08	APHA 2540 D	KEL	

**Site #4 - 5 meters (K8J0469-07) Matrix: Water Sampled: Oct-13-08 08:45**

Hardness, Total (Total as CaCO3)	<b>37.1</b>	2.07	mg/L	Oct-21-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.03</b>	0.01	mg/L	Oct-16-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.03</b>	0.01	mg/L	Oct-16-08	APHA 4110 B	KEL	HT
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Oct-16-08	APHA 4110 B	KEL	HT
Nitrogen, Total Kjeldahl	<b>0.10</b>	0.05	mg/L	Oct-16-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.14</b>	0.05	mg/L	Oct-16-08	Calc	KEL	
Phosphorus, Total	<0.01	0.01	mg/L	Oct-20-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Oct-17-08	APHA 2540 D	KEL	

**Site #4 - 50 meters (K8J0469-08) Matrix: Water Sampled: Oct-13-08 09:50**

Hardness, Total (Total as CaCO3)	<b>41.2</b>	2.07	mg/L	Oct-21-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.08</b>	0.01	mg/L	Oct-16-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.08</b>	0.01	mg/L	Oct-16-08	APHA 4110 B	KEL	HT
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Oct-16-08	APHA 4110 B	KEL	HT
Nitrogen, Total Kjeldahl	<0.05	0.05	mg/L	Oct-16-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.08</b>	0.05	mg/L	Oct-16-08	Calc	KEL	
Phosphorus, Total	<0.01	0.01	mg/L	Oct-20-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Oct-17-08	APHA 2540 D	KEL	

### Total Recoverable Metals by ICPMS

**Site #1 - 5 meters (K8J0469-01) Matrix: Water Sampled: Oct-13-08 12:30**

Aluminum	<0.050	0.050	mg/L	Oct-21-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Oct-21-08	EPA 6020A	RMD	
Barium	<b>0.023</b>	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Oct-21-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Oct-21-08	EPA 6020A	RMD	
Cadmium	<b>0.00014</b>	0.00010	mg/L	Oct-21-08	EPA 6020A	RMD	
Calcium	<b>12.2</b>	0.5	mg/L	Oct-21-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Oct-21-08	EPA 6020A	RMD	

**SAMPLE DATA**

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0469  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

**Total Recoverable Metals by ICPMS, Continued**

**Site #1 - 5 meters (K8J0469-01) Matrix: Water Sampled: Oct-13-08 12:30, Continued**

Cobalt	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Oct-21-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Oct-21-08	EPA 6020A	RMD	
Magnesium	<b>1.62</b>	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Oct-21-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Oct-21-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Oct-21-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Potassium	<b>0.45</b>	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Oct-21-08	EPA 6020A	RMD	
Silicon	<b>3.0</b>	1.0	mg/L	Oct-21-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Oct-21-08	EPA 6020A	RMD	
Sodium	<b>0.89</b>	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Strontium	<b>0.192</b>	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Oct-21-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Oct-21-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Oct-21-08	EPA 6020A	RMD	
Zinc	<b>0.012</b>	0.010	mg/L	Oct-21-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	

**Site #1 - 50 meters (K8J0469-02) Matrix: Water Sampled: Oct-13-08 12:35**

Aluminum	<0.050	0.050	mg/L	Oct-21-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Oct-21-08	EPA 6020A	RMD	
Barium	<b>0.023</b>	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Oct-21-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Oct-21-08	EPA 6020A	RMD	
Cadmium	<b>0.00019</b>	0.00010	mg/L	Oct-21-08	EPA 6020A	RMD	
Calcium	<b>13.2</b>	0.5	mg/L	Oct-21-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Oct-21-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Oct-21-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Oct-21-08	EPA 6020A	RMD	
Magnesium	<b>1.77</b>	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Oct-21-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Oct-21-08	EPA 6020A	RMD	

## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0469  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### Total Recoverable Metals by ICPMS, Continued

**Site #1 - 50 meters (K8J0469-02) Matrix: Water Sampled: Oct-13-08 12:35, Continued**

Molybdenum	<0.0010	0.0010	mg/L	Oct-21-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Potassium	<b>0.48</b>	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Oct-21-08	EPA 6020A	RMD	
Silicon	<b>3.3</b>	1.0	mg/L	Oct-21-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Oct-21-08	EPA 6020A	RMD	
Sodium	<b>0.99</b>	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Strontium	<b>0.205</b>	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Oct-21-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Oct-21-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Oct-21-08	EPA 6020A	RMD	
Zinc	<b>0.016</b>	0.010	mg/L	Oct-21-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	

**Site #2 - 5 meters (K8J0469-03) Matrix: Water Sampled: Oct-13-08 11:55**

Aluminum	<0.050	0.050	mg/L	Oct-21-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Oct-21-08	EPA 6020A	RMD	
Barium	<b>0.022</b>	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Oct-21-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Oct-21-08	EPA 6020A	RMD	
Cadmium	<b>0.00023</b>	0.00010	mg/L	Oct-21-08	EPA 6020A	RMD	
Calcium	<b>12.0</b>	0.5	mg/L	Oct-21-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Oct-21-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Oct-21-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Oct-21-08	EPA 6020A	RMD	
Magnesium	<b>1.59</b>	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Oct-21-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Oct-21-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Oct-21-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Potassium	<b>0.44</b>	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Oct-21-08	EPA 6020A	RMD	
Silicon	<b>3.1</b>	1.0	mg/L	Oct-21-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Oct-21-08	EPA 6020A	RMD	
Sodium	<b>0.86</b>	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	



## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0469  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### Total Recoverable Metals by ICPMS, Continued

**Site #2 - 5 meters (K8J0469-03) Matrix: Water Sampled: Oct-13-08 11:55, Continued**

Strontium	<b>0.192</b>	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Oct-21-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Oct-21-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Oct-21-08	EPA 6020A	RMD	
Zinc	<b>0.016</b>	0.010	mg/L	Oct-21-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	

**Site #2 - 50 meters (K8J0469-04) Matrix: Water Sampled: Oct-13-08 11:55**

Aluminum	<0.050	0.050	mg/L	Oct-21-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Oct-21-08	EPA 6020A	RMD	
Barium	<b>0.024</b>	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Oct-21-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Oct-21-08	EPA 6020A	RMD	
Cadmium	<b>0.00017</b>	0.00010	mg/L	Oct-21-08	EPA 6020A	RMD	
Calcium	<b>13.6</b>	0.5	mg/L	Oct-21-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Oct-21-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Oct-21-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Oct-21-08	EPA 6020A	RMD	
Magnesium	<b>1.85</b>	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Oct-21-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Oct-21-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Oct-21-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Potassium	<b>0.50</b>	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Oct-21-08	EPA 6020A	RMD	
Silicon	<b>3.3</b>	1.0	mg/L	Oct-21-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Oct-21-08	EPA 6020A	RMD	
Sodium	<b>1.04</b>	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Strontium	<b>0.214</b>	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Oct-21-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Oct-21-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Oct-21-08	EPA 6020A	RMD	

**SAMPLE DATA**

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0469  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

**Total Recoverable Metals by ICPMS, Continued**

**Site #2 - 50 meters (K8J0469-04) Matrix: Water Sampled: Oct-13-08 11:55, Continued**

Zinc	<b>0.016</b>	0.010	mg/L	Oct-21-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	

**Site #3 - 5 meters (K8J0469-05) Matrix: Water Sampled: Oct-13-08 10:39**

Aluminum	<0.050	0.050	mg/L	Oct-21-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Oct-21-08	EPA 6020A	RMD	
Barium	<b>0.023</b>	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Oct-21-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Oct-21-08	EPA 6020A	RMD	
Cadmium	<b>0.00030</b>	0.00010	mg/L	Oct-21-08	EPA 6020A	RMD	
Calcium	<b>12.3</b>	0.5	mg/L	Oct-21-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Oct-21-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Oct-21-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Oct-21-08	EPA 6020A	RMD	
Magnesium	<b>1.62</b>	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Oct-21-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Oct-21-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Oct-21-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Potassium	<b>0.44</b>	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Oct-21-08	EPA 6020A	RMD	
Silicon	<b>3.0</b>	1.0	mg/L	Oct-21-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Oct-21-08	EPA 6020A	RMD	
Sodium	<b>0.86</b>	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Strontium	<b>0.196</b>	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Oct-21-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Oct-21-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Oct-21-08	EPA 6020A	RMD	
Zinc	<b>0.021</b>	0.010	mg/L	Oct-21-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	

**Site #3 - 50 meters (K8J0469-06) Matrix: Water Sampled: Oct-13-08 10:45**

Aluminum	<0.050	0.050	mg/L	Oct-21-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Oct-21-08	EPA 6020A	RMD	
Barium	<b>0.023</b>	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	

**SAMPLE DATA**

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0469  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

**Total Recoverable Metals by ICPMS, Continued**

**Site #3 - 50 meters (K8J0469-06) Matrix: Water Sampled: Oct-13-08 10:45, Continued**

Beryllium	<0.0020	0.0020	mg/L	Oct-21-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Oct-21-08	EPA 6020A	RMD	
Cadmium	<b>0.00021</b>	0.00010	mg/L	Oct-21-08	EPA 6020A	RMD	
Calcium	<b>13.4</b>	0.5	mg/L	Oct-21-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Oct-21-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Oct-21-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Oct-21-08	EPA 6020A	RMD	
Magnesium	<b>1.80</b>	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Oct-21-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Oct-21-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Oct-21-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Potassium	<b>0.48</b>	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Oct-21-08	EPA 6020A	RMD	
Silicon	<b>3.3</b>	1.0	mg/L	Oct-21-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Oct-21-08	EPA 6020A	RMD	
Sodium	<b>0.99</b>	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Strontium	<b>0.211</b>	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Oct-21-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Oct-21-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Oct-21-08	EPA 6020A	RMD	
Zinc	<b>0.018</b>	0.010	mg/L	Oct-21-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	

**Site #4 - 5 meters (K8J0469-07) Matrix: Water Sampled: Oct-13-08 08:45**

Aluminum	<0.050	0.050	mg/L	Oct-21-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Oct-21-08	EPA 6020A	RMD	
Barium	<b>0.023</b>	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Oct-21-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Oct-21-08	EPA 6020A	RMD	
Cadmium	<b>0.00234</b>	0.00010	mg/L	Oct-21-08	EPA 6020A	RMD	
Calcium	<b>12.2</b>	0.5	mg/L	Oct-21-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Oct-21-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Copper	<b>0.0114</b>	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	

**SAMPLE DATA**

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0469  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

**Total Recoverable Metals by ICPMS, Continued**

**Site #4 - 5 meters (K8J0469-07) Matrix: Water Sampled: Oct-13-08 08:45, Continued**

Iron	<0.20	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Lead	<b>0.0029</b>	0.0010	mg/L	Oct-21-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Oct-21-08	EPA 6020A	RMD	
Magnesium	<b>1.61</b>	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Oct-21-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Oct-21-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Oct-21-08	EPA 6020A	RMD	
Nickel	<b>0.025</b>	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Potassium	<b>0.45</b>	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Oct-21-08	EPA 6020A	RMD	
Silicon	<b>3.0</b>	1.0	mg/L	Oct-21-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Oct-21-08	EPA 6020A	RMD	
Sodium	<b>0.87</b>	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Strontium	<b>0.197</b>	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Oct-21-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Oct-21-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Oct-21-08	EPA 6020A	RMD	
Zinc	<b>0.265</b>	0.010	mg/L	Oct-21-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	

**Site #4 - 50 meters (K8J0469-08) Matrix: Water Sampled: Oct-13-08 09:50**

Aluminum	<0.050	0.050	mg/L	Oct-21-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Oct-21-08	EPA 6020A	RMD	
Barium	<b>0.024</b>	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Oct-21-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Oct-21-08	EPA 6020A	RMD	
Cadmium	<b>0.00047</b>	0.00010	mg/L	Oct-21-08	EPA 6020A	RMD	
Calcium	<b>13.4</b>	0.5	mg/L	Oct-21-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Oct-21-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Oct-21-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Oct-21-08	EPA 6020A	RMD	
Magnesium	<b>1.85</b>	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Oct-21-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Oct-21-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Oct-21-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	

## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0469  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### Total Recoverable Metals by ICPMS, Continued

**Site #4 - 50 meters (K8J0469-08) Matrix: Water Sampled: Oct-13-08 09:50, Continued**

Phosphorus	<0.20	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Potassium	<b>0.48</b>	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Oct-21-08	EPA 6020A	RMD	
Silicon	<b>3.3</b>	1.0	mg/L	Oct-21-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Oct-21-08	EPA 6020A	RMD	
Sodium	<b>1.01</b>	0.20	mg/L	Oct-21-08	EPA 6020A	RMD	
Strontium	<b>0.210</b>	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Oct-21-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Oct-21-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Oct-21-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Oct-21-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Oct-21-08	EPA 6020A	RMD	
Zinc	<b>0.047</b>	0.010	mg/L	Oct-21-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Oct-21-08	EPA 6020A	RMD	

#### Sample Qualifiers:

HT Parameter(s) analyzed outside of the EPA/BCMOE/APHA recommended holding time.

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewardship Society

**WORK ORDER #**  
**REPORTED**

K8J0469  
Jan-28-09

The following section reports quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with quality control samples that ensure your data is of the highest quality. Common QC types include:

- Method Blank (Blk): Laboratory reagent water is carried through sample preparation and analysis steps. Method Blanks indicate that results are free from contamination, i.e. not biased high from sources such as the sample container or the laboratory environment
- Duplicate (Dup): Preparation and analysis of a replicate aliquot of a sample. Duplicates provide a measure of the analytical method's precision, i.e. how reproducible a result is. Duplicates are only reported if they are associated with your sample data.
- Blank Spike (BS): A known amount of standard is carried through sample preparation and analysis steps. Blank Spikes, also known as laboratory control samples (LCS), are prepared from a different source of standard than used for the calibration. They ensure that the calibration is acceptable (i.e. not biased high or low) and also provide a measure of the analytical method's accuracy (i.e. closeness of the result to a target value).
- Standard Reference Material (SRM): A material of similar matrix to the samples, externally certified for the parameter(s) listed. Standard Reference Materials ensure that the preparation steps in the method are adequate to achieve acceptable recoveries of the parameter(s) tested for.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

### General Parameters, Batch K803631

**Blank (K803631-BLK1)**

Prepared: Oct-16-08 Analyzed: Oct-17-08

Solids, Total Suspended	<	1	mg/L						
-------------------------	---	---	------	--	--	--	--	--	--

**Blank (K803631-BLK2)**

Prepared: Oct-16-08 Analyzed: Oct-17-08

Solids, Total Suspended	<	1	mg/L						
-------------------------	---	---	------	--	--	--	--	--	--

**Blank (K803631-BLK3)**

Prepared: Oct-16-08 Analyzed: Oct-17-08

Solids, Total Suspended	<	1	mg/L						
-------------------------	---	---	------	--	--	--	--	--	--

**LCS (K803631-BS1)**

Prepared: Oct-16-08 Analyzed: Oct-17-08

Solids, Total Suspended	47	1	mg/L	50.0	95	80-115			
-------------------------	----	---	------	------	----	--------	--	--	--

**LCS (K803631-BS2)**

Prepared: Oct-16-08 Analyzed: Oct-17-08

Solids, Total Suspended	49	1	mg/L	50.0	97	80-115			
-------------------------	----	---	------	------	----	--------	--	--	--

**LCS (K803631-BS3)**

Prepared: Oct-16-08 Analyzed: Oct-17-08

Solids, Total Suspended	48	1	mg/L	50.0	96	80-115			
-------------------------	----	---	------	------	----	--------	--	--	--

### General Parameters, Batch K803635

**Blank (K803635-BLK1)**

Prepared & Analyzed: Oct-16-08

Nitrogen, Nitrate as N	<	0.01	mg/L						
Nitrogen, Nitrite as N	<	0.01	mg/L						

**Blank (K803635-BLK2)**

Prepared & Analyzed: Oct-16-08

Nitrogen, Nitrate as N	<	0.01	mg/L						
Nitrogen, Nitrite as N	<	0.01	mg/L						

**Blank (K803635-BLK3)**

Prepared & Analyzed: Oct-16-08

Nitrogen, Nitrate as N	<	0.01	mg/L						
Nitrogen, Nitrite as N	<	0.01	mg/L						

**Blank (K803635-BLK4)**

Prepared & Analyzed: Oct-16-08

Nitrogen, Nitrate as N	<	0.01	mg/L						
Nitrogen, Nitrite as N	<	0.01	mg/L						

**Blank (K803635-BLK5)**

Prepared & Analyzed: Oct-16-08

Nitrogen, Nitrate as N	<	0.01	mg/L						
------------------------	---	------	------	--	--	--	--	--	--

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0469  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

### General Parameters, Batch K803635, Continued

**Blank (K803635-BLK5), Continued**

Prepared & Analyzed: Oct-16-08

Nitrogen, Nitrite as N	<	0.01	mg/L							
------------------------	---	------	------	--	--	--	--	--	--	--

**Blank (K803635-BLK6)**

Prepared & Analyzed: Oct-16-08

Nitrogen, Nitrate as N	<	0.01	mg/L							
Nitrogen, Nitrite as N	<	0.01	mg/L							

**LCS (K803635-BS1)**

Prepared & Analyzed: Oct-16-08

Nitrogen, Nitrate as N	4.04	0.01	mg/L	4.00		101	85-115			
Nitrogen, Nitrite as N	4.09	0.01	mg/L	4.00		102	85-115			

**LCS (K803635-BS2)**

Prepared & Analyzed: Oct-16-08

Nitrogen, Nitrate as N	4.01	0.01	mg/L	4.00		100	85-115			
Nitrogen, Nitrite as N	3.79	0.01	mg/L	4.00		95	85-115			

**LCS (K803635-BS3)**

Prepared & Analyzed: Oct-16-08

Nitrogen, Nitrate as N	4.08	0.01	mg/L	4.00		102	85-115			
Nitrogen, Nitrite as N	3.99	0.01	mg/L	4.00		100	85-115			

**LCS (K803635-BS4)**

Prepared & Analyzed: Oct-16-08

Nitrogen, Nitrate as N	4.23	0.01	mg/L	4.00		106	85-115			
Nitrogen, Nitrite as N	4.02	0.01	mg/L	4.00		101	85-115			

**LCS (K803635-BS5)**

Prepared & Analyzed: Oct-16-08

Nitrogen, Nitrate as N	4.01	0.01	mg/L	4.00		100	85-115			
Nitrogen, Nitrite as N	3.62	0.01	mg/L	4.00		90	85-115			

**LCS (K803635-BS6)**

Prepared & Analyzed: Oct-16-08

Nitrogen, Nitrate as N	4.01	0.01	mg/L	4.00		100	85-115			
Nitrogen, Nitrite as N	3.62	0.01	mg/L	4.00		90	85-115			

**Duplicate (K803635-DUP5)**

**Source: K8J0469-02**

Prepared & Analyzed: Oct-16-08

Nitrogen, Nitrate as N	0.078	0.01	mg/L		0.077			2	15	
Nitrogen, Nitrite as N	<	0.01	mg/L		<				15	

### General Parameters, Batch K803636

**Blank (K803636-BLK1)**

Prepared & Analyzed: Oct-16-08

Nitrogen, Total Kjeldahl	<	0.05	mg/L							
--------------------------	---	------	------	--	--	--	--	--	--	--

**Blank (K803636-BLK2)**

Prepared & Analyzed: Oct-16-08

Nitrogen, Total Kjeldahl	<	0.05	mg/L							
--------------------------	---	------	------	--	--	--	--	--	--	--

**Blank (K803636-BLK3)**

Prepared & Analyzed: Oct-16-08

Nitrogen, Total Kjeldahl	<	0.05	mg/L							
--------------------------	---	------	------	--	--	--	--	--	--	--

**LCS (K803636-BS1)**

Prepared & Analyzed: Oct-16-08

Nitrogen, Total Kjeldahl	10.5	0.50	mg/L	10.0		105	80-120			
--------------------------	------	------	------	------	--	-----	--------	--	--	--

**LCS (K803636-BS2)**

Prepared & Analyzed: Oct-16-08

Nitrogen, Total Kjeldahl	10.7	0.50	mg/L	10.0		107	80-120			
--------------------------	------	------	------	------	--	-----	--------	--	--	--

**LCS (K803636-BS3)**

Prepared & Analyzed: Oct-16-08

Nitrogen, Total Kjeldahl	10.9	0.50	mg/L	10.0		109	80-120			
--------------------------	------	------	------	------	--	-----	--------	--	--	--

**Duplicate (K803636-DUP2)**

**Source: K8J0469-06**

Prepared & Analyzed: Oct-16-08

Nitrogen, Total Kjeldahl	<	0.05	mg/L		<				20	
--------------------------	---	------	------	--	---	--	--	--	----	--

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0469  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

### General Parameters, Batch K803638

**Blank (K803638-BLK1)**

Prepared: Oct-16-08 Analyzed: Oct-20-08

Phosphorus, Total	<	0.01	mg/L							
-------------------	---	------	------	--	--	--	--	--	--	--

**Blank (K803638-BLK2)**

Prepared: Oct-16-08 Analyzed: Oct-20-08

Phosphorus, Total	<	0.01	mg/L							
-------------------	---	------	------	--	--	--	--	--	--	--

**LCS (K803638-BS1)**

Prepared: Oct-16-08 Analyzed: Oct-20-08

Phosphorus, Total	0.44	0.02	mg/L	0.500	88	85-115				
-------------------	------	------	------	-------	----	--------	--	--	--	--

**LCS (K803638-BS2)**

Prepared: Oct-16-08 Analyzed: Oct-20-08

Phosphorus, Total	0.44	0.02	mg/L	0.500	88	85-115				
-------------------	------	------	------	-------	----	--------	--	--	--	--

**Calibration Check (K803638-CCV1)**

Prepared: Oct-16-08 Analyzed: Oct-20-08

Phosphorus, Total	0.50		mg/L	0.500	100	80-120				
-------------------	------	--	------	-------	-----	--------	--	--	--	--

**Calibration Check (K803638-CCV2)**

Prepared: Oct-16-08 Analyzed: Oct-20-08

Phosphorus, Total	0.49		mg/L	0.500	99	80-120				
-------------------	------	--	------	-------	----	--------	--	--	--	--

**Duplicate (K803638-DUP1)**

**Source: K8J0469-01**

Prepared: Oct-16-08 Analyzed: Oct-20-08

Phosphorus, Total	<	0.01	mg/L		<				20	
-------------------	---	------	------	--	---	--	--	--	----	--

**Duplicate (K803638-DUP2)**

**Source: K8J0469-04**

Prepared: Oct-16-08 Analyzed: Oct-20-08

Phosphorus, Total	<	0.01	mg/L		<				20	
-------------------	---	------	------	--	---	--	--	--	----	--

### Total Recoverable Metals by ICPMS, Batch R803031

**Blank (R803031-BLK1)**

Prepared: Oct-20-08 Analyzed: Oct-21-08

Aluminum	0.053	0.050	mg/L							BLK
Antimony	<	0.0030	mg/L							
Arsenic	<	0.0050	mg/L							
Barium	<	0.005	mg/L							
Beryllium	<	0.0020	mg/L							
Bismuth	<	0.0005	mg/L							
Boron	<	0.020	mg/L							
Cadmium	<	0.00010	mg/L							
Calcium	<	0.5	mg/L							
Chromium	<	0.015	mg/L							
Cobalt	<	0.0005	mg/L							
Copper	<	0.0030	mg/L							
Iron	<	0.20	mg/L							
Lead	<	0.0010	mg/L							
Lithium	<	0.0020	mg/L							
Magnesium	<	0.20	mg/L							
Manganese	<	0.0050	mg/L							
Mercury	<	0.00030	mg/L							
Molybdenum	<	0.0010	mg/L							
Nickel	<	0.005	mg/L							
Phosphorus	<	0.20	mg/L							
Potassium	<	0.20	mg/L							
Selenium	<	0.0050	mg/L							
Silicon	<	1.0	mg/L							
Silver	<	0.00040	mg/L							
Sodium	<	0.20	mg/L							
Strontium	<	0.005	mg/L							
Tellurium	<	0.0030	mg/L							
Thallium	<	0.0005	mg/L							
Thorium	<	0.0030	mg/L							
Tin	<	0.0020	mg/L							



## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0469  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

### Total Recoverable Metals by ICPMS, Batch R803031, Continued

**Blank (R803031-BLK1), Continued**

Prepared: Oct-20-08 Analyzed: Oct-21-08

Titanium	<	0.10	mg/L							
Uranium	<	0.0005	mg/L							
Vanadium	<	0.010	mg/L							
Zinc	<	0.010	mg/L							
Zirconium	<	0.005	mg/L							

**Blank (R803031-BLK2)**

Prepared: Oct-20-08 Analyzed: Oct-21-08

Aluminum	<	0.050	mg/L							
Antimony	<	0.0030	mg/L							
Arsenic	<	0.0050	mg/L							
Barium	<	0.005	mg/L							
Beryllium	<	0.0020	mg/L							
Bismuth	<	0.0005	mg/L							
Boron	<	0.020	mg/L							
Cadmium	<	0.00010	mg/L							
Calcium	<	0.5	mg/L							
Chromium	<	0.015	mg/L							
Cobalt	<	0.0005	mg/L							
Copper	<	0.0030	mg/L							
Iron	<	0.20	mg/L							
Lead	<	0.0010	mg/L							
Lithium	<	0.0020	mg/L							
Magnesium	<	0.20	mg/L							
Manganese	<	0.0050	mg/L							
Mercury	<	0.00030	mg/L							
Molybdenum	<	0.0010	mg/L							
Nickel	<	0.005	mg/L							
Phosphorus	<	0.20	mg/L							
Potassium	<	0.20	mg/L							
Selenium	<	0.0050	mg/L							
Silicon	<	1.0	mg/L							
Silver	<	0.00040	mg/L							
Sodium	<	0.20	mg/L							
Strontium	<	0.005	mg/L							
Tellurium	<	0.0030	mg/L							
Thallium	<	0.0005	mg/L							
Thorium	<	0.0030	mg/L							
Tin	<	0.0020	mg/L							
Titanium	<	0.10	mg/L							
Uranium	<	0.0005	mg/L							
Vanadium	<	0.010	mg/L							
Zinc	<	0.010	mg/L							
Zirconium	<	0.005	mg/L							

**Blank (R803031-BLK3)**

Prepared: Oct-20-08 Analyzed: Oct-21-08

Aluminum	<	0.050	mg/L							
Antimony	<	0.0030	mg/L							
Arsenic	<	0.0050	mg/L							
Barium	<	0.005	mg/L							
Beryllium	<	0.0020	mg/L							
Bismuth	<	0.0005	mg/L							
Boron	<	0.020	mg/L							
Cadmium	<	0.00010	mg/L							
Calcium	<	0.5	mg/L							
Chromium	<	0.015	mg/L							
Cobalt	<	0.0005	mg/L							
Copper	<	0.0030	mg/L							

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewardship Society

**WORK ORDER #**  
**REPORTED**

K8J0469  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Total Recoverable Metals by ICPMS, Batch R803031, Continued**

**Blank (R803031-BLK3), Continued**

Prepared: Oct-20-08 Analyzed: Oct-21-08

Iron	<	0.20	mg/L							
Lead	<	0.0010	mg/L							
Lithium	<	0.0020	mg/L							
Magnesium	<	0.20	mg/L							
Manganese	<	0.0050	mg/L							
Mercury	<	0.00030	mg/L							
Molybdenum	<	0.0010	mg/L							
Nickel	<	0.005	mg/L							
Phosphorus	<	0.20	mg/L							
Potassium	<	0.20	mg/L							
Selenium	<	0.0050	mg/L							
Silicon	<	1.0	mg/L							
Silver	<	0.00040	mg/L							
Sodium	<	0.20	mg/L							
Strontium	<	0.005	mg/L							
Tellurium	<	0.0030	mg/L							
Thallium	<	0.0005	mg/L							
Thorium	<	0.0030	mg/L							
Tin	<	0.0020	mg/L							
Titanium	<	0.10	mg/L							
Uranium	<	0.0005	mg/L							
Vanadium	<	0.010	mg/L							
Zinc	<	0.010	mg/L							
Zirconium	<	0.005	mg/L							

**Duplicate (R803031-DUP3)**

**Source: K8J0469-08**

Prepared: Oct-20-08 Analyzed: Oct-21-08

Aluminum	<	0.050	mg/L		<					30
Antimony	<	0.0030	mg/L		<					20
Arsenic	<	0.0050	mg/L		<					20
Barium	0.023	0.005	mg/L		0.024					30
Beryllium	<	0.0020	mg/L		<					20
Bismuth	<	0.0005	mg/L		<					20
Boron	<	0.020	mg/L		<					30
Cadmium	0.00047	0.00010	mg/L		0.00047					20
Calcium	13.4	0.5	mg/L		13.4			0.04		20
Chromium	<	0.015	mg/L		<					20
Cobalt	<	0.0005	mg/L		<					20
Copper	<	0.0030	mg/L		<					20
Iron	<	0.20	mg/L		<					30
Lead	<	0.0010	mg/L		<					30
Lithium	<	0.0020	mg/L		<					20
Magnesium	1.80	0.20	mg/L		1.85			3		20
Manganese	<	0.0050	mg/L		<					30
Mercury	<	0.00030	mg/L		<					20
Molybdenum	<	0.0010	mg/L		<					20
Nickel	<	0.005	mg/L		0.005					20
Phosphorus	<	0.20	mg/L		<					20
Potassium	0.47	0.20	mg/L		0.48					20
Selenium	<	0.0050	mg/L		<					20
Silicon	3.2	1.0	mg/L		3.3					20
Silver	<	0.00040	mg/L		<					20
Sodium	0.98	0.20	mg/L		1.01					20
Strontium	0.208	0.005	mg/L		0.210			1		20
Tellurium	<	0.0030	mg/L		<					20
Thallium	<	0.0005	mg/L		<					30
Thorium	<	0.0030	mg/L		<					20
Tin	<	0.0020	mg/L		<					30

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0469  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

### Total Recoverable Metals by ICPMS, Batch R803031, Continued

**Duplicate (R803031-DUP3), Continued**

**Source: K8J0469-08**

Prepared: Oct-20-08 Analyzed: Oct-21-08

Titanium	<	0.10	mg/L		<				30	
Uranium	<	0.0005	mg/L		<				20	
Vanadium	<	0.010	mg/L		<				20	
Zinc	0.045	0.010	mg/L		0.047				20	
Zirconium	<	0.005	mg/L		<				20	

**Reference (R803031-SRM1)**

Prepared: Oct-20-08 Analyzed: Oct-21-08

Aluminum	0.310	0.050	mg/L	0.330		94	80-120
Antimony	0.0777	0.0030	mg/L	0.0790		98	80-120
Arsenic	0.157	0.0050	mg/L	0.159		99	80-120
Barium	0.553	0.005	mg/L	0.650		85	80-120
Beryllium	0.0538	0.0020	mg/L	0.0600		90	80-120
Boron	3.87	0.020	mg/L	3.97		97	80-120
Cadmium	0.0742	0.00010	mg/L	0.0790		94	80-120
Calcium	10.2	0.5	mg/L	10.3		99	80-120
Chromium	0.273	0.015	mg/L	0.274		100	80-120
Cobalt	0.0397	0.0005	mg/L	0.0390		102	80-120
Copper	0.207	0.0030	mg/L	0.200		103	80-120
Iron	0.60	0.20	mg/L	0.590		102	80-120
Lead	0.258	0.0010	mg/L	0.260		99	80-120
Manganese	0.145	0.0050	mg/L	0.138		105	80-120
Molybdenum	0.203	0.0010	mg/L	0.200		102	80-120
Nickel	0.342	0.005	mg/L	0.340		101	80-120
Potassium	5.94	0.20	mg/L	6.21		96	80-120
Selenium	0.120	0.0050	mg/L	0.120		100	80-120
Sodium	7.61	0.20	mg/L	8.32		91	80-120
Strontium	0.362	0.005	mg/L	0.380		95	80-120
Thallium	0.0985	0.0005	mg/L	0.0970		102	80-120
Vanadium	0.377	0.010	mg/L	0.390		97	80-120
Zinc	1.99	0.010	mg/L	2.02		98	80-120

**Reference (R803031-SRM2)**

Prepared: Oct-20-08 Analyzed: Oct-21-08

Aluminum	0.302	0.050	mg/L	0.330		91	80-120
Antimony	0.0778	0.0030	mg/L	0.0790		99	80-120
Arsenic	0.158	0.0050	mg/L	0.159		99	80-120
Barium	0.541	0.005	mg/L	0.650		83	80-120
Beryllium	0.0629	0.0020	mg/L	0.0600		105	80-120
Boron	3.92	0.020	mg/L	3.97		99	80-120
Cadmium	0.0736	0.00010	mg/L	0.0790		93	80-120
Calcium	10.0	0.5	mg/L	10.3		97	80-120
Chromium	0.273	0.015	mg/L	0.274		100	80-120
Cobalt	0.0395	0.0005	mg/L	0.0390		101	80-120
Copper	0.207	0.0030	mg/L	0.200		103	80-120
Iron	0.60	0.20	mg/L	0.590		101	80-120
Lead	0.255	0.0010	mg/L	0.260		98	80-120
Manganese	0.133	0.0050	mg/L	0.138		97	80-120
Molybdenum	0.193	0.0010	mg/L	0.200		96	80-120
Nickel	0.343	0.005	mg/L	0.340		101	80-120
Potassium	5.78	0.20	mg/L	6.21		93	80-120
Selenium	0.117	0.0050	mg/L	0.120		98	80-120
Sodium	7.41	0.20	mg/L	8.32		89	80-120
Strontium	0.355	0.005	mg/L	0.380		93	80-120
Thallium	0.0973	0.0005	mg/L	0.0970		100	80-120
Vanadium	0.378	0.010	mg/L	0.390		97	80-120
Zinc	2.00	0.010	mg/L	2.02		99	80-120

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewardship Society

**WORK ORDER #**  
**REPORTED**

K8J0469  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Total Recoverable Metals by ICPMS, Batch R803031, Continued**

**Reference (R803031-SRM3)**

Prepared: Oct-20-08 Analyzed: Oct-21-08

Aluminum	0.304	0.050	mg/L	0.330		92	80-120			
Antimony	0.0790	0.0030	mg/L	0.0790		100	80-120			
Arsenic	0.157	0.0050	mg/L	0.159		99	80-120			
Barium	0.541	0.005	mg/L	0.650		83	80-120			
Beryllium	0.0688	0.0020	mg/L	0.0600		115	80-120			
Boron	4.14	0.020	mg/L	3.97		104	80-120			
Cadmium	0.0744	0.00010	mg/L	0.0790		94	80-120			
Calcium	10.1	0.5	mg/L	10.3		98	80-120			
Chromium	0.270	0.015	mg/L	0.274		99	80-120			
Cobalt	0.0398	0.0005	mg/L	0.0390		102	80-120			
Copper	0.208	0.0030	mg/L	0.200		104	80-120			
Iron	0.61	0.20	mg/L	0.590		103	80-120			
Lead	0.253	0.0010	mg/L	0.260		97	80-120			
Manganese	0.136	0.0050	mg/L	0.138		98	80-120			
Molybdenum	0.192	0.0010	mg/L	0.200		96	80-120			
Nickel	0.347	0.005	mg/L	0.340		102	80-120			
Potassium	5.84	0.20	mg/L	6.21		94	80-120			
Selenium	0.119	0.0050	mg/L	0.120		99	80-120			
Sodium	7.49	0.20	mg/L	8.32		90	80-120			
Strontium	0.360	0.005	mg/L	0.380		95	80-120			
Thallium	0.0969	0.0005	mg/L	0.0970		100	80-120			
Vanadium	0.380	0.010	mg/L	0.390		97	80-120			
Zinc	2.06	0.010	mg/L	2.02		102	80-120			

**QC Qualifiers:**

BLK Analyte concentration in method blank is above the reporting limit. Data accepted based on acceptable performance of other batch QC.

## CERTIFICATE OF ANALYSIS

**CLIENT****Galena Environmental Ltd.**

8075 Upper Galena Farm Road- PO Box 37

Silverton BC

VOG 2B0

TEL

1-250-358-2872

FAX

1-250-358-2114

**ATTENTION****Luce Paquin****RECEIVED / TEMP  
REPORTED**

Oct-21-08 08:30 / 7 °C

Jan-28-09

**COC #(s)**

05145

**WORK ORDER #**

K8J0637

**PROJECT FILE**

Slocan Lake Stewardship Society

**General Comments:**

CARO Analytical Services employs methods which are based on those found in "Standard Methods for the Examination of Water and Wastewater", 21st Edition, 2005, published by the American Public Health Association (APHA); US EPA protocols found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846", 3rd Edition; and protocols published by the British Columbia Ministry of Environment (BCMOE).

Methods not described in these publications are conducted according to procedures accepted by appropriate regulatory agencies, and/or are done in accordance with recognized professional standards using accepted testing methodologies and quality control efforts except where otherwise agreed to by the client.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Samples will be disposed of 30 days after the test report has been issued unless otherwise agreed to in writing.

- All solids results are reported on a dry weight basis unless otherwise noted
- Units:
  - mg/kg = milligrams per kilogram, equivalent to parts per million (ppm)
  - mg/L = milligrams per litre, equivalent to parts per million (ppm)
  - ug/L = micrograms per litre, equivalent to parts per billion (ppb)
  - ug/g = micrograms per gram, equivalent to parts per million (ppm)
  - ug/m<sup>3</sup> Air = micrograms per cubic meter of air
- "RDL" Reported detection limit
- "<" Less than reported detection limit
- "AO" Aesthetic objective
- "MAC" Maximum acceptable concentration (health-related guideline)
- "LAB" RMD = CARO - Richmond location, KEL = CARO - Kelowna location, SUB = Subcontracted

**Please contact CARO if more information is needed.**

**CARO Analytical Services**

Final Review Per:

**Jennifer Shanko, ASCT**

Coordinator, Operations/Admin

CARO Analytical Services (Kelowna)

102 - 3677 Highway 97N Kelowna, BC Canada V1X 5C3

Tel: (250) 765-9646 Fax: (250) 765-3893 Web: www.caro.ca

Page 1 of 17

## NOTES AND COMMENTS

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewardship Society

**WORK ORDER #**  
**REPORTED**

K8J0637  
Jan-28-09

---

This is an amended report. QC data has been attached, as per clients request.

## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0637  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### General Parameters

**Site #1 - 5 meters (K8J0637-01) Matrix: Water Sampled: Oct-19-08 09:45**

Hardness, Total (Total as CaCO <sub>3</sub> )	<b>43.3</b>	2.07	mg/L	Oct-24-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.02</b>	0.01	mg/L	Oct-21-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.02</b>	0.01	mg/L	Oct-21-08	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Oct-21-08	APHA 4110 B	KEL	
Nitrogen, Total Kjeldahl	<b>0.08</b>	0.05	mg/L	Oct-27-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.11</b>	0.05	mg/L	Oct-27-08	Calc	KEL	
Phosphorus, Total	<0.01	0.01	mg/L	Oct-27-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Oct-23-08	APHA 2540 D	KEL	

**Site #1 - 50 meters (K8J0637-02) Matrix: Water Sampled: Oct-19-08 10:00**

Hardness, Total (Total as CaCO <sub>3</sub> )	<b>45.0</b>	2.07	mg/L	Oct-24-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.08</b>	0.01	mg/L	Oct-21-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.08</b>	0.01	mg/L	Oct-21-08	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Oct-21-08	APHA 4110 B	KEL	
Nitrogen, Total Kjeldahl	<0.05	0.05	mg/L	Oct-27-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.08</b>	0.05	mg/L	Oct-27-08	Calc	KEL	
Phosphorus, Total	<0.01	0.01	mg/L	Oct-27-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Oct-23-08	APHA 2540 D	KEL	

**Site #2 - 5 meters (K8J0637-03) Matrix: Water Sampled: Oct-19-08 10:30**

Hardness, Total (Total as CaCO <sub>3</sub> )	<b>40.6</b>	2.07	mg/L	Oct-24-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.02</b>	0.01	mg/L	Oct-21-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.02</b>	0.01	mg/L	Oct-21-08	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Oct-21-08	APHA 4110 B	KEL	
Nitrogen, Total Kjeldahl	<b>0.09</b>	0.05	mg/L	Oct-27-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.11</b>	0.05	mg/L	Oct-27-08	Calc	KEL	
Phosphorus, Total	<0.01	0.01	mg/L	Oct-27-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Oct-23-08	APHA 2540 D	KEL	

**Site #2 - 50 meters (K8J0637-04) Matrix: Water Sampled: Oct-19-08 10:35**

Hardness, Total (Total as CaCO <sub>3</sub> )	<b>45.9</b>	2.07	mg/L	Oct-24-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.08</b>	0.01	mg/L	Oct-21-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.08</b>	0.01	mg/L	Oct-21-08	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Oct-21-08	APHA 4110 B	KEL	
Nitrogen, Total Kjeldahl	<0.05	0.05	mg/L	Oct-27-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.08</b>	0.05	mg/L	Oct-27-08	Calc	KEL	
Phosphorus, Total	<0.01	0.01	mg/L	Oct-27-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Oct-23-08	APHA 2540 D	KEL	

**Site #3 - 5 meters (K8J0637-05) Matrix: Water Sampled: Oct-19-08 11:25**

Hardness, Total (Total as CaCO <sub>3</sub> )	<b>42.8</b>	2.07	mg/L	Oct-24-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.02</b>	0.01	mg/L	Oct-21-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.02</b>	0.01	mg/L	Oct-21-08	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Oct-21-08	APHA 4110 B	KEL	
Nitrogen, Total Kjeldahl	<b>0.05</b>	0.05	mg/L	Oct-27-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.07</b>	0.05	mg/L	Oct-27-08	Calc	KEL	

## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0637  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### General Parameters, Continued

**Site #3 - 5 meters (K8J0637-05) Matrix: Water Sampled: Oct-19-08 11:25, Continued**

Phosphorus, Total	<0.01	0.01	mg/L	Oct-27-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Oct-23-08	APHA 2540 D	KEL	

**Site #3 - 50 meters (K8J0637-06) Matrix: Water Sampled: Oct-19-08 11:25**

Hardness, Total (Total as CaCO3)	<b>46.5</b>	2.07	mg/L	Oct-24-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.08</b>	0.01	mg/L	Oct-21-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.08</b>	0.01	mg/L	Oct-21-08	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Oct-21-08	APHA 4110 B	KEL	
Nitrogen, Total Kjeldahl	<b>0.06</b>	0.05	mg/L	Oct-27-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.14</b>	0.05	mg/L	Oct-27-08	Calc	KEL	
Phosphorus, Total	<0.01	0.01	mg/L	Oct-27-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Oct-23-08	APHA 2540 D	KEL	

**Site #4 - 5 meters (K8J0637-07) Matrix: Water Sampled: Oct-19-08 12:10**

Hardness, Total (Total as CaCO3)	<b>43.6</b>	2.07	mg/L	Oct-24-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.03</b>	0.01	mg/L	Oct-21-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.03</b>	0.01	mg/L	Oct-21-08	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Oct-21-08	APHA 4110 B	KEL	
Nitrogen, Total Kjeldahl	<b>0.07</b>	0.05	mg/L	Oct-27-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.10</b>	0.05	mg/L	Oct-27-08	Calc	KEL	
Phosphorus, Total	<0.01	0.01	mg/L	Oct-27-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Oct-23-08	APHA 2540 D	KEL	

**Site #4 - 50 meters (K8J0637-08) Matrix: Water Sampled: Oct-20-08 12:15**

Hardness, Total (Total as CaCO3)	<b>45.7</b>	2.07	mg/L	Oct-24-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.08</b>	0.01	mg/L	Oct-21-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.08</b>	0.01	mg/L	Oct-21-08	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Oct-21-08	APHA 4110 B	KEL	
Nitrogen, Total Kjeldahl	<b>0.05</b>	0.05	mg/L	Oct-24-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.13</b>	0.05	mg/L	Oct-24-08	Calc	KEL	
Phosphorus, Total	<0.01	0.01	mg/L	Oct-24-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Oct-23-08	APHA 2540 D	KEL	

### Total Recoverable Metals by ICPMS

**Site #1 - 5 meters (K8J0637-01) Matrix: Water Sampled: Oct-19-08 09:45**

Aluminum	<0.050	0.050	mg/L	Oct-24-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Oct-24-08	EPA 6020A	RMD	
Barium	<b>0.025</b>	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Oct-24-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Oct-24-08	EPA 6020A	RMD	
Cadmium	<b>0.00013</b>	0.00010	mg/L	Oct-24-08	EPA 6020A	RMD	
Calcium	<b>13.4</b>	0.5	mg/L	Oct-24-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Oct-24-08	EPA 6020A	RMD	



**SAMPLE DATA**

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0637  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

**Total Recoverable Metals by ICPMS, Continued**

**Site #1 - 5 meters (K8J0637-01) Matrix: Water Sampled: Oct-19-08 09:45, Continued**

Cobalt	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Oct-24-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Oct-24-08	EPA 6020A	RMD	
Magnesium	<b>2.38</b>	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Oct-24-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Oct-24-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Oct-24-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Potassium	<b>0.56</b>	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Oct-24-08	EPA 6020A	RMD	
Silicon	<b>2.1</b>	1.0	mg/L	Oct-24-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Oct-24-08	EPA 6020A	RMD	
Sodium	<b>1.22</b>	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Strontium	<b>0.204</b>	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Oct-24-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Oct-24-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Oct-24-08	EPA 6020A	RMD	
Zinc	<b>0.016</b>	0.010	mg/L	Oct-24-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	

**Site #1 - 50 meters (K8J0637-02) Matrix: Water Sampled: Oct-19-08 10:00**

Aluminum	<0.050	0.050	mg/L	Oct-24-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Oct-24-08	EPA 6020A	RMD	
Barium	<b>0.025</b>	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Oct-24-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Oct-24-08	EPA 6020A	RMD	
Cadmium	<b>0.00015</b>	0.00010	mg/L	Oct-24-08	EPA 6020A	RMD	
Calcium	<b>14.0</b>	0.5	mg/L	Oct-24-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Oct-24-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Oct-24-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Oct-24-08	EPA 6020A	RMD	
Magnesium	<b>2.42</b>	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Oct-24-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Oct-24-08	EPA 6020A	RMD	

## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0637  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### Total Recoverable Metals by ICPMS, Continued

**Site #1 - 50 meters (K8J0637-02) Matrix: Water Sampled: Oct-19-08 10:00, Continued**

Molybdenum	<0.0010	0.0010	mg/L	Oct-24-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Potassium	<b>0.58</b>	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Oct-24-08	EPA 6020A	RMD	
Silicon	<b>2.1</b>	1.0	mg/L	Oct-24-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Oct-24-08	EPA 6020A	RMD	
Sodium	<b>1.36</b>	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Strontium	<b>0.213</b>	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Oct-24-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Oct-24-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Oct-24-08	EPA 6020A	RMD	
Zinc	<b>0.020</b>	0.010	mg/L	Oct-24-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	

**Site #2 - 5 meters (K8J0637-03) Matrix: Water Sampled: Oct-19-08 10:30**

Aluminum	<0.050	0.050	mg/L	Oct-24-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Oct-24-08	EPA 6020A	RMD	
Barium	<b>0.025</b>	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Oct-24-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Oct-24-08	EPA 6020A	RMD	
Cadmium	<b>0.00013</b>	0.00010	mg/L	Oct-24-08	EPA 6020A	RMD	
Calcium	<b>12.7</b>	0.5	mg/L	Oct-24-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Oct-24-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Oct-24-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Oct-24-08	EPA 6020A	RMD	
Magnesium	<b>2.13</b>	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Oct-24-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Oct-24-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Oct-24-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Potassium	<b>0.54</b>	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Oct-24-08	EPA 6020A	RMD	
Silicon	<b>2.0</b>	1.0	mg/L	Oct-24-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Oct-24-08	EPA 6020A	RMD	
Sodium	<b>1.15</b>	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	

## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0637  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### Total Recoverable Metals by ICPMS, Continued

**Site #2 - 5 meters (K8J0637-03) Matrix: Water Sampled: Oct-19-08 10:30, Continued**

Strontium	<b>0.201</b>	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Oct-24-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Oct-24-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Oct-24-08	EPA 6020A	RMD	
Zinc	<b>0.018</b>	0.010	mg/L	Oct-24-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	

**Site #2 - 50 meters (K8J0637-04) Matrix: Water Sampled: Oct-19-08 10:35**

Aluminum	<0.050	0.050	mg/L	Oct-24-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Oct-24-08	EPA 6020A	RMD	
Barium	<b>0.026</b>	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Oct-24-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Oct-24-08	EPA 6020A	RMD	
Cadmium	<b>0.00017</b>	0.00010	mg/L	Oct-24-08	EPA 6020A	RMD	
Calcium	<b>14.4</b>	0.5	mg/L	Oct-24-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Oct-24-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Oct-24-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Oct-24-08	EPA 6020A	RMD	
Magnesium	<b>2.44</b>	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Oct-24-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Oct-24-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Oct-24-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Potassium	<b>0.59</b>	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Oct-24-08	EPA 6020A	RMD	
Silicon	<b>2.4</b>	1.0	mg/L	Oct-24-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Oct-24-08	EPA 6020A	RMD	
Sodium	<b>1.34</b>	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Strontium	<b>0.220</b>	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Oct-24-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Oct-24-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Oct-24-08	EPA 6020A	RMD	

## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0637  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### Total Recoverable Metals by ICPMS, Continued

**Site #2 - 50 meters (K8J0637-04) Matrix: Water Sampled: Oct-19-08 10:35, Continued**

Zinc	<b>0.024</b>	0.010	mg/L	Oct-24-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	

**Site #3 - 5 meters (K8J0637-05) Matrix: Water Sampled: Oct-19-08 11:25**

Aluminum	<0.050	0.050	mg/L	Oct-24-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Oct-24-08	EPA 6020A	RMD	
Barium	<b>0.026</b>	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Oct-24-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Oct-24-08	EPA 6020A	RMD	
Cadmium	<b>0.00013</b>	0.00010	mg/L	Oct-24-08	EPA 6020A	RMD	
Calcium	<b>13.5</b>	0.5	mg/L	Oct-24-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Oct-24-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Oct-24-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Oct-24-08	EPA 6020A	RMD	
Magnesium	<b>2.20</b>	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Oct-24-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Oct-24-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Oct-24-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Potassium	<b>0.56</b>	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Oct-24-08	EPA 6020A	RMD	
Silicon	<b>2.3</b>	1.0	mg/L	Oct-24-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Oct-24-08	EPA 6020A	RMD	
Sodium	<b>1.18</b>	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Strontium	<b>0.212</b>	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Oct-24-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Oct-24-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Oct-24-08	EPA 6020A	RMD	
Zinc	<b>0.016</b>	0.010	mg/L	Oct-24-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	

**Site #3 - 50 meters (K8J0637-06) Matrix: Water Sampled: Oct-19-08 11:25**

Aluminum	<0.050	0.050	mg/L	Oct-24-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Oct-24-08	EPA 6020A	RMD	
Barium	<b>0.027</b>	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	

**SAMPLE DATA**

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0637  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

**Total Recoverable Metals by ICPMS, Continued**

**Site #3 - 50 meters (K8J0637-06) Matrix: Water Sampled: Oct-19-08 11:25, Continued**

Beryllium	<0.0020	0.0020	mg/L	Oct-24-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Oct-24-08	EPA 6020A	RMD	
Cadmium	<b>0.00015</b>	0.00010	mg/L	Oct-24-08	EPA 6020A	RMD	
Calcium	<b>14.7</b>	0.5	mg/L	Oct-24-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Oct-24-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Oct-24-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Oct-24-08	EPA 6020A	RMD	
Magnesium	<b>2.40</b>	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Oct-24-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Oct-24-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Oct-24-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Potassium	<b>0.61</b>	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Oct-24-08	EPA 6020A	RMD	
Silicon	<b>2.7</b>	1.0	mg/L	Oct-24-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Oct-24-08	EPA 6020A	RMD	
Sodium	<b>1.31</b>	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Strontium	<b>0.221</b>	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Oct-24-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Oct-24-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Oct-24-08	EPA 6020A	RMD	
Zinc	<b>0.021</b>	0.010	mg/L	Oct-24-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	

**Site #4 - 5 meters (K8J0637-07) Matrix: Water Sampled: Oct-19-08 12:10**

Aluminum	<0.050	0.050	mg/L	Oct-24-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Oct-24-08	EPA 6020A	RMD	
Barium	<b>0.027</b>	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Oct-24-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Oct-24-08	EPA 6020A	RMD	
Cadmium	<b>0.00013</b>	0.00010	mg/L	Oct-24-08	EPA 6020A	RMD	
Calcium	<b>13.8</b>	0.5	mg/L	Oct-24-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Oct-24-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	

## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0637  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### Total Recoverable Metals by ICPMS, Continued

**Site #4 - 5 meters (K8J0637-07) Matrix: Water Sampled: Oct-19-08 12:10, Continued**

Iron	<0.20	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Oct-24-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Oct-24-08	EPA 6020A	RMD	
Magnesium	<b>2.25</b>	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Oct-24-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Oct-24-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Oct-24-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Potassium	<b>0.57</b>	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Oct-24-08	EPA 6020A	RMD	
Silicon	<b>2.4</b>	1.0	mg/L	Oct-24-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Oct-24-08	EPA 6020A	RMD	
Sodium	<b>1.19</b>	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Strontium	<b>0.219</b>	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Oct-24-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Oct-24-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Oct-24-08	EPA 6020A	RMD	
Zinc	<b>0.016</b>	0.010	mg/L	Oct-24-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	

**Site #4 - 50 meters (K8J0637-08) Matrix: Water Sampled: Oct-20-08 12:15**

Aluminum	<0.050	0.050	mg/L	Oct-24-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Oct-24-08	EPA 6020A	RMD	
Barium	<b>0.027</b>	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Oct-24-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Oct-24-08	EPA 6020A	RMD	
Cadmium	<b>0.00016</b>	0.00010	mg/L	Oct-24-08	EPA 6020A	RMD	
Calcium	<b>14.3</b>	0.5	mg/L	Oct-24-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Oct-24-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Oct-24-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Oct-24-08	EPA 6020A	RMD	
Magnesium	<b>2.43</b>	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Oct-24-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Oct-24-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Oct-24-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	

**SAMPLE DATA**

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0637  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

**Total Recoverable Metals by ICPMS, Continued**

**Site #4 - 50 meters (K8J0637-08) Matrix: Water Sampled: Oct-20-08 12:15, Continued**

Phosphorus	<0.20	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Potassium	<b>0.59</b>	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Oct-24-08	EPA 6020A	RMD	
Silicon	<b>2.6</b>	1.0	mg/L	Oct-24-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Oct-24-08	EPA 6020A	RMD	
Sodium	<b>1.31</b>	0.20	mg/L	Oct-24-08	EPA 6020A	RMD	
Strontium	<b>0.219</b>	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Oct-24-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Oct-24-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Oct-24-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Oct-24-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Oct-24-08	EPA 6020A	RMD	
Zinc	<b>0.023</b>	0.010	mg/L	Oct-24-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Oct-24-08	EPA 6020A	RMD	

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0637  
Jan-28-09

The following section reports quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with quality control samples that ensure your data is of the highest quality. Common QC types include:

- Method Blank (Blk): Laboratory reagent water is carried through sample preparation and analysis steps. Method Blanks indicate that results are free from contamination, i.e. not biased high from sources such as the sample container or the laboratory environment
- Duplicate (Dup): Preparation and analysis of a replicate aliquot of a sample. Duplicates provide a measure of the analytical method's precision, i.e. how reproducible a result is. Duplicates are only reported if they are associated with your sample data.
- Blank Spike (BS): A known amount of standard is carried through sample preparation and analysis steps. Blank Spikes, also known as laboratory control samples (LCS), are prepared from a different source of standard than used for the calibration. They ensure that the calibration is acceptable (i.e. not biased high or low) and also provide a measure of the analytical method's accuracy (i.e. closeness of the result to a target value).
- Standard Reference Material (SRM): A material of similar matrix to the samples, externally certified for the parameter(s) listed. Standard Reference Materials ensure that the preparation steps in the method are adequate to achieve acceptable recoveries of the parameter(s) tested for.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

### General Parameters, Batch K803696

**Blank (K803696-BLK1)**

Prepared & Analyzed: Oct-21-08

Nitrogen, Nitrate as N	<	0.01	mg/L
Nitrogen, Nitrite as N	<	0.01	mg/L

**Blank (K803696-BLK2)**

Prepared & Analyzed: Oct-21-08

Nitrogen, Nitrate as N	<	0.01	mg/L
Nitrogen, Nitrite as N	<	0.01	mg/L

**Blank (K803696-BLK3)**

Prepared & Analyzed: Oct-21-08

Nitrogen, Nitrate as N	<	0.01	mg/L
Nitrogen, Nitrite as N	<	0.01	mg/L

**LCS (K803696-BS1)**

Prepared & Analyzed: Oct-21-08

Nitrogen, Nitrate as N	4.40	0.01	mg/L	4.00	110	85-115
Nitrogen, Nitrite as N	4.09	0.01	mg/L	4.00	102	85-115

**LCS (K803696-BS2)**

Prepared & Analyzed: Oct-21-08

Nitrogen, Nitrate as N	4.43	0.01	mg/L	4.00	111	85-115
Nitrogen, Nitrite as N	4.07	0.01	mg/L	4.00	102	85-115

**LCS (K803696-BS3)**

Prepared & Analyzed: Oct-21-08

Nitrogen, Nitrate as N	4.53	0.01	mg/L	4.00	113	85-115
Nitrogen, Nitrite as N	4.12	0.01	mg/L	4.00	103	85-115

### General Parameters, Batch K803699

**Blank (K803699-BLK1)**

Prepared: Oct-21-08 Analyzed: Oct-24-08

Nitrogen, Total Kjeldahl	<	0.05	mg/L
--------------------------	---	------	------

**Blank (K803699-BLK2)**

Prepared: Oct-21-08 Analyzed: Oct-24-08

Nitrogen, Total Kjeldahl	<	0.05	mg/L
--------------------------	---	------	------

**LCS (K803699-BS1)**

Prepared: Oct-21-08 Analyzed: Oct-24-08

Nitrogen, Total Kjeldahl	9.53	0.50	mg/L	10.0	95	80-120
--------------------------	------	------	------	------	----	--------

**LCS (K803699-BS2)**

Prepared: Oct-21-08 Analyzed: Oct-24-08

Nitrogen, Total Kjeldahl	9.76	0.50	mg/L	10.0	98	80-120
--------------------------	------	------	------	------	----	--------



## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0637  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

### General Parameters, Batch K803699, Continued

<b>Duplicate (K803699-DUP1)</b>		<b>Source: K8J0637-02</b>		Prepared: Oct-21-08 Analyzed: Oct-24-08						
Nitrogen, Total Kjeldahl	<	0.05	mg/L		<				20	

### General Parameters, Batch K803704

<b>Blank (K803704-BLK1)</b>		Prepared: Oct-21-08 Analyzed: Oct-24-08								
Phosphorus, Total	<	0.01	mg/L							

<b>Blank (K803704-BLK2)</b>		Prepared: Oct-21-08 Analyzed: Oct-24-08								
Phosphorus, Total	<	0.01	mg/L							

<b>LCS (K803704-BS1)</b>		Prepared: Oct-21-08 Analyzed: Oct-24-08								
Phosphorus, Total	0.51	0.02	mg/L	0.500		103	85-115			

<b>LCS (K803704-BS2)</b>		Prepared: Oct-21-08 Analyzed: Oct-24-08								
Phosphorus, Total	0.51	0.02	mg/L	0.500		102	85-115			

<b>Calibration Check (K803704-CCV1)</b>		Prepared: Oct-21-08 Analyzed: Oct-24-08								
Phosphorus, Total	0.56		mg/L	0.500		112	80-120			

<b>Calibration Check (K803704-CCV2)</b>		Prepared: Oct-21-08 Analyzed: Oct-24-08								
Phosphorus, Total	0.55		mg/L	0.500		109	80-120			

<b>Duplicate (K803704-DUP1)</b>		<b>Source: K8J0637-07</b>		Prepared: Oct-21-08 Analyzed: Oct-24-08						
Phosphorus, Total	<	0.01	mg/L		<				20	

### General Parameters, Batch K803730

<b>Blank (K803730-BLK1)</b>		Prepared & Analyzed: Oct-23-08								
Solids, Total Suspended	<	1	mg/L							

<b>Blank (K803730-BLK2)</b>		Prepared & Analyzed: Oct-23-08								
Solids, Total Suspended	<	1	mg/L							

<b>Blank (K803730-BLK3)</b>		Prepared & Analyzed: Oct-23-08								
Solids, Total Suspended	<	1	mg/L							

<b>LCS (K803730-BS1)</b>		Prepared & Analyzed: Oct-23-08								
Solids, Total Suspended	49	1	mg/L	50.0		98	80-115			

<b>LCS (K803730-BS2)</b>		Prepared & Analyzed: Oct-23-08								
Solids, Total Suspended	49	1	mg/L	50.0		98	80-115			

<b>LCS (K803730-BS3)</b>		Prepared & Analyzed: Oct-23-08								
Solids, Total Suspended	47	1	mg/L	50.0		94	80-115			

<b>Duplicate (K803730-DUP3)</b>		<b>Source: K8J0637-05</b>		Prepared & Analyzed: Oct-23-08						
Solids, Total Suspended	<	1	mg/L		<				20	

### Total Recoverable Metals by ICPMS, Batch R803079

<b>Blank (R803079-BLK1)</b>		Prepared: Oct-23-08 Analyzed: Oct-24-08								
Aluminum	<	0.050	mg/L							
Antimony	<	0.0030	mg/L							
Arsenic	<	0.0050	mg/L							
Barium	<	0.005	mg/L							
Beryllium	<	0.0020	mg/L							
Bismuth	<	0.0005	mg/L							

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0637  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Total Recoverable Metals by ICPMS, Batch R803079, Continued**

**Blank (R803079-BLK1), Continued**

Prepared: Oct-23-08 Analyzed: Oct-24-08

Boron	<	0.020	mg/L							
Cadmium	<	0.00010	mg/L							
Calcium	<	0.5	mg/L							
Chromium	<	0.015	mg/L							
Cobalt	<	0.0005	mg/L							
Copper	<	0.0030	mg/L							
Iron	<	0.20	mg/L							
Lead	<	0.0010	mg/L							
Lithium	<	0.0020	mg/L							
Magnesium	<	0.20	mg/L							
Manganese	<	0.0050	mg/L							
Mercury	<	0.00030	mg/L							
Molybdenum	<	0.0010	mg/L							
Nickel	<	0.005	mg/L							
Phosphorus	<	0.20	mg/L							
Potassium	<	0.20	mg/L							
Selenium	<	0.0050	mg/L							
Silicon	<	1.0	mg/L							
Silver	<	0.00040	mg/L							
Sodium	<	0.20	mg/L							
Strontium	<	0.005	mg/L							
Tellurium	<	0.0030	mg/L							
Thallium	<	0.0005	mg/L							
Thorium	<	0.0030	mg/L							
Tin	<	0.0020	mg/L							
Titanium	<	0.10	mg/L							
Uranium	<	0.0005	mg/L							
Vanadium	<	0.010	mg/L							
Zinc	<	0.010	mg/L							
Zirconium	<	0.005	mg/L							

**Blank (R803079-BLK2)**

Prepared: Oct-23-08 Analyzed: Oct-24-08

Aluminum	<	0.050	mg/L							
Antimony	<	0.0030	mg/L							
Arsenic	<	0.0050	mg/L							
Barium	<	0.005	mg/L							
Beryllium	<	0.0020	mg/L							
Bismuth	<	0.0005	mg/L							
Boron	<	0.020	mg/L							
Cadmium	<	0.00010	mg/L							
Calcium	<	0.5	mg/L							
Chromium	<	0.015	mg/L							
Cobalt	<	0.0005	mg/L							
Copper	<	0.0030	mg/L							
Iron	<	0.20	mg/L							
Lead	<	0.0010	mg/L							
Lithium	<	0.0020	mg/L							
Magnesium	<	0.20	mg/L							
Manganese	<	0.0050	mg/L							
Mercury	<	0.00030	mg/L							
Molybdenum	<	0.0010	mg/L							
Nickel	<	0.005	mg/L							
Phosphorus	<	0.20	mg/L							
Potassium	<	0.20	mg/L							
Selenium	<	0.0050	mg/L							
Silicon	<	1.0	mg/L							
Silver	<	0.00040	mg/L							

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0637  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Total Recoverable Metals by ICPMS, Batch R803079, Continued**

**Blank (R803079-BLK2), Continued**

Prepared: Oct-23-08 Analyzed: Oct-24-08

Sodium	<	0.20	mg/L							
Strontium	<	0.005	mg/L							
Tellurium	<	0.0030	mg/L							
Thallium	<	0.0005	mg/L							
Thorium	<	0.0030	mg/L							
Tin	<	0.0020	mg/L							
Titanium	<	0.10	mg/L							
Uranium	<	0.0005	mg/L							
Vanadium	<	0.010	mg/L							
Zinc	<	0.010	mg/L							
Zirconium	<	0.005	mg/L							

**Blank (R803079-BLK3)**

Prepared: Oct-23-08 Analyzed: Oct-24-08

Aluminum	<	0.050	mg/L							
Antimony	<	0.0030	mg/L							
Arsenic	<	0.0050	mg/L							
Barium	<	0.005	mg/L							
Beryllium	<	0.0020	mg/L							
Bismuth	<	0.0005	mg/L							
Boron	<	0.020	mg/L							
Cadmium	<	0.00010	mg/L							
Calcium	<	0.5	mg/L							
Chromium	<	0.015	mg/L							
Cobalt	<	0.0005	mg/L							
Copper	<	0.0030	mg/L							
Iron	<	0.20	mg/L							
Lead	<	0.0010	mg/L							
Lithium	<	0.0020	mg/L							
Magnesium	<	0.20	mg/L							
Manganese	<	0.0050	mg/L							
Mercury	<	0.00030	mg/L							
Molybdenum	<	0.0010	mg/L							
Nickel	<	0.005	mg/L							
Phosphorus	<	0.20	mg/L							
Potassium	<	0.20	mg/L							
Selenium	<	0.0050	mg/L							
Silicon	<	1.0	mg/L							
Silver	<	0.00040	mg/L							
Sodium	<	0.20	mg/L							
Strontium	<	0.005	mg/L							
Tellurium	<	0.0030	mg/L							
Thallium	<	0.0005	mg/L							
Thorium	<	0.0030	mg/L							
Tin	<	0.0020	mg/L							
Titanium	<	0.10	mg/L							
Uranium	<	0.0005	mg/L							
Vanadium	<	0.010	mg/L							
Zinc	<	0.010	mg/L							
Zirconium	<	0.005	mg/L							

**Matrix Spike (R803079-MS1)**

Source: K8J0637-01

Prepared: Oct-23-08 Analyzed: Oct-24-08

Antimony	0.421	0.0030	mg/L	0.400	<	105	80-120
Arsenic	0.208	0.0050	mg/L	0.200	<	104	80-120
Barium	1.07	0.005	mg/L	1.00	0.025	104	70-130
Beryllium	0.443	0.0020	mg/L	0.400	<	111	70-130
Cadmium	0.113	0.00010	mg/L	0.100	0.00013	113	80-120
Chromium	0.448	0.015	mg/L	0.400	<	112	70-130

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0637  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

### Total Recoverable Metals by ICPMS, Batch R803079, Continued

Matrix Spike (R803079-MS1), Continued	Source: K8J0637-01			Prepared: Oct-23-08 Analyzed: Oct-24-08						
Cobalt	0.454	0.0005	mg/L	0.400	<	114	80-120			
Copper	0.441	0.0030	mg/L	0.400	<	110	70-130			
Iron	2.11	0.20	mg/L	2.00	<	105	70-130			
Lead	0.233	0.0010	mg/L	0.200	<	116	70-130			
Manganese	0.482	0.0050	mg/L	0.400	<	121	70-130			
Nickel	0.451	0.005	mg/L	0.400	<	113	80-120			
Selenium	0.105	0.0050	mg/L	0.100	<	105	80-120			
Silver	0.103	0.00040	mg/L	0.100	<	103	60-140			
Thallium	0.116	0.0005	mg/L	0.100	<	116	80-120			
Vanadium	0.211	0.010	mg/L	0.200	<	106	80-120			
Zinc	1.11	0.010	mg/L	1.00	0.016	110	80-120			

Reference (R803079-SRM1)	Prepared: Oct-23-08 Analyzed: Oct-24-08									
Aluminum	0.359	0.050	mg/L	0.330		109	80-120			
Antimony	0.0839	0.0030	mg/L	0.0790		106	80-120			
Arsenic	0.163	0.0050	mg/L	0.159		103	80-120			
Barium	0.579	0.005	mg/L	0.650		89	80-120			
Beryllium	0.0629	0.0020	mg/L	0.0600		105	80-120			
Boron	4.23	0.020	mg/L	3.97		107	80-120			
Cadmium	0.0802	0.00010	mg/L	0.0790		102	80-120			
Calcium	10.6	0.5	mg/L	10.3		103	80-120			
Chromium	0.287	0.015	mg/L	0.274		105	80-120			
Cobalt	0.0396	0.0005	mg/L	0.0390		102	80-120			
Copper	0.217	0.0030	mg/L	0.200		109	80-120			
Iron	0.63	0.20	mg/L	0.590		107	80-120			
Lead	0.274	0.0010	mg/L	0.260		105	80-120			
Manganese	0.141	0.0050	mg/L	0.138		102	80-120			
Molybdenum	0.205	0.0010	mg/L	0.200		102	80-120			
Nickel	0.355	0.005	mg/L	0.340		104	80-120			
Potassium	6.06	0.20	mg/L	6.21		98	80-120			
Selenium	0.118	0.0050	mg/L	0.120		98	80-120			
Sodium	9.16	0.20	mg/L	8.32		110	80-120			
Strontium	0.372	0.005	mg/L	0.380		98	80-120			
Thallium	0.105	0.0005	mg/L	0.0970		109	80-120			
Vanadium	0.401	0.010	mg/L	0.390		103	80-120			
Zinc	2.11	0.010	mg/L	2.02		104	80-120			

Reference (R803079-SRM2)	Prepared: Oct-23-08 Analyzed: Oct-24-08									
Aluminum	0.358	0.050	mg/L	0.330		108	80-120			
Antimony	0.0845	0.0030	mg/L	0.0790		107	80-120			
Arsenic	0.164	0.0050	mg/L	0.159		103	80-120			
Barium	0.599	0.005	mg/L	0.650		92	80-120			
Beryllium	0.0625	0.0020	mg/L	0.0600		104	80-120			
Boron	4.24	0.020	mg/L	3.97		107	80-120			
Cadmium	0.0794	0.00010	mg/L	0.0790		101	80-120			
Calcium	10.7	0.5	mg/L	10.3		104	80-120			
Chromium	0.284	0.015	mg/L	0.274		104	80-120			
Cobalt	0.0392	0.0005	mg/L	0.0390		101	80-120			
Copper	0.213	0.0030	mg/L	0.200		107	80-120			
Iron	0.63	0.20	mg/L	0.590		107	80-120			
Lead	0.270	0.0010	mg/L	0.260		104	80-120			
Manganese	0.140	0.0050	mg/L	0.138		102	80-120			
Molybdenum	0.203	0.0010	mg/L	0.200		101	80-120			
Nickel	0.346	0.005	mg/L	0.340		102	80-120			
Potassium	5.98	0.20	mg/L	6.21		96	80-120			
Selenium	0.121	0.0050	mg/L	0.120		101	80-120			
Sodium	9.17	0.20	mg/L	8.32		110	80-120			

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewardship Society

**WORK ORDER #**  
**REPORTED**

K8J0637  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Total Recoverable Metals by ICPMS, Batch R803079, Continued**

**Reference (R803079-SRM2), Continued**

Prepared: Oct-23-08 Analyzed: Oct-24-08

Strontium	0.373	0.005	mg/L	0.380		98	80-120			
Thallium	0.103	0.0005	mg/L	0.0970		107	80-120			
Vanadium	0.397	0.010	mg/L	0.390		102	80-120			
Zinc	2.12	0.010	mg/L	2.02		105	80-120			

**Reference (R803079-SRM3)**

Prepared: Oct-23-08 Analyzed: Oct-24-08

Aluminum	0.668	0.050	mg/L	0.330		203	80-120			SRM
Antimony	0.0864	0.0030	mg/L	0.0790		109	80-120			
Arsenic	0.171	0.0050	mg/L	0.159		108	80-120			
Barium	0.611	0.005	mg/L	0.650		94	80-120			
Beryllium	0.0714	0.0020	mg/L	0.0600		119	80-120			
Boron	4.68	0.020	mg/L	3.97		118	80-120			
Cadmium	0.0817	0.00010	mg/L	0.0790		103	80-120			
Calcium	11.4	0.5	mg/L	10.3		111	80-120			
Chromium	0.296	0.015	mg/L	0.274		108	80-120			
Cobalt	0.0413	0.0005	mg/L	0.0390		106	80-120			
Copper	0.226	0.0030	mg/L	0.200		113	80-120			
Iron	0.99	0.20	mg/L	0.590		167	80-120			SRM
Lead	0.280	0.0010	mg/L	0.260		108	80-120			
Manganese	0.157	0.0050	mg/L	0.138		114	80-120			
Molybdenum	0.209	0.0010	mg/L	0.200		105	80-120			
Nickel	0.365	0.005	mg/L	0.340		107	80-120			
Potassium	6.39	0.20	mg/L	6.21		103	80-120			
Selenium	0.124	0.0050	mg/L	0.120		104	80-120			
Sodium	9.99	0.20	mg/L	8.32		120	80-120			
Strontium	0.386	0.005	mg/L	0.380		101	80-120			
Thallium	0.107	0.0005	mg/L	0.0970		111	80-120			
Vanadium	0.412	0.010	mg/L	0.390		106	80-120			
Zinc	2.24	0.010	mg/L	2.02		111	80-120			

**QC Qualifiers:**

SRM Recovery of one or more analytes on Standard Reference Material (SRM) analysis are outside of control limits. Data accepted based on acceptable performance of other batch QC.

## CERTIFICATE OF ANALYSIS

**CLIENT****Galena Environmental Ltd.**

8075 Upper Galena Farm Road- PO Box 37

Silverton BC

VOG 2B0

TEL

1-250-358-2872

FAX

1-250-358-2114

**ATTENTION****Luce Paquin****RECEIVED / TEMP  
REPORTED**

Oct-28-08 08:40 / 6 °C

Jan-28-09

**COC #(s)**

05142

**WORK ORDER #**

K8J0861

**PROJECT FILE**

Slocan Lake Stewardship Society

**General Comments:**

CARO Analytical Services employs methods which are based on those found in "Standard Methods for the Examination of Water and Wastewater", 21st Edition, 2005, published by the American Public Health Association (APHA); US EPA protocols found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846", 3rd Edition; and protocols published by the British Columbia Ministry of Environment (BCMOE).

Methods not described in these publications are conducted according to procedures accepted by appropriate regulatory agencies, and/or are done in accordance with recognized professional standards using accepted testing methodologies and quality control efforts except where otherwise agreed to by the client.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Samples will be disposed of 30 days after the test report has been issued unless otherwise agreed to in writing.

- All solids results are reported on a dry weight basis unless otherwise noted
- Units:
  - mg/kg = milligrams per kilogram, equivalent to parts per million (ppm)
  - mg/L = milligrams per litre, equivalent to parts per million (ppm)
  - ug/L = micrograms per litre, equivalent to parts per billion (ppb)
  - ug/g = micrograms per gram, equivalent to parts per million (ppm)
  - ug/m<sup>3</sup> Air = micrograms per cubic meter of air
- "RDL" Reported detection limit
- "<" Less than reported detection limit
- "AO" Aesthetic objective
- "MAC" Maximum acceptable concentration (health-related guideline)
- "LAB" RMD = CARO - Richmond location, KEL = CARO - Kelowna location, SUB = Subcontracted

**Please contact CARO if more information is needed.**

**CARO Analytical Services**

Final Review Per:

**Jennifer Shanko, ASCT**

Coordinator, Operations/Admin

CARO Analytical Services (Kelowna)

102 - 3677 Highway 97N Kelowna, BC Canada V1X 5C3

Tel: (250) 765-9646 Fax: (250) 765-3893 Web: www.caro.ca

Page 1 of 18

## NOTES AND COMMENTS

<b>CLIENT</b>	Galena Environmental Ltd.	<b>WORK ORDER #</b>	K8J0861
<b>PROJECT FILE</b>	Slocan Lake Stewardship Society	<b>REPORTED</b>	Jan-28-09

---

This is an amended report. QC data has been attached, as per clients request.

## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0861  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### General Parameters

**Site #1 - 5 meters (K8J0861-01) Matrix: Water Sampled: Oct-26-08**

Hardness, Total (Total as CaCO <sub>3</sub> )	<b>38.4</b>	2.07	mg/L	Oct-31-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.03</b>	0.01	mg/L	Oct-28-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.03</b>	0.01	mg/L	Oct-28-08	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Oct-28-08	APHA 4110 B	KEL	
Nitrogen, Total Kjeldahl	<b>0.16</b>	0.05	mg/L	Oct-29-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.19</b>	0.05	mg/L	Oct-29-08	Calc	KEL	
Phosphorus, Total	<b>0.02</b>	0.01	mg/L	Oct-31-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Oct-31-08	APHA 2540 D	KEL	

**Site #2 - 5 meters (K8J0861-02) Matrix: Water Sampled: Oct-26-08**

Hardness, Total (Total as CaCO <sub>3</sub> )	<b>39.6</b>	2.07	mg/L	Oct-31-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.03</b>	0.01	mg/L	Oct-28-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.03</b>	0.01	mg/L	Oct-28-08	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Oct-28-08	APHA 4110 B	KEL	
Nitrogen, Total Kjeldahl	<b>0.31</b>	0.05	mg/L	Oct-29-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.34</b>	0.05	mg/L	Oct-29-08	Calc	KEL	
Phosphorus, Total	<b>0.02</b>	0.01	mg/L	Oct-31-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Oct-31-08	APHA 2540 D	KEL	

**Site #3 - 5 meters (K8J0861-03) Matrix: Water Sampled: Oct-26-08**

Hardness, Total (Total as CaCO <sub>3</sub> )	<b>38.9</b>	2.07	mg/L	Oct-31-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.03</b>	0.01	mg/L	Oct-28-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.03</b>	0.01	mg/L	Oct-28-08	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Oct-28-08	APHA 4110 B	KEL	
Nitrogen, Total Kjeldahl	<b>0.13</b>	0.05	mg/L	Oct-29-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.16</b>	0.05	mg/L	Oct-29-08	Calc	KEL	
Phosphorus, Total	<b>0.02</b>	0.01	mg/L	Oct-31-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Oct-31-08	APHA 2540 D	KEL	

**Site #4 - 5 meters (K8J0861-04) Matrix: Water Sampled: Oct-26-08**

Hardness, Total (Total as CaCO <sub>3</sub> )	<b>38.9</b>	2.07	mg/L	Oct-31-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.03</b>	0.01	mg/L	Oct-28-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.03</b>	0.01	mg/L	Oct-28-08	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Oct-28-08	APHA 4110 B	KEL	
Nitrogen, Total Kjeldahl	<b>0.19</b>	0.05	mg/L	Oct-29-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.22</b>	0.05	mg/L	Oct-29-08	Calc	KEL	
Phosphorus, Total	<b>0.02</b>	0.01	mg/L	Oct-31-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Oct-31-08	APHA 2540 D	KEL	

**Site #1 - 50 meters (K8J0861-05) Matrix: Water Sampled: Oct-26-08**

Hardness, Total (Total as CaCO <sub>3</sub> )	<b>41.1</b>	2.07	mg/L	Oct-31-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.09</b>	0.01	mg/L	Oct-28-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.09</b>	0.01	mg/L	Oct-28-08	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Oct-28-08	APHA 4110 B	KEL	
Nitrogen, Total Kjeldahl	<b>0.16</b>	0.05	mg/L	Oct-29-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.25</b>	0.05	mg/L	Oct-29-08	Calc	KEL	



## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0861  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### General Parameters, Continued

**Site #1 - 50 meters (K8J0861-05) Matrix: Water Sampled: Oct-26-08, Continued**

Phosphorus, Total	0.02	0.01	mg/L	Oct-31-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Oct-31-08	APHA 2540 D	KEL	

**Site #2 - 50 meters (K8J0861-06) Matrix: Water Sampled: Oct-26-08**

Hardness, Total (Total as CaCO3)	42.2	2.07	mg/L	Oct-31-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	0.09	0.01	mg/L	Oct-28-08	Calc	KEL	
Nitrogen, Nitrate as N	0.09	0.01	mg/L	Oct-28-08	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Oct-28-08	APHA 4110 B	KEL	
Nitrogen, Total Kjeldahl	0.12	0.05	mg/L	Oct-29-08	APHA 4500-Norg	KEL	
Nitrogen, Total	0.21	0.05	mg/L	Oct-29-08	Calc	KEL	
Phosphorus, Total	0.02	0.01	mg/L	Oct-31-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Oct-31-08	APHA 2540 D	KEL	

**Site #3 - 50 meters (K8J0861-07) Matrix: Water Sampled: Oct-26-08**

Hardness, Total (Total as CaCO3)	41.8	2.07	mg/L	Oct-31-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	0.08	0.01	mg/L	Oct-28-08	Calc	KEL	
Nitrogen, Nitrate as N	0.08	0.01	mg/L	Oct-28-08	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Oct-28-08	APHA 4110 B	KEL	
Nitrogen, Total Kjeldahl	0.15	0.05	mg/L	Oct-29-08	APHA 4500-Norg	KEL	
Nitrogen, Total	0.24	0.05	mg/L	Oct-29-08	Calc	KEL	
Phosphorus, Total	0.03	0.01	mg/L	Oct-31-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Oct-31-08	APHA 2540 D	KEL	

**Site #4 - 50 meters (K8J0861-08) Matrix: Water Sampled: Oct-26-08**

Hardness, Total (Total as CaCO3)	43.9	2.07	mg/L	Oct-31-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	0.09	0.01	mg/L	Oct-28-08	Calc	KEL	
Nitrogen, Nitrate as N	0.09	0.01	mg/L	Oct-28-08	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Oct-28-08	APHA 4110 B	KEL	
Nitrogen, Total Kjeldahl	0.12	0.05	mg/L	Oct-29-08	APHA 4500-Norg	KEL	
Nitrogen, Total	0.21	0.05	mg/L	Oct-29-08	Calc	KEL	
Phosphorus, Total	0.02	0.01	mg/L	Oct-31-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Oct-31-08	APHA 2540 D	KEL	

### Total Recoverable Metals by ICPMS

**Site #1 - 5 meters (K8J0861-01) Matrix: Water Sampled: Oct-26-08**

Aluminum	<0.050	0.050	mg/L	Oct-31-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Oct-31-08	EPA 6020A	RMD	
Barium	0.025	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Oct-31-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Oct-31-08	EPA 6020A	RMD	
Cadmium	0.00028	0.00010	mg/L	Oct-31-08	EPA 6020A	RMD	
Calcium	12.6	0.5	mg/L	Oct-31-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Oct-31-08	EPA 6020A	RMD	

**SAMPLE DATA**

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0861  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

**Total Recoverable Metals by ICPMS, Continued**

**Site #1 - 5 meters (K8J0861-01) Matrix: Water Sampled: Oct-26-08, Continued**

Cobalt	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Oct-31-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Oct-31-08	EPA 6020A	RMD	
Magnesium	<b>1.70</b>	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Oct-31-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Oct-31-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Oct-31-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Potassium	<b>0.47</b>	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Oct-31-08	EPA 6020A	RMD	
Silicon	<b>2.6</b>	1.0	mg/L	Oct-31-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Oct-31-08	EPA 6020A	RMD	
Sodium	<b>0.88</b>	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Strontium	<b>0.199</b>	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Oct-31-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Oct-31-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Oct-31-08	EPA 6020A	RMD	
Zinc	<b>0.027</b>	0.010	mg/L	Oct-31-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	

**Site #2 - 5 meters (K8J0861-02) Matrix: Water Sampled: Oct-26-08**

Aluminum	<0.050	0.050	mg/L	Oct-31-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Oct-31-08	EPA 6020A	RMD	
Barium	<b>0.025</b>	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Oct-31-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Oct-31-08	EPA 6020A	RMD	
Cadmium	<b>0.00012</b>	0.00010	mg/L	Oct-31-08	EPA 6020A	RMD	
Calcium	<b>12.9</b>	0.5	mg/L	Oct-31-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Oct-31-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Oct-31-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Oct-31-08	EPA 6020A	RMD	
Magnesium	<b>1.78</b>	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Oct-31-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Oct-31-08	EPA 6020A	RMD	

## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0861  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### Total Recoverable Metals by ICPMS, Continued

**Site #2 - 5 meters (K8J0861-02) Matrix: Water Sampled: Oct-26-08, Continued**

Molybdenum	<0.0010	0.0010	mg/L	Oct-31-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Potassium	<b>0.48</b>	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Oct-31-08	EPA 6020A	RMD	
Silicon	<b>2.7</b>	1.0	mg/L	Oct-31-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Oct-31-08	EPA 6020A	RMD	
Sodium	<b>0.88</b>	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Strontium	<b>0.200</b>	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Oct-31-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Oct-31-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Oct-31-08	EPA 6020A	RMD	
Zinc	<b>0.016</b>	0.010	mg/L	Oct-31-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	

**Site #3 - 5 meters (K8J0861-03) Matrix: Water Sampled: Oct-26-08**

Aluminum	<0.050	0.050	mg/L	Oct-31-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Oct-31-08	EPA 6020A	RMD	
Barium	<b>0.024</b>	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Oct-31-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Oct-31-08	EPA 6020A	RMD	
Cadmium	<b>0.00012</b>	0.00010	mg/L	Oct-31-08	EPA 6020A	RMD	
Calcium	<b>12.7</b>	0.5	mg/L	Oct-31-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Oct-31-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Oct-31-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Oct-31-08	EPA 6020A	RMD	
Magnesium	<b>1.73</b>	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Oct-31-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Oct-31-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Oct-31-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Potassium	<b>0.46</b>	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Oct-31-08	EPA 6020A	RMD	
Silicon	<b>2.1</b>	1.0	mg/L	Oct-31-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Oct-31-08	EPA 6020A	RMD	
Sodium	<b>0.83</b>	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	

## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0861  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### Total Recoverable Metals by ICPMS, Continued

**Site #3 - 5 meters (K8J0861-03) Matrix: Water Sampled: Oct-26-08, Continued**

Strontium	<b>0.199</b>	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Oct-31-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Oct-31-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Oct-31-08	EPA 6020A	RMD	
Zinc	<b>0.016</b>	0.010	mg/L	Oct-31-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	

**Site #4 - 5 meters (K8J0861-04) Matrix: Water Sampled: Oct-26-08**

Aluminum	<0.050	0.050	mg/L	Oct-31-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Oct-31-08	EPA 6020A	RMD	
Barium	<b>0.025</b>	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Oct-31-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Oct-31-08	EPA 6020A	RMD	
Cadmium	<b>0.00012</b>	0.00010	mg/L	Oct-31-08	EPA 6020A	RMD	
Calcium	<b>12.7</b>	0.5	mg/L	Oct-31-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Oct-31-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Oct-31-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Oct-31-08	EPA 6020A	RMD	
Magnesium	<b>1.71</b>	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Oct-31-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Oct-31-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Oct-31-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Potassium	<b>0.45</b>	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Oct-31-08	EPA 6020A	RMD	
Silicon	<b>2.1</b>	1.0	mg/L	Oct-31-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Oct-31-08	EPA 6020A	RMD	
Sodium	<b>0.84</b>	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Strontium	<b>0.207</b>	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Oct-31-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Oct-31-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Oct-31-08	EPA 6020A	RMD	

## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0861  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### Total Recoverable Metals by ICPMS, Continued

**Site #4 - 5 meters (K8J0861-04) Matrix: Water Sampled: Oct-26-08, Continued**

Zinc	<b>0.017</b>	0.010	mg/L	Oct-31-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	

**Site #1 - 50 meters (K8J0861-05) Matrix: Water Sampled: Oct-26-08**

Aluminum	<0.050	0.050	mg/L	Oct-31-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Oct-31-08	EPA 6020A	RMD	
Barium	<b>0.025</b>	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Oct-31-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Oct-31-08	EPA 6020A	RMD	
Cadmium	<b>0.00013</b>	0.00010	mg/L	Oct-31-08	EPA 6020A	RMD	
Calcium	<b>13.3</b>	0.5	mg/L	Oct-31-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Oct-31-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Oct-31-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Oct-31-08	EPA 6020A	RMD	
Magnesium	<b>1.91</b>	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Oct-31-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Oct-31-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Oct-31-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Potassium	<b>0.49</b>	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Oct-31-08	EPA 6020A	RMD	
Silicon	<b>2.3</b>	1.0	mg/L	Oct-31-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Oct-31-08	EPA 6020A	RMD	
Sodium	<b>0.95</b>	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Strontium	<b>0.211</b>	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Oct-31-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Oct-31-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Oct-31-08	EPA 6020A	RMD	
Zinc	<b>0.022</b>	0.010	mg/L	Oct-31-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	

**Site #2 - 50 meters (K8J0861-06) Matrix: Water Sampled: Oct-26-08**

Aluminum	<0.050	0.050	mg/L	Oct-31-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Oct-31-08	EPA 6020A	RMD	
Barium	<b>0.026</b>	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	

**SAMPLE DATA**

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0861  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

**Total Recoverable Metals by ICPMS, Continued**

**Site #2 - 50 meters (K8J0861-06) Matrix: Water Sampled: Oct-26-08, Continued**

Beryllium	<0.0020	0.0020	mg/L	Oct-31-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Oct-31-08	EPA 6020A	RMD	
Cadmium	<b>0.00014</b>	0.00010	mg/L	Oct-31-08	EPA 6020A	RMD	
Calcium	<b>13.6</b>	0.5	mg/L	Oct-31-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Oct-31-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Oct-31-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Oct-31-08	EPA 6020A	RMD	
Magnesium	<b>1.99</b>	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Oct-31-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Oct-31-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Oct-31-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Potassium	<b>0.51</b>	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Oct-31-08	EPA 6020A	RMD	
Silicon	<b>2.6</b>	1.0	mg/L	Oct-31-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Oct-31-08	EPA 6020A	RMD	
Sodium	<b>1.02</b>	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Strontium	<b>0.215</b>	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Oct-31-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Oct-31-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Oct-31-08	EPA 6020A	RMD	
Zinc	<b>0.023</b>	0.010	mg/L	Oct-31-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	

**Site #3 - 50 meters (K8J0861-07) Matrix: Water Sampled: Oct-26-08**

Aluminum	<0.050	0.050	mg/L	Oct-31-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Oct-31-08	EPA 6020A	RMD	
Barium	<b>0.025</b>	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Oct-31-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Oct-31-08	EPA 6020A	RMD	
Cadmium	<b>0.00017</b>	0.00010	mg/L	Oct-31-08	EPA 6020A	RMD	
Calcium	<b>13.3</b>	0.5	mg/L	Oct-31-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Oct-31-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	

**SAMPLE DATA**

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0861  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

**Total Recoverable Metals by ICPMS, Continued**

**Site #3 - 50 meters (K8J0861-07) Matrix: Water Sampled: Oct-26-08, Continued**

Iron	<0.20	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Oct-31-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Oct-31-08	EPA 6020A	RMD	
Magnesium	<b>2.11</b>	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Oct-31-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Oct-31-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Oct-31-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Potassium	<b>0.51</b>	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Oct-31-08	EPA 6020A	RMD	
Silicon	<b>2.8</b>	1.0	mg/L	Oct-31-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Oct-31-08	EPA 6020A	RMD	
Sodium	<b>1.11</b>	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Strontium	<b>0.217</b>	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Oct-31-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Oct-31-08	EPA 6020A	RMD	
Uranium	<b>0.0005</b>	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Oct-31-08	EPA 6020A	RMD	
Zinc	<b>0.025</b>	0.010	mg/L	Oct-31-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	

**Site #4 - 50 meters (K8J0861-08) Matrix: Water Sampled: Oct-26-08**

Aluminum	<0.050	0.050	mg/L	Oct-31-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Oct-31-08	EPA 6020A	RMD	
Barium	<b>0.027</b>	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Oct-31-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Oct-31-08	EPA 6020A	RMD	
Cadmium	<b>0.00014</b>	0.00010	mg/L	Oct-31-08	EPA 6020A	RMD	
Calcium	<b>13.9</b>	0.5	mg/L	Oct-31-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Oct-31-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Oct-31-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Oct-31-08	EPA 6020A	RMD	
Magnesium	<b>2.22</b>	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Oct-31-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Oct-31-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Oct-31-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	

**SAMPLE DATA**

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0861  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

**Total Recoverable Metals by ICPMS, Continued**

**Site #4 - 50 meters (K8J0861-08) Matrix: Water Sampled: Oct-26-08, Continued**

Phosphorus	<0.20	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Potassium	<b>0.51</b>	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Oct-31-08	EPA 6020A	RMD	
Silicon	<b>3.5</b>	1.0	mg/L	Oct-31-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Oct-31-08	EPA 6020A	RMD	
Sodium	<b>1.12</b>	0.20	mg/L	Oct-31-08	EPA 6020A	RMD	
Strontium	<b>0.223</b>	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Oct-31-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Oct-31-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Oct-31-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Oct-31-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Oct-31-08	EPA 6020A	RMD	
Zinc	<b>0.025</b>	0.010	mg/L	Oct-31-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Oct-31-08	EPA 6020A	RMD	



## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0861  
Jan-28-09

The following section reports quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with quality control samples that ensure your data is of the highest quality. Common QC types include:

- Method Blank (Blk): Laboratory reagent water is carried through sample preparation and analysis steps. Method Blanks indicate that results are free from contamination, i.e. not biased high from sources such as the sample container or the laboratory environment
- Duplicate (Dup): Preparation and analysis of a replicate aliquot of a sample. Duplicates provide a measure of the analytical method's precision, i.e. how reproducible a result is. Duplicates are only reported if they are associated with your sample data.
- Blank Spike (BS): A known amount of standard is carried through sample preparation and analysis steps. Blank Spikes, also known as laboratory control samples (LCS), are prepared from a different source of standard than used for the calibration. They ensure that the calibration is acceptable (i.e. not biased high or low) and also provide a measure of the analytical method's accuracy (i.e. closeness of the result to a target value).
- Standard Reference Material (SRM): A material of similar matrix to the samples, externally certified for the parameter(s) listed. Standard Reference Materials ensure that the preparation steps in the method are adequate to achieve acceptable recoveries of the parameter(s) tested for.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

### General Parameters, Batch K803818

<b>Blank (K803818-BLK1)</b>				Prepared & Analyzed: Oct-28-08						
Nitrogen, Nitrate as N	<	0.01	mg/L							
Nitrogen, Nitrite as N	<	0.01	mg/L							
<b>Blank (K803818-BLK2)</b>				Prepared & Analyzed: Oct-28-08						
Nitrogen, Nitrate as N	<	0.01	mg/L							
Nitrogen, Nitrite as N	<	0.01	mg/L							
<b>LCS (K803818-BS1)</b>				Prepared & Analyzed: Oct-28-08						
Nitrogen, Nitrate as N	4.22	0.01	mg/L	4.00		106	85-115			
Nitrogen, Nitrite as N	3.81	0.01	mg/L	4.00		95	85-115			
<b>LCS (K803818-BS2)</b>				Prepared & Analyzed: Oct-28-08						
Nitrogen, Nitrate as N	4.43	0.01	mg/L	4.00		111	85-115			
Nitrogen, Nitrite as N	3.83	0.01	mg/L	4.00		96	85-115			
<b>Duplicate (K803818-DUP1)</b>				<b>Source: K8J0861-01</b>			Prepared & Analyzed: Oct-28-08			
Nitrogen, Nitrate as N	0.029	0.01	mg/L		0.029				15	
Nitrogen, Nitrite as N	<	0.01	mg/L		<				15	
<b>Duplicate (K803818-DUP2)</b>				<b>Source: K8J0861-05</b>			Prepared & Analyzed: Oct-28-08			
Nitrogen, Nitrate as N	0.090	0.01	mg/L		0.088			2	15	
Nitrogen, Nitrite as N	<	0.01	mg/L		<				15	

### General Parameters, Batch K803844

<b>Blank (K803844-BLK1)</b>				Prepared & Analyzed: Oct-29-08						
Nitrogen, Total Kjeldahl	<	0.05	mg/L							
<b>Blank (K803844-BLK2)</b>				Prepared & Analyzed: Oct-29-08						
Nitrogen, Total Kjeldahl	<	0.05	mg/L							
<b>LCS (K803844-BS1)</b>				Prepared & Analyzed: Oct-29-08						
Nitrogen, Total Kjeldahl	11.3	0.50	mg/L	10.0		113	80-120			
<b>LCS (K803844-BS2)</b>				Prepared & Analyzed: Oct-29-08						
Nitrogen, Total Kjeldahl	11.3	0.50	mg/L	10.0		113	80-120			

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0861  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

### General Parameters, Batch K803844, Continued

**Duplicate (K803844-DUP2)**

**Source: K8J0861-01**

Prepared & Analyzed: Oct-29-08

Nitrogen, Total Kjeldahl	0.12	0.05	mg/L		0.16				20	
--------------------------	------	------	------	--	------	--	--	--	----	--

### General Parameters, Batch K803847

**Blank (K803847-BLK1)**

Prepared: Oct-29-08 Analyzed: Oct-31-08

Phosphorus, Total	<	0.01	mg/L							
-------------------	---	------	------	--	--	--	--	--	--	--

**Blank (K803847-BLK2)**

Prepared: Oct-29-08 Analyzed: Oct-31-08

Phosphorus, Total	<	0.01	mg/L							
-------------------	---	------	------	--	--	--	--	--	--	--

**LCS (K803847-BS1)**

Prepared: Oct-29-08 Analyzed: Oct-31-08

Phosphorus, Total	0.47	0.01	mg/L	0.500		94	85-115			
-------------------	------	------	------	-------	--	----	--------	--	--	--

**LCS (K803847-BS2)**

Prepared: Oct-29-08 Analyzed: Oct-31-08

Phosphorus, Total	0.47	0.01	mg/L	0.500		95	85-115			
-------------------	------	------	------	-------	--	----	--------	--	--	--

**Calibration Check (K803847-CCV1)**

Prepared: Oct-29-08 Analyzed: Oct-31-08

Phosphorus, Total	0.52		mg/L	0.500		104	80-120			
-------------------	------	--	------	-------	--	-----	--------	--	--	--

**Calibration Check (K803847-CCV2)**

Prepared: Oct-29-08 Analyzed: Oct-31-08

Phosphorus, Total	0.52		mg/L	0.500		104	80-120			
-------------------	------	--	------	-------	--	-----	--------	--	--	--

**Duplicate (K803847-DUP1)**

**Source: K8J0861-07**

Prepared: Oct-29-08 Analyzed: Oct-31-08

Phosphorus, Total	0.03	0.01	mg/L		0.03				20	
-------------------	------	------	------	--	------	--	--	--	----	--

**Duplicate (K803847-DUP2)**

**Source: K8J0861-01**

Prepared: Oct-29-08 Analyzed: Oct-31-08

Phosphorus, Total	0.01	0.01	mg/L		0.02				20	
-------------------	------	------	------	--	------	--	--	--	----	--

### General Parameters, Batch K803858

**Blank (K803858-BLK1)**

Prepared: Oct-30-08 Analyzed: Oct-31-08

Solids, Total Suspended	<	1	mg/L							
-------------------------	---	---	------	--	--	--	--	--	--	--

**Blank (K803858-BLK2)**

Prepared: Oct-30-08 Analyzed: Oct-31-08

Solids, Total Suspended	<	1	mg/L							
-------------------------	---	---	------	--	--	--	--	--	--	--

**LCS (K803858-BS1)**

Prepared: Oct-30-08 Analyzed: Oct-31-08

Solids, Total Suspended	47	1	mg/L	50.0		94	80-115			
-------------------------	----	---	------	------	--	----	--------	--	--	--

**LCS (K803858-BS2)**

Prepared: Oct-30-08 Analyzed: Oct-31-08

Solids, Total Suspended	48	1	mg/L	50.0		96	80-115			
-------------------------	----	---	------	------	--	----	--------	--	--	--

### Total Recoverable Metals by ICPMS, Batch R803154

**Blank (R803154-BLK1)**

Prepared: Oct-30-08 Analyzed: Oct-31-08

Aluminum	<	0.050	mg/L							
Antimony	<	0.0030	mg/L							
Arsenic	<	0.0050	mg/L							
Barium	<	0.005	mg/L							
Beryllium	<	0.0020	mg/L							
Bismuth	<	0.0005	mg/L							
Boron	<	0.020	mg/L							
Cadmium	<	0.00010	mg/L							
Calcium	<	0.5	mg/L							
Chromium	<	0.015	mg/L							
Cobalt	<	0.0005	mg/L							
Copper	<	0.0030	mg/L							

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewardship Society

**WORK ORDER #**  
**REPORTED**

K8J0861  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

### Total Recoverable Metals by ICPMS, Batch R803154, Continued

**Blank (R803154-BLK1), Continued**

Prepared: Oct-30-08 Analyzed: Oct-31-08

Iron	<	0.20	mg/L							
Lead	<	0.0010	mg/L							
Lithium	<	0.0020	mg/L							
Magnesium	<	0.20	mg/L							
Manganese	<	0.0050	mg/L							
Mercury	<	0.00030	mg/L							
Molybdenum	<	0.0010	mg/L							
Nickel	<	0.005	mg/L							
Phosphorus	<	0.20	mg/L							
Potassium	<	0.20	mg/L							
Selenium	<	0.0050	mg/L							
Silicon	<	1.0	mg/L							
Silver	<	0.00040	mg/L							
Sodium	<	0.20	mg/L							
Strontium	<	0.005	mg/L							
Tellurium	<	0.0030	mg/L							
Thallium	<	0.0005	mg/L							
Thorium	<	0.0030	mg/L							
Tin	<	0.0020	mg/L							
Titanium	<	0.10	mg/L							
Uranium	<	0.0005	mg/L							
Vanadium	<	0.010	mg/L							
Zinc	<	0.010	mg/L							
Zirconium	<	0.005	mg/L							

**Blank (R803154-BLK2)**

Prepared: Oct-30-08 Analyzed: Oct-31-08

Aluminum	<	0.050	mg/L							
Antimony	<	0.0030	mg/L							
Arsenic	<	0.0050	mg/L							
Barium	<	0.005	mg/L							
Beryllium	<	0.0020	mg/L							
Bismuth	<	0.0005	mg/L							
Boron	<	0.020	mg/L							
Cadmium	<	0.00010	mg/L							
Calcium	<	0.5	mg/L							
Chromium	<	0.015	mg/L							
Cobalt	<	0.0005	mg/L							
Copper	<	0.0030	mg/L							
Iron	<	0.20	mg/L							
Lead	<	0.0010	mg/L							
Lithium	<	0.0020	mg/L							
Magnesium	<	0.20	mg/L							
Manganese	<	0.0050	mg/L							
Mercury	<	0.00030	mg/L							
Molybdenum	<	0.0010	mg/L							
Nickel	<	0.005	mg/L							
Phosphorus	<	0.20	mg/L							
Potassium	<	0.20	mg/L							
Selenium	<	0.0050	mg/L							
Silicon	<	1.0	mg/L							
Silver	<	0.00040	mg/L							
Sodium	<	0.20	mg/L							
Strontium	<	0.005	mg/L							
Tellurium	<	0.0030	mg/L							
Thallium	<	0.0005	mg/L							
Thorium	<	0.0030	mg/L							
Tin	<	0.0020	mg/L							

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0861  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Total Recoverable Metals by ICPMS, Batch R803154, Continued**

**Blank (R803154-BLK2), Continued**

Prepared: Oct-30-08 Analyzed: Oct-31-08

Titanium	<	0.10	mg/L							
Uranium	<	0.0005	mg/L							
Vanadium	<	0.010	mg/L							
Zinc	<	0.010	mg/L							
Zirconium	<	0.005	mg/L							

**Blank (R803154-BLK3)**

Prepared: Oct-30-08 Analyzed: Oct-31-08

Aluminum	<	0.050	mg/L							
Antimony	<	0.0030	mg/L							
Arsenic	<	0.0050	mg/L							
Barium	<	0.005	mg/L							
Beryllium	<	0.0020	mg/L							
Bismuth	<	0.0005	mg/L							
Boron	<	0.020	mg/L							
Cadmium	<	0.00010	mg/L							
Calcium	0.6	0.5	mg/L							
Chromium	<	0.015	mg/L							
Cobalt	<	0.0005	mg/L							
Copper	<	0.0030	mg/L							
Iron	<	0.20	mg/L							
Lead	<	0.0010	mg/L							
Lithium	<	0.0020	mg/L							
Magnesium	<	0.20	mg/L							
Manganese	<	0.0050	mg/L							
Mercury	<	0.00030	mg/L							
Molybdenum	<	0.0010	mg/L							
Nickel	<	0.005	mg/L							
Phosphorus	<	0.20	mg/L							
Potassium	<	0.20	mg/L							
Selenium	<	0.0050	mg/L							
Silicon	<	1.0	mg/L							
Silver	<	0.00040	mg/L							
Sodium	<	0.20	mg/L							
Strontium	<	0.005	mg/L							
Tellurium	<	0.0030	mg/L							
Thallium	<	0.0005	mg/L							
Thorium	<	0.0030	mg/L							
Tin	<	0.0020	mg/L							
Titanium	<	0.10	mg/L							
Uranium	<	0.0005	mg/L							
Vanadium	<	0.010	mg/L							
Zinc	<	0.010	mg/L							
Zirconium	<	0.005	mg/L							

**Duplicate (R803154-DUP2)**

**Source: K8J0861-05**

Prepared: Oct-30-08 Analyzed: Oct-31-08

Aluminum	<	0.050	mg/L	<						30
Antimony	<	0.0030	mg/L	<						20
Arsenic	<	0.0050	mg/L	<						20
Barium	0.026	0.005	mg/L	0.025				0.7		30
Beryllium	<	0.0020	mg/L	<						20
Bismuth	<	0.0005	mg/L	<						20
Boron	<	0.020	mg/L	<						30
Cadmium	0.00015	0.00010	mg/L	0.00013						20
Calcium	13.3	0.5	mg/L	13.3				0.08		20
Chromium	<	0.015	mg/L	<						20
Cobalt	<	0.0005	mg/L	<						20
Copper	<	0.0030	mg/L	<						20

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0861  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Total Recoverable Metals by ICPMS, Batch R803154, Continued**

Duplicate (R803154-DUP2), Continued	Source: K8J0861-05		Prepared: Oct-30-08 Analyzed: Oct-31-08							
Iron	<	0.20	mg/L		<					30
Lead	<	0.0010	mg/L		<					30
Lithium	<	0.0020	mg/L		<					20
Magnesium	1.86	0.20	mg/L		1.91			2		20
Manganese	<	0.0050	mg/L		<					30
Mercury	<	0.00030	mg/L		<					20
Molybdenum	0.0010	0.0010	mg/L		<					20
Nickel	<	0.005	mg/L		<					20
Phosphorus	<	0.20	mg/L		<					20
Potassium	0.50	0.20	mg/L		0.49					20
Selenium	<	0.0050	mg/L		<					20
Silicon	2.1	1.0	mg/L		2.3					20
Silver	<	0.00040	mg/L		<					20
Sodium	0.93	0.20	mg/L		0.95					20
Strontium	0.215	0.005	mg/L		0.211			2		20
Tellurium	<	0.0030	mg/L		<					20
Thallium	<	0.0005	mg/L		<					30
Thorium	<	0.0030	mg/L		<					20
Tin	<	0.0020	mg/L		<					30
Titanium	<	0.10	mg/L		<					30
Uranium	<	0.0005	mg/L		<					20
Vanadium	<	0.010	mg/L		<					20
Zinc	0.023	0.010	mg/L		0.022					20
Zirconium	<	0.005	mg/L		<					20

Matrix Spike (R803154-MS2)	Source: K8J0861-06		Prepared: Oct-30-08 Analyzed: Oct-31-08							
Antimony	0.353	0.0030	mg/L	0.400	<	88	80-120			
Arsenic	0.181	0.0050	mg/L	0.200	<	91	80-120			
Barium	0.959	0.005	mg/L	1.00	0.026	93	70-130			
Beryllium	0.285	0.0020	mg/L	0.400	<	71	70-130			
Cadmium	0.0955	0.00010	mg/L	0.100	0.00014	95	80-120			
Chromium	0.362	0.015	mg/L	0.400	<	90	70-130			
Cobalt	0.387	0.0005	mg/L	0.400	<	97	80-120			
Copper	0.366	0.0030	mg/L	0.400	<	91	70-130			
Iron	1.67	0.20	mg/L	2.00	<	84	70-130			
Lead	0.208	0.0010	mg/L	0.200	<	104	70-130			
Manganese	0.387	0.0050	mg/L	0.400	<	97	70-130			
Nickel	0.387	0.005	mg/L	0.400	<	97	80-120			
Selenium	0.0905	0.0050	mg/L	0.100	<	91	80-120			
Silver	0.0870	0.00040	mg/L	0.100	<	87	60-140			
Thallium	0.103	0.0005	mg/L	0.100	<	103	80-120			
Vanadium	0.169	0.010	mg/L	0.200	<	84	80-120			
Zinc	0.935	0.010	mg/L	1.00	0.023	91	80-120			

Reference (R803154-SRM1)	Source: K8J0861-06		Prepared: Oct-30-08 Analyzed: Oct-31-08							
Aluminum	0.375	0.050	mg/L	0.330		114	80-120			
Antimony	0.0840	0.0030	mg/L	0.0790		106	80-120			
Arsenic	0.165	0.0050	mg/L	0.159		104	80-120			
Barium	0.589	0.005	mg/L	0.650		91	80-120			
Beryllium	0.0682	0.0020	mg/L	0.0600		114	80-120			
Boron	4.17	0.020	mg/L	3.97		105	80-120			
Cadmium	0.0786	0.00010	mg/L	0.0790		100	80-120			
Calcium	10.9	0.5	mg/L	10.3		105	80-120			
Chromium	0.280	0.015	mg/L	0.274		102	80-120			
Cobalt	0.0415	0.0005	mg/L	0.0390		106	80-120			
Copper	0.221	0.0030	mg/L	0.200		110	80-120			
Iron	0.61	0.20	mg/L	0.590		104	80-120			

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8J0861  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

### Total Recoverable Metals by ICPMS, Batch R803154, Continued

**Reference (R803154-SRM1), Continued**

Prepared: Oct-30-08 Analyzed: Oct-31-08

Lead	0.263	0.0010	mg/L	0.260		101	80-120			
Manganese	0.140	0.0050	mg/L	0.138		102	80-120			
Molybdenum	0.205	0.0010	mg/L	0.200		102	80-120			
Nickel	0.372	0.005	mg/L	0.340		110	80-120			
Potassium	6.53	0.20	mg/L	6.21		105	80-120			
Selenium	0.120	0.0050	mg/L	0.120		100	80-120			
Sodium	9.58	0.20	mg/L	8.32		115	80-120			
Strontium	0.382	0.005	mg/L	0.380		101	80-120			
Thallium	0.0997	0.0005	mg/L	0.0970		103	80-120			
Vanadium	0.389	0.010	mg/L	0.390		100	80-120			
Zinc	2.19	0.010	mg/L	2.02		109	80-120			

**Reference (R803154-SRM2)**

Prepared: Oct-30-08 Analyzed: Oct-31-08

Aluminum	0.313	0.050	mg/L	0.330		95	80-120			
Antimony	0.0806	0.0030	mg/L	0.0790		102	80-120			
Arsenic	0.164	0.0050	mg/L	0.159		103	80-120			
Barium	0.591	0.005	mg/L	0.650		91	80-120			
Beryllium	0.0597	0.0020	mg/L	0.0600		100	80-120			
Boron	3.95	0.020	mg/L	3.97		100	80-120			
Cadmium	0.0778	0.00010	mg/L	0.0790		98	80-120			
Calcium	10.7	0.5	mg/L	10.3		104	80-120			
Chromium	0.265	0.015	mg/L	0.274		97	80-120			
Cobalt	0.0395	0.0005	mg/L	0.0390		101	80-120			
Copper	0.211	0.0030	mg/L	0.200		105	80-120			
Iron	0.58	0.20	mg/L	0.590		99	80-120			
Lead	0.275	0.0010	mg/L	0.260		106	80-120			
Manganese	0.131	0.0050	mg/L	0.138		95	80-120			
Molybdenum	0.212	0.0010	mg/L	0.200		106	80-120			
Nickel	0.354	0.005	mg/L	0.340		104	80-120			
Potassium	6.18	0.20	mg/L	6.21		100	80-120			
Selenium	0.121	0.0050	mg/L	0.120		101	80-120			
Sodium	7.88	0.20	mg/L	8.32		95	80-120			
Strontium	0.381	0.005	mg/L	0.380		100	80-120			
Thallium	0.106	0.0005	mg/L	0.0970		109	80-120			
Vanadium	0.365	0.010	mg/L	0.390		94	80-120			
Zinc	2.06	0.010	mg/L	2.02		102	80-120			

**Reference (R803154-SRM3)**

Prepared: Oct-30-08 Analyzed: Oct-31-08

Aluminum	0.365	0.050	mg/L	0.330		111	80-120			
Antimony	0.0885	0.0030	mg/L	0.0790		112	80-120			
Arsenic	0.178	0.0050	mg/L	0.159		112	80-120			
Barium	0.612	0.005	mg/L	0.650		94	80-120			
Beryllium	0.0763	0.0020	mg/L	0.0600		127	80-120			
Boron	4.73	0.020	mg/L	3.97		119	80-120			
Cadmium	0.0838	0.00010	mg/L	0.0790		106	80-120			
Calcium	11.1	0.5	mg/L	10.3		107	80-120			
Chromium	0.299	0.015	mg/L	0.274		109	80-120			
Cobalt	0.0446	0.0005	mg/L	0.0390		114	80-120			
Copper	0.239	0.0030	mg/L	0.200		119	80-120			
Iron	0.68	0.20	mg/L	0.590		115	80-120			
Lead	0.250	0.0010	mg/L	0.260		96	80-120			
Manganese	0.150	0.0050	mg/L	0.138		108	80-120			
Molybdenum	0.211	0.0010	mg/L	0.200		106	80-120			
Nickel	0.400	0.005	mg/L	0.340		118	80-120			
Potassium	6.50	0.20	mg/L	6.21		105	80-120			
Selenium	0.129	0.0050	mg/L	0.120		107	80-120			
Sodium	9.14	0.20	mg/L	8.32		110	80-120			

**QUALITY CONTROL DATA**

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewardship Society

**WORK ORDER #**  
**REPORTED**

K8J0861  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	--------------	----------------	-----	--------------	-------

**Total Recoverable Metals by ICPMS, Batch R803154, Continued**

**Reference (R803154-SRM3), Continued**

Prepared: Oct-30-08 Analyzed: Oct-31-08

Strontium	0.402	0.005	mg/L	0.380		106	80-120			
Thallium	0.0958	0.0005	mg/L	0.0970		99	80-120			
Vanadium	0.413	0.010	mg/L	0.390		106	80-120			
Zinc	2.39	0.010	mg/L	2.02		118	80-120			

## CERTIFICATE OF ANALYSIS

**CLIENT****Galena Environmental Ltd.**

8075 Upper Galena Farm Road- PO Box 37

Silverton BC

VOG 2B0

TEL

1-250-358-2872

FAX

1-250-358-2114

**ATTENTION****Luce Paquin****RECEIVED / TEMP  
REPORTED**

Nov-04-08 08:35 / 7 °C

Jan-28-09

**COC #(s)**

05143

**WORK ORDER #**

K8K0032

**PROJECT FILE**

Slocan Lake Stewardship Society

**General Comments:**

CARO Analytical Services employs methods which are based on those found in "Standard Methods for the Examination of Water and Wastewater", 21st Edition, 2005, published by the American Public Health Association (APHA); US EPA protocols found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846", 3rd Edition; and protocols published by the British Columbia Ministry of Environment (BCMOE).

Methods not described in these publications are conducted according to procedures accepted by appropriate regulatory agencies, and/or are done in accordance with recognized professional standards using accepted testing methodologies and quality control efforts except where otherwise agreed to by the client.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Samples will be disposed of 30 days after the test report has been issued unless otherwise agreed to in writing.

- All solids results are reported on a dry weight basis unless otherwise noted
- Units:
  - mg/kg = milligrams per kilogram, equivalent to parts per million (ppm)
  - mg/L = milligrams per litre, equivalent to parts per million (ppm)
  - ug/L = micrograms per litre, equivalent to parts per billion (ppb)
  - ug/g = micrograms per gram, equivalent to parts per million (ppm)
  - ug/m<sup>3</sup> Air = micrograms per cubic meter of air
- "RDL" Reported detection limit
- "<" Less than reported detection limit
- "AO" Aesthetic objective
- "MAC" Maximum acceptable concentration (health-related guideline)
- "LAB" RMD = CARO - Richmond location, KEL = CARO - Kelowna location, SUB = Subcontracted

**Please contact CARO if more information is needed.**

**CARO Analytical Services**

Final Review Per:

**Jennifer Shanko, ASCT**

Coordinator, Operations/Admin

CARO Analytical Services (Kelowna)

102 - 3677 Highway 97N Kelowna, BC Canada V1X 5C3

Tel: (250) 765-9646 Fax: (250) 765-3893 Web: www.caro.ca

Page 1 of 17



## NOTES AND COMMENTS

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewardship Society

**WORK ORDER #**  
**REPORTED**

K8K0032  
Jan-28-09

---

This is an amended report. QC data has been attached, as per clients request.

## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0032  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### General Parameters

**Site #1 - 5 meters (K8K0032-01) Matrix: Water Sampled: Nov-02-08 09:30**

Hardness, Total (Total as CaCO3)	<b>39.7</b>	2.07	mg/L	Nov-06-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.03</b>	0.01	mg/L	Nov-04-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.03</b>	0.01	mg/L	Nov-04-08	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Nov-04-08	APHA 4110 B	KEL	
Nitrogen, Total Kjeldahl	<0.05	0.05	mg/L	Nov-06-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<0.05	0.05	mg/L	Nov-06-08	Calc	KEL	
Phosphorus, Total	<b>0.02</b>	0.01	mg/L	Nov-06-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Nov-05-08	APHA 2540 D	KEL	

**Site #1 - 50 meters (K8K0032-02) Matrix: Water Sampled: Nov-02-08 09:45**

Hardness, Total (Total as CaCO3)	<b>43.8</b>	2.07	mg/L	Nov-06-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.09</b>	0.01	mg/L	Nov-04-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.09</b>	0.01	mg/L	Nov-04-08	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Nov-04-08	APHA 4110 B	KEL	
Nitrogen, Total Kjeldahl	<0.05	0.05	mg/L	Nov-06-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.09</b>	0.05	mg/L	Nov-06-08	Calc	KEL	
Phosphorus, Total	<b>0.09</b>	0.01	mg/L	Nov-06-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Nov-05-08	APHA 2540 D	KEL	

**Site #2 - 5 meters (K8K0032-03) Matrix: Water Sampled: Nov-02-08 10:30**

Hardness, Total (Total as CaCO3)	<b>40.2</b>	2.07	mg/L	Nov-06-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.03</b>	0.01	mg/L	Nov-04-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.03</b>	0.01	mg/L	Nov-04-08	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Nov-04-08	APHA 4110 B	KEL	
Nitrogen, Total Kjeldahl	<b>0.08</b>	0.05	mg/L	Nov-06-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.11</b>	0.05	mg/L	Nov-06-08	Calc	KEL	
Phosphorus, Total	<b>0.02</b>	0.01	mg/L	Nov-06-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Nov-05-08	APHA 2540 D	KEL	

**Site #2 - 50 meters (K8K0032-04) Matrix: Water Sampled: Nov-02-08 10:45**

Hardness, Total (Total as CaCO3)	<b>43.6</b>	2.07	mg/L	Nov-06-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.08</b>	0.01	mg/L	Nov-04-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.08</b>	0.01	mg/L	Nov-04-08	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Nov-04-08	APHA 4110 B	KEL	
Nitrogen, Total Kjeldahl	<b>0.11</b>	0.05	mg/L	Nov-06-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.19</b>	0.05	mg/L	Nov-06-08	Calc	KEL	
Phosphorus, Total	<b>0.02</b>	0.01	mg/L	Nov-06-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Nov-05-08	APHA 2540 D	KEL	

**Site #3 - 5 meters (K8K0032-05) Matrix: Water Sampled: Nov-02-08 11:15**

Hardness, Total (Total as CaCO3)	<b>40.8</b>	2.07	mg/L	Nov-06-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.03</b>	0.01	mg/L	Nov-04-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.03</b>	0.01	mg/L	Nov-04-08	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Nov-04-08	APHA 4110 B	KEL	
Nitrogen, Total Kjeldahl	<b>0.06</b>	0.05	mg/L	Nov-06-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.10</b>	0.05	mg/L	Nov-06-08	Calc	KEL	

## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0032  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### General Parameters, Continued

**Site #3 - 5 meters (K8K0032-05) Matrix: Water Sampled: Nov-02-08 11:15, Continued**

Phosphorus, Total	0.02	0.01	mg/L	Nov-06-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Nov-05-08	APHA 2540 D	KEL	

**Site #3 - 50 meters (K8K0032-06) Matrix: Water Sampled: Nov-02-08 11:20**

Hardness, Total (Total as CaCO3)	44.3	2.07	mg/L	Nov-06-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	0.09	0.01	mg/L	Nov-04-08	Calc	KEL	
Nitrogen, Nitrate as N	0.09	0.01	mg/L	Nov-04-08	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Nov-04-08	APHA 4110 B	KEL	
Nitrogen, Total Kjeldahl	<0.05	0.05	mg/L	Nov-06-08	APHA 4500-Norg	KEL	
Nitrogen, Total	0.09	0.05	mg/L	Nov-06-08	Calc	KEL	
Phosphorus, Total	0.01	0.01	mg/L	Nov-06-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Nov-05-08	APHA 2540 D	KEL	

**Site #4 - 5 meters (K8K0032-07) Matrix: Water Sampled: Nov-02-08 12:00**

Hardness, Total (Total as CaCO3)	42.3	2.07	mg/L	Nov-06-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	0.03	0.01	mg/L	Nov-04-08	Calc	KEL	
Nitrogen, Nitrate as N	0.03	0.01	mg/L	Nov-04-08	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Nov-04-08	APHA 4110 B	KEL	
Nitrogen, Total Kjeldahl	<0.05	0.05	mg/L	Nov-06-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<0.05	0.05	mg/L	Nov-06-08	Calc	KEL	
Phosphorus, Total	0.01	0.01	mg/L	Nov-06-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Nov-05-08	APHA 2540 D	KEL	

**Site #4 - 50 meters (K8K0032-08) Matrix: Water Sampled: Nov-02-08 12:15**

Hardness, Total (Total as CaCO3)	44.9	2.07	mg/L	Nov-06-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	0.08	0.01	mg/L	Nov-04-08	Calc	KEL	
Nitrogen, Nitrate as N	0.08	0.01	mg/L	Nov-04-08	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Nov-04-08	APHA 4110 B	KEL	
Nitrogen, Total Kjeldahl	<0.05	0.05	mg/L	Nov-06-08	APHA 4500-Norg	KEL	
Nitrogen, Total	0.08	0.05	mg/L	Nov-06-08	Calc	KEL	
Phosphorus, Total	0.02	0.01	mg/L	Nov-06-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Nov-05-08	APHA 2540 D	KEL	

### Total Recoverable Metals by ICPMS

**Site #1 - 5 meters (K8K0032-01) Matrix: Water Sampled: Nov-02-08 09:30**

Aluminum	<0.050	0.050	mg/L	Nov-06-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Nov-06-08	EPA 6020A	RMD	
Barium	0.024	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Nov-06-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Nov-06-08	EPA 6020A	RMD	
Cadmium	0.00013	0.00010	mg/L	Nov-06-08	EPA 6020A	RMD	
Calcium	13.0	0.5	mg/L	Nov-06-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Nov-06-08	EPA 6020A	RMD	

## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0032  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### Total Recoverable Metals by ICPMS, Continued

#### Site #1 - 5 meters (K8K0032-01) Matrix: Water Sampled: Nov-02-08 09:30, Continued

Cobalt	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Nov-06-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Nov-06-08	EPA 6020A	RMD	
Magnesium	<b>1.79</b>	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Nov-06-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Nov-06-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Nov-06-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Potassium	<b>0.48</b>	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Nov-06-08	EPA 6020A	RMD	
Silicon	<b>3.0</b>	1.0	mg/L	Nov-06-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Nov-06-08	EPA 6020A	RMD	
Sodium	<b>0.96</b>	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Strontium	<b>0.199</b>	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Nov-06-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Nov-06-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Nov-06-08	EPA 6020A	RMD	
Zinc	<b>0.021</b>	0.010	mg/L	Nov-06-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	

#### Site #1 - 50 meters (K8K0032-02) Matrix: Water Sampled: Nov-02-08 09:45

Aluminum	<0.050	0.050	mg/L	Nov-06-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Nov-06-08	EPA 6020A	RMD	
Barium	<b>0.026</b>	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Nov-06-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Nov-06-08	EPA 6020A	RMD	
Cadmium	<b>0.00013</b>	0.00010	mg/L	Nov-06-08	EPA 6020A	RMD	
Calcium	<b>14.2</b>	0.5	mg/L	Nov-06-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Nov-06-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Nov-06-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Nov-06-08	EPA 6020A	RMD	
Magnesium	<b>2.03</b>	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Nov-06-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Nov-06-08	EPA 6020A	RMD	

## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0032  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### Total Recoverable Metals by ICPMS, Continued

**Site #1 - 50 meters (K8K0032-02) Matrix: Water Sampled: Nov-02-08 09:45, Continued**

Molybdenum	<0.0010	0.0010	mg/L	Nov-06-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Potassium	<b>0.51</b>	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Nov-06-08	EPA 6020A	RMD	
Silicon	<b>3.1</b>	1.0	mg/L	Nov-06-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Nov-06-08	EPA 6020A	RMD	
Sodium	<b>1.13</b>	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Strontium	<b>0.217</b>	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Nov-06-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Nov-06-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Nov-06-08	EPA 6020A	RMD	
Zinc	<b>0.020</b>	0.010	mg/L	Nov-06-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	

**Site #2 - 5 meters (K8K0032-03) Matrix: Water Sampled: Nov-02-08 10:30**

Aluminum	<0.050	0.050	mg/L	Nov-06-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Nov-06-08	EPA 6020A	RMD	
Barium	<b>0.025</b>	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Nov-06-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Nov-06-08	EPA 6020A	RMD	
Cadmium	<b>0.00012</b>	0.00010	mg/L	Nov-06-08	EPA 6020A	RMD	
Calcium	<b>13.1</b>	0.5	mg/L	Nov-06-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Nov-06-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Nov-06-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Nov-06-08	EPA 6020A	RMD	
Magnesium	<b>1.82</b>	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Nov-06-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Nov-06-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Nov-06-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Potassium	<b>0.49</b>	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Nov-06-08	EPA 6020A	RMD	
Silicon	<b>2.8</b>	1.0	mg/L	Nov-06-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Nov-06-08	EPA 6020A	RMD	
Sodium	<b>0.98</b>	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	

## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0032  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### Total Recoverable Metals by ICPMS, Continued

#### Site #2 - 5 meters (K8K0032-03) Matrix: Water Sampled: Nov-02-08 10:30, Continued

Strontium	<b>0.202</b>	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Nov-06-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Nov-06-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Nov-06-08	EPA 6020A	RMD	
Zinc	<b>0.016</b>	0.010	mg/L	Nov-06-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	

#### Site #2 - 50 meters (K8K0032-04) Matrix: Water Sampled: Nov-02-08 10:45

Aluminum	<0.050	0.050	mg/L	Nov-06-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Nov-06-08	EPA 6020A	RMD	
Barium	<b>0.025</b>	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Nov-06-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Nov-06-08	EPA 6020A	RMD	
Cadmium	<b>0.00013</b>	0.00010	mg/L	Nov-06-08	EPA 6020A	RMD	
Calcium	<b>14.1</b>	0.5	mg/L	Nov-06-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Nov-06-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Nov-06-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Nov-06-08	EPA 6020A	RMD	
Magnesium	<b>2.02</b>	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Nov-06-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Nov-06-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Nov-06-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Potassium	<b>0.52</b>	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Nov-06-08	EPA 6020A	RMD	
Silicon	<b>3.1</b>	1.0	mg/L	Nov-06-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Nov-06-08	EPA 6020A	RMD	
Sodium	<b>1.12</b>	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Strontium	<b>0.216</b>	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Nov-06-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Nov-06-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Nov-06-08	EPA 6020A	RMD	

## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0032  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### Total Recoverable Metals by ICPMS, Continued

**Site #2 - 50 meters (K8K0032-04) Matrix: Water Sampled: Nov-02-08 10:45, Continued**

Zinc	<b>0.021</b>	0.010	mg/L	Nov-06-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	

**Site #3 - 5 meters (K8K0032-05) Matrix: Water Sampled: Nov-02-08 11:15**

Aluminum	<0.050	0.050	mg/L	Nov-06-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Nov-06-08	EPA 6020A	RMD	
Barium	<b>0.025</b>	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Nov-06-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Nov-06-08	EPA 6020A	RMD	
Cadmium	<b>0.00018</b>	0.00010	mg/L	Nov-06-08	EPA 6020A	RMD	
Calcium	<b>13.2</b>	0.5	mg/L	Nov-06-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Nov-06-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Nov-06-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Nov-06-08	EPA 6020A	RMD	
Magnesium	<b>1.88</b>	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Nov-06-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Nov-06-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Nov-06-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Potassium	<b>0.48</b>	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Nov-06-08	EPA 6020A	RMD	
Silicon	<b>2.9</b>	1.0	mg/L	Nov-06-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Nov-06-08	EPA 6020A	RMD	
Sodium	<b>1.00</b>	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Strontium	<b>0.207</b>	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Nov-06-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Nov-06-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Nov-06-08	EPA 6020A	RMD	
Zinc	<b>0.021</b>	0.010	mg/L	Nov-06-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	

**Site #3 - 50 meters (K8K0032-06) Matrix: Water Sampled: Nov-02-08 11:20**

Aluminum	<0.050	0.050	mg/L	Nov-06-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Nov-06-08	EPA 6020A	RMD	
Barium	<b>0.027</b>	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	

**SAMPLE DATA**

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0032  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

**Total Recoverable Metals by ICPMS, Continued**

**Site #3 - 50 meters (K8K0032-06) Matrix: Water Sampled: Nov-02-08 11:20, Continued**

Beryllium	<0.0020	0.0020	mg/L	Nov-06-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Nov-06-08	EPA 6020A	RMD	
Cadmium	<b>0.00014</b>	0.00010	mg/L	Nov-06-08	EPA 6020A	RMD	
Calcium	<b>14.4</b>	0.5	mg/L	Nov-06-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Nov-06-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Nov-06-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Nov-06-08	EPA 6020A	RMD	
Magnesium	<b>2.03</b>	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Nov-06-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Nov-06-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Nov-06-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Potassium	<b>0.51</b>	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Nov-06-08	EPA 6020A	RMD	
Silicon	<b>3.1</b>	1.0	mg/L	Nov-06-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Nov-06-08	EPA 6020A	RMD	
Sodium	<b>1.10</b>	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Strontium	<b>0.218</b>	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Nov-06-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Nov-06-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Nov-06-08	EPA 6020A	RMD	
Zinc	<b>0.021</b>	0.010	mg/L	Nov-06-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	

**Site #4 - 5 meters (K8K0032-07) Matrix: Water Sampled: Nov-02-08 12:00**

Aluminum	<0.050	0.050	mg/L	Nov-06-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Nov-06-08	EPA 6020A	RMD	
Barium	<b>0.027</b>	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Nov-06-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Nov-06-08	EPA 6020A	RMD	
Cadmium	<b>0.00013</b>	0.00010	mg/L	Nov-06-08	EPA 6020A	RMD	
Calcium	<b>13.8</b>	0.5	mg/L	Nov-06-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Nov-06-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	



## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0032  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### Total Recoverable Metals by ICPMS, Continued

**Site #4 - 5 meters (K8K0032-07) Matrix: Water Sampled: Nov-02-08 12:00, Continued**

Iron	<0.20	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Nov-06-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Nov-06-08	EPA 6020A	RMD	
Magnesium	<b>1.90</b>	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Nov-06-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Nov-06-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Nov-06-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Potassium	<b>0.49</b>	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Nov-06-08	EPA 6020A	RMD	
Silicon	<b>3.0</b>	1.0	mg/L	Nov-06-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Nov-06-08	EPA 6020A	RMD	
Sodium	<b>1.02</b>	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Strontium	<b>0.218</b>	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Nov-06-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Nov-06-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Nov-06-08	EPA 6020A	RMD	
Zinc	<b>0.016</b>	0.010	mg/L	Nov-06-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	

**Site #4 - 50 meters (K8K0032-08) Matrix: Water Sampled: Nov-02-08 12:15**

Aluminum	<0.050	0.050	mg/L	Nov-06-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Nov-06-08	EPA 6020A	RMD	
Barium	<b>0.026</b>	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Nov-06-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Nov-06-08	EPA 6020A	RMD	
Cadmium	<b>0.00015</b>	0.00010	mg/L	Nov-06-08	EPA 6020A	RMD	
Calcium	<b>14.6</b>	0.5	mg/L	Nov-06-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Nov-06-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Nov-06-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Nov-06-08	EPA 6020A	RMD	
Magnesium	<b>2.06</b>	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Nov-06-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Nov-06-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Nov-06-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	

**SAMPLE DATA**

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0032  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

**Total Recoverable Metals by ICPMS, Continued**

**Site #4 - 50 meters (K8K0032-08) Matrix: Water Sampled: Nov-02-08 12:15, Continued**

Phosphorus	<0.20	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Potassium	<b>0.52</b>	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Nov-06-08	EPA 6020A	RMD	
Silicon	<b>3.0</b>	1.0	mg/L	Nov-06-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Nov-06-08	EPA 6020A	RMD	
Sodium	<b>1.12</b>	0.20	mg/L	Nov-06-08	EPA 6020A	RMD	
Strontium	<b>0.220</b>	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Nov-06-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Nov-06-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Nov-06-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Nov-06-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Nov-06-08	EPA 6020A	RMD	
Zinc	<b>0.019</b>	0.010	mg/L	Nov-06-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Nov-06-08	EPA 6020A	RMD	

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewardship Society

**WORK ORDER #**  
**REPORTED**

K8K0032  
Jan-28-09

The following section reports quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with quality control samples that ensure your data is of the highest quality. Common QC types include:

- Method Blank (Blk): Laboratory reagent water is carried through sample preparation and analysis steps. Method Blanks indicate that results are free from contamination, i.e. not biased high from sources such as the sample container or the laboratory environment
- Duplicate (Dup): Preparation and analysis of a replicate aliquot of a sample. Duplicates provide a measure of the analytical method's precision, i.e. how reproducible a result is. Duplicates are only reported if they are associated with your sample data.
- Blank Spike (BS): A known amount of standard is carried through sample preparation and analysis steps. Blank Spikes, also known as laboratory control samples (LCS), are prepared from a different source of standard than used for the calibration. They ensure that the calibration is acceptable (i.e. not biased high or low) and also provide a measure of the analytical method's accuracy (i.e. closeness of the result to a target value).
- Standard Reference Material (SRM): A material of similar matrix to the samples, externally certified for the parameter(s) listed. Standard Reference Materials ensure that the preparation steps in the method are adequate to achieve acceptable recoveries of the parameter(s) tested for.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

### General Parameters, Batch K803931

**Blank (K803931-BLK1)**

Prepared & Analyzed: Nov-04-08

Nitrogen, Nitrate as N	<	0.01	mg/L
Nitrogen, Nitrite as N	<	0.01	mg/L

**Blank (K803931-BLK2)**

Prepared & Analyzed: Nov-04-08

Nitrogen, Nitrate as N	<	0.01	mg/L
Nitrogen, Nitrite as N	<	0.01	mg/L

**Blank (K803931-BLK3)**

Prepared & Analyzed: Nov-04-08

Nitrogen, Nitrate as N	<	0.01	mg/L
Nitrogen, Nitrite as N	<	0.01	mg/L

**Blank (K803931-BLK4)**

Prepared & Analyzed: Nov-04-08

Nitrogen, Nitrate as N	<	0.01	mg/L
Nitrogen, Nitrite as N	<	0.01	mg/L

**LCS (K803931-BS1)**

Prepared & Analyzed: Nov-04-08

Nitrogen, Nitrate as N	4.58	0.01	mg/L	4.00	115	85-115
Nitrogen, Nitrite as N	3.69	0.01	mg/L	4.00	92	85-115

**LCS (K803931-BS2)**

Prepared & Analyzed: Nov-04-08

Nitrogen, Nitrate as N	4.57	0.01	mg/L	4.00	114	85-115
Nitrogen, Nitrite as N	3.81	0.01	mg/L	4.00	95	85-115

**LCS (K803931-BS3)**

Prepared & Analyzed: Nov-04-08

Nitrogen, Nitrate as N	4.45	0.01	mg/L	4.00	111	85-115
Nitrogen, Nitrite as N	3.80	0.01	mg/L	4.00	95	85-115

**LCS (K803931-BS4)**

Prepared & Analyzed: Nov-04-08

Nitrogen, Nitrite as N	3.97	0.01	mg/L	4.00	99	85-115
------------------------	------	------	------	------	----	--------

**Duplicate (K803931-DUP4)**

**Source: K8K0032-03**

Prepared & Analyzed: Nov-04-08

Nitrogen, Nitrate as N	0.033	0.01	mg/L	0.033		15
Nitrogen, Nitrite as N	<	0.01	mg/L	<		15

### General Parameters, Batch K803936

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0032  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

### General Parameters, Batch K803936, Continued

<b>Blank (K803936-BLK1)</b>				Prepared: Nov-05-08 Analyzed: Nov-06-08						
Nitrogen, Total Kjeldahl	<	0.05	mg/L							
<b>Blank (K803936-BLK2)</b>				Prepared: Nov-05-08 Analyzed: Nov-06-08						
Nitrogen, Total Kjeldahl	<	0.05	mg/L							
<b>Blank (K803936-BLK3)</b>				Prepared: Nov-05-08 Analyzed: Nov-06-08						
Nitrogen, Total Kjeldahl	<	0.05	mg/L							
<b>LCS (K803936-BS1)</b>				Prepared: Nov-05-08 Analyzed: Nov-06-08						
Nitrogen, Total Kjeldahl	9.86	0.50	mg/L	10.0		99	80-120			
<b>LCS (K803936-BS2)</b>				Prepared: Nov-05-08 Analyzed: Nov-06-08						
Nitrogen, Total Kjeldahl	10.1	0.50	mg/L	10.0		101	80-120			
<b>LCS (K803936-BS3)</b>				Prepared: Nov-05-08 Analyzed: Nov-06-08						
Nitrogen, Total Kjeldahl	10.5	0.50	mg/L	10.0		105	80-120			
<b>Duplicate (K803936-DUP1)</b>				<b>Source: K8K0032-01</b>		Prepared: Nov-05-08 Analyzed: Nov-06-08				
Nitrogen, Total Kjeldahl	<	0.05	mg/L		<				20	

### General Parameters, Batch K803939

<b>Blank (K803939-BLK1)</b>				Prepared: Nov-05-08 Analyzed: Nov-06-08						
Phosphorus, Total	<	0.01	mg/L							
<b>Blank (K803939-BLK2)</b>				Prepared: Nov-05-08 Analyzed: Nov-06-08						
Phosphorus, Total	<	0.01	mg/L							
<b>Blank (K803939-BLK3)</b>				Prepared: Nov-05-08 Analyzed: Nov-06-08						
Phosphorus, Total	<	0.01	mg/L							
<b>LCS (K803939-BS1)</b>				Prepared: Nov-05-08 Analyzed: Nov-06-08						
Phosphorus, Total	0.51	0.02	mg/L	0.500		102	85-115			
<b>LCS (K803939-BS2)</b>				Prepared: Nov-05-08 Analyzed: Nov-06-08						
Phosphorus, Total	0.52	0.02	mg/L	0.500		103	85-115			
<b>LCS (K803939-BS3)</b>				Prepared: Nov-05-08 Analyzed: Nov-06-08						
Phosphorus, Total	0.51	0.02	mg/L	0.500		101	85-115			
<b>Calibration Check (K803939-CCV1)</b>				Prepared: Nov-05-08 Analyzed: Nov-06-08						
Phosphorus, Total	0.51		mg/L	0.500		102	80-120			
<b>Calibration Check (K803939-CCV2)</b>				Prepared: Nov-05-08 Analyzed: Nov-06-08						
Phosphorus, Total	0.56		mg/L	0.500		111	80-120			
<b>Calibration Check (K803939-CCV3)</b>				Prepared: Nov-05-08 Analyzed: Nov-06-08						
Phosphorus, Total	0.54		mg/L	0.500		107	80-120			
<b>Duplicate (K803939-DUP3)</b>				<b>Source: K8K0032-05</b>		Prepared: Nov-05-08 Analyzed: Nov-06-08				
Phosphorus, Total	0.01	0.01	mg/L		0.02				20	

### General Parameters, Batch K803942

<b>Blank (K803942-BLK1)</b>				Prepared & Analyzed: Nov-05-08						
Solids, Total Suspended	<	1	mg/L							

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0032  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

### General Parameters, Batch K803942, Continued

**Blank (K803942-BLK2)**

Prepared & Analyzed: Nov-05-08

Solids, Total Suspended < 1 mg/L

**Blank (K803942-BLK3)**

Prepared & Analyzed: Nov-05-08

Solids, Total Suspended < 1 mg/L

**LCS (K803942-BS1)**

Prepared & Analyzed: Nov-05-08

Solids, Total Suspended 46 1 mg/L 50.0 92 80-115

**LCS (K803942-BS2)**

Prepared & Analyzed: Nov-05-08

Solids, Total Suspended 46 1 mg/L 50.0 93 80-115

**LCS (K803942-BS3)**

Prepared & Analyzed: Nov-05-08

Solids, Total Suspended 48 1 mg/L 50.0 96 80-115

### Total Recoverable Metals by ICPMS, Batch R803215

**Blank (R803215-BLK1)**

Prepared: Nov-05-08 Analyzed: Nov-06-08

Aluminum	<	0.050	mg/L
Antimony	<	0.0030	mg/L
Arsenic	<	0.0050	mg/L
Barium	<	0.005	mg/L
Beryllium	<	0.0020	mg/L
Bismuth	<	0.0005	mg/L
Boron	<	0.020	mg/L
Cadmium	<	0.00010	mg/L
Calcium	<	0.5	mg/L
Chromium	<	0.015	mg/L
Cobalt	<	0.0005	mg/L
Copper	<	0.0030	mg/L
Iron	<	0.20	mg/L
Lead	<	0.0010	mg/L
Lithium	<	0.0020	mg/L
Magnesium	<	0.20	mg/L
Manganese	<	0.0050	mg/L
Mercury	<	0.00030	mg/L
Molybdenum	<	0.0010	mg/L
Nickel	<	0.005	mg/L
Phosphorus	<	0.20	mg/L
Potassium	<	0.20	mg/L
Selenium	<	0.0050	mg/L
Silicon	<	1.0	mg/L
Silver	<	0.00040	mg/L
Sodium	<	0.20	mg/L
Strontium	<	0.005	mg/L
Tellurium	<	0.0030	mg/L
Thallium	<	0.0005	mg/L
Thorium	<	0.0030	mg/L
Tin	<	0.0020	mg/L
Titanium	<	0.10	mg/L
Uranium	<	0.0005	mg/L
Vanadium	<	0.010	mg/L
Zinc	<	0.010	mg/L
Zirconium	<	0.005	mg/L

**Blank (R803215-BLK2)**

Prepared: Nov-05-08 Analyzed: Nov-06-08

Aluminum	<	0.050	mg/L
Antimony	<	0.0030	mg/L

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0032  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

### Total Recoverable Metals by ICPMS, Batch R803215, Continued

**Blank (R803215-BLK2), Continued**

Prepared: Nov-05-08 Analyzed: Nov-06-08

Arsenic	<	0.0050	mg/L							
Barium	<	0.005	mg/L							
Beryllium	<	0.0020	mg/L							
Bismuth	<	0.0005	mg/L							
Boron	<	0.020	mg/L							
Cadmium	<	0.00010	mg/L							
Calcium	<	0.5	mg/L							
Chromium	<	0.015	mg/L							
Cobalt	<	0.0005	mg/L							
Copper	0.0054	0.0030	mg/L							
Iron	<	0.20	mg/L							
Lead	<	0.0010	mg/L							
Lithium	<	0.0020	mg/L							
Magnesium	<	0.20	mg/L							
Manganese	<	0.0050	mg/L							
Mercury	<	0.00030	mg/L							
Molybdenum	<	0.0010	mg/L							
Nickel	<	0.005	mg/L							
Phosphorus	<	0.20	mg/L							
Potassium	<	0.20	mg/L							
Selenium	<	0.0050	mg/L							
Silicon	<	1.0	mg/L							
Silver	<	0.00040	mg/L							
Sodium	<	0.20	mg/L							
Strontium	<	0.005	mg/L							
Tellurium	<	0.0030	mg/L							
Thallium	<	0.0005	mg/L							
Thorium	<	0.0030	mg/L							
Tin	<	0.0020	mg/L							
Titanium	<	0.10	mg/L							
Uranium	<	0.0005	mg/L							
Vanadium	<	0.010	mg/L							
Zinc	<	0.010	mg/L							
Zirconium	<	0.005	mg/L							

**Blank (R803215-BLK3)**

Prepared: Nov-05-08 Analyzed: Nov-06-08

Aluminum	<	0.050	mg/L							
Antimony	<	0.0030	mg/L							
Arsenic	<	0.0050	mg/L							
Barium	<	0.005	mg/L							
Beryllium	<	0.0020	mg/L							
Bismuth	<	0.0005	mg/L							
Boron	<	0.020	mg/L							
Cadmium	<	0.00010	mg/L							
Calcium	<	0.5	mg/L							
Chromium	<	0.015	mg/L							
Cobalt	<	0.0005	mg/L							
Copper	<	0.0030	mg/L							
Iron	<	0.20	mg/L							
Lead	<	0.0010	mg/L							
Lithium	<	0.0020	mg/L							
Magnesium	<	0.20	mg/L							
Manganese	<	0.0050	mg/L							
Mercury	<	0.00030	mg/L							
Molybdenum	<	0.0010	mg/L							
Nickel	<	0.005	mg/L							
Phosphorus	<	0.20	mg/L							

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0032  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Total Recoverable Metals by ICPMS, Batch R803215, Continued**

**Blank (R803215-BLK3), Continued**

Prepared: Nov-05-08 Analyzed: Nov-06-08

Potassium	<	0.20	mg/L							
Selenium	<	0.0050	mg/L							
Silicon	<	1.0	mg/L							
Silver	<	0.00040	mg/L							
Sodium	<	0.20	mg/L							
Strontium	<	0.005	mg/L							
Tellurium	<	0.0030	mg/L							
Thallium	<	0.0005	mg/L							
Thorium	<	0.0030	mg/L							
Tin	<	0.0020	mg/L							
Titanium	<	0.10	mg/L							
Uranium	<	0.0005	mg/L							
Vanadium	<	0.010	mg/L							
Zinc	<	0.010	mg/L							
Zirconium	<	0.005	mg/L							

**Reference (R803215-SRM1)**

Prepared: Nov-05-08 Analyzed: Nov-06-08

Aluminum	0.340	0.050	mg/L	0.330		103	80-120
Antimony	0.0771	0.0030	mg/L	0.0790		98	80-120
Arsenic	0.158	0.0050	mg/L	0.159		99	80-120
Barium	0.560	0.005	mg/L	0.650		86	80-120
Beryllium	0.0555	0.0020	mg/L	0.0600		93	80-120
Boron	4.10	0.020	mg/L	3.97		103	80-120
Cadmium	0.0766	0.00010	mg/L	0.0790		97	80-120
Calcium	10.5	0.5	mg/L	10.3		102	80-120
Chromium	0.278	0.015	mg/L	0.274		101	80-120
Cobalt	0.0412	0.0005	mg/L	0.0390		106	80-120
Copper	0.213	0.0030	mg/L	0.200		107	80-120
Iron	0.62	0.20	mg/L	0.590		106	80-120
Lead	0.263	0.0010	mg/L	0.260		101	80-120
Manganese	0.142	0.0050	mg/L	0.138		103	80-120
Molybdenum	0.197	0.0010	mg/L	0.200		99	80-120
Nickel	0.349	0.005	mg/L	0.340		103	80-120
Potassium	6.06	0.20	mg/L	6.21		98	80-120
Selenium	0.117	0.0050	mg/L	0.120		98	80-120
Sodium	8.03	0.20	mg/L	8.32		97	80-120
Strontium	0.369	0.005	mg/L	0.380		97	80-120
Thallium	0.0999	0.0005	mg/L	0.0970		103	80-120
Vanadium	0.391	0.010	mg/L	0.390		100	80-120
Zinc	2.03	0.010	mg/L	2.02		100	80-120

**Reference (R803215-SRM2)**

Prepared: Nov-05-08 Analyzed: Nov-06-08

Aluminum	0.339	0.050	mg/L	0.330		103	80-120
Antimony	0.0805	0.0030	mg/L	0.0790		102	80-120
Arsenic	0.160	0.0050	mg/L	0.159		101	80-120
Barium	0.584	0.005	mg/L	0.650		90	80-120
Beryllium	0.0620	0.0020	mg/L	0.0600		103	80-120
Boron	4.03	0.020	mg/L	3.97		102	80-120
Cadmium	0.0787	0.00010	mg/L	0.0790		100	80-120
Calcium	10.8	0.5	mg/L	10.3		105	80-120
Chromium	0.283	0.015	mg/L	0.274		103	80-120
Cobalt	0.0426	0.0005	mg/L	0.0390		109	80-120
Copper	0.224	0.0030	mg/L	0.200		112	80-120
Iron	0.64	0.20	mg/L	0.590		109	80-120
Lead	0.264	0.0010	mg/L	0.260		102	80-120
Manganese	0.146	0.0050	mg/L	0.138		106	80-120
Molybdenum	0.195	0.0010	mg/L	0.200		97	80-120

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewardship Society

**WORK ORDER #**  
**REPORTED**

K8K0032  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Total Recoverable Metals by ICPMS, Batch R803215, Continued**

**Reference (R803215-SRM2), Continued**

Prepared: Nov-05-08 Analyzed: Nov-06-08

Nickel	0.365	0.005	mg/L	0.340		107	80-120			
Potassium	6.12	0.20	mg/L	6.21		99	80-120			
Selenium	0.118	0.0050	mg/L	0.120		98	80-120			
Sodium	8.32	0.20	mg/L	8.32		100	80-120			
Strontium	0.374	0.005	mg/L	0.380		99	80-120			
Thallium	0.102	0.0005	mg/L	0.0970		105	80-120			
Vanadium	0.398	0.010	mg/L	0.390		102	80-120			
Zinc	2.17	0.010	mg/L	2.02		107	80-120			

**Reference (R803215-SRM3)**

Prepared: Nov-05-08 Analyzed: Nov-06-08

Aluminum	0.347	0.050	mg/L	0.330		105	80-120			
Antimony	0.0828	0.0030	mg/L	0.0790		105	80-120			
Arsenic	0.162	0.0050	mg/L	0.159		102	80-120			
Barium	0.597	0.005	mg/L	0.650		92	80-120			
Beryllium	0.0659	0.0020	mg/L	0.0600		110	80-120			
Boron	4.22	0.020	mg/L	3.97		106	80-120			
Cadmium	0.0807	0.00010	mg/L	0.0790		102	80-120			
Calcium	11.0	0.5	mg/L	10.3		107	80-120			
Chromium	0.283	0.015	mg/L	0.274		103	80-120			
Cobalt	0.0430	0.0005	mg/L	0.0390		110	80-120			
Copper	0.224	0.0030	mg/L	0.200		112	80-120			
Iron	0.65	0.20	mg/L	0.590		109	80-120			
Lead	0.268	0.0010	mg/L	0.260		103	80-120			
Manganese	0.146	0.0050	mg/L	0.138		106	80-120			
Molybdenum	0.197	0.0010	mg/L	0.200		99	80-120			
Nickel	0.370	0.005	mg/L	0.340		109	80-120			
Potassium	6.24	0.20	mg/L	6.21		101	80-120			
Selenium	0.119	0.0050	mg/L	0.120		100	80-120			
Sodium	8.44	0.20	mg/L	8.32		101	80-120			
Strontium	0.378	0.005	mg/L	0.380		99	80-120			
Thallium	0.102	0.0005	mg/L	0.0970		106	80-120			
Vanadium	0.397	0.010	mg/L	0.390		102	80-120			
Zinc	2.18	0.010	mg/L	2.02		108	80-120			



## CERTIFICATE OF ANALYSIS

**CLIENT****Galena Environmental Ltd.**

8075 Upper Galena Farm Road- PO Box 37

Silverton BC

VOG 2B0

TEL

1-250-358-2872

FAX

1-250-358-2114

**ATTENTION****Luce Paquin****RECEIVED / TEMP  
REPORTED**

Nov-12-08 09:00 / 7 °C

Jan-28-09

**COC #(s)**

05146

**WORK ORDER #**

K8K0256

**PROJECT FILE**

Slocan Lake Stewardship Society

**General Comments:**

CARO Analytical Services employs methods which are based on those found in "Standard Methods for the Examination of Water and Wastewater", 21st Edition, 2005, published by the American Public Health Association (APHA); US EPA protocols found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846", 3rd Edition; and protocols published by the British Columbia Ministry of Environment (BCMOE).

Methods not described in these publications are conducted according to procedures accepted by appropriate regulatory agencies, and/or are done in accordance with recognized professional standards using accepted testing methodologies and quality control efforts except where otherwise agreed to by the client.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Samples will be disposed of 30 days after the test report has been issued unless otherwise agreed to in writing.

- All solids results are reported on a dry weight basis unless otherwise noted
- Units:
  - mg/kg = milligrams per kilogram, equivalent to parts per million (ppm)
  - mg/L = milligrams per litre, equivalent to parts per million (ppm)
  - ug/L = micrograms per litre, equivalent to parts per billion (ppb)
  - ug/g = micrograms per gram, equivalent to parts per million (ppm)
  - ug/m<sup>3</sup> Air = micrograms per cubic meter of air
- "RDL" Reported detection limit
- "<" Less than reported detection limit
- "AO" Aesthetic objective
- "MAC" Maximum acceptable concentration (health-related guideline)
- "LAB" RMD = CARO - Richmond location, KEL = CARO - Kelowna location, SUB = Subcontracted

**Please contact CARO if more information is needed.**

**CARO Analytical Services**

Final Review Per:

**Jennifer Shanko, ASCT**

Coordinator, Operations/Admin

CARO Analytical Services (Kelowna)

102 - 3677 Highway 97N Kelowna, BC Canada V1X 5C3

Tel: (250) 765-9646 Fax: (250) 765-3893 Web: www.caro.ca

## NOTES AND COMMENTS

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewardship Society

**WORK ORDER #**  
**REPORTED**

K8K0256  
Jan-28-09

---

This is an amended report. QC data has been attached, as per clients request.

## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0256  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### General Parameters

**Site #1 - 5 meters (K8K0256-01) Matrix: Water Sampled: Nov-09-08**

Hardness, Total (Total as CaCO <sub>3</sub> )	<b>39.6</b>	2.07	mg/L	Nov-14-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.03</b>	0.01	mg/L	Nov-13-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.03</b>	0.01	mg/L	Nov-13-08	APHA 4110 B	KEL	HT
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Nov-13-08	APHA 4110 B	KEL	HT
Nitrogen, Total Kjeldahl	<b>0.11</b>	0.05	mg/L	Nov-10-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.15</b>	0.05	mg/L	Nov-13-08	Calc	KEL	
Phosphorus, Total	<b>0.01</b>	0.01	mg/L	Nov-13-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Nov-13-08	APHA 2540 D	KEL	

**Site #2 - 5 meters (K8K0256-02) Matrix: Water Sampled: Nov-09-08**

Hardness, Total (Total as CaCO <sub>3</sub> )	<b>40.4</b>	2.07	mg/L	Nov-14-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.04</b>	0.01	mg/L	Nov-13-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.04</b>	0.01	mg/L	Nov-13-08	APHA 4110 B	KEL	HT
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Nov-13-08	APHA 4110 B	KEL	HT
Nitrogen, Total Kjeldahl	<b>0.06</b>	0.05	mg/L	Nov-10-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.10</b>	0.05	mg/L	Nov-13-08	Calc	KEL	
Phosphorus, Total	<b>0.02</b>	0.01	mg/L	Nov-13-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Nov-17-08	APHA 2540 D	KEL	

**Site #3 - 5 meters (K8K0256-03) Matrix: Water Sampled: Nov-09-08**

Hardness, Total (Total as CaCO <sub>3</sub> )	<b>41.3</b>	2.07	mg/L	Nov-14-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.03</b>	0.01	mg/L	Nov-13-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.03</b>	0.01	mg/L	Nov-13-08	APHA 4110 B	KEL	HT
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Nov-13-08	APHA 4110 B	KEL	HT
Nitrogen, Total Kjeldahl	<0.05	0.05	mg/L	Nov-10-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<0.05	0.05	mg/L	Nov-13-08	Calc	KEL	
Phosphorus, Total	<b>0.02</b>	0.01	mg/L	Nov-13-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Nov-17-08	APHA 2540 D	KEL	

**Site #4 - 5 meters (K8K0256-04) Matrix: Water Sampled: Nov-09-08**

Hardness, Total (Total as CaCO <sub>3</sub> )	<b>41.8</b>	2.07	mg/L	Nov-14-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.03</b>	0.01	mg/L	Nov-13-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.03</b>	0.01	mg/L	Nov-13-08	APHA 4110 B	KEL	HT
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Nov-13-08	APHA 4110 B	KEL	HT
Nitrogen, Total Kjeldahl	<b>0.07</b>	0.05	mg/L	Nov-10-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.10</b>	0.05	mg/L	Nov-13-08	Calc	KEL	
Phosphorus, Total	<b>0.02</b>	0.01	mg/L	Nov-13-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Nov-17-08	APHA 2540 D	KEL	

**Site #1 - 50 meters (K8K0256-05) Matrix: Water Sampled: Nov-09-08**

Hardness, Total (Total as CaCO <sub>3</sub> )	<b>43.5</b>	2.07	mg/L	Nov-14-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	<b>0.07</b>	0.01	mg/L	Nov-13-08	Calc	KEL	
Nitrogen, Nitrate as N	<b>0.07</b>	0.01	mg/L	Nov-13-08	APHA 4110 B	KEL	HT
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Nov-13-08	APHA 4110 B	KEL	HT
Nitrogen, Total Kjeldahl	<b>0.06</b>	0.05	mg/L	Nov-10-08	APHA 4500-Norg	KEL	
Nitrogen, Total	<b>0.13</b>	0.05	mg/L	Nov-13-08	Calc	KEL	

## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0256  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### General Parameters, Continued

**Site #1 - 50 meters (K8K0256-05) Matrix: Water Sampled: Nov-09-08, Continued**

Phosphorus, Total	0.02	0.01	mg/L	Nov-13-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Nov-17-08	APHA 2540 D	KEL	

**Site #2 - 50 meters (K8K0256-06) Matrix: Water Sampled: Nov-09-08**

Hardness, Total (Total as CaCO3)	42.5	2.07	mg/L	Nov-14-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	0.07	0.01	mg/L	Nov-13-08	Calc	KEL	
Nitrogen, Nitrate as N	0.07	0.01	mg/L	Nov-13-08	APHA 4110 B	KEL	HT
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Nov-13-08	APHA 4110 B	KEL	HT
Nitrogen, Total Kjeldahl	<0.05	0.05	mg/L	Nov-10-08	APHA 4500-Norg	KEL	
Nitrogen, Total	0.07	0.05	mg/L	Nov-13-08	Calc	KEL	
Phosphorus, Total	0.02	0.01	mg/L	Nov-13-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Nov-17-08	APHA 2540 D	KEL	

**Site #3 - 50 meters (K8K0256-07) Matrix: Water Sampled: Nov-09-08**

Hardness, Total (Total as CaCO3)	42.3	2.07	mg/L	Nov-14-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	0.08	0.01	mg/L	Nov-13-08	Calc	KEL	
Nitrogen, Nitrate as N	0.08	0.01	mg/L	Nov-13-08	APHA 4110 B	KEL	HT
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Nov-13-08	APHA 4110 B	KEL	HT
Nitrogen, Total Kjeldahl	<0.05	0.05	mg/L	Nov-10-08	APHA 4500-Norg	KEL	
Nitrogen, Total	0.08	0.05	mg/L	Nov-13-08	Calc	KEL	
Phosphorus, Total	0.02	0.01	mg/L	Nov-13-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Nov-17-08	APHA 2540 D	KEL	

**Site #4 - 50 meters (K8K0256-08) Matrix: Water Sampled: Nov-09-08**

Hardness, Total (Total as CaCO3)	43.5	2.07	mg/L	Nov-14-08	APHA 2340 B	RMD	
Nitrogen, Nitrate+Nitrite as N	0.08	0.01	mg/L	Nov-13-08	Calc	KEL	
Nitrogen, Nitrate as N	0.08	0.01	mg/L	Nov-13-08	APHA 4110 B	KEL	HT
Nitrogen, Nitrite as N	<0.01	0.01	mg/L	Nov-13-08	APHA 4110 B	KEL	HT
Nitrogen, Total Kjeldahl	<0.05	0.05	mg/L	Nov-10-08	APHA 4500-Norg	KEL	
Nitrogen, Total	0.08	0.05	mg/L	Nov-13-08	Calc	KEL	
Phosphorus, Total	0.04	0.01	mg/L	Nov-13-08	APHA 4500P:B.5/E	KEL	
Solids, Total Suspended	<1	1	mg/L	Nov-17-08	APHA 2540 D	KEL	

### Total Recoverable Metals by ICPMS

**Site #1 - 5 meters (K8K0256-01) Matrix: Water Sampled: Nov-09-08**

Aluminum	<0.050	0.050	mg/L	Nov-14-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Nov-14-08	EPA 6020A	RMD	
Barium	0.023	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Nov-14-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Nov-14-08	EPA 6020A	RMD	
Cadmium	0.00013	0.00010	mg/L	Nov-14-08	EPA 6020A	RMD	
Calcium	12.8	0.5	mg/L	Nov-14-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Nov-14-08	EPA 6020A	RMD	

## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0256  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### Total Recoverable Metals by ICPMS, Continued

#### Site #1 - 5 meters (K8K0256-01) Matrix: Water Sampled: Nov-09-08, Continued

Cobalt	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Nov-14-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Nov-14-08	EPA 6020A	RMD	
Magnesium	<b>1.83</b>	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Nov-14-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Nov-14-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Nov-14-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Potassium	<b>0.48</b>	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Nov-14-08	EPA 6020A	RMD	
Silicon	<b>3.8</b>	1.0	mg/L	Nov-14-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Nov-14-08	EPA 6020A	RMD	
Sodium	<b>1.16</b>	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Strontium	<b>0.205</b>	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Nov-14-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Nov-14-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Nov-14-08	EPA 6020A	RMD	
Zinc	<b>0.018</b>	0.010	mg/L	Nov-14-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	

#### Site #2 - 5 meters (K8K0256-02) Matrix: Water Sampled: Nov-09-08

Aluminum	<0.050	0.050	mg/L	Nov-14-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Nov-14-08	EPA 6020A	RMD	
Barium	<b>0.023</b>	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Nov-14-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Nov-14-08	EPA 6020A	RMD	
Cadmium	<b>0.00020</b>	0.00010	mg/L	Nov-14-08	EPA 6020A	RMD	
Calcium	<b>13.2</b>	0.5	mg/L	Nov-14-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Nov-14-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Nov-14-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Nov-14-08	EPA 6020A	RMD	
Magnesium	<b>1.84</b>	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Nov-14-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Nov-14-08	EPA 6020A	RMD	

**SAMPLE DATA**

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0256  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

**Total Recoverable Metals by ICPMS, Continued**

**Site #2 - 5 meters (K8K0256-02) Matrix: Water Sampled: Nov-09-08, Continued**

Molybdenum	<b>0.0010</b>	0.0010	mg/L	Nov-14-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Potassium	<b>0.48</b>	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Nov-14-08	EPA 6020A	RMD	
Silicon	<b>4.0</b>	1.0	mg/L	Nov-14-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Nov-14-08	EPA 6020A	RMD	
Sodium	<b>1.01</b>	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Strontium	<b>0.206</b>	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Nov-14-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Nov-14-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Nov-14-08	EPA 6020A	RMD	
Zinc	<b>0.021</b>	0.010	mg/L	Nov-14-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	

**Site #3 - 5 meters (K8K0256-03) Matrix: Water Sampled: Nov-09-08**

Aluminum	<0.050	0.050	mg/L	Nov-14-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Nov-14-08	EPA 6020A	RMD	
Barium	<b>0.025</b>	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Nov-14-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Nov-14-08	EPA 6020A	RMD	
Cadmium	<b>0.00017</b>	0.00010	mg/L	Nov-14-08	EPA 6020A	RMD	
Calcium	<b>13.4</b>	0.5	mg/L	Nov-14-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Nov-14-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Nov-14-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Nov-14-08	EPA 6020A	RMD	
Magnesium	<b>1.91</b>	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Nov-14-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Nov-14-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Nov-14-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Potassium	<b>0.48</b>	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Nov-14-08	EPA 6020A	RMD	
Silicon	<b>4.0</b>	1.0	mg/L	Nov-14-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Nov-14-08	EPA 6020A	RMD	
Sodium	<b>1.02</b>	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	

## SAMPLE DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0256  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

### Total Recoverable Metals by ICPMS, Continued

#### Site #3 - 5 meters (K8K0256-03) Matrix: Water Sampled: Nov-09-08, Continued

Strontium	0.219	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Nov-14-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Nov-14-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Nov-14-08	EPA 6020A	RMD	
Zinc	0.018	0.010	mg/L	Nov-14-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	

#### Site #4 - 5 meters (K8K0256-04) Matrix: Water Sampled: Nov-09-08

Aluminum	<0.050	0.050	mg/L	Nov-14-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Nov-14-08	EPA 6020A	RMD	
Barium	0.025	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Nov-14-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Nov-14-08	EPA 6020A	RMD	
Cadmium	0.00014	0.00010	mg/L	Nov-14-08	EPA 6020A	RMD	
Calcium	13.6	0.5	mg/L	Nov-14-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Nov-14-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Nov-14-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Nov-14-08	EPA 6020A	RMD	
Magnesium	1.90	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Nov-14-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Nov-14-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Nov-14-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Potassium	0.48	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Nov-14-08	EPA 6020A	RMD	
Silicon	4.0	1.0	mg/L	Nov-14-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Nov-14-08	EPA 6020A	RMD	
Sodium	1.02	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Strontium	0.223	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Nov-14-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Nov-14-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Nov-14-08	EPA 6020A	RMD	

**SAMPLE DATA**

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0256  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

**Total Recoverable Metals by ICPMS, Continued**

**Site #4 - 5 meters (K8K0256-04) Matrix: Water Sampled: Nov-09-08, Continued**

Zinc	<b>0.016</b>	0.010	mg/L	Nov-14-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	

**Site #1 - 50 meters (K8K0256-05) Matrix: Water Sampled: Nov-09-08**

Aluminum	<0.050	0.050	mg/L	Nov-14-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Nov-14-08	EPA 6020A	RMD	
Barium	<b>0.025</b>	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Nov-14-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Nov-14-08	EPA 6020A	RMD	
Cadmium	<b>0.00022</b>	0.00010	mg/L	Nov-14-08	EPA 6020A	RMD	
Calcium	<b>14.1</b>	0.5	mg/L	Nov-14-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Nov-14-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Nov-14-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Nov-14-08	EPA 6020A	RMD	
Magnesium	<b>2.03</b>	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Nov-14-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Nov-14-08	EPA 6020A	RMD	
Molybdenum	<b>0.0010</b>	0.0010	mg/L	Nov-14-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Potassium	<b>0.51</b>	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Nov-14-08	EPA 6020A	RMD	
Silicon	<b>4.5</b>	1.0	mg/L	Nov-14-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Nov-14-08	EPA 6020A	RMD	
Sodium	<b>1.15</b>	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Strontium	<b>0.221</b>	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Nov-14-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Nov-14-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Nov-14-08	EPA 6020A	RMD	
Zinc	<b>0.024</b>	0.010	mg/L	Nov-14-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	

**Site #2 - 50 meters (K8K0256-06) Matrix: Water Sampled: Nov-09-08**

Aluminum	<0.050	0.050	mg/L	Nov-14-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Nov-14-08	EPA 6020A	RMD	
Barium	<b>0.024</b>	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	



**SAMPLE DATA**

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0256  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

**Total Recoverable Metals by ICPMS, Continued**

**Site #2 - 50 meters (K8K0256-06) Matrix: Water Sampled: Nov-09-08, Continued**

Beryllium	<0.0020	0.0020	mg/L	Nov-14-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Nov-14-08	EPA 6020A	RMD	
Cadmium	<b>0.00016</b>	0.00010	mg/L	Nov-14-08	EPA 6020A	RMD	
Calcium	<b>13.8</b>	0.5	mg/L	Nov-14-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Nov-14-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Nov-14-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Nov-14-08	EPA 6020A	RMD	
Magnesium	<b>1.95</b>	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Nov-14-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Nov-14-08	EPA 6020A	RMD	
Molybdenum	<0.0010	0.0010	mg/L	Nov-14-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Potassium	<b>0.49</b>	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Nov-14-08	EPA 6020A	RMD	
Silicon	<b>4.4</b>	1.0	mg/L	Nov-14-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Nov-14-08	EPA 6020A	RMD	
Sodium	<b>1.10</b>	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Strontium	<b>0.216</b>	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Nov-14-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Nov-14-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Nov-14-08	EPA 6020A	RMD	
Zinc	<b>0.020</b>	0.010	mg/L	Nov-14-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	

**Site #3 - 50 meters (K8K0256-07) Matrix: Water Sampled: Nov-09-08**

Aluminum	<0.050	0.050	mg/L	Nov-14-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Nov-14-08	EPA 6020A	RMD	
Barium	<b>0.025</b>	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Nov-14-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Nov-14-08	EPA 6020A	RMD	
Cadmium	<b>0.00017</b>	0.00010	mg/L	Nov-14-08	EPA 6020A	RMD	
Calcium	<b>13.6</b>	0.5	mg/L	Nov-14-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Nov-14-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	

**SAMPLE DATA**

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0256  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

**Total Recoverable Metals by ICPMS, Continued**

**Site #3 - 50 meters (K8K0256-07) Matrix: Water Sampled: Nov-09-08, Continued**

Iron	<0.20	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Nov-14-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Nov-14-08	EPA 6020A	RMD	
Magnesium	<b>2.02</b>	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Nov-14-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Nov-14-08	EPA 6020A	RMD	
Molybdenum	<b>0.0010</b>	0.0010	mg/L	Nov-14-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	
Phosphorus	<0.20	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Potassium	<b>0.50</b>	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Nov-14-08	EPA 6020A	RMD	
Silicon	<b>4.5</b>	1.0	mg/L	Nov-14-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Nov-14-08	EPA 6020A	RMD	
Sodium	<b>1.12</b>	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Strontium	<b>0.222</b>	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Nov-14-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Nov-14-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Nov-14-08	EPA 6020A	RMD	
Zinc	<b>0.021</b>	0.010	mg/L	Nov-14-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	

**Site #4 - 50 meters (K8K0256-08) Matrix: Water Sampled: Nov-09-08**

Aluminum	<0.050	0.050	mg/L	Nov-14-08	EPA 6020A	RMD	
Antimony	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Arsenic	<0.0050	0.0050	mg/L	Nov-14-08	EPA 6020A	RMD	
Barium	<b>0.025</b>	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	
Beryllium	<0.0020	0.0020	mg/L	Nov-14-08	EPA 6020A	RMD	
Bismuth	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Boron	<0.020	0.020	mg/L	Nov-14-08	EPA 6020A	RMD	
Cadmium	<b>0.00017</b>	0.00010	mg/L	Nov-14-08	EPA 6020A	RMD	
Calcium	<b>14.1</b>	0.5	mg/L	Nov-14-08	EPA 6020A	RMD	
Chromium	<0.015	0.015	mg/L	Nov-14-08	EPA 6020A	RMD	
Cobalt	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Copper	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Iron	<0.20	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Lead	<0.0010	0.0010	mg/L	Nov-14-08	EPA 6020A	RMD	
Lithium	<0.0020	0.0020	mg/L	Nov-14-08	EPA 6020A	RMD	
Magnesium	<b>2.00</b>	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Manganese	<0.0050	0.0050	mg/L	Nov-14-08	EPA 6020A	RMD	
Mercury	<0.00030	0.00030	mg/L	Nov-14-08	EPA 6020A	RMD	
Molybdenum	<b>0.0010</b>	0.0010	mg/L	Nov-14-08	EPA 6020A	RMD	
Nickel	<0.005	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	

**SAMPLE DATA**

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0256  
Jan-28-09

Analyte	Result	RDL	Units	Analyzed	Method	Lab	Notes
---------	--------	-----	-------	----------	--------	-----	-------

**Total Recoverable Metals by ICPMS, Continued**

**Site #4 - 50 meters (K8K0256-08) Matrix: Water Sampled: Nov-09-08, Continued**

Phosphorus	<0.20	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Potassium	<b>0.50</b>	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Selenium	<0.0050	0.0050	mg/L	Nov-14-08	EPA 6020A	RMD	
Silicon	<b>4.6</b>	1.0	mg/L	Nov-14-08	EPA 6020A	RMD	
Silver	<0.00040	0.00040	mg/L	Nov-14-08	EPA 6020A	RMD	
Sodium	<b>1.12</b>	0.20	mg/L	Nov-14-08	EPA 6020A	RMD	
Strontium	<b>0.220</b>	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	
Tellurium	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Thallium	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Thorium	<0.0030	0.0030	mg/L	Nov-14-08	EPA 6020A	RMD	
Tin	<0.0020	0.0020	mg/L	Nov-14-08	EPA 6020A	RMD	
Titanium	<0.10	0.10	mg/L	Nov-14-08	EPA 6020A	RMD	
Uranium	<0.0005	0.0005	mg/L	Nov-14-08	EPA 6020A	RMD	
Vanadium	<0.010	0.010	mg/L	Nov-14-08	EPA 6020A	RMD	
Zinc	<b>0.020</b>	0.010	mg/L	Nov-14-08	EPA 6020A	RMD	
Zirconium	<0.005	0.005	mg/L	Nov-14-08	EPA 6020A	RMD	

**Sample Qualifiers:**

HT Parameter(s) analyzed outside of the EPA/BCMOE/APHA recommended holding time.

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0256  
Jan-28-09

The following section reports quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with quality control samples that ensure your data is of the highest quality. Common QC types include:

- Method Blank (Blk): Laboratory reagent water is carried through sample preparation and analysis steps. Method Blanks indicate that results are free from contamination, i.e. not biased high from sources such as the sample container or the laboratory environment
- Duplicate (Dup): Preparation and analysis of a replicate aliquot of a sample. Duplicates provide a measure of the analytical method's precision, i.e. how reproducible a result is. Duplicates are only reported if they are associated with your sample data.
- Blank Spike (BS): A known amount of standard is carried through sample preparation and analysis steps. Blank Spikes, also known as laboratory control samples (LCS), are prepared from a different source of standard than used for the calibration. They ensure that the calibration is acceptable (i.e. not biased high or low) and also provide a measure of the analytical method's accuracy (i.e. closeness of the result to a target value).
- Standard Reference Material (SRM): A material of similar matrix to the samples, externally certified for the parameter(s) listed. Standard Reference Materials ensure that the preparation steps in the method are adequate to achieve acceptable recoveries of the parameter(s) tested for.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

### General Parameters, Batch K804020

**Blank (K804020-BLK1)**

Prepared: Nov-12-08 Analyzed: Nov-13-08

Solids, Total Suspended	<	1	mg/L						
-------------------------	---	---	------	--	--	--	--	--	--

**Blank (K804020-BLK2)**

Prepared: Nov-12-08 Analyzed: Nov-13-08

Solids, Total Suspended	<	1	mg/L						
-------------------------	---	---	------	--	--	--	--	--	--

**LCS (K804020-BS1)**

Prepared: Nov-12-08 Analyzed: Nov-13-08

Solids, Total Suspended	47	1	mg/L	50.0	94	80-115			
-------------------------	----	---	------	------	----	--------	--	--	--

**LCS (K804020-BS2)**

Prepared: Nov-12-08 Analyzed: Nov-13-08

Solids, Total Suspended	48	1	mg/L	50.0	95	80-115			
-------------------------	----	---	------	------	----	--------	--	--	--

### General Parameters, Batch K804029

**Blank (K804029-BLK1)**

Prepared & Analyzed: Nov-13-08

Nitrogen, Total Kjeldahl	<	0.05	mg/L						
--------------------------	---	------	------	--	--	--	--	--	--

**Blank (K804029-BLK2)**

Prepared & Analyzed: Nov-13-08

Nitrogen, Total Kjeldahl	<	0.05	mg/L						
--------------------------	---	------	------	--	--	--	--	--	--

**LCS (K804029-BS1)**

Prepared & Analyzed: Nov-13-08

Nitrogen, Total Kjeldahl	10.4	0.50	mg/L	10.0	104	80-120			
--------------------------	------	------	------	------	-----	--------	--	--	--

**LCS (K804029-BS2)**

Prepared & Analyzed: Nov-13-08

Nitrogen, Total Kjeldahl	10.5	0.50	mg/L	10.0	105	80-120			
--------------------------	------	------	------	------	-----	--------	--	--	--

### General Parameters, Batch K804031

**Blank (K804031-BLK1)**

Prepared & Analyzed: Nov-13-08

Phosphorus, Total	<	0.01	mg/L						
-------------------	---	------	------	--	--	--	--	--	--

**Blank (K804031-BLK2)**

Prepared & Analyzed: Nov-13-08

Phosphorus, Total	<	0.01	mg/L						
-------------------	---	------	------	--	--	--	--	--	--

**Blank (K804031-BLK3)**

Prepared & Analyzed: Nov-13-08

Phosphorus, Total	<	0.01	mg/L						
-------------------	---	------	------	--	--	--	--	--	--

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0256  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

### General Parameters, Batch K804031, Continued

<b>LCS (K804031-BS1)</b>		Prepared & Analyzed: Nov-13-08								
Phosphorus, Total	0.51	0.02	mg/L	0.500		102	85-115			
<b>LCS (K804031-BS2)</b>		Prepared & Analyzed: Nov-13-08								
Phosphorus, Total	0.48	0.02	mg/L	0.500		97	85-115			
<b>LCS (K804031-BS3)</b>		Prepared & Analyzed: Nov-13-08								
Phosphorus, Total	0.50	0.02	mg/L	0.500		99	85-115			
<b>Calibration Check (K804031-CCV1)</b>		Prepared & Analyzed: Nov-13-08								
Phosphorus, Total	0.52		mg/L	0.500		105	80-120			
<b>Calibration Check (K804031-CCV2)</b>		Prepared & Analyzed: Nov-13-08								
Phosphorus, Total	0.53		mg/L	0.500		106	80-120			
<b>Calibration Check (K804031-CCV3)</b>		Prepared & Analyzed: Nov-13-08								
Phosphorus, Total	0.54		mg/L	0.500		108	80-120			

### General Parameters, Batch K804046

<b>Blank (K804046-BLK1)</b>		Prepared & Analyzed: Nov-13-08								
Nitrogen, Nitrate as N	<	0.01	mg/L							
Nitrogen, Nitrite as N	<	0.01	mg/L							
<b>Blank (K804046-BLK2)</b>		Prepared & Analyzed: Nov-13-08								
Nitrogen, Nitrate as N	<	0.01	mg/L							
Nitrogen, Nitrite as N	<	0.01	mg/L							
<b>Blank (K804046-BLK3)</b>		Prepared & Analyzed: Nov-13-08								
Nitrogen, Nitrate as N	<	0.01	mg/L							
Nitrogen, Nitrite as N	<	0.01	mg/L							
<b>Blank (K804046-BLK4)</b>		Prepared & Analyzed: Nov-13-08								
Nitrogen, Nitrate as N	<	0.01	mg/L							
Nitrogen, Nitrite as N	<	0.01	mg/L							
<b>LCS (K804046-BS1)</b>		Prepared & Analyzed: Nov-13-08								
Nitrogen, Nitrate as N	3.92	0.01	mg/L	4.00		98	85-115			
Nitrogen, Nitrite as N	3.99	0.01	mg/L	4.00		100	85-115			
<b>LCS (K804046-BS2)</b>		Prepared & Analyzed: Nov-13-08								
Nitrogen, Nitrate as N	3.91	0.01	mg/L	4.00		98	85-115			
Nitrogen, Nitrite as N	3.46	0.01	mg/L	4.00		86	85-115			
<b>LCS (K804046-BS3)</b>		Prepared & Analyzed: Nov-13-08								
Nitrogen, Nitrate as N	3.91	0.01	mg/L	4.00		98	85-115			
Nitrogen, Nitrite as N	3.90	0.01	mg/L	4.00		98	85-115			
<b>LCS (K804046-BS4)</b>		Prepared & Analyzed: Nov-13-08								
Nitrogen, Nitrate as N	3.97	0.01	mg/L	4.00		99	85-115			
Nitrogen, Nitrite as N	3.76	0.01	mg/L	4.00		94	85-115			
<b>Duplicate (K804046-DUP2)</b>		<b>Source: K8K0256-01</b>		Prepared & Analyzed: Nov-13-08						
Nitrogen, Nitrate as N	0.035	0.01	mg/L		0.033				15	
Nitrogen, Nitrite as N	<	0.01	mg/L		<				15	

### General Parameters, Batch K804052

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0256  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

### General Parameters, Batch K804052, Continued

**Blank (K804052-BLK1)**

Prepared: Nov-14-08 Analyzed: Nov-17-08

Solids, Total Suspended < 1 mg/L

**Blank (K804052-BLK2)**

Prepared: Nov-14-08 Analyzed: Nov-17-08

Solids, Total Suspended < 1 mg/L

**Blank (K804052-BLK3)**

Prepared: Nov-14-08 Analyzed: Nov-17-08

Solids, Total Suspended < 1 mg/L

**LCS (K804052-BS1)**

Prepared: Nov-14-08 Analyzed: Nov-17-08

Solids, Total Suspended 45 1 mg/L 50.0 91 80-115

**LCS (K804052-BS3)**

Prepared: Nov-14-08 Analyzed: Nov-17-08

Solids, Total Suspended 46 1 mg/L 50.0 93 80-115

### Total Recoverable Metals by ICPMS, Batch R803274

**Blank (R803274-BLK1)**

Prepared: Nov-13-08 Analyzed: Nov-14-08

Aluminum	<	0.050	mg/L
Antimony	<	0.0030	mg/L
Arsenic	<	0.0050	mg/L
Barium	<	0.005	mg/L
Beryllium	<	0.0020	mg/L
Bismuth	<	0.0005	mg/L
Boron	<	0.020	mg/L
Cadmium	<	0.00010	mg/L
Calcium	<	0.5	mg/L
Chromium	<	0.015	mg/L
Cobalt	<	0.0005	mg/L
Copper	<	0.0030	mg/L
Iron	<	0.20	mg/L
Lead	<	0.0010	mg/L
Lithium	<	0.0020	mg/L
Magnesium	<	0.20	mg/L
Manganese	<	0.0050	mg/L
Mercury	<	0.00030	mg/L
Molybdenum	<	0.0010	mg/L
Nickel	<	0.005	mg/L
Phosphorus	<	0.20	mg/L
Potassium	<	0.20	mg/L
Selenium	<	0.0050	mg/L
Silicon	<	1.0	mg/L
Silver	<	0.00040	mg/L
Sodium	<	0.20	mg/L
Strontium	<	0.005	mg/L
Tellurium	<	0.0030	mg/L
Thallium	<	0.0005	mg/L
Thorium	<	0.0030	mg/L
Tin	<	0.0020	mg/L
Titanium	<	0.10	mg/L
Uranium	<	0.0005	mg/L
Vanadium	<	0.010	mg/L
Zinc	<	0.010	mg/L
Zirconium	<	0.005	mg/L

**Blank (R803274-BLK2)**

Prepared: Nov-13-08 Analyzed: Nov-14-08

Aluminum	<	0.050	mg/L
Antimony	<	0.0030	mg/L

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewartship Society

**WORK ORDER #**  
**REPORTED**

K8K0256  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

### Total Recoverable Metals by ICPMS, Batch R803274, Continued

**Blank (R803274-BLK2), Continued**

Prepared: Nov-13-08 Analyzed: Nov-14-08

Arsenic	<	0.0050	mg/L							
Barium	<	0.005	mg/L							
Beryllium	<	0.0020	mg/L							
Bismuth	<	0.0005	mg/L							
Boron	<	0.020	mg/L							
Cadmium	<	0.00010	mg/L							
Calcium	<	0.5	mg/L							
Chromium	<	0.015	mg/L							
Cobalt	<	0.0005	mg/L							
Copper	<	0.0030	mg/L							
Iron	<	0.20	mg/L							
Lead	<	0.0010	mg/L							
Lithium	<	0.0020	mg/L							
Magnesium	<	0.20	mg/L							
Manganese	<	0.0050	mg/L							
Mercury	<	0.00030	mg/L							
Molybdenum	<	0.0010	mg/L							
Nickel	<	0.005	mg/L							
Phosphorus	<	0.20	mg/L							
Potassium	<	0.20	mg/L							
Selenium	<	0.0050	mg/L							
Silicon	<	1.0	mg/L							
Silver	<	0.00040	mg/L							
Sodium	<	0.20	mg/L							
Strontium	<	0.005	mg/L							
Tellurium	<	0.0030	mg/L							
Thallium	<	0.0005	mg/L							
Thorium	<	0.0030	mg/L							
Tin	<	0.0020	mg/L							
Titanium	<	0.10	mg/L							
Uranium	<	0.0005	mg/L							
Vanadium	<	0.010	mg/L							
Zinc	<	0.010	mg/L							
Zirconium	<	0.005	mg/L							

**Reference (R803274-SRM1)**

Prepared: Nov-13-08 Analyzed: Nov-14-08

Aluminum	0.348	0.050	mg/L	0.330		105	80-120
Antimony	0.0854	0.0030	mg/L	0.0790		108	80-120
Arsenic	0.161	0.0050	mg/L	0.159		101	80-120
Barium	0.557	0.005	mg/L	0.650		86	80-120
Beryllium	0.0576	0.0020	mg/L	0.0600		96	80-120
Boron	4.00	0.020	mg/L	3.97		101	80-120
Cadmium	0.0793	0.00010	mg/L	0.0790		100	80-120
Calcium	10.7	0.5	mg/L	10.3		104	80-120
Chromium	0.301	0.015	mg/L	0.274		110	80-120
Cobalt	0.0416	0.0005	mg/L	0.0390		107	80-120
Copper	0.213	0.0030	mg/L	0.200		107	80-120
Iron	0.63	0.20	mg/L	0.590		107	80-120
Lead	0.266	0.0010	mg/L	0.260		102	80-120
Manganese	0.144	0.0050	mg/L	0.138		104	80-120
Molybdenum	0.222	0.0010	mg/L	0.200		111	80-120
Nickel	0.353	0.005	mg/L	0.340		104	80-120
Potassium	6.22	0.20	mg/L	6.21		100	80-120
Selenium	0.119	0.0050	mg/L	0.120		99	80-120
Sodium	8.48	0.20	mg/L	8.32		102	80-120
Strontium	0.382	0.005	mg/L	0.380		101	80-120
Thallium	0.105	0.0005	mg/L	0.0970		108	80-120

## QUALITY CONTROL DATA

**CLIENT**  
**PROJECT FILE**

Galena Environmental Ltd.  
Slocan Lake Stewardship Society

**WORK ORDER #**  
**REPORTED**

K8K0256  
Jan-28-09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Total Recoverable Metals by ICPMS, Batch R803274, Continued**

**Reference (R803274-SRM1), Continued**

Prepared: Nov-13-08 Analyzed: Nov-14-08

Vanadium	0.403	0.010	mg/L	0.390		103	80-120			
Zinc	1.96	0.010	mg/L	2.02		97	80-120			

**Reference (R803274-SRM2)**

Prepared: Nov-13-08 Analyzed: Nov-14-08

Aluminum	0.344	0.050	mg/L	0.330		104	80-120			
Antimony	0.0834	0.0030	mg/L	0.0790		106	80-120			
Arsenic	0.154	0.0050	mg/L	0.159		97	80-120			
Barium	0.557	0.005	mg/L	0.650		86	80-120			
Beryllium	0.0602	0.0020	mg/L	0.0600		100	80-120			
Boron	4.10	0.020	mg/L	3.97		103	80-120			
Cadmium	0.0774	0.00010	mg/L	0.0790		98	80-120			
Calcium	10.4	0.5	mg/L	10.3		101	80-120			
Chromium	0.285	0.015	mg/L	0.274		104	80-120			
Cobalt	0.0402	0.0005	mg/L	0.0390		103	80-120			
Copper	0.206	0.0030	mg/L	0.200		103	80-120			
Iron	0.60	0.20	mg/L	0.590		102	80-120			
Lead	0.263	0.0010	mg/L	0.260		101	80-120			
Manganese	0.137	0.0050	mg/L	0.138		100	80-120			
Molybdenum	0.216	0.0010	mg/L	0.200		108	80-120			
Nickel	0.334	0.005	mg/L	0.340		98	80-120			
Potassium	6.00	0.20	mg/L	6.21		97	80-120			
Selenium	0.116	0.0050	mg/L	0.120		96	80-120			
Sodium	8.31	0.20	mg/L	8.32		100	80-120			
Strontium	0.378	0.005	mg/L	0.380		99	80-120			
Thallium	0.103	0.0005	mg/L	0.0970		106	80-120			
Vanadium	0.388	0.010	mg/L	0.390		99	80-120			
Zinc	1.90	0.010	mg/L	2.02		94	80-120			



## APPENDIX D:

### RESULTS OF NUTRIENTS PARAMETERS



Date	site #1 site #2 site #3 site #4				AVER	VAR	STDEV	MIN	MAX	T-TESTS						
	Depth (m)	Nitrate + Nitrite	Nitrate + Nitrite	Nitrate + Nitrite						Nitrate + Nitrite	Sites # 1 & 2	Sites # 1 & 3	Sites # 1 & 4	Sites # 2 & 3	Sites # 2 & 4	Sites # 3 & 4
13-Oct	5	0.03	0.01	0.03	0.03	0.00	0.00	0.02	0.03	Site 1	0.7040	#DIV/0!	0.3739	0.7040	0.4766	0.3739
19-Oct	5	0.02	0.02	0.02	0.03	0.00	0.01	0.01	0.04	Site 2						
26-Oct	5	0.03	0.03	0.03	0.03	0.00	0.00	0.02	0.03	Site 3						
02-Nov	5	0.03	0.03	0.03	0.03	0.00	0.00	0.02	0.03	Site 3						
09-Nov	5	0.03	0.04	0.03	0.03	0.00	0.00	0.03	0.03	Site 4						

Date	site #1 site #2 site #3 site #4				AVER	VAR	STDEV	MIN	MAX	T-TESTS						
	Depth (m)	Nitrate + Nitrite	Nitrate + Nitrite	Nitrate + Nitrite						Nitrate + Nitrite	Sites # 1 & 2	Sites # 1 & 3	Sites # 1 & 4	Sites # 2 & 3	Sites # 2 & 4	Sites # 3 & 4
13-Oct	50	0.08	0.08	0.08	0.08	0.00	0.01	0.07	0.09	Site 1	0.3739	1.0000	1.0000	0.6213	0.3739	1.0000
19-Oct	50	0.08	0.08	0.08	0.08	0.00	0.01	0.07	0.09	Site 2						
26-Oct	50	0.09	0.09	0.08	0.09	0.00	0.01	0.07	0.09	Site 2						
02-Nov	50	0.09	0.08	0.09	0.08	0.00	0.00	0.08	0.09	Site 3						
09-Nov	50	0.07	0.07	0.08	0.08	0.00	0.00	0.08	0.09	Site 4						





## APPENDIX E:

### RESULTS OF TOTAL METAL PARAMETERS









Date	site #1 site #2 site #3 site #4				AVER	VAR	STDEV	MIN	MAX	T-TESTS						
	Depth (m)	Boron	Boron	Boron						Boron	Sites # 1 & 2	Sites # 1 & 3	Sites # 1 & 4	Sites # 2 & 3	Sites # 2 & 4	Sites # 3 & 4
13-Oct	5	0.02	0.02	0.02	0.02	0.0000	0.00000	0.02	0.02	Site 1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
19-Oct	5	0.02	0.02	0.02	0.02	0.0000	0.00000	0.02	0.02	Site 2	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
26-Oct	5	0.02	0.02	0.02	0.02	0.0000	0.00000	0.02	0.02	Site 3	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
02-Nov	5	0.02	0.02	0.02	0.02	0.0000	0.00000	0.02	0.02	Site 4	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
09-Nov	5	0.02	0.02	0.02	0.02	0.0000	0.00000	0.02	0.02	Site 4	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Date	site #1 site #2 site #3 site #4				AVER	VAR	STDEV	MIN	MAX	T-TESTS						
	Depth (m)	Boron	Boron	Boron						Boron	Sites # 1 & 2	Sites # 1 & 3	Sites # 1 & 4	Sites # 2 & 3	Sites # 2 & 4	Sites # 3 & 4
13-Oct	50	0.02	0.02	0.02	0.02	0.0000	0.00000	0.02	0.02	Site 1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
19-Oct	50	0.02	0.02	0.02	0.02	0.0000	0.00000	0.02	0.02	Site 2	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
26-Oct	50	0.02	0.02	0.02	0.02	0.0000	0.00000	0.02	0.02	Site 3	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
02-Nov	50	0.02	0.02	0.02	0.02	0.0000	0.00000	0.02	0.02	Site 3	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
09-Nov	50	0.02	0.02	0.02	0.02	0.0000	0.00000	0.02	0.02	Site 4	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Date	site #1 site #2 site #3 site #4				AVER	VAR	STDEV	MIN	MAX	T-TESTS						
	Depth (m)	Cadmium	Cadmium	Cadmium						Cadmium	Sites # 1 & 2	Sites # 1 & 3	Sites # 1 & 4	Sites # 2 & 3	Sites # 2 & 4	Sites # 3 & 4
13-Oct	5	0.00014	0.00023	0.0003	0.00234	0.00016	0.00007	0.00013	0.00028	Site 1	0.9659	0.7458	0.4125	0.3572	0.3869	0.3954
19-Oct	5	0.00013	0.00013	0.00013	0.00013	0.00016	0.00005	0.00012	0.00023	Site 2	0.9659	0.7458	0.4125	0.3572	0.3869	0.3954
26-Oct	5	0.00028	0.00012	0.00012	0.00012	0.00016	0.00005	0.00012	0.00023	Site 2	0.9659	0.7458	0.4125	0.3572	0.3869	0.3954
02-Nov	5	0.00013	0.00012	0.00018	0.00013	0.00018	0.00007	0.00012	0.00030	Site 3	0.9659	0.7458	0.4125	0.3572	0.3869	0.3954
09-Nov	5	0.00013	0.00020	0.00017	0.00014	0.00057	0.00099	0.00012	0.00234	Site 4	0.9659	0.7458	0.4125	0.3572	0.3869	0.3954

Date	site #1 site #2 site #3 site #4				AVER	VAR	STDEV	MIN	MAX	T-TESTS						
	Depth (m)	Cadmium	Cadmium	Cadmium						Cadmium	Sites # 1 & 2	Sites # 1 & 3	Sites # 1 & 4	Sites # 2 & 3	Sites # 2 & 4	Sites # 3 & 4
13-Oct	50	0.00019	0.00017	0.00021	0.00047	0.00016	0.00004	0.00013	0.00022	Site 1	0.5185	0.8033	0.4034	0.2455	0.3406	0.3990
19-Oct	50	0.00015	0.00017	0.00015	0.00016	0.00015	0.00002	0.00013	0.00017	Site 2	0.5185	0.8033	0.4034	0.2455	0.3406	0.3990
26-Oct	50	0.00013	0.00014	0.00017	0.00014	0.00015	0.00002	0.00013	0.00017	Site 2	0.5185	0.8033	0.4034	0.2455	0.3406	0.3990
02-Nov	50	0.00013	0.00013	0.00014	0.00015	0.00017	0.00003	0.00014	0.00021	Site 3	0.5185	0.8033	0.4034	0.2455	0.3406	0.3990
09-Nov	50	0.00022	0.00016	0.00017	0.00017	0.00022	0.00014	0.00014	0.00047	Site 4	0.5185	0.8033	0.4034	0.2455	0.3406	0.3990







Date	site #1 site #2 site #3 site #4				AVER	VAR	STDEV	MIN	MAX	T-TESTS						
	Depth (m)	Lithium	Lithium	Lithium						Lithium	Sites # 1 & 2	Sites # 1 & 3	Sites # 1 & 4	Sites # 2 & 3	Sites # 2 & 4	Sites # 3 & 4
13-Oct	5	0.002	0.002	0.002	0.002	0.000	0.000	0.002	0.002	Site 1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
19-Oct	5	0.002	0.002	0.002	0.002	0.000	0.000	0.002	0.002	Site 2	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
26-Oct	5	0.002	0.002	0.002	0.002	0.000	0.000	0.002	0.002	Site 3	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
02-Nov	5	0.002	0.002	0.002	0.002	0.000	0.000	0.002	0.002	Site 4	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
09-Nov	5	0.002	0.002	0.002	0.002	0.000	0.000	0.002	0.002	Site 4	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Date	site #1 site #2 site #3 site #4				AVER	VAR	STDEV	MIN	MAX	T-TESTS						
	Depth (m)	Lithium	Lithium	Lithium						Lithium	Sites # 1 & 2	Sites # 1 & 3	Sites # 1 & 4	Sites # 2 & 3	Sites # 2 & 4	Sites # 3 & 4
13-Oct	50	0.002	0.002	0.002	0.002	0.000	0.000	0.002	0.002	Site 1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
19-Oct	50	0.002	0.002	0.002	0.002	0.000	0.000	0.002	0.002	Site 2	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
26-Oct	50	0.002	0.002	0.002	0.002	0.000	0.000	0.002	0.002	Site 3	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
02-Nov	50	0.002	0.002	0.002	0.002	0.000	0.000	0.002	0.002	Site 4	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
09-Nov	50	0.002	0.002	0.002	0.002	0.000	0.000	0.002	0.002	Site 4	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Date	site #1 site #2 site #3 site #4				AVER	VAR	STDEV	MIN	MAX	T-TESTS						
	Depth (m)	Magnesium	Magnesium	Magnesium						Magnesium	Sites # 1 & 2	Sites # 1 & 3	Sites # 1 & 4	Sites # 2 & 3	Sites # 2 & 4	Sites # 3 & 4
13-Oct	5	1.62	1.59	1.62	1.61	0.09	0.30	1.62	2.38	Site 1	0.6063	0.9387	0.8193	0.1882	0.2635	0.6657
19-Oct	5	2.38	2.13	2.20	2.25	0.04	0.19	1.59	2.13	Site 2	0.6063	0.9387	0.8193	0.1882	0.2635	0.6657
26-Oct	5	1.70	1.78	1.73	1.71	0.05	0.22	1.62	2.20	Site 3	0.6063	0.9387	0.8193	0.1882	0.2635	0.6657
02-Nov	5	1.79	1.82	1.88	1.90	0.06	0.24	1.61	2.25	Site 4	0.6063	0.9387	0.8193	0.1882	0.2635	0.6657
09-Nov	5	1.83	1.84	1.91	1.90	0.06	0.24	1.61	2.25	Site 4	0.6063	0.9387	0.8193	0.1882	0.2635	0.6657

Date	site #1 site #2 site #3 site #4				AVER	VAR	STDEV	MIN	MAX	T-TESTS						
	Depth (m)	Magnesium	Magnesium	Magnesium						Magnesium	Sites # 1 & 2	Sites # 1 & 3	Sites # 1 & 4	Sites # 2 & 3	Sites # 2 & 4	Sites # 3 & 4
13-Oct	50	1.77	1.85	1.80	1.85	0.06	0.24	1.77	2.42	Site 1	0.5816	0.3831	0.2544	0.5352	0.2274	0.1292
19-Oct	50	2.42	2.44	2.40	2.43	0.05	0.23	1.85	2.44	Site 2	0.5816	0.3831	0.2544	0.5352	0.2274	0.1292
26-Oct	50	1.91	1.99	2.11	2.22	0.05	0.22	1.80	2.40	Site 3	0.5816	0.3831	0.2544	0.5352	0.2274	0.1292
02-Nov	50	2.03	2.02	2.03	2.06	0.05	0.22	1.80	2.40	Site 4	0.5816	0.3831	0.2544	0.5352	0.2274	0.1292
09-Nov	50	2.03	1.95	2.02	2.00	0.05	0.22	1.85	2.43	Site 4	0.5816	0.3831	0.2544	0.5352	0.2274	0.1292









Date	site #1 site #2 site #3 site #4				AVER	VAR	STDEV	MIN	MAX	T-TESTS						
	Depth (m)	Selenium	Selenium	Selenium						Selenium	Sites # 1 & 2	Sites # 1 & 3	Sites # 1 & 4	Sites # 2 & 3 & 4	Sites # 2 & 4	Sites # 3 & 4
13-Oct	5	0.005	0.005	0.005	0.005	0.000	0.000	0.005	0.005	Site 1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
19-Oct	5	0.005	0.005	0.005	0.005	0.000	0.000	0.005	0.005	Site 2	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
26-Oct	5	0.005	0.005	0.005	0.005	0.000	0.000	0.005	0.005	Site 3	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
02-Nov	5	0.005	0.005	0.005	0.005	0.000	0.000	0.005	0.005	Site 3	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
09-Nov	5	0.005	0.005	0.005	0.005	0.000	0.000	0.005	0.005	Site 4	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Date	site #1 site #2 site #3 site #4				AVER	VAR	STDEV	MIN	MAX	T-TESTS						
	Depth (m)	Selenium	Selenium	Selenium						Selenium	Sites # 1 & 2	Sites # 1 & 3	Sites # 1 & 4	Sites # 2 & 3 & 4	Sites # 2 & 4	Sites # 3 & 4
13-Oct	50	0.005	0.005	0.005	0.005	0.000	0.000	0.005	0.005	Site 1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
19-Oct	50	0.005	0.005	0.005	0.005	0.000	0.000	0.005	0.005	Site 1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
26-Oct	50	0.005	0.005	0.005	0.005	0.000	0.000	0.005	0.005	Site 2	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
02-Nov	50	0.005	0.005	0.005	0.005	0.000	0.000	0.005	0.005	Site 3	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
09-Nov	50	0.005	0.005	0.005	0.005	0.000	0.000	0.005	0.005	Site 4	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Date	site #1 site #2 site #3 site #4				AVER	VAR	STDEV	MIN	MAX	T-TESTS						
	Depth (m)	Silicon	Silicon	Silicon						Silicon	Sites # 1 & 2	Sites # 1 & 3	Sites # 1 & 4	Sites # 2 & 3 & 4	Sites # 2 & 4	Sites # 3 & 4
13-Oct	5	3.00	3.10	3.00	3.00	0.39	0.62	2.10	3.80	Site 1	0.7990	0.7717	1.0000	0.7102	0.9113	0.1778
19-Oct	5	2.10	2.00	2.30	2.40	0.53	0.73	2.00	4.00	Site 2	0.7990	0.7717	1.0000	0.7102	0.9113	0.1778
26-Oct	5	2.60	2.70	2.10	2.10	0.55	0.74	2.10	4.00	Site 3	0.7990	0.7717	1.0000	0.7102	0.9113	0.1778
02-Nov	5	3.00	2.80	2.90	3.00	0.53	0.73	2.10	4.00	Site 3	0.7990	0.7717	1.0000	0.7102	0.9113	0.1778
09-Nov	5	3.80	4.00	4.00	4.00	0.53	0.73	2.10	4.00	Site 4	0.7990	0.7717	1.0000	0.7102	0.9113	0.1778

Date	site #1 site #2 site #3 site #4				AVER	VAR	STDEV	MIN	MAX	T-TESTS						
	Depth (m)	Silicon	Silicon	Silicon						Silicon	Sites # 1 & 2	Sites # 1 & 3	Sites # 1 & 4	Sites # 2 & 3 & 4	Sites # 2 & 4	Sites # 3 & 4
13-Oct	50	3.30	3.30	3.30	3.30	0.91	0.95	2.10	4.50	Site 1	0.2980	0.1802	0.2262	0.1087	0.2420	0.4676
19-Oct	50	2.10	2.40	2.70	2.60	0.61	0.78	2.40	4.40	Site 2	0.2980	0.1802	0.2262	0.1087	0.2420	0.4676
26-Oct	50	2.30	2.60	2.80	3.50	0.52	0.72	2.70	4.50	Site 3	0.2980	0.1802	0.2262	0.1087	0.2420	0.4676
02-Nov	50	3.10	3.10	3.10	3.00	0.57	0.75	2.60	4.60	Site 3	0.2980	0.1802	0.2262	0.1087	0.2420	0.4676
09-Nov	50	4.50	4.40	4.50	4.60	0.57	0.75	2.60	4.60	Site 4	0.2980	0.1802	0.2262	0.1087	0.2420	0.4676

Date	site #1 site #2 site #3 site #4				AVER	VAR	STDEV	MIN	MAX	
	Depth (m)	Silver	Silver	Silver						
13-Oct	5	0.0004	0.0004	0.0004	0.0004	0.00	0.0000	0.0004	0.0004	Site 1
19-Oct	5	0.0004	0.0004	0.0004	0.0004	0.00	0.0000	0.0004	0.0004	Site 2
26-Oct	5	0.0004	0.0004	0.0004	0.0004	0.00	0.0000	0.0004	0.0004	Site 3
02-Nov	5	0.0004	0.0004	0.0004	0.0004	0.00	0.0000	0.0004	0.0004	Site 4

T-TESTS					
Sites # 1 & 2	Sites # 1 & 3	Sites # 1 & 4	Sites # 2 & 3	Sites # 2 & 4	Sites # 3 & 4
#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Date	site #1 site #2 site #3 site #4				AVER	VAR	STDEV	MIN	MAX	
	Depth (m)	Silver	Silver	Silver						
13-Oct	50	0.0004	0.0004	0.0004	0.0004	0.00	0.0000	0.0004	0.0004	Site 1
19-Oct	50	0.0004	0.0004	0.0004	0.0004	0.00	0.0000	0.0004	0.0004	Site 2
26-Oct	50	0.0004	0.0004	0.0004	0.0004	0.00	0.0000	0.0004	0.0004	Site 3
02-Nov	50	0.0004	0.0004	0.0004	0.0004	0.00	0.0000	0.0004	0.0004	Site 4

T-TESTS					
Sites # 1 & 2	Sites # 1 & 3	Sites # 1 & 4	Sites # 2 & 3	Sites # 2 & 4	Sites # 3 & 4
#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Date	site #1 site #2 site #3 site #4				AVER	VAR	STDEV	MIN	MAX	
	Depth (m)	Sodium	Sodium	Sodium						
13-Oct	5	0.89	0.86	0.86	0.89	0.02	0.16	0.88	1.22	Site 1
19-Oct	5	1.22	1.15	1.18	1.19	0.01	0.12	0.86	1.15	Site 2
26-Oct	5	0.88	0.88	0.83	0.84	0.02	0.14	0.83	1.18	Site 3
02-Nov	5	0.96	0.98	1.00	1.02	0.02	0.14	0.84	1.19	Site 4

T-TESTS					
Sites # 1 & 2	Sites # 1 & 3	Sites # 1 & 4	Sites # 2 & 3	Sites # 2 & 4	Sites # 3 & 4
0.2012	0.2005	0.3462	0.8928	0.4581	0.3211

Date	site #1 site #2 site #3 site #4				AVER	VAR	STDEV	MIN	MAX	
	Depth (m)	Sodium	Sodium	Sodium						
13-Oct	50	0.99	1.04	0.99	1.01	0.03	0.16	0.95	1.36	Site 1
19-Oct	50	1.36	1.34	1.31	1.31	0.02	0.13	1.02	1.34	Site 2
26-Oct	50	0.95	1.02	1.11	1.12	0.01	0.12	0.99	1.31	Site 3
02-Nov	50	1.13	1.12	1.10	1.12	0.01	0.11	1.01	1.31	Site 4

T-TESTS					
Sites # 1 & 2	Sites # 1 & 3	Sites # 1 & 4	Sites # 2 & 3	Sites # 2 & 4	Sites # 3 & 4
0.7396	0.8071	0.6371	0.9395	0.6428	0.0890









