GOLDEN PREDATOR EXPLORATION LTD.

BREWERY CREEK MINE

2014 ANNUAL WATER LICENSE REPORT

SUBMITTED TO THE YUKON WATER BOARD

WATER USE LICENSE QZ96-007

2014 ANNUAL QUARTZ MINING LICENSE REPORT

SUBMITTED TO YUKON GOVERNMENT, ENERGY MINES AND RESOURCES

YUKON QUARTZ MINING LICENSE A99-001

February 2015

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1 INTRODUCTION

The Brewery Creek Mine is currently owned and operated by Golden Predator Mining Corp. (Golden Predator), who signed a purchase agreement with Alexco Resource Corp. in early 2012. The property is located in central Yukon approximately 55 km east of Dawson City and was operated as a conventional open pit heap leach continuously from 1996 through 2001; reclamation and closure began in 2002. With the exception of some remaining site facilities, the mine has been closed and reclaimed. The mine closure and reclamation objectives are outlined in the 2003 Decommissioning and Reclamation Plan (DRP) required under the Water Use License.

The mine was operated and closed under Type A Water Use License QZ96-007 (originally issued as QZ94-003 in August 1995) and Quartz Mining License A99-001 issued in June 1999. Both licenses expire in 2021. The Water Use License was most recently amended in March of 2012 (Amendment 8, QZ11-035), which addressed updated closure conditions and monitoring. Golden Predator also holds a Type B Water Use License MN12-038, which was issued in August 2012, and expires on July 5, 2022. Under this license Golden Predator has the right to obtain groundwater and upgrade the existing septic system on site for a larger camp.

Golden Predator holds a Class 4 Mining Land Use Approval for the Brewery Creek property (LQ00364), which was updated from a Class 3 approval on July 6, 2012. With this Class 4 approval, Golden Predator has been able to extend their exploration beyond the previous license boundaries.

This report summarizes the 2014 monitoring data and activities relevant to the Water Use License QZ96-007, and the Quartz Mining License A99-001. Many aspects of the required monitoring under QZ96-007 and A99-001 have now been completed.

2 OVERVIEW OF ACTIVITIES

In anticipation of further development on the Brewery Creek property, Golden Predator conducted monthly baseline monitoring of surface water sites from August 2011 until August 2013, and on a quarterly basis until June 2014. Currently under QZ96-007 compliance monitoring of surface and groundwater in 2014 is semi-annually (June and October). The following tasks and activities were completed in 2014:

February 2014

- Site inspection
- Baseline surface water quality and hydrology monitoring
- Baseline groundwater quality monitoring
- Inspection and download of the meteorological station
- Baseline preliminary wildlife survey

June 2014

- Site inspection
- Semi-annual compliance surface water and groundwater quality monitoring
- Baseline surface water quality and hydrology monitoring
- Evaluation of problematic monitoring stations
- Surveying of hydrometric stations and deployment of leveloggers
- Baseline groundwater quality monitoring
- Inspection, download and de-winterizing of meteorological station

August 2014

- Mine site geotechnical engineering inspection

October 2014

- Site inspection
- Collection of leveloggers
- Semi-annual compliance surface water and groundwater quality monitoring
- Inspection, download and winterizing of meteorological station

3 MONITORING PROGRAMS AND STUDIES

3.1 WATER USE

There was no water withdrawn from the authorized sources (Laura Creek, Lucky Creek, Pacific Creek, Lee Creek, North Fork of the South Klondike River, and the South Klondike River,) or the well located at BC-23 during 2014.

3.2 CLIMATE

Requirements under QZ96-007 for the climatic monitoring is described in the Solutions Management Plan, as well as the Blue Zone Monitoring and Assessment Program, and the Heap Leach Pad Cover and Facilities Monitoring Program. As per these programs, climatic monitoring was discontinued in 2010 under QZ96-007 as the heap was deemed detoxified according to specific monitoring requirements ("detoxification of the heap shall be deemed to have occurred when the concentration of Total Cyanide measured at monitoring station BC-28a in accordance with Schedules A and B is equal to or lower than 2.0 mg/l for five consecutive years of monitoring"). However, Golden Predator continues to perform climatic monitoring even though requirements under QZ96-007 have been fulfilled.

A Campbell Scientific weather station is installed on site and collects weather data continuously. The data are downloaded in conjunction with the compliance water quality and hydrology monitoring program, at which point the station is also inspected to ensure it is functioning properly and any necessary maintenance is performed.

The meteorological station was down for a period of 15 days in January 2014, due to a low battery voltage, and it was last visited and downloaded in October 2014. A meteorological data summary memorandum is presented in Appendix A and includes a tabular summary of the 2014 data available.

3.3 SURFACE WATER QUALITY MONITORING

3.3.1 *Surface Water Sampling Methods*

Monitoring and sampling was carried out in accordance with the procedures and standards described in the Guidance Document for the Sampling and Analysis of Metal Mining Effluents (April 2001, EPS2/MM/5, Minerals and Metals Division, Environment Canada). All samples were preserved and filtered on the day of collection, where applicable, and were kept cool throughout shipment to Maxxam Analytics Inc. Samples were analyzed for the following parameters:

- Routine parameters (conductivity, pH, alkalinity, hardness, hydroxide, carbonate);
- Total suspended and dissolved solids (TSS/TDS);
- Ammonia;
- Anions (nitrite, nitrate, fluoride, sulphate, cholride, bromide, ortho-phosphate);

- Dissolved organic carbon (DOC);
- Cyanide (Weak Acid Dissociable and Total); and
- Total and dissolved metals (suite of 33 metals, including all parameters found in the CCME and MMER guidelines).

QA/QC samples, such as duplicates and field and trip blanks were collected as part of each sampling event.

3.3.2 *Water Quality Guidelines*

Clause 46 of Water Licence QZ96-007 states that:

"Water quality at monitoring stations BC-31, BC-34 and BC-39 shall not exceed the water quality guidelines specified for the protection of aquatic life contained in the Canadian Environmental Quality Guidelines prepared by the Canadian Council of Ministers of Environment, as amended from time to time."

As such, for the receiving water quality data assessment, water quality parameters were screened against Canadian Water Quality Guidelines for Protection of Aquatic Life (CWQG; CCME 2012). Relevant guidelines are presented in Table 3-1.

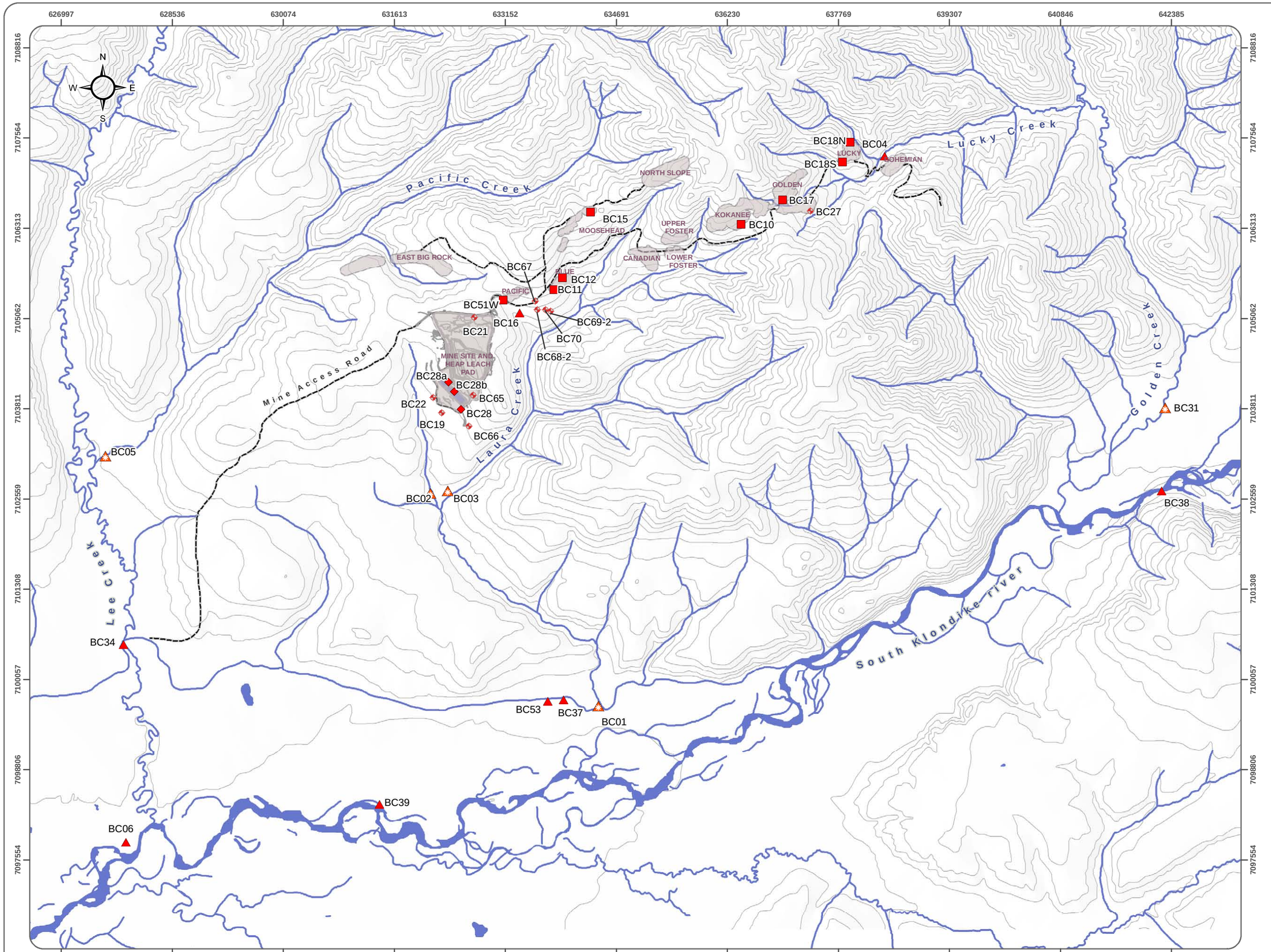
The water license also specifies a site specific guideline for total selenium of 0.0038 mg/L at BC-39.

Table 3-1 Canadian Water Quality Guidelines

Parameter	Units	Guideline	
		Source	Value
Aluminum*	µg/L	CWQG	100
Arsenic	µg/L	CWQG	5
Cadmium**	µg/L	CWQG	$10^{0.83[\log10(\text{hardness})]-2.46}$
Chromium	µg/L	CWQG	1
Copper	µg/L	CWQG	$e^{0.8545[\ln(\text{hardness})]-1.465} * 0.2$
Cyanide - WAD	µg/L	CWQG	5
Iron	µg/L	CWQG	300
Lead	µg/L	CWQG	$e^{1.273[\ln(\text{hardness})]-4.705}$
Mercury	µg/L	CWQG	0.026
Molybdenum	µg/L	CWQG	73
Nickel	µg/L	CWQG	$e^{0.76[\ln(\text{hardness})]+1.06}$
Nitrate Nitrogen	µg/L	CWQG	3000
Selenium	µg/L	CWQG/SSWQS	1/3.8
Silver	µg/L	CWQG	0.1
Thallium	µg/L	CWQG	0.8
Zinc	µg/L	CWQG	30
pH	pH units	CWQG	6.5 - 9.0

**If pH ≥ 6.5*

***Cadmium has two guidelines: one for short term exposure and one for long term exposure. Only the long term guideline is presented here as it is the most conservative.*



BREWERY CREEK MINE

FIGURE 3-1
WATER QUALITY STATIONS

Monitoring Stations

- Groundwater
- Heap Effluent
- Surface Water Quality and Hydrometric
- Surface Pit/Dump Discharge
- Surface
- Mine Area
- Watercourse
- Waterbody

National Topographic Data Base (NTDB) compiled by Natural Resources Canada at a scale of 1:50,000.Reproduced under license from Her Majesty the Queen in Right of Canada, as represented by the Minister of Natural Resources Canada. All rights reserved.

NAD 83 UTM Zone 7N

0 0.5 1 2 Kilometers

1:50,000 (when printed on 11 X 17 inch paper)

FEBRUARY 2015

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(*Last edited by: jpan:2/26/2014/14:38 PM*)

3.3.3 *Surface Water Quality Results*

Surface water quality monitoring stations are presented in Figure 3.1. Water License QZ96-007 specifies three compliance points for surface water quality: BC-31, BC-34, and BC-39, that must meet CCME Guidelines for the Protection of Aquatic Life. There were no exceedances of these guidelines for any parameters during 2014 at BC-31 or BC-34, with the exception of elevated levels of total selenium. The CCME guideline for total selenium is 0.001 mg/L and during the May and October 2014 compliance monitoring trips selenium exceeded these levels at both BC-31 and BC-34. However, it should be noted that the reference stations BC-36 and BC-33 were also elevated compared to the CCME guideline, as higher concentrations of selenium are typical of the area. Table 3-2 presents the reference stations relative to the compliance stations on Lee and Golden Creeks for total selenium.

Table 3-2 Surface Water Quality selenium exceedances for BC-31 and BC-34 compared to reference sites

Site	BC-33 (Reference Stn.) Lee Creek above Pacific Creek			BC-34 (Compliance Stn.) Lee Creek at Ditch Road			BC-36 (Reference Stn.) Golden Creek above confluence w/ Lucky Creek			BC-31 (Compliance Stn.) Golden Creek above confluence w/ South Klondike R.		
Date	31-Jan	30-May	03-Oct	31-Jan	30-May	03-Oct	01-Feb	29-May	03-Oct	01-Feb	29-May	03-Oct
Se, total (mg/L)	0.0027	0.0018		0.0028	0.0018	0.0024	0.0031	0.002			0.0017	0.002

Compliance station, BC-39, was below the CCME water quality guidelines for all parameters for the June and October 2014 compliance monitoring events. BC-39 was also under the site specific maximum allowable selenium concentration of 0.0038 mg/L during all monitoring events in 2014.

All surface water data and insitu parameters are summarized and compared to CCME Guidelines for the Protection of Aquatic Life in a table provided in Appendix B, which also includes plots and a brief discussion of historical trends. The original lab reports are provided in Appendix C and field reports are provided as Appendix D, which includes photos of the sites.

3.4 GROUNDWATER QUALITY

3.4.1 *Groundwater Sampling Methods*

Monitoring and sampling was carried out in accordance with the procedures and standards described in the *Standard Guide for Sampling Ground-Water Monitoring Wells* (STM D4448-01, ASTM International, PA, USA). All samples were preserved and filtered on the day of collection, where applicable, and kept cool until shipment to Maxxam Analytics Inc. Samples were analyzed for the following parameters:

- Routine parameters (conductivity, pH, alkalinity, hardness, hydroxide, carbonate);
- Total dissolved solids;
- Ammonia;
- Anions (nitrite, nitrate, fluoride, sulphate, chloride, bromide, ortho-phosphate);

- Cyanide (Weak Acid Dissociable and Total); and
- Dissolved metals (suite of 33 metals at low level detection limits).

QA/QC samples were collected as part of each sampling event.

3.4.2 *Groundwater Results*

There are ten groundwater wells that are required to be monitored semi-annually under the Water License, two of these wells, BC-65 and BC-66, are compliance points for the site. BC-65 was blocked or frozen during the May and October 2014 monitoring events and as such could not be sampled. BC-66(1) is the shallow of the two nested wells and was dry for both events. BC-66 (2) is the deeper well and water levels and samples were collected in May and October 2014. The results of BC-66 (2) were all well below the site specific maximum allowable concentrations specified within Clause 43 of Water License QZ96-007, as shown in Table 3-3.

Table 3-3 BC-66 Site Specific Max Allowable Concentrations

		Station Name	BC-66	BC-66
Description	**Units**	**QZ96-007 Standards**	**Land Application Piezometer (Deep Well)**	**Land Application Piezometer (Deep Well)**
Sample Date			**31/05/2014**	**01/10/2014**
Ammonia Total	mg/L	7.5	0.0077	0.0067
Cyanide, Total	mg/L	1	0.00568	0.00348
Cyanide, Weak Acid Dissociable	mg/L	0.125	0.00311	0.00124
Aluminum (Al), Dissolved	mg/L	3	0.0008	0.00158
Antimony (Sb), Dissolved	mg/L	0.5	0.000363	0.000225
Arsenic (As), Dissolved	mg/L	0.25	0.000407	0.000483
Bismuth (Bi), Dissolved	mg/L	0.25	<0.0000050	<0.0000050
Cadmium (Cd), Dissolved	mg/L	0.05	0.000016	0.000022
Chromium (Cr), Dissolved	mg/L	0.24	<0.00010	<0.00010
Copper (Cu), Dissolved	mg/L	0.1	0.000315	0.000357
Iron (Fe), Dissolved	mg/L	5	<0.0010	0.0016
Lead (Pb), Dissolved	mg/L	0.1	0.000005	0.000006
Manganese (Mn), Dissolved	mg/L	6	0.000388	0.000896
Molybdenum (Mo), Dissolved	mg/L	0.25	0.000245	0.0003
Nickel (Ni), Dissolved	mg/L	0.25	0.00057	0.000667
Selenium (Se), Dissolved	mg/L	0.3	0.0168	0.0154
Silver (Ag), Dissolved	mg/L	0.05	<0.0000050	0.000005
Zinc (Zn), Dissolved	mg/L	0.25	0.00406	0.00118

In May2014, seven wells were successfully sampled, while the remaining wells were either frozen, blocked, or dry. During this event BC-19, BC-21, BC-22, BC-27, BC-66(2), BC-67, and BC-69(1) were successfully sampled, while BC-68(1) and BC-69(2) were noted as dry. In October 2014, five wells were successfully sampled, BC-19, BC-21, BC-22, BC-27 and BC-66, and the rest were either noted as dry or frozen. All of the water level data and water sampling data for the remaining wells are provided in Appendix B, which also includes plots and a brief discussion of historical trends. The original lab reports are provided in Appendix C and field reports are provided as Appendix D, which includes photos of the sites.

3.5 IN-PIT AND HEAP EFFLUENT MONITORING STATIONS WATER QUALITY RESULTS

3.5.1 *Methods*

Mined out pits were used effectively as sediment control basins. Snow melt and precipitation run-off was directed to the closest inactive pit. Samples from all pits were taken from surface standing water within each pit. All samples were preserved and filtered on the day of collection, where applicable, and were kept cool until shipment to Maxxam Analytics Inc. Samples were analyzed for the following parameters:

- Routine parameters (conductivity, pH, alkalinity, hardness, hydroxide, carbonate);
- Total suspended and dissolved solids;
- Ammonia;
- Anions (nitrite, nitrate, fluoride, sulphate, chloride, bromide, ortho-phosphate);
- Cyanide (Weak Acid Dissociable and Total); and
- Total and dissolved metals (suite of 33 metals, at low level detection limits).

QA/QC samples were collected as part of each sampling event.

3.5.2 *Effluent Quality Standards*

During the 2012 Mine Engineering Inspection, Brewery Creek mine was completing management of the waters stored in the ponds below the heap. Inspection of the discharge channel from the outflow of the overflow pond siphon pipe (final discharge point) has demonstrated each year that the discharge water goes to ground and does not enter any receiving surface water directly. The heap effluent now infiltrates into the ground within the reclaimed ponds which meets water license requirements. In 2014, no effluent was discharged from the heap or the biological treatment or overflow ponds, and as such no samples were collected at BC-28, 28a monitoring stations.

The lysimeter compliance point, BC-70, is held to the same site specific maximum allowable standards as the wells, BC-65 and BC-66. The lysimeter reservoir was dry during each compliance monitoring trip and could therefore not be sampled.

3.5.3 *Results*

In-pit and heap effluent samples were collected from the following stations:

- BC-10: Kokanee Pit and Dump
- BC-12: Blue Pit
- BC-15: Moosehead Pit
- BC-16: Pacific Gulch
- BC-17: Golden Pit and Dump
- BC-18N: Lucky Pit and Dump (North side)
- BC-28: Overflow Pond
- BC-51W: Pacific Pit

Stations located at BC-9 (Upper Foster Pit and Dump), BC-13 (Moosehead West Waste Dump) and BC-14 (Moosehead East Waste Dump) were removed from license QZ96-007 in Amendment #8 and are therefore no longer required to be monitored.

Based on the October 2014 field activities, the following noteworthy observations were made:

- Water that is contained in all pits either exfiltrates or evaporates.
- Lucky pit and dump sites, BC-18N and BC-18S, did not have water present during sampling events. These sites have been reclaimed. BC-18N is dry and BC-18S is a grassy reclaimed hillslope with trees quickly filling in. BC-11, Blue Waste Dump, is a grassy hillslope with no signs of surface water running at any time of year, it is being rapidly reclaimed by trees. We recommend BC-18N, BC-18S and BC-11to be removed from the monitoring schedule. Photos are included in Appendix D as part of the field reports.
- Pacific gulch, BC-16, is the overflow draining from Pacific pit. This channel is dry and appears to have been for some time. It is likely that water flows during spring melt only.
- BC-28 was dry, photos are included in Appendix C as part of the field reports.
- BC-12 (Blue Pit) is surrounded with very soft muddy sediment and gravel. It is extremely difficult to sample the water without causing a plume of very light orange precipitate to emanate from the shore. As such it is quite possible that the samples could be adversely affected and may explain the variability between June and October.
- pH levels in Pacific Pit (BC-51W) remained consistently low since 2008 and again were observed to be low in 2014.
- Aside from arsenic and selenium, BC-10, BC-15 and BC-17 exhibited metal concentration values within normal ranges.

3.6 BIOASSAY MONITORING

Bioassays were not collected from station BC-28a during 2014 as the site was not actively discharging.

3.7 HYDROLOGY

Stream flow measurements for stations situated along Laura Creek, Golden Creek, Lucky Creek, Lee Creek, and Pacific Creek were conducted in 2014 during the regularly scheduled monitoring periods, where conditions allowed. Measurements were taken according to the procedures and standards described in the *Guidance Document for Flow Measurement of Metal Mining Effluents* (April 2001, EPS 2/MM/4, Mineral and Metal Division, Environment Canada), and all data are presented in Table 3-4.

Table 3-4 Summary table of Stream Flow Measurements (m^3/sec)

	31-Jan-14	1-Feb-14	27-May-14	29-May-14	30-May-14	31-May-14	2-Jun-14	1-Oct-14	3-Oct-14
BC-1				0.0940					0.1188
BC-2		0				0.0021		0.0078	
BC-3		<0.01			0.1599			0.0811	
BC-4		0.012	0.0266						0.0263
BC-5	0.024				0.0852				0.1420
BC-31				0.2834					0.6625
BC-37 (BC-53)				0.0850					
BC-39									<0.001 (est)
BC-53									0.1086

Due to BC-53's difficult access, it was recommended that BC-37 become the site for BC-53. BC-37 is located a few hundred meters upstream and water quality, as well as discharge should be effectively similar.

3.8 SEDIMENT AND BENTHIC MONITORING

There was no sediment or benthic monitoring completed in 2014, as water license requirements for this site were only required until 2009. Sediment and benthic monitoring were last completed in 2012 as part of Golden Predator's extended baseline monitoring program at Brewery Creek.

3.9 LEAK DETECTION AND RECOVERY SYSTEMS

The leak detection piping and collection system remains intact but the monitoring of (LDRS) systems was discontinued in 2005, consistent with long-term closure plans and the fact the heap has been fully decommissioned and drained.

3.10 AIR QUALITY

No air quality monitoring for mercury emissions was conducted in 2014. Refining activities were discontinued resulting in the dismantlement of the ADR facility in 2004.

3.11 EFFECTS ON WILDLIFE

The fence constructed in June 2006 to prevent wildlife from entering the process ponds was removed in 2008 during the final reclamation of the ponds. There is no liner remaining on site to pose any wildlife entrapment risk. The site was inspected regularly throughout the year and there was no wildlife mortalities observed during 2014.

Additional wildlife studies were completed as part of an ongoing baseline assessment in February 2014. Further, incidental wildlife signs or sightings noted during field trips were also recorded. Among the wildlife observed throughout the year were moose, grizzly bear, fox, lynx and porcupine as well as caribou signs.

4 ADDITIONAL PLANS AND STUDIES

4.1 ADAPTIVE MANAGEMENT PLAN

As part of the Adaptive Management Plan there are actions to be taken if BC -39 exceeds the site specific maximum allowable total selenium concentration of 3.8 µg/L. However, the highest concentration noted in 2014 was 0.64 µg/, and therefore did not trigger any mitigative actions.

4.2 IMPACT STUDY OF LOWER LAURA CREEK

The purpose of the study is to characterize the potential effects to Lower Laura Creek and the South Klondike River resulting from the release of effluents from the project. The report summarizes data collected as part of the licensed monitoring program conducted on Laura Creek and the South Klondike River during the period 2008 – 2013. The Lower Laura Creek Impact Study was last submitted in 2014. The next study will be submitted in 2017.

5 REAGENT AND WASTE MANAGEMENT

5.1 SPILL OCCURRENCE AND RESPONSE

There were no reportable spills that occurred in 2014.

5.2 REAGENT STORAGE AND HANDLING

Other than some miscellaneous laboratory chemicals, there are no reagents or chemicals in storage at the Brewery Creek Mine.

6 WATER MANAGEMENT

6.1 DIRECT RELEASE

There was no direct release of solution in 2014. Heap drainage is diverted into the barren pond (biological treatment cell) and overflows into the overflow pond where it infiltrates into the ground. The infiltrating water meets water license discharge requirements. Heap surface water is directed to the pregnant pond (now sediment settling pond) where it likewise infiltrates into the ground. As there was no discharge in 2014 no samples at BC-28, 28a, or 28c were collected.

Vista Tek Ltd. Reported that at the time of the 2014 inspection, the barren pond was noted to be approximately 90% full and the overflow pond and pregnant ponds approximately 25% full. Golden Predator (per. com. Mike Maslowski, Director Operations to Victor Menkal, P. Eng.) has indicated that they are currently evaluating alternatives to undertake management of the water contained in the pond on a long term basis.

7 GEOTECHNICAL INVESTIGATION

An engineering inspection was completed by Victor Menkal, P.Eng. of Vista Tek Ltd. on August 12th and 13th, 2014. The primary intent of the work was to inspect waste rock dump reclamation works and various civil works structures and included: ore on pad, leach pad containment dyke, process ponds, external waste dumps, water retaining structures, overflow and drainage structures as well as haul road and associated drainage works.

Attention was given to potential areas of concern identified in previous annual inspections in September 2012 by Vista Tek Ltd (Victor Menkal, P.Eng.) and in November 2010 by SRK Consulting (Canada) Inc. (Mr. Peter Mikes, P.Eng.). The complete engineering inspection report can be found in Appendix E.

8 CONCLUSION

A summary of the key points of this report are as follows:

- There was no direct release of solution in 2014. The heap drainage is diverted into the barren pond which passes into the overflow pond where it infiltrates into the ground. Heap surface water is directed to the pregnant pond (now sediment settling pond) where it likewise infiltrates into the ground. As there was no discharge in 2014 no samples at BC-28, 28a, or 28c were collected.

- Water License QZ96-007 specifies three compliance points for surface water quality: BC-31, BC-34, and BC-39, that must meet CCME Guidelines for the Protection of Aquatic Life. There were no exceedances of these guidelines for any parameters during 2014 at BC-31 or BC-34, with the exception of elevated levels of total selenium. The CCME guideline for total selenium is 0.001 mg/L and during the May and October 2014 compliance monitoring trips selenium exceeded these levels at both BC-31 and BC-34. The reference stations BC-36 and BC-33 were also elevated compared to the CCME guideline, as higher concentrations of selenium are typical of the area.

- Compliance station, BC-39, was below the CCME water quality guidelines for all parameters for the June and October 2014 compliance monitoring events. BC-39 was also under the site specific maximum allowable selenium concentration of 0.0038 mg/L during all monitoring events in 2014.

- The wells BC-65 and BC-66, are compliance points for the site. BC-65 was blocked or frozen and BC-66(1) was dry for both events in 2014. BC-66 (2) is the deeper well and water levels and samples were collected in May and October 2014. The results of BC-66 (2) were all well below the site specific maximum allowable concentrations specified within Clause 43 of Water License QZ96-007.

- The lysimeter compliance point, BC-70, is held to the same site specific maximum allowable standards as the wells, BC-65 and BC-66. The lysimeter reservoir was dry during each compliance monitoring trip and could therefore not be sampled.

APPENDIX A

CLIMATE DATA SUMMARY MEMO

3 Calcite Business Centre, 151 Industrial Road
Whitehorse, Yukon Y1A 2V3
Phone (867) 668-6463 Fax (867) 667-6680
www.accessconsulting.ca

Memorandum

To: Golden Predator Corp.

From: Catherine Henry, Access Consulting Group

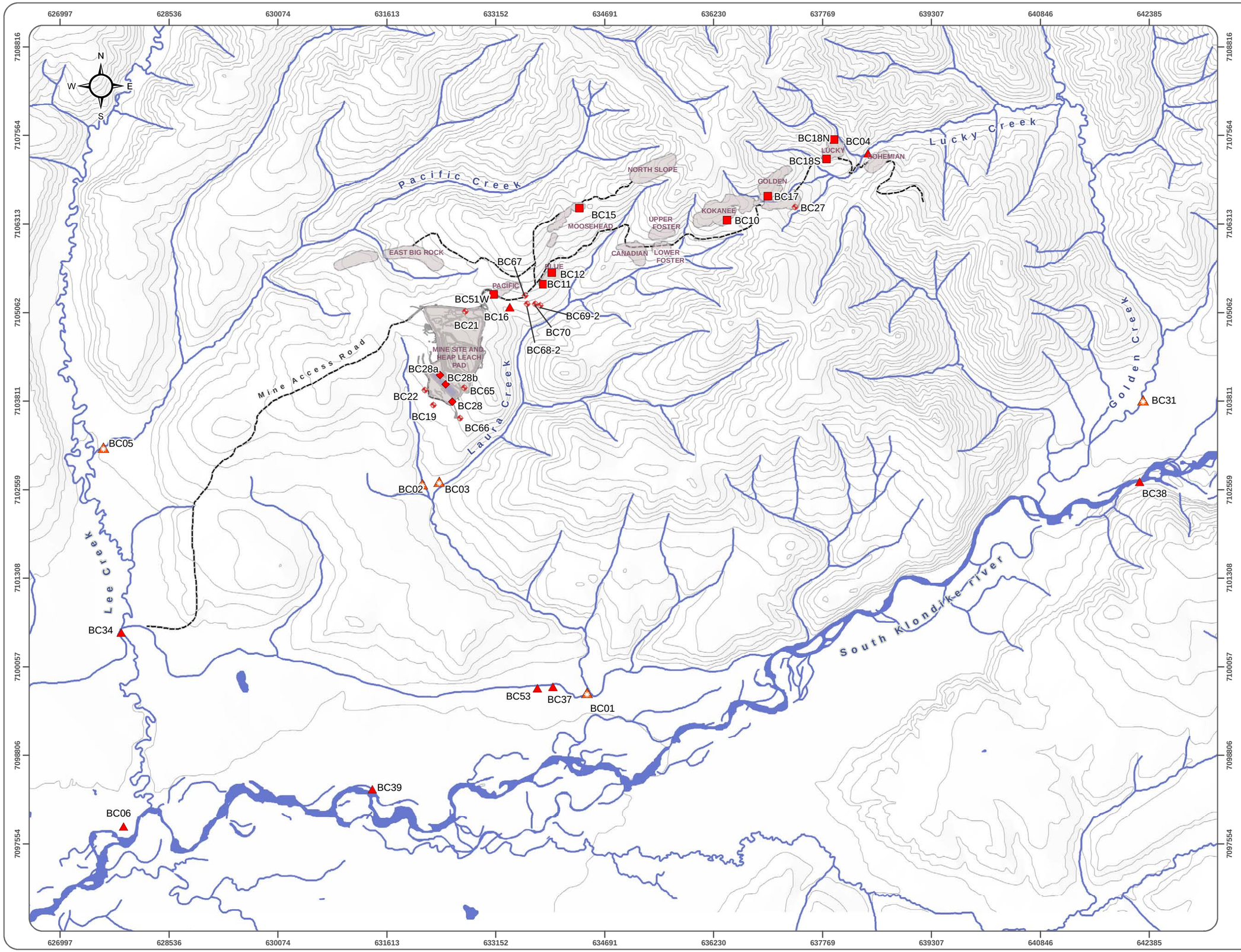
CC: David Petkovich, Access Consulting Group

Date: February 19, 2015

Re: Brewery Creek Mine Site Meteorological Data Summary

1. INTRODUCTION

This memo summarizes the data collected since November 2011 at the Brewery Creek Campbell Scientific meteorological station, and compares it to data collected at the site since 1991 and to regional data. The current meteorological station was commissioned on November 9, 2011 and is located at the following coordinates: (64.040669; -138.27948) and at an elevation of 837 m above sea level. For comparison, the Dawson City Airport meteorology station, operated by Environment Canada, is approximately 40km west and the Midnight Dome snow course, operated by the Government of Yukon Water Resources Branch, is approximately 55kms west. Figure 1 shows the relative location of the Brewery Creek meteorological station to Dawson A and the Midnight Dome snow course (Yukon Environment, Water Resources).



BREWERY CREEK MINE

FIGURE 1-1
WATER QUALITY STATIONS

Monitoring Stations

- Groundwater
- Heap Effluent
- Surface Water Quality and Hydrometric
- Surface Pit/Dump Discharge
- Surface
- Mine Area
- Watercourse
- Waterbody

NAD 83 UTM Zone 7N

0 0.5 1 2 Kilometers

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2. INSTRUMENTATION

The Brewery Creek Campbell Scientific station consists of a ten meter tower and of the following components:

Component	Model
Relative Humidity and Air Temperature Probe	HC2-S3-L
Pyranometer	SP-Lite2
Tipping Bucket	TE525WS
Snowfall Conversion Adaptor	CS705
Wind Speed and Direction Sensor	05103AP-10-L
Barometric Pressure Sensor	61302V
Solar Panel	MSX20R
Datalogger	CR800
Battery	BP12

3. NOTES AND DATA GAPS

- Three months of data from December 2011 to February 2012 were lost due to power failure.
- In April 2012, the relative humidity sensor was found to be malfunctioning and was sent back to Campbell Scientific for repair. A replacement sensor was installed at the same time to avoid data loss.
- Evapotranspiration is calculated based on several parameters, including relative humidity (RH) and wind speed, and is therefore invalid for the period where RH or wind speed is invalid.
- Precipitation is collected using a tipping bucket rain gauge with a snowfall conversion adapter mounted in the winter months.
- The snowfall conversion adaptor was incorrectly removed on May 24, 2012, causing precipitation data to be invalid between then and June 19, 2012, when the problem was corrected.
- The cylinders of the snowfall conversion adaptor were inverted upon installation on September 19, 2012, potentially causing undercatch and underestimation of snowfall. The situation was rectified on November 20, 2012.
- The station was down from January 22, 2013 to February 11, 2013, and from January 10th to January 25th, 2014, due to low battery voltage.
- In 2013, the snowfall conversion adaptor was removed on July 24 and reinstalled on October 7. In 2014, it was removed on May 31 and reinstalled on October 4. Any snow fallen between those dates would not have been recorded.

- Precipitation values for June and July 2013 are very low. Because the snowfall conversion adaptor was still in place until late July, it is suspected that evaporation lowered the antifreeze level enough to prevent most of the new precipitation to reach the overflow and tube and to flow into the tipping bucket.

- The station was last downloaded on October 4, 2014.

4. 1991-2010 DATA REVIEW

Meteorological data has been collected at Brewery creek intermittently since 1991:

- Manual temperature and precipitation measurements were collected intermittently from 1991 to August 1995;

- An automated station was installed on the knoll above the leach pad in August 1995. It collected hourly temperature, relative humidity, precipitation, wind magnitude and direction and solar radiation;

- The automated station was relocated to the top of the administration building in April 1997;

- Due to concerns regarding the reliability of the automated weather station, a manual weather station was established at the mine camp in the spring of 1996. Weather observations, maximum, minimum and current temperature measurements were recorded twice daily, and the precipitation gauge was measured and emptied weekly;

- The manual station was relocated to the top of the administration building at the same time as the automated one in April 1997;

- From May 1991 until the establishment of the manual station in April 1997, measurements from a precipitation gauge located near the automated stations were recorded;

- In 1997, an evaporation pan was established between the overflow and intermediate ponds;

- Climate monitoring was discontinued at the end of 2010 as updates to the Blue WRSA infiltration rate and the Heap water balance carried out in 2009 showed that detoxification of the heap had occurred and monitoring results at BC-28a had met the requirement laid out in Part E, Clause 8 of licence QZ96-007 Amendment #7.

5. RESULTS

The Campbell Scientific CR800 datalogger is set with a scanning interval of 10 seconds, and records hourly and daily data, which have been compiled into a monthly summary presented below. Note that results shown in grey italics were compiled based on incomplete hourly or daily data.

Table 1 Brewery Creek Monthly Meteorological Data Summary 2011-2013

Year	Month	Monthly Air Temperature (°C)					Monthly Average Solar Radiation (kW/m²)	Monthly Total Precipi-tation (mm)	Monthly Average Relative Humidity (%)	Monthly Average Pressure (hPa)	Monthly Average Wind Speed (m/s)	Monthly Maximum Wind Speed (m/s)	Monthly Total Evapo-transpiration (mm)	Comments
		Extreme Minimum	Average Minimum	Mean	Average Maximum	Extreme Maximum								
2011	11	*-33.29*	*-23.22*	*-21.46*	*-19.68*	*-10.54*	*0.005*	*20.58*		*994.67*	*0.46***	*11.37***		Station commissioned on Nov. 9th - 15 complete days
2011	12													Data lost
2012	1													Station down
2012	2													Only 3 complete days - monthly not calculated
2012	3	-24.68	-14.72	-11.70	-7.88	5.23	0.090	6.10		995.39	2.37	16.74		RH sensor malfunctioning - needs replacement
2012	4	-12.60	-1.20	2.15	5.74	9.31	0.174	*0*	*53.2*	1005.67	3.15	12.13	*5.10*	5 complete days for RH and ET
2012	5	-5.37	3.27	6.68	10.07	18.02	0.196	*5.34*	51.5	1004.18	4.12	16.69	45.41	Precip: 23 complete days
2012	6	5.36	10.33	13.95	17.62	25.75	0.213	*20.57*	54.9	1005.19	2.50	19.59	37.59	Precip: 11 complete days
2012	7	5.40	10.21	13.96	17.81	25.13	0.212	62.49	60.7	1008.78	2.74	17.78	35.19	
2012	8	0.507	8.59	12.30	16.38	21.73	0.167	33.54	62.1	1008.70	2.31	12.95	28.20	
2012	9	-2.756	4.49	7.26	10.21	18.22	0.088	28.71*	57.8	1003.48	3.89	17.21	35.22	
2012	10	-19.22	-8.22	-6.21	-4.28	7.24	0.031	27.68*	73.2	1010.88	1.83	12.41	7.42	
2012	11	-34.45	-22.93	-21.03	-18.80	-10.44	0.01	13.72*	71.44	1007.23	*0.50***	*8.31***	*0.65*	
2012	12	-38.87	-25.69	-23.38	-21.15	-1.69	0.00	20.57	69.64	1000.67	*1.05***	*11.23***	*1.06*	
2013	1	*-30.64*	*-17.26*	*-14.67*	*-11.96*	*-1.24*	*0.00*	*22.86*	*76.07*	*1005.41*	*1.72***	*15.61***	*2.02*	Station down on Jan.22 - 21 complete days of data
2013	2	*-25.90*	*-14.08*	*-11.90*	*-9.18*	*-0.06*	*0.02*	*4.67*	*74.36*	*996.92*	*2.34***	*16.13***	*3.27*	Station back online on Feb.11 - 17 complete days of data
2013	3	-26.22	-14.34	-11.23	-7.63	3.68	0.10	0.00	54.80	1008.95	2.79	20.80	10.63	
2013	4	-18.34	-11.35	-7.21	-3.26	4.31	0.19	0.15	48.11	1008.60	3.31	18.92	17.20	

Year	Month	Monthly Air Temperature (°C)					Monthly Average Solar Radiation (kW/m²)	Monthly Total Precipi-tation (mm)	Monthly Average Relative Humidity (%)	Monthly Average Pressure (hPa)	Monthly Average Wind Speed (m/s)	Monthly Maximum Wind Speed (m/s)	Monthly Total Evapo-transpiration (mm)	Comments
		Extreme Minimum	Average Minimum	Mean	Average Maximum	Extreme Maximum								
2013	5	-7.51	1.17	5.33	9.25	21.73	0.22	4.96	54.05	1007.81	3.33	17.11	34.58	
2013	6	3.65	11.36	15.70	20.11	29.30	0.26	0.00***	50.03	1010.55	2.91	16.26	49.90	
2013	7	6.81	11.43	15.40	19.39	25.13	0.23	3.07***	54.73	1011.57	2.69	13.67	45.48	
2013	8	2.09	10.64	14.40	18.41	28.02	0.17	15.32	56.73	1006.11	2.49	13.65	37.39	
2013	9	-5.24	3.25	5.99	9.30	17.62	0.08	32.98	71.34	999.49	3.50	21.17	20.48	
2013	10	-9.58	-1.08	0.63	2.56	6.79	0.03	16.64	74.27	1004.77	3.24	16.18	12.81	
2013	11	-36.56	-17.89	-15.23	-12.11	-0.34	0.01	9.63	73.70	1006.96	1.87	15.88	3.64	
2013	12	-33.98	-24.92	-22.54	-20.01	-0.59	0.00	9.77	66.97	1010.37	*1.27***	*17.81***	*1.76*	Wind: 24 complete days
2014	1	*-25.21*	*-11.82*	*-9.68*	*-7.23*	*3.41*	*0.01*	*4.09*	*78.52*	*1005.10*	*2.29***	*16.33***	*2.059*	Station down: 15 complete days, 4 partial days; wind and ET: 8 complete days, 9 partial days
2014	2	-34.20	-21.33	-17.82	-13.28	-2.01	0.03	3.50	63.36	1008.37	*1.56***	*23.19***	*3.847*	wind and ET: 21 complete days, 7 partial days
2014	3	-23.79	-12.08	-8.82	-4.90	3.48	0.11	1.02	41.24	1005.31	2.69	16.05	16.167	
2014	4	-17.66	-3.31	0.21	3.79	9.76	0.17	7.30	47.19	1001.89	3.43	13.98	28.628	
2014	5	-2.49	4.77	8.94	12.95	20.56	0.22	5.11	41.04	1010.10	3.06	21.49	47.014	
2014	6	2.61	7.75	11.89	15.86	23.91	0.22	33.27	50.87	1005.45	3.17	15.84	45.836	
2014	7	6.27	10.68	14.12	17.93	23.60	0.19	44.36	60.91	1007.21	2.55	16.33	34.904	
2014	8	1.55	8.41	11.52	15.20	20.70	0.14	44.80	69.29	1005.99	2.81	12.77	27.3	
2014	9	-5.10	2.69	5.56	8.84	16.12	0.10	19.71	58.45	1004.59	3.15	16.86	27.676	Last download Oct.4

**Precipitation may be underestimated (due to potential undercatch caused by snowfall cylinders inverted upon installation Sept.19). Situation rectified on November 20, 2012.*
***Wind speeds may be underestimated due to periodic icing of the wind sensor*
****Precipitation values suspiciously low. Snowfall adaptor still in place - antifreeze level may have dropped too low*

5.1. Air Temperature

Table 2 and Figure 2 below present air temperature monthly extreme and average minima, means and extreme and average maxima for the period 1994-2010. Note that this summary is largely based on partial monthly data. Individual annual data traces and tables are shown in Appendix A.

Table 2 Brewery Creek Air Temperature Monthly Summary 1994-2010

Parameter	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann.
Extreme Minimum	-43.5	-46.0	-39.9	-21.5	-13.7	-5.2	3.4	-2.5	-11.0	-28.0	-39.5	-37.9	-46.0
Average Minimum	-35.8	-30.7	-27.9	-15.6	-5.0	2.1	6.1	1.4	-5.6	-13.2	-24.3	-31.0	-14.9
Mean	-19.1	-15.7	-10.0	0.3	8.4	14.4	15.9	12.2	5.8	-1.9	-11.1	-14.2	-1.2
Average Maximum	0.0	0.9	5.1	12.9	22.2	26.9	26.8	25.2	16.9	9.0	1.7	1.4	12.4
Extreme Maximum	4.5	5.1	10.0	19.3	28.7	33.8	29.9	31.2	22.0	18.8	9.9	6.9	33.8

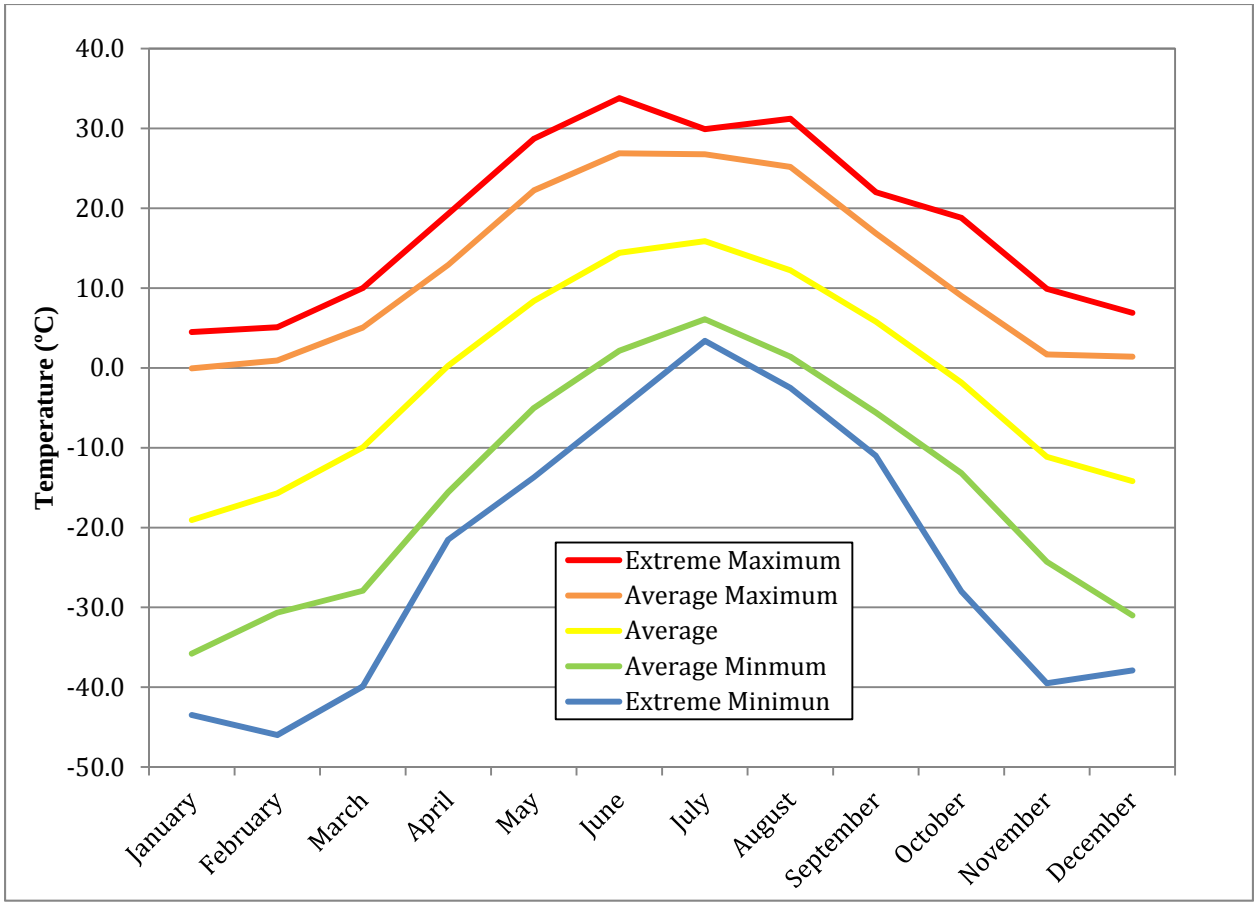


Figure 2 Brewery Creek Air Temperature, 1994-2010

Comparison between 2014 air temperature and historical averages and extremes (January to September only) indicates that 2014 average and extreme monthly maximum temperatures were all cooler than the 1994-2010 average, while the average and extreme monthly minima were much warmer, indicating a reduced annual range. The 2014 mean temperature from January to September was 1.8°C while the mean temperature for the corresponding period from 1994 to 2010 was 1.4 °C. Mean annual temperatures will be compared once data for the rest of the year 2014 is available.

Figure 3 and 4 show the 1991-2010 January and July temperature trends, respectively. The January minimum temperature has been increasing at the most rapid rate (0.47ºC/year), while the January maximum temperature has been decreasing at a rate of 0.55ºC/year. The July minimum, average and maximum temperature have all been increasing. Note that 20 years is a short period for evaluating temperature trends and that more confidence will be gained with a longer data record. For comparison, a longer temperature record is available at Dawson A and January mean, maximum and minimum temperatures show a very slightly decreasing trend over 32 years (1977-2008). July temperatures at Dawson A are available over an even longer period (1976-2012), and while extreme maxima show a slightly decreasing trend, mean monthly temperature and minimum monthly temperatures have been increasing slightly. Figure 5 and Figure 6 show the temperature trends at Dawson A for January and July, respectively.

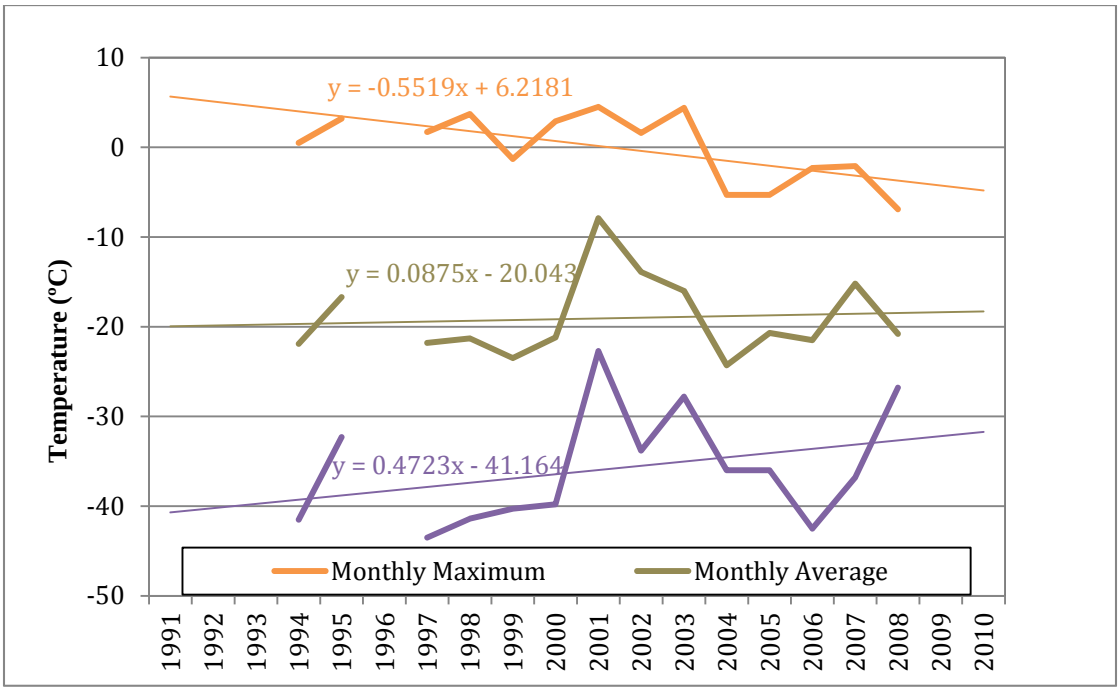


Figure 3 Brewery Creek Average January Temperature Trend

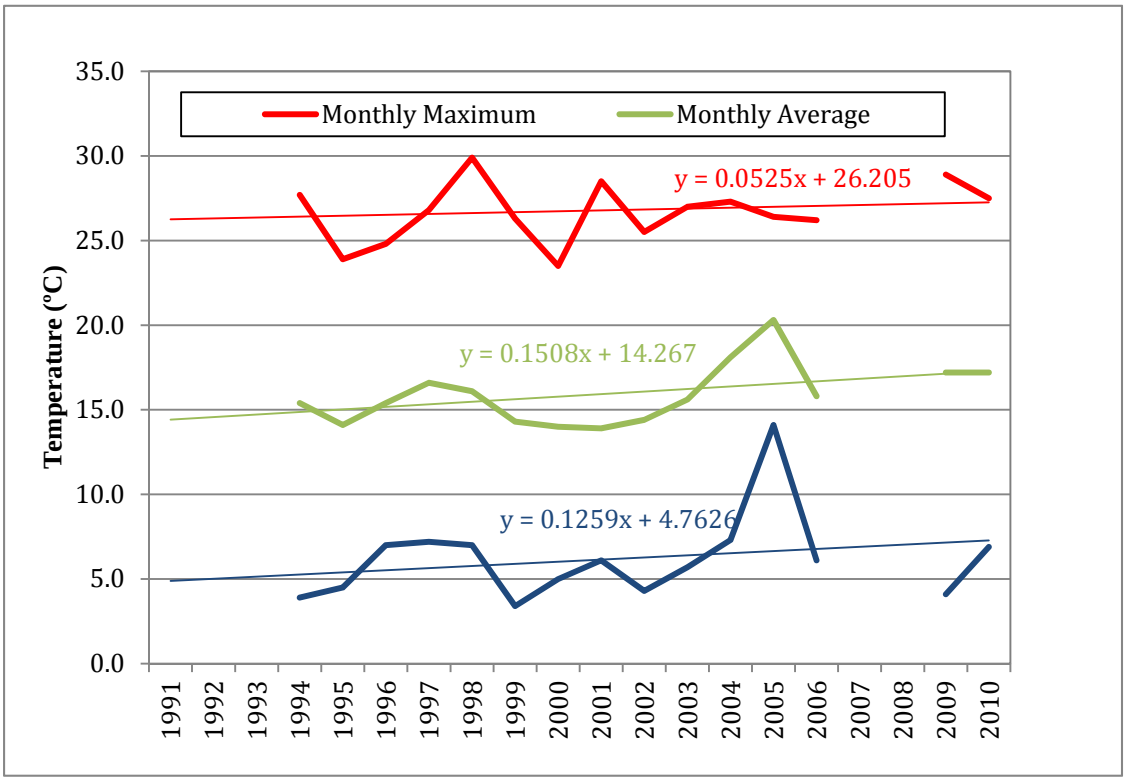


Figure 4 Brewery Creek Average July Temperature Trend

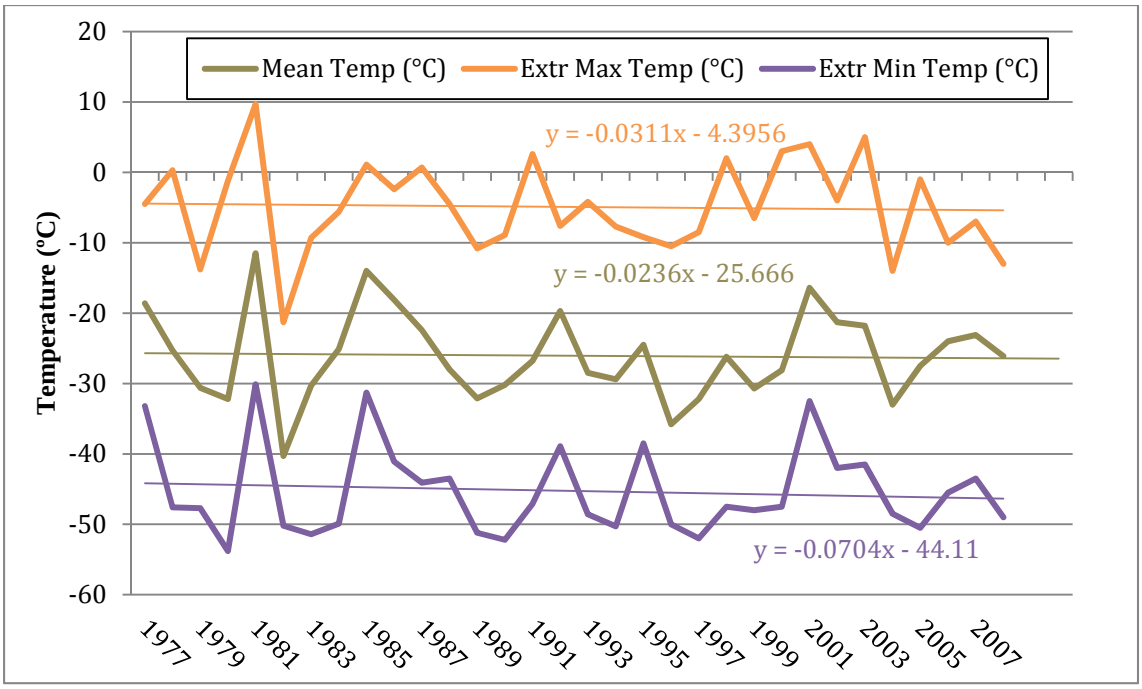


Figure 5 Dawson A January Average Temperature Trend

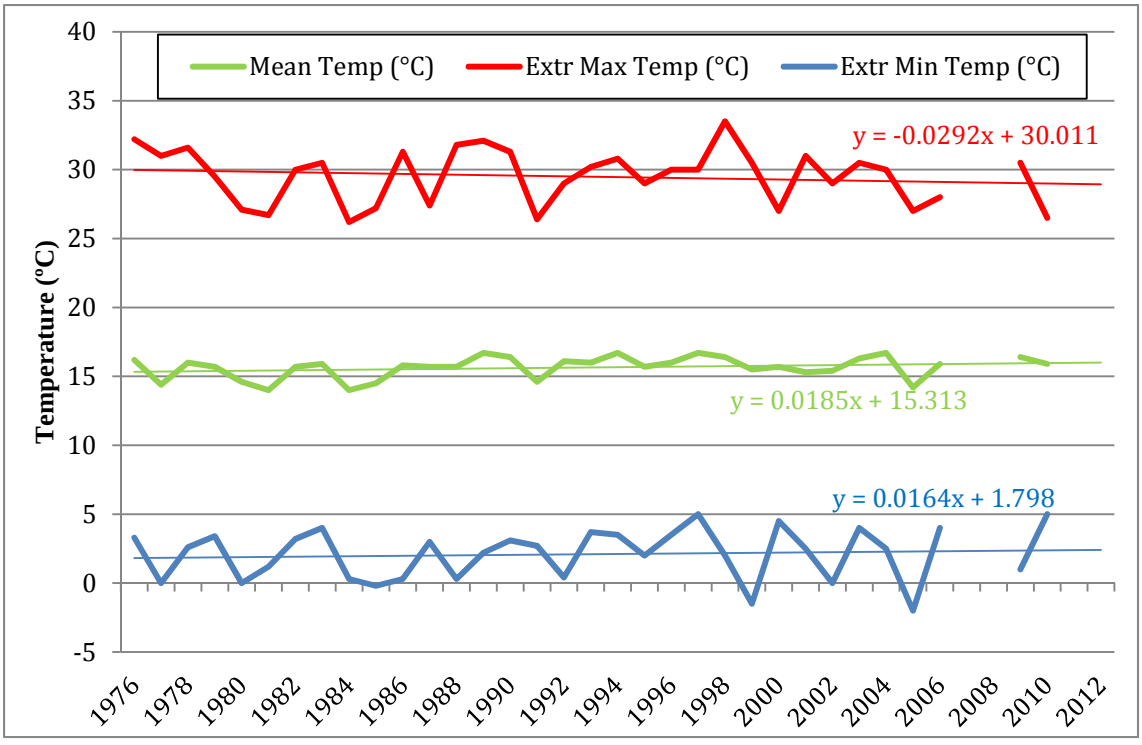
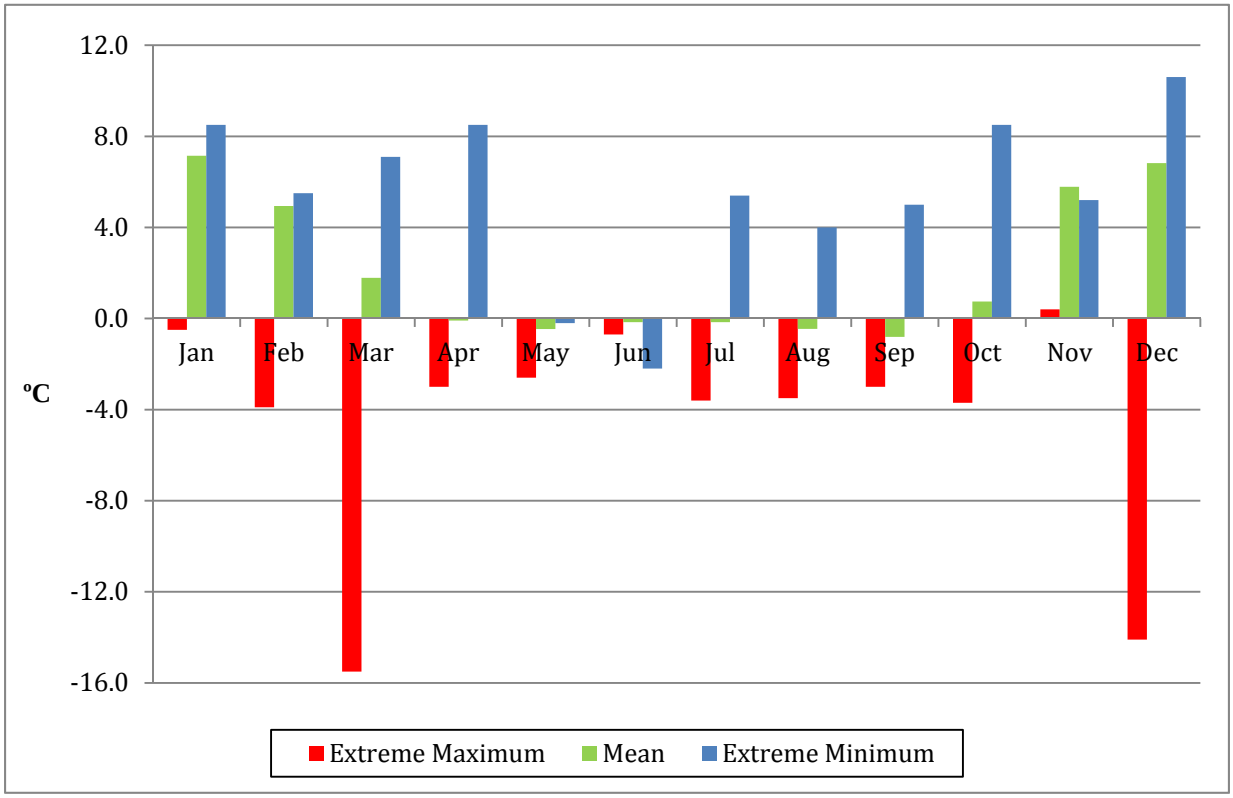


Figure 6 Dawson A July Average Temperature Trend

Comparison with temperature data from Dawson airport over the period 1991-2014 indicates that the annual mean temperature is on average 2.1ºC warmer at Brewery creek than in Dawson. The extreme maximum is colder by an average of 4.5ºC and the extreme minimum is colder by an average of 5.5ºC, indicating a smaller diurnal range at Brewery creek than in Dawson. There are also some seasonal variations in the differences as shown in Figure 7 below.

Figure 7 Monthly Average Temperature Difference between Dawson A and Brewery Creek 1991-2014



**a positive difference indicates that the value is higher at Brewery creek than at Dawson Airport*

5.2. Precipitation

On average Brewery Creek receives about 339.2 mm a year. This figure is computed by finding the average monthly rainfall for each month for which the data set is complete from 1991 to present and summing those figures. From 1981-2010, Dawson, by comparison, had an average precipitation of 324.4mm, a difference of 14.8mm or 4.6% more at Brewery Creek. This more than double the difference found by CCL in their 2000 design memorandum of 1.9% more at Brewery Creek (see Appendix B). The greater precipitation at Brewery Creek is expected given that the site elevation is 468m higher than the Dawson Airport and in the foothills of the Ogilvie mountain range which rises directly north of the site.

Table 3 presents the monthly precipitation data gathered at Brewery Creek from 1991 to 2010. Mean values only take into account complete months and the mean annual value is the sum or monthly means. Figure 8

displays the percent of total annual precipitation which occurs each month at Brewery Creek for these data as well as that for Dawson City according to the 1981-2010 climate normals.

Table 3 Monthly Precipitation Totals (mm) collected at Brewery Creek 1991-2010

	Month												
Year	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Annual**
1991					11.4	16.7	23.8	94.1	43.7				*189.7*
1992													
1993									18.4	20	35.3	20.3	*94*
1994									42.4	40.4	32.7	14.3	*131.4*
1995	19.8	19.1	10.1	5.5	49.4	39.1	97.9	45.2	64.4	31.3			*381.8*
1996	9.3	10.6	6.5	5.4	20	38.1	11.1	30.7	34.8	11.9	18.3	8.9	205.6
1997	9.5	2.4	4.2	8.3	24.2	62	36.6	52.9	43.3	30.6	13	25.4	312.4
1998	5.9	4.7	1.8	4.8	31.3	36.1	21.9	25.4	17.7	20.6	6.5	7.7	184.4
1999	16	10.1	10.1	18.9	39	40.8	44.3	54.4	7.7	50.2	16	31.9	339.4
2000	29	16	17.1	19.5	48.5	60.3	104	40.2	70.3	17.7	21.9	23	467.5
2001	13.6	18.9	16.5	12.4	30.7	17.7	69.7	36.6	34.9	21.3	17.7	11.8	301.8
2002	21.9	11.2	9.5	28.4	27.8	43.1	49.9	104.6	20.7	28.4	29.5	37.2	412.2
2003	22.5	29.5			36.6	27.8	55	41.4	67.4	20.1	39	32.2	*371.4*
2004	27.9	18.4	17.5	11.9	11.5	19.8	47.6	5.8	27	43	31	37.1	298.5
2005	22.4	33.2	18.9	26	37.9	37.6	38.9	63.7	49.9	13.9	44.5	21.1	408
2006	6.4	20.4	20.3	33	34.7	52.8	20.7	64.6	39.2	29.3	12.3	17.3	351
2007	22.4	38	31.2	9.8	27.9	29.5	30	26.7	38.9	11.6	13.6	15.7	295.3
2008	21.3	30.5	26.3	35	43.6	30.1	55	94.2	52.6	22.9	19.6	20.9	452
2009	14.5	22.9	21.3	22.8	25	31.3	29	37.6	66.8	24.9	15.5	10.5	322.1
2010						41.2	82	39.1	70.5	88			*320.8*
Mean	**17.5**	**19.1**	**13.6**	**15.1**	**28.3**	**35.8**	**48.9**	**47.7**	**42.2**	**28.6**	**22.1**	**20.3**	**339.1**

Note: Values in grey are incomplete data and are excluded from calculation of the mean

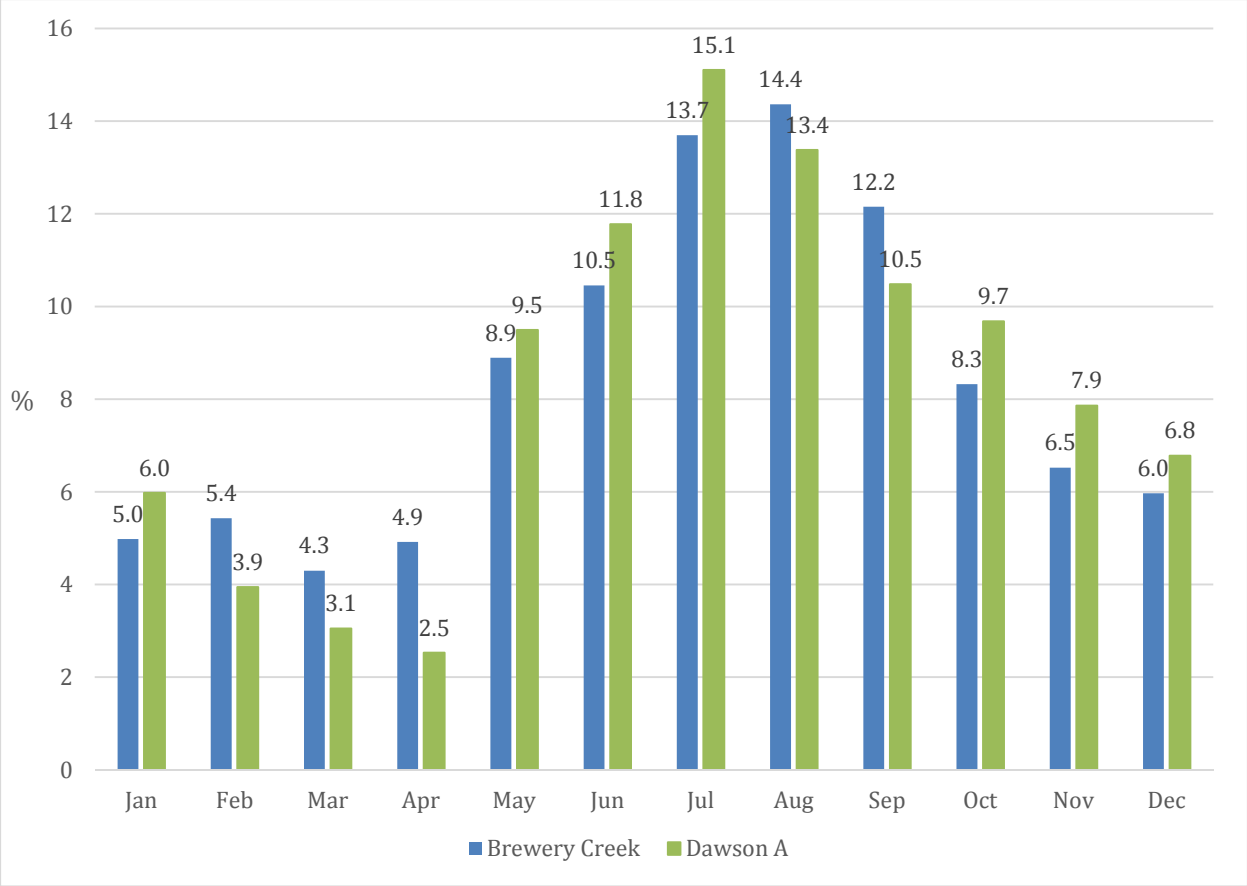


Figure 8 Percent of total annual rainfall occurring during each calendar month for Brewery Creek 1991-2010 period and Dawson 1981-2010 Climate Normals

The years 2012, 2013 and 2014 have incomplete precipitation data, therefore annual totals cannot be compared directly with historical values. However the precipitation totals for the summer period (June to September inclusively) are complete and can be compared. The total summer precipitation for the period 1991-2010 averages 177.9mm. In 2012, the summer total was 145.3mm (22.4% less than the historical average). In 2013 the summer total was 51.4mm but it is suspected that June and July precipitations were under recorded, and comparison with the historical average is not meaningful. In 2014, the summer total was 142.2mm (25.1% less than the historical average).

5.3. Snowpack

Snow pack observations have occurred at Brewery Creek since 1995 and at the Midnight Dome snow course since 1975. Snow falls in the region mainly from October to April though some precipitation may fall as snow in May, September and even August. Peak snow pack usually occurs from late March to early April, but can occur early or later at both sites. Both sites are similar in elevation (Midnight Dome being 18m higher), but are about 55kms apart. As can be seen in Table 4 the majority of annual precipitation falls in the summer months

as rain, but the peak SWE is usually much more than the greatest monthly total precipitation of any month and therefore snowmelt is the main contributor of peak stream discharge.

No survey data were found for 2005. In 2006, a different set of survey sites were implemented. These data were gathered by the caretaker and consist of sites on the leach pad and the blue dump. No distinction is made between top and sides of leach pad and relative area as in the years prior. No data were found for 2011, and no snow survey were carried out in 2014. Equal weight is given to each site in computing the average. Table 4 summarizes all snowpack data gathered at Brewery Creek to date and corresponding years at Midnight Dome, while Table 5 presents the averages for those data.

The following observations can be made about the snow pack at Brewery Creek and Midnight Dome:

- The snowpack on and around the leach pads is usually completely melted by the end of April but persists longer in the forest and at Midnight Dome;
- At or close to peak snow pack (April 1st), Brewery Creek snow pack tends to be about 75% of Midnight Dome snow water equivalent (SWE) on Natural Ground and 78% within the leach pad area;
- The average peak snowpack on the leach pad (114.6mm) is similar to that on natural ground (111.1mm) while the blue dump is highest (129.1mm);
- Measurements on leach pad area show a high degree of variability reflecting wind effects and drifting in specific low area and at the bottom of slopes with less snow on the crests and flat top area;
- And from CCL (2000) "areas under active leach during the winter appear to experience lower maximum snowpack than areas not under active leaching, possibly due to some melting of snow during the winter over the actively leaching areas".

Table 4 Snowpack Survey Data, Snow Water Equivalent (mm) – Brewery Creek and Midnight Dome

Year	Station	Comment	Elev (m)	Note	Jan-01	Feb-01	Mar-01	Apr-01	May-01
1995	Brewery Creek	Natural Ground	775-830	1		78.5	87.6		
	Midnight Dome	DIAND natural ground	855	2			150	170	123
1996	Brewery Creek	Natural Ground	760-780	3		78.4		92.4	
	Midnight Dome	DIAND natural ground	855	2			91	109	101
1997	Brewery Creek	Natural Ground	740-850	4	90.3	102.3	104.3	107.6	
	Brewery Creek	Within leach pad area		5	94.6	69.1	97.5	105.4	
	Brewery Creek	All Data	740-850	6	80.7	87.7	96.8	102.8	
	Midnight Dome	DIAND natural ground	855	2			146	161	117
1998	Brewery Creek	Natural Ground	740-850	4	36.5	62.5	72.5	97.9	
	Brewery Creek	Leach pad slopes cells 1,2,4	800-820	7	71.9	54.3	74.2	28.9	

Year	Station	Comment	Elev (m)	Note	Jan-01	Feb-01	Mar-01	Apr-01	May-01
	Brewery Creek	Leach pad slopes cell 5	810-830	7	27.3	52.2	41.2	85.4	
	Brewery Creek	Leach pad top cells 3 & 4	820-840	7	34.2	24.3	39.6	9.2	
	Brewery Creek	Leach Pad weighted average	800-840	8	36.7	31.2	43.1	22.2	
	Brewery Creek	All Data	740-850	6	39.2	51.9	61.9	69.1	
	Midnight Dome	DIAND natural ground	855	2			129	119	92
1999	Brewery Creek	Natural Ground	740-850		40.6	41.8	80.4	86.9	
	Brewery Creek	Leach Pad Top (837 lift)	837	9	39.7	46.1	41		
	Brewery Creek	Leach Pad Slopes (cells1,2,5)	800-830	9	46.1	43	64	84.4	
	Brewery Creek	Leach Pad weighted average	800-840	9	42	45	49.3		
	Brewery Creek	All Data	740-850	6	42.7	42.9	66.2	88.6	
	Midnight Dome	DIAND natural ground	855	2			84	90	92
2000	Brewery Creek	Natural Ground	740-850	10	64.9	85.5	146		
	Brewery Creek	Leach Pad Top (830 lift)	830	9	12.1	46.7	54.5		
	Brewery Creek	Leach Pad Slopes (cells1,7)	800-830	9	141.6	181.2	135.4		
	Brewery Creek	Leach Pad weighted average	800-840	9	56.4	95.1	83.624		
	Brewery Creek	All Data	740-850	6	46.6	75.8	96.2	94.5	
	Midnight Dome	DIAND natural ground	855	2			187	197	195
2001	Brewery Creek	Natural Ground	740-850	11	53.9	74		83.7	
	Brewery Creek	Leach Pad Top (830 lift)	830	9		91.4		71.3	
	Brewery Creek	Leach Pad Slopes (cells1,7)	800-830	9		102.1		95.8	
	Brewery Creek	Leach Pad weighted average	800-840	9		95.3		80.1	
	Brewery Creek	All Data	740-850	18	50.7	82.2		79.7	
	Midnight Dome	DIAND natural ground	855	2			140	154	172
2002	Brewery Creek	Natural Ground	740-850	12	43.3	57.5	75.1	78	
	Brewery Creek	Leach Pad Top (830 lift)	830	9	34.9	60.3	88.1	78.6	
	Brewery Creek	Leach Pad Slopes (cells1,7)	800-830	9	41.8	60.9	83.1	77.1	
	Brewery Creek	Leach Pad weighted average	800-840	9	37.4	60.5	86.3	78.1	

Year	Station	Comment	Elev (m)	Note	Jan-01	Feb-01	Mar-01	Apr-01	May-01
	Brewery Creek	All Data	740-850	18	37.9	58.4	80	77.5	
	Midnight Dome	DIAND natural ground	855	2			93	105	75
2003	Brewery Creek	Natural Ground	740-850	13				80.1	
	Brewery Creek	Leach Pad Top (830 lift)	830	9				79	
		Leach Pad Slopes (cells1,7)	800-830	9				133.9	
		Leach Pad weighted average	800-840	9				98.8	
	Brewery Creek	All Data	740-850	18				84.2	
	Midnight Dome	DIAND natural ground	855	2			102	98	44
2004	Brewery Creek	Natural Ground	740-850	14		150.5	143.6		
	Brewery Creek	Leach Pad Top (830 lift)	830	9		144.7	139.6		
	Brewery Creek	Leach Pad Slopes (cells1,7)	800-830	9		177.5	192.7		
	Brewery Creek	Leach Pad weighted average	800-840	9		156.5	158.7		
	Brewery Creek	Blue Dump	750-850	15			132.7		
	Brewery Creek	All Data	740-850	18		153.5	144.7		
	Midnight Dome	YE natural ground	855	16			153	190	167
2005	Midnight Dome	YE natural ground	855	16			196	199	197
2006	Brewery Creek	Blue Dump	750-850	15		59.2			
	Brewery Creek	Leach Pad	800-840	17		62.2			
	Brewery Creek	All Data	750-850	18		60.9			
	Midnight Dome	YE natural ground	855	16			120	121	162
2007	Brewery Creek	Blue Dump	750-850	15				99.9	
	Brewery Creek	Leach Pad	800-840	17				105.2	
	Brewery Creek	All Data	750-850	18				102.8	
	Midnight Dome	YE natural ground	855	16			114	145	145
2008	Brewery Creek	Blue Dump	750-850	15			51.1		
	Brewery Creek	Leach Pad	800-840	17			85.9		
	Brewery Creek	All Data	750-850	18			70.7		
	Midnight Dome	YE natural ground	855	16			83	103	147
2009	Brewery Creek	Blue Dump	750-850	15				160.1	
	Brewery Creek	Leach Pad	800-840	17				171.7	
	Brewery Creek	All Data	750-850	18				166.4	
	Midnight Dome	YE natural ground	855	16			127	172	182
2010	Brewery Creek	Blue Dump	750-850	15				74	
	Brewery Creek	Leach Pad	800-840	17				109.2	
	Brewery Creek	All Data	750-850	18				93.2	

Year	Station	Comment	Elev (m)	Note	Jan-01	Feb-01	Mar-01	Apr-01	May-01
	Midnight Dome	YE natural ground	855	16			110	160	98
2011	Midnight Dome	YE natural ground	855	16			152	195	174
2012	Brewery Creek	Blue Dump	750-850	15			81.3	198	
	Brewery Creek	Leach Pad	800-840	17			136.3	261	
	Brewery Creek	Natural Ground	740-850	19			170.2	213.1	124
	Brewery Creek	All Data		18			176.4	222.2	
	Midnight Dome	YE natural ground	855	16			153	184	188
2013	Brewery Creek	Blue Dump	750-850	15				113.5	
	Brewery Creek	Leach Pad	800-840	17				118.5	
	Brewery Creek	Natural Ground	740-850	19				141.6	
	Brewery Creek	All Data		18				128.1	
	Midnight Dome	YE natural ground	855	16			192	239	253
2014	Midnight Dome	YE natural ground	855	16			114	162	0

Table 5 Mean snowpack values for period of record, 1995-2014.

Years	Station	Comment	Elev	Note(s)	Jan-01	Feb-01	Mar-01	Apr-01	May-01
1995-2014	Brewery Creek	Natural Ground	740-850		54.9	81.6	110.0	111.1	
	Brewery Creek	Within leach pad area	800-840		53.4	79.0	92.6	114.6	
	Brewery Creek	Blue Dump	750-850			59.2	88.4	129.1	
	Brewery Creek	All Data	740-850		49.6	77.0	97.8	107.8	
	Midnight Dome	Common years with BCM	855				130.9	148	
	Midnight Dome	All years 1995-2014	855				130.7	151.5	134.2
1975-2014	Midnight Dome	All available years				98	134	151	132
Midnight Dome – Average (1995-2014) / (1975-2014)							97.56%	100.31%	101.67%
1995-2013	**Ratios of (Brewery Creek to Midnight Dome)**								
	Natural Ground						84.01%	75.08%	
	Within leach pad area						70.74%	77.45%	
	All Data						74.75%	72.84%	

*Notes for **Error! Reference source not found.** and **Error! Reference source not found.**:*

1) 1995 BCM data includes sites at Canadian Zone, within leach pad and outside leach pad. No ore in place on heap. Averages for all sample points.

2) All Midnight Dome data reported by DIAND Water Resources. Feb. 1 data not collected since 1985

3) 1996 BCM data includes sites within and outside leach pad area. No ore on heap. Averages for all sample points.

4) 1997 and 1998 BCM data for "Natural Ground" include six locations surrounding leach pad.
5) 1997 BCM data "Within leach pad area" is area-weighted average, 6 to 9 sites per month covering active & inactive leaching areas. Total 1.9 Mt ore, 0.5 Mt under leach.
6) 1997 to 2000 BCM "All Data" reflects average of all individual sample points for all locations.
7) 1998 BCM data "Leach pad slopes cells 1, 2, 4" represents approx. 20,000 m2 area on pad; "Leach pad slopes cell 5" represents approx. 31,000 m2: and, "Leach pad top cells 3 & 4" represents approx. 161,000 m2 on pad. Areas estimated by BCM personnel in the field. Total 3.9 Mt ore with 1.1 Mt under leach.
8) 1998-2004 BCM data "Leach pad weighted average" represents average SWE for entire leach pad area based on relative areas and SWE's.
9) For 1999 - 2004, "Leach Pad Top" estimated by BCM personnel as 64% of total area, "Leach Pad Slopes" equal to 36% of total area to estimate "Leach Pad Weighted Average" snow water equivalents (SWE).
10) Brewery Creek data shown for Jan 1, 2000 collected on Jan 14, 2000.
11) Brewery Creek data shown for Jan 1, Feb 1 and Apr 1, 2001 collected on Jan 8, Feb 7 and Mar 23, 2001, respectively.
12) Sample dates were mid-month Dec-Mar in 2002 so values are linearly interpolated for all Brewery Creek sites.
13) Brewery Creek Data collected Mar 23, 2003.
14) Actual sample dates are Jan 30 and Feb 28, 2004.
15) Snow surveys began on blue waste rock dump in 2004, means are not area weighted.
16) Water Resources came under the jurisdiction of Yukon Environment after 2003
17) For 2006-2013, leach pad averages are not area weighted.
18) For 2000-2013 all sites are given equal weight in average calculation.
19) Starting in 2012, the natural ground survey is a new network of sample sights near water quality stations.
20) Midnight Dome monthly snow averages provided be Environment Yukon (Environment Yukon, 2012)

5.4. Evaporation and Evapotranspiration

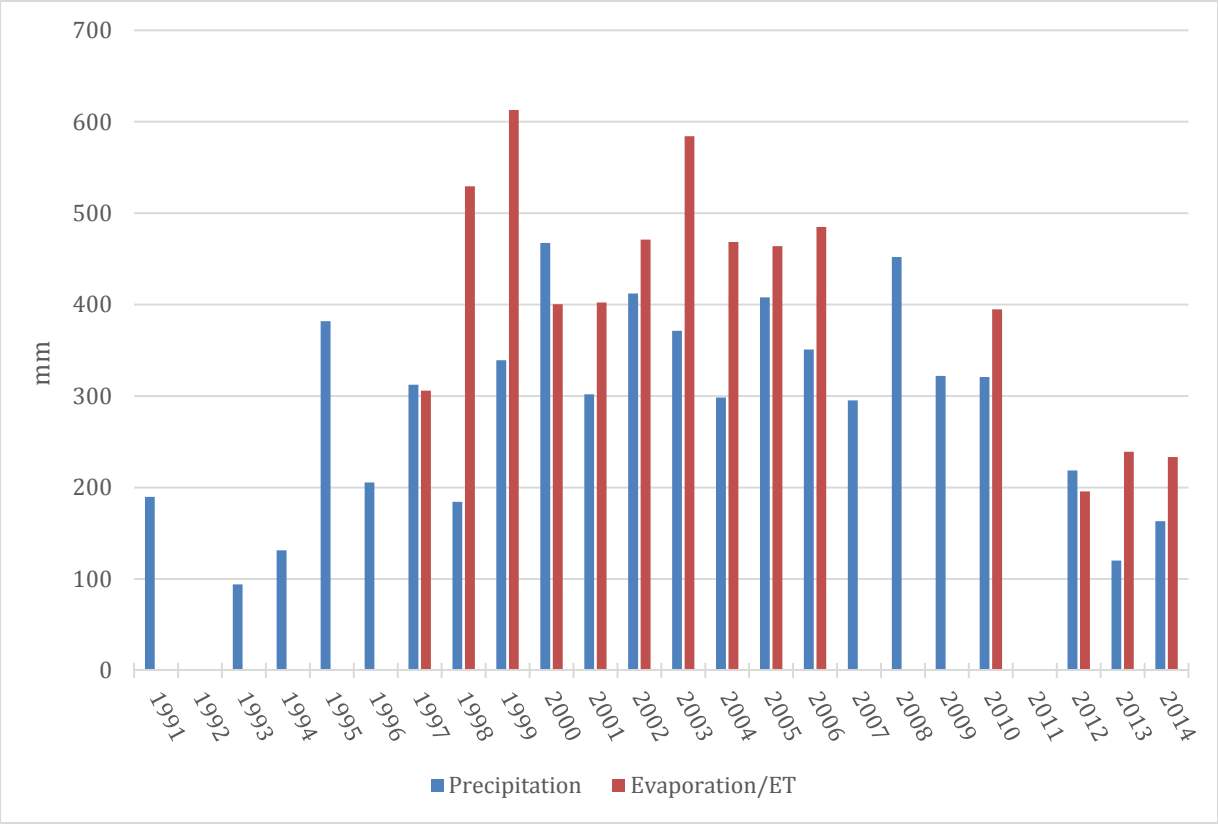
The Campbell Scientific datalogger includes an evapotranspiration (ET) instruction, which uses temperature, relative humidity, wind speed, solar radiation, latitude, longitude and altitude to calculate an evaporation rate for a short grass crop, as recommended by Campbell Scientific. This is only an approximation of actual evaporation at site, which varies locally depending on surface type and micro topography. Note that if one of the parameters listed above is invalid, the ET calculation also has to be invalidated. Results were presented in Table 1 (no ET results are available prior to April 2012 due to invalid relative humidity readings).

Between 1997 and 2006, an evaporation pan was established between the overflow and intermediate ponds. Table 6 and Figure 9 below show the annual precipitation and evaporation at Brewery creek recorded between 1991 and 2014. Values shown in italics were compiled using partial data and therefore underestimate total annual precipitation or evaporation. Lake evaporation is calculated using a pan coefficient of 0.70.

Table 6 Brewery Creek Annual Precipitation and Evaporation

Year	Precipitation (mm)	Pan Evaporation (mm)	Calculated Lake Evaporation (mm)	Calculated ET (mm)
1991	*189.7*			
1992				
1993	*94.0*			
1994	131.4			
1995	*381.8*			
1996	205.6			
1997	312.4	*306*		
1998	184.4	*529.4*		
1999	339.2	612.8	429	
2000	467.4	400.5	280.4	
2001	301.9	402.4	281.7	
2002	412.2	471.1	329.8	
2003	*371.4*	584.2	408.9	
2004	298.5	468.5	328	
2005	408.0	464	342.8	
2006	351.0	485	339.5	
2007	295.3			
2008	452			
2009	322			
2010	*320.8*	*394.8*		
2011				
2012	*218.7*			*195.8*
2013	*120.1*			*239.2*
2014	*163.2*			*233.4*

Figure 9 Total Annual Precipitation and Evaporation/ET at Brewery Creek 1991-2014



Total evapotranspiration (ET) for the 2012 summer period (June to Sept. inclusively) was 136.2 mm, 153.3 mm for the 2013 summer period and 135.7 mm for the 2014 summer period. Evapotranspiration is the evaporation from the ground surface and transpiration from vegetation and it used for the total catchment water balance. Evapotranspiration was not calculated prior to 2012 as only evaporation from the surface of the ponds was of concern for water balance purposes. An evaporation pan was not installed in 2011 with the new meteorological station.

From, 1991-2010 average total potential evaporation (TPE) was 404.5mm and average lake evaporation (LE = TPE x 0.70) was calculated at 340.2mm. Evaporation pans are considered a measure of total potential evaporation. CCL (2000) recommended adopting a conservative estimate of 390-400mm for water balance purposes. The data collected from 1991-2010 suggest that on average lake evaporation may be even lower than the CCL (2000) estimate.

5.5. Wind

Wind speed and direction are measured at a height of 10m at the Campbell Scientific meteorological station. Wind data collected since November 2011 are presented in the wind rose below (Figure 10). The wind sensor experienced occasional icing during the winter months and extended periods of zero wind speed were invalidated. Also note that winter wind speeds may occasionally be underestimated due to the presence of ice on the sensor, but these occurrences cannot be detected in the data record. From this wind rose, it can be seen that prevailing winds blow from the southwest and that the highest average wind speeds also originate from this direction. Summary statistics are presented in Table 7 Brewery Creek Wind Rose Summary Statistics below.

Table 7 Brewery Creek Wind Rose Summary Statistics

Total Number of Hours	22394
Average Wind Speed	2.65 m/s
Calm Records	2120
Calm Winds Frequency	9.47 %
Data Availability*	95.51 %
Incomplete/Missing Records	1006
Total Records Used	21388

**Excludes periods when the station was down*

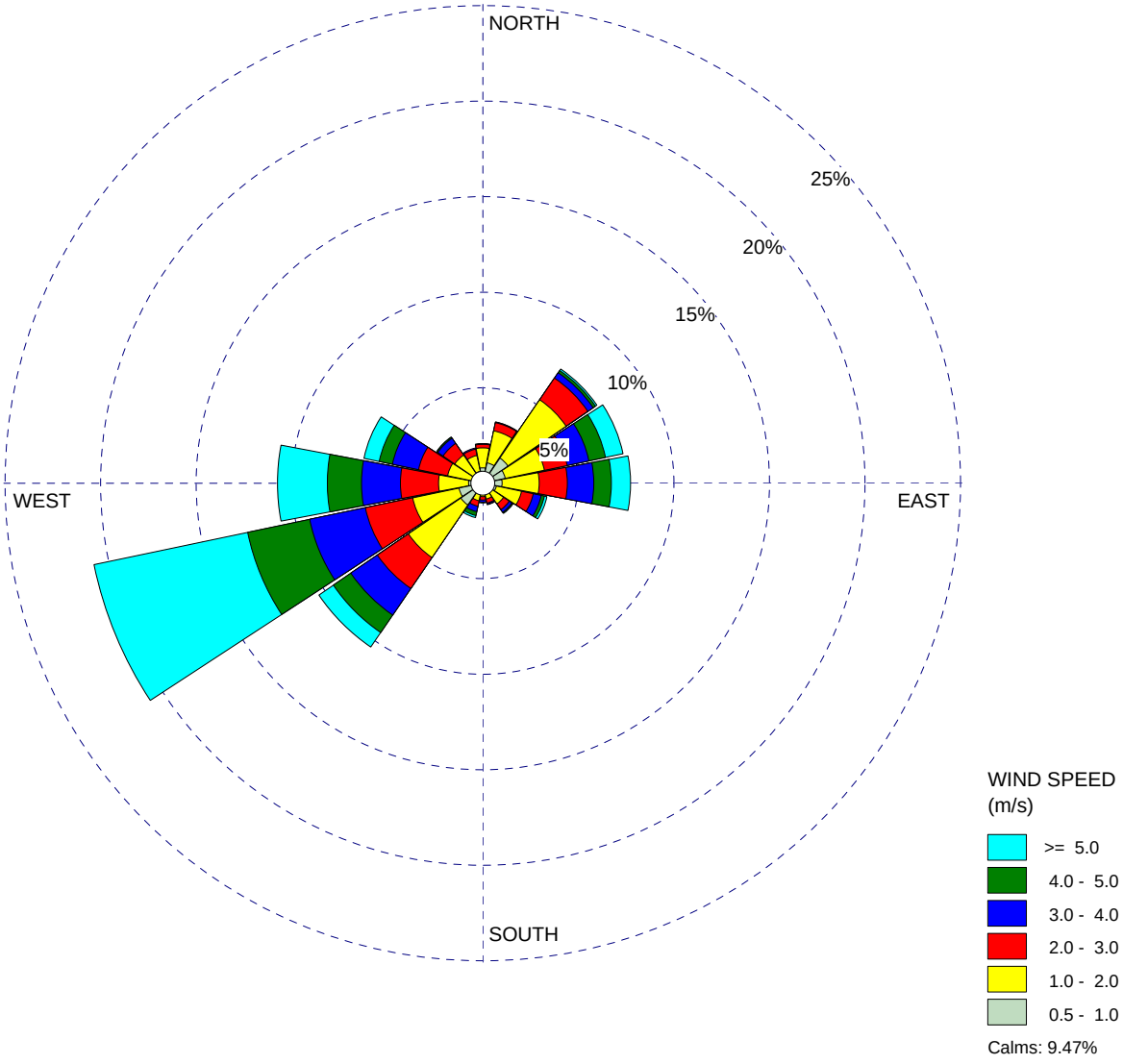
No wind data were collected at Brewery Creek prior to the installation of the Campbell Scientific meteorological station in 2011, and no comparison can therefore be made with historical data. Also, because wind is highly influenced by local topographical features, comparison with Dawson wind data is not meaningful.

WIND ROSE PLOT:

Figure 10 - Brewery Creek Wind Rose
Nov 2011 - Oct 2014

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS: Excludes periods of ice affected or missing data Anemometer height: 10m	DATA PERIOD: **Start Date: 11/9/2011 - 00:00** **End Date: 10/4/2014 - 14:00**	COMPANY NAME:	
		MODELER:	
	CALM WINDS: **9.47%**	TOTAL COUNT: **21388 hrs.**	
	AVG. WIND SPEED: **2.65 m/s**	DATE: **2/19/2015**	PROJECT NO.:

6. REFERENCES

Clearwater Consultants Ltd. 2000. Design Memorandum CCL-BCM3, November 8, 2012.

Environment Yukon 2014 Yukon Snow Survey Bulletin & Water Supply Forecasts, May 1, 2014

Environment Yukon 2014 Yukon Snow Survey Bulletin & Water Supply Forecasts, April 1, 2014

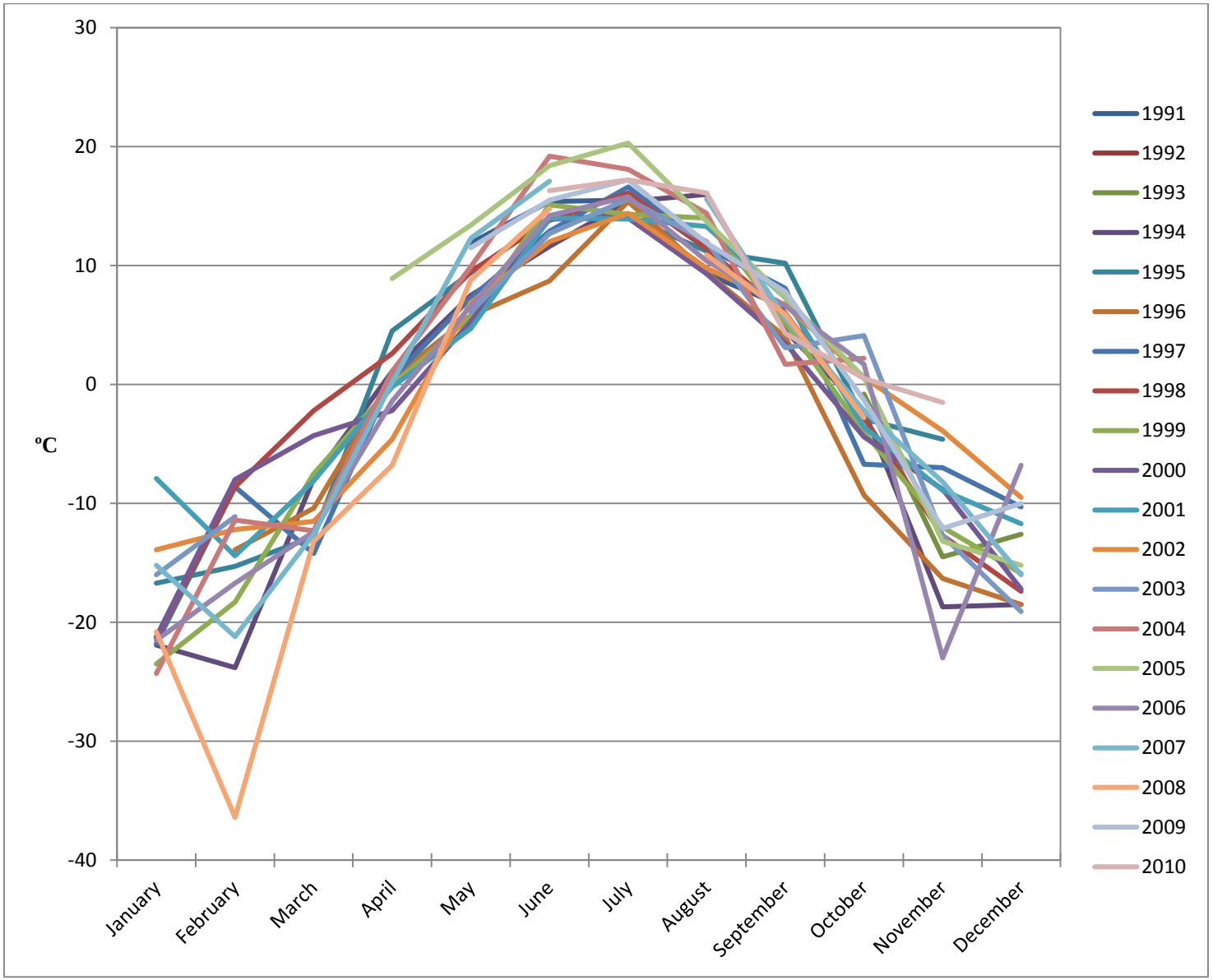
Environment Yukon 2014 Yukon Snow Survey Bulletin & Water Supply Forecasts, March 1, 2014

APPENDIX A

1994-2010 TEMPERATURE DATA GRAPHS

Brewery Creek Monthly Mean Temperature 1991-2010

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann.
1991					11.9	15.4	15.5	9.3	6.5				
1992													
1993										-0.8	-14.5	-12.6	
1994	-21.9	-23.8	-7.9	1.1	7.5	11.6	15.4	16.0	4.5	-2.2	-18.7	-18.5	-3.1
1995	-16.7	-15.3	-12.8	4.5	9.4	14.0	14.1	11.2	10.2	-2.9	-4.6		
1996		-13.9	-10.4	0.5	5.8	8.7	15.4	9.4	4.0	-9.3	-16.3	-18.5	
1997	-21.8	-8.6	-14.2	0.5	7.3	12.9	16.6	11.5	8.1	-6.7	-7.0	-10.3	-1.0
1998	-21.3	-8.6	-2.2	2.6	9.5	13.8	16.1	11.4	6.0	-2.8	-12.7	-17.4	-0.5
1999	-23.5	-18.3	-7.5	-0.1	5.7	15.1	14.3	14.0	5.2	-4.0	-12.0	-15.9	-2.3
2000	-21.2	-8.0	-4.3	-2.2	5.3	13.9	14.0	9.3	3.5	-4.4	-8.8	-17.2	-1.7
2001	-7.9	-14.4	-8.1	-0.2	4.7	14.0	13.9	13.3	7.3	-3.6	-8.9	-11.7	-0.1
2002	-13.9	-12.2	-11.5	-4.6	6.9	12.0	14.4	9.8	6.7	0.6	-3.9	-9.5	-0.4
2003	-16.0	-11.1			6.1	12.7	15.6	12.0	3.1	4.1	-12.7	-19.1	-0.5
2004	-24.3	-11.4	-12.3	1.1	9.9	19.2	18.1	14.4	1.7	2.2			1.9
2005	-20.7			8.9	13.4	18.4	20.3	13.7	7.3	0.6	-13.2	-15.2	3.3
2006	-21.5	-16.7	-12.4	-1.4	6.6	14.2	15.8	10.4	6.6	1.7	-23.0	-6.8	-2.2
2007	-15.2	-21.2	-12.6	0.2	12.3	17.1		15.6	5.6	-2.2	-8.2	-16	-2.2
2008	-20.8	-36.4	-13.2	-6.8	8.8	14.8		10.9	5.9	-2.8			-4.4
2009					11.5	15.5	17.2	11.9	7.8	-1.3	-12.1	-10	5.1
2010						16.3	17.2	16.1	4.3	0.5	-1.5		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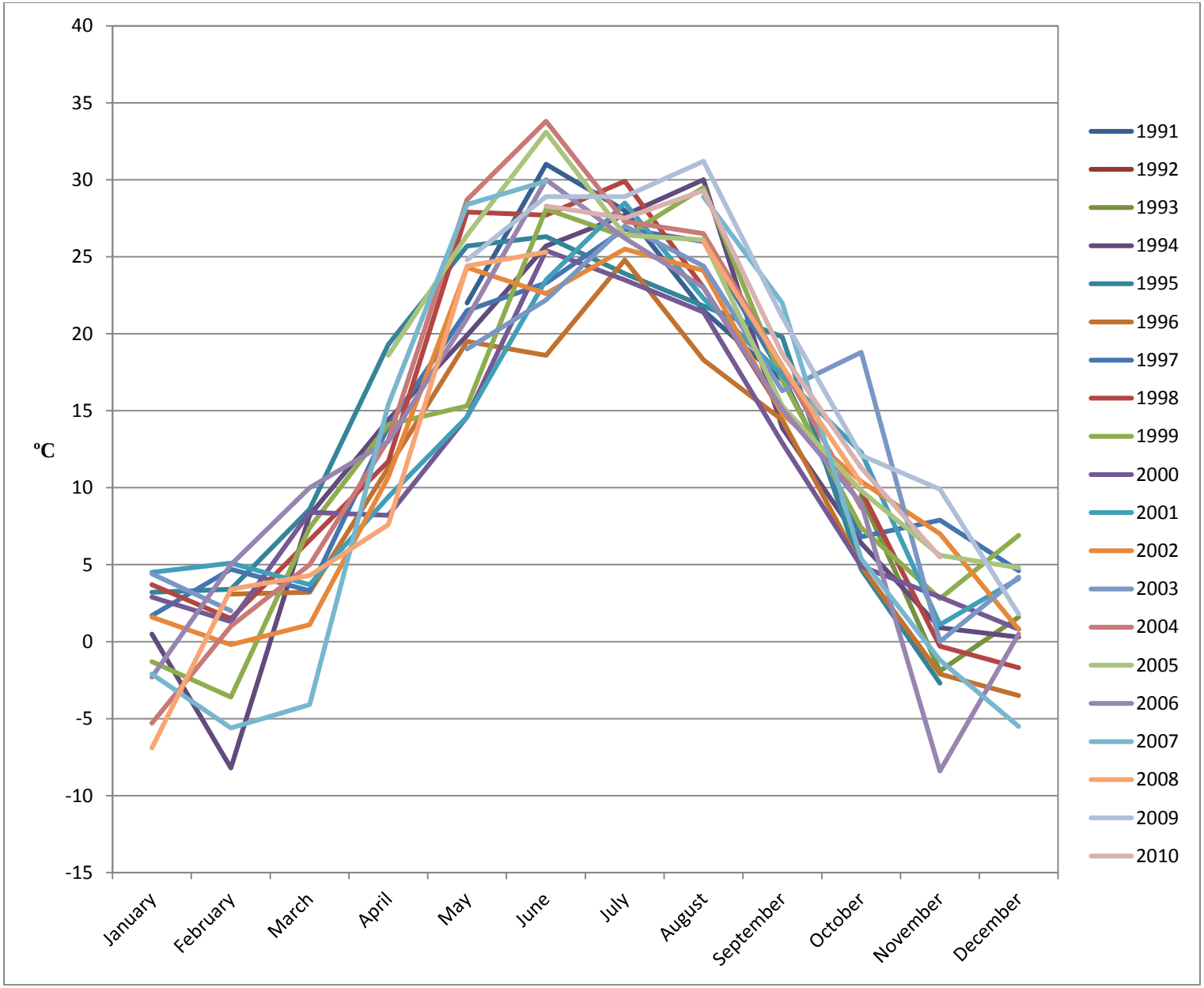
Brewery Creek Monthly Maximum Temperature 1991-2010

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann.
1991					22.0	31.0	28.0	21.5	17.0				31.0
1992													
1993										9.5	-1.9	1.6	
1994	0.5	-8.2	8.2	14.4	19.9	25.7	27.7	30.0	13.9	6.4	0.9	0.3	30.0
1995	3.2	3.4	8.6	19.3	25.7	26.3	23.9	21.8	19.8	4.7	-2.7		26.3
1996		3.1	3.2	11.3	19.5	18.6	24.8	18.3	14.4	4.9	-2.1	-3.5	24.8
1997	1.7	4.7	3.3	14.0	21.5	23.3	26.8	26.0	17.3	6.8	7.9	4.6	26.8
1998	3.7	1.5	6.6	11.7	27.9	27.7	29.9	23.0	14.9	9.8	-0.3	-1.7	29.9
1999	-1.3	-3.6	7.4	14.1	15.3	28.1	26.3	29.5	17.0	7.4	2.8	6.9	29.5
2000	2.9	1.3	8.4	8.2	14.6	25.4	23.5	21.4	12.9	4.9	2.9	0.8	25.4
2001	4.5	5.1	3.7	9.4	14.6	23.5	28.5	22.3	17.3	12.3	1.1	4.1	28.5
2002	1.6	-0.2	1.1	10.7	24.3	22.6	25.5	24.1	14.8	10.4	7.0	0.8	25.5
2003	4.4	2.0			19.0	22.2	27.0	24.4	16.3	18.8	0.0	4.2	27.0
2004	-5.3	1.0	5.0	13.1	28.7	33.8	27.3	26.5	17.9	8.7			33.8
2005	-5.3			18.6	26.4	33.1	26.4	26.1	15.3	9.8	5.6	4.8	33.1
2006	-2.3	5.0	10.0	13.0	21.0	30.0	26.2	23.0	15.1	9.0	-8.4	0.5	30.0
2007	-2.1	-5.6	-4.1	15.4	28.4	29.9		28.9	22	5.4	-1.2	-5.5	29.9
2008	-6.9	3.4	4.3	7.6	24.4	25.3		26.0	17.9	10.3			26.0
2009					24.8	28.9	28.9	31.2	21.1	12.1	9.9	1.8	31.2
2010						28.3	27.5	29.3	18.7	11.3	5.5		29.3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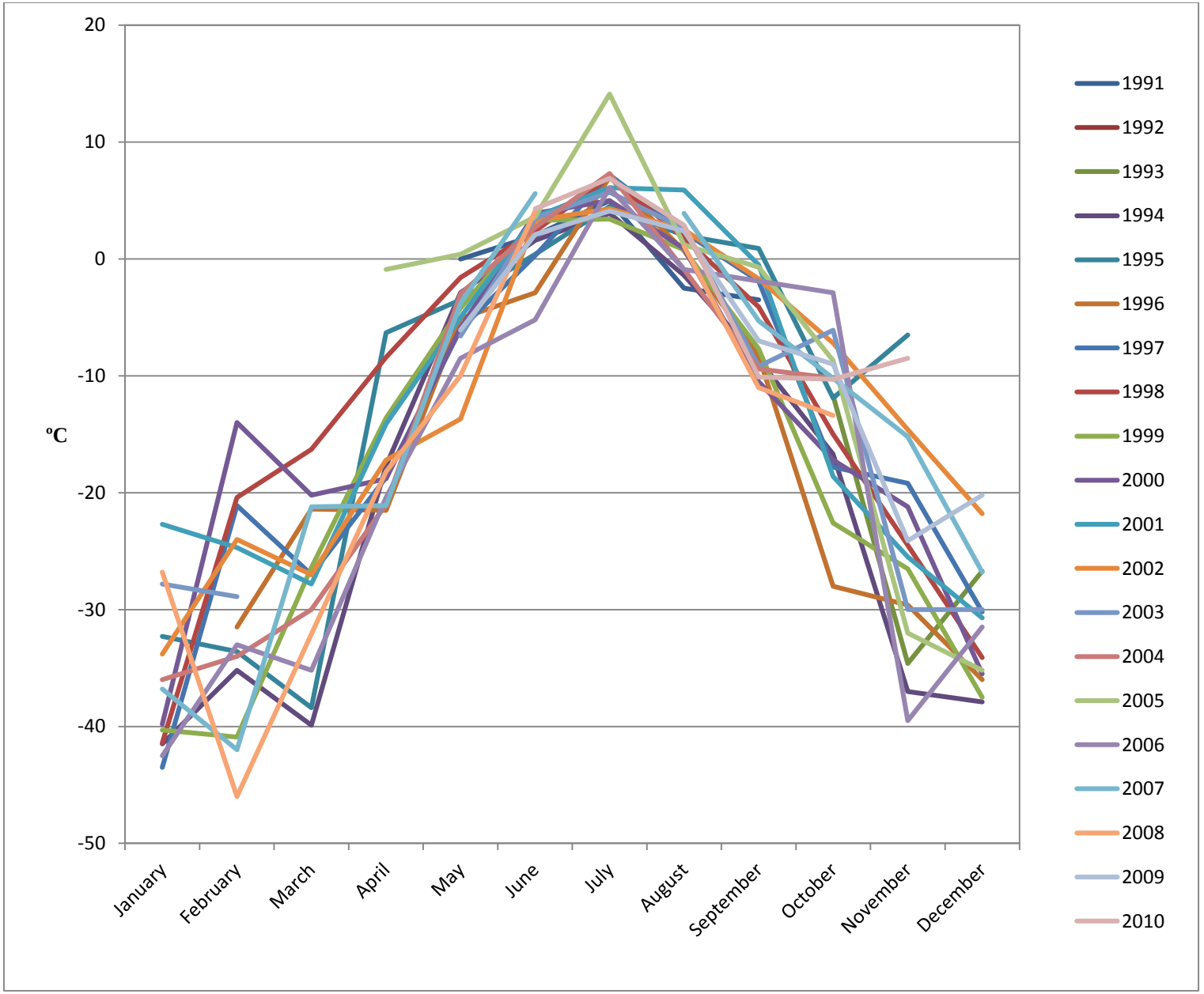
Brewery Creek Monthly Minimum Temperature 1991-2010

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann.
1991					0.0	2.0	5.0	-2.5	-3.5				
1992													
1993										-11.7	-34.6	-26.7	-34.6
1994	-41.5	-35.2	-39.9	-17.7	-2.9	1.6	3.9	-1.4	-8.6	-16.7	-37.0	-37.9	-41.5
1995	-32.3	-33.6	-38.4	-6.3	-3.5	0.4	4.5	2.0	0.9	-11.9	-6.5		-38.4
1996		-31.5	-21.4	-21.5	-5.1	-2.9	7.0	0.7	-8.3	-28.0	-29.6	-36.0	-36.0
1997	-43.5	-21.1	-27.0	-18.7	-6.0	0.3	7.2	2.3	-1.9	-17.8	-19.2	-30.2	-43.5
1998	-41.4	-20.4	-16.3	-8.4	-1.6	2.4	7.0	1.8	-4.1	-15.0	-24.5	-34.1	-41.4
1999	-40.3	-40.9	-26.4	-13.6	-4.2	3.3	3.4	0.8	-7.7	-22.6	-26.5	-37.5	-40.9
2000	-39.8	-14.0	-20.2	-18.8	-5.9	3.9	5.0	0.9	-10.5	-17.2	-21.2	-35.5	-39.8
2001	-22.7	-24.7	-27.8	-14.1	-5.0	3.6	6.1	5.9	-0.5	-18.6	-25.5	-30.7	-30.7
2002	-33.8	-24.0	-27.0	-17.2	-13.7	3.3	4.3	2.5	-1.7	-7.2	-14.6	-21.8	-33.8
2003	-27.8	-28.9			-6.6	3.5	5.7	2.6	-9.2	-6.1	-30.0	-30.0	-30.0
2004	-36.0	-34.0	-30.0	-21.0	-3.0	2.7	7.3	-0.9	-9.4	-10.2			-36.0
2005	-36.0			-0.9	0.4	3.6	14.1	1.2	-0.7	-8.7	-32.0	-35.2	-36.0
2006	-42.5	-33.0	-35.2	-20.4	-8.5	-5.2	6.1	-0.9	-1.9	-2.9	-39.5	-31.5	-42.5
2007	-36.8	-42	-21.2	-21.1	-3.8	5.6		3.9	-5.3	-10.2	-15.2	-26.8	-42.0
2008	-26.8	-46	-32.1	-18.2	-10	4.1		1.1	-11	-13.4			-46.0
2009					-6.1	2.1	4.1	2.4	-7	-9	-24.1	-20.2	
2010						4.3	6.9	2.9	-10.1	-10.3	-8.5		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APPENDIX B

DESIGN MEMORANDUM CCL-BCM3

Design Memorandum CCL-BCM3

Date: November 8, 2000 **Our File:** 013.05

To: Viceroy Resource Corporation Brewery Creek Mine

Brad Thrall (bthrall@viceroyresource.com)

From: Clearwater Consultants Ltd.

Peter S. McCreath (pmccreath@cs.com)

Subject: Brewery Creek Mine - Hydrology Update 2000

Design Memorandum CCL-BCM1 dated November 13, 1998 presented a review of hydrological conditions for the Brewery Creek Mine site based on climatic data available up to September 1998. This memorandum CCL-BCM3 presents the results of an update by Clearwater Consultants Ltd. of the hydrological conditions and key design parameters for the site. The update has been based on all the available precipitation, evaporation and snowsurvey data collected at Brewery Creek and at regional sources up to August 2000.

1. Available Data

Available hydrologic data at the Brewery Creek Mine site include the following:

- monthly total precipitation data for a total of 77 months between June 1991 and August 2000. The data collection has been essentially continuous since September 1994;
- snowpack survey data at a number of locations around the site since 1995.
- monthly pan evaporation data during the non-freezing period (typically May through September) for a total of 16 months from July 1997 to August 2000.

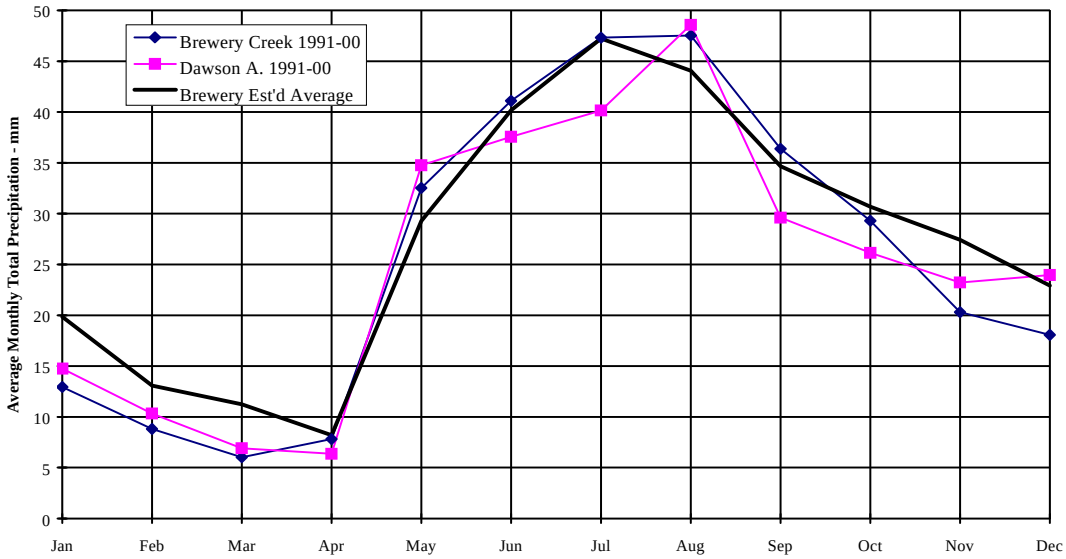
Regional data used in the comparisons reported herein include:

- monthly precipitation, rainfall and snowfall data reported by Environment Canada for the Dawson Airport station for the period February 1976 to March 2000;
- snowpack survey data reported by the Water Resources Division of DIAND for the period 1975 to 2000;
- Monthly lake evaporation data reported by Environment Canada for stations at Pelly Ranch (June 1964 to July 1998) and at Whitehorse Airport (August 1974 to June 1996).

2. Precipitation

Table 1 summarizes all the available concurrent monthly total precipitation data for Brewery Creek Mine and for Dawson Airport. Figure 1 presents a comparison of the average monthly values over the common period. Comparing annual average total precipitation for the two stations over the common months of data indicates that on average the Brewery Creek site experiences about 2% more precipitation per year than Dawson A. Based on the concurrent data and the long-term average total precipitation at Dawson A. of 323 mm, the estimated long-term average annual total precipitation for Brewery Creek Mine is 329 mm.

FIGURE 1 - Brewery Creek & Dawson A. Average Total Precipitation



Frequency analysis were carried out on total annual precipitation for the complete period of record for Dawson A. Applying a factor of 1.0193, corresponding values were estimated for Brewery Creek. The results of the frequency analysis are shown in Table 2.

3. Snowpack

Brewery Creek personnel have collected snowpack survey data since 1995 at a number of locations around the mine site. Data collection starts in early November and continues until early to mid-April each year. Typically, all snow has melted from the leach pad and in the general area of the leach pad by the end of April. Some snow remains on the ground into May in undisturbed forested areas around the site. Regional snowsurvey data are available since 1975 for the Midnight Dome station operated by DIAND Water Resources. Table 3 summarizes the available data for the 1995 to 2000 period.

The following comments are made on the available data:

- Snow accumulations start during October each year at Brewery Creek;
- Maximum snowpacks each year generally occur on or about April 1 for both Brewery Creek and for Midnight Dome, although annual maxima may occur earlier or later;
- Snow is generally all melted on and around the leach pad by the end of April whereas measurable snow may remain on the ground at Midnight Dome until at mid- or late May;
- Snowpack water equivalents for all locations around Brewery Creek are consistently less than values recorded at Midnight Dome;
- For all data, Brewery Creek maximum April 1 snowpacks are about 66% of the Midnight Dome values. Measurements taken on natural ground near April 1 at Brewery Creek are about 71% of the Midnight Dome values;

- Snowpack water equivalents are lower within the leach pad area than on natural ground surrounding the leach pad;
- Variability in readings taken within the leach pad area reflects areas of additional snow accumulation by drifting, typically near the bottom of the slopes, and exposed areas subject to removal of snow by wind, typically on the flat top of the heap;
- Areas under active leach during the winter appear to experience lower maximum snowpacks than areas not under active leaching, possibly due to some melting of snow during the winter over the actively leaching areas.

Maximum annual snowpacks applicable to the leach pad area at Brewery Creek were estimated using different methods. The results are shown in Table 4 and described following:

- Method "A" involved carrying out a frequency analysis of the 26 years of annual maximum snowpacks reported for Midnight Dome and multiplying the results by 0.709, the average ratio of Brewery Creek to Midnight Dome April 1 snowpacks measured on natural ground from 1995 to 2000. The estimated 100 year return period snowpack for Midnight Dome is 258 mm of water equivalent (Table 4). The resulting estimated 100 year return period snowpack for Brewery Creek was 183 mm of water equivalent;
- Method "B" involved carrying out a frequency analysis of the 22 years of cumulative October to March total precipitation reported for Dawson A. and multiplying the results by 1.0193, the average ratio of Brewery Creek to Dawson A. total average annual precipitation. The resulting estimated 100-year return period snowpack for Brewery Creek was 210 mm of water equivalent.

It is recommended that, for the evaluation of water storage requirements for the Brewery Creek heap leach pad, the most conservative estimate of the 100 year return period maximum snowpack accumulation should be adopted. Given the long period of record available at Midnight Dome and the variability in data collected at and around the Brewery Creek site over the last six years (Table 3), it is recommended that the estimated 100 year return period snowpack for Midnight Dome of 258 mm of water equivalent be adopted for the Brewery Creek area.

4. Lake Evaporation

Pan evaporation data have been collected at Brewery Creek during the warm weather season for a total of 16 complete months between July 1997 and August 2000. The evaporation pan is located beside the overflow pond. The data are shown on Table 5. Also shown on the Table are monthly lake evaporation depths calculated for Brewery Creek using a pan coefficient of 0.70 and regional long-term average lake evaporation data reported for stations at Pelly Ranch (1964 to 1998) and at Whitehorse Airport (1974 to 1996). A comparison of average monthly temperatures at Brewery Creek and at Pelly Ranch shown on the Table indicates that average temperatures during the summer period are similar for the two stations.

Based on the data in Table 5, average lake evaporation at Brewery Creek was estimated using three methods as follows:

- Method "A" assumes that Brewery Creek lake evaporation is equal to Pelly Ranch lake evaporation, based on (1) the similarity of average summer temperatures, and, (2) the comparable measured total June to September lake evaporation at the two stations. The

resulting estimated annual average lake evaporation at Brewery Creek would be about 450 mm;

- Method “B” assumes lake evaporation decreases at a rate of 10% per 350 m increase in elevation from Pelly Ranch at elevation 454 m to Brewery Creek at about elevation 850 m. This rate of decrease for evaporation with elevation has been suggested by the BC Ministry of Environment in the “Manual of Operational Hydrology” as being applicable to the interior of British Columbia. If this trend is assumed to be also applicable to Yukon, the resulting estimated annual average lake evaporation at Brewery Creek would be about 400 mm.
- Method "C" assumes that the pan evaporation data measured directly at the Brewery Creek site from 1997 to 2000 in conjunction with an assumed pan coefficient of 0.70 together provide sufficient site-specific data to estimate the long-term average lake evaporation at the site. The resulting estimated annual average lake evaporation at Brewery Creek would be about 390 mm

It is recommended that the lower value of 390 to 400 mm be conservatively adopted for average annual lake evaporation at Brewery Creek for the evaluation of water storage requirements for the heap leach pad. Make-up water requirements should be conservatively assessed using the higher value of about 450 mm.

5. Conclusions

The on-going collection of precipitation, snowsurvey and evaporation data at the Brewery Creek mine site has allowed key design parameters to be re-evaluated using actual site data and concurrent and long-term regional data. Key design parameters include: average annual total precipitation, the 100 year return period wet year total precipitation, the 100 year maximum snowpack, and average lake evaporation. Table 6 compares values estimated previously in the Water License (1995), values estimated in 1998, and currently-estimated values.

The Brewery Creek Mine site is drier than assumed in the Water License: annual precipitation is lower and lake evaporation is higher as shown on Table 6. The revised values should be used for the on-going evaluation of the heap water balance and determination of solution storage requirements. Data collection activities should be continued for all the parameters discussed herein and the data should be fully re-evaluated every year.

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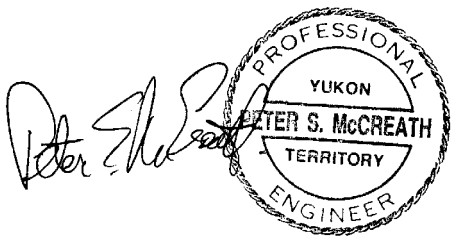

Peter S. McCreath P.Eng.

Table 1 - Monthly Total Precipitation - Brewery Creek Mine and Dawson Airport

Brewery Creek Mine - Total Precipitation (mm)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Annual
1991						16.7	23.8	94.1	43.7				
1992													
1993										20.0	35.3	20.3	
1994									42.4	40.4	32.7	14.2	
1995	19.8	19.1	10.1	5.5	49.4	39.1	97.9	45.2	64.4	31.3			
1996	9.3	10.6	6.5	6.6	20.0	38.1	11.1	30.7	34.8	11.9	18.3	8.9	206.8
1997	9.5	3.6	4.1	8.3	24.2	62.0	36.6	52.9	43.3	30.6	13.0	25.4	313.5
1998	5.9	4.7	3.6	4.1	31.3	36.6	21.9	25.4	18.3	20.6	6.5	7.7	186.6
1999	16.0	10.1	10.1	18.9	39.0	40.8	44.3	54.4	7.7	50.2	16.0	31.9	339.4
2000	17.1	4.7	1.8	3.5	31.3	54.4	95.7	30.0					
Mean	12.9	8.8	6.0	7.8	32.5	41.1	47.3	47.5	36.4	29.3	20.3	18.1	308.1

Dawson A. - Total Precipitation (mm) - Common Months with Brewery Creek Mine

1991						21.8	56.6	71.8	49.6				
1992													
1993										13.9	34.8	15.5	
1994									24.0	43.4	27.8	8.2	
1995	11.4	13.2	11.8	5.8	61.4	20.2	64.8	35.4	41.2	27.2			
1996	8.3	14.6	8.2	7.0	11.5	28.6	10.7	41.0	31.8	30.4	18.0	20.0	230.1
1997	17.6	6.0	5.4	5.2	24.2	84.6	60.8	53.8	16.2	34.8	14.4	28.0	351.0
1998	11.7	4.0	0.0	0.2	42.4	53.4	16.0	25.8	21.8	7.1	8.3	16.0	206.7
1999	11.0	14.6	10.8	13.6	34.3	16.7	32.0	63.7	22.6		36.0	56.0	
2000	28.4	9.6	5.2										
Mean	14.7	10.3	6.9	6.4	34.8	37.6	40.2	48.6	29.6	26.1	23.2	24.0	302.3

Comparison of Mean Monthly Total Precipitation

Station	Period	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Annual
Brewery Creek	1991-00	12.9	8.8	6.0	7.8	32.5	41.1	47.3	47.5	36.4	29.3	20.3	18.1	308.1
Dawson A.	1991-00	14.7	10.3	6.9	6.4	34.8	37.6	40.2	48.6	29.6	26.1	23.2	24.0	302.3
Dawson A.	1976-00	19.5	12.8	11.0	8.0	28.7	39.4	46.3	43.2	34.0	30.1	26.9	22.5	322.6
Brewery Creek	**Average**	**19.9**	**13.1**	**11.2**	**8.2**	**29.3**	**40.2**	**47.2**	**44.1**	**34.7**	**30.7**	**27.4**	**22.9**	**328.8**

Average ratio (Brewery : Dawson) for Annual Total Precipitation = 1.0193

Table 2 - Annual Total Precipitation Frequency Analysis

Return Period (years)	Exceedance Probability	Annual Total Precipitation (mm)	
		Dawson A	Brewery Creek
2	50.0%	319	325
5	20.0%	375	382
10	10.0%	405	413
20	5.0%	431	439
50	2.0%	461	470
100	1.0%	482	491
200	0.5%	501	511
500	0.2%	525	535

Note - Brewery Creek Total Precipitation = 1.0193 times Dawson A. Total Precipitation.

Table 3 - Snowpack Survey Data - Brewery Creek Mine and Midnight Dome

Snowpack Water Equivalent (mm water)

Year	Station	Comment	Elev (m)	Note	Jan 1	Feb 1	March 1	April 1	May 1
1995	Brewery Creek	Natural Ground	775-830	1		78.5	87.6		
	Midnight Dome	DIAND natural ground	855	2			150	170	123
1996	Brewery Creek	Natural Ground	760-780	3		78.4		92.4	
	Midnight Dome	DIAND natural ground	855	2			91	109	101
1997	Brewery Creek	Natural Ground	740-850	4	90.3	102.3	104.3	107.6	
	Brewery Creek	Within leach pad area		5	94.6	69.1	97.5	105.4	
	Brewery Creek	All Data	740-850	6	80.7	87.7	96.8	102.8	
	Midnight Dome	DIAND natural ground	855	2			146	161	117
1998	Brewery Creek	Natural Ground	740-850	4	36.5	62.5	72.5	97.9	
	Brewery Creek	Leach pad slopes cells 1,2,4	800-820	7	71.9	54.3	74.2	28.9	
	Brewery Creek	Leach pad slopes cell 5	810-830	7	27.3	52.2	41.2	85.4	
	Brewery Creek	Leach pad top cells 3 & 4	820-840	7	34.2	24.3	39.6	9.2	
	Brewery Creek	Leach Pad weighted average	800-840	8	36.7	31.2	43.1	22.2	
	Brewery Creek	All Data	740-850	6	39.2	51.9	61.9	69.1	
	Midnight Dome	DIAND natural ground	855	2			129	119	92
1999	Brewery Creek	Natural Ground	740-850		40.6	41.8	80.4	86.9	
	Brewery Creek	Leach Pad Top (837 lift)	837	9	39.7	46.1	41.0		
	Brewery Creek	Leach Pad Slopes (cells1,2,5)	800-830	9	46.1	43.0	64.0	84.4	
	Brewery Creek	Leach Pad weighted average	800-840	9	42.0	45.0	49.3		
	Brewery Creek	All Data	740-850	6	42.7	42.9	66.2	88.6	
	Midnight Dome	DIAND natural ground	855	2			84	90	92
2000	Brewery Creek	Natural Ground	740-850		64.9	85.5	96.2	94.5	
	Brewery Creek	Leach Pad Top (830 lift)	830	9	8.5	46.7			
	Brewery Creek	Leach Pad Slopes (cells1,7)	800-830	9	141.6	181.2			
	Brewery Creek	Leach Pad weighted average	800-840	9	56.4	95.1			
	Brewery Creek	All Data	740-850	6	46.6	75.8	96.2	94.5	
	Midnight Dome	DIAND natural ground	855	2			187	197	195

Average Snowpack Water Equivalents (mm)

Years	Station	Comment	Elev	Note(s)	Jan 1	Feb 1	March 1	April 1	May 1
1995-00	Brewery Creek	Natural Ground	740-850		58.1	74.8	88.2	95.9	
	Brewery Creek	Within leach pad area	800-840		57.4	48.4	63.3	70.7	
	Brewery Creek	All Data	740-850		52.3	69.2	81.7	89.5	
	Midnight Dome	Common years with BCM	855				139.2	135.2	120.0
1975-00	Midnight Dome	All available years				96.0	128.6	148.6	121.8
Midnight Dome – Average (1995-2000) / (1975-2000)							108.2%	91.0%	98.5%
1995-00	**Ratios of (Brewery Creek to Midnight Dome)**								
		Natural Ground					63.4%	**70.9%**	
		Within leach pad area					45.5%	52.3%	
		All Data					58.7%	66.2%	

Notes for Table 3

1) 1995 BCM data includes sites at Canadian Zone, within leach pad and outside leach pad. No ore in place on heap. Averages for all sample points.
2) All Midnight Dome data reported by DIAND Water Resources. Feb. 1 data not collected since 1985
3) 1996 BCM data includes sites within and outside leach pad area. No ore on heap. Averages for all sample points.
4) 1997 and 1998 BCM data for "Natural Ground" include six locations surrounding leach pad.
5) 1997 BCM data "Within leach pad area" is area-weighted average, 6 to 9 sites per month covering active & inactive leaching areas. Total 1.9 Mt ore, 0.5 Mt under leach.
6) 1997 to 2000 BCM "All Data" reflects average of all individual sample points for all locations.
7) 1998 BCM data "Leach pad slopes cells 1, 2, 4" represents approx. 20,000 m^2 area on pad; "Leach pad slopes cell 5" represents approx. 31,000 m^2: and, "Leach pad top cells 3 & 4" represents approx. 161,000 m^2 on pad. Areas estimated by BCM personnel in the field. Total 3.9 Mt ore with 1.1 Mt under leach.
8) 1998 to 2000 BCM data "Leach pad weighted average" represents average SWE for entire leach pad area based on relative areas and SWE's.
9) For 1999 & 2000, "Leach Pad Top" estimated by BCM personnel as 64% of total area, "Leach Pad Slopes" equal to 36% of total area to estimate "Leach Pad Weighted Average" snow water equivalents (SWE).
10) Brewery Creek data shown for Jan 1, 2000 collected on Jan 14, 2000.

Table 4 - Maximum Annual Snowpack Frequency Analysis

Return Period (years)	Exceedance Probability	Midnight Dome Max. Snowpack	Dawson A. Precipitation (Note 1)	Brewery Creek Snowpack	
				Method A (Note 2)	Method B (Note 2)
1.050	95.2%	94	82	67	84
1.250	80.0%	120	99	85	101
2	50.0%	150	120	106	122
5	20.0%	185	148	131	151
10	10.0%	205	164	145	167
20	5.0%	223	178	158	181
50	2.0%	244	194	173	198
100	1.0%	258	206	183	210
200	0.5%	272	216	193	220
500	0.2%	290	229	206	233

Notes for Table 4

1) "Dawson A. Precipitation" corresponds to cumulative total precipitation from October 1 to March 31. Frequency analysis based on 1976 - 2000 data.
2) Potential maximum snowpack at Brewery Creek estimated as follows:
Method A: Brewery Creek snowpack = 0.709 times snowpack at Midnight Dome, or,
Method B: Brewery Creek snowpack = 1.0193 times total October to March precipitation at Dawson A, or, Brewery Creek snowpack = Midnight Dome snowpack
3) All snowpacks and precipitation in millimetres of water equivalent.

Table 5 - Lake Evaporation

Monthly Pan Evaporation Data - Brewery Creek

	May	June	July	August	September	YEAR
1997			138.0	85.8	82.2	
1998		148.0	199.6	128.5	53.3	
1999	75.9	181.8	169.8	128.5	56.8	
2000	67.2	155.8	106.6	80.0		
Average	67.2	161.9	153.5	105.7	64.1	552.4

Calculated Monthly Lake Evaporation - Brewery Creek

(using pan coefficient of 0.70)

	May	June	July	August	September	YEAR
1997			96.6	60.1	57.5	
1998		103.6	139.7	90.0	37.3	
1999	53.1	127.3	118.9	90.0	39.8	
2000	47.0	109.1	74.6	56.0		
Average	50.1	113.3	107.5	74.0	44.9	389.5

Total June Through September = 339.7 mm

Regional Lake Evaporation – Long-Term Averages

	May	June	July	August	September	YEAR
Pelly Ranch (Elev. 454 m)	106.0	121.0	111.3	79.7	36.8	454.8
Whitehorse (Elev. 703 m)	106.4	127.0	114.5	96.2	50.3	494.4

Total June Through September = 348.8 mm

Temperatures (^{o}C) - Brewery Creek Mine and Pelly Ranch

Station	Period	May	June	July	August	September	Average
Brewery Creek	1997-00	6.9	13.9	15.2	11.3	6.6	11.0
Pelly Ranch	Average	7.5	13.0	15.1	12.5	6.5	10.9

Estimated Average Lake Evaporation (mm) - Brewery Creek

	May	June	July	August	September	YEAR
Method A	105	120	110	80	35	450
Method B	94	107	99	71	32	403
Method C	50	113	107	74	45	390

- Method A assumes Brewery Creek lake evaporation is equal to Pelly Ranch lake evaporation.
- Method B decreases Pelly Ranch evaporation at 10% per 350 m elevation, factor of 0.887.
- Method C assumes Brewery Creek lake evaporation is equal to the estimated average lake evaporation 1997-2000 at Brewery Creek (calculated using pan coefficient of 0.70)

Table 6 - Comparison of Key Hydrological Design Parameters - Brewery Creek Mine

Parameter	Value reported in Water License *	Revised Value (Memo BCM1 ** November 1998)	Revised Value (Memo BCM3 November 2000)
Average Annual Total Precipitation	420 mm	329 mm	329 mm
100 Year Wet year Precipitation	610 mm	513 mm	491 mm
100 Year Maximum Snowpack	405 mm	229 mm	258 mm
Average Lake Evaporation	350 mm	400 mm	400 mm

References

***** Loki Gold Corporation (1995) – Brewery Creek Project Solution Management Plan, Appendix A, “Heap Leach Water Balance Sensitivity”, April 13, 1995.

** Clearwater Consultants Ltd. (1998) – "Brewery Creek Mine – Hydrology Review", Design Memorandum CCL-BCM1 prepared for Viceroy Minerals Corporation Brewery Creek Mine, November 13, 1998, File 013.03

APPENDIX B

SURFACE WATER QUALITY AND GROUNDWATER DATA SUMMARY

BREWERY CREEK MINE

2014 WATER QUALITY ASSESSMENT

February 2015

Prepared for:

GOLDEN PREDATOR EXPLORATION LTD.

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1 INTRODUCTION

1.1 BACKGROUND

Mining activities were carried out at the Brewery Creek Mine over a five-year period between 1996 and 2000 by Loki Gold Corp. and Viceroy Resource Corp. Ore processing (9.5 million tonnes of ore) employed conventional heap leach technology on run of mine ore, commencing in November 1996. Brewery Creek originally operated under Water Use Licence (WUL) QZ94-003, issued in August 1995 and under Quartz Mining License (QML) A99-001 issued in June 1999. In July 1997 the mine began operating under WUL QZ96-007, created as a result of an amendment application to WUL QZ94-003. Brewery Creek ceased active mining operations in September of 2000 and no additional ore was added to the heap leach after this date. This cessation date was more than two years earlier than predicted in the planning and permitting stages, due primarily to depressed gold prices. Active cyanide leaching of the heap leach pad continued until December 2001. Detoxification of the heap leach was completed in the second and third quarters of 2002 with some release of detoxified waters over 2002 and 2003 and regular post closure monitoring. In March 2005 licences and permits were again transferred, from Viceroy to Alexco Resource Corp. (after Alexco purchased the property. (Access, 2010)

In 2011, Alexco applied for an amendment QZ11-035 to licence QZ96-007 with the aim of clarifying and unifying licence conditions to reflect the current post-closure phase of the mine, in anticipation of a transfer of ownership to Golden Predator Corp. (now Golden Predator Exploration Ltd.). In 2012 Golden Predator Corp. purchased the Brewery Creek property from Alexco with the intent of amending the Water Licence to re-open the mine site.

The subject of this report is an examination of the results of the 2014 water quality monitoring program carried out by Golden Predator at the Brewery Creek Mine pursuant to the licence conditions of WL QZ96-007. The results and discussion herein include results of all sampling carried out over the course of the mine life, including a discussion of the 2014 data relative to historical conditions. The 2014 monitoring program reflects the current post-closure phase of the mine life.

The principal receiving creeks in the Brewery Creek Mine area are Lee Creek, Laura Creek, and Carolyn Creek which are tributaries of the South Klondike River. Three additional creeks are included in this assessment: Pacific Creek, Carolyn Creek, and Lucky Creek, the main tributaries to Lee, Laura and Golden Creeks, respectively (Figure 1-1).

Lee Creek and Pacific Creek both occur in the northwest portion of the Brewery Creek property. Lee Creek headwaters originate 46 kilometres north of the property and flow due south, converging with Pacific Creek east of the property, eventually flowing into the South Klondike River. Pacific Creek headwaters originate immediately north of the mine in two separate forks, which converge and flow southwest into Lee Creek.

Laura and Carolyn Creeks receive runoff from a total combined area of 30.5 km^2. Flow in the upper reaches of these creeks is seasonal, while Lower Laura Creek[1] flows year round with the exception of occasional freezing conditions in winter. Carolyn Creek joins Laura Creek roughly two kilometres from its headwaters, with both eventually flowing to the South Klondike River via a wetlands area in Lower Laura Creek.

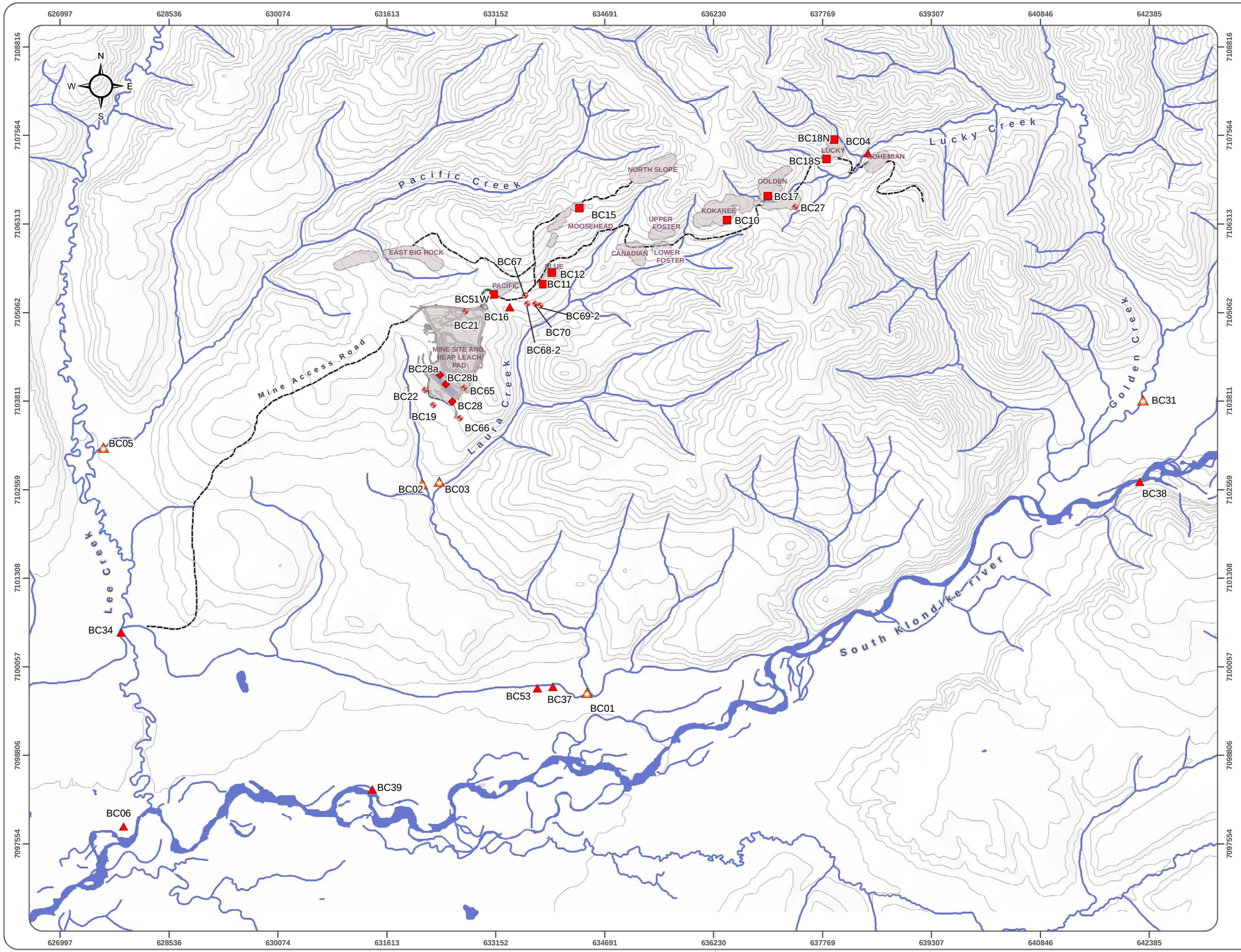
Laura and Carolyn Creeks were the historical receivers for mine effluent deposited from the Brewery Creek heap leach pad both during mining activities and post-closure reclamation. The leach pad and ponds were situated within the boundary of the two watersheds, and a land application system was employed during post-closure drain-down of the heap over the watershed boundary separating the streams.

The historical workings consist of seven open pit areas (nine pits total), which influenced the receiving watersheds variously. The following pits were worked during the past phase of mining at Brewery Creek:

- Pacific
- Blue
- West Canadian
- Canadian
- Upper Fosters
- Lower Fosters
- Kokanee
- Golden
- Lucky

The majority of mining occurred in the Laura Creek drainage; the Pacific, Blue, Canadian, Fosters and Kokanee developments, as well as a significant portion of the Moosehead development and the heap leach facility are all located within the Carolyn and Laura Creek watersheds. The Golden and Lucky developments lie within the Lucky Creek watershed, while the Moosehead pit also lies partially within the Pacific Creek catchment.

[1] Lower Laura Creek refers to the portion of Laura Creek between stations BC-53 and BC-39



BREWERY CREEK MINE

FIGURE 1-1
WATER QUALITY STATIONS

Monitoring Stations

- Groundwater
- Heap Effluent
- Surface Water Quality and Hydrometric
- Surface Pit/Dump Discharge
- Surface
- Mine Area
- Watercourse
- Waterbody

NAD 83 UTM Zone 7N

0 0.5 1 2 Kilometers

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FEBRUARY 2015

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2 BREWERY CREEK MINE WATER QUALITY MONITORING PROGRAM

2.1 MONITORING PROGRAM

Environmental monitoring at Brewery Creek has transitioned to the post-closure phase, which involves twice-annual monitoring of water quality surveillance sites where conditions allow, up until the end of 2014. Sampling events are typically conducted during or shortly following freshet, in May or June, and again in September or October, during low-flow conditions. The amount of environmental monitoring has declined since closure of the heap has been accomplished and the drain down solutions treated. Environmental monitoring under QZ96-007 during the post-closure period has been reduced commensurate with the expected level of site activity. The current water quality monitoring schedule is presented in Appendix A. Water quality sampling was performed as required by Schedule B of Water Licence QZ96-007, and results can be found in Appendix B to this memo.

2.2 EFFLUENT QUALITY STANDARDS AND WATER QUALITY GUIDELINES

Clause 46 of Water Licence QZ96-007 states that:

"Water quality at monitoring stations BC-31, BC-34 and BC-39 shall not exceed the water quality guidelines specified for the protection of aquatic life contained in the Canadian Environmental Quality Guidelines prepared by the Canadian Council of Ministers of Environment, as amended from time to time."

As such, for the receiving water quality data assessment, water quality parameters were screened against Canadian Water Quality Guidelines for Protection of Aquatic Life (CWQG; CCME 2012) (Table 2-1). Some water quality guidelines vary on the basis of water hardness (e.g., cadmium, copper, lead; CCME 2012). A water hardness of 251 mg/L (as $CaCO_3$) was used to select the appropriate guideline in such cases, as this represented the mean hardness of the pooled reference station data. This value can be considered conservative since median water hardness observed at receiving environment stations were often greater than 300 mg/L where toxicity may be somewhat less relative to water with hardness of 251 mg/L.

Two guidelines have been derived for nitrate under the CCME Water Quality Guidelines for Protection of Aquatic Life based on the species measured; the guideline for ionic nitrate is 13 mg/L, while for nitrate as nitrogen it is 3.0 mg/L. For results obtained prior to 2006, information on the nitrogen species measured is not available; therefore the more conservative guideline of 3.0 mg/L has been used for comparisons.

In addition to the CCME guideline, Laura Creek at station BC-39 has an established site-specific selenium criterion of 0.0038 mg/L as defined as per Clause 38(d) of Water Licence QZ96-007. Furthermore, the Laura Creek AMP (2004) indicated the company would also use a site specific selenium water quality standard (SSWQS) of 0.0038 mg/L at Laura Creek station BC-53. Therefore, this report includes the use of the SSWQS guideline for comparison on the Laura Creek and Carolyn Creek watersheds.

Table 2-1 Relevant Canadian Water Quality Guidelines Used in the Assessment

Parameter	Units	Guideline	
		Source	Value (mg/L)
Arsenic	mg/L	CWQG	0.005
Copper[a]	mg/L	CWQG	0.003
Lead[a]	mg/L	CWQG	0.007
Nitrate Nitrogen	mg/L	CWQG	3
Selenium	mg/L	CWQG/SSWQS	0.001/0.0038
Zinc	mg/L	CWQG	0.03
Total Suspended Solids	mg/L	n/a	n/a

a. Hardness-dependent; mean reference station hardness of 251mg/L used

For the receiving environment water quality assessment, a reference condition has also been established using pooled reference data for the Brewery Creek region collected between 2008 and 2012. These values reflect the upper limit on the range of variability in the region and can be used together with CCME guidelines and Water Licence standards, or where guidelines and standards are not available or appropriate. These reference guidelines are used in this report for comparison and assessment of the Lee Creek and Golden Creek watersheds. It has been determined that these reference conditions are not appropriate for use in the Laura Creek watershed, where reference data were not available for use in developing the reference condition.

For effluent and groundwater monitoring stations relating to heap effluent discharge via direct discharge and groundwater infiltration, water quality results were screened against the effluent quality standards established in Clause 42, 43 and 44 of WL QZ96-007 (Table 2-2). Clause 42 and 44 of the licence refer to standards for heap discharges either via land application or directly to surface water. Clause 43 refers to standards for groundwater stations immediately down gradient of the heap.

Table 2-2 Effluent Quality Standards (mg/L), Water License QZ96-007

Parameter	Maximum Concentration (mg/L)		
	Clause 42	Clause 43	Clause 44
WAD Cyanide	0.25	0.125	0.25
Total Cyanide	2.0	1.0	2.0
Ammonia (as N)	15.0	7.5	5.0
Copper	0.5	0.1	0.2
Arsenic	0.5	0.25	0.5
Antimony	1.0	0.5	1.0
Mercury	0.005	0.0025	0.005
Zinc	0.5	0.25	0.5
Selenium	0.75	0.3	0.25
Lead	0.2	0.1	0.2
Aluminum	1.0	3.0	1.0
Bismuth	0.5	0.25	0.5
Cadmium	0.1	0.05	0.1
Chromium	0.5	0.25	0.5
Iron	1.0	5.0	1.0
Manganese	2.0	6.0	2.0
Molybdenum	0.5	0.25	0.5
Nickel	0.8	0.25	0.5
Silver	0.1	0.05	0.1
pH	-	-	6.0 to 9.5
Suspended Solids	-	-	50

3 WATER QUALITY

3.1 RECEIVING ENVIRONMENT WATER QUALITY CONDITIONS

The following sections address the three main watersheds and tributaries in the project area, which are assessed on the basis of a few metrics via different methods. First, where relevant, a comment on the quality of the data is made with respect to both MDLs and the occurrence of zero values in the dataset for selected parameters. Second, the data is assessed in relation to the benchmark concentrations selected for this assessment (CCME and reference). Third and lastly, summary statistics and trends in the data are discussed, with a focus on the 2014 data in relation to historical results. At the end of each watershed chapter, the discussion expands to identify issues more broadly associated with each watershed on the whole, and summary remarks are made.

All water quality data for surface water, groundwater, and in-pit water is presented in summary tables within Appendix A.

3.1.1 Lucky and Golden Creeks

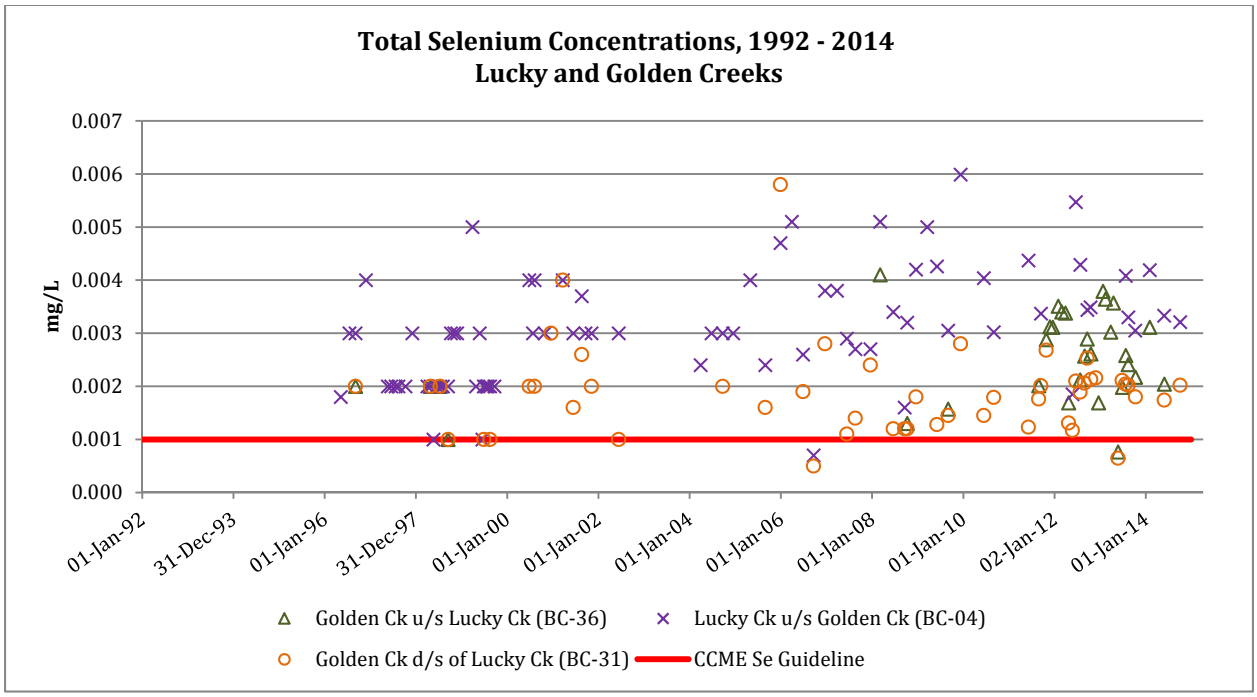
A total of three stations have been established on Lucky and Golden Creek watersheds to determine and assess water quality characteristics (Table 3-1). One of these is located on Lucky Creek below all mine related developments, and thus reflects the cumulative impact of all mining activities on that stream. Two stations are located on Golden Creek, one upstream of the confluence with Lucky Creek, and the other downstream of it. Monitoring at BC-31 began in 1991, before the commencement of mining, while monitoring at BC-04 began in 1995, shortly before mining commenced. BC-36 has been monitored periodically, beginning in 1996 for a year, and resuming again in mid-2007 until the present.

Table 3-1 Water Quality Monitoring Stations on Lucky and Golden Creeks

Stations on Lucky and Golden Creeks		Included in Assessment
BC-36	Golden Creek upstream of Lucky Creek	Yes
BC-31	Golden Creek downstream of Lucky Creek	Yes
BC-04	Lucky Creek d/s from Lucky Pit	Yes

3.1.1.1 Observations: Selenium

Selenium concentrations were shown to exceed the CCME guideline in all samples and at all sites on Lucky and Golden Creeks in 2014. Data collected during monitoring prior to 2004 is confounded by the presence of high MDLs, although this has been resolved with lower detection limits in recent years, and it can be confirmed that both background and receiving waters are in excess of the CCME guideline in this watershed. Trends for selenium show no change over the last decade, as shown on Figure 3-1.



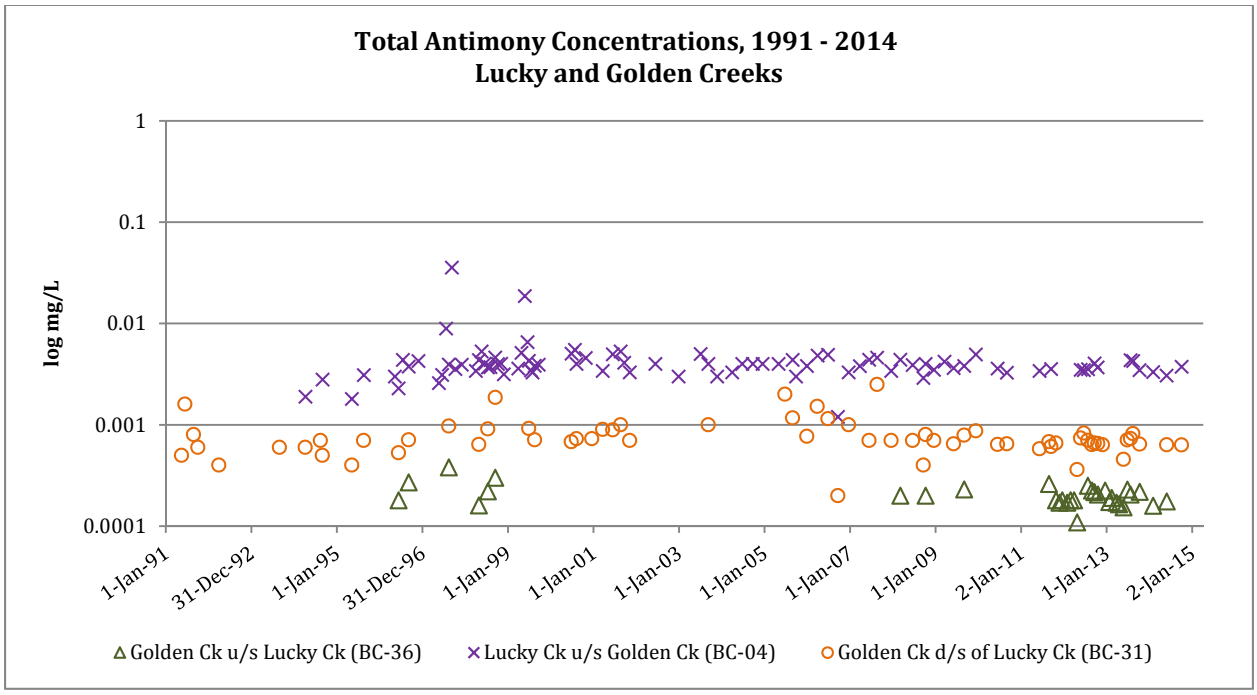
Note: Results that are below MDL are not shown on this figure

Figure 3-1 Selenium Concentrations, 1992 – 2014, Lucky and Golden Creeks

3.1.1.2 Observations: Antimony

Antimony concentrations at the background station on Golden Creek (BC-36) are statistically significantly lower than at the downstream receiving environment station (BC-31) (Figure 3-2). Concentrations of antimony are much higher in Lucky Creek (mean background concentration at BC-36 is 1/20 of the concentration at BC-04 – note the logarithmic scale on the y-axis), suggesting that Lucky Creek is likely the primary source of antimony entering Golden Creek.

Antimony results at BC-31 have remained relatively constant throughout the pre-mining, mining, and decommissioning and reclamation phases of the mine life, indicating that antimony concentrations may not have been impacted greatly by mining activities. Moreover, concentrations remain well below the Ontario PWQO for antimony, and as such it poses little threat to the receiving environment in either Golden or Lucky Creeks.

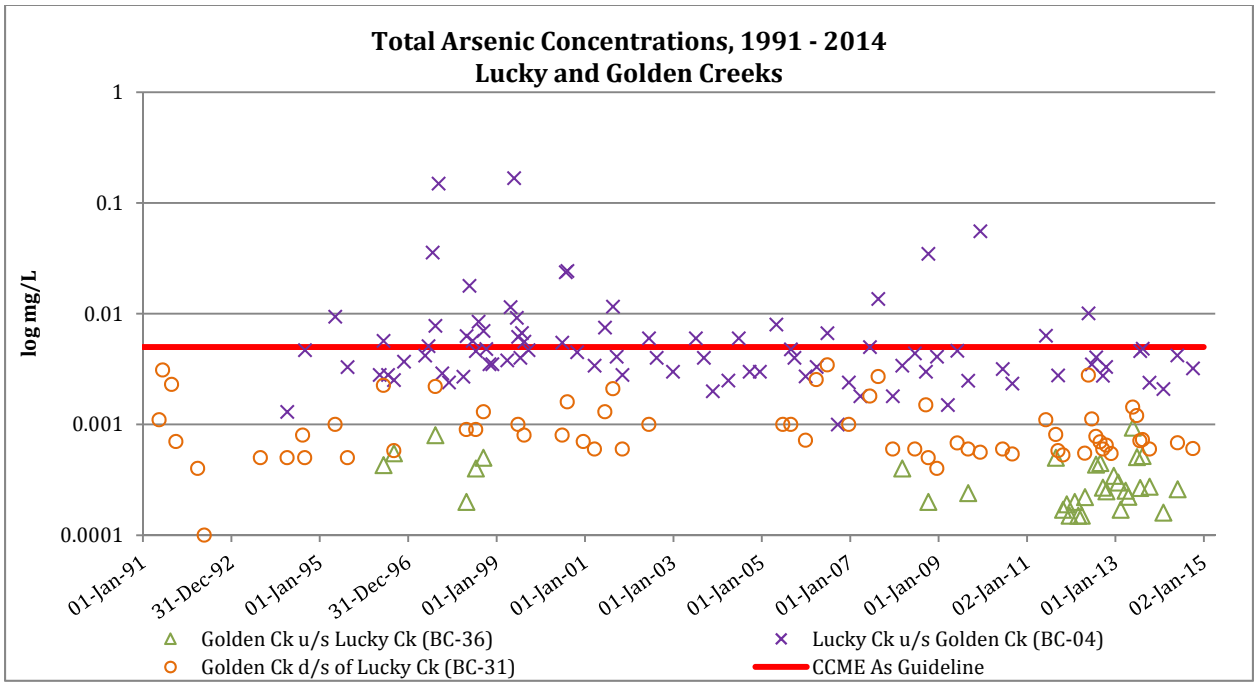


Note: Results that are below MDL are not shown on this figure

Figure 3-2 Total Antimony Concentrations, 1991 – 2014, Lucky and Golden Creeks

3.1.1.3 Observations: Arsenic

Arsenic concentrations in Golden and Lucky Creek exhibit a similar pattern to antimony in that it appears as though Lucky Creek is the primary source of arsenic to Golden Creek (Figure 3-3 - again, note the logarithmic scale). Here too arsenic concentrations are constant during all three mine phases, indicating a high background concentration as the result of the region's natural mineralization. Results at BC-04 are at or near the CCME guideline, exceeding the guideline in approximately 40 % of samples.



Note: Results that are below MDL are not shown on this figure

Figure 3-3 Total Arsenic Concentrations, 1991 – 2014, Lucky and Golden Creeks

3.1.1.4 Conditions during Decommissioning and Reclamation

Water quality data collected in the Lucky and Golden Creek watershed show no increasing or decreasing trend for the major parameters assessed in this report, or those regulated under QZ96-007. Data for all parameters assessed are generally at or below CCME guidelines with the exception of selenium, which appears to occur in naturally elevated concentrations in this region.

Additional parameters zinc, copper, lead, total suspended solids and nitrate are presented graphically in Appendix B for Lucky and Golden Creeks.

3.1.2 Lee and Pacific Creeks

Five water quality monitoring stations have been established on the two creeks; two on Lee Creek and three on Pacific Creek (Table 3-2). Each creek contains one reference, and at least one receiving environment station. The reference stations were used in establishing the reference benchmark for the watershed, while the receiving stations will be assessed here relative to those benchmarks.

Table 3-2 Water Quality Monitoring Stations on Pacific and Lee Creeks

Stations on Pacific Creek and Lee Creek		Included in Assessment
BC-35R	Pacific Creek Reference Station	Yes
BC-33	Lee Creek Reference Station	Yes
BC-35	Pacific Creek below Leach Pad	No
BC-05	Pacific Creek before confluence w/ Lee Creek	Yes
BC-34	Lee Creek below confluence w/ Pacific Creek	Yes

Station BC-35 on Pacific Creek is impacted by previous developments in the northern region of the property, including the Moosehead pit; however, station BC-05 is better situated to represent the cumulative downstream impacts of mining on this Creek. Additionally, data is not available for BC-35 earlier than 2008, which limits the usefulness of this station for background information. As such, BC-35 was not used or considered in this assessment.

In August 2011, a new reference station was established on the north branch Pacific Creek as a result of a lack of available background data for this stream. Data collected at this station was used in establishing the reference conditions referred to in Section **Error! Reference source not found.**2.

3.1.2.1 Observations: Selenium

The interpretation of selenium results obtained on Lee and Pacific Creeks are confounded by the occurrence of high MDLs for the entire dataset, and zero values on some early dates prior to mining. The typical MDL observed was 0.001 mg/L, which precludes an interpretation of the data with respect to the CCME guideline (also 0.001mg/L). Although it is known that these values are below the CCME guideline of 0.001mg/L, it is not known to what degree. In addition, among all other results only two show values higher than a practical quantitative limit set at 3X the MDL. These results can be seen in Figure 3-44 as a flat line in the data series prior to 2002, and vary after that date. In the presence of high MDLs and lacking additional information, it is unclear at what rate selenium results exceed the CCME guideline, or to what degree they are below.

Despite these challenges, the pooled reference dataset for 2008 – 2012 provided insight into background conditions for the watershed. Selenium turned out to be one of two parameters (the other being copper) for which the reference condition was higher than the CCME guideline, and therefore a more appropriate benchmark for comparison.

Of all observations, only two were higher than the reference condition (Figure 3-44), leading to a low rate of results exceeding the benchmark. Also notable was the low variability in selenium concentrations over the entire record; results were generally at or near the MDL for all samples collected. None of the results obtained in 2014 exceeded the background condition in the downstream receiver on Lee Creek (BC-34), although all of the results were in excess of the CCME guideline (Figure 3-4).

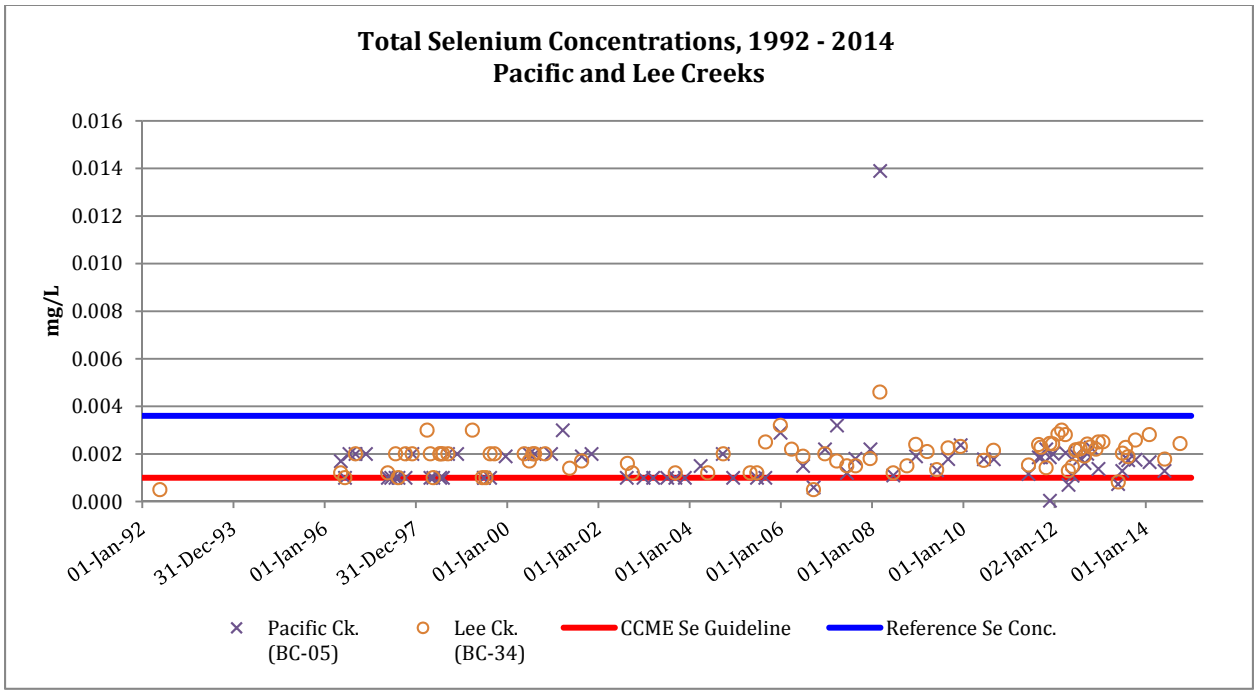


Figure 3-4 Total Selenium Concentrations, 1991 – 2014, Pacific and Lee Creeks

3.1.2.2 Observations: Antimony

Antimony results were not generally problematic with respect to high MDLs, except over one period at each station (BC-34: mid-2002 through mid-2005; BC-05: 2002 through mid-2005). In these cases, MDLs were higher than the reference concentration, but lower than the CCME guideline. Overall concentrations showed little variability from the 0.0003 mg/L reference benchmark, or between non-mining, mining, and D/R periods (Figure 3-55). The mean at both station BC-05 (Pacific Creek receiver) and BC-34 (Lee Creek receiver) was less than the CCME guideline by two orders of magnitude.

Notably, in Pacific Creek, antimony exhibited consistently higher results at the downstream receiver station than the reference benchmark, including during pre-mining (Figure 3-55). None of the results obtained in 2013 exceeded the Ontario PWQO for antimony in the downstream receiver on Lee Creek (BC-34).

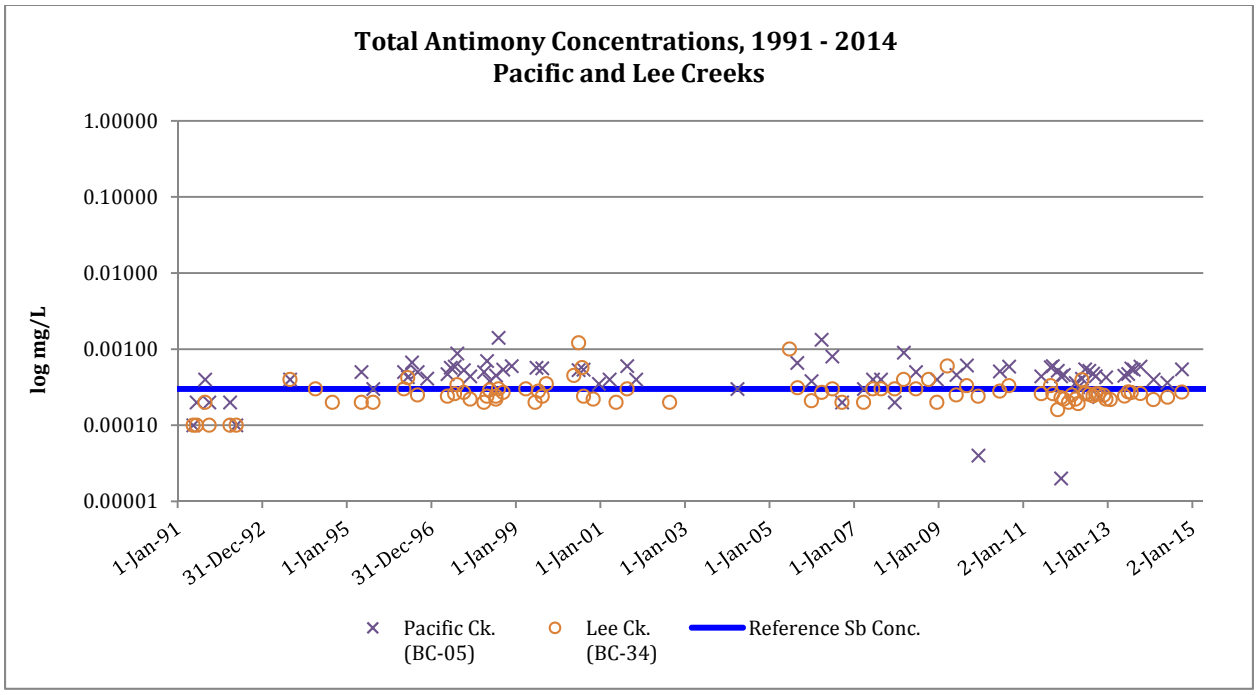


Figure 3-5 Total Antimony Concentrations, 1991 – 2014, Pacific and Lee Creeks

3.1.2.3 Observations: Arsenic

Arsenic exceeded background in >10% of samples in Pacific Creek during the mining and decommissioning and reclamation phases, and in Lee Creek during the decommissioning phase. It did not exceed reference in Pacific Creek on any occasions prior to mining. It was also primarily below reference in Lee Creek prior to mining, with rare exception (Figure 3-66). None of the results obtained in 2014 exceeded the CCME guideline for arsenic in the downstream receiver on Lee Creek (BC-34).

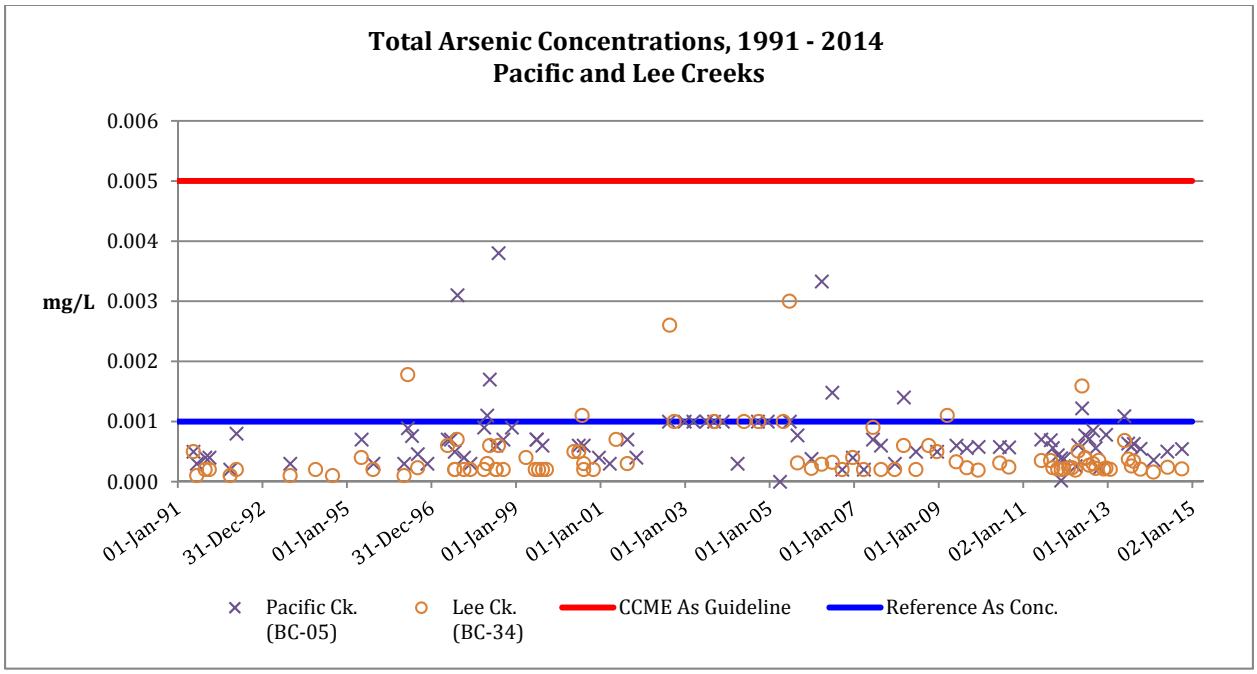


Figure 3-6 Total Arsenic Concentrations, 1991 – 2014, Pacific and Lee Creeks

3.1.2.4 Observations: Zinc, Copper and Lead

In Lee Creek, it was noted that zinc, copper and lead occasionally (>10% of the time) exceeded reference conditions. Zinc and copper (not lead) also occasionally (>10% of the time) exceeded the CCME guideline. However, these elements do not generally pose a threat in Lee Creek, as higher-than-reference concentrations occurred both prior to and after production activities began in 1996.

In Pacific Creek, lead exceeded the reference condition >10% of the time during pre-mining and mining conditions, but not during decommissioning and reclamation. Copper was found to exceed reference >10% of the time only during pre-mining conditions.

The pre-mine variability of zinc, copper and lead in Lee Creek, and of copper and lead in Pacific Creek above the reference condition indicate that these elements do not pose a risk to these watersheds as a result of mining. Moreover, the reference condition for both zinc and lead is *below* CCME guidelines.[2]

In 2014 copper, lead and zinc concentrations were all below their respective CCME guidelines.

[2] *The CCME guideline for copper and the reference condition are roughly equal.*

3.1.2.5 Observations: Nitrate (as Nitrogen)

Nitrate concentrations in Lee and Pacific Creeks were well below the CCME guideline (Figure 3-7) during pre-mine, mining and decommissioning and reclamation phases.

In 2004, a fire occurred at the Brewery Creek Mine primarily within the Laura and Carolyn Creek watersheds, but also affected the Lee and Pacific Creek watersheds to a lesser extent. Fire-caused changes in nutrient availability can have enormous effects on the downstream environment; in particular, fires have a great influence on nitrate nitrogen, as the availability of this nutrient increases following forest fires. The post-fire flush of inorganic nitrogen is not solely due to the physical breakdown of plant and animal tissues by fire; it is also a function of the enhanced activity of microbes in the warmer and more alkaline soil of a recently-burned forest.

Nitrate results in Pacific Creek, and to a lesser extent in Lee Creek, showed a minor spike in the years after the fire. Increased nutrient availability may be responsible for the high values observed in Pacific Creek in 2007 and 2008, and may be responsible for the increase in overall concentrations of nitrate on Lee Creek (Figure 3-77). None of the results obtained in 2014 exceeded the CCME guideline for nitrate in the downstream receiver on Lee Creek (BC-34).

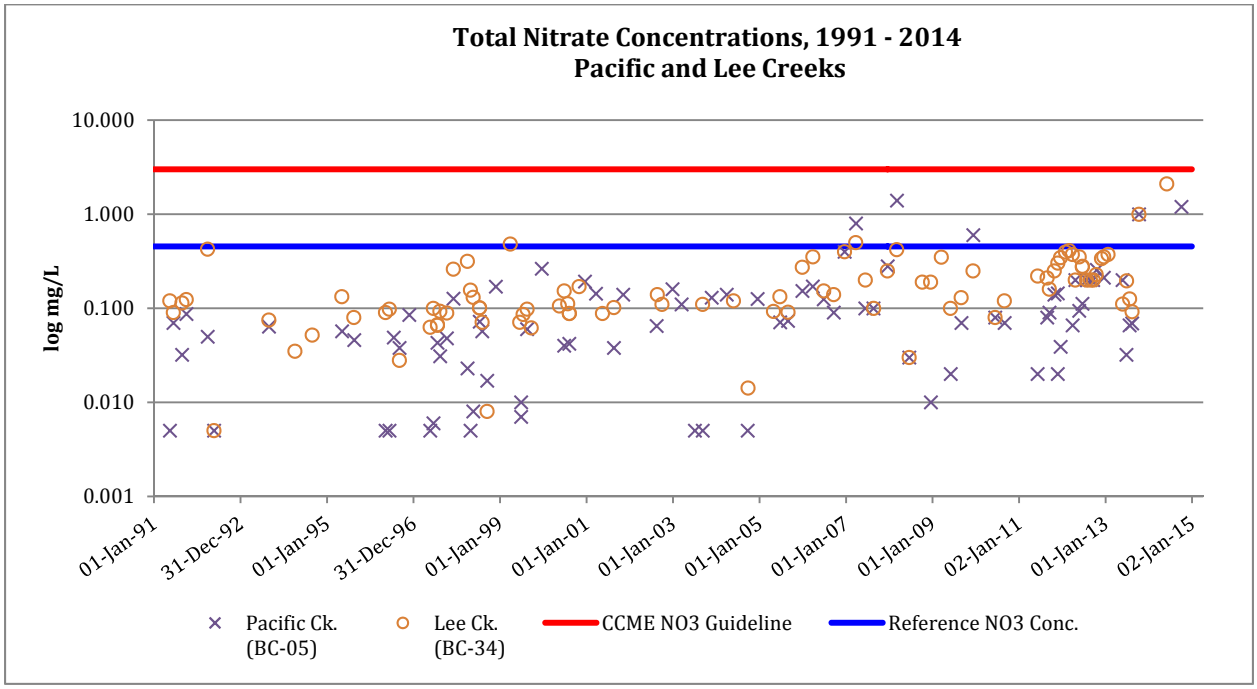


Figure 3-7 Nitrate as Nitrogen Concentrations, 1991 – 2014, Pacific and Lee Creeks

3.1.2.6 Conditions during Production and Decommissioning and Reclamation

Only one notable increase in metals content was noted in Pacific and Lee Creeks over the course of the mine life. Pacific Creek saw levels of arsenic above reference during mining and decommissioning and reclamation (>10% of samples), indicating that mining may have had an impact on arsenic concentrations. However, all arsenic samples obtained over the course of the mine life were well below the CCME guideline. Pacific Creek saw high levels of antimony (>50% exceeding reference) during all periods, indicating that the reference condition may not appropriately characterize antimony at this station. In Lee Creek, antimony, zinc, copper and lead concentrations were observed to exceed reference >10% of the time in all samples; however, this was found to be true during pre-mining conditions, and was not particular to mining or decommissioning and reclamation. Nitrate nitrogen exhibited values above the reference condition (but not CCME) in the years following the 2004 forest fire at Brewery Creek, indicating that the fire had a measurable effect on this parameter, and could also be influencing the results of other parameters.

The results of this study indicate that none of the parameters investigated in Lee Creek or Pacific Creek occur at concentrations which would lead to a designation as a contaminant of concern. In general, concentrations are below CCME guidelines and in cases where they exceed CCME, such variability is observed even during pre-mining conditions, indicating that mining activities have not had an adverse impact on receiving water quality. Moreover, observed concentrations were not elevated during either mining or decommissioning and reclamation relative to reference concentrations, with the exception of arsenic on Pacific Creek, leading to the conclusion that the impact to the Pacific Creek and Lee Creek receiving environments is negligible even relative to background (which is generally lower than CCME). Only arsenic in Pacific Creek was observed to have increased above reference.

No notable changes in water quality were observed in Pacific and Lee Creeks during 2014. In general, results were below CCME guidelines with the exception of selenium, a parameter that has not been observed at concentrations lower than CCME at any point in the mine's history.

3.1.3 Laura and Carolyn Creeks

Seven stations have been established on Laura and Carolyn Creek watersheds (Table 3-33). Six of these are located on Laura Creek, and one on Carolyn Creek. Monitoring of stations BC-01, BC-02 and BC-03 began in 1991, before the commencement of mining. As a result of impacts observed in the Lower portion of Laura Creek during mining and at the start of decommissioning and reclamation, a program was established to assess water quality in the Lower Laura Creek system. This program used additional stations established in the lower portion of the creek, including BC-37, BC-53 and BC-39 (Table 3-33). Only BC-39 has been analyzed in this assessment.

Table 3-3 Water Quality Monitoring Stations on Carolyn and Laura Creeks

Stations on Carolyn Creek and Laura Creek		Included in Assessment
BC-32	Laura Creek below Exploration Camp	No
BC-03	Laura Creek above confluence w/ Carolyn Creek	Yes
BC-01	Laura Creek 50m u/s Ditch Road	Yes

Stations on Carolyn Creek and Laura Creek		Included in Assessment
BC-37	Laura Creek @ Ditch Road	No
BC-53	Laura Creek 50m d/s Ditch Road	No
BC-39	Laura Creek in the side channel of South Klondike River	Yes
BC-02	Carolyn Creek before confluence with Laura Creek	Yes

3.1.3.1 Observations: Selenium

High MDLs for selenium complicated analysis of results obtained on Laura and Carolyn Creeks (as was the case for Lee and Pacific Creeks), especially prior to mining. However, higher results (>MDL) observed in Carolyn Creek after 2003 allowed analysis of selenium at least on that stream (Figure 3-88). On Laura Creek however, results were often at or near the detection limit, making interpretation of the results difficult.

Another factor related to the MDL that influenced interpretation of water quality was that the SSWQS established during the previous 1996 water licencing process was only slightly less than four times the typical MDL. A Practical Quantitative Limit (PQL) of five times the MDL is considered prudent in assessing water quality results, although a PQL of 3 times the MDL is sometimes used.

Carolyn Creek saw the greatest increase in selenium concentrations over the study period, reaching over 0.03 mg/L in August 2004, and nearly as high on several other occasions between 2005 and 2008, at which point concentrations decreased. During the decommissioning and reclamation phase at Brewery Creek, Carolyn Creek exceeded the SSWQO for selenium in 48% of samples, compared with only 6% during mining, and 14% prior to mining.

During the period between 2005 and 2008, upstream concentrations of selenium on Laura Creek were occasionally higher than the SSWQO, reaching 0.006 mg/L on one occasion at BC-01. These results drove values up in the downstream reaches of Laura Creek at BC-39 as well. In June 2007 during the spring freshet, BC-39 reached as high as the site-specific standard of 0.0038 mg/L. These higher concentrations however have abated more recently (since 2008).

Despite an observed increase in selenium concentrations on Laura Creek, results were rarely in excess of the SSWQO, and in no cases exceeded the standard >10% of the time at any station on Laura Creek (BC-01, BC-03 and BC-39). Nonetheless, selenium is regarded as a contaminant of concern within the Carolyn and Laura Creek watershed as a result of the observed high concentrations of selenium in Carolyn Creek relative to background conditions, and the earlier need to establish an SSWQO for this area.

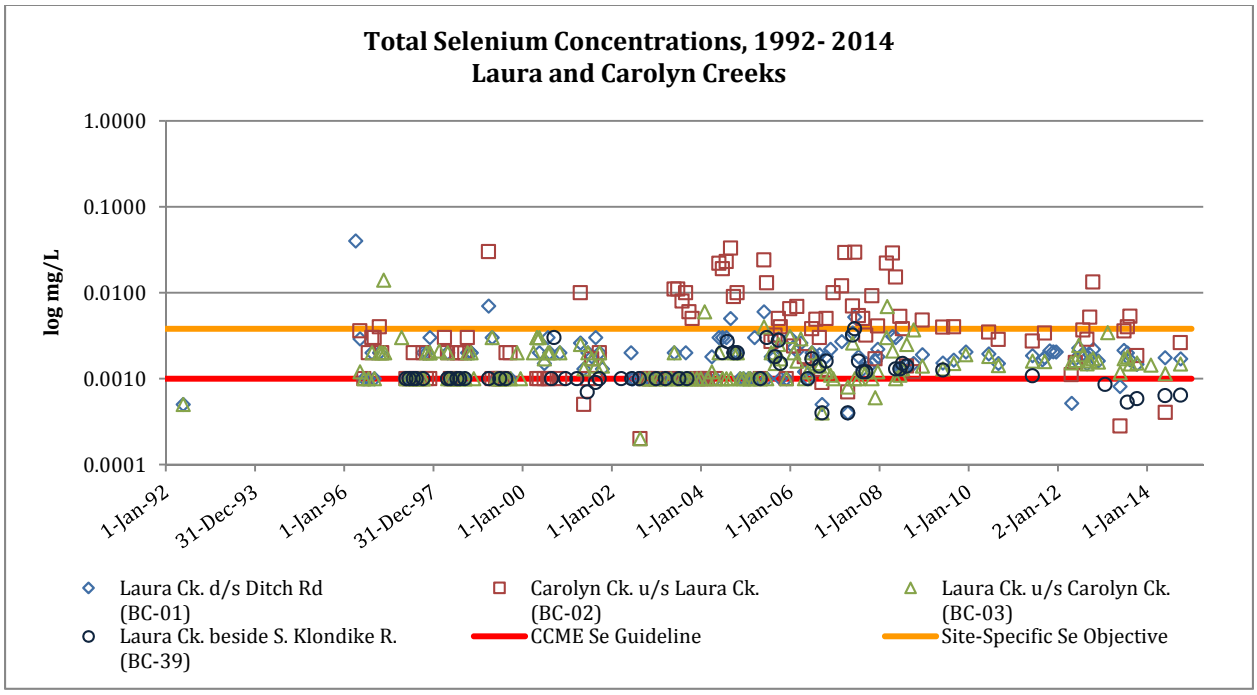


Figure 3-8 Total Selenium Concentrations, 1991 – 2014, Laura and Carolyn Creeks

3.1.3.2 Observations: Arsenic

Arsenic results were not affected by high MDLs. The results show that arsenic concentrations rose in the Laura and Carolyn Creek watersheds primarily *after* the start of mining; however, the limited background dataset for these sites makes comparison with background benchmarks tenuous[3].

Arsenic concentrations did not show a specific trend for any sites, but did exceed the CCME guideline in many of the samples at all four stations analyzed (Figure 3-99). At BC-01, arsenic exceeded the CCME guideline in >50% of results during production and decommissioning and reclamation, but only exceeded CCME 20% of the time prior to mining. At BC-02 and BC-03, arsenic was in excess of CCME >10% of the time both during production and decommissioning and reclamation, and exceeded CCME more commonly during mining and D/R than it did prior to mining. At BC-39, which is a compliance point with respect to CCME guidelines, arsenic exceeded the guideline 5% of the time during mining, and 13% of the time during decommissioning and reclamation.

[3] *A pooled reference dataset may produce a more robust background benchmark for the Laura Creek watershed.*

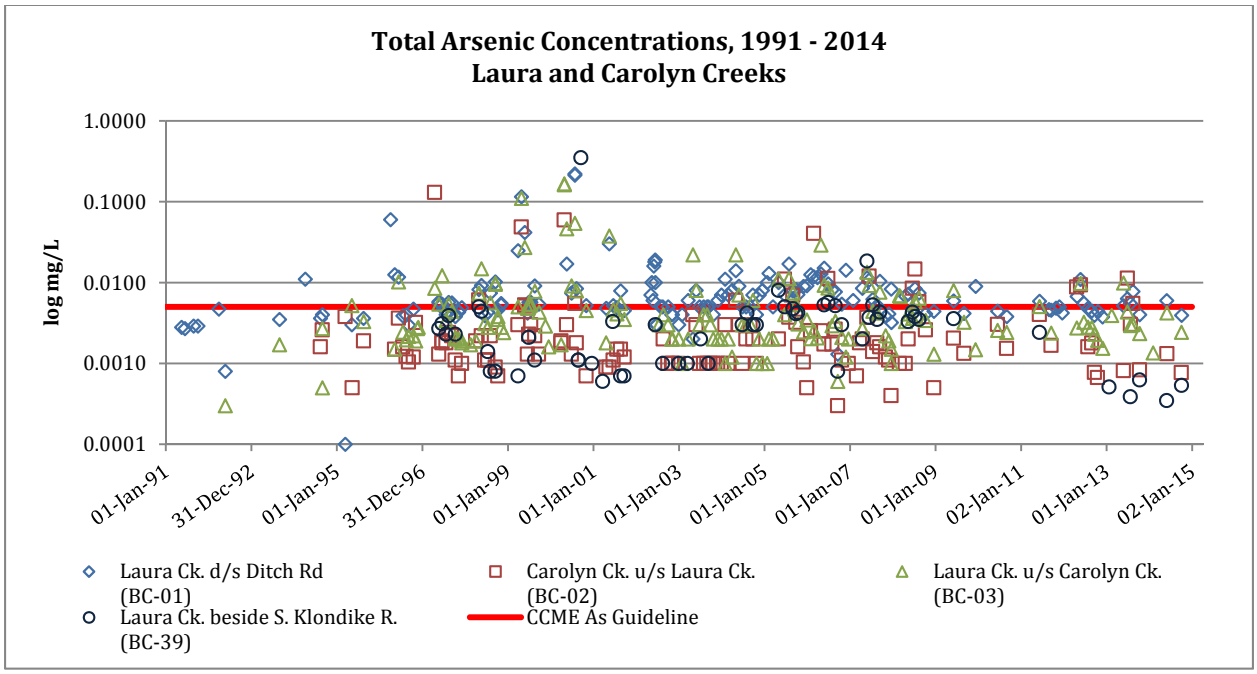


Figure 3-9 Total Arsenic Concentrations, 1991 – 2014, Laura and Carolyn Creeks

3.1.3.3 Observations: Zinc

Like arsenic, the zinc dataset was not impacted by high MDLs and zero values. Relative to the arsenic time series for these sites, zinc exceeded CCME with significantly lower frequency. At no site and during no period did zinc exceed the guideline in >50% of samples, although the guideline was exceeded >10% of the time in Laura Creek at station BC-03 during mining, and at Carolyn Creek during decommissioning and reclamation.

Although zinc values spiked somewhat during production, Figure 3-10 shows a bimodal distribution where zinc again peaks after 2005. The June 2004 fire in the Carolyn and Laura Creek watersheds may have increased the availability of soils containing some zinc for erosion into river waters. In the absence of dissolved zinc concentrations with which to compare the total zinc results, this concept cannot be confirmed or denied.

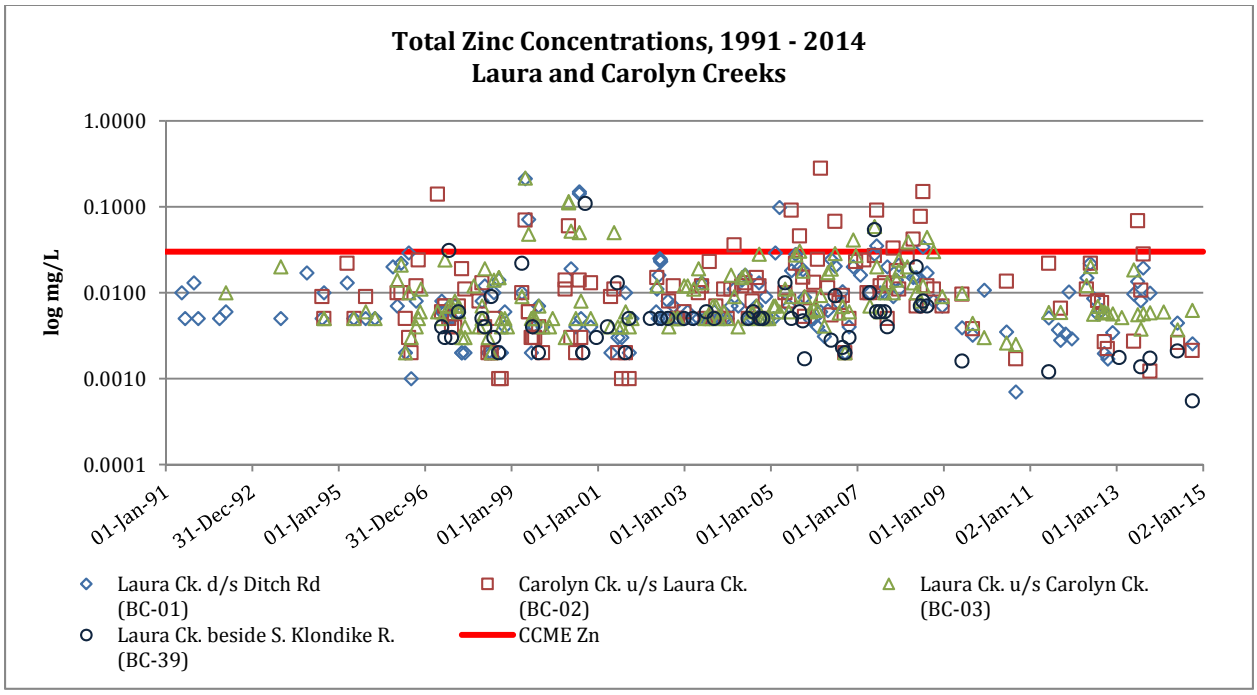


Figure 3-10 Total Zinc Concentrations, 1991 – 2014, Laura and Carolyn Creeks

3.1.3.4 Observations: Copper

Copper results show variation about the CCME guideline, but do not exhibit any specific trend (Figure 3-1111). All upstream stations (BC-01, BC-02 and BC-03) show copper results exceeding the CCME guideline >10% of the time during all phases (pre-mine, production, and decommissioning and reclamation).

Results indicate that copper is has not become a concern in the Laura Creek watershed as a result of mining.

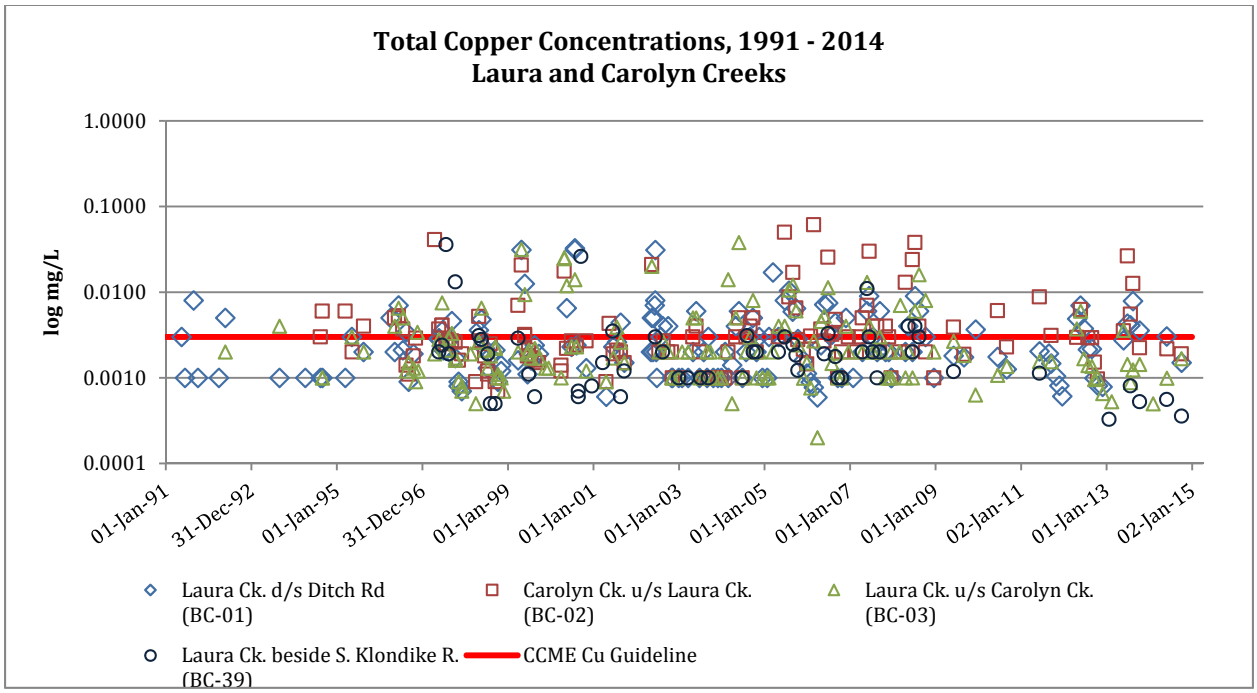


Figure 3-11 Total Copper Concentrations, 1991 – 2014, Laura and Carolyn Creeks

3.1.3.5 Observations: Total Suspended Solids

Results for total suspended solids (TSS) require a closer examination because this parameter often exhibits a seasonal pattern during high and low flow periods. On Figure 3-1212, all points occurring over the reference TSS value[4] of 33 mg/L occurred during the summer months, especially during May and June, at the spring freshet.

[4] *The reference TSS value for this dataset is a simple pooled mean calculation of all available data for Laura and Carolyn Creeks.*

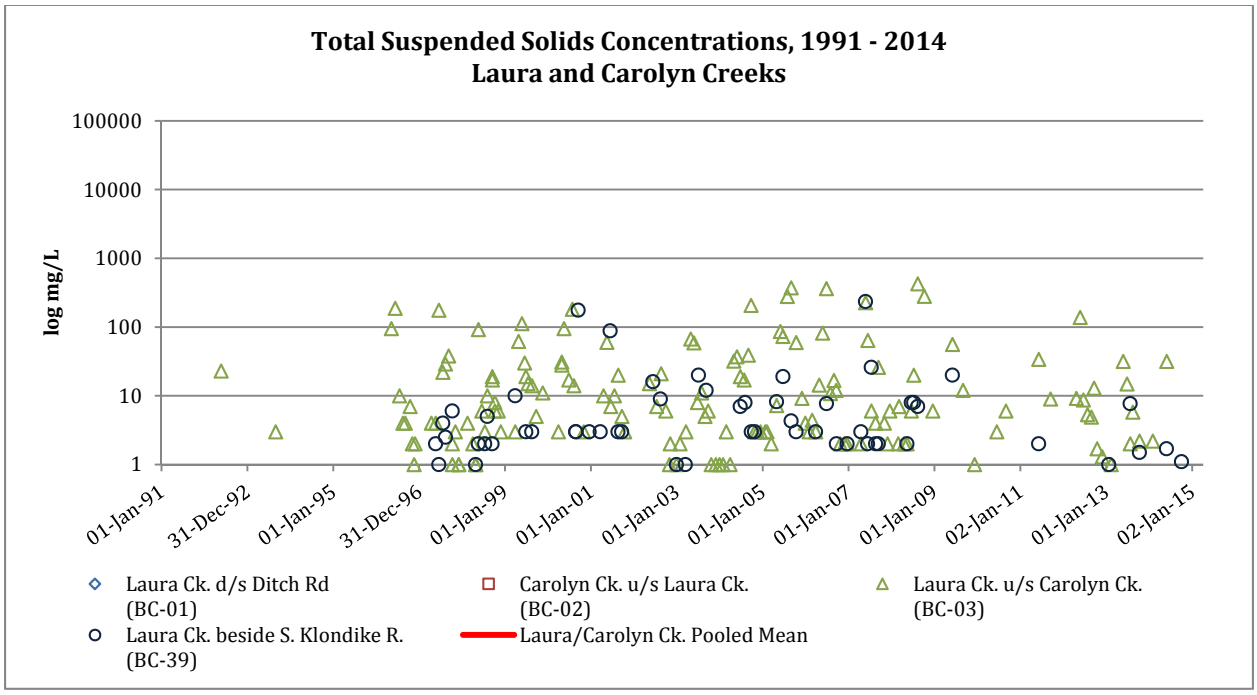


Figure 3-12 Total Suspended Solids Concentrations, 1991 – 2014, Laura and Carolyn Creeks

3.1.3.6 Observations: Nitrate

As mentioned in Section 3.1.2.5, in 2004 a fire occurred at the Brewery Creek Mine within the Laura and Carolyn Creek watersheds which likely had an impact on the amount of nitrate observed here. Perhaps more significant, however, was the release of detoxified heap solution in 2002 and 2003 to the Laura Creek watershed. These releases and later free-draining of the heap would have resulted in an increase in nitrate availability to the Carolyn and Laura Creek systems. Figure 3-133 shows just such an increase in Carolyn Creek, beginning in September 2002.

In 2002, the Laura and Carolyn Creek watersheds also saw the implementation of an evapo-transpiration cover over the Blue Waste Rock Storage Area and Heap Leach Pad, as a part of the decommissioning and closure effort. These covers require the application of fertilizers to facilitate plant growth. Fertilizers can have an impact on surface waters as nutrients dissolve into runoff and are carried into the downstream environment, and could be a source of nitrates here.

Nitrate concentrations rose starkly in Laura and Carolyn Creeks in the years following release of detoxified heap solution, implementation of the waste rock and heap leach covers, and the forest fire. Figure 3-133 shows that these watersheds are still absorbing the effects of increased nitrogen inputs, as evidenced by sustained high nitrate concentrations.

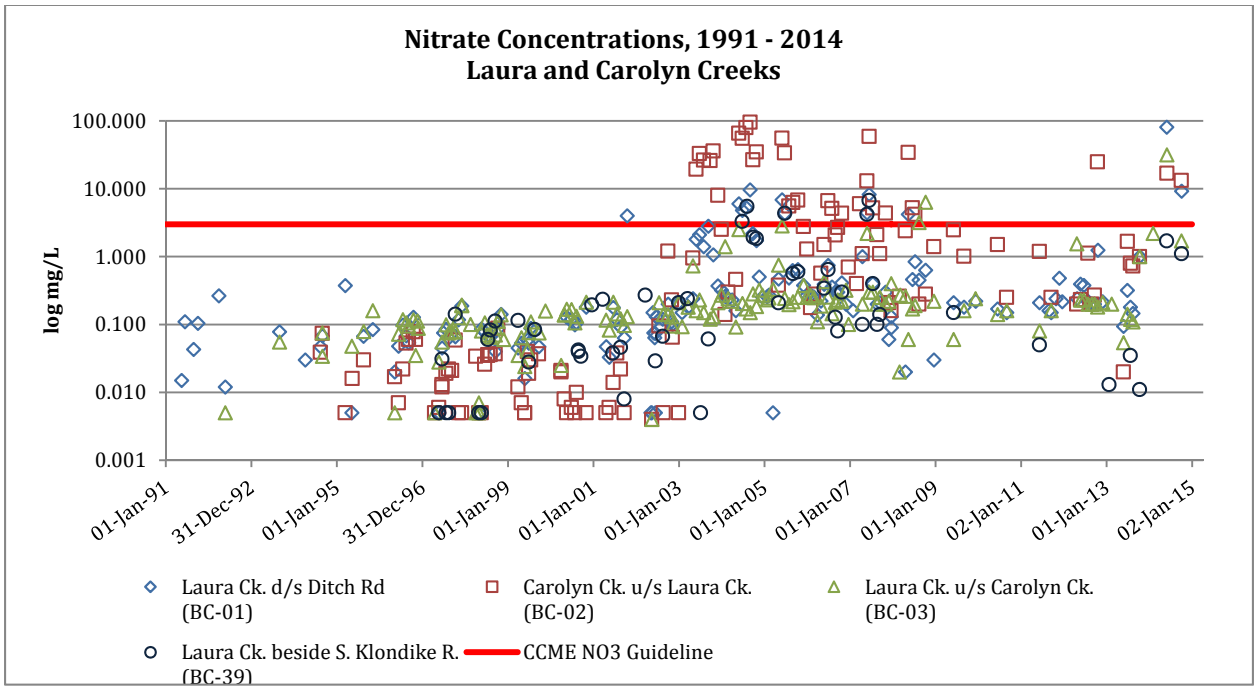


Figure 3-13 Nitrate as Nitrogen Concentrations, 1991 – 2014, Laura and Carolyn Creeks

3.1.3.7 Conditions during Production and Decommissioning and Reclamation

Of all parameters assessed for the production and decommissioning and reclamation periods, the most problematic appeared to be arsenic and nitrate, with selenium to a lesser extent, followed by zinc. The mechanisms causing the issues with each of these parameters differ in origin and spatial distribution.

Arsenic, as discussed, exceeded CCME at all sites and over most phases of mining and decommissioning and reclamation. Copper exceeded the CCME guideline in >10% of samples for all sites and during all periods, but was higher than the CCME guideline prior to the start of mining in 1996. Zinc did not generally pose a significant risk, and elevated values may be associated with environmental conditions caused by the 2004 fire. Nitrate concentrations were also elevated during decommissioning and reclamation as a result of the combined influences of released detoxified heap solution, implementation of the waste rock and heap leach covers, and the 2004 forest fire.

Selenium has an elevated SSWQO to reflect conditions associated with the natural mineralogy of the area and mining activities. Results have consistently met this objective at the compliance station BC-39.

Additional parameters antimony and lead are presented graphically in Appendix B for Laura and Carolyn Creeks.

3.1.4 South Klondike River

3.1.4.1 Observations

Datasets for the South Klondike River were affected to a considerable degree by data at or near the MDL, particularly for the early years of monitoring. Data collected from the South Klondike River generally tended to be lower than data collected elsewhere on the property for all parameters. While this drove the issues associated with MDL interference, the very fact that so many reportable results occurred below both CCME and reference reduced the concern associated with the data removal. It is likely for values less than problematic MDLs that these results were also below the guidelines, based on the data trends observed in the graphs contained in Appendix B.

No trends indicating increased concentration of parameters of concern have been observed in the South Klondike River as a result of mining activities at the Brewery Creek Mine during 1996 – 2000. Moreover, no appreciable effects have been observed during the significant period of decommissioning and reclamation activities at the mine from 2000 – 2014. However, nitrate has been steadily rising in the watershed as nutrient-rich runoff from the burn area of the forest fire makes its way into the South Klondike River.

3.2 GROUNDWATER QUALITY

Like surface water monitoring, groundwater monitoring at Brewery Creek has transitioned to the post-closure phase, which involves twice-annual monitoring of groundwater monitoring piezometers where conditions allow. These events are typically conducted during or shortly following freshet, in May or June, and again in September or October, during low-flow conditions. The amount of environmental monitoring at BC-19, BC-21, BC-22, BC-65 and BC-66 has reduced in frequency since closure of the heap has been accomplished and the drain down solutions treated. Similarly, since closure of the Blue Waste Rock Storage area has been achieved, monitoring at stations BC-67, BC-68 and BC-69 has been reduced. Piezometers located at stations BC-20, BC-23, BC-24, BC-25 and BC-26 were removed from license QZ96-007 in Amendment #8 and are therefore no longer required to be monitored.

3.2.1 Heap Pad Groundwater Monitoring

Monitoring at stations BC-19, BC-21 and BC-22 showed no sign of increasing or decreasing trends for most metals, total and WAD cyanide, nitrate or ammonia. Antimony levels appear to have decreased slightly in 2012 to 2014, but this trend will have to be confirmed with continued monitoring. At BC-21, arsenic levels appear to be slightly higher in 2012-2014 than the average for the decommissioning and reclamation period, but are not as high as during production. Data are presented graphically in Appendix C. Note that where results were below the MDL, half of the MDL was used in the graphs. Although WAD and total cyanide concentrations appear to be decreasing, this is an artefact of lower MDLs in the recent years.

3.2.2 Land Application Area Groundwater Monitoring

Monitoring at station BC-66 showed no sign of increasing or decreasing trends for most metals, total and WAD cyanide, nitrate or ammonia. Dissolved antimony and arsenic levels at BC-66 are lower in 2013 and 2014 than levels observed between 2008 and 2011. All results were in compliance with respect to Clause 43 of Water Licence QZ96- 007. BC-65 appears to be blocked or frozen and could not be sampled. Data are presented graphically in Appendix C.

3.2.3 Blue WRSA Groundwater Monitoring

Monitoring at stations BC-67and BC-69 showed no sign of increasing or decreasing trends for metals, total and WAD cyanide, nitrate or ammonia. Monitoring could not be carried out at Blue WRSA stations BC-68 and BC-70 during 2013. Attempts to sample these locations will continue in future years. Data are presented graphically in Appendix C.

3.3 IN-PIT WATER QUALITY

Mined out pits were used effectively as sediment control basins during operations and mine decommissioning. Snow melt and precipitation run-off is directed to the closest inactive pit. Pit samples are taken from surface standing water within each pit in 2014.

- BC-10: Kokanee Pit and Dump
- BC-12: Blue Pit
- BC-15: Moosehead Pit
- BC-16: Pacific Gulch
- BC-17: Golden Pit and Dump
- BC-18N: Lucky Pit and Dump (north side)
- BC-51W: Pacific Pit (west side)

BC-11 was not sampled in 2013 as it was found to contain no water at time of sampling.

The following points highlight pit water characteristics:

- Water that is contained in all pits either exfiltrates or evaporates.
- Neither the Pacific nor Blue Pits discharge to surface waters; water infiltrates through the pit bottoms.

- Although the Blue Pit (BC-12) exhibited relatively low pH values in 2012 (4.85 in June), pH values obtained during the 2014 sampling were close to neutral (ranging from 6.48 in June to 7.21 in October). These pH values are considerably higher than historic (mining) results in the Blue Pit and suggest pit chemistry is stable and not trending towards any ARD concerns. pH levels in Pacific Pit (BC-51W) however have been consistently low since 2008.

- Previous years' sampling in Moosehead (BC-15) showed higher levels of selenium. This trend reversed beginning in 2009, and selenium levels in Moosehead from 2009-2014 continued below 0.05 mg/L, with an average of 0.018 mg/L in 2014.

Overall, the results of pit water sampling indicate no upward trends from previous years.

3.4 HEAP EFFLUENT WATER QUALITY

In 2014, no samples were collected from the over flow pond, heap discharge pond, or the Biological Treatment Cell, as no water was discharged into the receiving environment via direct discharge or land application. As such, there were no samples to screen against standards provided in Water License QZ96-007 Clauses 42 and 44. Heap discharge was activated temporarily for samples to be collected, and then immediately discontinued following sample collection.

4 SUMMARY

- No contaminants of concern have been identified for Lucky, Golden, Lee and Pacific Creeks.
- Selenium concentrations in Laura and Carolyn Creeks rose several years after land application of the heap effluent. The land application system ceased operations in 2000, while concentrations of selenium in the environment began rising in Carolyn Creek in 2003, and in Laura Creek in 2004.
- The fire had a significant impact on some parameters in Laura and Carolyn Creeks. The fire also had an impact on at least nitrate nitrogen in Lee and Pacific Creeks, as well as slowly impacting the South Yukon River.
- Background concentrations exceeded CCME in some parameters (e.g. BC-34) which supports the need for site specific water quality objectives at some sites, rather than a blanket approach to regulation.
- The South Klondike River achieved CCME or better in 99% of samples collected over all three periods (pre-mining, production and D/R). No impacts have been observed in the river as a result of mining activities at the Brewery Creek Mine during 1996 – 2000. Moreover, no effects have been observed during the period of decommissioning and reclamation activities at the mine from 2000 – 2014.

5 REFERENCES

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APPENDIX A

2014 TABULAR DATA

Station Name			BC-01	BC-01	BC-02	BC-02	BC-02	BC-03	BC-03	BC-03	BC-04	BC-04	BC-04	BC-05
Station Description			Laura Creek, 50m u/s from Ditch Road	Laura Creek, 50m u/s from Ditch Road	Carolyn Creek, u/s from Laura Creek	Carolyn Creek, u/s from Laura Creek	Carolyn Creek, u/s from Laura Creek	Laura Creek, above confluence w/ Carolyn Creek	Laura Creek, above confluence w/ Carolyn Creek	Laura Creek, above confluence w/ Carolyn Creek	Lucky Creek d/s of Lucky Pit	Lucky Creek d/s of Lucky Pit	Lucky Creek d/s of Lucky Pit	Pacific Creek u/s from confluence w/ Lee Creek
Sample Date			29/05/2014	03/10/2014	01/02/2014	31/05/2014	01/10/2014	01/02/2014	30/05/2014	01/10/2014	01/02/2014	27/05/2014	03/10/2014	31/01/2014
	units	CCME												
Discharge (Flow)	L/s		90	118.8	0	0.0	7.8	<10	160	81.09	12.24	30	26.3	24.26
StaffGauge Reading/Water Level	m		0.431	0.659		0.046	0.0465							
pH (field)	pH units	6.5-9	8.23	7.9		7.33	7.08		7.83	7.58		7.67	7.59	
pH (lab)	pH units	6.5-9	7.92	8.04		7.35	7.86	7.86	8.07	8.11	7.9	7.96	8.1	7.95
Specific Conductivity (field)	µS/cm		434.6	408.2		314.6	396.1	730.6	404.7	427.3	877.8	537	533.5	958.4
Conductivity (lab)	µS/cm		437	448		316	438	754	418	475	901	597	629	974
Temperature (field)	C		0.5	-0.2		2.6	-0.2	-0.1	-0.1	-0.2	-0.1	1.1	0.3	-0.1
Hardness (from dissolved)	mg/L		220	237		146	223	397	206	253	498	321	342	558
Alkalinity, Total	mg/L		114	118		45.7	77.1	199	112	117	214	133	141	264
Total Dissolved Solids	mg/L		296	304		270	312	528	274	301	516	402	421	682
Total Suspended Solids	mg/L		80.7	9.2		16.9	13.2	2.2	31.6	1.7	56.9	27.5	25.4	<1.0
Chloride	mg/L	120	0.8	1.1		1.1	1.4	1.1	0.55	0.9	<0.50	0.56	0.95	0.82
Sulphate, Dissolved	mg/L		107	112		103	144	255	95.4	119	324	169	185	328
Ion Balance	N/A		1	1		1	1	0.88	1	1.1	0.91	1.1	1	0.93
Ammonia Total	mg/L	0.197	0.0085	0.012		0.098	0.036	0.019	0.011	0.011	0.022	0.016	0.022	0.0093
Nitrate, as N	mg/L	3	0.294	0.172		0.0358	0.209	0.144	0.0444	0.188	0.151	0.147	0.229	0.0518
Cyanide, Total	mg/L		0.00067	0.00059		0.0013	0.00115	0.00075	0.00075		0.00063	0.00051		0.00072
Cyanide, Weak Acid Dissociable	mg/L	0.005	0.00061	0.00086		0.00124	0.00111	0.00089	0.00069		0.00078	<0.00050		0.00083
Silver (Ag), Total	mg/L	0.0001	<0.0000050	<0.0000050		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Aluminum (Al), Total	mg/L	*	0.271	0.0919		0.107	0.155	0.00889	0.0542	0.0515	0.0106	0.098	0.17	0.00306
Arsenic (As), Total	mg/L	0.005	0.00597	0.00393		0.00132	0.00077	0.00135	0.00421	0.00243	0.00209	0.00421	0.00321	0.000362
Barium (Ba), Total	mg/L		0.0862	0.0624		0.0799	0.0819	0.0747	0.0526	0.0542	0.0784	0.0729	0.0845	0.0698
Beryllium (Be), Total	mg/L		0.000036	0.000014		0.000025	0.00003	<0.000010	0.000022	0.000039	<0.000010	0.000012	0.000025	<0.000010
Bismuth (Bi), Total	mg/L		<0.0000050	<0.0000050		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Boron (B), Total	mg/L	1.5	<0.050	<0.020		<0.050	<0.020	<0.050	<0.050	<0.020	<0.050	<0.050	<0.020	<0.050
Calcium (Ca), Total	mg/L		54.3	60		31.4	55.1	96.7	52	63.8	123	75.9	87.4	133
Cadmium (Cd), Total	mg/L	*	0.000085	0.000036		0.000025	0.000025	0.000065	0.000071	0.00005	0.000207	0.000153	0.000169	0.000097
Cobalt (Co), Total	mg/L		0.00114	0.000383		0.00109	0.00163	0.000398	0.000379	0.000538	0.00386	0.00161	0.00152	0.000022
Chromium (Cr), Total	mg/L	0.001	0.00046	0.00032		0.00043	0.00051	<0.00010	<0.00010	0.00021	<0.00010	0.00021	0.0004	<0.00010
Copper (Cu), Total	mg/L	*	0.00304	0.0015		0.00217	0.0019	0.000497	0.000988	0.00167	0.000321	0.00115	0.00144	0.00139
Iron (Fe), Total	mg/L	0.3	0.62	0.246		1.11	0.721	0.122	0.306	0.18	0.407	0.731	0.763	0.0098
Mercury (Hg), Total	mg/L	0.000026	<0.0000020	<0.0000020		0.0000105	<0.0000020	<0.0000020	0.0000022	<0.0000020	<0.0000020	0.000003	<0.0000020	0.0000032
Potassium (K), Total	mg/L		1.3	1.19		0.605	0.845	1.91	1.37	1.34	1.8	1.48	1.49	1.32
Lithium (Li), Total	mg/L		0.00812	0.00952		0.00334	0.00719	0.0188	0.00801	0.0117	0.011	0.00727	0.00882	0.0072
Magnesium (Mg), Total	mg/L		21.1	22.2		16.4	22.3	38.6	19.6	23.3	52.2	32.3	36.8	53.6
Manganese (Mn), Total	mg/L		0.0882	0.0466		0.31	0.128	0.119	0.0803	0.0528	0.25	0.134	0.131	0.0119
Molybdenum (Mo), Total	mg/L	0.073	0.00266	0.00203		0.000348	0.000337	0.00208	0.00223	0.00184	0.00443	0.00251	0.00216	0.00229
Sodium (Na), Total	mg/L		3.52	3.9		4.37	6.3	4.64	2.19	3.48	2.09	1.93	2.58	3.13
Nickel (Ni), Total	mg/L	*	0.0028	0.00261		0.00233	0.00257	0.00328	0.00243	0.00496	0.0173	0.00806	0.00755	0.0016
Lead (Pb), Total	mg/L	*	0.000631	0.000105		0.000224	0.000158	0.000021	0.000162	0.000033	0.000043	0.000279	0.000345	<0.0000050
Phosphorous (p), Total	mg/L		0.0471	0.0187		0.028	0.0224	0.005	0.0193	0.0073	0.0064	0.0262	0.0303	0.0123
Antimony (Sb), Total	mg/L		0.00309	0.00331		0.000473	0.000567	0.00403	0.00405	0.00401	0.00332	0.00307	0.00375	0.0004
Selenium (Se), Total	mg/L	0.001	0.00175	0.0017		0.000404	0.00262	0.00144	0.00114	0.00148	0.00419	0.00333	0.00321	0.00166
Silicon (Si), Total	mg/L		4.39	5.53		3.6	6.67	4.95	3	5.12	3.78	2.88	4.11	4.46
Tin (Sn), Total	mg/L		<0.00020	<0.00020		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Strontium (Sr), Total	mg/L		0.268	0.278		0.106	0.154	0.534	0.272	0.3	0.704	0.462	0.492	0.547
Sulphur (S), Total	mg/L		38.7	47.6		37.5	54.1	70.4	35	46.6	102	64	78.5	102
Titanium (Ti), Total	mg/L		0.00945	0.00227		0.00285	0.00289	<0.00050	0.00113	0.00064	<0.00050	0.00389	0.00551	<0.00050
Thallium (Tl), Total	mg/L	0.0008	0.000002	0.000002		<0.0000020	<0.0000020	0.000004	0.000002	0.000002	0.000008	0.000009	0.000009	0.000004
Uranium (U), Total	mg/L	0.015	0.00253	0.0016		0.000393	0.000717	0.00315	0.00206	0.00138	0.00614	0.00394	0.00324	0.00535
Vanadium (V), Total	mg/L		0.00213	0.00097		0.00117	0.00104	<0.00020	0.0007	0.00039	0.00053	0.00164	0.00203	0.00074
Zinc (Zn), Total	mg/L	0.03	0.00444	0.00254		0.00263	0.00212	0.00596	0.0037	0.00623	0.0304	0.0138	0.0148	0.00504
Zirconium (Zr), Total	mg/L		0.00024	0.00025		0.00065	0.00085	<0.00010	<0.00010	0.00028	<0.00010	0.00011	0.00019	0.0001

CCME: Water quality results are compared with CCEM guidelines for freshwater aquatic life. Results exceeding the guideline are shown in red; parameters which have detection limits above the guideline are also flagged as an exceedance;
*The * indicates the guideline is calculated based on pH (Al) or hardness (Cd, Cu, Pb, Ni).*

Station Name			BC-05	BC-05	BC-06	BC-06	BC-06	BC-10	BC-10	BC-12	BC-12	BC-15	BC-15
Station Description			Pacific Creek u/s from confluence w/ Lee Creek	Pacific Creek u/s from confluence w/ Lee Creek	South Klondike R. d/s from confluence w/ Lee Creek	South Klondike R. d/s from confluence w/ Lee Creek	South Klondike R. d/s from confluence w/ Lee Creek	Kokanee Pit and Dump	Kokanee Pit and Dump	Blue Pit	Blue Pit	Moosehead Pit discharge	Moosehead Pit discharge
Sample Date			30/05/2014	03/10/2014	31/01/2014	29/05/2014	03/10/2014	28/05/2014	04/10/2014	01/06/2014	04/10/2014	01/06/2014	04/10/2014
	units	CCME											
Discharge (Flow)	L/s		90	142									
StaffGauge Reading/Water Level	m		0.212	0.258									
pH (field)	pH units	6.5-9	7.92	7.79		7.83	7.38	8.44	7.98	6.48	7.21	8.01	7.92
pH (lab)	pH units	6.5-9	8.2	7.97	7.9	7.97	8.04	7.95	7.99	7.31	7.43	7.95	8.03
Specific Conductivity (field)	µS/cm		513.6	431.5	456	254.8	265.1	236.6	402.5	1204	775	612.4	866.4
Conductivity (lab)	µS/cm		511	479	484	259	293	232	447	1340	952	630	978
Temperature (field)	C		0.3	-0.1	0.2	7.3	1.7	11.3	1.7	11	4.6	10.2	1
Hardness (from dissolved)	mg/L		261	265	242	128	149	109	236	767	565	315	540
Alkalinity, Total	mg/L		136	125	131	74.4	84.4	67.7	128	124	160	81.1	116
Total Dissolved Solids	mg/L		354	362	360	176	168	156	298	1160	1170	436	755
Total Suspended Solids	mg/L		<1.0	1.2	2.2	2.4	<1.0	13.4	<1.0	5.9	6	<1.0	8.8
Chloride	mg/L	120	2.7	1	0.56	<0.50	0.67	0.93		0.97		<0.50	
Sulphate, Dissolved	mg/L		131	121	126	49.9	61.2	47.4	110	647	337	212	414
Ion Balance	N/A		0.96	1.1	0.94	1	1	0.95		0.98		1.2	
Ammonia Total	mg/L	0.197	0.012	0.012	0.0057	0.0083	0.0076	0.0079	0.008	0.018	0.046	<0.0050	0.0083
Nitrate, as N	mg/L	3	0.0063	0.0826	0.268	0.104	0.0841	<0.0020	<0.0020	0.0169	<0.0020	<0.0020	0.0113
Cyanide, Total	mg/L		0.00073		0.00061	0.00068	<0.00050	<0.00050		<0.00050		<0.00050	
Cyanide, Weak Acid Dissociable	mg/L	0.005	0.0007		0.00052	0.00061	<0.00050	<0.00050		<0.00050		<0.00050	
Silver (Ag), Total	mg/L	0.0001	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.000019	<0.0000050	<0.000025	<0.000025	<0.0000050	0.000007
Aluminum (Al), Total	mg/L	*	0.0152	0.0319	0.00135	0.0134	0.00626	0.0261	0.0106	0.0719	0.128	0.0133	0.0465
Arsenic (As), Total	mg/L	0.005	0.000503	0.000544	0.000254	0.000604	0.000541	0.0136	0.0201	0.248	1.23	0.045	0.0524
Barium (Ba), Total	mg/L		0.0524	0.0572	0.0544	0.053	0.0548	0.163	0.107	0.0177	0.0128	0.0416	0.0515
Beryllium (Be), Total	mg/L		<0.000010	0.000013	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	0.000209	0.000089	<0.000010	0.000019
Bismuth (Bi), Total	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.000025	<0.000025	<0.0000050	<0.0000050
Boron (B), Total	mg/L	1.5	<0.050	<0.020	<0.050	<0.050	<0.020	<0.050	<0.020	<0.25	<0.10	<0.050	<0.020
Calcium (Ca), Total	mg/L		66.5	66.2	63.2	33.2	42.6	28.1	61.3	202	136	72.8	132
Cadmium (Cd), Total	mg/L	*	0.000051	0.000056	0.000065	0.000025	0.000039	0.000076	0.000021	0.00118	0.000226	0.000019	0.000047
Cobalt (Co), Total	mg/L		0.000091	0.000079	0.000015	0.000024	0.000038	0.000121	0.000027	0.035	0.00924	0.000021	0.000082
Chromium (Cr), Total	mg/L	0.001	<0.00010	0.0002	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00050	<0.00050	<0.00010	0.00016
Copper (Cu), Total	mg/L	*	0.000865	0.00168	0.000564	0.000652	0.000549	0.00118	0.000406	0.00088	0.00227	0.000142	0.000519
Iron (Fe), Total	mg/L	0.3	0.0521	0.125	0.0056	0.0216	0.0273	0.0382	0.0134	2.81	4.22	0.0018	0.0539
Mercury (Hg), Total	mg/L	0.000026	0.0000025	0.0000024	<0.0000020	<0.0000020	<0.0000020	0.0000185	0.000004	0.0000079	0.0000187	0.0000092	0.0000041
Potassium (K), Total	mg/L		0.933	0.681	0.721	0.499	0.494	2.17	1.76	3.03	1.93	0.664	1.03
Lithium (Li), Total	mg/L		0.00395	0.004	0.00291	0.00189	0.00212	0.00138	0.00262	0.0076	0.005	0.00095	0.00136
Magnesium (Mg), Total	mg/L		24.8	24.5	22.9	10.2	12.2	10.8	23.2	72.5	52.3	35.4	63.3
Manganese (Mn), Total	mg/L		0.0204	0.0127	0.00153	0.00413	0.00647	0.0159	0.00887	2.29	0.639	0.00111	0.00894
Molybdenum (Mo), Total	mg/L	0.073	0.00282	0.00225	0.00112	0.000469	0.000507	0.00255	0.00358	0.00446	0.0181	0.000766	0.000821
Sodium (Na), Total	mg/L		1.35	1.79	2.49	2.03	2.27	0.396	0.692	1.39	1.39	0.259	0.479
Nickel (Ni), Total	mg/L	*	0.00321	0.00402	0.00118	0.000626	0.000859	0.00135	0.000506	0.103	0.031	0.00065	0.000896
Lead (Pb), Total	mg/L	*	0.000012	0.000016	0.00001	0.000029	0.00001	0.000275	0.000032	0.000032	<0.000025	0.000021	0.0002
Phosphorous (p), Total	mg/L		0.0097	0.0098	0.0076	0.0028	<0.0020	0.0188	0.0042	<0.010	<0.010	<0.0020	0.0039
Antimony (Sb), Total	mg/L		0.000362	0.000545	0.000196	0.000169	0.000172	0.06	0.138	0.126	0.302	0.00325	0.00441
Selenium (Se), Total	mg/L	0.001	0.00129	0.00192	0.00194	0.000574	0.000645	0.00269	0.00486	0.00034	0.00022	0.0148	0.0203
Silicon (Si), Total	mg/L		2.76	4.39	3.29	2.34	2.99	1.64	2.19	5.01	6.16	1.34	2.05
Tin (Sn), Total	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.0010	<0.0010	<0.00020	<0.00020
Strontium (Sr), Total	mg/L		0.259	0.24	0.288	0.216	0.229	0.226	0.48	1.32	0.747	0.673	1.14
Sulphur (S), Total	mg/L		45.2	42.7	41.8	18.4	23	17.2	36	239	130	85.6	161
Titanium (Ti), Total	mg/L		<0.00050	0.00066	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.0025	<0.0025	0.00086	<0.00050
Thallium (Tl), Total	mg/L	0.0008	<0.0000020	0.000002	0.000002	<0.0000020	<0.0000020	0.000049	0.000064	0.000106	0.000035	0.000025	0.000038
Uranium (U), Total	mg/L	0.015	0.00274	0.00151	0.00187	0.000738	0.00072	0.00306	0.00813	0.00552	0.00726	0.00199	0.00373
Vanadium (V), Total	mg/L		0.00099	0.0009	0.00042	<0.00020	<0.00020	0.00023	<0.00020	<0.0010	<0.0010	<0.00020	0.00031
Zinc (Zn), Total	mg/L	0.03	0.00633	0.0143	0.00479	0.00137	0.00298	0.00461	0.00033	0.18	0.0418	0.00055	0.00067
Zirconium (Zr), Total	mg/L		<0.00010	0.00023	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00050	<0.00050	<0.00010	<0.00010

CCME: Water quality results are compared with CCEM guidelines for freshwater aquatic life. Results exceeding the guideline are shown in red; parameters which have detection limits above the guideline are also flagged as an exceedance;
*The * indicates the guideline is calculated based on pH (Al) or hardness (Cd, Cu, Pb, Ni).*

Station Name			BC-16	BC-17	BC-17	BC-18N	BC-31	BC-31	BC-34	BC-34	BC-34	BC-37	BC-39
Station Description			Pacific Gulch	Golden Pit and Dump	Golden Pit and Dump	Lucky Pit and Dump - north end	Golden Creek above confluence w/ South Klondike R.	Golden Creek above confluence w/ South Klondike R.	Lee Creek at Ditch Road	Lee Creek at Ditch Road	Lee Creek at Ditch Road	Laura Creek at Ditch Road	Laura Creek in side channel of South Klondike R.
Sample Date			04/10/2014	27/05/2014	04/10/2014	03/10/2014	29/05/2014	03/10/2014	30/01/2014	02/06/2014	03/10/2014	29/05/2014	29/05/2014
	units	CCME											
Discharge (Flow)	L/s		0	15	<1	0	280	662.5	483.93	1510	1865.6	90	
StaffGauge Reading/Water Level	m						0.304	0.5					
pH (field)	pH units	6.5-9		7.85	7.59		8.2	8.03		8.07	7.99	8.06	7.6
pH (lab)	pH units	6.5-9		8.03	8.11		8.14	8.18	8	8.15	8.09	8.01	7.88
Specific Conductivity (field)	µS/cm			347.8	354.7		554.8	463	644.9	463.2	438	422.8	296.1
Conductivity (lab)	µS/cm			353	395		562	511	664	472	483	428	294
Temperature (field)	C			9.8	1.4		3.3	-0.1	-0.1	4	0.8	0.2	3.2
Hardness (from dissolved)	mg/L			176	202		289	275	359	243	256	211	142
Alkalinity, Total	mg/L			115	125		152	144	166	123	129	113	81.9
Total Dissolved Solids	mg/L			230	260		374	364	378	330	421	286	192
Total Suspended Solids	mg/L			1	<1.0		1.4	4	<1.0	2.1	<1.0	35.3	1.7
Chloride	mg/L	120		0.88			0.64		<0.50	<0.50		0.79	<0.50
Sulphate, Dissolved	mg/L			60.2	75.8		143	122	192	122	123	103	62.9
Ion Balance	N/A			0.98			0.97		0.99	0.99		0.99	1
Ammonia Total	mg/L	0.197		0.011	0.0057		0.0085	0.01	0.015	0.0075	0.014	0.014	0.0067
Nitrate, as N	mg/L	3		1.16	1.58		0.143	0.286	0.371	0.0698	0.166	0.262	0.104
Cyanide, Total	mg/L			<0.00050			0.00054		0.00057	0.00068		0.00075	<0.00050
Cyanide, Weak Acid Dissociable	mg/L	0.005		<0.00050			0.0006		0.00065	0.00068		0.00069	<0.00050
Silver (Ag), Total	mg/L	0.0001		<0.0000050	<0.0000050		0.000008	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Aluminum (Al), Total	mg/L	*		0.00335	0.00099		0.0149	0.0299	0.00271	0.0309	0.00319	0.128	0.00284
Arsenic (As), Total	mg/L	0.005		0.0547	0.0587		0.000682	0.000606	0.000159	0.000238	0.000212	0.00479	0.000347
Barium (Ba), Total	mg/L			0.0892	0.0954		0.0574	0.058	0.0523	0.0436	0.0427	0.0701	0.0768
Beryllium (Be), Total	mg/L			<0.000010	<0.000010		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	0.00002	<0.000010
Bismuth (Bi), Total	mg/L			<0.0000050	<0.0000050		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Boron (B), Total	mg/L	1.5		<0.050	<0.020		<0.050	<0.020	<0.050	<0.050	<0.020	<0.050	<0.050
Calcium (Ca), Total	mg/L			48	62.9		68.9	68.9	88.8	60.4	67.1	53.6	39
Cadmium (Cd), Total	mg/L	*		0.000021	0.000028		0.000038	0.000056	0.000109	0.000072	0.000021	0.000059	0.000031
Cobalt (Co), Total	mg/L			0.000017	0.000009		0.000075	0.000096	0.000031	0.00005	0.000036	0.000818	0.000078
Chromium (Cr), Total	mg/L	0.001		0.00012	0.00015		<0.00010	0.0001	<0.00010	<0.00010	<0.00010	0.00024	<0.00010
Copper (Cu), Total	mg/L	*		0.000325	0.000133		0.00101	0.00157	0.00082	0.00155	0.00115	0.00209	0.000558
Iron (Fe), Total	mg/L	0.3		0.0046	0.0029		0.0533	0.107	0.011	0.0432	0.0212	0.385	0.0092
Mercury (Hg), Total	mg/L	0.000026		0.0000059	0.0000022		0.0000021	0.0000025	0.0000134	0.0000028	<0.0000020	<0.0000020	<0.0000020
Potassium (K), Total	mg/L			1	0.796		1.06	0.872	0.781	0.762	0.703	1.26	0.596
Lithium (Li), Total	mg/L			0.0025	0.00253		0.0052	0.00499	0.00319	0.00231	0.00245	0.00768	0.00141
Magnesium (Mg), Total	mg/L			15	16.8		30.9	27.6	34.9	22.7	24.4	20.2	11.2
Manganese (Mn), Total	mg/L			0.000602	0.000424		0.0101	0.0148	0.0101	0.00787	0.00561	0.0592	0.000473
Molybdenum (Mo), Total	mg/L	0.073		0.00969	0.00829		0.00157	0.00133	0.0014	0.00142	0.00187	0.00279	0.000679
Sodium (Na), Total	mg/L			1.23	1.25		2.07	2.01	1.89	1.48	1.52	3.45	2.36
Nickel (Ni), Total	mg/L	*		0.0022	0.0019		0.00183	0.00225	0.00206	0.00212	0.00189	0.00209	0.000579
Lead (Pb), Total	mg/L	*		0.000015	0.000009		0.000035	0.000054	0.000005	0.000043	<0.0000050	0.000304	0.00001
Phosphorous (p), Total	mg/L			0.0131	0.004		0.0044	0.0063	0.0077	0.0043	<0.0020	0.0247	<0.0020
Antimony (Sb), Total	mg/L			0.324	0.292		0.000635	0.000633	0.000217	0.000233	0.000272	0.00319	0.000384
Selenium (Se), Total	mg/L	0.001		0.00833	0.00977		0.00174	0.00202	0.00281	0.00178	0.00243	0.00159	0.000635
Silicon (Si), Total	mg/L			3.52	4.87		3.25	4.03	3.44	2.81	3.37	3.96	2.88
Tin (Sn), Total	mg/L			<0.00020	<0.00020		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Strontium (Sr), Total	mg/L			0.277	0.288		0.343	0.321	0.36	0.252	0.263	0.258	0.228
Sulphur (S), Total	mg/L			21.2	25.5		52.6	43.3	65.9	42.1	44.1	36.5	24
Titanium (Ti), Total	mg/L			<0.00050	<0.00050		<0.00050	0.00051	<0.00050	<0.00050	<0.00050	0.00503	<0.00050
Thallium (Tl), Total	mg/L	0.0008		0.000069	0.000063		0.000003	0.000003	0.000003	0.000002	0.000002	0.000002	<0.0000020
Uranium (U), Total	mg/L	0.015		0.00577	0.00615		0.00341	0.00231	0.00288	0.00174	0.00189	0.0024	0.000793
Vanadium (V), Total	mg/L			0.00032	<0.00020		0.00071	0.00064	0.00064	0.00076	0.00064	0.00143	<0.00020
Zinc (Zn), Total	mg/L	0.03		0.00536	0.0156		0.00295	0.00472	0.00966	0.00731	0.00272	0.0037	0.0021
Zirconium (Zr), Total	mg/L			<0.00010	<0.00010		<0.00010	0.00015	<0.00010	<0.00010	0.00017	0.00015	<0.00010

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Station Name			BC-39	BC-51W	BC-51W	BC-53	BC-53
Station Description			Laura Creek in side channel of South Klondike R.	Pacific Pit - west side	Pacific Pit - west side	Lower Laura Creek 50m d/s of Ditch Road	Lower Laura Creek 50m d/s of Ditch Road
Sample Date			03/10/2014	01/06/2014	04/10/2014	29/05/2014	03/10/2014
	units	CCME					
Discharge (Flow)	L/s		<1				108.6
StaffGauge Reading/Water Level	m						
pH (field)	pH units	6.5-9	7.01	4.96	3.38	8.08	7.91
pH (lab)	pH units	6.5-9	7.7	5.24	3.57	8.02	8.12
Specific Conductivity (field)	µS/cm		273.2	203.3	707	422.3	403.8
Conductivity (lab)	µS/cm		302	206	745	427	445
Temperature (field)	C		2.4	12.4	2.3	0.6	-0.2
Hardness (from dissolved)	mg/L		152	78.1	263	210	235
Alkalinity, Total	mg/L		87.9	<0.50	<0.50	113	118
Total Dissolved Solids	mg/L		146	132	492	276	314
Total Suspended Solids	mg/L		1.1	33.2	1.9	43.3	2.2
Chloride	mg/L	120		1.5		0.79	1.1
Sulphate, Dissolved	mg/L		63.2	81.7	270	103	110
Ion Balance	N/A			1		0.98	1
Ammonia Total	mg/L	0.197	0.0096	<0.0050	0.0065	0.012	0.012
Nitrate, as N	mg/L	3	0.132	<0.0020	<0.0020	0.263	0.164
Cyanide, Total	mg/L			0.00064		0.00055	<0.00050
Cyanide, Weak Acid Dissociable	mg/L	0.005		0.00071		0.00059	<0.00050
Silver (Ag), Total	mg/L	0.0001	<0.0000050	0.00002	0.000008	0.000005	<0.0000050
Aluminum (Al), Total	mg/L	*	0.00195	1.07	5.66	0.204	0.0249
Arsenic (As), Total	mg/L	0.005	0.000535	0.0132	0.0106	0.00526	0.00342
Barium (Ba), Total	mg/L		0.0766	0.0848	0.0322	0.0779	0.0572
Beryllium (Be), Total	mg/L		<0.000010	0.00262	0.0128	0.000031	<0.000010
Bismuth (Bi), Total	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Boron (B), Total	mg/L	1.5	<0.020	<0.050	<0.020	<0.050	<0.020
Calcium (Ca), Total	mg/L		42.6	18.3	62.8	54	58.1
Cadmium (Cd), Total	mg/L	*	0.000007	0.00115	0.00472	0.000072	0.000008
Cobalt (Co), Total	mg/L		0.000033	0.0114	0.0468	0.000956	0.00027
Chromium (Cr), Total	mg/L	0.001	<0.00010	0.00036	0.00167	0.00034	0.00023
Copper (Cu), Total	mg/L	*	0.000357	0.0669	0.302	0.00248	0.00123
Iron (Fe), Total	mg/L	0.3	0.0063	0.561	3.43	0.556	0.0937
Mercury (Hg), Total	mg/L	0.000026	<0.0000020	0.0000203	0.0000035	<0.0000020	<0.0000020
Potassium (K), Total	mg/L		0.707	2.81	1.99	1.26	1.2
Lithium (Li), Total	mg/L		0.00199	0.00242	0.0101	0.00782	0.00949
Magnesium (Mg), Total	mg/L		12.6	8.41	30.7	19.6	22.5
Manganese (Mn), Total	mg/L		0.000517	0.549	2.19	0.0837	0.0308
Molybdenum (Mo), Total	mg/L	0.073	0.00069	0.000229	0.000186	0.00269	0.00269
Sodium (Na), Total	mg/L		2.65	0.366	0.747	3.49	3.86
Nickel (Ni), Total	mg/L	*	0.000416	0.0367	0.144	0.00232	0.00214
Lead (Pb), Total	mg/L	*	<0.0000050	0.000267	0.000162	0.00048	0.000009
Phosphorous (p), Total	mg/L		<0.0020	0.0182	0.0043	0.0312	0.0049
Antimony (Sb), Total	mg/L		0.000519	0.00605	0.00236	0.00313	0.00346
Selenium (Se), Total	mg/L	0.001	0.000642	0.00162	0.00455	0.00159	0.0017
Silicon (Si), Total	mg/L		3.43	3.29	11.4	4.11	5.45
Tin (Sn), Total	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Strontium (Sr), Total	mg/L		0.218	0.108	0.396	0.257	0.266
Sulphur (S), Total	mg/L		23.6	29.9	123	34.6	42.6
Titanium (Ti), Total	mg/L		<0.00050	0.00134	0.00052	0.00787	<0.00050
Thallium (Tl), Total	mg/L	0.0008	<0.0000020	0.000058	0.000113	0.000002	0.000002
Uranium (U), Total	mg/L	0.015	0.00038	0.000767	0.00381	0.00245	0.00207
Vanadium (V), Total	mg/L		<0.00020	0.00027	<0.00020	0.00161	0.00059
Zinc (Zn), Total	mg/L	0.03	0.00055	0.0966	0.426	0.00405	0.0006
Zirconium (Zr), Total	mg/L		<0.00010	0.00021	<0.00010	0.00018	0.00031

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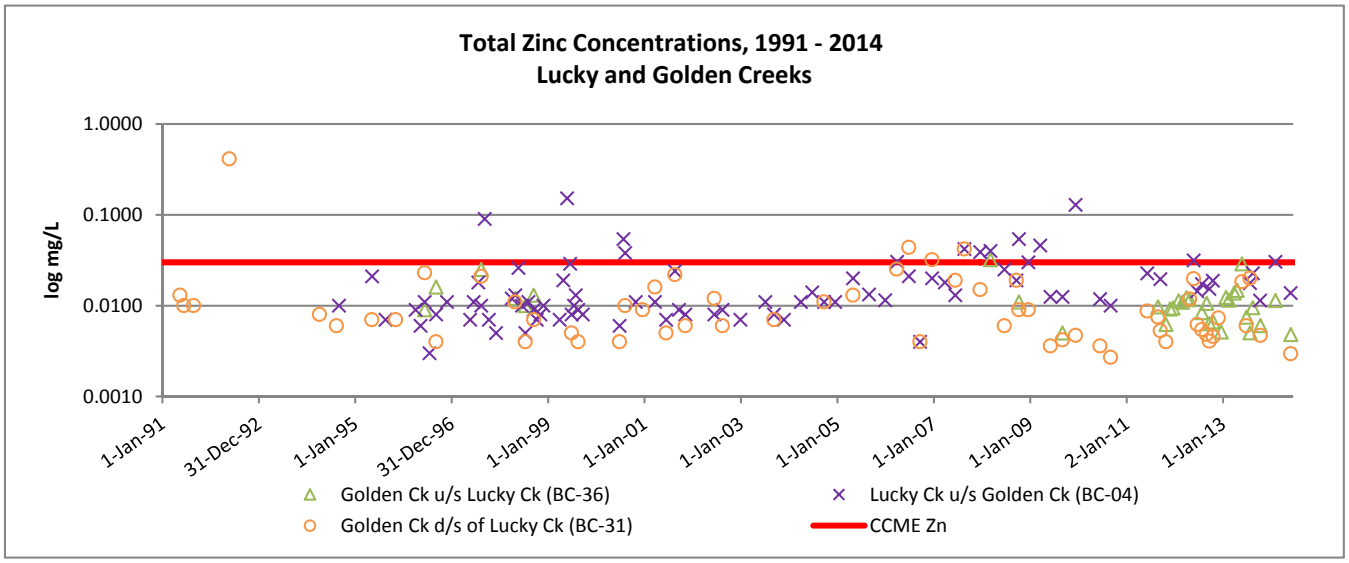
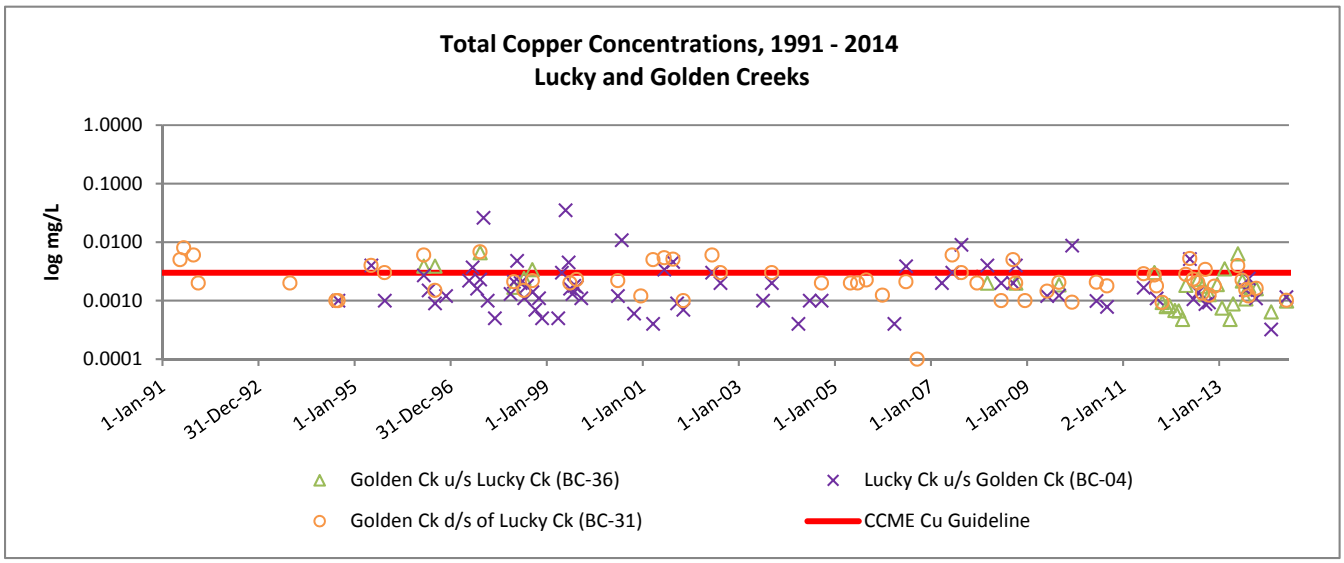
Station Name		BC-19	BC-19	BC-21	BC-21	BC-22	BC-22	BC-27	BC-27	BC-53	BC-53
Description		Piezometer RC94-843	Piezometer RC94-843	Piezometer RC95-1354	Piezometer RC95-1354	Piezometer RC95-1357	Piezometer RC95-1357	Piezometer RC97-2026	Piezometer RC97-2026	Lower Laura Creek 50m d/s of Ditch Road	Lower Laura Creek 50m d/s of Ditch Road
Sample Date		31/05/2014	01/10/2014	31/05/2014	01/10/2014	31/05/2014	01/10/2014	28/05/2014	04/10/2014	29/05/2014	03/10/2014
	units										
pH (field)	pH units	6.46	6.51	6.74	6.75	5.74	6.2	7.16	7.09	8.08	7.91
pH (lab)	pH units	7.46	7.15	7.97	7.49	7.02	6.45	8	7.79	8.02	8.12
Specific Conductivity (field)	µS/cm	1050	997	720.4	792.2		1112	800	727.1	422.3	403.8
Conductivity (lab)	µS/cm	1070	1110	746	883	1210	1230	818	814	427	445
Temperature (field)	C	2.5	2	3.1	2.9	2.4	2	5.1	3.9	0.6	-0.2
Hardness (from dissolved)	mg/L	573	632	379	480	636	669	432	442	210	235
Alkalinity, Total	mg/L	261	262	241	222	157	169	169	169	113	118
Total Dissolved Solids	mg/L	766	892	488	751	952	1130	614	644	276	314
Total Suspended Solids	mg/L	18.1	2	1	<1.0	57.9	17.7	4.8	14.8	43.3	2.2
Chloride	mg/L	0.67	1.3	1.7	14	1.6	1.8	0.81	1.1	0.79	1.1
Sulphate, Dissolved	mg/L	289	341	157	220	461	479	232	253	103	110
Ion Balance	N/A	1.1	1.1	0.99	1.1	1	1	1.1	1	0.98	1
Ammonia Total	mg/L	0.0098	0.022	0.074	0.095	0.0052	0.0073	0.054	0.051	0.012	0.012
Nitrate, as N	mg/L	0.365	0.392	0.0219	0.0166	5.13	6.17	<0.0020	<0.0020	0.263	0.164
Cyanide, Total	mg/L	0.00051	<0.00050	<0.00050	<0.00050	0.0006	<0.00050	0.00075	<0.00050	0.00055	<0.00050
Cyanide, Weak Acid Dissociable	mg/L	0.00061	0.00053	0.00066	<0.00050	0.0008	<0.00050	0.00112	<0.00050	0.00059	<0.00050
Aluminum (Al), Dissolved	mg/L	0.00096	0.00128	0.00073	0.00091	0.109	0.102	<0.00050	0.00108	0.00878	0.025
Antimony (Sb), Dissolved	mg/L	0.000227	0.000222	0.000235	0.000218	0.000066	0.000098	0.00205	0.00219	0.00306	0.00311
Arsenic (As), Dissolved	mg/L	0.000593	0.000445	0.0122	0.0156	0.000363	0.000251	0.0538	0.0644	0.00317	0.00324
Barium (Ba), Dissolved	mg/L	0.00194	0.00215	0.0356	0.031	0.0211	0.0219	0.0101	0.0136	0.0491	0.057
Beryllium (Be), Dissolved	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	0.000058	0.000042	<0.000010	<0.000010	<0.000010	0.00001
Bismuth (Bi), Dissolved	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Boron (B), Dissolved	mg/L	<0.050	<0.020	<0.050	0.026	<0.050	0.024	<0.050	<0.020	<0.050	<0.020
Cadmium (Cd), Dissolved	mg/L	0.000411	0.000519	0.000097	0.000083	0.00522	0.00523	0.000035	0.00003	0.000014	0.000021
Calcium (Ca), Dissolved	mg/L	129	151	72.9	103	152	166	105	109	52.6	60
Chromium (Cr), Dissolved	mg/L	0.00044	<0.00010	<0.00010	<0.00010	0.00028	0.00014	<0.00010	<0.00010	<0.00010	0.00021
Cobalt, Dissolved	mg/L	0.000322	0.000472	0.00217	0.00285	0.0031	0.00307	0.000177	0.000168	0.000627	0.000296
Copper (Cu), Dissolved	mg/L	0.000336	0.000402	0.000116	0.000161	0.000575	0.000715	<0.000050	0.000061	0.000645	0.00118
Iron (Fe), Dissolved	mg/L	0.0211	0.0039	0.0042	0.0232	0.0791	0.0887	0.0025	0.0045	0.0533	0.0795
Lead (Pb), Dissolved	mg/L	0.000046	<0.0000050	<0.0000050	<0.0000050	0.000005	0.000006	<0.0000050	<0.0000050	0.000011	0.000008
Lithium (Li), Dissolved	mg/L	0.0378	0.0318	0.0274	0.0302	0.05	0.0451	0.0101	0.00933	0.00812	0.00928
Magnesium (Mg), Dissolved	mg/L	60.6	62	47.8	54.3	62	62.1	41.5	41.4	19.2	20.8
Manganese (Mn), Dissolved	mg/L	0.185	0.263	1.14	1.5	0.255	0.237	0.218	0.222	0.0156	0.0338
Mercury (Hg), Dissolved	mg/L	<0.000010	<0.0000020	<0.000010	<0.0000020	<0.000010	<0.0000020	<0.000010	<0.0000020	<0.0000020	<0.0000020
Molybdenum (Mo), Dissolved	mg/L	0.000112	0.000069	0.000252	0.00031	0.000275	0.000184	0.0122	0.0126	0.00296	0.00259
Nickel (Ni), Dissolved	mg/L	0.0021	0.00244	0.00366	0.00461	0.0477	0.0434	0.00221	0.0021	0.00128	0.00234
Phosphorous (P), Dissolved	mg/L	0.0207	0.0197	<0.0020	<0.0020	0.0588	0.0655	<0.0020	0.003	0.0083	0.0079
Potassium (K), Dissolved	mg/L	2.46	2.52	3.05	3.37	3.66	3.65	1.38	1.45	1.24	1.14
Selenium (Se), Dissolved	mg/L	0.00772	0.00805	0.00296	0.00104	0.0786	0.076	<0.000040	<0.000040	0.00159	0.00147
Silicon (Si), Dissolved	mg/L	7.29	7.95	4.82	5.82	15.8	16.8	3.74	3.75	3.89	5.53
Silver (Ag), Dissolved	mg/L	<0.0000050	0.000005	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Sodium (Na), Dissolved	mg/L	10.7	10.5	8.05	8.27	21.1	20.8	1.82	1.85	3.38	3.66
Strontium (Sr), Dissolved	mg/L	0.488	0.488	0.341	0.403	0.408	0.406	0.794	0.772	0.257	0.267
Sulphur (S), Dissolved	mg/L	117	123	58.8	84.7	185	170	97.4	97	36.3	39.4
Thallium (Tl), Dissolved	mg/L	0.000006	0.000007	0.000022	0.000023	0.000024	0.000027	0.000003	0.000007	<0.0000020	0.000002
Tin (Sn), Dissolved	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.0002
Titanium (Ti), Dissolved	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Uranium (U), Dissolved	mg/L	0.000718	0.000806	0.00104	0.00154	0.000365	0.000631	0.0111	0.0116	0.0023	0.00163
Vanadium (V), Dissolved	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00068	0.00069
Zinc (Zn), Dissolved	mg/L	0.0217	0.0232	0.0525	0.0864	0.0944	0.0969	0.0259	0.0202	0.00026	0.00041
Zirconium (Zr), Dissolved	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00023

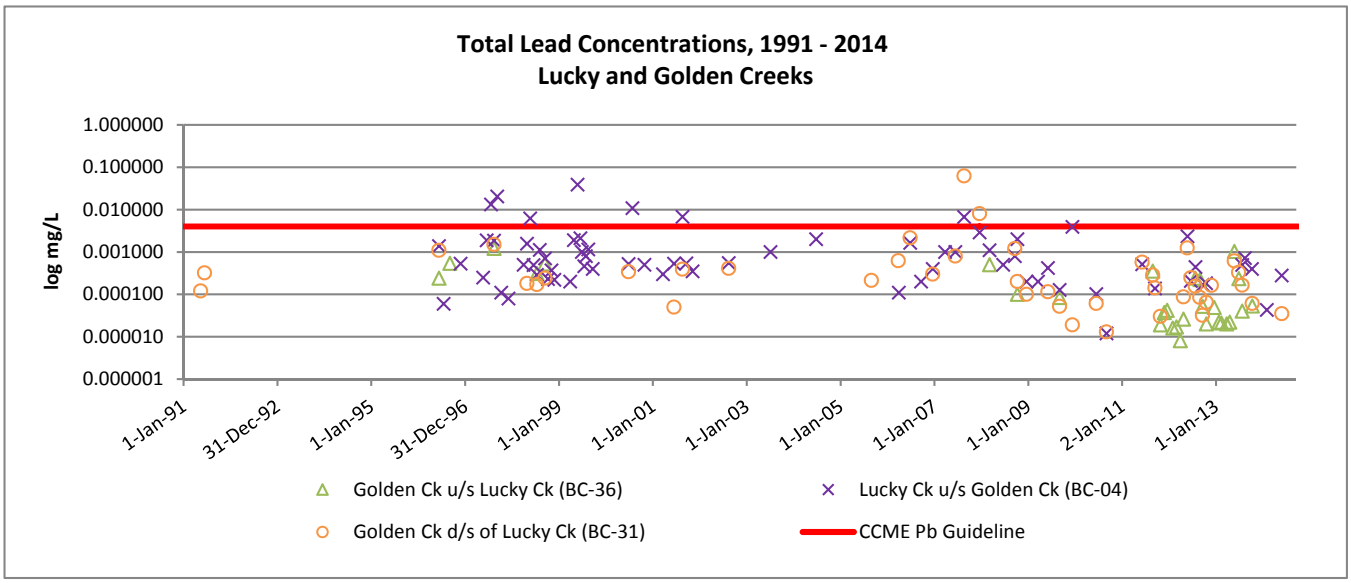
Station Name		BC-67	BC-69	BC-66	BC-66
Description		Blue WRSA Piezometer	Blue WRSA Piezometer (Deep Well)	Land Application Piezometer (Deep Well)	Land Application Piezometer (Deep Well)
Sample Date		01/06/2014	01/06/2014	31/05/2014	01/10/2014
	units				
pH (field)	pH units	7.08	6.99	7.25	7.26
pH (lab)	pH units	7.77	7.93	8.06	7.85
Specific Conductivity (field)	µS/cm	378.7	638.2	723	647.3
Conductivity (lab)	µS/cm	426	670	740	724
Temperature (field)	C	5.4	5.4	4.2	3.2
Hardness (from dissolved)	mg/L	205	363	347	363
Alkalinity, Total	mg/L	172	295	246	240
Total Dissolved Solids	mg/L	333	402	420	470
Total Suspended Solids	mg/L	27.1	28.3	19.3	53.2
Chloride	mg/L	4.8	1.7	5.1	5.4
Sulphate, Dissolved	mg/L	52.7	75.9	26	25.9
Ion Balance	N/A	0.91	1	0.96	1.1
Ammonia Total	mg/L	0.019	0.032	0.0077	0.0067
Nitrate, as N	mg/L	0.221	<0.0020	29.7	27.8
Cyanide, Total	mg/L	0.00078	0.0006	0.00568	0.00348
Cyanide, Weak Acid Dissociable	mg/L	0.0007	0.00066	0.00311	0.00124
Aluminum (Al), Dissolved	mg/L	0.00069	0.00087	0.0008	0.00158
Antimony (Sb), Dissolved	mg/L	0.0538	0.00578	0.000363	0.000225
Arsenic (As), Dissolved	mg/L	0.00923	0.0275	0.000407	0.000483
Barium (Ba), Dissolved	mg/L	0.147	0.029	0.0496	0.0539
Beryllium (Be), Dissolved	mg/L	<0.000010	<0.000010	<0.000010	<0.000010
Bismuth (Bi), Dissolved	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Boron (B), Dissolved	mg/L	<0.050	<0.050	<0.050	<0.020
Cadmium (Cd), Dissolved	mg/L	0.000055	0.000776	0.000016	0.000022
Calcium (Ca), Dissolved	mg/L	51.9	68	69.8	72
Chromium (Cr), Dissolved	mg/L	<0.00010	<0.00010	<0.00010	<0.00010
Cobalt, Dissolved	mg/L	0.000502	0.0006	0.073	0.0734
Copper (Cu), Dissolved	mg/L	0.000153	0.000257	0.000315	0.000357
Iron (Fe), Dissolved	mg/L	0.0014	<0.0010	<0.0010	0.0016
Lead (Pb), Dissolved	mg/L	<0.0000050	<0.0000050	0.000005	0.000006
Lithium (Li), Dissolved	mg/L	0.00569	0.00848	0.0196	0.0177
Magnesium (Mg), Dissolved	mg/L	18.4	47	41.9	44.5
Manganese (Mn), Dissolved	mg/L	0.195	0.338	0.000388	0.000896
Mercury (Hg), Dissolved	mg/L	<0.000010	<0.000010	<0.000010	<0.0000020
Molybdenum (Mo), Dissolved	mg/L	0.00093	0.000407	0.000245	0.0003
Nickel (Ni), Dissolved	mg/L	0.00895	0.00352	0.00057	0.000667
Phosphorous (P), Dissolved	mg/L	0.069	0.0049	0.0052	0.0062
Potassium (K), Dissolved	mg/L	1.47	5.81	2.42	2.63
Selenium (Se), Dissolved	mg/L	0.000061	0.000732	0.0168	0.0154
Silicon (Si), Dissolved	mg/L	4.84	3.02	4.6	4.72
Silver (Ag), Dissolved	mg/L	<0.0000050	<0.0000050	<0.0000050	0.000005
Sodium (Na), Dissolved	mg/L	2.72	1.82	10.6	11.6
Strontium (Sr), Dissolved	mg/L	0.381	0.418	0.386	0.387
Sulphur (S), Dissolved	mg/L	15.2	26.4	9.1	10.2
Thallium (Tl), Dissolved	mg/L	0.000053	0.000268	0.000007	0.000014
Tin (Sn), Dissolved	mg/L	<0.00020	<0.00020	<0.00020	<0.00020
Titanium (Ti), Dissolved	mg/L	<0.00050	<0.00050	<0.00050	<0.00050
Uranium (U), Dissolved	mg/L	0.00167	0.00194	0.000963	0.00104
Vanadium (V), Dissolved	mg/L	<0.00020	<0.00020	<0.00020	<0.00020
Zinc (Zn), Dissolved	mg/L	0.0154	0.0993	0.00406	0.00118
Zirconium (Zr), Dissolved	mg/L	<0.00010	<0.00010	<0.00010	<0.00010

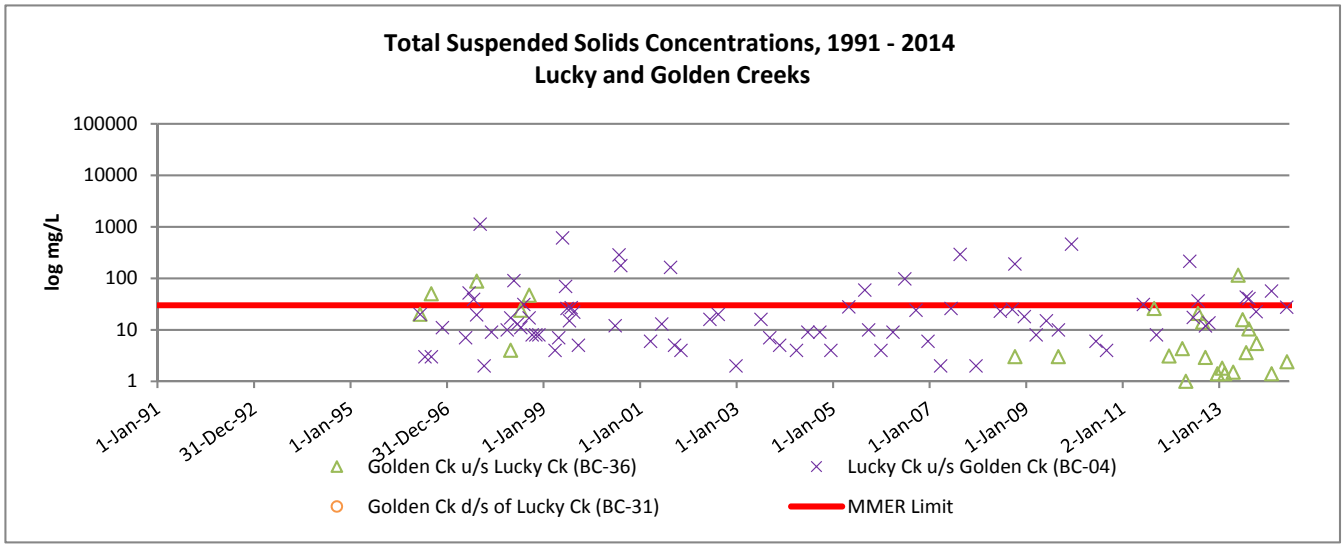
APPENDIX B

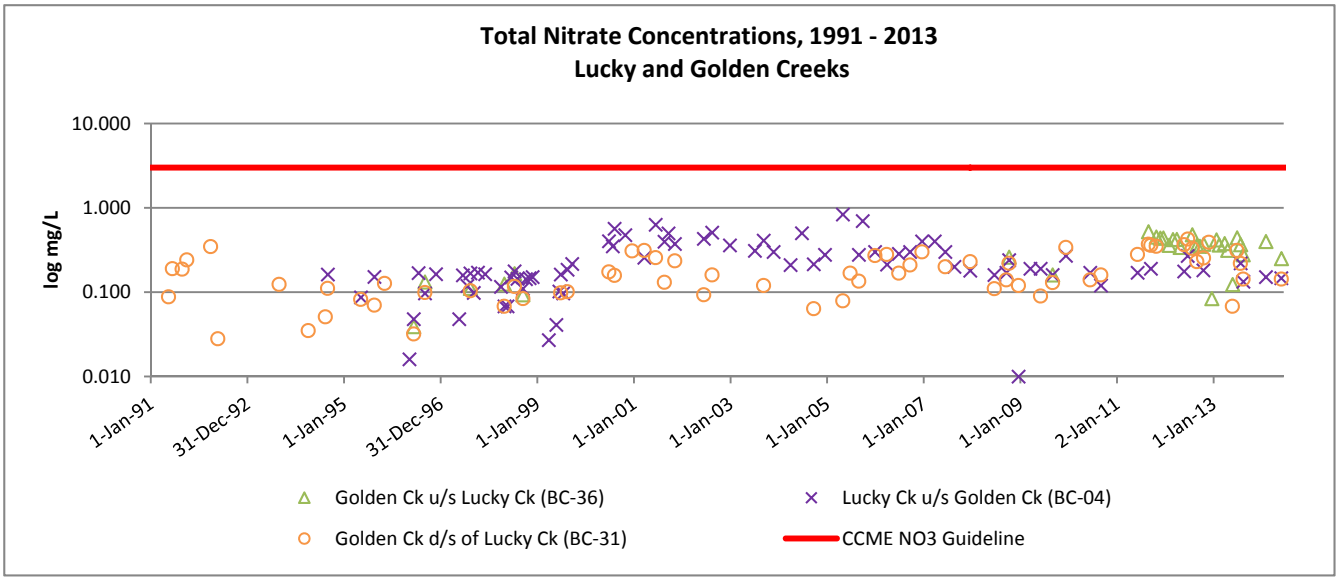
SURFACE WATER GRAPHICAL DATA

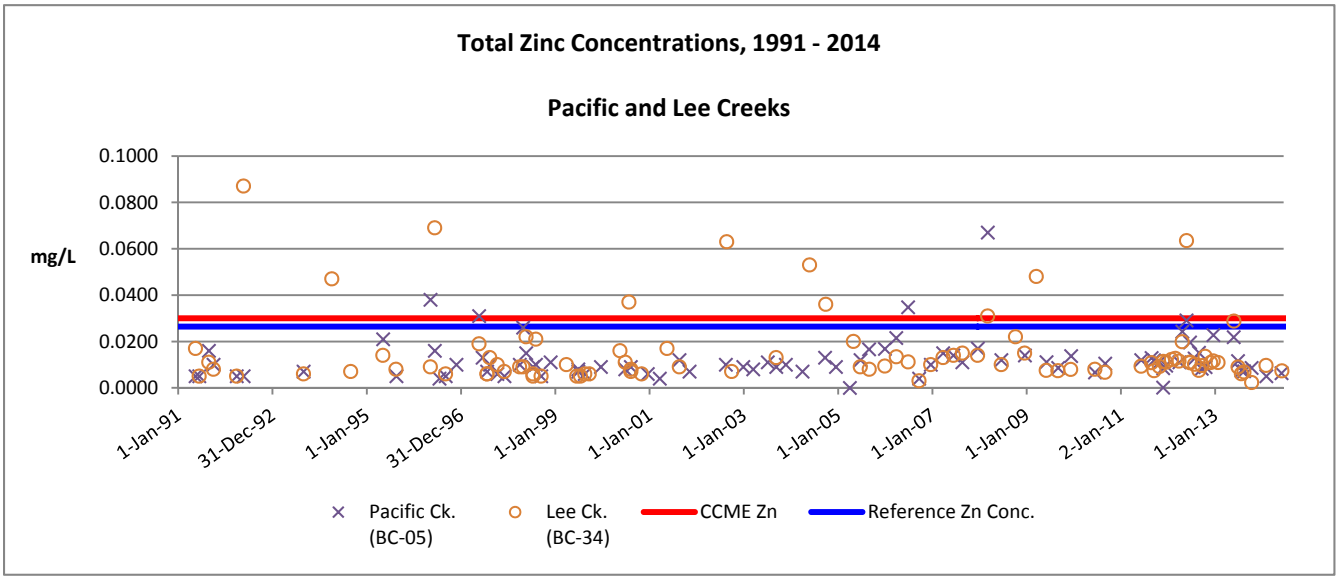

Total Zinc Concentrations, 1991 - 2014
Lucky and Golden Creeks
log mg/L
1.0000
0.1000
0.0100
0.0010
1-Jan-91
31-Dec-92
1-Jan-95
31-Dec-96
1-Jan-99
1-Jan-01
1-Jan-03
1-Jan-05
1-Jan-07
1-Jan-09
2-Jan-11
1-Jan-13
Golden Ck u/s Lucky Ck (BC-36)
Lucky Ck u/s Golden Ck (BC-04)
Golden Ck d/s of Lucky Ck (BC-31)
CCME Zn

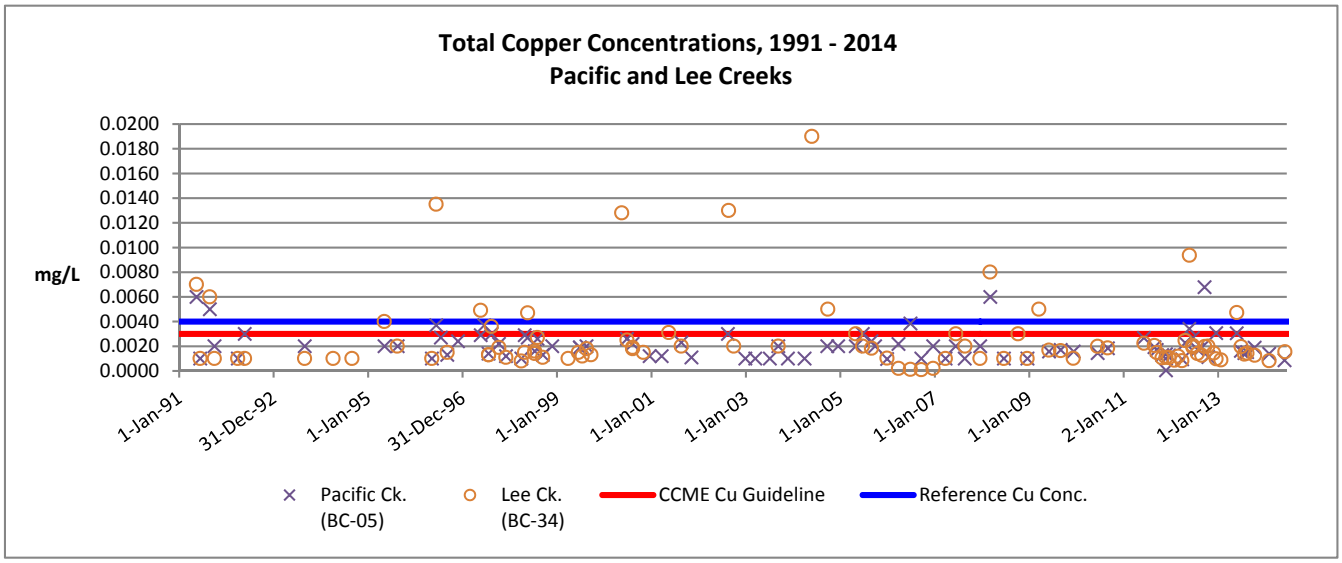

Total Copper Concentrations, 1991 - 2014
Lucky and Golden Creeks
log mg/L
1.0000
0.1000
0.0100
0.0010
0.0001
1-Jan-91
31-Dec-92
1-Jan-95
31-Dec-96
1-Jan-99
1-Jan-01
1-Jan-03
1-Jan-05
1-Jan-07
1-Jan-09
2-Jan-11
1-Jan-13
Golden Ck u/s Lucky Ck (BC-36)
Lucky Ck u/s Golden Ck (BC-04)
Golden Ck d/s of Lucky Ck (BC-31)
CCME Cu Guideline

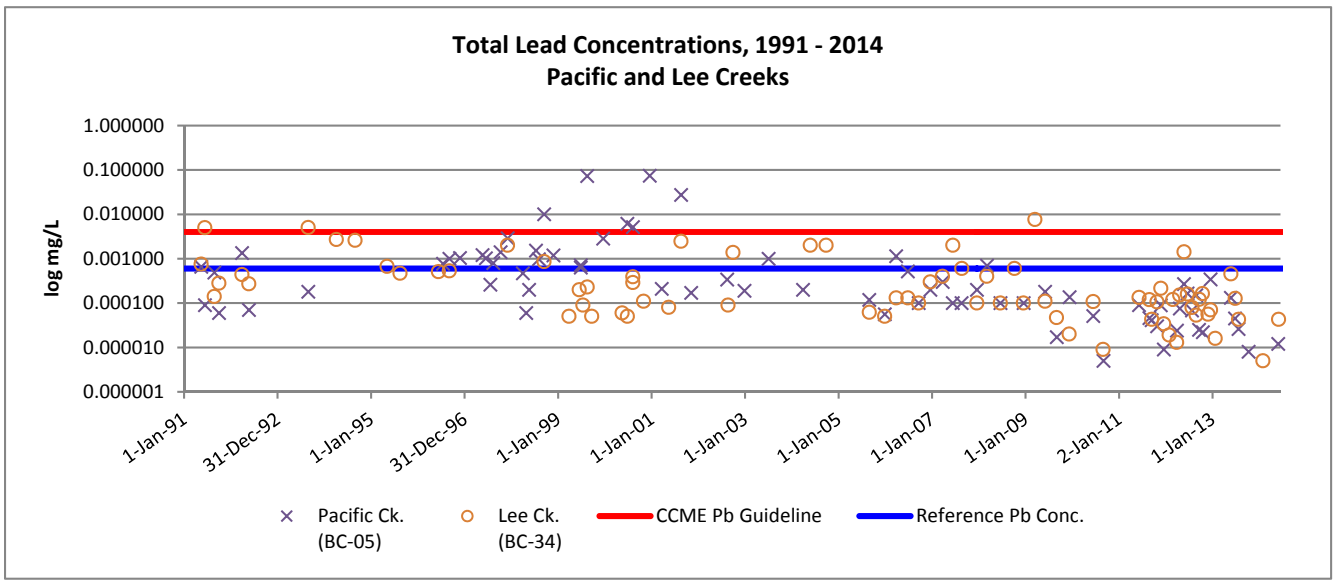

Total Lead Concentrations, 1991 - 2014
Lucky and Golden Creeks
log mg/L
1.000000
0.100000
0.010000
0.001000
0.000100
0.000010
0.000001
1-Jan-91
31-Dec-92
1-Jan-95
31-Dec-96
1-Jan-99
1-Jan-01
1-Jan-03
1-Jan-05
1-Jan-07
1-Jan-09
2-Jan-11
1-Jan-13
Golden Ck u/s Lucky Ck (BC-36)
Lucky Ck u/s Golden Ck (BC-04)
Golden Ck d/s of Lucky Ck (BC-31)
CCME Pb Guideline

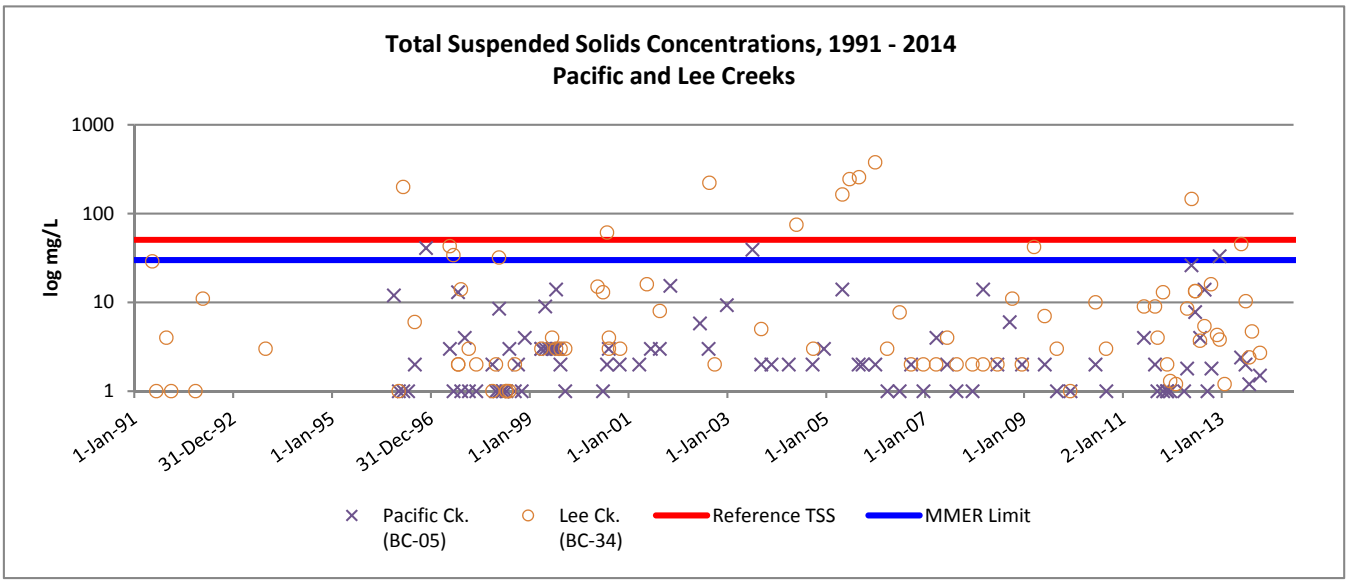

Total Suspended Solids Concentrations, 1991 - 2014
Lucky and Golden Creeks
log mg/L
100000
10000
1000
100
10
1
1-Jan-91
31-Dec-92
1-Jan-95
31-Dec-96
1-Jan-99
1-Jan-01
1-Jan-03
1-Jan-05
1-Jan-07
1-Jan-09
2-Jan-11
1-Jan-13
Golden Ck u/s Lucky Ck (BC-36)
Lucky Ck u/s Golden Ck (BC-04)
Golden Ck d/s of Lucky Ck (BC-31)
MMER Limit

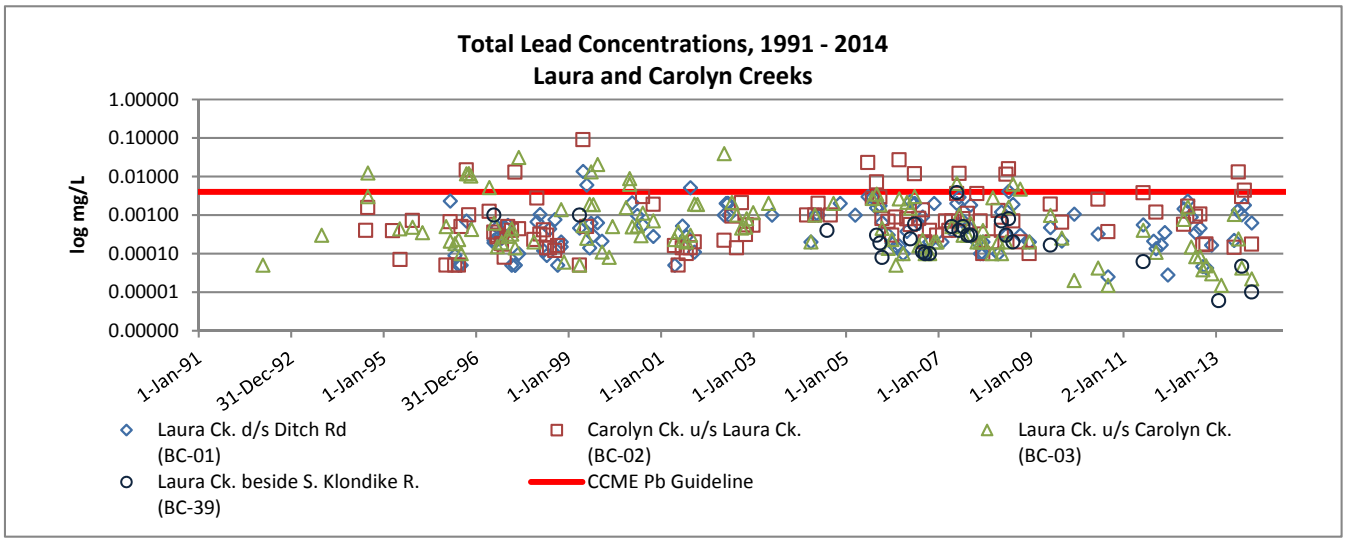

Total Nitrate Concentrations, 1991 - 2013
Lucky and Golden Creeks
log mg/L
10.000
1.000
0.100
0.010
1-Jan-91
31-Dec-92
1-Jan-95
31-Dec-96
1-Jan-99
1-Jan-01
1-Jan-03
1-Jan-05
1-Jan-07
1-Jan-09
2-Jan-11
1-Jan-13
Golden Ck u/s Lucky Ck (BC-36)
Lucky Ck u/s Golden Ck (BC-04)
Golden Ck d/s of Lucky Ck (BC-31)
CCME NO3 Guideline

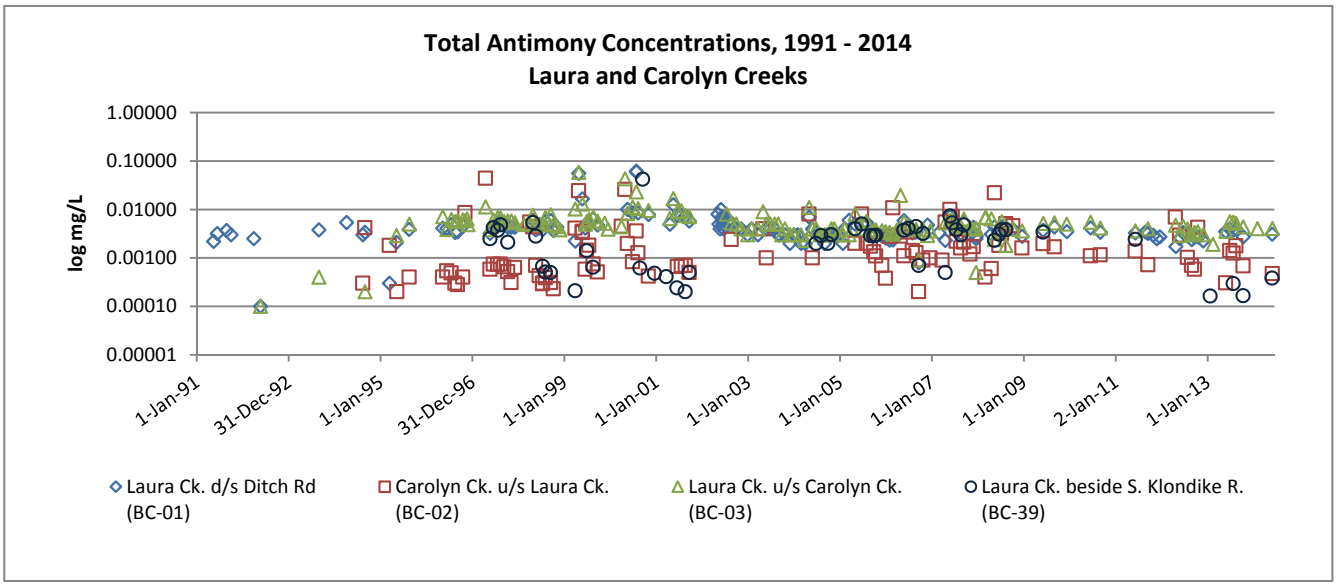

Total Zinc Concentrations, 1991 - 2014
Pacific and Lee Creeks
mg/L
0.1000
0.0800
0.0600
0.0400
0.0200
0.0000
1-Jan-91
31-Dec-92
1-Jan-95
31-Dec-96
1-Jan-99
1-Jan-01
1-Jan-03
1-Jan-05
1-Jan-07
1-Jan-09
2-Jan-11
1-Jan-13
Pacific Ck. (BC-05)
Lee Ck. (BC-34)
CCME Zn
Reference Zn Conc.

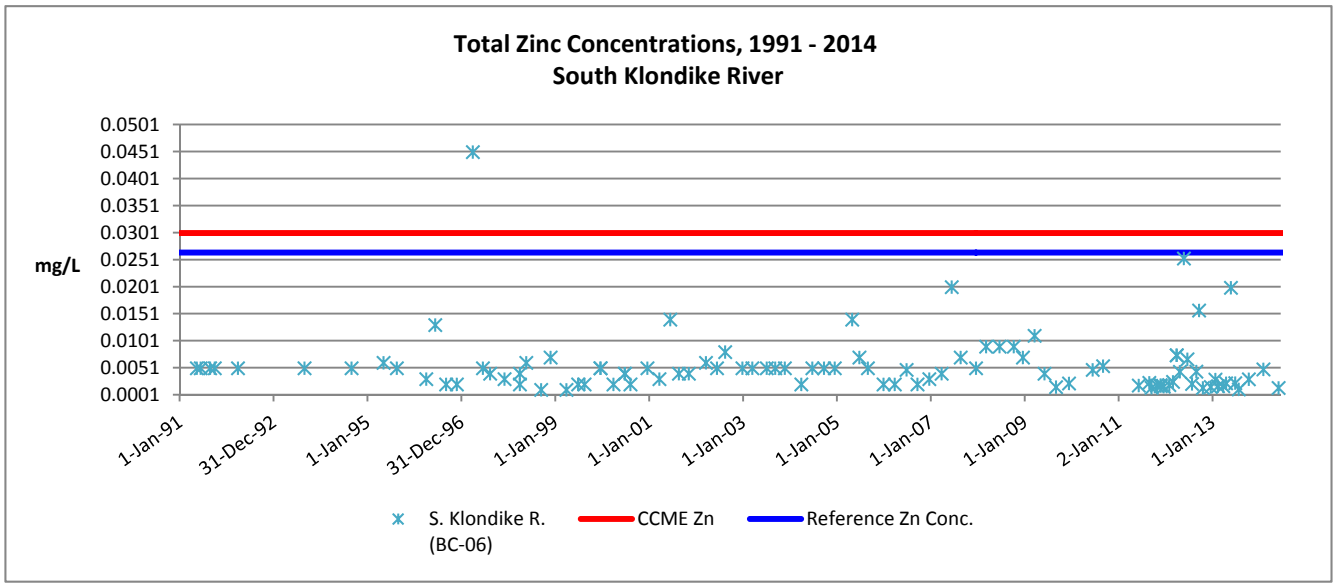

Total Copper Concentrations, 1991 - 2014
Pacific and Lee Creeks
mg/L
0.0200
0.0180
0.0160
0.0140
0.0120
0.0100
0.0080
0.0060
0.0040
0.0020
0.0000
1-Jan-91
31-Dec-92
1-Jan-95
31-Dec-96
1-Jan-99
1-Jan-01
1-Jan-03
1-Jan-05
1-Jan-07
1-Jan-09
2-Jan-11
1-Jan-13
Pacific Ck. (BC-05)
Lee Ck. (BC-34)
CCME Cu Guideline
Reference Cu Conc.

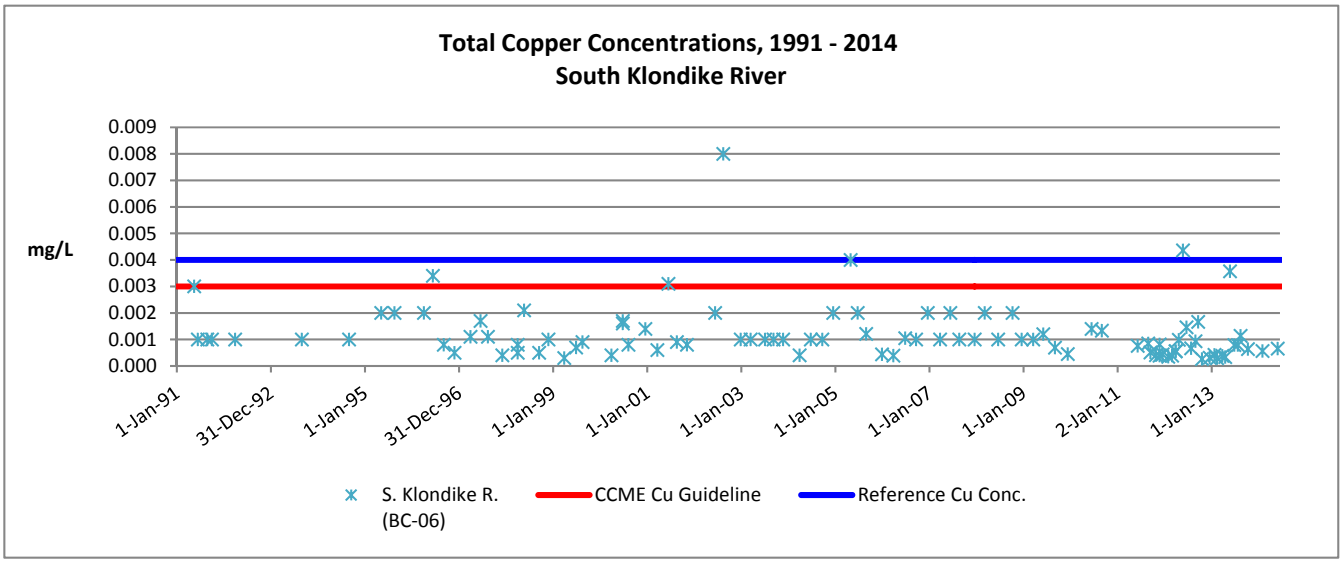

Total Lead Concentrations, 1991 - 2014
Pacific and Lee Creeks
log mg/L
1.000000
0.100000
0.010000
0.001000
0.000100
0.000010
0.000001
1-Jan-91
31-Dec-92
1-Jan-95
31-Dec-96
1-Jan-99
1-Jan-01
1-Jan-03
1-Jan-05
1-Jan-07
1-Jan-09
2-Jan-11
1-Jan-13
Pacific Ck. (BC-05)
Lee Ck. (BC-34)
CCME Pb Guideline
Reference Pb Conc.

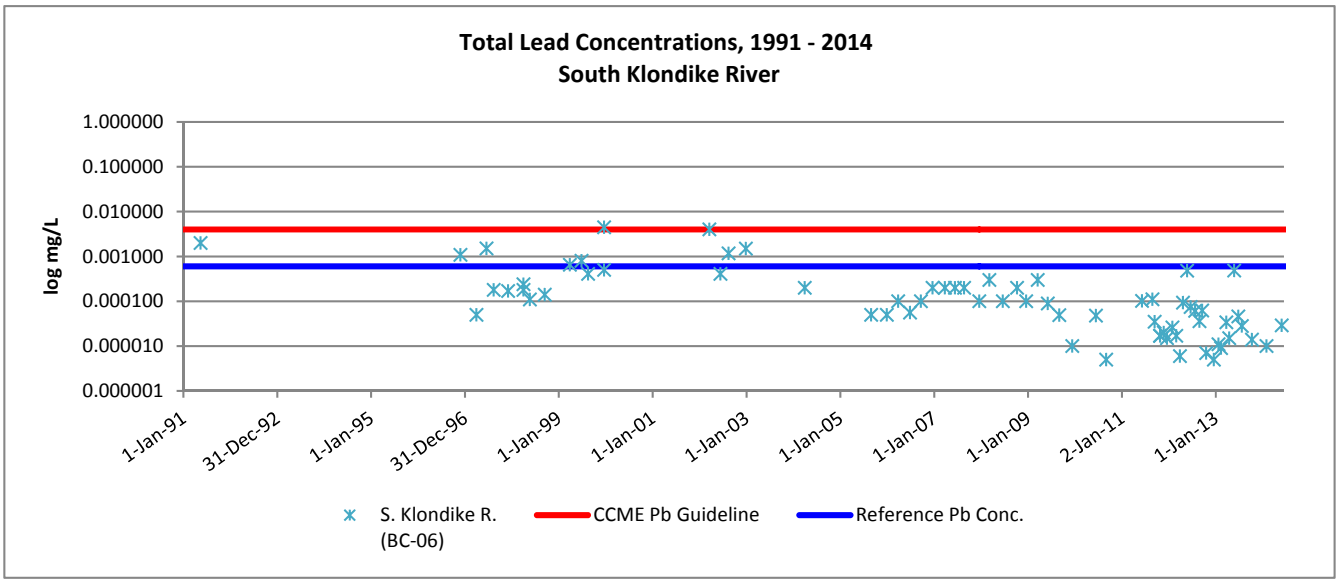

Total Suspended Solids Concentrations, 1991 - 2014
Pacific and Lee Creeks
log mg/L
1000
100
10
1
1-Jan-91
31-Dec-92
1-Jan-95
31-Dec-96
1-Jan-99
1-Jan-01
1-Jan-03
1-Jan-05
1-Jan-07
1-Jan-09
2-Jan-11
1-Jan-13
Pacific Ck. (BC-05)
Lee Ck. (BC-34)
Reference TSS
MMER Limit

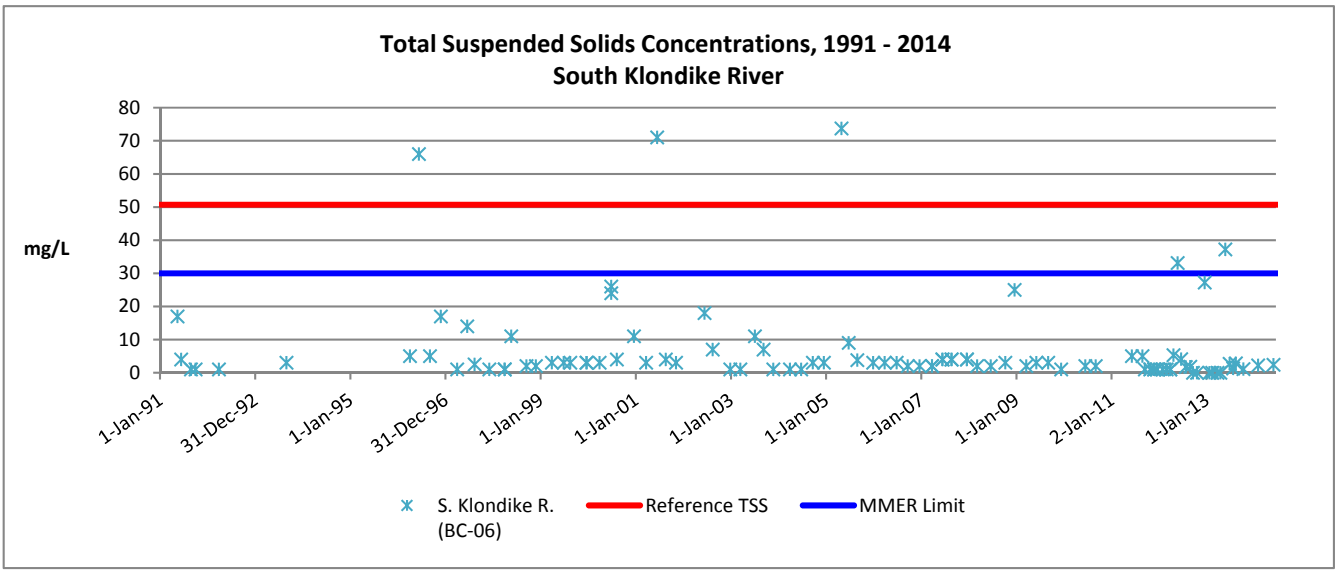

Total Lead Concentrations, 1991 - 2014
Laura and Carolyn Creeks
log mg/L
1.00000
0.10000
0.01000
0.00100
0.00010
0.00001
0.00000
1-Jan-91
31-Dec-92
1-Jan-95
31-Dec-96
1-Jan-99
1-Jan-01
1-Jan-03
1-Jan-05
1-Jan-07
1-Jan-09
2-Jan-11
1-Jan-13
Laura Ck. d/s Ditch Rd (BC-01)
Carolyn Ck. u/s Laura Ck. (BC-02)
Laura Ck. u/s Carolyn Ck. (BC-03)
Laura Ck. beside S. Klondike R. (BC-39)
CCME Pb Guideline

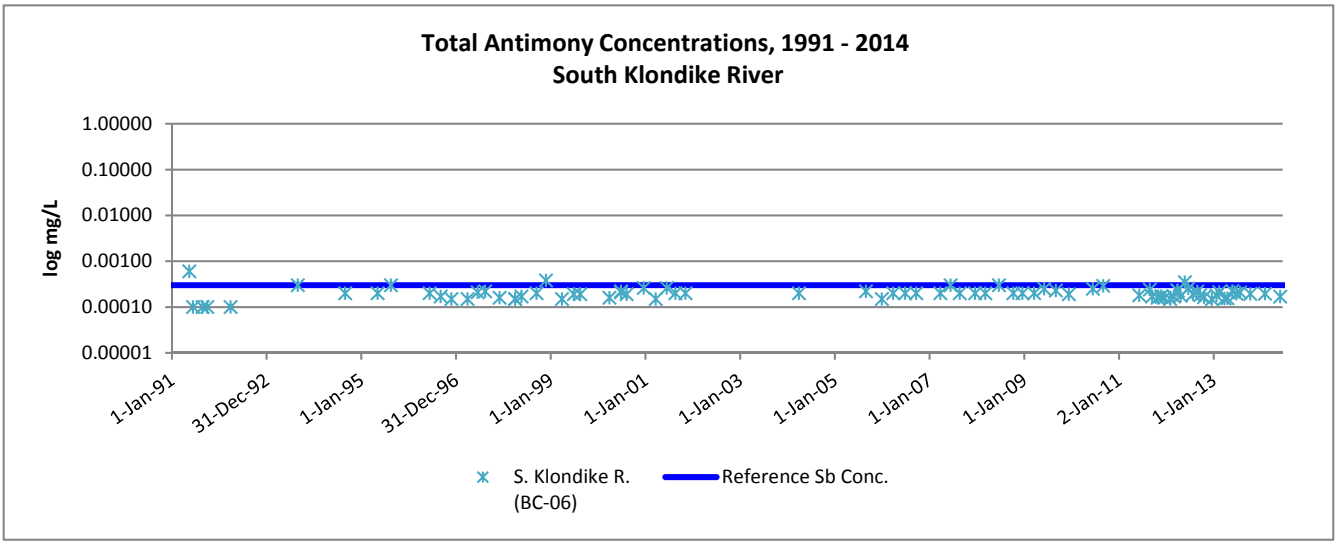

Total Antimony Concentrations, 1991 - 2014
Laura and Carolyn Creeks
log mg/L
1.00000
0.10000
0.01000
0.00100
0.00010
0.00001
1-Jan-91
31-Dec-92
1-Jan-95
31-Dec-96
1-Jan-99
1-Jan-01
1-Jan-03
1-Jan-05
1-Jan-07
1-Jan-09
2-Jan-11
1-Jan-13
Laura Ck. d/s Ditch Rd (BC-01)
Carolyn Ck. u/s Laura Ck. (BC-02)
Laura Ck. u/s Carolyn Ck. (BC-03)
Laura Ck. beside S. Klondike R. (BC-39)

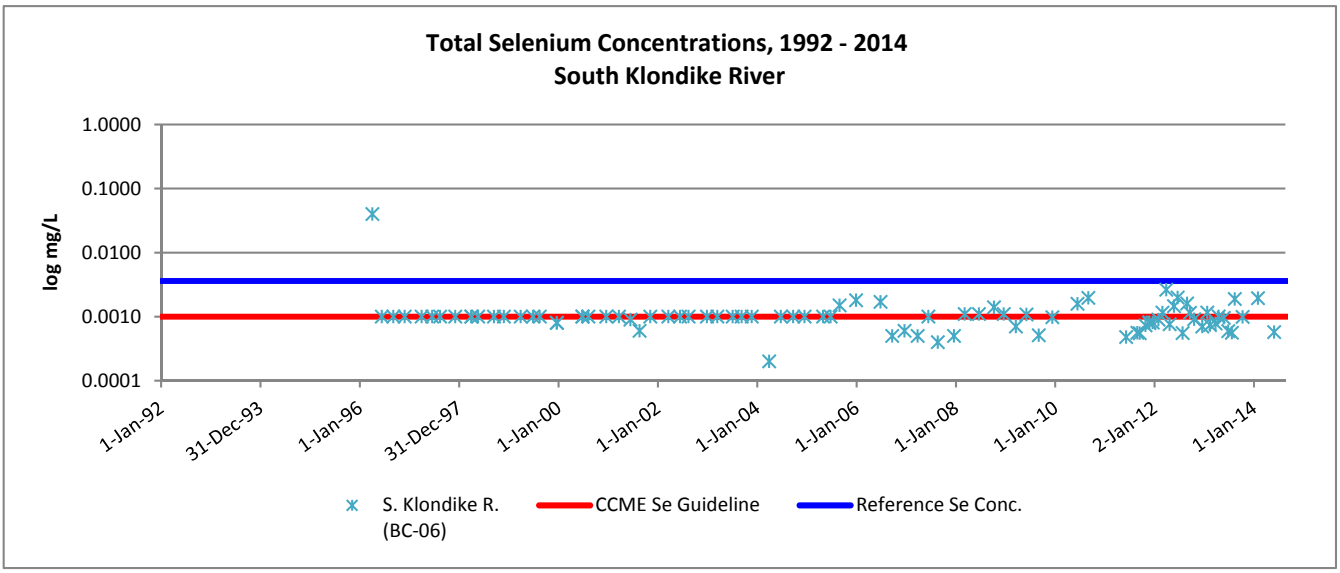

Total Zinc Concentrations, 1991 - 2014
South Klondike River
mg/L
0.0501
0.0451
0.0401
0.0351
0.0301
0.0251
0.0201
0.0151
0.0101
0.0051
0.0001
1-Jan-91
31-Dec-92
1-Jan-95
31-Dec-96
1-Jan-99
1-Jan-01
1-Jan-03
1-Jan-05
1-Jan-07
1-Jan-09
2-Jan-11
1-Jan-13
S. Klondike R. (BC-06)
CCME Zn
Reference Zn Conc.

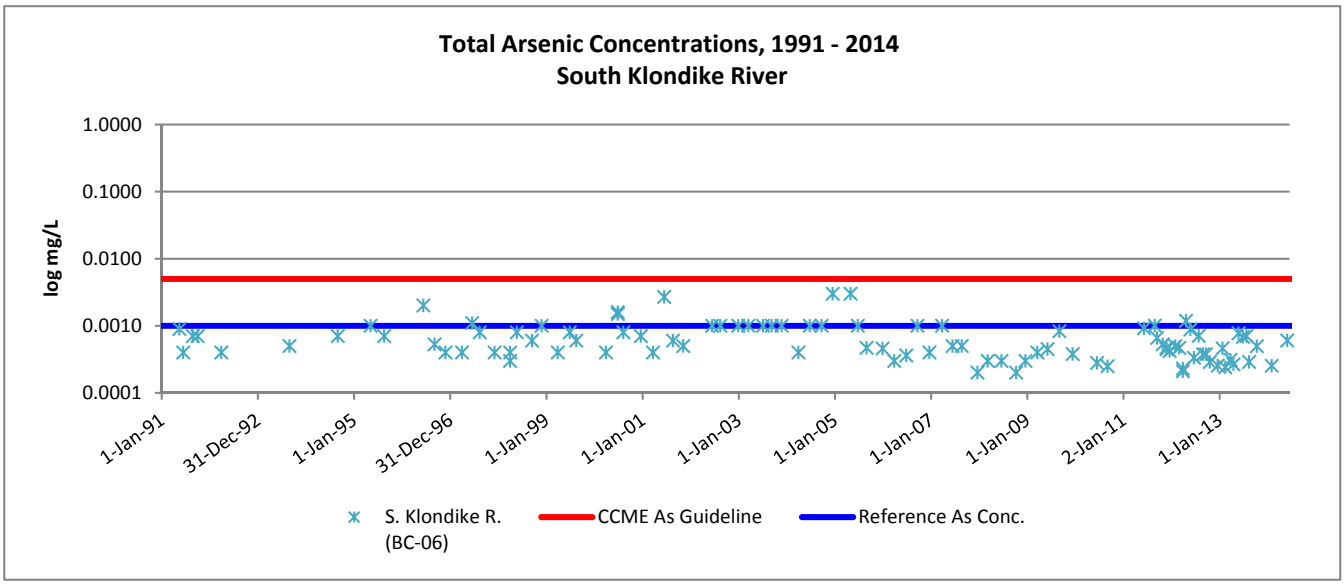

Total Copper Concentrations, 1991 - 2014
South Klondike River
mg/L
0.009
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0.000
1-Jan-91
31-Dec-92
1-Jan-95
31-Dec-96
1-Jan-99
1-Jan-01
1-Jan-03
1-Jan-05
1-Jan-07
1-Jan-09
2-Jan-11
1-Jan-13
S. Klondike R. (BC-06)
CCME Cu Guideline
Reference Cu Conc.

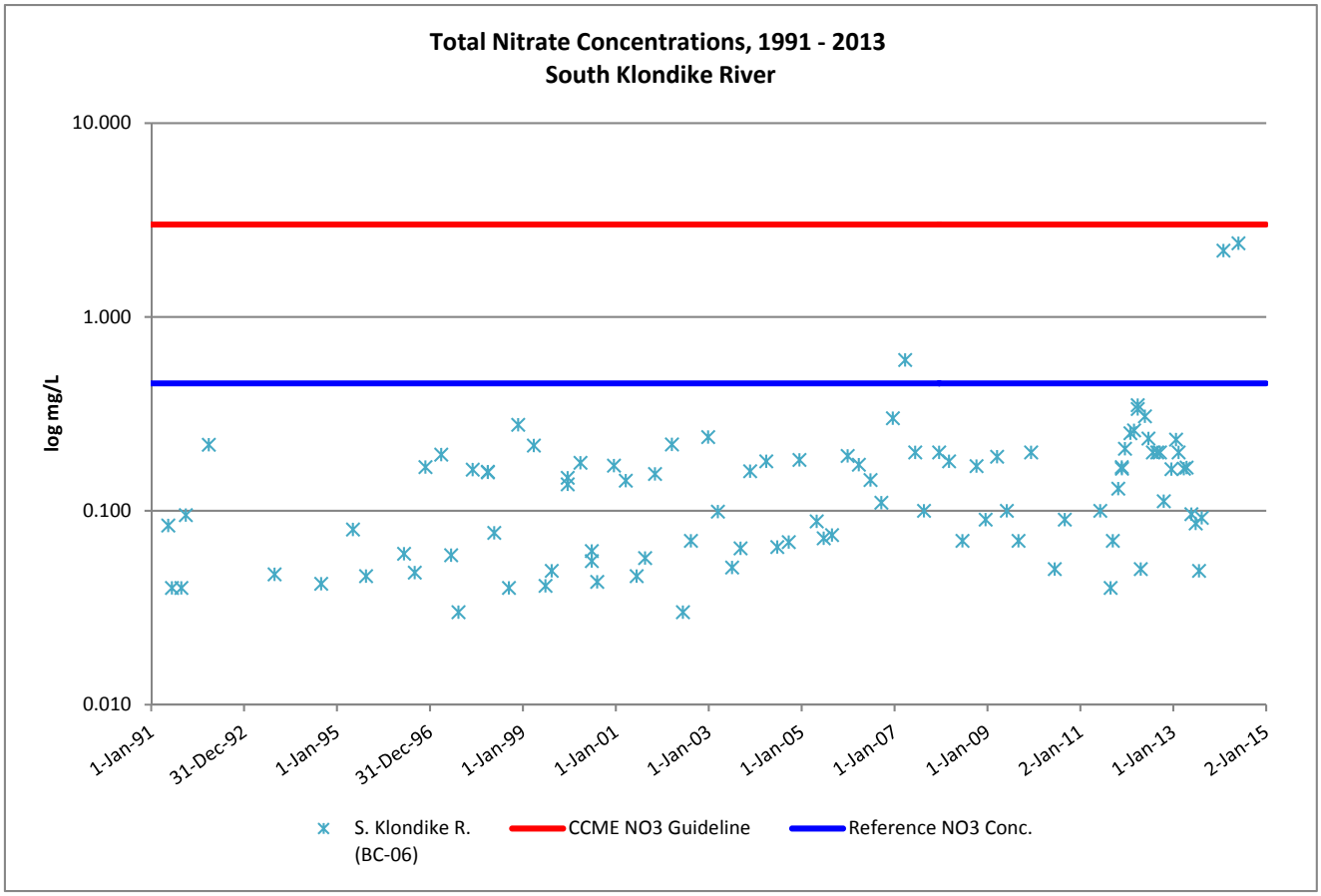

Total Lead Concentrations, 1991 - 2014
South Klondike River
log mg/L
1.000000
0.100000
0.010000
0.001000
0.000100
0.000010
0.000001
1-Jan-91
31-Dec-92
1-Jan-95
31-Dec-96
1-Jan-99
1-Jan-01
1-Jan-03
1-Jan-05
1-Jan-07
1-Jan-09
2-Jan-11
1-Jan-13
S. Klondike R. (BC-06)
CCME Pb Guideline
Reference Pb Conc.


Total Suspended Solids Concentrations, 1991 - 2014
South Klondike River
mg/L
80
70
60
50
40
30
20
10
0
1-Jan-91
31-Dec-92
1-Jan-95
31-Dec-96
1-Jan-99
1-Jan-01
1-Jan-03
1-Jan-05
1-Jan-07
1-Jan-09
2-Jan-11
1-Jan-13
S. Klondike R. (BC-06)
Reference TSS
MMER Limit


Total Antimony Concentrations, 1991 - 2014
South Klondike River
log mg/L
1.00000
0.10000
0.01000
0.00100
0.00010
0.00001
1-Jan-91
31-Dec-92
1-Jan-95
31-Dec-96
1-Jan-99
1-Jan-01
1-Jan-03
1-Jan-05
1-Jan-07
1-Jan-09
2-Jan-11
1-Jan-13
S. Klondike R. (BC-06)
Reference Sb Conc.

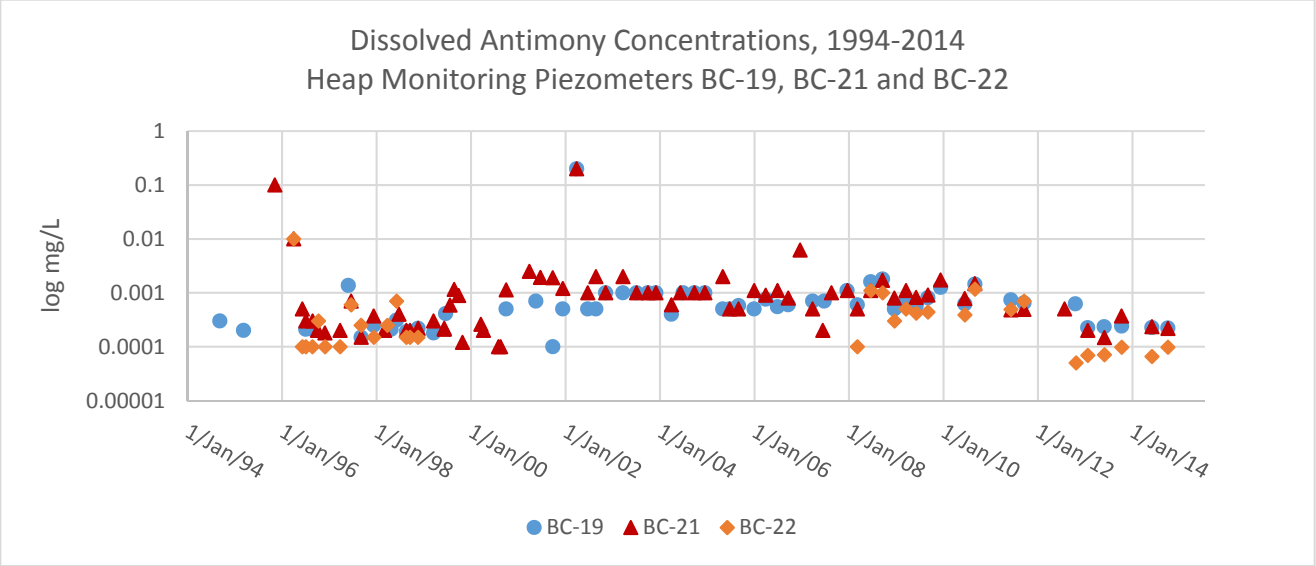

Total Selenium Concentrations, 1992 - 2014
South Klondike River
log mg/L
1.0000
0.1000
0.0100
0.0010
0.0001
1-Jan-92
31-Dec-93
1-Jan-96
31-Dec-97
1-Jan-00
1-Jan-02
1-Jan-04
1-Jan-06
1-Jan-08
1-Jan-10
2-Jan-12
1-Jan-14
S. Klondike R. (BC-06)
CCME Se Guideline
Reference Se Conc.

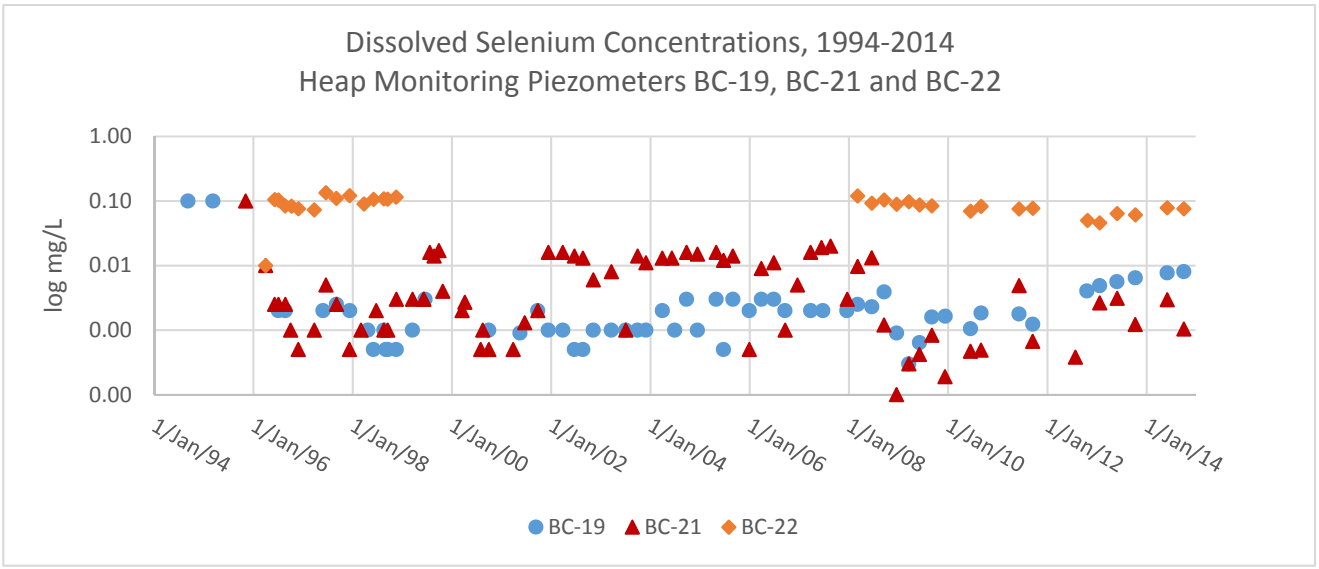

Total Arsenic Concentrations, 1991 - 2014
South Klondike River
log mg/L
1.0000
0.1000
0.0100
0.0010
0.0001
1-Jan-91
31-Dec-92
1-Jan-95
31-Dec-96
1-Jan-99
1-Jan-01
1-Jan-03
1-Jan-05
1-Jan-07
1-Jan-09
2-Jan-11
1-Jan-13
S. Klondike R. (BC-06)
CCME As Guideline
Reference As Conc.

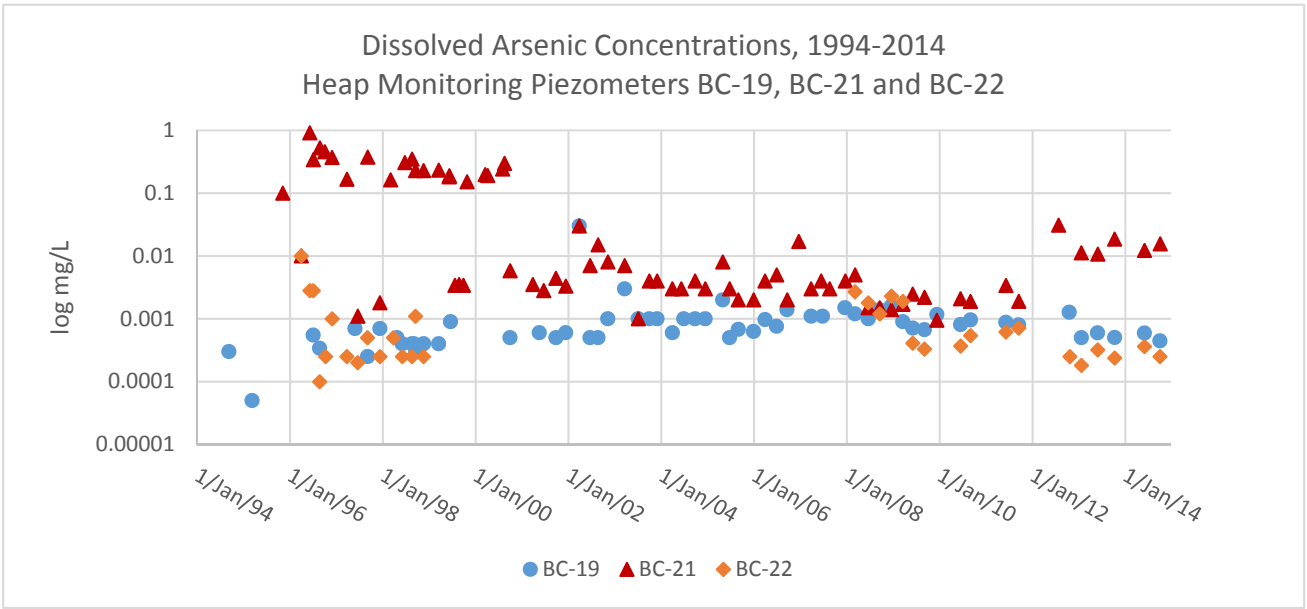

Total Nitrate Concentrations, 1991 - 2013
South Klondike River
10.000
1.000
0.100
0.010
log mg/L
1-Jan-91
31-Dec-92
1-Jan-95
31-Dec-96
1-Jan-99
1-Jan-01
1-Jan-03
1-Jan-05
1-Jan-07
1-Jan-09
2-Jan-11
1-Jan-13
2-Jan-15
S. Klondike R. (BC-06)
CCME NO3 Guideline
Reference NO3 Conc.

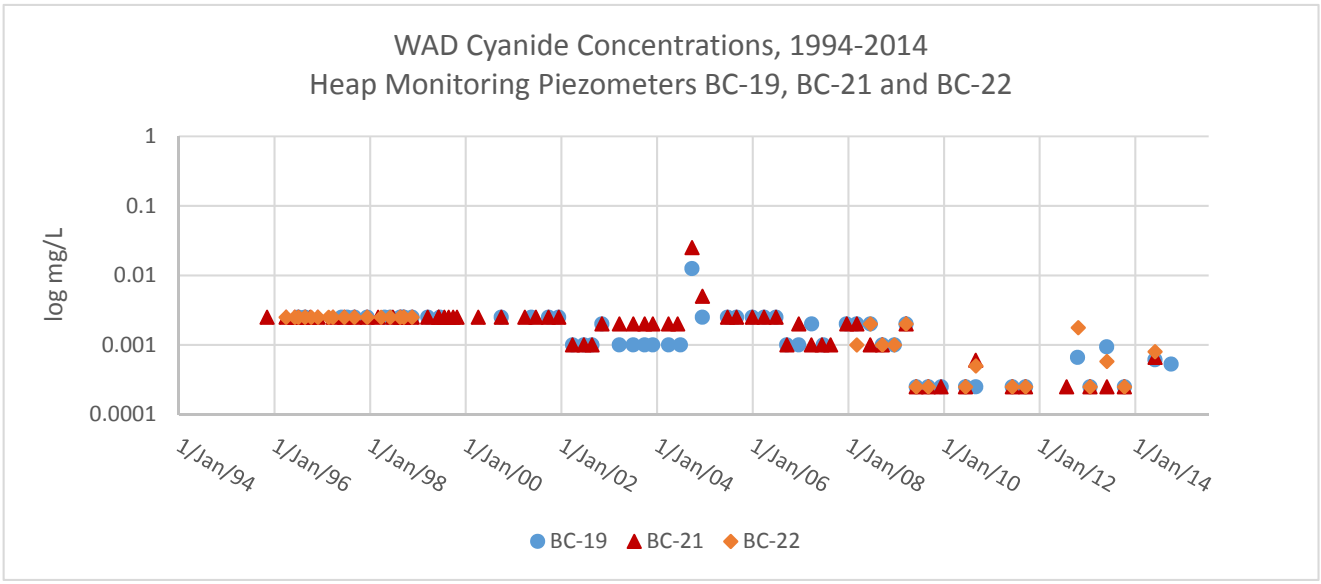
APPENDIX C

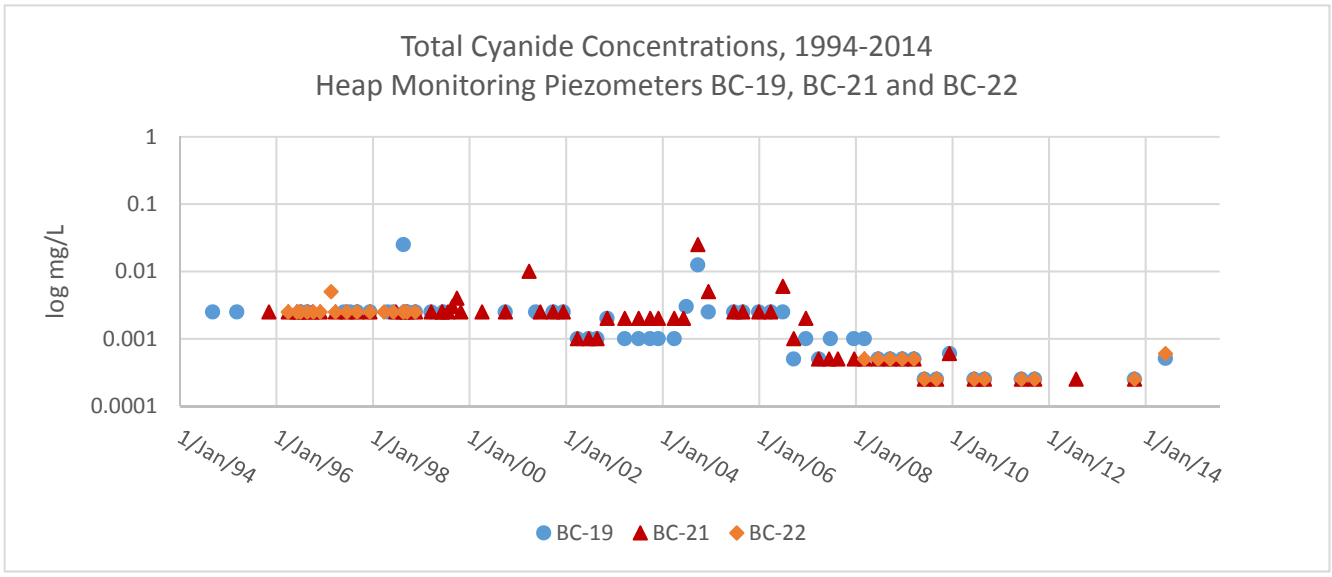
GROUNDWATER GRAPHICAL DATA

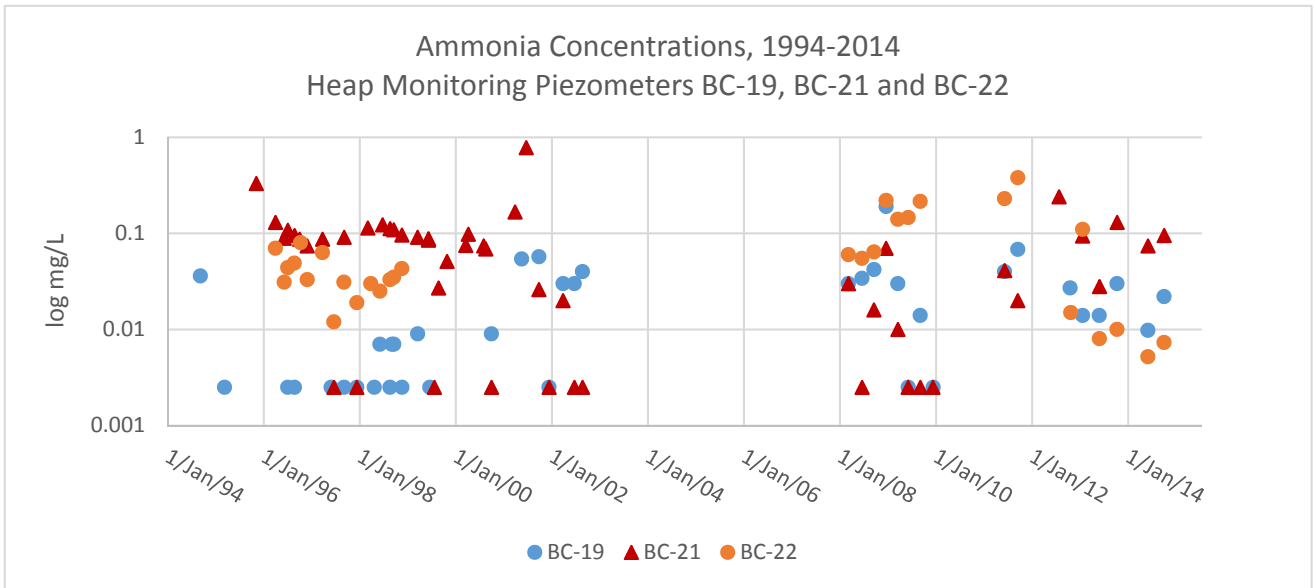

Dissolved Antimony Concentrations, 1994-2014
Heap Monitoring Piezometers BC-19, BC-21 and BC-22
log mg/L
1
0.1
0.01
0.001
0.0001
0.00001
1/Jan/94
1/Jan/96
1/Jan/98
1/Jan/00
1/Jan/02
1/Jan/04
1/Jan/06
1/Jan/08
1/Jan/10
1/Jan/12
1/Jan/14
BC-19
BC-21
BC-22

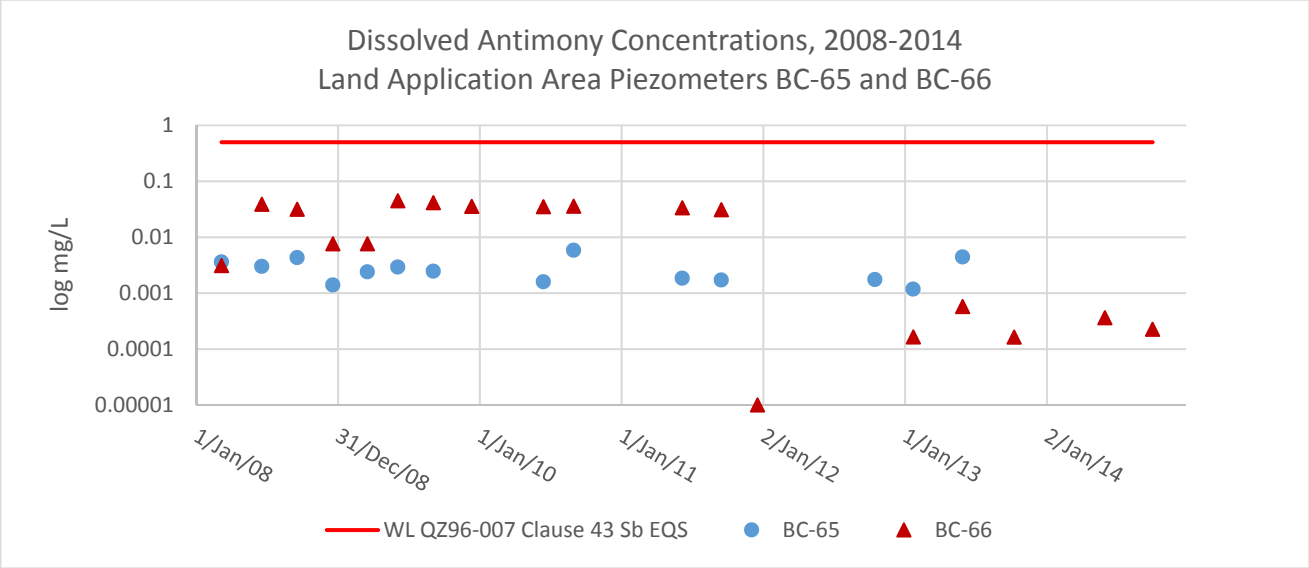

Dissolved Selenium Concentrations, 1994-2014
Heap Monitoring Piezometers BC-19, BC-21 and BC-22
log mg/L
1.00
0.10
0.01
0.00
0.00
1/Jan/94
1/Jan/96
1/Jan/98
1/Jan/00
1/Jan/02
1/Jan/04
1/Jan/06
1/Jan/08
1/Jan/10
1/Jan/12
1/Jan/14
BC-19
BC-21
BC-22

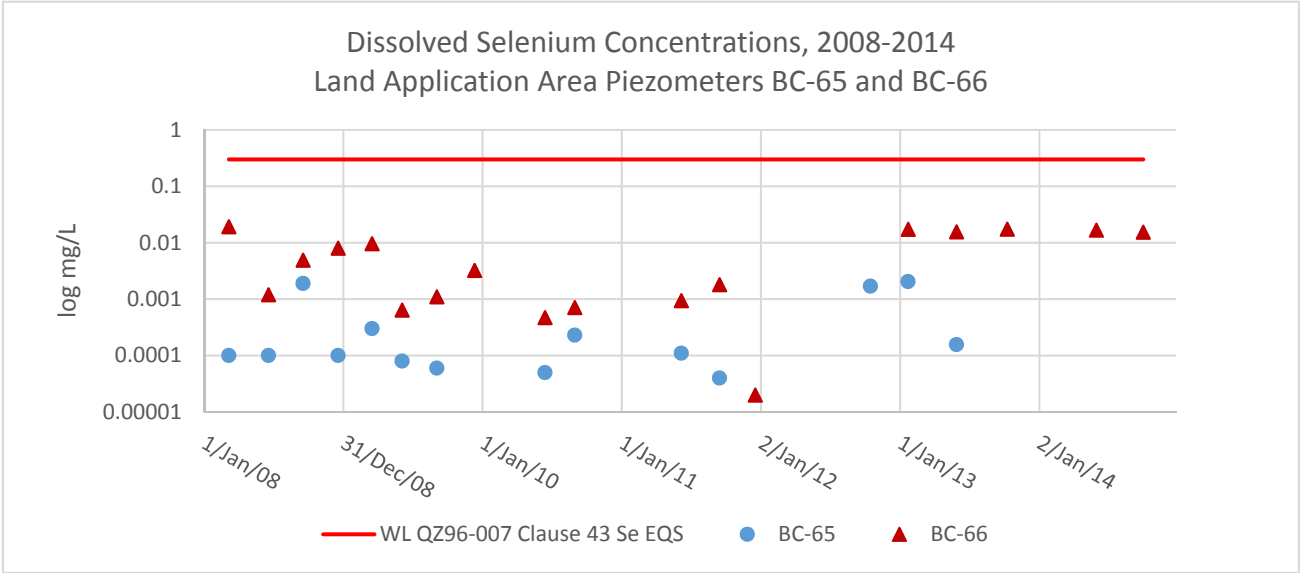

Dissolved Arsenic Concentrations, 1994-2014
Heap Monitoring Piezometers BC-19, BC-21 and BC-22
log mg/L
1
0.1
0.01
0.001
0.0001
0.00001
1/Jan/94
1/Jan/96
1/Jan/98
1/Jan/00
1/Jan/02
1/Jan/04
1/Jan/06
1/Jan/08
1/Jan/10
1/Jan/12
1/Jan/14
BC-19
BC-21
BC-22

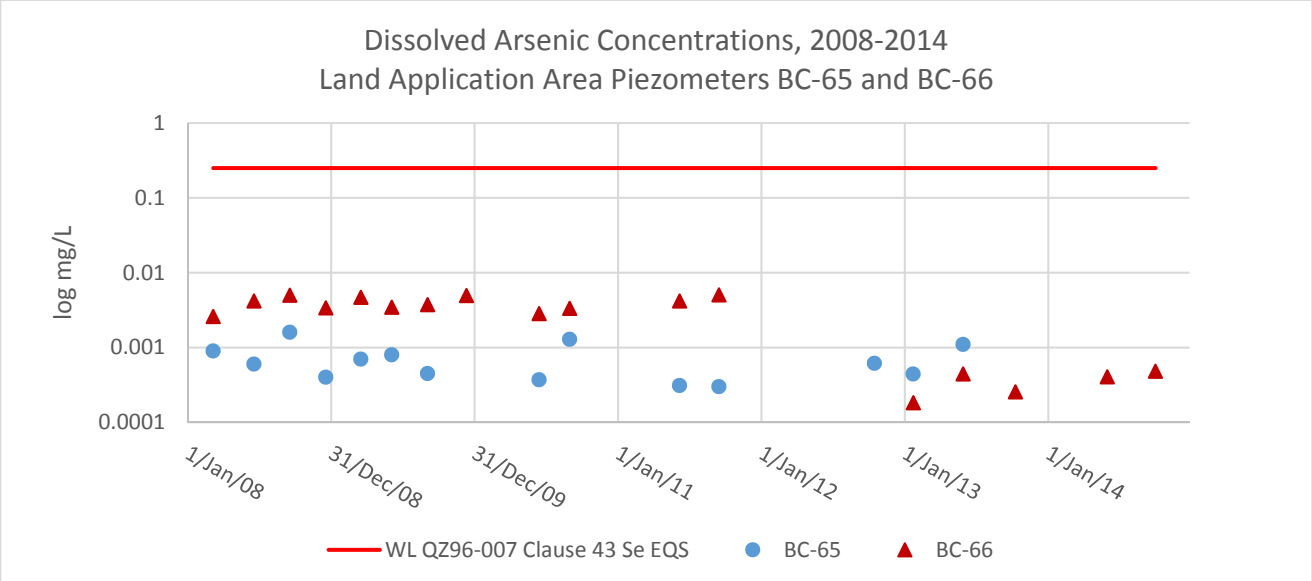

WAD Cyanide Concentrations, 1994-2014
Heap Monitoring Piezometers BC-19, BC-21 and BC-22
log mg/L
1
0.1
0.01
0.001
0.0001
1/Jan/94
1/Jan/96
1/Jan/98
1/Jan/00
1/Jan/02
1/Jan/04
1/Jan/06
1/Jan/08
1/Jan/10
1/Jan/12
1/Jan/14
BC-19
BC-21
BC-22

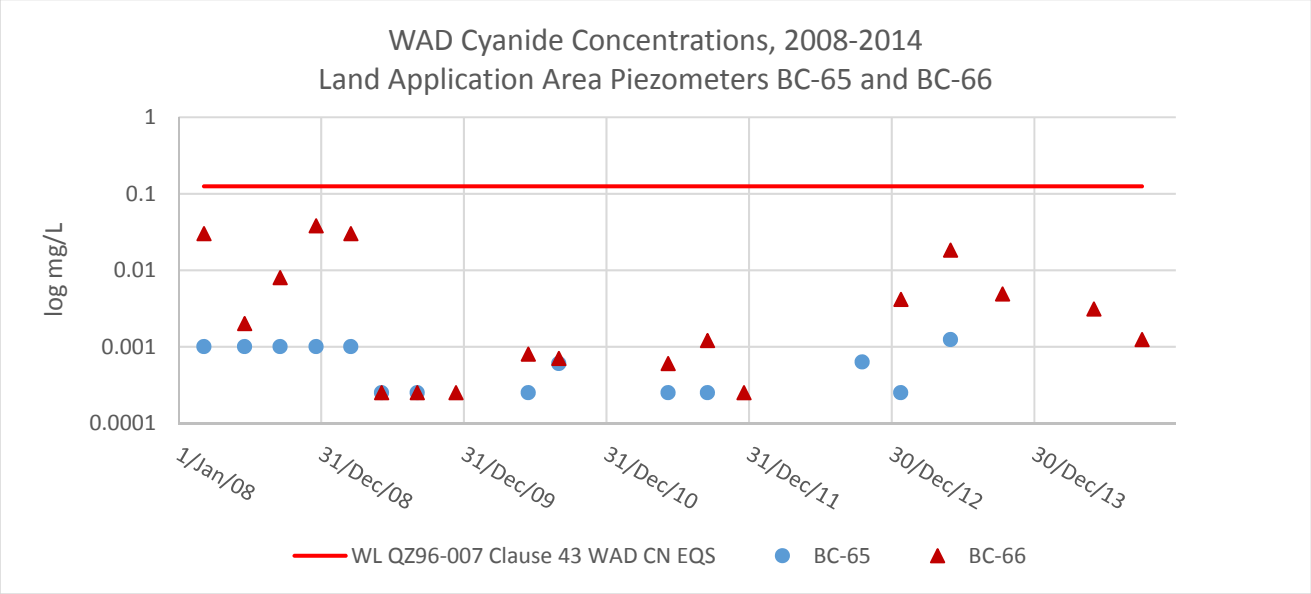

Total Cyanide Concentrations, 1994-2014
Heap Monitoring Piezometers BC-19, BC-21 and BC-22
log mg/L
1
0.1
0.01
0.001
0.0001
1/Jan/94
1/Jan/96
1/Jan/98
1/Jan/00
1/Jan/02
1/Jan/04
1/Jan/06
1/Jan/08
1/Jan/10
1/Jan/12
1/Jan/14
BC-19
BC-21
BC-22

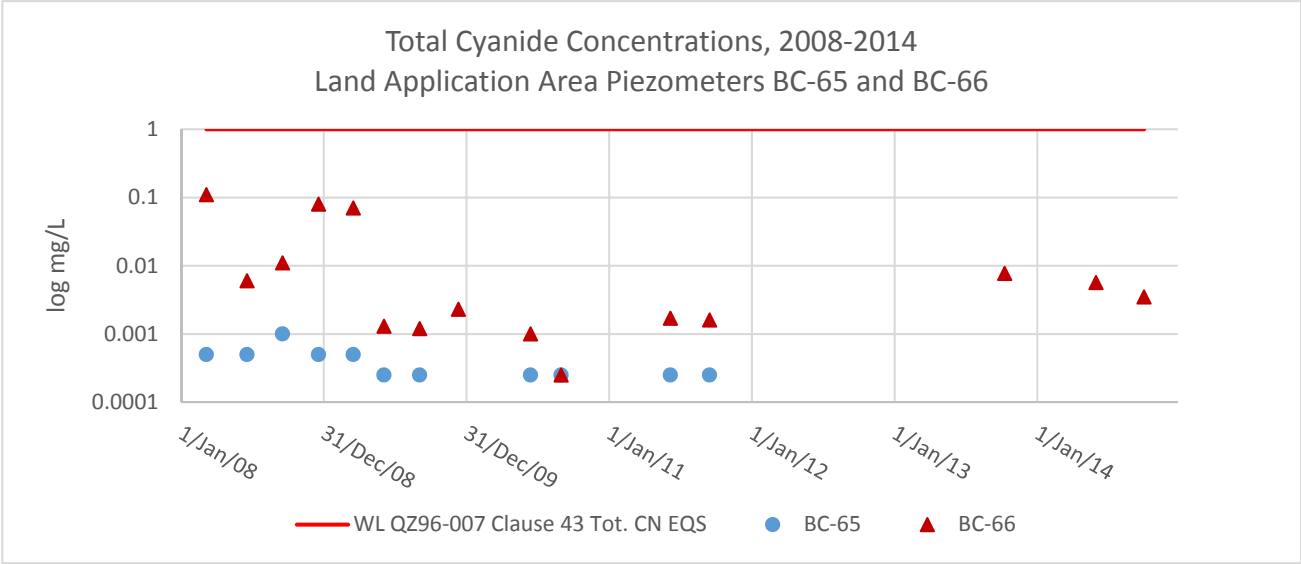

Ammonia Concentrations, 1994-2014
Heap Monitoring Piezometers BC-19, BC-21 and BC-22
log mg/L
1
0.1
0.01
0.001
1/Jan/94
1/Jan/96
1/Jan/98
1/Jan/00
1/Jan/02
1/Jan/04
1/Jan/06
1/Jan/08
1/Jan/10
1/Jan/12
1/Jan/14
BC-19
BC-21
BC-22

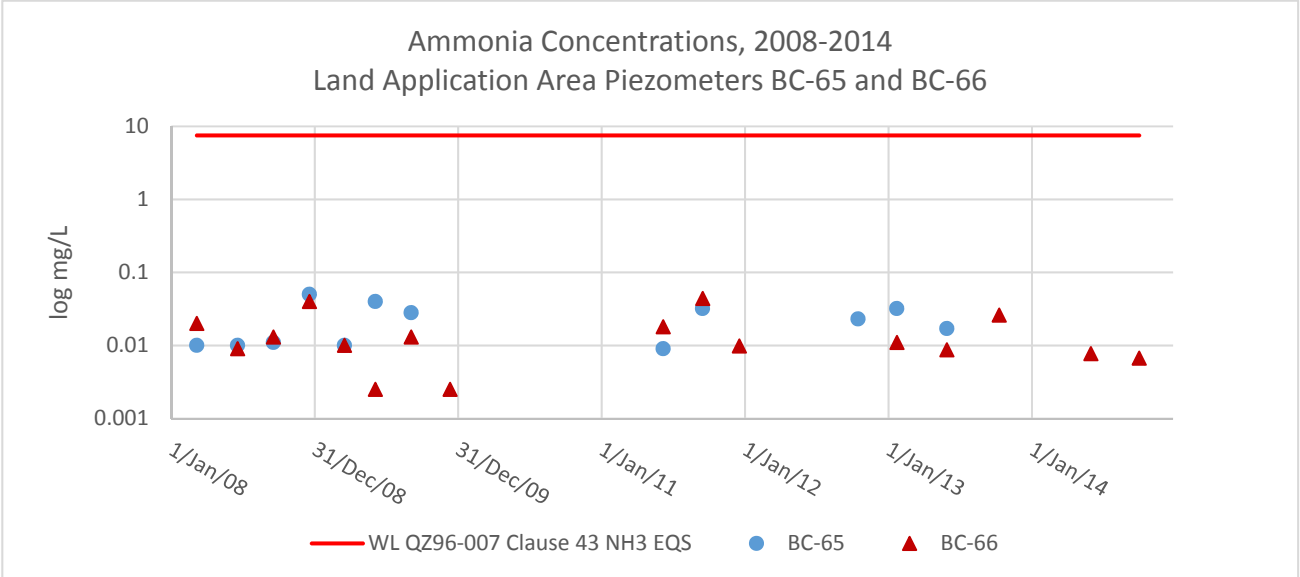

Dissolved Antimony Concentrations, 2008-2014
Land Application Area Piezometers BC-65 and BC-66
log mg/L
1
0.1
0.01
0.001
0.0001
0.00001
1/Jan/08
31/Dec/08
1/Jan/10
1/Jan/11
2/Jan/12
1/Jan/13
2/Jan/14
WL QZ96-007 Clause 43 Sb EQS
BC-65
BC-66

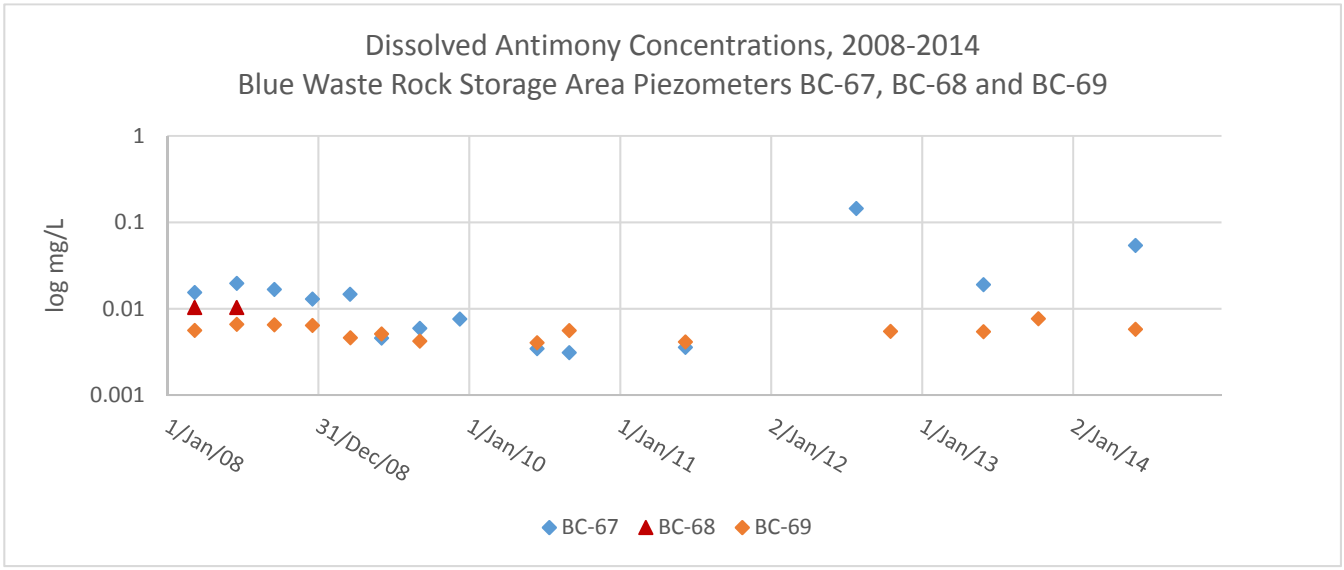

Dissolved Selenium Concentrations, 2008-2014
Land Application Area Piezometers BC-65 and BC-66
log mg/L
1
0.1
0.01
0.001
0.0001
0.00001
1/Jan/08
31/Dec/08
1/Jan/10
1/Jan/11
2/Jan/12
1/Jan/13
2/Jan/14
WL QZ96-007 Clause 43 Se EQS
BC-65
BC-66

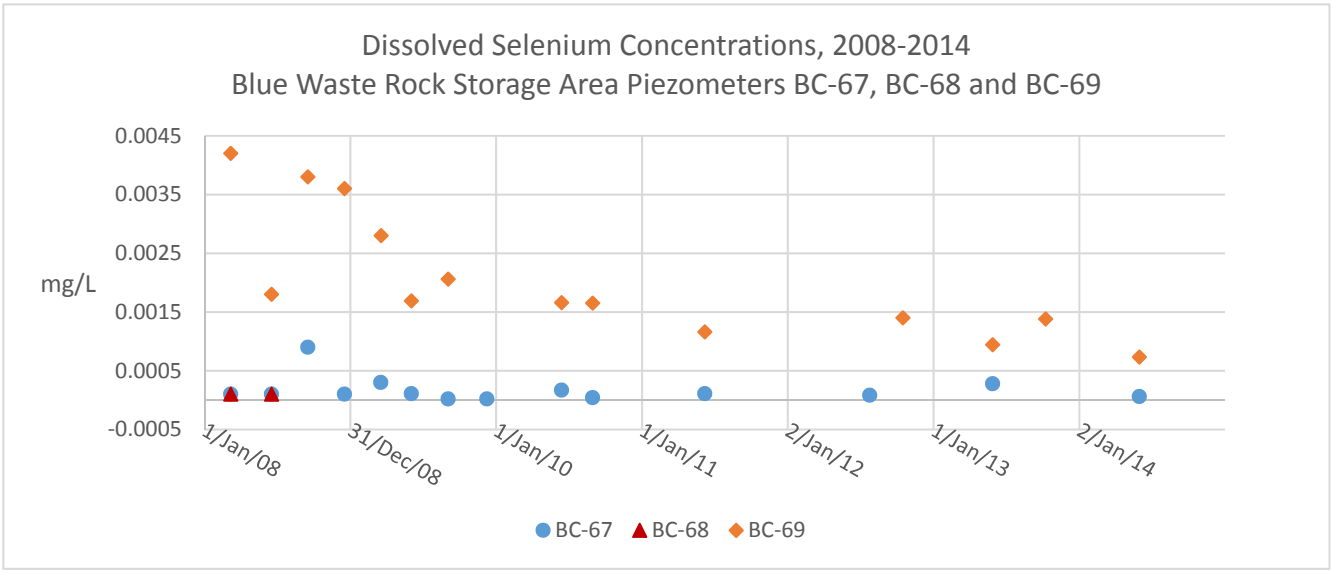

Dissolved Arsenic Concentrations, 2008-2014
Land Application Area Piezometers BC-65 and BC-66
log mg/L
1
0.1
0.01
0.001
0.0001
1/Jan/08
31/Dec/08
31/Dec/09
1/Jan/11
1/Jan/12
1/Jan/13
1/Jan/14
WL QZ96-007 Clause 43 Se EQS
BC-65
BC-66

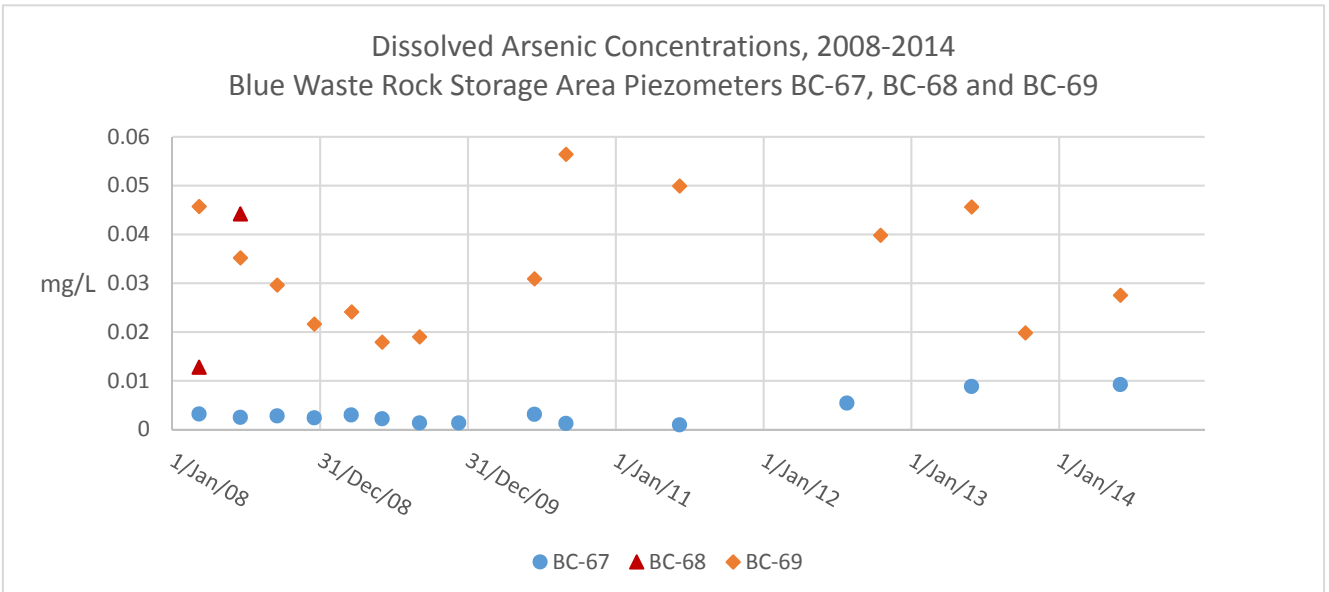

WAD Cyanide Concentrations, 2008-2014
Land Application Area Piezometers BC-65 and BC-66
log mg/L
1
0.1
0.01
0.001
0.0001
1/Jan/08
31/Dec/08
31/Dec/09
31/Dec/10
31/Dec/11
30/Dec/12
30/Dec/13
WL QZ96-007 Clause 43 WAD CN EQS
BC-65
BC-66

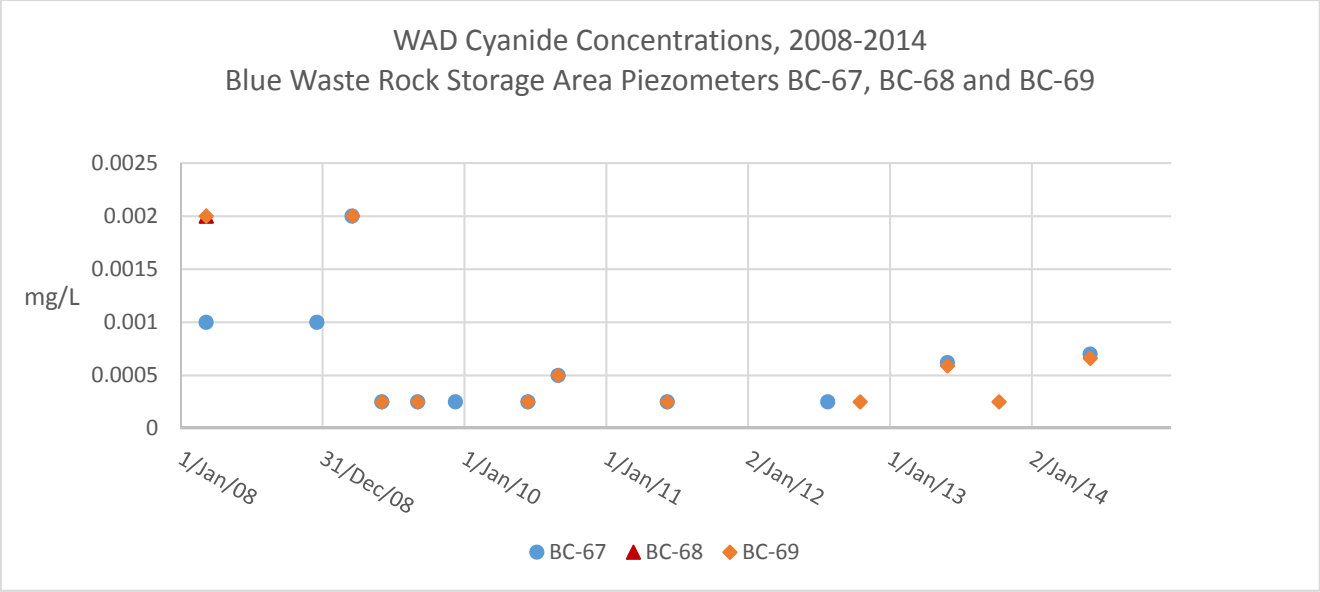

Total Cyanide Concentrations, 2008-2014
Land Application Area Piezometers BC-65 and BC-66
log mg/L
1
0.1
0.01
0.001
0.0001
1/Jan/08
31/Dec/08
31/Dec/09
1/Jan/11
1/Jan/12
1/Jan/13
1/Jan/14
WL QZ96-007 Clause 43 Tot. CN EQS
BC-65
BC-66

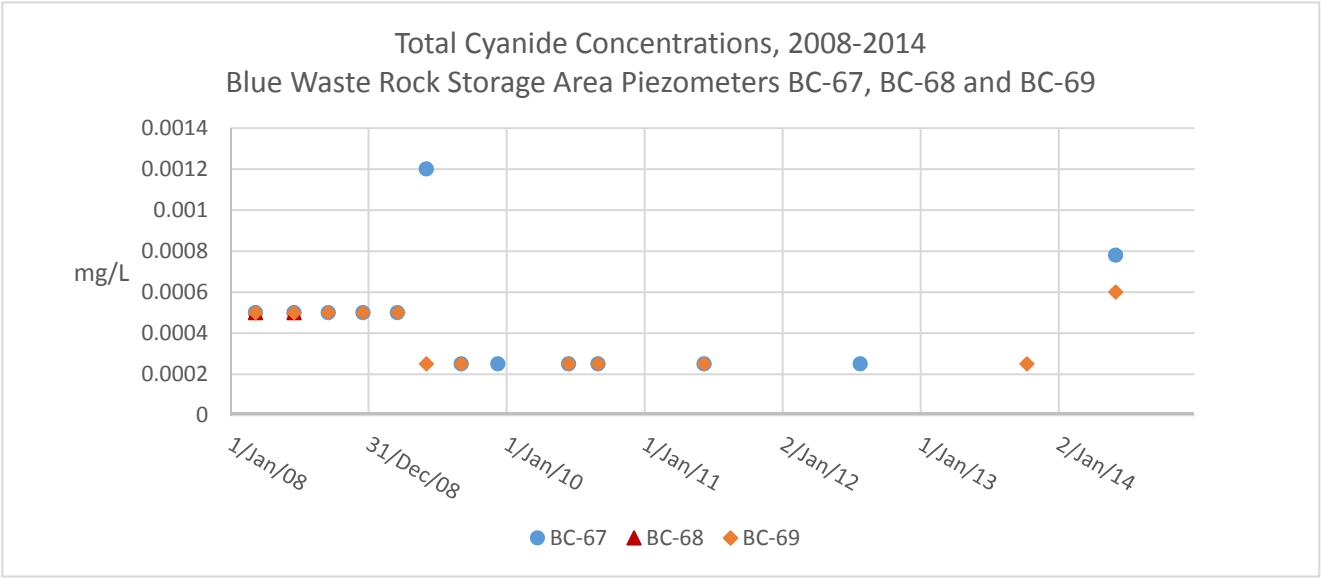

Ammonia Concentrations, 2008-2014
Land Application Area Piezometers BC-65 and BC-66
log mg/L
10
1
0.1
0.01
0.001
1/Jan/08
31/Dec/08
31/Dec/09
1/Jan/11
1/Jan/12
1/Jan/13
1/Jan/14
WL QZ96-007 Clause 43 NH3 EQS
BC-65
BC-66

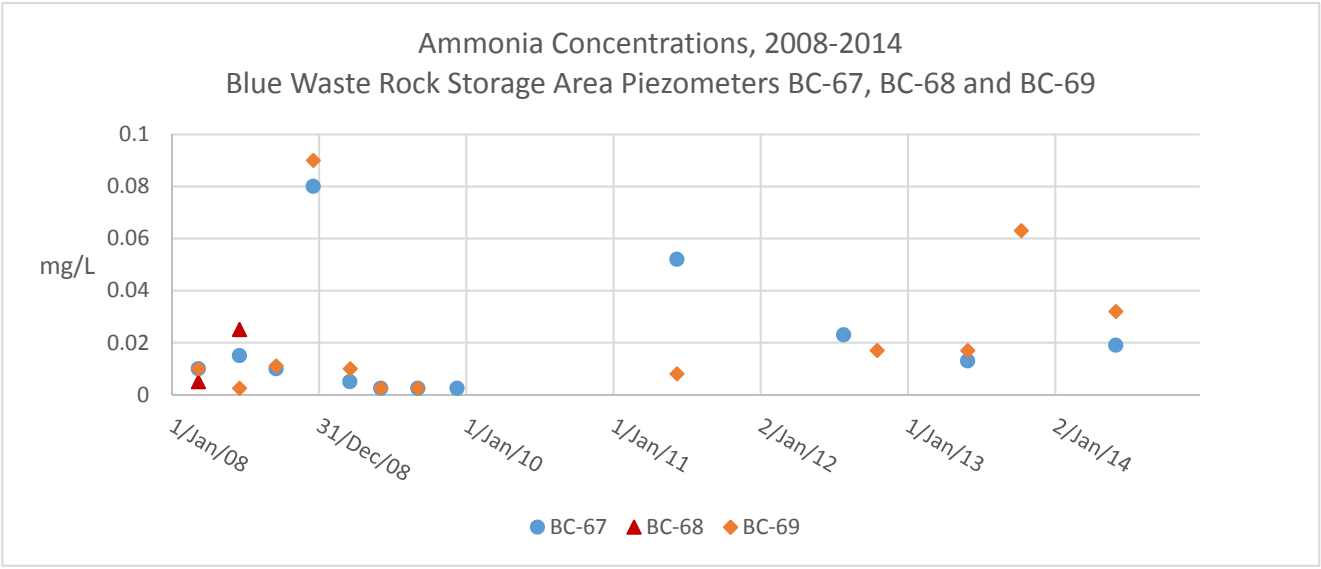

Dissolved Antimony Concentrations, 2008-2014
Blue Waste Rock Storage Area Piezometers BC-67, BC-68 and BC-69
log mg/L
1
0.1
0.01
0.001
1/Jan/08
31/Dec/08
1/Jan/10
1/Jan/11
2/Jan/12
1/Jan/13
2/Jan/14
BC-67
BC-68
BC-69


Dissolved Selenium Concentrations, 2008-2014
Blue Waste Rock Storage Area Piezometers BC-67, BC-68 and BC-69
mg/L
0.0045
0.0035
0.0025
0.0015
0.0005
-0.0005
1/Jan/08
31/Dec/08
1/Jan/10
1/Jan/11
2/Jan/12
1/Jan/13
2/Jan/14
BC-67
BC-68
BC-69


Dissolved Arsenic Concentrations, 2008-2014
Blue Waste Rock Storage Area Piezometers BC-67, BC-68 and BC-69
mg/L
0.06
0.05
0.04
0.03
0.02
0.01
0
1/Jan/08
31/Dec/08
31/Dec/09
1/Jan/11
1/Jan/12
1/Jan/13
1/Jan/14
BC-67
BC-68
BC-69


WAD Cyanide Concentrations, 2008-2014
Blue Waste Rock Storage Area Piezometers BC-67, BC-68 and BC-69
mg/L
0.0025
0.002
0.0015
0.001
0.0005
0
1/Jan/08
31/Dec/08
1/Jan/10
1/Jan/11
2/Jan/12
1/Jan/13
2/Jan/14
BC-67
BC-68
BC-69


Total Cyanide Concentrations, 2008-2014
Blue Waste Rock Storage Area Piezometers BC-67, BC-68 and BC-69
mg/L
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
1/Jan/08
31/Dec/08
1/Jan/10
1/Jan/11
2/Jan/12
1/Jan/13
2/Jan/14
BC-67
BC-68
BC-69


Ammonia Concentrations, 2008-2014
Blue Waste Rock Storage Area Piezometers BC-67, BC-68 and BC-69
mg/L
0.1
0.08
0.06
0.04
0.02
0
1/Jan/08
31/Dec/08
1/Jan/10
1/Jan/11
2/Jan/12
1/Jan/13
2/Jan/14
BC-67
BC-68
BC-69

APPENDIX C

LAB REPORTS

Maxxam

Success Through Science®

Your Project #: GPBC-13-01
Your C.O.C. #: 08388134, 08388133, 08388135

Attention: Scott Keesey
ACCESS CONSULTING GROUP
#3 Calcite
151 Industrial Road
WHITEHORSE, YT
CANADA Y1A 3C8

Report Date: 2014/02/11
Report #: R1514885
Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B408913
Received: 2014/02/04, 13:25

Sample Matrix: Water
Samples Received: 21

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity - Water	21	2014/02/05	2014/02/05	BBY6SOP-00026	SM2320B
Chloride by Automated Colourimetry	21	N/A	2014/02/05	BBY6SOP-00011	SM-4500-Cl-
Cyanide SAD (strong acid dissociable)	21	N/A	2014/02/05	BBY6SOP-00004	SM-4500CN I
Cyanide WAD (weak acid dissociable)	21	N/A	2014/02/05	BBY6SOP-00005	SM-4500CN I
Colour (True)	21	N/A	2014/02/05	BBY6SOP-00021	SM-2120B
Carbon (DOC) - field filtered/preserved (1)	13	N/A	2014/02/05	BBY6SOP-00003	SM-5310C
Carbon (DOC) - unfiltered/unpreserved (1)	1	N/A	2014/02/05	BBY6SOP-00003	SM-5310C
Conductance - water	21	N/A	2014/02/05	BBY6SOP-00026	SM-2510B
Fluoride - Mining Clients	21	N/A	2014/02/05	BBY6SOP-00012	SM - 4500 F C
Hardness Total (calculated as CaCO3)	13	N/A	2014/02/06	BBY7SOP-00002	EPA 6020A
Hardness (calculated as CaCO3)	20	N/A	2014/02/06	BBY7SOP-00002	EPA 6020A
Hardness (calculated as CaCO3)	1	N/A	2014/02/07	BBY7SOP-00002	EPA 6020A
Mercury (Dissolved-LowLevel) by CVAF	21	N/A	2014/02/06	BBY7SOP-00015	EPA 245.7
Mercury (Total-LowLevel) by CVAF	13	2014/02/07	2014/02/07	BBY7SOP-00015	EPA 245.7
Bromide as Bromine (Br) by ICPMS	21	N/A	2014/02/07	BBY7SOP-00002	EPA 6020A
Ion Balance	15	N/A	2014/02/06	Calc	
Ion Balance	6	N/A	2014/02/07	Calc	
Sum of cations, anions	20	N/A	2014/02/06	Calc	
Sum of cations, anions	1	N/A	2014/02/07	Calc	
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	20	N/A	2014/02/06	BBY7SOP-00002	EPA 6020A
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	1	N/A	2014/02/07	BBY7SOP-00002	EPA 6020A
Elements by ICPMS Low Level (dissolved)	21	N/A	2014/02/06	BBY7SOP-00002	EPA 6020A
Na, K, Ca, Mg, S by CRC ICPMS (total)	13	N/A	2014/02/06	BBY7SOP-00002	EPA 6020A
Elements by ICPMS Low Level (total)	13	N/A	2014/02/06	BBY7SOP-00002	EPA 6020A
Ammonia-N (Unpreserved)	1	N/A	2014/02/05	BBY6SOP-00009	SM-4500NH3G
Ammonia-N (Preserved)	20	N/A	2014/02/05	BBY6SOP-00009	SM-4500NH3G
Nitrate+Nitrite (N) (low level)	21	N/A	2014/02/05	BBY6SOP-00010	EPA 353.2
Nitrite (N) (low level)	21	N/A	2014/02/05	BBY6SOP-00010	SM 4500NO3-I
Nitrogen - Nitrate (as N)	21	N/A	2014/02/05	BBY6SOP-00010	SM 4500NO3-I
Filter and HNO3 Preserve for Metals	21	N/A	2014/02/05	BBY6WI-00001	EPA 200.2
pH Water (2)	21	N/A	2014/02/05	BBY6SOP-00026	SM-4500H+B
Orthophosphate by Konelab (low level)	17	N/A	2014/02/05	BBY6SOP-00013	SM 4500 P E
Orthophosphate by Konelab (low level)	4	N/A	2014/02/07	BBY6SOP-00013	SM 4500 P E
Sulphate by Automated Colourimetry	16	N/A	2014/02/05	BBY6SOP-00017	SM4500-SO42- E
Sulphate by Automated Colourimetry	5	N/A	2014/02/06	BBY6SOP-00017	SM4500-SO42- E
Total Dissolved Solids (Filt. Residue)	19	2014/02/06	2014/02/07	BBY6SOP-00033	SM 2540C
Total Dissolved Solids (Filt. Residue)	2	2014/02/07	2014/02/11	BBY6SOP-00033	SM 2540C
Total Suspended Solids-Low Level	14	2014/02/05	2014/02/05	BBY6SOP-00034	SM-2540 D

ACCESS CONSULTING GROUP
Client Project #: GPBC-13-01

Maxxam Job #: B408913
Report Date: 2014/02/11

* Results relate only to the items tested.

(1) DOC present in the sample should be considered as non-purgeable DOC.
(2) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Ken Pomeroy, Project Manager
Email: KPomeroy@maxxam.ca
Phone# (604) 638-5020

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B408913
Report Date: 2014/02/11

ACCESS CONSULTING GROUP
Client Project #: GPBC-13-01

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		IP6998		IP6999		IP7000	IP7001	IP7002		IP7003		
Sampling Date		2014/01/31 10:38		2014/01/31 11:00		2014/01/31 16:50	2014/01/30 17:07	2014/01/31 15:23				
	UNITS	**BC-33**	**RDL**	**BC-05**	**RDL**	**BC-06**	**BC-34**	**BC-32**	**QC Batch**	**SAMPLE B**	**RDL**	**QC Batch**
Misc. Inorganics												
Fluoride (F)	mg/L	0.150	0.010	0.290	0.010	0.130	0.160	0.300	7373060	0.150	0.010	7373060
Calculated Parameters												
Anion Sum	meq/L	7.4	N/A	12	N/A	5.3	7.3	8.6	7371913	7.5	N/A	7371913
Cation Sum	meq/L	7.1	N/A	11	N/A	5.0	7.3	8.3	7371913	7.2	N/A	7371913
Filter and HNO3 Preservation	N/A	LAB	N/A	LAB	N/A	LAB	LAB	LAB	7372852	LAB	N/A	7372852
Ion Balance	N/A	0.95	0.010	0.93	0.010	0.94	0.99	0.97	7371912	0.96	0.010	7371912
Nitrate (N)	mg/L	0.387	0.0020	0.0518	0.0020	0.268	0.371	0.122	7370988	0.371	0.0020	7370988
Misc. Inorganics												
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00062	0.00050	0.00072	0.00050	0.00061	0.00057	0.00067	7372913	0.00069	0.00050	7372913
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00060	0.00050	0.00083	0.00050	0.00052	0.00065	0.00076	7372918	0.00060	0.00050	7372918
Dissolved Organic Carbon (C)	mg/L	2.14	0.50	4.57	0.50	1.82	2.21	1.64	7372422	2.17	0.50	7372422
Alkalinity (Total as CaCO3)	mg/L	165	0.50	264	0.50	131	166	228	7373040	166	0.50	7373040
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	<0.50	0.50	<0.50	<0.50	<0.50	7373040	<0.50	0.50	7373040
Bicarbonate (HCO3)	mg/L	201	0.50	323	0.50	159	202	278	7373040	203	0.50	7373040
Carbonate (CO3)	mg/L	<0.50	0.50	<0.50	0.50	<0.50	<0.50	<0.50	7373040	<0.50	0.50	7373040
Hydroxide (OH)	mg/L	<0.50	0.50	<0.50	0.50	<0.50	<0.50	<0.50	7373040	<0.50	0.50	7373040
Anions												
Orthophosphate (P)	mg/L	0.0099(1)	0.0010	0.013(1)	0.0010	0.0089(1)	0.0093(1)	0.0054(1)	7373305	0.0067	0.0010	7373305
Dissolved Sulphate (SO4)	mg/L	196	0.50	328	5.0	126	192	192	7373340	198	0.50	7374794
Dissolved Chloride (Cl)	mg/L	0.59	0.50	0.82	0.50	0.56	<0.50	1.0	7373339	<0.50	0.50	7373339
MISCELLANEOUS												
True Colour	Col. Unit	<5.0(1)	5.0	5.0(1)	5.0	<5.0(1)	5.0(1)	5.0(1)	7372880	<5.0	5.0	7372880
Nutrients												
Ammonia (N)	mg/L	0.0081	0.0050	0.0093	0.0050	0.0057	0.015	0.032	7372575	0.0091	0.0050	7372575
Nitrate plus Nitrite (N)	mg/L	0.387(1)	0.0020	0.0518(1)	0.0020	0.268(1)	0.371(1)	0.122(1)	7373292	0.371	0.0020	7373292
Nitrite (N)	mg/L	<0.0020(1)	0.0020	<0.0020(1)	0.0020	<0.0020(1)	<0.0020(1)	<0.0020(1)	7373295	<0.0020	0.0020	7373295
Physical Properties												
Conductivity	uS/cm	662	1.0	974	1.0	484	664	752	7373045	663	1.0	7373045
pH	pH	8.00		7.95		7.90	8.00	7.84	7373046	8.08		7373046
Physical Properties												
Total Suspended Solids	mg/L	<1.0	1.0	<1.0	1.0	2.2	<1.0	2.4	7372630	<1.0	1.0	7372630
Total Dissolved Solids	mg/L	444	10	682	10	360	378	610	7374240	430	10	7374240

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) - Sample arrived to laboratory past recommended hold time.

Maxxam Job #: B408913
Report Date: 2014/02/11

ACCESS CONSULTING GROUP
Client Project #: GPBC-13-01

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		IP7004	IP7005			IP7006		IP7007		IP7008		
Sampling Date		2014/02/01 10:17	2014/02/01 11:41			2014/02/01 12:58		2014/02/01 13:34		2014/02/01 14:20		
	UNITS	**BC-36**	**BC-04**	**RDL**	**QC Batch**	**BC-74**	**QC Batch**	**BC-73**	**QC Batch**	**BC-72**	**RDL**	**QC Batch**
Misc. Inorganics												
Fluoride (F)	mg/L	0.220	0.410	0.010	7373060	0.170	7373060	0.270	7373060	0.270	0.010	7373060
Calculated Parameters												
Anion Sum	meq/L	10	11	N/A	7371913	2.2	7371913	3.0	7371913	4.7	N/A	7371913
Cation Sum	meq/L	9.0	10	N/A	7371913	2.2	7371913	3.0	7371913	4.6	N/A	7371913
Filter and HNO3 Preservation	N/A	LAB	LAB	N/A	7372852	LAB	7372852	LAB	7372852	LAB	N/A	7372852
Ion Balance	N/A	0.88	0.91	0.010	7371912	0.99	7371912	1.0	7371912	0.99	0.010	7371912
Nitrate (N)	mg/L	0.399	0.151	0.0020	7370988	0.444	7370988	0.763	7370988	0.235	0.0020	7370988
Misc. Inorganics												
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00068	0.00063	0.00050	7372913	0.00073	7372913	0.00070	7372913	0.00063	0.00050	7372913
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00082	0.00078	0.00050	7372918	0.00081	7372918	0.00057	7372918	0.00083	0.00050	7372918
Dissolved Organic Carbon (C)	mg/L	1.86	1.05	0.50	7372422	2.86	7372422	2.44	7372422	1.85	0.50	7372422
Alkalinity (Total as CaCO3)	mg/L	236	214	0.50	7373040	86.1	7373040	105	7373040	155	0.50	7373040
Alkalinity (PP as CaCO3)	mg/L	<0.50	<0.50	0.50	7373040	<0.50	7373040	<0.50	7373040	<0.50	0.50	7373040
Bicarbonate (HCO3)	mg/L	288	261	0.50	7373040	105	7373040	128	7373040	190	0.50	7373040
Carbonate (CO3)	mg/L	<0.50	<0.50	0.50	7373040	<0.50	7373040	<0.50	7373040	<0.50	0.50	7373040
Hydroxide (OH)	mg/L	<0.50	<0.50	0.50	7373040	<0.50	7373040	<0.50	7373040	<0.50	0.50	7373040
Anions												
Orthophosphate (P)	mg/L	0.0047(1)	<0.0010(1)	0.0010	7375757	0.081(1)	7373305	0.11(1)	7375757	0.070(1)	0.0010	7373305
Dissolved Sulphate (SO4)	mg/L	267	324	5.0	7373340	20.5	7373340	40.7	7374794	73.9	0.50	7373340
Dissolved Chloride (Cl)	mg/L	<0.50	<0.50	0.50	7373339	0.51	7373339	<0.50	7373339	<0.50	0.50	7373339
MISCELLANEOUS												
True Colour	Col. Unit	5.0(1)	5.0(1)	5.0	7372880	5.0(1)	7372880	5.0(1)	7372880	<5.0(1)	5.0	7372880
Nutrients												
Ammonia (N)	mg/L	0.10	0.022	0.0050	7372575	0.0055	7372575	<0.0050	7372575	0.011	0.0050	7372575
Nitrate plus Nitrite (N)	mg/L	0.399(1)	0.151(1)	0.0020	7373292	0.444(1)	7373292	0.763(1)	7373292	0.235(1)	0.0020	7373292
Nitrite (N)	mg/L	<0.0020(1)	<0.0020(1)	0.0020	7373295	<0.0020(1)	7373295	<0.0020(1)	7373295	<0.0020(1)	0.0020	7373295
Physical Properties												
Conductivity	uS/cm	823	901	1.0	7373045	213	7373045	291	7373045	432	1.0	7373045
pH	pH	8.04	7.90		7373046	7.91	7373046	7.85	7373046	8.14		7373046
Physical Properties												
Total Suspended Solids	mg/L	1.4	56.9	1.0	7372630	<1.0	7372630	<1.0	7372630	1.8	1.0	7372630
Total Dissolved Solids	mg/L	572	516	10	7374240	178	7374240	216	7374240	296	10	7374240

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) - Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

Maxxam Job #: B408913
Report Date: 2014/02/11

ACCESS CONSULTING GROUP
Client Project #: GPBC-13-01

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		IP7009			IP7010		IP7012		
Sampling Date		2014/02/01 16:15			2014/01/04		2014/01/29 14:30		
	UNITS	**BC-3**	**RDL**	**QC Batch**	**TRIP BLANK**	**QC Batch**	**LF-12-01**	**RDL**	**QC Batch**
Misc. Inorganics									
Fluoride (F)	mg/L	0.270	0.010	7373060	<0.010	7373060	1.10	0.010	7373060
Calculated Parameters									
Anion Sum	meq/L	9.3	N/A	7371913	0.019	7371913	3.9	N/A	7371913
Cation Sum	meq/L	8.2	N/A	7371913	0.00070	7371913	3.9	N/A	7371913
Filter and HNO3 Preservation	N/A	LAB	N/A	7372852	LAB	7372852	LAB	N/A	7372852
Ion Balance	N/A	0.88	0.010	7371912	0.038(1)	7371912	0.99	0.010	7371912
Nitrate (N)	mg/L	0.144	0.0020	7370988	<0.0020	7370988	0.0073	0.0020	7370988
Misc. Inorganics									
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00075	0.00050	7372913	0.00069	7372913	0.00064	0.00050	7372913
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00089	0.00050	7372918	0.00074	7372918	0.00061	0.00050	7372918
Dissolved Organic Carbon (C)	mg/L	1.97	0.50	7372422	<0.50(2)	7372427		0.50	
Alkalinity (Total as CaCO3)	mg/L	199	0.50	7373040	0.93	7373040	165	0.50	7373040
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	7373040	<0.50	7373040	<0.50	0.50	7373040
Bicarbonate (HCO3)	mg/L	242	0.50	7373040	1.14	7373040	201	0.50	7373040
Carbonate (CO3)	mg/L	<0.50	0.50	7373040	<0.50	7373040	<0.50	0.50	7373040
Hydroxide (OH)	mg/L	<0.50	0.50	7373040	<0.50	7373040	<0.50	0.50	7373040
Anions									
Orthophosphate (P)	mg/L	0.0077(3)	0.0010	7373305	<0.0010(2)	7373305	0.0026(2)	0.0010	7373305
Dissolved Sulphate (SO4)	mg/L	255	5.0	7373340	<0.50	7374794	26.4	0.50	7374794
Dissolved Chloride (Cl)	mg/L	1.1	0.50	7373339	<0.50	7373339	0.87	0.50	7373339
MISCELLANEOUS									
True Colour	Col. Unit	5.0(3)	5.0	7372880	<5.0	7372880	<5.0(2)	5.0	7372880
Nutrients									
Ammonia (N)	mg/L	0.019	0.0050	7372575	<0.0050(2)	7372573	0.064	0.0050	7372575
Nitrate plus Nitrite (N)	mg/L	0.144(3)	0.0020	7373292	<0.0020(2)	7373292	0.0106(2)	0.0020	7373292
Nitrite (N)	mg/L	<0.0020(3)	0.0020	7373295	<0.0020(2)	7373295	0.0033(2)	0.0020	7373295
Physical Properties									
Conductivity	uS/cm	754	1.0	7373045	1.8	7373045	347	1.0	7373045
pH	pH	7.86		7373046	6.16	7373046	7.89		7373046

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) - Ion balance out of optimal range due to high measurement uncertainty at this level (Ion Sum < 0.4 meq/L for both cations and anions).
(2) - Sample arrived to laboratory past recommended hold time.
(3) - Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

Maxxam Job #: B408913
Report Date: 2014/02/11

ACCESS CONSULTING GROUP
Client Project #: GPBC-13-01

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		IP7009			IP7010		IP7012		
Sampling Date		2014/02/01 16:15			2014/01/04		2014/01/29 14:30		
	UNITS	**BC-3**	**RDL**	**QC Batch**	**TRIP BLANK**	**QC Batch**	**LF-12-01**	**RDL**	**QC Batch**
Physical Properties									
Total Suspended Solids	mg/L	2.2	1.0	7372630	<1.0	7372630		1.0	
Total Dissolved Solids	mg/L	528	10	7374240	14(1)	7375932	228(2)	10	7374240

RDL = Reportable Detection Limit
(1) - Sample arrived to laboratory past recommended hold time.
(2) - Sample analysed past recommended hold time.

Maxxam Job #: B408913
Report Date: 2014/02/11

ACCESS CONSULTING GROUP
Client Project #: GPBC-13-01

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		IP7013			IP7014		IP7015		
Sampling Date		2014/01/29 15:50			2014/01/30 15:34				
	UNITS	**LF-XX-02**	**RDL**	**QC Batch**	**EBR-12-03**	**RDL**	**SAMPLE A**	**RDL**	**QC Batch**
Misc. Inorganics									
Fluoride (F)	mg/L	0.360	0.010	7373060	0.930	0.010	0.360	0.010	7373060
Calculated Parameters									
Anion Sum	meq/L	6.9	N/A	7371913	28	N/A	6.8	N/A	7371913
Cation Sum	meq/L	6.7	N/A	7371913	26	N/A	6.8	N/A	7371913
Filter and HNO3 Preservation	N/A	LAB	N/A	7372852	LAB	N/A	LAB	N/A	7372852
Ion Balance	N/A	0.98	0.010	7371912	0.92	0.010	0.99	0.010	7371912
Nitrate (N)	mg/L	0.041	0.020	7370988	0.0030	0.0020	0.022	0.020	7370988
Misc. Inorganics									
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00071	0.00050	7372913	0.00088	0.00050	0.00080	0.00050	7372913
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00061	0.00050	7372918	0.00072	0.00050	0.00071	0.00050	7372918
Alkalinity (Total as CaCO3)	mg/L	260	0.50	7373040	376	0.50	262	0.50	7373040
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	7373040	<0.50	0.50	<0.50	0.50	7373040
Bicarbonate (HCO3)	mg/L	317	0.50	7373040	459	0.50	320	0.50	7373040
Carbonate (CO3)	mg/L	<0.50	0.50	7373040	<0.50	0.50	<0.50	0.50	7373040
Hydroxide (OH)	mg/L	<0.50	0.50	7373040	<0.50	0.50	<0.50	0.50	7373040
Anions									
Orthophosphate (P)	mg/L	0.036(1)	0.0010	7373305	0.0061(1)	0.0010	0.037	0.0010	7373305
Dissolved Sulphate (SO4)	mg/L	76.6	0.50	7374794	992	5.0	73.7	0.50	7373340
Dissolved Chloride (Cl)	mg/L	1.8	0.50	7373339	1.0	0.50	1.7	0.50	7373339
MISCELLANEOUS									
True Colour	Col. Unit	15.0(1)	5.0	7372880	60(2)	10	80(3)	10	7372880
Nutrients									
Ammonia (N)	mg/L	0.017	0.0050	7372575	2.0	0.0050	0.017	0.0050	7372575
Nitrate plus Nitrite (N)	mg/L	0.090(2)	0.020	7373292	0.0030(1)	0.0020	0.064(4)	0.020	7373292
Nitrite (N)	mg/L	0.049(2)	0.020	7373295	<0.0020(1)	0.0020	0.042(4)	0.020	7373295
Physical Properties									
Conductivity	uS/cm	601	1.0	7373045	2030	1.0	600	1.0	7373045
pH	pH	7.81		7373046	7.26		7.84		7373046

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) - Sample arrived to laboratory past recommended hold time.
(2) - RDL raised due to sample matrix interference. Sample arrived to laboratory past recommended hold time.
(3) - RDL raised due to sample dilution.
(4) - RDL raised due to sample matrix interference.

Maxxam Job #: B408913
Report Date: 2014/02/11

ACCESS CONSULTING GROUP
Client Project #: GPBC-13-01

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		IP7013			IP7014		IP7015		
Sampling Date		2014/01/29 15:50			2014/01/30 15:34				
	UNITS	**LF-XX-02**	**RDL**	**QC Batch**	**EBR-12-03**	**RDL**	**SAMPLE A**	**RDL**	**QC Batch**
Physical Properties									
Total Dissolved Solids	mg/L	294(1)	10	7374240	1780	10	378	10	7374240

RDL = Reportable Detection Limit
(1) - Sample analysed past recommended hold time.

Maxxam Job #: B408913
Report Date: 2014/02/11

ACCESS CONSULTING GROUP
Client Project #: GPBC-13-01

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		IP7016			IP7017		IP7018		IP7019		
Sampling Date		2014/02/02 17:30			2014/02/02 16:40		2014/02/02 13:50				
	UNITS	**EBR-12-01**	**RDL**	**QC Batch**	**MH-12-01**	**QC Batch**	**MH-12-02**	**QC Batch**	**FIELD BLANK**	**RDL**	**QC Batch**
Misc. Inorganics											
Fluoride (F)	mg/L	0.070	0.010	7373060	0.230	7373060	0.200	7373060	<0.010	0.010	7373060
Calculated Parameters											
Anion Sum	meq/L	39	N/A	7371913	6.5	7371913	6.3	7371913	0.016	N/A	7371913
Cation Sum	meq/L	39	N/A	7371913	6.3	7371913	6.3	7371913	0.0017	N/A	7371913
Filter and HNO3 Preservation	N/A	LAB	N/A	7372852	LAB	7372852	LAB	7372852	LAB	N/A	7372852
Ion Balance	N/A	0.99	0.010	7371912	0.97	7371912	1.0	7371912	0.11(1)	0.010	7371912
Nitrate (N)	mg/L	0.0044	0.0020	7370988	<0.0020	7370988	<0.0020	7370988	0.0024	0.0020	7370988
Misc. Inorganics											
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00073	0.00050	7372913	0.00071	7372913	0.00069	7372913	0.00057	0.00050	7372913
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00076	0.00050	7372918	0.00081	7372918	0.00080	7372918	0.00080	0.00050	7372918
Dissolved Organic Carbon (C)	mg/L								<0.50	0.50	7372422
Alkalinity (Total as CaCO3)	mg/L	446	0.50	7373040	241	7373040	243	7373040	0.78	0.50	7373040
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	7373040	<0.50	7373040	<0.50	7373040	<0.50	0.50	7373040
Bicarbonate (HCO3)	mg/L	544	0.50	7373040	294	7373040	296	7373040	0.95	0.50	7373040
Carbonate (CO3)	mg/L	<0.50	0.50	7373040	<0.50	7373040	<0.50	7373040	<0.50	0.50	7373040
Hydroxide (OH)	mg/L	<0.50	0.50	7373040	<0.50	7373040	<0.50	7373040	<0.50	0.50	7373040
Anions											
Orthophosphate (P)	mg/L	0.0032	0.0010	7373305	0.0016(2)	7375757	0.0096	7373305	<0.0010	0.0010	7373305
Dissolved Sulphate (SO4)	mg/L	1470	5.0	7373340	78.7	7373340	66.2	7373340	<0.50	0.50	7373340
Dissolved Chloride (Cl)	mg/L	0.96	0.50	7373339	0.68	7373339	0.90	7373339	<0.50	0.50	7373339
MISCELLANEOUS											
True Colour	Col. Unit	5.0	5.0	7372880	5.0	7372880	5.0	7372880	<5.0	5.0	7372880
Nutrients											
Ammonia (N)	mg/L	0.53	0.0050	7372575	0.16	7372575	0.090	7372575	0.0081	0.0050	7372575
Nitrate plus Nitrite (N)	mg/L	0.0069	0.0020	7373292	0.0066	7373292	0.0022	7373292	0.0024	0.0020	7373292
Nitrite (N)	mg/L	0.0025	0.0020	7373295	0.0062	7373295	0.0021	7373295	<0.0020	0.0020	7373295
Physical Properties											
Conductivity	uS/cm	2670	1.0	7373045	568	7373045	539	7373045	1.1	1.0	7373045
pH	pH	7.55		7373046	8.00	7373046	7.80	7373046	5.97		7373046
Physical Properties											
Total Suspended Solids	mg/L								<1.0	1.0	7372630
Total Dissolved Solids	mg/L	2250	10	7374240	400	7374240	350	7374240	10	10	7375932

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) - Ion balance out of optimal range due to high measurement uncertainty at this level (Ion Sum < 0.4 meq/L for both cations and anions).
(2) - Sample was originally analysed within hold time. Data quality required investigation. Re-analysis was completed past recommended hold time.

Maxxam Job #: B408913
Report Date: 2014/02/11

ACCESS CONSULTING GROUP
Client Project #: GPBC-13-01

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		IP6998		IP6999	IP7000	IP7001	IP7002	IP7003	IP7004	IP7005		IP7006		
Sampling Date		2014/01/31 10:38		2014/01/31 11:00	2014/01/31 16:50	2014/01/30 17:07	2014/01/31 15:23		2014/02/01 10:17	2014/02/01 11:41		2014/02/01 12:58		
	UNITS	**BC-33**	**RDL**	**BC-05**	**BC-06**	**BC-34**	**BC-32**	**SAMPLE B**	**BC-36**	**BC-04**	**RDL**	**BC-74**	**RDL**	**QC Batch**
ANIONS														
Bromide (Br)	mg/L	<0.010	0.010	<0.10(1)	<0.10(1)	<0.10(1)	<0.10(1)	<0.10(1)	<0.10(1)	<0.10(1)	0.10	<0.010	0.010	7375139

Maxxam ID		IP7007	IP7008		IP7009		IP7010	IP7012	IP7013			IP7014		
Sampling Date		2014/02/01 13:34	2014/02/01 14:20		2014/02/01 16:15		2014/01/04	2014/01/29 14:30	2014/01/29 15:50			2014/01/30 15:34		
	UNITS	**BC-73**	**BC-72**	**RDL**	**BC-3**	**RDL**	**TRIP BLANK**	**LF-12-01**	**LF-XX-02**	**RDL**	**QC Batch**	**EBR-12-03**	**RDL**	**QC Batch**
ANIONS														
Bromide (Br)	mg/L	<0.010	<0.010	0.010	<0.10(1)	0.10	<0.010	<0.010	<0.010	0.010	7375139	<0.10(1)	0.10	7375162

Maxxam ID		IP7015		IP7016		IP7017		IP7018		IP7019		
Sampling Date				2014/02/02 17:30		2014/02/02 16:40		2014/02/02 13:50				
	UNITS	**SAMPLE A**	**RDL**	**EBR-12-01**	**RDL**	**MH-12-01**	**RDL**	**MH-12-02**	**RDL**	**FIELD BLANK**	**RDL**	**QC Batch**
ANIONS												
Bromide (Br)	mg/L	<0.010	0.010	<0.10(1)	0.10	<0.010	0.010	<0.10(1)	0.10	<0.010	0.010	7375139

RDL = Reportable Detection Limit
(1) - RDL raised due to sample matrix interference.

Maxxam Job #: B408913
Report Date: 2014/02/11

ACCESS CONSULTING GROUP
Client Project #: GPBC-13-01

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		IP6998		IP6999		IP7000		IP7001	IP7002	IP7003		
Sampling Date		2014/01/31 10:38		2014/01/31 11:00		2014/01/31 16:50		2014/01/30 17:07	2014/01/31 15:23			
	UNITS	**BC-33**	**QC Batch**	**BC-05**	**QC Batch**	**BC-06**	**QC Batch**	**BC-34**	**BC-32**	**SAMPLE B**	**RDL**	**QC Batch**
Misc. Inorganics												
Dissolved Hardness (CaCO3)	mg/L	348	7370764	558	7370764	242	7370764	359	409	355	0.50	7370764
Elements												
Dissolved Mercury (Hg)	mg/L	<0.0000020	7373793	0.0000036	7373793	<0.0000020	7373730	0.0000135	<0.0000020	0.0000128	0.0000020	7373793

RDL = Reportable Detection Limit

Maxxam Job #: B408913
Report Date: 2014/02/11

ACCESS CONSULTING GROUP
Client Project #: GPBC-13-01

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		IP6998		IP6999		IP7000		IP7001	IP7002	IP7003		
Sampling Date		2014/01/31 10:38		2014/01/31 11:00		2014/01/31 16:50		2014/01/30 17:07	2014/01/31 15:23			
	UNITS	**BC-33**	**QC Batch**	**BC-05**	**QC Batch**	**BC-06**	**QC Batch**	**BC-34**	**BC-32**	**SAMPLE B**	**RDL**	**QC Batch**
Dissolved Metals by ICPMS												
Dissolved Aluminum (Al)	mg/L	0.00187	7373252	0.00229	7373252	0.00095	7373252	0.00170	0.00121	0.00186	0.00050	7373252
Dissolved Antimony (Sb)	mg/L	0.000177	7373252	0.000381	7373252	0.000179	7373252	0.000213	0.00947	0.000209	0.000020	7373252
Dissolved Arsenic (As)	mg/L	0.000188	7373252	0.000338	7373252	0.000241	7373252	0.000175	0.00170	0.000176	0.000020	7373252
Dissolved Barium (Ba)	mg/L	0.0479	7373252	0.0665	7373252	0.0516	7373252	0.0493	0.0847	0.0501	0.000020	7373252
Dissolved Beryllium (Be)	mg/L	<0.000010	7373252	<0.000010	7373252	<0.000010	7373252	<0.000010	<0.000010	<0.000010	0.000010	7373252
Dissolved Bismuth (Bi)	mg/L	<0.0000050	7373252	<0.0000050	7373252	<0.0000050	7373252	<0.0000050	<0.0000050	<0.0000050	0.0000050	7373252
Dissolved Boron (B)	mg/L	<0.050	7373252	<0.050	7373252	<0.050	7373252	<0.050	<0.050	<0.050	0.050	7373252
Dissolved Cadmium (Cd)	mg/L	0.000106	7373252	0.0000910	7373252	0.0000630	7373252	0.000100	0.000120	0.000103	0.0000050	7373252
Dissolved Chromium (Cr)	mg/L	<0.00010	7373252	<0.00010	7373252	<0.00010	7373252	<0.00010	<0.00010	<0.00010	0.00010	7373252
Dissolved Cobalt (Co)	mg/L	0.0000210	7375730	0.0000250	7373252	0.0000140	7373252	0.0000340	0.000735	0.0000370	0.0000050	7373252
Dissolved Copper (Cu)	mg/L	0.000668	7373252	0.00132	7373252	0.000466	7373252	0.000774	0.000254	0.000769	0.000050	7373252
Dissolved Iron (Fe)	mg/L	0.0057	7373252	0.0071	7373252	0.0032	7373252	0.0058	0.0083	0.0063	0.0010	7373252
Dissolved Lead (Pb)	mg/L	<0.0000050	7373252	<0.0000050	7373252	<0.0000050	7373252	<0.0000050	<0.0000050	<0.0000050	0.0000050	7373252
Dissolved Lithium (Li)	mg/L	0.00228	7373252	0.00636	7373252	0.00245	7373252	0.00262	0.00970	0.00282	0.00050	7373252
Dissolved Manganese (Mn)	mg/L	0.00464	7373252	0.0117	7373252	0.00138	7373252	0.00961	0.156	0.00957	0.000050	7373252
Dissolved Molybdenum (Mo)	mg/L	0.00129	7373252	0.00227	7373252	0.00108	7373252	0.00132	0.00285	0.00133	0.000050	7373252
Dissolved Nickel (Ni)	mg/L	0.00187	7373252	0.00160	7373252	0.000926	7373252	0.00199	0.00425	0.00204	0.000020	7373252
Dissolved Phosphorus (P)	mg/L	0.0092	7375730	0.0146	7375730	0.0078	7373252	0.0085	<0.0020	0.0079	0.0020	7373252
Dissolved Selenium (Se)	mg/L	0.00250	7373252	0.00155	7373252	0.00173	7373252	0.00268	0.000978	0.00264	0.000040	7373252
Dissolved Silicon (Si)	mg/L	3.44	7373252	4.73	7373252	3.37	7373252	3.64	4.00	3.48	0.10	7373252
Dissolved Silver (Ag)	mg/L	0.0000120	7373252	<0.0000050	7373252	<0.0000050	7373252	<0.0000050	<0.0000050	<0.0000050	0.0000050	7373252
Dissolved Strontium (Sr)	mg/L	0.343	7373252	0.521	7373252	0.272	7373252	0.354	0.554	0.350	0.000050	7373252
Dissolved Thallium (Tl)	mg/L	0.0000030	7373252	0.0000020	7373252	<0.0000020	7373252	<0.0000020	0.0000060	0.0000020	0.0000020	7373252
Dissolved Tin (Sn)	mg/L	<0.00020	7373252	<0.00020	7373252	<0.00020	7373252	<0.00020	<0.00020	<0.00020	0.00020	7373252
Dissolved Titanium (Ti)	mg/L	<0.00050	7373252	<0.00050	7373252	<0.00050	7373252	<0.00050	<0.00050	<0.00050	0.00050	7373252
Dissolved Uranium (U)	mg/L	0.00253	7373252	0.00491	7373252	0.00174	7373252	0.00263	0.00292	0.00266	0.0000020	7373252
Dissolved Vanadium (V)	mg/L	0.00076	7373252	0.00067	7373252	0.00044	7373252	0.00059	<0.00020	0.00062	0.00020	7373252
Dissolved Zinc (Zn)	mg/L	0.00959	7373252	0.00512	7373252	0.00386	7373252	0.00904	0.00910	0.00891	0.00010	7373252
Dissolved Zirconium (Zr)	mg/L	<0.00010	7373252	0.00010	7373252	<0.00010	7373252	<0.00010	<0.00010	<0.00010	0.00010	7373252
Dissolved Calcium (Ca)	mg/L	86.3	7370765	135	7370765	62.6	7370765	90.7	103	87.1	0.050	7370765
Dissolved Magnesium (Mg)	mg/L	32.2	7370765	53.9	7370765	20.9	7370765	32.3	36.9	33.3	0.050	7370765
Dissolved Potassium (K)	mg/L	0.765	7370765	1.38	7370765	0.702	7370765	0.789	2.41	0.809	0.050	7370765
Dissolved Sodium (Na)	mg/L	1.73	7370765	2.91	7370765	2.19	7370765	1.72	1.81	1.89	0.050	7370765
Dissolved Sulphur (S)	mg/L	63.3	7370765	103	7370765	40.4	7370765	63.9	66.9	66.2	3.0	7370765

RDL = Reportable Detection Limit

Maxxam Job #: B408913
Report Date: 2014/02/11

ACCESS CONSULTING GROUP
Client Project #: GPBC-13-01

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		IP7004		IP7005		IP7006	IP7007		IP7008		
Sampling Date		2014/02/01 10:17		2014/02/01 11:41		2014/02/01 12:58	2014/02/01 13:34		2014/02/01 14:20		
	UNITS	**BC-36**	**QC Batch**	**BC-04**	**QC Batch**	**BC-74**	**BC-73**	**QC Batch**	**BC-72**	**RDL**	**QC Batch**
Misc. Inorganics											
Dissolved Hardness (CaCO3)	mg/L	444	7370764	498	7370764	97.8	141	7371911	219	0.50	7371911
Elements											
Dissolved Mercury (Hg)	mg/L	<0.0000020	7373793	<0.0000020	7373730	<0.0000020	<0.0000020	7373793	<0.0000020	0.0000020	7373793

RDL = Reportable Detection Limit

Maxxam Job #: B408913
Report Date: 2014/02/11

ACCESS CONSULTING GROUP
Client Project #: GPBC-13-01

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		IP7004		IP7005		IP7006	IP7007		IP7008		
Sampling Date		2014/02/01 10:17		2014/02/01 11:41		2014/02/01 12:58	2014/02/01 13:34		2014/02/01 14:20		
	UNITS	**BC-36**	**QC Batch**	**BC-04**	**QC Batch**	**BC-74**	**BC-73**	**QC Batch**	**BC-72**	**RDL**	**QC Batch**
Dissolved Metals by ICPMS											
Dissolved Aluminum (Al)	mg/L	0.00181	7373252	0.00108	7373252	0.00127	0.00212	7373252	0.00224	0.00050	7373252
Dissolved Antimony (Sb)	mg/L	0.000145	7373252	0.00324	7373252	0.00319	0.00209	7373252	0.00212	0.000020	7373252
Dissolved Arsenic (As)	mg/L	0.000162	7373252	0.000900	7373252	0.151	0.205	7373252	0.158	0.000020	7373252
Dissolved Barium (Ba)	mg/L	0.0767	7373252	0.0749	7373252	0.0722	0.343	7373252	0.0691	0.000020	7373252
Dissolved Beryllium (Be)	mg/L	<0.000010	7373252	<0.000010	7373252	<0.000010	0.000010	7373252	<0.000010	0.000010	7373252
Dissolved Bismuth (Bi)	mg/L	<0.0000050	7373252	<0.0000050	7373252	<0.0000050	<0.0000050	7373252	<0.0000050	0.0000050	7373252
Dissolved Boron (B)	mg/L	<0.050	7373252	<0.050	7373252	<0.050	<0.050	7373252	<0.050	0.050	7373252
Dissolved Cadmium (Cd)	mg/L	0.0000730	7373252	0.000181	7373252	0.0000120	0.0000670	7373252	0.000155	0.0000050	7373252
Dissolved Chromium (Cr)	mg/L	<0.00010	7373252	<0.00010	7373252	0.00016	0.00033	7373252	0.00034	0.00010	7373252
Dissolved Cobalt (Co)	mg/L	0.0000440	7373252	0.00377	7373252	0.0000650	0.0000350	7373252	0.0000550	0.0000050	7373252
Dissolved Copper (Cu)	mg/L	0.000552	7373252	0.000268	7373252	0.00111	0.000708	7373252	0.000380	0.000050	7379082
Dissolved Iron (Fe)	mg/L	0.0117	7373252	0.0051	7373252	0.0032	0.0038	7373252	0.0059	0.0010	7373252
Dissolved Lead (Pb)	mg/L	<0.0000050	7373252	0.0000120	7373252	0.0000100	0.0000060	7373252	<0.0000050	0.0000050	7373252
Dissolved Lithium (Li)	mg/L	0.00728	7373252	0.0100	7373252	0.00572	0.00948	7373252	0.0109	0.00050	7373252
Dissolved Manganese (Mn)	mg/L	0.0135	7373252	0.248	7373252	0.000837	0.00165	7373252	0.0278	0.000050	7373252
Dissolved Molybdenum (Mo)	mg/L	0.00155	7373252	0.00409	7373252	0.00480	0.0110	7373252	0.0196	0.000050	7373252
Dissolved Nickel (Ni)	mg/L	0.00193	7373252	0.0164	7373252	0.000354	0.000504	7373252	0.00300	0.000020	7373252
Dissolved Phosphorus (P)	mg/L	0.0069	7373252	<0.0020	7373252	0.0206	0.0353	7373252	0.0393	0.0020	7373252
Dissolved Selenium (Se)	mg/L	0.00278	7373252	0.00383	7373252	0.00156	0.00465	7373252	0.00560	0.000040	7373252
Dissolved Silicon (Si)	mg/L	4.39	7373252	3.69	7373252	11.9	14.3	7373252	13.4	0.10	7373252
Dissolved Silver (Ag)	mg/L	<0.0000050	7373252	<0.0000050	7373252	<0.0000050	<0.0000050	7373252	<0.0000050	0.0000050	7373252
Dissolved Strontium (Sr)	mg/L	0.539	7373252	0.701	7373252	0.186	0.171	7373252	0.270	0.000050	7373252
Dissolved Thallium (Tl)	mg/L	0.0000030	7373252	0.0000070	7373252	<0.0000020	<0.0000020	7373252	0.0000040	0.0000020	7373252
Dissolved Tin (Sn)	mg/L	<0.00020	7373252	<0.00020	7373252	<0.00020	<0.00020	7373252	<0.00020	0.00020	7373252
Dissolved Titanium (Ti)	mg/L	<0.00050	7373252	<0.00050	7373252	<0.00050	<0.00050	7373252	<0.00050	0.00050	7373252
Dissolved Uranium (U)	mg/L	0.00620	7373252	0.00573	7373252	0.00254	0.00725	7373252	0.0131	0.0000020	7373252
Dissolved Vanadium (V)	mg/L	0.00046	7373252	<0.00020	7373252	0.00466	0.0173	7373252	0.0267	0.00020	7373252
Dissolved Zinc (Zn)	mg/L	0.0100	7373252	0.0273	7373252	0.00189	0.00135	7373252	0.0167	0.00010	7373252
Dissolved Zirconium (Zr)	mg/L	<0.00010	7373252	<0.00010	7373252	<0.00010	<0.00010	7373252	<0.00010	0.00010	7373252
Dissolved Calcium (Ca)	mg/L	106	7370765	119	7370765	26.8	40.4	7370765	63.1	0.050	7370765
Dissolved Magnesium (Mg)	mg/L	43.2	7370765	49.0	7370765	7.49	9.64	7370765	14.9	0.050	7370765
Dissolved Potassium (K)	mg/L	1.02	7370765	1.82	7370765	3.17	1.95	7370765	2.14	0.050	7370765
Dissolved Sodium (Na)	mg/L	3.30	7370765	2.02	7370765	3.54	3.45	7370765	4.17	0.050	7370765
Dissolved Sulphur (S)	mg/L	76.0	7370765	100	7370765	6.6	13.2	7370765	24.2	3.0	7370765

RDL = Reportable Detection Limit

Maxxam Job #: B408913
Report Date: 2014/02/11

ACCESS CONSULTING GROUP
Client Project #: GPBC-13-01

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		IP7009	IP7010	IP7012		IP7013		IP7014		
Sampling Date		2014/02/01 16:15	2014/01/04	2014/01/29 14:30		2014/01/29 15:50		2014/01/30 15:34		
	UNITS	**BC-3**	**TRIP BLANK**	**LF-12-01**	**RDL**	**LF-XX-02**	**RDL**	**EBR-12-03**	**RDL**	**QC Batch**
Misc. Inorganics										
Dissolved Hardness (CaCO3)	mg/L	397	<0.50	190	0.50	333	0.50	1260	0.50	7371911
Elements										
Dissolved Mercury (Hg)	mg/L	<0.0000020	<0.0000020	0.0000114	0.0000020	0.0000121	0.0000020	0.0000045	0.0000020	7373730

RDL = Reportable Detection Limit

Maxxam Job #: B408913
Report Date: 2014/02/11

ACCESS CONSULTING GROUP
Client Project #: GPBC-13-01

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		IP7009	IP7010	IP7012		IP7013		IP7014		
Sampling Date		2014/02/01 16:15	2014/01/04	2014/01/29 14:30		2014/01/29 15:50		2014/01/30 15:34		
	UNITS	**BC-3**	**TRIP BLANK**	**LF-12-01**	**RDL**	**LF-XX-02**	**RDL**	**EBR-12-03**	**RDL**	**QC Batch**
Dissolved Metals by ICPMS										
Dissolved Aluminum (Al)	mg/L	0.00371	<0.00050	0.00088	0.00050	<0.0025	0.0025	0.00070	0.00050	7373252
Dissolved Antimony (Sb)	mg/L	0.00393	<0.000020	0.00188	0.000020	0.680	0.00010	0.000072	0.000020	7373252
Dissolved Arsenic (As)	mg/L	0.000918	<0.000020	0.00307	0.000020	0.0859	0.00010	0.113	0.000020	7373252
Dissolved Barium (Ba)	mg/L	0.0739	<0.000020	0.0608	0.000020	0.0587	0.00010	0.00780	0.000020	7373252
Dissolved Beryllium (Be)	mg/L	<0.000010	<0.000010	<0.000010	0.000010	<0.000050	0.000050	0.000018	0.000010	7373252
Dissolved Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	0.0000050	<0.000025	0.000025	<0.0000050	0.0000050	7373252
Dissolved Boron (B)	mg/L	<0.050	<0.050	<0.050	0.050	<0.25	0.25	<0.050	0.050	7373252
Dissolved Cadmium (Cd)	mg/L	0.0000650	<0.0000050	0.0000050	0.0000050	0.000075	0.000025	0.0000070	0.0000050	7373252
Dissolved Chromium (Cr)	mg/L	0.00025	<0.00010	<0.00010	0.00010	<0.00050	0.00050	<0.00010	0.00010	7373252
Dissolved Cobalt (Co)	mg/L	0.000373	<0.0000050	0.000848	0.0000050	0.000061	0.000025	0.0153	0.0000050	7373252
Dissolved Copper (Cu)	mg/L	0.000490	<0.000050	0.000099	0.000050	0.00029	0.00025	<0.000050	0.000050	7373252
Dissolved Iron (Fe)	mg/L	0.0324	<0.0010	0.0122	0.0010	<0.0050	0.0050	5.79	0.0010	7373252
Dissolved Lead (Pb)	mg/L	0.0000250	<0.0000050	0.0000510	0.0000050	<0.000025	0.000025	<0.0000050	0.0000050	7373252
Dissolved Lithium (Li)	mg/L	0.0174	<0.00050	0.00325	0.00050	0.0043	0.0025	0.0235	0.00050	7373252
Dissolved Manganese (Mn)	mg/L	0.112	<0.000050	0.227	0.000050	0.00153	0.00025	0.849	0.000050	7373252
Dissolved Molybdenum (Mo)	mg/L	0.00209	<0.000050	0.0511	0.000050	0.00554	0.00025	0.00632	0.000050	7373252
Dissolved Nickel (Ni)	mg/L	0.00317	<0.000020	0.00534	0.000020	0.00028	0.00010	0.0895	0.000020	7373252
Dissolved Phosphorus (P)	mg/L	0.0028	<0.0020	0.0031	0.0020	<0.010	0.010	<0.0020	0.0020	7373252
Dissolved Selenium (Se)	mg/L	0.00133	<0.000040	<0.000040	0.000040	0.0310	0.00020	0.000365	0.000040	7373252
Dissolved Silicon (Si)	mg/L	5.11	<0.10	3.93	0.10	4.81	0.50	5.84	0.10	7373252
Dissolved Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050	0.0000050	<0.000025	0.000025	<0.0000050	0.0000050	7373252
Dissolved Strontium (Sr)	mg/L	0.534	<0.000050	0.204	0.000050	0.537	0.00025	0.602	0.000050	7373252
Dissolved Thallium (Tl)	mg/L	0.0000020	<0.0000020	0.0000070	0.0000020	0.000026	0.000010	0.0000280	0.0000020	7373252
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	<0.0010	0.0010	<0.00020	0.00020	7373252
Dissolved Titanium (Ti)	mg/L	<0.00050	<0.00050	<0.00050	0.00050	<0.0025	0.0025	<0.00050	0.00050	7373252
Dissolved Uranium (U)	mg/L	0.00300	<0.0000020	0.0168	0.0000020	0.00420	0.000010	0.0177	0.0000020	7373252
Dissolved Vanadium (V)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	<0.0010	0.0010	<0.00020	0.00020	7373252
Dissolved Zinc (Zn)	mg/L	0.00546	<0.00010	0.218	0.00010	0.00633	0.00050	0.111	0.00010	7373252
Dissolved Zirconium (Zr)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	<0.00050	0.00050	<0.00010	0.00010	7373252
Dissolved Calcium (Ca)	mg/L	96.0	<0.050	45.4	0.050	79.3	0.25	316	0.050	7370765
Dissolved Magnesium (Mg)	mg/L	38.2	<0.050	18.7	0.050	32.8	0.25	116	0.050	7370765
Dissolved Potassium (K)	mg/L	1.95	<0.050	1.39	0.050	1.07	0.25	5.68	0.050	7370765
Dissolved Sodium (Na)	mg/L	4.31	<0.050	1.04	0.050	1.20	0.25	3.04	0.050	7370765
Dissolved Sulphur (S)	mg/L	73.3	<3.0	8.8	3.0	25	15	325	3.0	7370765

RDL = Reportable Detection Limit

Maxxam Job #: B408913
Report Date: 2014/02/11

ACCESS CONSULTING GROUP
Client Project #: GPBC-13-01

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		IP7015	IP7016			IP7017		IP7018		IP7019		
Sampling Date			2014/02/02 17:30			2014/02/02 16:40		2014/02/02 13:50				
	UNITS	**SAMPLE A**	**EBR-12-01**	**RDL**	**QC Batch**	**MH-12-01**	**QC Batch**	**MH-12-02**	**QC Batch**	**FIELD BLANK**	**RDL**	**QC Batch**
Misc. Inorganics												
Dissolved Hardness (CaCO3)	mg/L	335	1930	0.50	7371911	301	7371911	311	7371911	<0.50	0.50	7371911
Elements												
Dissolved Mercury (Hg)	mg/L	0.0000127	<0.0000020	0.0000020	7373793	<0.0000020	7373730	<0.0000020	7373730	<0.0000020	0.0000020	7373730

RDL = Reportable Detection Limit

Maxxam Job #: B408913
Report Date: 2014/02/11

ACCESS CONSULTING GROUP
Client Project #: GPBC-13-01

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		IP7015	IP7016			IP7017		IP7018		IP7019		
Sampling Date			2014/02/02 17:30			2014/02/02 16:40		2014/02/02 13:50				
	UNITS	**SAMPLE A**	**EBR-12-01**	**RDL**	**QC Batch**	**MH-12-01**	**QC Batch**	**MH-12-02**	**QC Batch**	**FIELD BLANK**	**RDL**	**QC Batch**
Dissolved Metals by ICPMS												
Dissolved Aluminum (Al)	mg/L	<0.0025	<0.0025	0.0025	7373252	<0.00050	7373252	0.00060	7374441	<0.00050	0.00050	7373252
Dissolved Antimony (Sb)	mg/L	0.686	<0.00010	0.00010	7373252	0.000184	7373252	0.000170	7374441	<0.000020	0.000020	7373252
Dissolved Arsenic (As)	mg/L	0.0848	0.00137	0.00010	7373252	0.000673	7373252	0.0891	7374441	<0.000020	0.000020	7373252
Dissolved Barium (Ba)	mg/L	0.0592	0.00649	0.00010	7373252	0.0255	7373252	0.0236	7374441	<0.000020	0.000020	7373252
Dissolved Beryllium (Be)	mg/L	<0.000050	<0.000050	0.000050	7373252	<0.000010	7373252	<0.000010	7374441	<0.000010	0.000010	7373252
Dissolved Bismuth (Bi)	mg/L	<0.000025	<0.000025	0.000025	7373252	<0.0000050	7373252	<0.0000050	7374441	<0.0000050	0.0000050	7373252
Dissolved Boron (B)	mg/L	<0.25	<0.25	0.25	7373252	0.083	7373252	<0.050	7374441	<0.050	0.050	7373252
Dissolved Cadmium (Cd)	mg/L	0.000066	<0.000025	0.000025	7373252	0.0000050	7373252	<0.0000050	7374441	<0.0000050	0.0000050	7373252
Dissolved Chromium (Cr)	mg/L	<0.00050	<0.00050	0.00050	7373252	0.00016	7373252	<0.00010	7374441	<0.00010	0.00010	7373252
Dissolved Cobalt (Co)	mg/L	<0.000025	0.000025	0.000025	7373252	0.000254	7373252	0.00141	7374441	<0.0000050	0.0000050	7373252
Dissolved Copper (Cu)	mg/L	<0.00025	<0.00025	0.00025	7373252	0.000318	7373252	<0.000050	7374441	<0.000050	0.000050	7373252
Dissolved Iron (Fe)	mg/L	<0.0050	0.126	0.0050	7373252	0.0026	7373252	0.0139	7374441	<0.0010	0.0010	7373252
Dissolved Lead (Pb)	mg/L	<0.000025	<0.000025	0.000025	7373252	0.0000180	7373252	<0.0000050	7374441	<0.0000050	0.0000050	7373252
Dissolved Lithium (Li)	mg/L	0.0043	0.0378	0.0025	7373252	0.0183	7373252	0.00850	7374441	<0.00050	0.00050	7373252
Dissolved Manganese (Mn)	mg/L	0.00120	0.0375	0.00025	7373252	0.0892	7373252	0.600	7374441	<0.000050	0.000050	7373252
Dissolved Molybdenum (Mo)	mg/L	0.00543	0.00030	0.00025	7373252	0.00243	7373252	0.000349	7374441	<0.000050	0.000050	7373252
Dissolved Nickel (Ni)	mg/L	0.00029	0.00028	0.00010	7373252	0.000608	7373252	0.00180	7374441	<0.000020	0.000020	7373252
Dissolved Phosphorus (P)	mg/L	<0.010	<0.010	0.010	7373252	0.0029	7373252	<0.0020	7374441	<0.0020	0.0020	7373252
Dissolved Selenium (Se)	mg/L	0.0300	<0.00020	0.00020	7373252	0.000065	7373252	<0.000040	7374441	<0.000040	0.000040	7373252
Dissolved Silicon (Si)	mg/L	4.82	4.24	0.50	7373252	13.7	7373252	3.39	7374441	<0.10	0.10	7373252
Dissolved Silver (Ag)	mg/L	<0.000025	<0.000025	0.000025	7373252	<0.0000050	7373252	<0.0000050	7374441	<0.0000050	0.0000050	7373252
Dissolved Strontium (Sr)	mg/L	0.533	1.65	0.00025	7373252	0.559	7373252	0.795	7374441	<0.000050	0.000050	7373252
Dissolved Thallium (Tl)	mg/L	0.000031	<0.000010	0.000010	7373252	<0.0000020	7373252	0.0000040	7374441	<0.0000020	0.0000020	7373252
Dissolved Tin (Sn)	mg/L	<0.0010	<0.0010	0.0010	7373252	<0.00020	7373252	<0.00020	7374441	<0.00020	0.00020	7373252
Dissolved Titanium (Ti)	mg/L	<0.0025	<0.0025	0.0025	7373252	<0.00050	7373252	<0.00050	7374441	<0.00050	0.00050	7373252
Dissolved Uranium (U)	mg/L	0.00411	0.00208	0.000010	7373252	0.000194	7373252	0.00234	7374441	<0.0000020	0.0000020	7373252
Dissolved Vanadium (V)	mg/L	<0.0010	<0.0010	0.0010	7373252	<0.00020	7373252	<0.00020	7374441	<0.00020	0.00020	7373252
Dissolved Zinc (Zn)	mg/L	0.00555	0.00103	0.00050	7373252	0.0851	7373252	0.00448	7374441	<0.00010	0.00010	7373252
Dissolved Zirconium (Zr)	mg/L	<0.00050	0.00058	0.00050	7373252	<0.00010	7373252	<0.00010	7374441	<0.00010	0.00010	7373252
Dissolved Calcium (Ca)	mg/L	80.0	303	0.25	7370765	55.0	7370765	65.3	7370765	<0.050	0.050	7370765
Dissolved Magnesium (Mg)	mg/L	32.8	284	0.25	7370765	39.8	7370765	35.9	7370765	<0.050	0.050	7370765
Dissolved Potassium (K)	mg/L	1.03	4.09	0.25	7370765	1.13	7370765	2.71	7370765	<0.050	0.050	7370765
Dissolved Sodium (Na)	mg/L	1.20	11.5	0.25	7370765	5.16	7370765	0.691	7370765	<0.050	0.050	7370765
Dissolved Sulphur (S)	mg/L	25	483	15	7370765	24.9	7370765	22.8	7370765	<3.0	3.0	7370765

RDL = Reportable Detection Limit

Maxxam Job #: B408913
Report Date: 2014/02/11

ACCESS CONSULTING GROUP
Client Project #: GPBC-13-01

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		IP6998	IP6999		IP7000		IP7001	IP7002	IP7003	IP7004		
Sampling Date		2014/01/31 10:38	2014/01/31 11:00		2014/01/31 16:50		2014/01/30 17:07	2014/01/31 15:23		2014/02/01 10:17		
	UNITS	**BC-33**	**BC-05**	**QC Batch**	**BC-06**	**QC Batch**	**BC-34**	**BC-32**	**SAMPLE B**	**BC-36**	**RDL**	**QC Batch**
Calculated Parameters												
Total Hardness (CaCO3)	mg/L	356	554	7370643	252	7370643	365	425	368	465	0.50	7370643
Elements												
Total Mercury (Hg)	mg/L	<0.0000020	0.0000032	7375078	<0.0000020	7375078	0.0000134	<0.0000020	0.0000177	<0.0000020	0.0000020	7375078

RDL = Reportable Detection Limit

Maxxam Job #: B408913
Report Date: 2014/02/11

ACCESS CONSULTING GROUP
Client Project #: GPBC-13-01

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		IP6998	IP6999		IP7000		IP7001	IP7002	IP7003	IP7004		
Sampling Date		2014/01/31 10:38	2014/01/31 11:00		2014/01/31 16:50		2014/01/30 17:07	2014/01/31 15:23		2014/02/01 10:17		
	UNITS	**BC-33**	**BC-05**	**QC Batch**	**BC-06**	**QC Batch**	**BC-34**	**BC-32**	**SAMPLE B**	**BC-36**	**RDL**	**QC Batch**
Total Metals by ICPMS												
Total Aluminum (Al)	mg/L	0.00288	0.00306	7373184	0.00135	7373184	0.00271	0.00467	0.00432	0.00506	0.00050	7373184
Total Antimony (Sb)	mg/L	0.000210	0.000400	7373184	0.000196	7373184	0.000217	0.00989	0.000212	0.000159	0.000020	7373184
Total Arsenic (As)	mg/L	0.000170	0.000362	7373184	0.000254	7373184	0.000159	0.00331	0.000183	0.000160	0.000020	7373184
Total Barium (Ba)	mg/L	0.0511	0.0698	7373184	0.0544	7373184	0.0523	0.0851	0.0505	0.0789	0.000020	7373184
Total Beryllium (Be)	mg/L	<0.000010	<0.000010	7373184	<0.000010	7373184	<0.000010	<0.000010	<0.000010	<0.000010	0.000010	7373184
Total Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	7373184	<0.0000050	7373184	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	7373184
Total Boron (B)	mg/L	<0.050	<0.050	7373184	<0.050	7373184	<0.050	<0.050	<0.050	<0.050	0.050	7373184
Total Cadmium (Cd)	mg/L	0.000120	0.0000970	7373184	0.0000650	7373184	0.000109	0.000125	0.000108	0.0000830	0.0000050	7373184
Total Chromium (Cr)	mg/L	<0.00010	<0.00010	7373184	<0.00010	7373184	<0.00010	<0.00010	<0.00010	<0.00010	0.00010	7373184
Total Cobalt (Co)	mg/L	0.0000200	0.0000220	7373184	0.0000150	7373184	0.0000310	0.000786	0.0000310	0.0000420	0.0000050	7373184
Total Copper (Cu)	mg/L	0.000731	0.00139	7373184	0.000564	7373184	0.000820	0.000305	0.000887	0.000642	0.000050	7373184
Total Iron (Fe)	mg/L	0.0113	0.0098	7373184	0.0056	7373184	0.0110	0.192	0.0132	0.0326	0.0010	7373184
Total Lead (Pb)	mg/L	0.0000160	<0.0000050	7373184	0.0000100	7373184	0.0000050	0.0000210	0.0000310	0.0000190	0.0000050	7373184
Total Lithium (Li)	mg/L	0.00302	0.00720	7373184	0.00291	7373184	0.00319	0.0105	0.00304	0.00804	0.00050	7373184
Total Manganese (Mn)	mg/L	0.00524	0.0119	7373184	0.00153	7373184	0.0101	0.159	0.0102	0.0150	0.000050	7373184
Total Molybdenum (Mo)	mg/L	0.00139	0.00229	7373184	0.00112	7373184	0.00140	0.00284	0.00135	0.00149	0.000050	7373184
Total Nickel (Ni)	mg/L	0.00200	0.00160	7373184	0.00118	7373184	0.00206	0.00449	0.00217	0.00211	0.000020	7373184
Total Phosphorus (P)	mg/L	0.0074	0.0123	7373184	0.0076	7375825	0.0077	0.0030	0.0068	0.0064	0.0020	7373184
Total Selenium (Se)	mg/L	0.00271	0.00166	7373184	0.00194	7373184	0.00281	0.00111	0.00286	0.00311	0.000040	7373184
Total Silicon (Si)	mg/L	3.40	4.46	7373184	3.29	7373184	3.44	3.94	3.44	4.31	0.10	7373184
Total Silver (Ag)	mg/L	<0.0000050	<0.0000050	7373184	<0.0000050	7373184	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	7373184
Total Strontium (Sr)	mg/L	0.361	0.547	7373184	0.288	7373184	0.360	0.571	0.347	0.559	0.000050	7373184
Total Thallium (Tl)	mg/L	0.0000020	0.0000040	7373184	0.0000020	7373184	0.0000030	0.0000070	0.0000030	0.0000030	0.0000020	7373184
Total Tin (Sn)	mg/L	<0.00020	<0.00020	7373184	<0.00020	7373184	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	7373184
Total Titanium (Ti)	mg/L	<0.00050	<0.00050	7373184	<0.00050	7373184	<0.00050	<0.00050	<0.00050	<0.00050	0.00050	7373184
Total Uranium (U)	mg/L	0.00277	0.00535	7373184	0.00187	7373184	0.00288	0.00304	0.00282	0.00639	0.0000020	7373184
Total Vanadium (V)	mg/L	0.00066	0.00074	7373184	0.00042	7373184	0.00064	<0.00020	0.00063	0.00040	0.00020	7373184
Total Zinc (Zn)	mg/L	0.0113	0.00504	7373184	0.00479	7373184	0.00966	0.0105	0.0141	0.0114	0.00010	7373184
Total Zirconium (Zr)	mg/L	<0.00010	0.00010	7373184	<0.00010	7373184	<0.00010	<0.00010	<0.00010	<0.00010	0.00010	7373184
Total Calcium (Ca)	mg/L	85.8	133	7370766	63.2	7370766	88.8	104	89.6	110	0.050	7370766
Total Magnesium (Mg)	mg/L	34.4	53.6	7370766	22.9	7370766	34.9	40.3	34.9	46.1	0.050	7370766
Total Potassium (K)	mg/L	0.778	1.32	7370766	0.721	7370766	0.781	2.51	0.797	1.04	0.050	7370766
Total Sodium (Na)	mg/L	1.83	3.13	7370766	2.49	7370766	1.89	2.04	1.97	3.49	0.050	7370766
Total Sulphur (S)	mg/L	64.8	102	7370766	41.8	7370766	65.9	69.5	66.5	78.7	3.0	7370766

RDL = Reportable Detection Limit

ACCESS CONSULTING GROUP
Client Project #: GPBC-13-01

Maxxam Job #: B408913
Report Date: 2014/02/11

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		IP7005	IP7006	IP7007	IP7008	IP7009		IP7010		
Sampling Date		2014/02/01 11:41	2014/02/01 12:58	2014/02/01 13:34	2014/02/01 14:20	2014/02/01 16:15		2014/01/04		
	UNITS	**BC-04**	**BC-74**	**BC-73**	**BC-72**	**BC-3**	**QC Batch**	**TRIP BLANK**	**RDL**	**QC Batch**
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	523	99.7	144	222	400	7370643	<0.50	0.50	7370643
Elements										
Total Mercury (Hg)	mg/L	<0.0000020	<0.0000020	<0.0000020	<0.0000020	<0.0000020	7375078	<0.0000020	0.0000020	7375078

RDL = Reportable Detection Limit

Maxxam Job #: B408913
Report Date: 2014/02/11

ACCESS CONSULTING GROUP
Client Project #: GPBC-13-01

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		IP7005	IP7006	IP7007	IP7008	IP7009		IP7010		
Sampling Date		2014/02/01 11:41	2014/02/01 12:58	2014/02/01 13:34	2014/02/01 14:20	2014/02/01 16:15		2014/01/04		
	UNITS	**BC-04**	**BC-74**	**BC-73**	**BC-72**	**BC-3**	**QC Batch**	**TRIP BLANK**	**RDL**	**QC Batch**
Total Metals by ICPMS										
Total Aluminum (Al)	mg/L	0.0106	0.00232	0.00461	0.00410	0.00889	7373184	<0.00050	0.00050	7373184
Total Antimony (Sb)	mg/L	0.00332	0.00317	0.00218	0.00215	0.00403	7373184	<0.000020	0.000020	7373184
Total Arsenic (As)	mg/L	0.00209	0.152	0.202	0.159	0.00135	7373184	<0.000020	0.000020	7373184
Total Barium (Ba)	mg/L	0.0784	0.0732	0.353	0.0705	0.0747	7373184	<0.000020	0.000020	7373184
Total Beryllium (Be)	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	7373184	<0.000010	0.000010	7373184
Total Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	7373184	<0.0000050	0.0000050	7373184
Total Boron (B)	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	7373184	<0.050	0.050	7373184
Total Cadmium (Cd)	mg/L	0.000207	0.0000120	0.0000660	0.000173	0.0000650	7373184	<0.0000050	0.0000050	7373184
Total Chromium (Cr)	mg/L	<0.00010	0.00014	0.00030	0.00028	<0.00010	7373184	<0.00010	0.00010	7373184
Total Cobalt (Co)	mg/L	0.00386	0.0000630	0.0000370	0.0000610	0.000398	7373184	<0.0000050	0.0000050	7373184
Total Copper (Cu)	mg/L	0.000321	0.00147	0.000719	0.000480	0.000497	7373184	<0.000050	0.000050	7373184
Total Iron (Fe)	mg/L	0.407	0.0064	0.0071	0.0167	0.122	7373184	<0.0010	0.0010	7373184
Total Lead (Pb)	mg/L	0.0000430	0.0000050	0.0000050	0.0000070	0.0000210	7373184	<0.0000050	0.0000050	7373184
Total Lithium (Li)	mg/L	0.0110	0.00649	0.0108	0.0123	0.0188	7373184	<0.00050	0.00050	7373184
Total Manganese (Mn)	mg/L	0.250	0.00110	0.00199	0.0283	0.119	7373184	<0.000050	0.000050	7373184
Total Molybdenum (Mo)	mg/L	0.00443	0.00500	0.0124	0.0198	0.00208	7373184	<0.000050	0.000050	7373184
Total Nickel (Ni)	mg/L	0.0173	0.000454	0.000600	0.00309	0.00328	7373184	<0.000020	0.000020	7373184
Total Phosphorus (P)	mg/L	0.0064	0.0207	0.0353	0.0388	0.0050	7373184	<0.0020	0.0020	7373184
Total Selenium (Se)	mg/L	0.00419	0.00167	0.00474	0.00583	0.00144	7373184	<0.000040	0.000040	7373184
Total Silicon (Si)	mg/L	3.78	12.0	14.3	13.1	4.95	7373184	<0.10	0.10	7373184
Total Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	7373184	<0.0000050	0.0000050	7373184
Total Strontium (Sr)	mg/L	0.704	0.188	0.180	0.266	0.534	7373184	<0.000050	0.000050	7373184
Total Thallium (Tl)	mg/L	0.0000080	0.0000030	0.0000030	0.0000050	0.0000040	7373184	<0.0000020	0.0000020	7373184
Total Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	7373184	<0.00020	0.00020	7373184
Total Titanium (Ti)	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	7373184	<0.00050	0.00050	7373184
Total Uranium (U)	mg/L	0.00614	0.00271	0.00819	0.0139	0.00315	7373184	<0.0000020	0.0000020	7373184
Total Vanadium (V)	mg/L	0.00053	0.00482	0.0178	0.0273	<0.00020	7373184	<0.00020	0.00020	7373184
Total Zinc (Zn)	mg/L	0.0304	0.00203	0.00123	0.0192	0.00596	7373184	<0.00010	0.00010	7375825
Total Zirconium (Zr)	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	7373184	<0.00010	0.00010	7373184
Total Calcium (Ca)	mg/L	123	27.4	40.8	63.7	96.7	7370766	<0.050	0.050	7370766
Total Magnesium (Mg)	mg/L	52.2	7.61	10.1	15.2	38.6	7370766	<0.050	0.050	7370766
Total Potassium (K)	mg/L	1.80	3.02	1.95	2.09	1.91	7370766	<0.050	0.050	7370766
Total Sodium (Na)	mg/L	2.09	3.81	3.80	4.30	4.64	7370766	<0.050	0.050	7370766
Total Sulphur (S)	mg/L	102	6.8	14.4	25.3	70.4	7370766	<3.0	3.0	7370766

RDL = Reportable Detection Limit

Package 1	1.0°C
Package 2	1.3°C
Package 3	1.0°C
Package 4	1.0°C

Each temperature is the average of up to three cooler temperatures taken at receipt

Sample IP6998, Elements by ICPMS Low Level (dissolved): Test repeated.
Sample IP6999, Elements by ICPMS Low Level (dissolved): Test repeated.
Sample IP7008, Elements by ICPMS Low Level (dissolved): Test repeated.

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER) Comments

Sample IP7013-08 Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.

Sample IP7015-08 Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.

Sample IP7016-08 Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.

Sample IP7000, Elements by ICPMS Low Level (total): Test repeated.
Sample IP7010, Elements by ICPMS Low Level (total): Test repeated.

Maxxam Job #: B408913
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ACCESS CONSULTING GROUP
Client Project #: GPBC-13-01

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7372422	Dissolved Organic Carbon (C)	2014/02/05	92	80 - 120	107	80 - 120	<0.50	mg/L	NC	20
7372427	Dissolved Organic Carbon (C)	2014/02/05	97	80 - 120	104	80 - 120	<0.50	mg/L	NC	20
7372573	Ammonia (N)	2014/02/05	NC	80 - 120	98	80 - 120	<0.0050	mg/L	1.5	20
7372575	Ammonia (N)	2014/02/05	100	80 - 120	99	80 - 120	<0.0050	mg/L	2.5	20
7372630	Total Suspended Solids	2014/02/05			100	80 - 120	<1.0	mg/L		
7372880	True Colour	2014/02/05					<5.0	Col. Unit	0	20
7372913	Strong Acid Dissoc. Cyanide (CN)	2014/02/05	106	80 - 120	98	80 - 120	0.00050, RDL=0.00050	mg/L	NC	20
7372918	Weak Acid Dissoc. Cyanide (CN)	2014/02/05	111	80 - 120	101	80 - 120	0.00054, RDL=0.00050	mg/L	NC	20
7373040	Alkalinity (Total as CaCO3)	2014/02/05	NC	80 - 120	95	80 - 120	<0.50	mg/L	0.7	20
7373040	Alkalinity (PP as CaCO3)	2014/02/05					<0.50	mg/L	NC	20
7373040	Bicarbonate (HCO3)	2014/02/05					<0.50	mg/L	0.7	20
7373040	Carbonate (CO3)	2014/02/05					<0.50	mg/L	NC	20
7373040	Hydroxide (OH)	2014/02/05					<0.50	mg/L	NC	20
7373045	Conductivity	2014/02/05			99	80 - 120	<1.0	uS/cm	2.5	20
7373060	Fluoride (F)	2014/02/05	104	80 - 120	100	80 - 120	<0.010	mg/L	4.9	20
7373184	Total Aluminum (Al)	2014/02/06	102	80 - 120	106	80 - 120	<0.00050	mg/L	4.7	20
7373184	Total Antimony (Sb)	2014/02/06	NC	80 - 120	102	80 - 120	<0.000020	mg/L	0.5	20
7373184	Total Arsenic (As)	2014/02/06	98	80 - 120	98	80 - 120	<0.000020	mg/L	5.6	20
7373184	Total Barium (Ba)	2014/02/06	NC	80 - 120	97	80 - 120	<0.000020	mg/L	1.3	20
7373184	Total Beryllium (Be)	2014/02/06	100	80 - 120	105	80 - 120	<0.000010	mg/L	NC	20
7373184	Total Bismuth (Bi)	2014/02/06	90	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20
7373184	Total Cadmium (Cd)	2014/02/06	93	80 - 120	98	80 - 120	<0.0000050	mg/L	1.6	20
7373184	Total Chromium (Cr)	2014/02/06	94	80 - 120	101	80 - 120	<0.00010	mg/L	NC	20
7373184	Total Cobalt (Co)	2014/02/06	91	80 - 120	100	80 - 120	<0.0000050	mg/L	1.3	20
7373184	Total Copper (Cu)	2014/02/06	89	80 - 120	101	80 - 120	<0.000050	mg/L	0.8	20
7373184	Total Iron (Fe)	2014/02/06	NC	80 - 120	107	80 - 120	<0.0010	mg/L	2.7	20
7373184	Total Lead (Pb)	2014/02/06	91	80 - 120	97	80 - 120	<0.0000050	mg/L	NC	20
7373184	Total Lithium (Li)	2014/02/06	NC	80 - 120	109	80 - 120	<0.00050	mg/L	1.3	20
7373184	Total Manganese (Mn)	2014/02/06	NC	80 - 120	100	80 - 120	<0.000050	mg/L	0.2	20
7373184	Total Molybdenum (Mo)	2014/02/06	NC	80 - 120	100	80 - 120	<0.000050	mg/L	0.1	20
7373184	Total Nickel (Ni)	2014/02/06	88	80 - 120	101	80 - 120	0.000026, RDL=0.000020	mg/L	0.3	20
7373184	Total Selenium (Se)	2014/02/06	101	80 - 120	103	80 - 120	<0.000040	mg/L	4.0	20
7373184	Total Silver (Ag)	2014/02/06	94	80 - 120	96	80 - 120	0.0000060, RDL=0.0000050	mg/L	NC	20
7373184	Total Strontium (Sr)	2014/02/06	NC	80 - 120	98	80 - 120	<0.000050	mg/L	2.4	20
7373184	Total Thallium (Tl)	2014/02/06	96	80 - 120	99	80 - 120	<0.0000020	mg/L	NC	20
7373184	Total Tin (Sn)	2014/02/06	92	80 - 120	99	80 - 120	<0.00020	mg/L	NC	20
7373184	Total Titanium (Ti)	2014/02/06	99	80 - 120	100	80 - 120	<0.00050	mg/L	NC	20
7373184	Total Uranium (U)	2014/02/06	96	80 - 120	97	80 - 120	<0.0000020	mg/L	0.6	20
7373184	Total Vanadium (V)	2014/02/06	95	80 - 120	100	80 - 120	<0.00020	mg/L	NC	20
7373184	Total Zinc (Zn)	2014/02/06	NC	80 - 120	110	80 - 120	0.00011, RDL=0.00010	mg/L	2.2	20

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ACCESS CONSULTING GROUP
Client Project #: GPBC-13-01

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7373184	Total Boron (B)	2014/02/06					<0.050	mg/L	NC	20
7373184	Total Phosphorus (P)	2014/02/06					<0.0020	mg/L	NC	20
7373184	Total Silicon (Si)	2014/02/06					<0.10	mg/L	3.6	20
7373184	Total Zirconium (Zr)	2014/02/06					<0.00010	mg/L	NC	20
7373252	Dissolved Aluminum (Al)	2014/02/06	101	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20
7373252	Dissolved Antimony (Sb)	2014/02/06	96	80 - 120	94	80 - 120	<0.000020	mg/L	8.1	20
7373252	Dissolved Arsenic (As)	2014/02/06	100	80 - 120	95	80 - 120	<0.000020	mg/L	1.1	20
7373252	Dissolved Barium (Ba)	2014/02/06	NC	80 - 120	92	80 - 120	<0.000020	mg/L	2.1	20
7373252	Dissolved Beryllium (Be)	2014/02/06	99	80 - 120	97	80 - 120	<0.000010	mg/L	NC	20
7373252	Dissolved Bismuth (Bi)	2014/02/06	93	80 - 120	92	80 - 120	<0.0000050	mg/L	NC	20
7373252	Dissolved Cadmium (Cd)	2014/02/06	92	80 - 120	94	80 - 120	<0.0000050	mg/L	1.9	20
7373252	Dissolved Chromium (Cr)	2014/02/06	99	80 - 120	96	80 - 120	<0.00010	mg/L	NC	20
7373252	Dissolved Cobalt (Co)	2014/02/06	94	80 - 120	94	80 - 120	<0.0000050	mg/L		
7373252	Dissolved Copper (Cu)	2014/02/06	92	80 - 120	93	80 - 120	<0.000050	mg/L	9.8	20
7373252	Dissolved Iron (Fe)	2014/02/06	102	80 - 120	98	80 - 120	<0.0010	mg/L	2.0	20
7373252	Dissolved Lead (Pb)	2014/02/06	91	80 - 120	90	80 - 120	<0.0000050	mg/L	NC	20
7373252	Dissolved Lithium (Li)	2014/02/06	100	80 - 120	96	80 - 120	<0.00050	mg/L	NC	20
7373252	Dissolved Manganese (Mn)	2014/02/06	96	80 - 120	95	80 - 120	<0.000050	mg/L	0.9	20
7373252	Dissolved Molybdenum (Mo)	2014/02/06	NC	80 - 120	94	80 - 120	<0.000050	mg/L	5.0	20
7373252	Dissolved Nickel (Ni)	2014/02/06	94	80 - 120	95	80 - 120	<0.000020	mg/L	5.2	20
7373252	Dissolved Selenium (Se)	2014/02/06	98	80 - 120	97	80 - 120	<0.000040	mg/L	6.1	20
7373252	Dissolved Silver (Ag)	2014/02/06	95	80 - 120	87	80 - 120	<0.0000050	mg/L	NC	20
7373252	Dissolved Strontium (Sr)	2014/02/06	NC	80 - 120	93	80 - 120	<0.000050	mg/L	2.1	20
7373252	Dissolved Thallium (Tl)	2014/02/06	96	80 - 120	93	80 - 120	<0.0000020	mg/L	NC	20
7373252	Dissolved Tin (Sn)	2014/02/06	89	80 - 120	91	80 - 120	<0.00020	mg/L	NC	20
7373252	Dissolved Titanium (Ti)	2014/02/06	99	80 - 120	92	80 - 120	<0.00050	mg/L	NC	20
7373252	Dissolved Uranium (U)	2014/02/06	95	80 - 120	89	80 - 120	0.0000020, RDL=0.0000020	mg/L	3.7	20
7373252	Dissolved Vanadium (V)	2014/02/06	95	80 - 120	94	80 - 120	<0.00020	mg/L	NC	20
7373252	Dissolved Zinc (Zn)	2014/02/06	NC	80 - 120	99	80 - 120	<0.00010	mg/L	0.9	20
7373252	Dissolved Boron (B)	2014/02/06					<0.050	mg/L	NC	20
7373252	Dissolved Phosphorus (P)	2014/02/06					<0.0020	mg/L		
7373252	Dissolved Silicon (Si)	2014/02/06					<0.10	mg/L	2.6	20
7373252	Dissolved Zirconium (Zr)	2014/02/06					<0.00010	mg/L	NC	20
7373292	Nitrate plus Nitrite (N)	2014/02/05	104	80 - 120	103	80 - 120	<0.0020	mg/L	NC	25
7373295	Nitrite (N)	2014/02/05	99	80 - 120	101	80 - 120	<0.0020	mg/L	NC	25
7373305	Orthophosphate (P)	2014/02/05	100	80 - 120	91	80 - 120	<0.0010	mg/L	NC	20
7373339	Dissolved Chloride (Cl)	2014/02/05	101	80 - 120	103	80 - 120	<0.50	mg/L	NC	20
7373340	Dissolved Sulphate (SO4)	2014/02/05	NC	80 - 120	98	80 - 120	<0.50	mg/L	0.5	20
7373730	Dissolved Mercury (Hg)	2014/02/06	101	80 - 120	99	80 - 120	<0.0000020	mg/L	NC	20
7373793	Dissolved Mercury (Hg)	2014/02/06	92	80 - 120	97	80 - 120	<0.0000020	mg/L	NC	20

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QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7374240	Total Dissolved Solids	2014/02/07	NC	80 - 120	100	80 - 120	<10	mg/L	14.3	20
7374441	Dissolved Aluminum (Al)	2014/02/06	100	80 - 120	102	80 - 120	<0.00050	mg/L	NC	20
7374441	Dissolved Antimony (Sb)	2014/02/06	106	80 - 120	103	80 - 120	<0.000020	mg/L	1.2	20
7374441	Dissolved Arsenic (As)	2014/02/06	102	80 - 120	101	80 - 120	<0.000020	mg/L	NC	20
7374441	Dissolved Barium (Ba)	2014/02/06	NC	80 - 120	99	80 - 120	<0.000020	mg/L	0.1	20
7374441	Dissolved Beryllium (Be)	2014/02/06	102	80 - 120	97	80 - 120	<0.000010	mg/L	NC	20
7374441	Dissolved Bismuth (Bi)	2014/02/06	100	80 - 120	104	80 - 120	<0.0000050	mg/L	NC	20
7374441	Dissolved Cadmium (Cd)	2014/02/06	102	80 - 120	102	80 - 120	<0.0000050	mg/L	NC	20
7374441	Dissolved Chromium (Cr)	2014/02/06	101	80 - 120	98	80 - 120	<0.00010	mg/L	NC	20
7374441	Dissolved Cobalt (Co)	2014/02/06	98	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
7374441	Dissolved Copper (Cu)	2014/02/06	96	80 - 120	100	80 - 120	<0.000050	mg/L	8.3	20
7374441	Dissolved Iron (Fe)	2014/02/06	106	80 - 120	110	80 - 120	<0.0010	mg/L	NC	20
7374441	Dissolved Lead (Pb)	2014/02/06	100	80 - 120	102	80 - 120	<0.0000050	mg/L	NC	20
7374441	Dissolved Lithium (Li)	2014/02/06	101	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20
7374441	Dissolved Manganese (Mn)	2014/02/06	103	80 - 120	100	80 - 120	<0.000050	mg/L	NC	20
7374441	Dissolved Molybdenum (Mo)	2014/02/06	NC	80 - 120	105	80 - 120	<0.000050	mg/L	0.6	20
7374441	Dissolved Nickel (Ni)	2014/02/06	97	80 - 120	100	80 - 120	<0.000020	mg/L	0	20
7374441	Dissolved Selenium (Se)	2014/02/06	102	80 - 120	102	80 - 120	<0.000040	mg/L	2.7	20
7374441	Dissolved Silver (Ag)	2014/02/06	92	80 - 120	102	80 - 120	<0.0000050	mg/L	NC	20
7374441	Dissolved Strontium (Sr)	2014/02/06	NC	80 - 120	103	80 - 120	<0.000050	mg/L	1.1	20
7374441	Dissolved Thallium (Tl)	2014/02/06	105	80 - 120	104	80 - 120	<0.0000020	mg/L	10.0	20
7374441	Dissolved Tin (Sn)	2014/02/06	NC	80 - 120	104	80 - 120	<0.00020	mg/L	NC	20
7374441	Dissolved Titanium (Ti)	2014/02/06	109	80 - 120	104	80 - 120	<0.00050	mg/L	NC	20
7374441	Dissolved Uranium (U)	2014/02/06	102	80 - 120	101	80 - 120	<0.0000020	mg/L	3.5	20
7374441	Dissolved Vanadium (V)	2014/02/06	100	80 - 120	98	80 - 120	<0.00020	mg/L	NC	20
7374441	Dissolved Zinc (Zn)	2014/02/06	102	80 - 120	109	80 - 120	<0.00010	mg/L	NC	20
7374441	Dissolved Boron (B)	2014/02/06					<0.050	mg/L	NC	20
7374441	Dissolved Phosphorus (P)	2014/02/06					<0.0020	mg/L	NC	20
7374441	Dissolved Silicon (Si)	2014/02/06					<0.10	mg/L	1.4	20
7374441	Dissolved Zirconium (Zr)	2014/02/06					<0.00010	mg/L	NC	20
7374794	Dissolved Sulphate (SO4)	2014/02/06	NC	80 - 120	100	80 - 120	<0.50	mg/L	NC	20
7375078	Total Mercury (Hg)	2014/02/07	103	80 - 120	105	80 - 120	<0.0000020	mg/L	NC	20
7375139	Bromide (Br)	2014/02/07	92	78 - 120	99	80 - 120	<0.010	mg/L	NC	20
7375162	Bromide (Br)	2014/02/07	94	78 - 120	94	80 - 120	<0.010	mg/L	NC	20
7375730	Dissolved Cobalt (Co)	2014/02/07			100	80 - 120	<0.0000050	mg/L		
7375730	Dissolved Phosphorus (P)	2014/02/07					<0.0020	mg/L		
7375757	Orthophosphate (P)	2014/02/07			91	80 - 120	<0.0010	mg/L		
7375825	Total Zinc (Zn)	2014/02/07			110	80 - 120	0.00010, RDL=0.00010	mg/L		
7375825	Total Phosphorus (P)	2014/02/07					<0.0020	mg/L		

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ACCESS CONSULTING GROUP
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QUALITY ASSURANCE REPORT

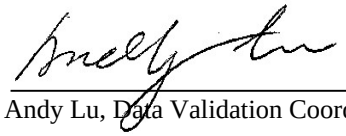
			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7375932	Total Dissolved Solids	2014/02/11	98	80 - 120	114	80 - 120	16, RDL=10	mg/L	8.3	20
7379082	Dissolved Copper (Cu)	2014/02/11			100	80 - 120	<0.000050	mg/L		

N/A = Not Applicable
RDL = Reportable Detection Limit
RPD = Relative Percent Difference
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

Maxxam Job #: B408913

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Andy Lu, Data Validation Coordinator

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

08388134

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CHAIN-OF CUSTODY RECORD AND ANALYSIS REQUEST

PAGE 1 OF 3

LAB USE ONLY — MAXXAM JOB #: B408913

ANALYSIS REQUEST

LAB USE ONLY — COC #:

COMPANY NAME: #3429 ACCESS CONSULTING GROUP

CLIENT PROJECT NO.: GPBC-13-01

COMPANY ADDRESS:
#3 Calcite Business Centre
151 Industrial Road
Whitehorse, YT
Y1A 2V3

TEL.: (867)668-6463
E-MAIL: david@accessconsulting.ca, flougere@accessconsulting.ca; ebier@accessconsulting.ca, cherry@accessconsulting.ca; mduchame@accessconsulting.ca
FAX: (867)667-6680

SAMPLER NAME (PRINT): A. Bier, L. Fougere

PROJECT MANAGER: David Petkovich

LABORATORY CONTACT: Ken Pomeroy

	FIELD SAMPLE ID	MAXXAM LAB # (LAB USE ONLY)	MATRIX: GROUNDWATER	SURFACE WATER	DRINKING WATER	SOIL	OTHER	SAMPLING: DATE DD/MM/YY	TIME	# CONTAINERS	Total Metals, Hardness (Low-level)	Dissolved Metals, Hardness (Low-level)	Routine (Alk, EC, pH, TDS)	Cl, F,Br, OrthoPhos, NO2, NO3, NH4, SO4, col.	TDS/TSS (Low-level)	Cyanide (SAD(total) & WAD)	DOC	Ammonina-N
1	BC-33	IP6995		X				31/01/14	10:38	11	X	X	X	X	X	X	X	X
2	BC-05	IP6999		X				31/01/14	11:00	11	X	X	X	X	X	X	X	X
3	BC-06	IP7000		X				31/01/14	16:50	11	X	X	X	X	X	X	X	X
4	BC-34	IP7001		X				30/01/14	17:07	11	X	X	X	X	X	X	X	X
5	BC-32	IP7002		X				31/01/14	15:23	11	X	X	X	X	X	X	X	X
6	Sample B	IP7003		X				n/a	n/a	11	X	X	X	X	X	X	X	X
7	BC-36	IP7004		X				01/02/04	10:17	11	X	X	X	X	X	X	X	X
8	BC-04	IP7005		X				01/02/04	11:41	11	X	X	X	X	X	X	X	X
9	BC-74	IP7006		X				01/02/04	12:58	11	X	X	X	X	X	X	X	X
10	BC-73	IP7007		X				01/02/04	13:34	11	X	X	X	X	X	X	X	X
11	BC-72	IP7008		X				01/02/04	14:20	11	X	X	X	X	X	X	X	X
12	BC-3	IP7009		X				01/02/04	16:15	11	X	X	X	X	X	X	X	X

B408913

TAT (Turnaround Time)
LESS THAN 5 DAY TAT MUST HAVE PRIOR APPROVAL
* Some exceptions apply - please contact laboratory
STANDARD 6 BUSINESS DAYS
RUSH 3 BUSINESS DAYS
RUSH 2 BUSINESS DAYS
URGENT 1 BUSINESS DAY
OTHER BUSINESS DAYS

PO NUMBER OR QUOTE NUMBER:

SPECIAL DETECTION LIMITS / CONTAMINANT TYPE:

ACCOUNTING CONTACT: Kim Borden-Hall

SPECIAL REPORTING OR BILLING INSTRUCTIONS:

RELINQUISHED BY SAMPLER: A. Bier — DATE: DD/MM/YY 03/02/14 — TIME: ~16:00

RELINQUISHED BY: — DATE: DD/MM/YY — TIME:

RELINQUISHED BY: — DATE: DD/MM/YY — TIME:

CCME
CSR
AB TIER 1
OTHER
JARS USED:

LAB USE ONLY
ARRIVAL TEMPERATURE °C: 1,1 / 1,2 / 1,1 / 1,1
DUE DATE:
LOG IN CHECK:

RECEIVED BY: AIR NORTH CARGO

RECEIVED BY:

RECEIVED BY LABORATORY: Laurel Berthier 2014/02/04 13:25 CS/LA

CUSTODY RECORD

08388133

Maxxam Analytics Inc

4606 Canada Way
Burnaby, BC V5G 1K5
www.maxxam.ca

Phone: (604) 734- 7276
Fax.: (604) 630-0110
Toll-Free: 1-800-665-8566

CHAIN-OF CUSTODY RECORD AND ANALYSIS REQUEST

LAB USE ONLY
MAXXAM JOB #: B408913

ANALYSIS REQUEST

LAB USE ONLY
COC #:

COMPANY NAME:	#3429 ACCESS CONSULTING GROUP
COMPANY ADDRESS:	#3 Calcite Business Centre 151 Industrial Road Whitehorse, YT Y1A 2V3
CLIENT PROJECT NO.:	GPBC-13-01
TEL.:	(867)668-6463
E-MAIL:	davidp@accessconsulting.ca, lfougere@accessconsulting.ca abier@accessconsulting.ca, cherry@accessconsulting.ca mduchesne@accessconsulting.ca
FAX:	(867)667-6680
SAMPLER NAME (PRINT):	A. BIER, L. FOUGÈRE
PROJECT MANAGER:	David Petkovich
LABORATORY CONTACT:	Ken Pomeroy

	FIELD SAMPLE ID	MAXXAM LAB # (LAB USE ONLY)	MATRIX: GROUNDWATER	SURFACE WATER	DRINKING WATER	SOIL	OTHER	SAMPLING: DATE DD/MM/YY	TIME	# CONTAINERS	Total Metals, Hardness (Low-level)	Dissolved Metals, Hardness (Low-level)	Routine (Alk, EC, pH, TDS)	Cl, F,Br, OrthoPhos, NO2, NO3, NH4, SO4, col.	TDS/TSS (Low-level)	Cyanide (SAD(total) & WAD)	DOC	Ammonia-N
1	TRIP BLANK	IP7010		X				N/A	N/A	2	X	X	X	X	X	X	X	X
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

B408913

TAT (Turnaround Time)
LESS THAN 5 DAY TAT MUST HAVE PRIOR APPROVAL
* Some exceptions apply - please contact laboratory

STANDARD	5 BUSINESS DAYS
RUSH	4 BUSINESS DAYS
RUSH	3 BUSINESS DAYS
URGENT	1 BUSINESS DAY

OTHER BUSINESS DAYS:

CUSTODY RECORD

PO NUMBER OR QUOTE NUMBER:

SPECIAL DETECTION LIMITS / CONTAMINANT TYPE:

ACCOUNTING CONTACT: Kim Borden-Hall

SPECIAL REPORTING OR BILLING INSTRUCTIONS:

RELINQUISHED BY SAMPLER: A. BIER	DATE: DD/MM/YY 03/02/14	TIME: ~16:00
RELINQUISHED BY:	DATE: DD/MM/YY	TIME:
RELINQUISHED BY:	DATE: DD/MM/YY	TIME:

COMD:
CSR:
AB TIER 1:
OTHER:
JARS USED:

LAB USE ONLY
ARRIVAL TEMPERATURE °C: 1,1,1 / 1,1,2 / 1,1,1 / 1,1,1
DUE DATE:
LOG IN CHECK:

RECEIVED BY: AIR NORTH CARGO

RECEIVED BY:

RECEIVED BY LABORATORY: Laurel Berthier 2014/02/04 13:25 CS; NA

08388135

Maxxam Analytics Inc
4606 Canada Way
Burnaby, BC V5G 1K5
www.maxxam.ca
Phone: (604) 734-7276
Fax.: (604) 630-0110
Toll-Free: 1-800-665-8566

CHAIN-OF CUSTODY RECORD AND ANALYSIS REQUEST

PAGE ___ OF ___

LAB USE ONLY – MAXXAM JOB #: B408913

ANALYSIS REQUEST

LAB USE ONLY – COC #:

COMPANY NAME: #3429 ACCESS CONSULTING GROUP

CLIENT PROJECT NO.: GPBC-13-01

COMPANY ADDRESS: #3 Calcite Business Centre, 151 Industrial Road, Whitehorse, YT, Y1A 2V3

TEL: (867)668-6463

E-MAIL: david@accessconsulting.ca, flougere@accessconsulting.ca, abien@accessconsulting.ca, sherry@accessconsulting.ca, mducharme@accessconsulting.ca

FAX: (867)667-6680

SAMPLER NAME (PRINT):

PROJECT MANAGER: David Petkovich

LABORATORY CONTACT: Ken Pomeroy

	FIELD SAMPLE ID	MAXXAM LAB # (LAB USE ONLY)	MATRIX: GROUNDWATER	SURFACE WATER	DRINKING WATER	SOIL	OTHER	SAMPLING: DATE DD/MM/YY	TIME	# CONTAINERS	Dissolved Metals, Hardness (Low-level)	Routine (Alk, EC, pH)	Cl, F, Br, OrthoPhos, NO2, NO3, NH4, SO4, col.	TDS (filt res.)	Cyanide (SAD(total) & WAD)	Ammonia-N
1	LF-12-01	IP7012	X					29/01/14	14:30	9	X	X	X	X	X	X
2	LF-XX-02	IP7013	X					29/01/14	15:50	9	X	X	X	X	X	X
3	EBR-12-03	IP7014	X					30/01/14	15:34	9	X	X	X	X	X	X
4	Sample A	IP7015	X					n/a	n/a	9	X	X	X	X	X	X
5	EBR-12-01	IP7016	X					02/02/14	17:30	9	X	X	X	X	X	X
6	MH-12-01	IP7017	X					02/02/14	16:40	7	X	X	X	X	X	X
7	MH-12-02	IP7018	X					02/02/14	13:50	7	X	X	X	X	X	X
8		IP7019														
9																
10																
11																
12																

B408913

TAT (Turnaround Time)

LESS THAN 5 DAY TAT MUST HAVE PRIOR APPROVAL

* Some exceptions apply - please contact laboratory

STANDARD 5 BUSINESS DAYS
RUSH 3 BUSINESS DAYS
RUSH 2 BUSINESS DAYS
URGENT 1 BUSINESS DAY
OTHER BUSINESS DAYS ___

PO NUMBER OR QUOTE NUMBER:

SPECIAL DETECTION LIMITS / CONTAMINANT TYPE:

CCME / BSR / AB TIER 1 / OTHER

ACCOUNTING CONTACT: Kim Borden-Hall

SPECIAL REPORTING OR BILLING INSTRUCTIONS:

JARS USED:

LAB USE ONLY – ARRIVAL TEMPERATURE °C: 4,1/4,2 4,1/4,1

DUE DATE:

LOG IN CHECK:

RELINQUISHED BY SAMPLER: | DATE: DD/MM/YY | TIME: | RECEIVED BY:

RELINQUISHED BY: | DATE: DD/MM/YY | TIME: | RECEIVED BY:

RELINQUISHED BY: | DATE: DD/MM/YY | TIME: | RECEIVED BY LABORATORY: Laurel Berthier 2014/02/04 13:25 CS:NA

CUSTODY RECORD

COCFORM-BC-2011

Your Project #: GPBC-12-01

Attention: Scott Keesey
ACCESS MINING CONSULTANTS LTD.
#3-151 INDUSRIAL RD
WHITEHORSE, YT
CANADA Y1A 2V3

Your C.O.C. #: 08393623, 08393624, 08393625, 08393626, 08393627, 08393628

Report Date: 2014/06/11
Report #: R1583564
Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B445855
Received: 2014/06/04, 10:35

Sample Matrix: Water
Samples Received: 45

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity - Water	44	2014/06/05	2014/06/06	BBY6SOP-00026	SM2320B
Alkalinity - Water	1	2014/06/10	2014/06/10	BBY6SOP-00026	SM2320B
Chloride by Automated Colourimetry	45	N/A	2014/06/05	BBY6SOP-00011	SM-4500-Cl-
Cyanide SAD (strong acid dissociable)	16	N/A	2014/06/05	BBY6SOP-00004	SM-4500CN O
Cyanide SAD (strong acid dissociable)	7	N/A	2014/06/06	BBY6SOP-00004	SM-4500CN O
Cyanide SAD (strong acid dissociable)	22	N/A	2014/06/09	BBY6SOP-00004	SM-4500CN O
Cyanide WAD (weak acid dissociable)	16	N/A	2014/06/05	BBY6SOP-00005	SM-4500CN O
Cyanide WAD (weak acid dissociable)	7	N/A	2014/06/06	BBY6SOP-00005	SM-4500CN O
Cyanide WAD (weak acid dissociable)	22	N/A	2014/06/09	BBY6SOP-00005	SM-4500CN O
Colour (True)	45	N/A	2014/06/05	BBY6SOP-00021	SM-2120B
Carbon (DOC) - field filtered/preserved (1)	16	N/A	2014/06/07	BBY6SOP-00003	SM-5310C
Conductance - water	45	N/A	2014/06/06	BBY6SOP-00026	SM-2510B
Fluoride - Mining Clients	45	N/A	2014/06/05	BBY6SOP-00012	SM - 4500 F C
Hardness Total (calculated as CaCO3)	44	N/A	2014/06/06	BBY7SOP-00002	EPA 6020A
Hardness Total (calculated as CaCO3)	1	N/A	2014/06/09	BBY7SOP-00002	EPA 6020A
Hardness (calculated as CaCO3)	44	N/A	2014/06/09	BBY7SOP-00002	EPA 6020A
Hardness (calculated as CaCO3)	1	N/A	2014/06/10	BBY7SOP-00002	EPA 6020A
Mercury (Dissolved-LowLevel) by CVAF	14	N/A	2014/06/07	BBY7SOP-00015	BC MOE Lab Manual
Mercury (Dissolved-LowLevel) by CVAF	10	N/A	2014/06/09	BBY7SOP-00015	BC MOE Lab Manual
Mercury (Dissolved-LowLevel) by CVAF	1	N/A	2014/06/10	BBY7SOP-00015	BC MOE Lab Manual
Mercury (Total-LowLevel) by CVAF	20	2014/06/07	2014/06/09	BBY7SOP-00015	BC MOE Lab Manual
Mercury (Total-LowLevel) by CVAF	24	2014/06/09	2014/06/09	BBY7SOP-00015	BC MOE Lab Manual
Bromide as Bromine (Br) by ICPMS	45	N/A	2014/06/08	BBY7SOP-00002	EPA 6020A
Ion Balance	45	N/A	2014/06/09	Calc	
Sum of cations, anions	44	N/A	2014/06/06	Calc	
Sum of cations, anions	1	N/A	2014/06/09	Calc	
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	44	N/A	2014/06/09	BBY7SOP-00002	EPA 6020A
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	1	N/A	2014/06/10	BBY7SOP-00002	EPA 6020A
Elements by ICPMS Low Level (dissolved)	45	N/A	2014/06/07	BBY7SOP-00002	EPA 6020A
Elements by ICPMS Digested LL (total)	1	2014/06/05	2014/06/05	BBY7SOP-00002	EPA 6020A
Na, K, Ca, Mg, S by CRC ICPMS (total)	44	N/A	2014/06/06	BBY7SOP-00002	EPA 6020A
Na, K, Ca, Mg, S by CRC ICPMS (total)	1	N/A	2014/06/09	BBY7SOP-00002	EPA 6020A
Elements by ICPMS Low Level (total)	43	N/A	2014/06/06	BBY7SOP-00002	EPA 6020A
Elements by ICPMS Low Level (total)	1	N/A	2014/06/08	BBY7SOP-00002	EPA 6020A
Ammonia-N (Unpreserved)	1	N/A	2014/06/05	BBY6SOP-00009	SM-4500NH3G
Ammonia-N (Preserved)	44	N/A	2014/06/05	BBY6SOP-00009	SM-4500NH3G

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

Sample Matrix: Water
Samples Received: 45

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Nitrate+Nitrite (N) (low level)	42	N/A	2014/06/05	BBY6SOP-00010	EPA 353.2
Nitrate+Nitrite (N) (low level)	3	N/A	2014/06/10	BBY6SOP-00010	EPA 353.2
Nitrite (N) (low level)	42	N/A	2014/06/05	BBY6SOP-00010	SM 4500NO3-I
Nitrite (N) (low level)	3	N/A	2014/06/10	BBY6SOP-00010	SM 4500NO3-I
Nitrogen - Nitrate (as N)	42	N/A	2014/06/06	BBY6SOP-00010	SM 4500NO3-I
Nitrogen - Nitrate (as N)	3	N/A	2014/06/10	BBY6SOP-00010	SM 4500NO3-I
Filter and HNO3 Preserve for Metals	45	N/A	2014/06/05	BBY6WI-00001	EPA 200.2
pH Water (2)	45	N/A	2014/06/06	BBY6SOP-00026	SM-4500H+B
Orthophosphate by Konelab (low level)	39	N/A	2014/06/05	BBY6SOP-00013	SM 4500 P E
Orthophosphate by Konelab (low level)	6	N/A	2014/06/10	BBY6SOP-00013	SM 4500 P E
Sulphate by Automated Colourimetry	43	N/A	2014/06/05	BBY6SOP-00017	SM4500-SO42- E
Sulphate by Automated Colourimetry	2	N/A	2014/06/09	BBY6SOP-00017	SM4500-SO42- E
Total Dissolved Solids (Calculated)	42	N/A	2014/06/09	BBY WI-00033	Calculated Parameter
Total Dissolved Solids (Filt. Residue)	15	2014/06/05	2014/06/09	BBY6SOP-00033	SM 2540C
Total Dissolved Solids (Filt. Residue)	27	2014/06/06	2014/06/09	BBY6SOP-00033	SM 2540C
Total Suspended Solids-Low Level	45	2014/06/05	2014/06/06	BBY6SOP-00034	SM-2540 D

* Results relate only to the items tested.

(1) DOC present in the sample should be considered as non-purgeable DOC.
(2) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Ken Pomeroy, Project Manager
Email: KPomeroy@maxxam.ca
Phone# (604) 638-5020

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 2

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		JT5181		JT5182	JT5183	JT5184	JT5185			JT5186		
Sampling Date		2014/05/27 17:50		2014/05/29 09:10	2014/05/29 09:52	2014/05/29 11:54	2014/05/28 10:54			2014/06/01 13:23		
	UNITS	**BC-17**	**QC Batch**	**BC-37**	**BC-53**	**BC-39**	**BC-10**	**RDL**	**QC Batch**	**BC-12**	**RDL**	**QC Batch**
Misc. Inorganics												
Fluoride (F)	mg/L	0.160	7512987	0.230	0.230	0.075	0.091	0.010	7512987	0.310	0.010	7512987
Calculated Parameters												
Anion Sum	meq/L	3.7	7512281	4.5	4.5	3.0	2.4	N/A	7512281	16	N/A	7512281
Cation Sum	meq/L	3.6	7512281	4.4	4.4	3.0	2.2	N/A	7512281	16	N/A	7512281
Filter and HNO3 Preservation	N/A	LAB	7513328	LAB	LAB	LAB	LAB	N/A	7513328	LAB	N/A	7513328
Ion Balance	N/A	0.98	7511568	0.99	0.98	1.0	0.95	0.010	7511568	0.98	0.010	7511568
Nitrate (N)	mg/L	1.16	7511511	0.262	0.263	0.104	<0.0020	0.0020	7511511	0.0169	0.0020	7511511
Total Dissolved Solids	mg/L	199	7512282	250	250	165	128	0.50	7512282	995	5.0	7512282
Misc. Inorganics												
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	7513278	0.00075	0.00055	<0.00050	<0.00050	0.00050	7513278	<0.00050	0.00050	7513278
Weak Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	7513285	0.00069	0.00059	<0.00050	<0.00050	0.00050	7513285	<0.00050	0.00050	7513285
Alkalinity (Total as CaCO3)	mg/L	115	7513270	113	113	81.9	67.7	0.50	7513270	124	0.50	7513270
Alkalinity (PP as CaCO3)	mg/L	<0.50	7513270	<0.50	<0.50	<0.50	<0.50	0.50	7513270	<0.50	0.50	7513270
Bicarbonate (HCO3)	mg/L	141	7513270	138	138	100	82.5	0.50	7513270	151	0.50	7513270
Carbonate (CO3)	mg/L	<0.50	7513270	<0.50	<0.50	<0.50	<0.50	0.50	7513270	<0.50	0.50	7513270
Hydroxide (OH)	mg/L	<0.50	7513270	<0.50	<0.50	<0.50	<0.50	0.50	7513270	<0.50	0.50	7513270
Anions												
Orthophosphate (P)	mg/L	0.0075(1)	7519030	0.0070(1)	0.0045(1)	0.0011(1)	0.0078(1)	0.0010	7512968	0.0012(2)	0.0010	7519030
Dissolved Sulphate (SO4)	mg/L	60.2	7513952	103	103	62.9	47.4	0.50	7513952	647	5.0	7513952
Dissolved Chloride (Cl)	mg/L	0.88	7513946	0.79	0.79	<0.50	0.93	0.50	7513946	0.97	0.50	7513946
MISCELLANEOUS												
True Colour	Col. Unit	<5.0(1)	7512924	15.0(1)	15.0(1)	5.0(1)	15.0(1)	5.0	7512924	5.0(3)	5.0	7512924
Nutrients												
Total Ammonia (N)	mg/L	0.011	7513959	0.014	0.012	0.0067	0.0079	0.0050	7513959	0.018	0.0050	7513959
Nitrate plus Nitrite (N)	mg/L	1.16(1)	7513938	0.266(1)	0.266(1)	0.104(1)	0.0076(1)	0.0020	7513938	0.0169(2)	0.0020	7513938
Nitrite (N)	mg/L	<0.0020(1)	7513942	0.0035(1)	0.0035(1)	<0.0020(1)	0.0077(1)	0.0020	7513942	<0.0020(2)	0.0020	7513942
Physical Properties												
Conductivity	uS/cm	353	7513275	428	427	294	232	1.0	7513275	1340	1.0	7513275
pH	pH	8.03	7513274	8.01	8.02	7.88	7.95		7513274	7.31		7513274

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) - Sample arrived to laboratory past recommended hold time.
(2) - Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.
(3) - Sample analysed past recommended hold time. Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		JT5181		JT5182	JT5183	JT5184	JT5185			JT5186		
Sampling Date		2014/05/27 17:50		2014/05/29 09:10	2014/05/29 09:52	2014/05/29 11:54	2014/05/28 10:54			2014/06/01 13:23		
	UNITS	**BC-17**	**QC Batch**	**BC-37**	**BC-53**	**BC-39**	**BC-10**	**RDL**	**QC Batch**	**BC-12**	**RDL**	**QC Batch**
Physical Properties												
Total Suspended Solids	mg/L	1.0(1)	7512865	35.3	43.3	1.7	13.4(2)	1.0	7512882	5.9	1.0	7512882
Total Dissolved Solids	mg/L	230(1)	7512947	286	276	192	156(2)	10	7512947	1160	10	7514743

RDL = Reportable Detection Limit
(1) - Sample arrived to laboratory past recommended hold time.
(2) - Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		JT5187		JT5188		JT5189		JT5214	JT5215	JT5216		
Sampling Date		2014/06/01 17:02		2014/06/01 18:03				2014/05/27 16:49	2014/05/27 14:39	2014/05/29 10:20		
	UNITS	**BC-15**	**RDL**	**BC-51W**	**QC Batch**	**SAMPLE C**	**QC Batch**	**BC-04**	**BC-41**	**BC-01**	**RDL**	**QC Batch**
Misc. Inorganics												
Fluoride (F)	mg/L	0.077	0.010	0.130	7512987	0.130	7512987	0.280	0.260	0.230	0.010	7512987
Calculated Parameters												
Anion Sum	meq/L	6.0	N/A	1.8	7512281	1.8	7512281	6.2	6.0	4.6	N/A	7512281
Cation Sum	meq/L	6.3	N/A	1.8	7512281	1.8	7512281	6.5	6.1	4.6	N/A	7512281
Filter and HNO3 Preservation	N/A	LAB	N/A	LAB	7513328	LAB	7513328	LAB	LAB	LAB	N/A	7513328
Ion Balance	N/A	1.2(1)	0.010	1.0	7511568	1.0	7511568	1.1	1.0	1.0	0.010	7511568
Nitrate (N)	mg/L	<0.0020	0.0020	<0.0020	7511511	<0.0020	7518092	0.147	0.157	0.294	0.0020	7511511
Total Dissolved Solids	mg/L	365	5.0	113	7512282	114	7512282	361	347	259	0.50	7512282
Misc. Inorganics												
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	0.00064	7513278	0.00064	7513278	0.00051	0.00051	0.00067	0.00050	7513278
Weak Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	0.00071	7513285	<0.00050	7513285	<0.00050	0.00053	0.00061	0.00050	7513285
Dissolved Organic Carbon (C)	mg/L							2.90	2.89	4.96	0.50	7516196
Alkalinity (Total as CaCO3)	mg/L	81.1	0.50	<0.50	7513270	<0.50	7513270	133	126	114	0.50	7513270
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	<0.50	7513270	<0.50	7513270	<0.50	<0.50	<0.50	0.50	7513270
Bicarbonate (HCO3)	mg/L	99.0	0.50	<0.50	7513270	<0.50	7513270	162	154	139	0.50	7513270
Carbonate (CO3)	mg/L	<0.50	0.50	<0.50	7513270	<0.50	7513270	<0.50	<0.50	<0.50	0.50	7513270
Hydroxide (OH)	mg/L	<0.50	0.50	<0.50	7513270	<0.50	7513270	<0.50	<0.50	<0.50	0.50	7513270
Anions												
Orthophosphate (P)	mg/L	0.0048(2)	0.0010	0.0013(2)	7512968	0.0011(2)	7512968	0.0033(3)	0.0037(3)	0.0038(3)	0.0010	7512968
Dissolved Sulphate (SO4)	mg/L	212	5.0	81.7	7513952	81.9	7513952	169	166	107	0.50	7513952
Dissolved Chloride (Cl)	mg/L	<0.50	0.50	1.5	7513946	1.5	7513946	0.56	<0.50	0.80	0.50	7513946
MISCELLANEOUS												
True Colour	Col. Unit	<5.0(4)	5.0	15.0(4)	7512924	15.0(4)	7512924	10.0(3)	5.0(3)	10.0(3)	5.0	7512924
Nutrients												
Total Ammonia (N)	mg/L	<0.0050	0.0050	<0.0050	7513959	0.0060	7513959	0.016	0.014	0.0085	0.0050	7513959
Nitrate plus Nitrite (N)	mg/L	<0.0020(2)	0.0020	0.0089(2)	7513938	0.0026(2)	7519627	0.147(3)	0.157(3)	0.297(3)	0.0020	7513938
Nitrite (N)	mg/L	<0.0020(2)	0.0020	0.0105(2)	7513942	0.0091(2)	7519628	<0.0020(3)	<0.0020(3)	0.0028(3)	0.0020	7513942

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) - Ion balance exceeds normal acceptance limits, major ions reanalyzed and confirmed.
(2) - Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.
(3) - Sample arrived to laboratory past recommended hold time.
(4) - Sample analysed past recommended hold time. Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		JT5187		JT5188		JT5189		JT5214	JT5215	JT5216		
Sampling Date		2014/06/01 17:02		2014/06/01 18:03				2014/05/27 16:49	2014/05/27 14:39	2014/05/29 10:20		
	UNITS	**BC-15**	**RDL**	**BC-51W**	**QC Batch**	**SAMPLE C**	**QC Batch**	**BC-04**	**BC-41**	**BC-01**	**RDL**	**QC Batch**
Physical Properties												
Conductivity	uS/cm	630	1.0	206	7513275	203	7513275	597	584	437	1.0	7513275
pH	pH	7.95		5.24	7513274	4.77	7513274	7.96	8.03	7.92		7513274
Physical Properties												
Total Suspended Solids	mg/L	<1.0	1.0	33.2	7512882	32.3	7512882	27.5(1)	38.7(1)	80.7	1.0	7512882
Total Dissolved Solids	mg/L	436	10	132	7514743	134	7514743	402(1)	402(1)	296	10	7512947

RDL = Reportable Detection Limit
(1) - Sample arrived to laboratory past recommended hold time.

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		JT5217	JT5218	JT5219		JT5220		JT5221		JT5222		
Sampling Date		2014/05/29 13:11	2014/05/29 14:12	2014/05/29 15:27		2014/05/29 16:13		2014/05/29 16:52		2014/05/29 12:37		
	UNITS	**BC-31**	**BC-36**	**BC-32**	**QC Batch**	**BC-35R**	**QC Batch**	**BC-35**	**QC Batch**	**BC-38**	**RDL**	**QC Batch**
Misc. Inorganics												
Fluoride (F)	mg/L	0.190	0.220	0.250	7512987	0.210	7512987	0.170	7512987	0.071	0.010	7512987
Calculated Parameters												
Anion Sum	meq/L	6.1	6.3	4.8	7512281	4.1	7512281	5.3	7512281	2.5	N/A	7512281
Cation Sum	meq/L	5.9	6.2	4.8	7512281	4.0	7512281	5.1	7512281	2.5	N/A	7512281
Filter and HNO3 Preservation	N/A	LAB	LAB	LAB	7513328	LAB	7513328	LAB	7513328	LAB	N/A	7513328
Ion Balance	N/A	0.97	0.98	1.0	7511568	0.97	7511568	0.98	7511568	0.99	0.010	7511568
Nitrate (N)	mg/L	0.143	0.250	0.0509	7511511	<0.0020	7511511	0.0094	7511511	0.0923	0.0020	7511511
Total Dissolved Solids	mg/L	336	350	260	7512282	220	7512282	293	7512282	137	0.50	7512282
Misc. Inorganics												
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00054	0.00059	0.00050	7513278	0.00064	7513278	0.00067	7515026	0.00062	0.00050	7515026
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00060	0.00060	<0.00050	7513285	0.00057	7513285	0.00066	7515044	0.00074	0.00050	7515044
Dissolved Organic Carbon (C)	mg/L	4.15	3.77	2.49	7516196	4.36	7516196	3.70	7516196	1.82	0.50	7516196
Alkalinity (Total as CaCO3)	mg/L	152	167	143	7513270	120	7513276	132	7513270	74.2	0.50	7513276
Alkalinity (PP as CaCO3)	mg/L	<0.50	<0.50	<0.50	7513270	<0.50	7513276	<0.50	7513270	<0.50	0.50	7513276
Bicarbonate (HCO3)	mg/L	186	203	174	7513270	147	7513276	161	7513270	90.6	0.50	7513276
Carbonate (CO3)	mg/L	<0.50	<0.50	<0.50	7513270	<0.50	7513276	<0.50	7513270	<0.50	0.50	7513276
Hydroxide (OH)	mg/L	<0.50	<0.50	<0.50	7513270	<0.50	7513276	<0.50	7513270	<0.50	0.50	7513276
Anions												
Orthophosphate (P)	mg/L	0.0027(1)	0.0027(1)	0.0024(1)	7512968	0.0021(1)	7512968	<0.0010(1)	7512968	<0.0010(1)	0.0010	7512968
Dissolved Sulphate (SO4)	mg/L	143	142	90.3	7513952	78.3	7513952	125	7513952	48.0	0.50	7513952
Dissolved Chloride (Cl)	mg/L	0.64	0.85	0.80	7513946	0.75	7513946	0.79	7513946	<0.50	0.50	7513946
MISCELLANEOUS												
True Colour	Col. Unit	5.0(1)	15.0(1)	10.0(1)	7512924	20.0(1)	7512924	10.0(1)	7512924	5.0(1)	5.0	7512924
Nutrients												
Total Ammonia (N)	mg/L	0.0085	0.011	0.010	7513959	<0.0050	7513959	0.0050	7513959	0.0054	0.0050	7513959
Nitrate plus Nitrite (N)	mg/L	0.143(1)	0.250(1)	0.0509(1)	7513938	<0.0020(1)	7513938	0.0094(1)	7513938	0.0923(1)	0.0020	7513938
Nitrite (N)	mg/L	<0.0020(1)	<0.0020(1)	<0.0020(1)	7513942	<0.0020(1)	7513942	<0.0020(1)	7513942	<0.0020(1)	0.0020	7513942
Physical Properties												
Conductivity	uS/cm	562	583	458	7513275	387	7513282	502	7513275	251	1.0	7513282
pH	pH	8.14	8.13	8.01	7513274	8.05	7513281	8.02	7513274	7.99		7513281
Physical Properties												
Total Suspended Solids	mg/L	1.4	2.4	38.8	7512882	1.9	7512882	8.4	7512882	3.0	1.0	7512882
Total Dissolved Solids	mg/L	374	390	304	7512947	262	7512947	322	7512947	184	10	7512947

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) - Sample arrived to laboratory past recommended hold time.

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		JT5223		JT5224		JT5225		JT5232		JT5233		
Sampling Date		2014/05/29 17:55		2014/05/30 16:49		2014/05/31 10:05		2014/05/30 08:54		2014/05/30 10:55		
	UNITS	**BC-06**	**QC Batch**	**BC-03**	**QC Batch**	**BC-02**	**QC Batch**	**BC-33**	**QC Batch**	**BC-05**	**RDL**	**QC Batch**
Misc. Inorganics												
Fluoride (F)	mg/L	0.066	7512987	0.190	7512987	0.100	7512987	0.170	7512987	0.270	0.010	7512987
Calculated Parameters												
Anion Sum	meq/L	2.5	7512281	4.3	7512281	3.1	7512281	5.0	7512281	5.5	N/A	7512281
Cation Sum	meq/L	2.7	7512281	4.2	7512281	3.2	7512281	5.0	7512281	5.3	N/A	7512281
Filter and HNO3 Preservation	N/A	LAB	7513328	LAB	7513328	LAB	7513328	LAB	7513328	LAB	N/A	7513328
Ion Balance	N/A	1.0	7511568	1.0	7511568	1.0	7511568	1.0	7511568	0.96	0.010	7511568
Nitrate (N)	mg/L	0.104	7511511	0.0444	7511511	0.0358	7511511	0.127	7511511	0.0063	0.0020	7511511
Total Dissolved Solids	mg/L	142	7512282	237	7512282	186	7512282	281	7512282	307	0.50	7512282
Misc. Inorganics												
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00068	7515026	0.00075	7515026	0.00130	7515026	0.00069	7515026	0.00073	0.00050	7515026
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00061	7515044	0.00069	7515044	0.00124	7515044	0.00077	7515044	0.00070	0.00050	7515044
Dissolved Organic Carbon (C)	mg/L	1.92	7516196	4.03	7516196	14.8	7516196	3.11	7516196	5.49	0.50	7516196
Alkalinity (Total as CaCO3)	mg/L	74.4	7513276	112	7513276	45.7	7513270	124	7513276	136	0.50	7513284
Alkalinity (PP as CaCO3)	mg/L	<0.50	7513276	<0.50	7513276	<0.50	7513270	<0.50	7513276	<0.50	0.50	7513284
Bicarbonate (HCO3)	mg/L	90.8	7513276	136	7513276	55.8	7513270	151	7513276	166	0.50	7513284
Carbonate (CO3)	mg/L	<0.50	7513276	<0.50	7513276	<0.50	7513270	<0.50	7513276	<0.50	0.50	7513284
Hydroxide (OH)	mg/L	<0.50	7513276	<0.50	7513276	<0.50	7513270	<0.50	7513276	<0.50	0.50	7513284
Anions												
Orthophosphate (P)	mg/L	<0.0010(1)	7512968	0.0027(1)	7512968	0.0045(1)	7512968	0.0018(1)	7512968	0.0023(1)	0.0010	7512968
Dissolved Sulphate (SO4)	mg/L	49.9	7513952	95.4	7513952	103	7513952	120	7513952	131	0.50	7513952
Dissolved Chloride (Cl)	mg/L	<0.50	7513946	0.55	7513946	1.1	7513946	<0.50	7513946	2.7	0.50	7513946
MISCELLANEOUS												
True Colour	Col. Unit	5.0(1)	7512924	10.0(1)	7512924	50.0(1)	7512924	10.0(1)	7512924	20.0(1)	5.0	7512924
Nutrients												
Total Ammonia (N)	mg/L	0.0083	7513959	0.011	7513959	0.098	7513959	0.0073	7513959	0.012	0.0050	7513959
Nitrate plus Nitrite (N)	mg/L	0.104(1)	7513938	0.0464(1)	7513938	0.0358(1)	7513938	0.127(1)	7513938	0.0063(1)	0.0020	7513938
Nitrite (N)	mg/L	<0.0020(1)	7513942	0.0020(1)	7513942	<0.0020(1)	7513942	<0.0020(1)	7513942	<0.0020(1)	0.0020	7513942
Physical Properties												
Conductivity	uS/cm	259	7513282	418	7513282	316	7513275	490	7513282	511	1.0	7513289
pH	pH	7.97	7513281	8.07	7513281	7.35	7513274	8.12	7513281	8.20		7513288
Physical Properties												
Total Suspended Solids	mg/L	2.4	7512882	31.6	7512889	16.9	7512889	3.5	7512889	<1.0	1.0	7512889
Total Dissolved Solids	mg/L	176	7512947	274	7514708	270	7514708	334	7514708	354	10	7514708

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) - Sample arrived to laboratory past recommended hold time.

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		JT5234		JT5235			JT5248		JT5249	JT5250		
Sampling Date		2014/05/02 12:28								2014/06/01 18:56		
	UNITS	**BC-34**	**QC Batch**	**SAMPLE D**	**RDL**	**QC Batch**	**SAMPLE A**	**RDL**	**SAMPLE B**	**MH-12-02**	**RDL**	**QC Batch**
Misc. Inorganics												
Fluoride (F)	mg/L	0.170	7512987	0.170	0.010	7512987	0.320	0.010	0.018	0.180	0.010	7512987
Calculated Parameters												
Anion Sum	meq/L	5.0	7512281	5.0	N/A	7512281	13	N/A	0.0011	4.7	N/A	7512281
Cation Sum	meq/L	4.9	7512281	4.9	N/A	7512281	13	N/A	0.00070	4.6	N/A	7512281
Filter and HNO3 Preservation	N/A	LAB	7513328	LAB	N/A	7513328	LAB	N/A	LAB	LAB	N/A	7513328
Ion Balance	N/A	0.99	7511568	0.98	0.010	7511568	0.99	0.010	NC	0.99	0.010	7511568
Nitrate (N)	mg/L	0.0698	7511511	0.0645	0.0020	7511511	5.13	0.010	0.0022	0.187	0.0020	7511511
Total Dissolved Solids	mg/L	281	7512282	278	0.50	7512282	825	5.0	<0.50	233	0.50	7512282
Misc. Inorganics												
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00068	7517876	0.00066	0.00050	7517876	<0.00050	0.00050	0.00051	0.00060	0.00050	7517876
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00068	7517878	0.00060	0.00050	7517878	0.00072	0.00050	0.00053	0.00065	0.00050	7517878
Dissolved Organic Carbon (C)	mg/L	3.63	7516196	3.36	0.50	7516196						
Alkalinity (Total as CaCO3)	mg/L	123	7513284	122	0.50	7513276	156	0.50	<0.50	195	0.50	7513276
Alkalinity (PP as CaCO3)	mg/L	<0.50	7513284	<0.50	0.50	7513276	<0.50	0.50	<0.50	<0.50	0.50	7513276
Bicarbonate (HCO3)	mg/L	150	7513284	149	0.50	7513276	190	0.50	<0.50	237	0.50	7513276
Carbonate (CO3)	mg/L	<0.50	7513284	<0.50	0.50	7513276	<0.50	0.50	<0.50	<0.50	0.50	7513276
Hydroxide (OH)	mg/L	<0.50	7513284	<0.50	0.50	7513276	<0.50	0.50	<0.50	<0.50	0.50	7513276
Anions												
Orthophosphate (P)	mg/L	0.0013(1)	7512968	<0.0010(1)	0.0010	7512968	0.051(1)	0.0010	<0.0010(1)	0.0069(2)	0.0010	7512968
Dissolved Sulphate (SO4)	mg/L	122	7513952	121	0.50	7513952	476	5.0	<0.50	35.3	0.50	7513952
Dissolved Chloride (Cl)	mg/L	<0.50	7513946	<0.50	0.50	7513946	1.6	0.50	<0.50	0.74	0.50	7513946
MISCELLANEOUS												
True Colour	Col. Unit	10.0	7512924	10.0	5.0	7512924	<5.0	5.0	<5.0	<5.0(3)	5.0	7512924
Nutrients												
Total Ammonia (N)	mg/L	0.0075	7513959	0.0068	0.0050	7513959	0.0084	0.0050	<0.0050	0.064	0.0050	7513959
Nitrate plus Nitrite (N)	mg/L	0.0698(1)	7513938	0.0645(1)	0.0020	7513938	5.14(1)	0.010	0.0022(1)	0.246(2)	0.0020	7513938
Nitrite (N)	mg/L	<0.0020(1)	7513942	<0.0020(1)	0.0020	7513942	0.0081(1)	0.0020	<0.0020(1)	0.0592(2)	0.0020	7513942

N/A = Not Applicable
NC = Non-calculable
RDL = Reportable Detection Limit
(1) - Sample arrived to laboratory past recommended hold time.
(2) - Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.
(3) - Sample analysed past recommended hold time. Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		JT5234		JT5235			JT5248		JT5249	JT5250		
Sampling Date		2014/05/02 12:28								2014/06/01 18:56		
	UNITS	**BC-34**	**QC Batch**	**SAMPLE D**	**RDL**	**QC Batch**	**SAMPLE A**	**RDL**	**SAMPLE B**	**MH-12-02**	**RDL**	**QC Batch**
Physical Properties												
Conductivity	uS/cm	472	7513289	474	1.0	7513282	1220	1.0	1.7	442	1.0	7513282
pH	pH	8.15	7513288	8.08		7513281	7.23		6.15	8.03		7513281
Physical Properties												
Total Suspended Solids	mg/L	2.1	7512889	2.2	1.0	7512889	57.6	1.0	<1.0	1.2	1.0	7512889
Total Dissolved Solids	mg/L	330(1)	7514708	322	10	7514708	970	10	24	280	10	7514743

RDL = Reportable Detection Limit
(1) - Sample arrived to laboratory past recommended hold time.

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		JT5251		JT5252			JT5253		JT5254		
Sampling Date		2014/05/31 18:22		2014/06/01 09:51			2014/06/01 09:09		2014/06/01 09:28		
	UNITS	**BC-21**	**QC Batch**	**BC-28**	**RDL**	**QC Batch**	**BC-28A**	**RDL**	**BC-28B**	**RDL**	**QC Batch**
Misc. Inorganics											
Fluoride (F)	mg/L	0.360	7512987	0.120	0.010	7512987	0.200	0.010	0.140	0.010	7512987
Calculated Parameters											
Anion Sum	meq/L	8.2	7512281	1.5	N/A	7512281	37	N/A	22	N/A	7512281
Cation Sum	meq/L	8.1	7512281	1.4	N/A	7512281	39	N/A	22	N/A	7512281
Filter and HNO3 Preservation	N/A	LAB	7513328	LAB	N/A	7513328	LAB	N/A	LAB	N/A	7513328
Ion Balance	N/A	0.99	7511568	0.93	0.010	7511568	1.0	0.010	1.0	0.010	7511568
Nitrate (N)	mg/L	0.0219	7511511	0.0073	0.0020	7511511	263	1.0	165	0.20	7518092
Total Dissolved Solids	mg/L	436	7512282		0.50						
Misc. Inorganics											
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	7517876	0.00121	0.00050	7517876	0.415	0.0050	0.0849	0.00050	7517876
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00066	7517878	0.00128	0.00050	7517878	0.0887	0.0050	0.0610	0.00050	7517878
Alkalinity (Total as CaCO3)	mg/L	241	7513276	58.9	0.50	7513284	108	0.50	31.6	0.50	7513284
Alkalinity (PP as CaCO3)	mg/L	<0.50	7513276	<0.50	0.50	7513284	<0.50	0.50	2.08	0.50	7513284
Bicarbonate (HCO3)	mg/L	294	7513276	71.8	0.50	7513284	131	0.50	33.5	0.50	7513284
Carbonate (CO3)	mg/L	<0.50	7513276	<0.50	0.50	7513284	<0.50	0.50	2.50	0.50	7513284
Hydroxide (OH)	mg/L	<0.50	7513276	<0.50	0.50	7513284	<0.50	0.50	<0.50	0.50	7513284
Anions											
Orthophosphate (P)	mg/L	0.0018(1)	7512968	0.0031(2)	0.0010	7512968	0.053(2)	0.0010	0.0034(2)	0.0010	7519030
Dissolved Sulphate (SO4)	mg/L	157	7513952	14.2	0.50	7518300	752	5.0	433	5.0	7513952
Dissolved Chloride (Cl)	mg/L	1.7	7513946	1.3	0.50	7513946	23	0.50	15	0.50	7513946
MISCELLANEOUS											
True Colour	Col. Unit	<5.0(3)	7512924	10.0(4)	5.0	7512924	5.0(4)	5.0	10.0(4)	5.0	7512924
Nutrients											
Total Ammonia (N)	mg/L	0.074	7513959	0.010	0.0050	7513959	0.011	0.0050	0.078	0.0050	7513959
Nitrate plus Nitrite (N)	mg/L	0.0219(1)	7513938	0.0098(2)	0.0020	7513938	263(2)	1.0	166(2)	0.20	7519627
Nitrite (N)	mg/L	<0.0020(1)	7513942	0.0025(2)	0.0020	7513942	0.0055(2)	0.0020	0.894(2)	0.010	7519628
Physical Properties											
Conductivity	uS/cm	746	7513282	145	1.0	7513289	3640	1.0	2320	1.0	7513289
pH	pH	7.97	7513281	7.92		7513288	7.83		8.56		7513288

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) - Sample arrived to laboratory past recommended hold time.
(2) - Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.
(3) - Sample analysed past recommended hold time. Sample arrived to laboratory past recommended hold time.
(4) - Sample analysed past recommended hold time. Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		JT5251		JT5252			JT5253		JT5254		
Sampling Date		2014/05/31 18:22		2014/06/01 09:51			2014/06/01 09:09		2014/06/01 09:28		
	UNITS	**BC-21**	**QC Batch**	**BC-28**	**RDL**	**QC Batch**	**BC-28A**	**RDL**	**BC-28B**	**RDL**	**QC Batch**
Physical Properties											
Total Suspended Solids	mg/L	1.0	7512889	<1.0	1.0	7512889	1.2	1.0	14.6(1)	2.0	7512889
Total Dissolved Solids	mg/L	488	7514708		10						

RDL = Reportable Detection Limit
(1) - RDL raised due to sample matrix interference.

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		JT5267			JT5268		JT5269			JT5270		
Sampling Date		2014/05/28 10:18			2014/05/28 13:55		2014/05/28 15:10			2014/05/28 18:34		
	UNITS	**BC-27**	**RDL**	**QC Batch**	**LF-12-01**	**QC Batch**	**LF-XX-02**	**RDL**	**QC Batch**	**EBR-12-01**	**RDL**	**QC Batch**
Misc. Inorganics												
Fluoride (F)	mg/L	0.260	0.010	7512987	1.00	7512987	0.340	0.010	7512987	0.067	0.010	7512987
Calculated Parameters												
Anion Sum	meq/L	8.3	N/A	7512281	3.8	7512281	6.4	N/A	7512281	38	N/A	7512281
Cation Sum	meq/L	8.8	N/A	7512281	3.7	7512281	6.2	N/A	7512281	39	N/A	7512281
Filter and HNO3 Preservation	N/A	LAB	N/A	7513328	LAB	7513328	LAB	N/A	7513328	LAB	N/A	7513328
Ion Balance	N/A	1.1	0.010	7511568	0.97	7511568	0.97	0.010	7511568	1.0	0.010	7511568
Nitrate (N)	mg/L	<0.0020	0.0020	7511511	<0.0020	7511511	0.0364	0.0020	7511511	<0.0020	0.0020	7511511
Total Dissolved Solids	mg/L	484	5.0	7512282	188	7512282	323	0.50	7512282	2250	5.0	7512282
Misc. Inorganics												
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00075	0.00050	7517876	0.00058	7517876	0.00053	0.00050	7515032	0.00065	0.00050	7515032
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00112	0.00050	7517878	0.00062	7517878	0.00055	0.00050	7515054	0.00071	0.00050	7515054
Alkalinity (Total as CaCO3)	mg/L	169	0.50	7513276	159	7513276	252	0.50	7513270	438	0.50	7513270
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	7513276	<0.50	7513276	<0.50	0.50	7513270	<0.50	0.50	7513270
Bicarbonate (HCO3)	mg/L	206	0.50	7513276	195	7513276	308	0.50	7513270	534	0.50	7513270
Carbonate (CO3)	mg/L	<0.50	0.50	7513276	<0.50	7513276	<0.50	0.50	7513270	<0.50	0.50	7513270
Hydroxide (OH)	mg/L	<0.50	0.50	7513276	<0.50	7513276	<0.50	0.50	7513270	<0.50	0.50	7513270
Anions												
Orthophosphate (P)	mg/L	0.0035(1)	0.0010	7519030	0.0017(1)	7512968	0.0060(1)	0.0010	7519030	<0.0010(1)	0.0010	7512968
Dissolved Sulphate (SO4)	mg/L	232	5.0	7513952	27.1	7518300	64.1	0.50	7513952	1390	5.0	7513952
Dissolved Chloride (Cl)	mg/L	0.81	0.50	7513946	0.51	7513946	0.73	0.50	7513946	1.3	0.50	7513946
MISCELLANEOUS												
True Colour	Col. Unit	<5.0(1)	5.0	7512924	<5.0(1)	7512924	<5.0(1)	5.0	7512924	10.0(1)	5.0	7512924
Nutrients												
Total Ammonia (N)	mg/L	0.054	0.0050	7513959	0.063	7513959	0.054	0.0050	7513959	0.53	0.0050	7513959
Nitrate plus Nitrite (N)	mg/L	<0.0020(1)	0.0020	7513938	<0.0020(1)	7513938	0.0364(1)	0.0020	7513938	<0.0020(1)	0.0020	7513938
Nitrite (N)	mg/L	0.0032(1)	0.0020	7513942	<0.0020(1)	7513942	<0.0020(1)	0.0020	7513942	<0.0020(1)	0.0020	7513942
Physical Properties												
Conductivity	uS/cm	818	1.0	7513282	355	7513282	579	1.0	7513275	2680	1.0	7513275
pH	pH	8.00		7513281	8.05	7513281	7.97		7513274	7.64		7513274
Physical Properties												
Total Suspended Solids	mg/L	4.8(2)	1.0	7512889	2.1(2)	7512889	8.4(2)	1.0	7512889	21.1(2)	1.0	7512889
Total Dissolved Solids	mg/L	614(2)	10	7514708	212(2)	7514708	352(2)	10	7514708	2530(2)	10	7514708

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) - Sample arrived to laboratory past recommended hold time.
(2) - Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		JT5271			JT5272		JT5273		
Sampling Date		2014/05/30 16:04			2014/05/30 16:14		2014/05/31 12:12		
	UNITS	**LF-XX-03**	**RDL**	**QC Batch**	**BC-12-538**	**RDL**	**BC-66**	**RDL**	**QC Batch**
Misc. Inorganics									
Fluoride (F)	mg/L	0.590	0.010	7512987	0.460	0.010	0.580	0.010	7512987
Calculated Parameters									
Anion Sum	meq/L	7.0	N/A	7512281	10	N/A	7.8	N/A	7512281
Cation Sum	meq/L	7.0	N/A	7512281	9.8	N/A	7.5	N/A	7512281
Filter and HNO3 Preservation	N/A	LAB	N/A	7513328	LAB	N/A	LAB	N/A	7513328
Ion Balance	N/A	1.0	0.010	7511568	0.97	0.010	0.96	0.010	7511568
Nitrate (N)	mg/L	<0.0020	0.0020	7511511	<0.0020	0.0020	29.7	0.10	7511511
Total Dissolved Solids	mg/L	354	0.50	7512282	531	0.50	435	0.50	7512282
Misc. Inorganics									
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00053	0.00050	7515032	0.00053	0.00050	0.00568	0.00050	7515032
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00059	0.00050	7515054	0.00067	0.00050	0.00311	0.00050	7515054
Alkalinity (Total as CaCO3)	mg/L	288	0.50	7513270	344	0.50	246	0.50	7513276
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	7513270	<0.50	0.50	<0.50	0.50	7513276
Bicarbonate (HCO3)	mg/L	352	0.50	7513270	419	0.50	300	0.50	7513276
Carbonate (CO3)	mg/L	<0.50	0.50	7513270	<0.50	0.50	<0.50	0.50	7513276
Hydroxide (OH)	mg/L	<0.50	0.50	7513270	<0.50	0.50	<0.50	0.50	7513276
Anions									
Orthophosphate (P)	mg/L	<0.0010(1)	0.0010	7512968	0.0076(1)	0.0010	0.0081(1)	0.0010	7512968
Dissolved Sulphate (SO4)	mg/L	56.4	0.50	7513952	152	0.50	26.0	0.50	7513952
Dissolved Chloride (Cl)	mg/L	0.98	0.50	7513946	<0.50	0.50	5.1	0.50	7513946
MISCELLANEOUS									
True Colour	Col. Unit	5.0(1)	5.0	7512924	<5.0(1)	5.0	<5.0(1)	5.0	7512924
Nutrients									
Total Ammonia (N)	mg/L	0.16	0.0050	7513959	0.27	0.0050	0.0077	0.0050	7513959
Nitrate plus Nitrite (N)	mg/L	0.0049(1)	0.0020	7513938	<0.0020(1)	0.0020	29.7(1)	0.10	7513938
Nitrite (N)	mg/L	0.0071(1)	0.0020	7513942	<0.0020(1)	0.0020	0.0020(1)	0.0020	7513942
Physical Properties									
Conductivity	uS/cm	639	1.0	7513275	892	1.0	740	1.0	7513282
pH	pH	7.79		7513274	8.04		8.06		7513281
Physical Properties									
Total Suspended Solids	mg/L	54.0(2)	5.0	7512889	10.6	1.0	19.3	1.0	7512889
Total Dissolved Solids	mg/L	376	10	7514708	572	10	420	10	7514708

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) - Sample arrived to laboratory past recommended hold time.
(2) - RDL raised due to sample matrix interference.

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		JT5274		JT5275			JT5276		
Sampling Date		2014/05/31 13:34		2014/05/31 16:04			2014/06/01 11:01		
	UNITS	**BC-19**	**RDL**	**BC-22**	**RDL**	**QC Batch**	**BC-67**	**RDL**	**QC Batch**
Misc. Inorganics									
Fluoride (F)	mg/L	0.490	0.010	0.320	0.010	7512987	0.280	0.010	7512987
Calculated Parameters									
Anion Sum	meq/L	11	N/A	13	N/A	7512281	4.7	N/A	7512281
Cation Sum	meq/L	12	N/A	14	N/A	7512281	4.3	N/A	7512281
Filter and HNO3 Preservation	N/A	LAB	N/A	LAB	N/A	7513328	LAB	N/A	7513328
Ion Balance	N/A	1.1	0.010	1.0	0.010	7511568	0.91	0.010	7511568
Nitrate (N)	mg/L	0.365	0.0020	5.13	0.010	7511511	0.221	0.0020	7511511
Total Dissolved Solids	mg/L	652	5.0	819	5.0	7512282	237	0.50	7512282
Misc. Inorganics									
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00051	0.00050	0.00060	0.00050	7515032	0.00078	0.00050	7515032
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00061	0.00050	0.00080	0.00050	7515054	0.00070	0.00050	7515054
Alkalinity (Total as CaCO3)	mg/L	261	0.50	157	0.50	7513276	172	0.50	7513276
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	<0.50	0.50	7513276	<0.50	0.50	7513276
Bicarbonate (HCO3)	mg/L	319	0.50	191	0.50	7513276	210	0.50	7513276
Carbonate (CO3)	mg/L	<0.50	0.50	<0.50	0.50	7513276	<0.50	0.50	7513276
Hydroxide (OH)	mg/L	<0.50	0.50	<0.50	0.50	7513276	<0.50	0.50	7513276
Anions									
Orthophosphate (P)	mg/L	0.022(1)	0.0010	0.058(1)	0.0010	7512968	0.056(2)	0.0010	7512968
Dissolved Sulphate (SO4)	mg/L	289	5.0	461	5.0	7513952	52.7	0.50	7513952
Dissolved Chloride (Cl)	mg/L	0.67	0.50	1.6	0.50	7513946	4.8	0.50	7513946
MISCELLANEOUS									
True Colour	Col. Unit	<5.0(1)	5.0	5.0(1)	5.0	7512924	15.0(3)	5.0	7512924
Nutrients									
Total Ammonia (N)	mg/L	0.0098	0.0050	0.0052	0.0050	7513959	0.019	0.0050	7513959
Nitrate plus Nitrite (N)	mg/L	0.368(1)	0.0020	5.14(1)	0.010	7513938	0.249(2)	0.0020	7513938
Nitrite (N)	mg/L	0.0028(1)	0.0020	0.0090(1)	0.0020	7513942	0.0283(2)	0.0020	7513942
Physical Properties									
Conductivity	uS/cm	1070	1.0	1210	1.0	7513282	426	1.0	7513282
pH	pH	7.46		7.02		7513281	7.77		7513281

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) - Sample arrived to laboratory past recommended hold time.
(2) - Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.
(3) - Sample analysed past recommended hold time. Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		JT5274		JT5275			JT5276		
Sampling Date		2014/05/31 13:34		2014/05/31 16:04			2014/06/01 11:01		
	UNITS	**BC-19**	**RDL**	**BC-22**	**RDL**	**QC Batch**	**BC-67**	**RDL**	**QC Batch**
Physical Properties									
Total Suspended Solids	mg/L	18.1	1.0	57.9	1.0	7512898	27.1(1)	4.0	7512898
Total Dissolved Solids	mg/L	766	10	952	10	7514708	333	10	7514743

RDL = Reportable Detection Limit
(1) - RDL raised due to sample matrix interference.

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		JT5277		JT5278			JT5279		
Sampling Date		2014/06/01 12:00		2014/06/01 14:53			2014/06/04		
	UNITS	**BC-69**	**RDL**	**EBR-12-03**	**RDL**	**QC Batch**	**TRIP BLANK**	**RDL**	**QC Batch**
Misc. Inorganics									
Fluoride (F)	mg/L	0.380	0.010	0.870	0.010	7512987	0.011	0.010	7512987
Calculated Parameters									
Anion Sum	meq/L	7.6	N/A	27	N/A	7512281	0.012	N/A	7512281
Cation Sum	meq/L	7.5	N/A	27	N/A	7512281	0.0015	N/A	7512281
Filter and HNO3 Preservation	N/A	LAB	N/A	LAB	N/A	7513328	LAB	N/A	7513328
Ion Balance	N/A	1.0	0.010	1.0	0.010	7511568	0.25(1)	0.010	7511568
Nitrate (N)	mg/L	<0.0020	0.0020	0.0036	0.0020	7511511	<0.0020	0.0020	7511511
Total Dissolved Solids	mg/L	378	0.50	1610	5.0	7512282	1.00	0.50	7512282
Misc. Inorganics									
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00060	0.00050	0.00058	0.00050	7515032	0.00056	0.00050	7515032
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00066	0.00050	0.00066	0.00050	7515054	0.00051	0.00050	7515054
Alkalinity (Total as CaCO3)	mg/L	295	0.50	362	0.50	7513276	<0.50	0.50	7518304
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	<0.50	0.50	7513276	<0.50	0.50	7518304
Bicarbonate (HCO3)	mg/L	360	0.50	442	0.50	7513276	<0.50	0.50	7518304
Carbonate (CO3)	mg/L	<0.50	0.50	<0.50	0.50	7513276	<0.50	0.50	7518304
Hydroxide (OH)	mg/L	<0.50	0.50	<0.50	0.50	7513276	<0.50	0.50	7518304
Anions									
Orthophosphate (P)	mg/L	0.0060(2)	0.0010	0.0014(2)	0.0010	7512968	<0.0010	0.0010	7512968
Dissolved Sulphate (SO4)	mg/L	75.9	0.50	931	5.0	7513952	0.54	0.50	7513952
Dissolved Chloride (Cl)	mg/L	1.7	0.50	1.0	0.50	7513946	<0.50	0.50	7513946
MISCELLANEOUS									
True Colour	Col. Unit	5.0(3)	5.0	80(4)	10	7512924	<5.0	5.0	7512924
Nutrients									
Total Ammonia (N)	mg/L	0.032	0.0050	1.8	0.0050	7513959			
Total Ammonia (N)	mg/L						0.0109	0.0050	7513975
Nitrate plus Nitrite (N)	mg/L	0.0056(2)	0.0020	0.0036(2)	0.0020	7513938	<0.0020	0.0020	7513938
Nitrite (N)	mg/L	0.0061(2)	0.0020	<0.0020(2)	0.0020	7513942	<0.0020	0.0020	7513942

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) - Ion balance out of optimal range due to high measurement uncertainty at this level (Ion Sum < 0.4 meq/L for both cations and anions).
(2) - Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.
(3) - Sample analysed past recommended hold time. Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.
(4) - Sample analysed past recommended hold time. RDL raised due to sample dilution. Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis. RDL raised due to sample dilution.

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		JT5277		JT5278			JT5279		
Sampling Date		2014/06/01 12:00		2014/06/01 14:53			2014/06/04		
	UNITS	**BC-69**	**RDL**	**EBR-12-03**	**RDL**	**QC Batch**	**TRIP BLANK**	**RDL**	**QC Batch**
Physical Properties									
Conductivity	uS/cm	670	1.0	2060	1.0	7513282	1.8	1.0	7513282
pH	pH	7.93		7.51		7513281	6.17		7513281
Physical Properties									
Total Suspended Solids	mg/L	28.3	1.0	7.3	1.0	7512898	<1.0	1.0	7512898
Total Dissolved Solids	mg/L	402	10	1800	10	7514743	16	10	7514743

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		JT5181	JT5182	JT5183	JT5184	JT5185	JT5186	JT5187	JT5188	JT5189	JT5214		
Sampling Date		2014/05/27 17:50	2014/05/29 09:10	2014/05/29 09:52	2014/05/29 11:54	2014/05/28 10:54	2014/06/01 13:23	2014/06/01 17:02	2014/06/01 18:03		2014/05/27 16:49		
	UNITS	**BC-17**	**BC-37**	**BC-53**	**BC-39**	**BC-10**	**BC-12**	**BC-15**	**BC-51W**	**SAMPLE C**	**BC-04**	**RDL**	**QC Batch**
ANIONS													
Bromide (Br)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7513279

Maxxam ID		JT5215		JT5216		JT5217	JT5218	JT5219		JT5220		JT5221		
Sampling Date		2014/05/27 14:39		2014/05/29 10:20		2014/05/29 13:11	2014/05/29 14:12	2014/05/29 15:27		2014/05/29 16:13		2014/05/29 16:52		
	UNITS	**BC-41**	**RDL**	**BC-01**	**RDL**	**BC-31**	**BC-36**	**BC-32**	**QC Batch**	**BC-35R**	**QC Batch**	**BC-35**	**RDL**	**QC Batch**
ANIONS														
Bromide (Br)	mg/L	<0.10	0.10	<0.010	0.010	<0.10	<0.10	<0.10	7513279	<0.10	7513303	<0.10	0.10	7513279

Maxxam ID		JT5222	JT5223	JT5224		JT5225		JT5232		JT5233	JT5234		
Sampling Date		2014/05/29 12:37	2014/05/29 17:55	2014/05/30 16:49		2014/05/31 10:05		2014/05/30 08:54		2014/05/30 10:55	2014/05/02 12:28		
	UNITS	**BC-38**	**BC-06**	**BC-03**	**QC Batch**	**BC-02**	**QC Batch**	**BC-33**	**QC Batch**	**BC-05**	**BC-34**	**RDL**	**QC Batch**
ANIONS													
Bromide (Br)	mg/L	<0.10	<0.10	<0.10	7513303	<0.10	7513279	<0.10	7513303	<0.10	<0.10	0.10	7513322

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		JT5235	JT5248	JT5249	JT5250	JT5251			JT5252		JT5253	JT5254		
Sampling Date					2014/06/01 18:56	2014/05/31 18:22			2014/06/01 09:51		2014/06/01 09:09	2014/06/01 09:28		
	UNITS	**SAMPLE D**	**SAMPLE A**	**SAMPLE B**	**MH-12-02**	**BC-21**	**RDL**	**QC Batch**	**BC-28**	**RDL**	**BC-28A**	**BC-28B**	**RDL**	**QC Batch**
ANIONS														
Bromide (Br)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7513303	<0.010	0.010	<0.10	<0.10	0.10	7513322

Maxxam ID		JT5267	JT5268		JT5269	JT5270	JT5271		JT5272	JT5273		
Sampling Date		2014/05/28 10:18	2014/05/28 13:55		2014/05/28 15:10	2014/05/28 18:34	2014/05/30 16:04		2014/05/30 16:14	2014/05/31 12:12		
	UNITS	**BC-27**	**LF-12-01**	**QC Batch**	**LF-XX-02**	**EBR-12-01**	**LF-XX-03**	**QC Batch**	**BC-12-538**	**BC-66**	**RDL**	**QC Batch**
ANIONS												
Bromide (Br)	mg/L	<0.10	<0.10	7513303	<0.10	<0.10	<0.10	7513279	<0.10	<0.10	0.10	7513303

Maxxam ID		JT5274	JT5275	JT5276	JT5277	JT5278		JT5279		
Sampling Date		2014/05/31 13:34	2014/05/31 16:04	2014/06/01 11:01	2014/06/01 12:00	2014/06/01 14:53		2014/06/04		
	UNITS	**BC-19**	**BC-22**	**BC-67**	**BC-69**	**EBR-12-03**	**RDL**	**TRIP BLANK**	**RDL**	**QC Batch**
ANIONS										
Bromide (Br)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	<0.010	0.010	7513303

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL DISSOLVED METALS IN WATER (WATER)

Maxxam ID		JT5248	JT5249	JT5250		JT5251		JT5252		JT5253		
Sampling Date				2014/06/01 18:56		2014/05/31 18:22		2014/06/01 09:51		2014/06/01 09:09		
	UNITS	**SAMPLE A**	**SAMPLE B**	**MH-12-02**	**QC Batch**	**BC-21**	**QC Batch**	**BC-28**	**RDL**	**BC-28A**	**RDL**	**QC Batch**
Misc. Inorganics												
Dissolved Hardness (CaCO3)	mg/L	615	<0.50	225	7512280	379	7512280	54.6	0.50	1130	0.50	7512280
Dissolved Metals by ICPMS												
Dissolved Aluminum (Al)	mg/L	0.105	<0.00050	0.00089	7515212	0.00073	7515212	0.00103	0.00050	0.0051	0.0025	7515212
Dissolved Antimony (Sb)	mg/L	0.000075	0.000066	0.00772	7515212	0.000235	7515212	0.00389	0.000020	1.85	0.00010	7515212
Dissolved Arsenic (As)	mg/L	0.000194	<0.000020	0.0307	7515212	0.0122	7515212	0.00177	0.000020	0.315	0.00010	7515212
Dissolved Barium (Ba)	mg/L	0.0210	0.000030	0.110	7515212	0.0356	7515212	0.126	0.000020	0.0461	0.00010	7515212
Dissolved Beryllium (Be)	mg/L	0.000065	<0.000010	<0.000010	7515212	<0.000010	7515212	<0.000010	0.000010	<0.000050	0.000050	7515212
Dissolved Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	7515212	<0.0000050	7515212	<0.0000050	0.0000050	<0.000025	0.000025	7515212
Dissolved Boron (B)	mg/L	<0.050	<0.050	<0.050	7515212	<0.050	7515212	<0.050	0.050	<0.25	0.25	7515212
Dissolved Cadmium (Cd)	mg/L	0.00530	<0.0000050	0.0000070	7515212	0.0000970	7515212	0.0000060	0.0000050	0.000196	0.000025	7515212
Dissolved Chromium (Cr)	mg/L	0.00020	<0.00010	<0.00010	7515212	<0.00010	7515212	<0.00010	0.00010	0.00071	0.00050	7515212
Dissolved Cobalt (Co)	mg/L	0.00308	<0.0000050	0.000770	7515212	0.00217	7515212	0.00310	0.0000050	0.574	0.000025	7515212
Dissolved Copper (Cu)	mg/L	0.000553	<0.000050	0.000269	7515212	0.000116	7515212	0.000637	0.000050	0.00124	0.00025	7515212
Dissolved Iron (Fe)	mg/L	0.0739	<0.0010	0.0036	7515212	0.0042	7515212	0.0848	0.0010	0.226	0.0050	7515212
Dissolved Lead (Pb)	mg/L	0.0000070	<0.0000050	<0.0000050	7515212	<0.0000050	7515212	0.0000100	0.0000050	0.000025	0.000025	7515212
Dissolved Lithium (Li)	mg/L	0.0538	<0.00050	0.00541	7515212	0.0274	7515212	0.00271	0.00050	0.0050	0.0025	7515212
Dissolved Manganese (Mn)	mg/L	0.247	<0.000050	0.395	7515212	1.14	7515212	0.0369	0.000050	0.0172	0.00025	7515212
Dissolved Mercury (Hg)	mg/L	<0.000010	<0.000010	<0.000010	7515212	<0.000010	7515212	<0.000010	0.000010	0.000070	0.000050	7515212
Dissolved Molybdenum (Mo)	mg/L	0.000215	<0.000050	0.000846	7515212	0.000252	7517536	0.000179	0.000050	0.0212	0.00025	7515212
Dissolved Nickel (Ni)	mg/L	0.0460	0.000029	0.00202	7515212	0.00366	7515212	0.00173	0.000020	0.00636	0.00010	7515212
Dissolved Phosphorus (P)	mg/L	0.0643	<0.0020	<0.0020	7515212	<0.0020	7515212	0.0048	0.0020	0.053	0.010	7515212
Dissolved Selenium (Se)	mg/L	0.0769	<0.000040	0.000235	7515212	0.00296	7515212	0.000274	0.000040	0.146	0.00020	7515212
Dissolved Silicon (Si)	mg/L	15.3	<0.10	3.10	7515212	4.82	7515212	0.88	0.10	4.49	0.50	7515212
Dissolved Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050	7515212	<0.0000050	7515212	<0.0000050	0.0000050	<0.000025	0.000025	7515212
Dissolved Strontium (Sr)	mg/L	0.408	0.000196	0.575	7515212	0.341	7515212	0.0755	0.000050	1.61	0.00025	7515212
Dissolved Thallium (Tl)	mg/L	0.0000220	<0.0000020	0.000179	7515212	0.0000220	7515212	0.0000060	0.0000020	0.000255	0.000010	7515212
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	7515212	<0.00020	7515212	<0.00020	0.00020	<0.0010	0.0010	7515212
Dissolved Titanium (Ti)	mg/L	<0.00050	<0.00050	<0.00050	7515212	<0.00050	7515212	<0.00050	0.00050	<0.0025	0.0025	7515212
Dissolved Uranium (U)	mg/L	0.000375	0.0000030	0.00304	7515212	0.00104	7515212	0.0000210	0.0000020	0.0210	0.000010	7515212
Dissolved Vanadium (V)	mg/L	<0.00020	<0.00020	<0.00020	7515212	<0.00020	7515212	<0.00020	0.00020	<0.0010	0.0010	7515212
Dissolved Zinc (Zn)	mg/L	0.0920	0.00011	0.00382	7515212	0.0525	7515212	0.00140	0.00010	0.00610	0.00050	7515212
Dissolved Zirconium (Zr)	mg/L	<0.00010	<0.00010	<0.00010	7515212	<0.00010	7515212	<0.00010	0.00010	<0.00050	0.00050	7515212
Dissolved Calcium (Ca)	mg/L	145	<0.050	53.6	7511099	72.9	7511099	14.2	0.050	333	0.25	7511099
Dissolved Magnesium (Mg)	mg/L	61.3	<0.050	22.2	7511099	47.8	7511099	4.65	0.050	72.6	0.25	7511099
Dissolved Potassium (K)	mg/L	3.56	<0.050	2.13	7511099	3.05	7511099	0.867	0.050	5.10	0.25	7511099

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL DISSOLVED METALS IN WATER (WATER)

Maxxam ID		JT5248	JT5249	JT5250		JT5251		JT5252		JT5253		
Sampling Date				2014/06/01 18:56		2014/05/31 18:22		2014/06/01 09:51		2014/06/01 09:09		
	UNITS	**SAMPLE A**	**SAMPLE B**	**MH-12-02**	**QC Batch**	**BC-21**	**QC Batch**	**BC-28**	**RDL**	**BC-28A**	**RDL**	**QC Batch**
Dissolved Sodium (Na)	mg/L	20.5	<0.050	0.837	7511099	8.05	7511099	6.78	0.050	376	0.25	7511099
Dissolved Sulphur (S)	mg/L	179	<3.0	12.1	7511099	58.8	7511099	4.2	3.0	291	15	7511099

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL DISSOLVED METALS IN WATER (WATER)

Maxxam ID		JT5254		JT5267	JT5268		JT5269			JT5270		
Sampling Date		2014/06/01 09:28		2014/05/28 10:18	2014/05/28 13:55		2014/05/28 15:10			2014/05/28 18:34		
	UNITS	**BC-28B**	**RDL**	**BC-27**	**LF-12-01**	**QC Batch**	**LF-XX-02**	**RDL**	**QC Batch**	**EBR-12-01**	**RDL**	**QC Batch**
Misc. Inorganics												
Dissolved Hardness (CaCO3)	mg/L	602	0.50	432	183	7512280	307	0.50	7512280	1900	0.50	7512280
Dissolved Metals by ICPMS												
Dissolved Aluminum (Al)	mg/L	0.0166	0.0025	<0.00050	0.00093	7515212	0.00132	0.00050	7515212	<0.0025	0.0025	7515212
Dissolved Antimony (Sb)	mg/L	1.15	0.00010	0.00205	0.000152	7515212	0.615	0.000020	7515212	0.00228	0.00010	7515212
Dissolved Arsenic (As)	mg/L	0.148	0.00010	0.0538	0.00236	7515212	0.0779	0.000020	7515212	<0.00010	0.00010	7517536
Dissolved Barium (Ba)	mg/L	0.0366	0.00010	0.0101	0.0470	7515212	0.0629	0.000020	7515212	0.00434	0.00010	7515212
Dissolved Beryllium (Be)	mg/L	<0.000050	0.000050	<0.000010	<0.000010	7515212	<0.000010	0.000010	7515212	<0.000050	0.000050	7515212
Dissolved Bismuth (Bi)	mg/L	<0.000025	0.000025	<0.0000050	<0.0000050	7515212	<0.0000050	0.0000050	7515212	<0.000025	0.000025	7515212
Dissolved Boron (B)	mg/L	<0.25	0.25	<0.050	<0.050	7515212	<0.050	0.050	7515212	<0.25	0.25	7515212
Dissolved Cadmium (Cd)	mg/L	<0.000025	0.000025	0.0000350	<0.0000050	7515212	0.0000480	0.0000050	7515212	<0.000025	0.000025	7515212
Dissolved Chromium (Cr)	mg/L	<0.00050	0.00050	<0.00010	<0.00010	7515212	<0.00010	0.00010	7517536	<0.00050	0.00050	7515212
Dissolved Cobalt (Co)	mg/L	0.343	0.000025	0.000177	0.000502	7515212	0.0000110	0.0000050	7515212	0.000810	0.000025	7515212
Dissolved Copper (Cu)	mg/L	0.00326	0.00025	<0.000050	<0.000050	7515212	0.000161	0.000050	7515212	<0.00025	0.00025	7515212
Dissolved Iron (Fe)	mg/L	0.0395	0.0050	0.0025	0.0028	7515212	0.0215	0.0010	7515212	0.0086	0.0050	7515212
Dissolved Lead (Pb)	mg/L	0.000085	0.000025	<0.0000050	<0.0000050	7515212	0.0000410	0.0000050	7515212	<0.000025	0.000025	7515212
Dissolved Lithium (Li)	mg/L	0.0025	0.0025	0.0101	0.00320	7515212	0.00406	0.00050	7515212	0.0377	0.0025	7515212
Dissolved Manganese (Mn)	mg/L	0.00310	0.00025	0.218	0.240	7515212	0.00153	0.000050	7515212	0.0326	0.00025	7515212
Dissolved Mercury (Hg)	mg/L	<0.000050	0.000050	<0.000010	<0.000010	7515212	<0.000010	0.000010	7515212	<0.000050	0.000050	7515212
Dissolved Molybdenum (Mo)	mg/L	0.0152	0.00025	0.0122	0.0424	7515212	0.00569	0.000050	7515212	0.00031	0.00025	7515212
Dissolved Nickel (Ni)	mg/L	0.00514	0.00010	0.00221	0.00405	7515212	0.000339	0.000020	7515212	0.00037	0.00010	7515212
Dissolved Phosphorus (P)	mg/L	<0.010	0.010	<0.0020	<0.0020	7515212	0.0073	0.0020	7515212	<0.010	0.010	7515212
Dissolved Selenium (Se)	mg/L	0.0881	0.00020	<0.000040	<0.000040	7515212	0.0264	0.000040	7515212	0.00024	0.00020	7515212
Dissolved Silicon (Si)	mg/L	1.50	0.50	3.74	3.85	7515212	4.58	0.10	7515212	4.41	0.50	7515212
Dissolved Silver (Ag)	mg/L	<0.000025	0.000025	<0.0000050	<0.0000050	7515212	<0.0000050	0.0000050	7515212	<0.000025	0.000025	7515212
Dissolved Strontium (Sr)	mg/L	0.905	0.00025	0.794	0.207	7515212	0.551	0.000050	7515212	1.73	0.00025	7515212
Dissolved Thallium (Tl)	mg/L	0.000124	0.000010	0.0000030	0.0000470	7515212	0.0000310	0.0000020	7515212	<0.000010	0.000010	7515212
Dissolved Tin (Sn)	mg/L	<0.0010	0.0010	<0.00020	<0.00020	7515212	<0.00020	0.00020	7515212	<0.0010	0.0010	7515212
Dissolved Titanium (Ti)	mg/L	<0.0025	0.0025	<0.00050	<0.00050	7515212	<0.00050	0.00050	7515212	<0.0025	0.0025	7515212
Dissolved Uranium (U)	mg/L	0.00992	0.000010	0.0111	0.00752	7515212	0.00392	0.0000020	7515212	0.00214	0.000010	7515212
Dissolved Vanadium (V)	mg/L	<0.0010	0.0010	<0.00020	<0.00020	7515212	0.00039	0.00020	7515212	<0.0010	0.0010	7515212
Dissolved Zinc (Zn)	mg/L	<0.00050	0.00050	0.0259	0.00337	7515212	0.00772	0.00010	7515212	0.00500	0.00050	7515212
Dissolved Zirconium (Zr)	mg/L	<0.00050	0.00050	<0.00010	<0.00010	7515212	<0.00010	0.00010	7515212	<0.00050	0.00050	7515212
Dissolved Calcium (Ca)	mg/L	172	0.25	105	44.3	7511099	74.0	0.050	7511099	309	0.25	7511099
Dissolved Magnesium (Mg)	mg/L	42.2	0.25	41.5	17.5	7511099	29.8	0.050	7511099	275	0.25	7511099
Dissolved Potassium (K)	mg/L	3.84	0.25	1.38	0.990	7511099	0.981	0.050	7511099	3.79	0.25	7511099

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL DISSOLVED METALS IN WATER (WATER)

Maxxam ID		JT5254		JT5267	JT5268		JT5269			JT5270		
Sampling Date		2014/06/01 09:28		2014/05/28 10:18	2014/05/28 13:55		2014/05/28 15:10			2014/05/28 18:34		
	UNITS	**BC-28B**	**RDL**	**BC-27**	**LF-12-01**	**QC Batch**	**LF-XX-02**	**RDL**	**QC Batch**	**EBR-12-01**	**RDL**	**QC Batch**
Dissolved Sodium (Na)	mg/L	230	0.25	1.82	0.807	7511099	1.08	0.050	7511099	11.9	0.25	7511099
Dissolved Sulphur (S)	mg/L	166	15	97.4	8.1	7511099	21.2	3.0	7511099	529	15	7511099

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL DISSOLVED METALS IN WATER (WATER)

Maxxam ID		JT5271	JT5272		JT5273		JT5274		JT5275		
Sampling Date		2014/05/30 16:04	2014/05/30 16:14		2014/05/31 12:12		2014/05/31 13:34		2014/05/31 16:04		
	UNITS	**LF-XX-03**	**BC-12-538**	**QC Batch**	**BC-66**	**QC Batch**	**BC-19**	**QC Batch**	**BC-22**	**RDL**	**QC Batch**
Misc. Inorganics											
Dissolved Hardness (CaCO3)	mg/L	344	480	7512280	347	7512280	573	7512280	636	0.50	7512280
Dissolved Metals by ICPMS											
Dissolved Aluminum (Al)	mg/L	<0.00050	<0.00050	7515122	0.00080	7515122	0.00096	7515122	0.109	0.00050	7515212
Dissolved Antimony (Sb)	mg/L	0.0397	0.0151	7515122	0.000363	7515122	0.000227	7515122	0.000066	0.000020	7515212
Dissolved Arsenic (As)	mg/L	0.0464	0.0333	7515122	0.000407	7515122	0.000593	7515122	0.000363	0.000020	7515212
Dissolved Barium (Ba)	mg/L	0.0310	0.0132	7515122	0.0496	7515122	0.00194	7515122	0.0211	0.000020	7515212
Dissolved Beryllium (Be)	mg/L	<0.000010	0.000020	7515122	<0.000010	7515122	<0.000010	7515122	0.000058	0.000010	7515212
Dissolved Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	7515122	<0.0000050	7515122	<0.0000050	7515122	<0.0000050	0.0000050	7515212
Dissolved Boron (B)	mg/L	<0.050	<0.050	7515122	<0.050	7515122	<0.050	7515122	<0.050	0.050	7515212
Dissolved Cadmium (Cd)	mg/L	<0.0000050	<0.0000050	7515122	0.0000160	7515122	0.000411	7515122	0.00522	0.0000050	7515212
Dissolved Chromium (Cr)	mg/L	<0.00010	<0.00010	7515122	<0.00010	7515122	0.00044	7515122	0.00028	0.00010	7515212
Dissolved Cobalt (Co)	mg/L	0.000684	0.000931	7515122	0.0730	7515122	0.000322	7515122	0.00310	0.0000050	7515212
Dissolved Copper (Cu)	mg/L	<0.000050	<0.000050	7515122	0.000315	7515122	0.000336	7515122	0.000575	0.000050	7515212
Dissolved Iron (Fe)	mg/L	0.0021	0.0085	7515122	<0.0010	7515122	0.0211	7515122	0.0791	0.0010	7515212
Dissolved Lead (Pb)	mg/L	<0.0000050	<0.0000050	7515122	0.0000050	7515122	0.0000460	7515122	0.0000050	0.0000050	7515212
Dissolved Lithium (Li)	mg/L	0.0115	0.0274	7515122	0.0196	7515122	0.0378	7515122	0.0500	0.00050	7515212
Dissolved Manganese (Mn)	mg/L	0.181	0.101	7515122	0.000388	7515122	0.185	7515122	0.255	0.000050	7515212
Dissolved Mercury (Hg)	mg/L	<0.000010	<0.000010	7515122	<0.000010	7515122	<0.000010	7515122	<0.000010	0.000010	7515212
Dissolved Molybdenum (Mo)	mg/L	0.0193	0.0117	7515122	0.000245	7517536	0.000112	7515122	0.000275	0.000050	7515212
Dissolved Nickel (Ni)	mg/L	0.0208	0.0254	7515122	0.000570	7515122	0.00210	7515122	0.0477	0.000020	7515212
Dissolved Phosphorus (P)	mg/L	<0.0020	<0.0020	7515122	0.0052	7515122	0.0207	7515122	0.0588	0.0020	7515212
Dissolved Selenium (Se)	mg/L	0.000040	<0.000040	7515122	0.0168	7515122	0.00772	7515122	0.0786	0.000040	7515212
Dissolved Silicon (Si)	mg/L	3.15	2.82	7515122	4.60	7515122	7.29	7515122	15.8	0.10	7515212
Dissolved Silver (Ag)	mg/L	<0.0000050	<0.0000050	7515122	<0.0000050	7515122	<0.0000050	7515122	<0.0000050	0.0000050	7515212
Dissolved Strontium (Sr)	mg/L	0.566	0.767	7515122	0.386	7515122	0.488	7515122	0.408	0.000050	7515212
Dissolved Thallium (Tl)	mg/L	0.0000200	<0.0000020	7515122	0.0000070	7515122	0.0000060	7515122	0.0000240	0.0000020	7515212
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	7515122	<0.00020	7515122	<0.00020	7515122	<0.00020	0.00020	7515212
Dissolved Titanium (Ti)	mg/L	<0.00050	<0.00050	7515122	<0.00050	7515122	<0.00050	7515122	<0.00050	0.00050	7515212
Dissolved Uranium (U)	mg/L	0.0161	0.0129	7515122	0.000963	7515122	0.000718	7515122	0.000365	0.0000020	7515212
Dissolved Vanadium (V)	mg/L	<0.00020	<0.00020	7515122	<0.00020	7515122	<0.00020	7515122	<0.00020	0.00020	7515212
Dissolved Zinc (Zn)	mg/L	0.0107	0.0245	7515122	0.00406	7515122	0.0217	7515122	0.0944	0.00010	7515212
Dissolved Zirconium (Zr)	mg/L	<0.00010	<0.00010	7515122	<0.00010	7515122	<0.00010	7515122	<0.00010	0.00010	7515212
Dissolved Calcium (Ca)	mg/L	88.6	126	7511099	69.8	7511099	129	7511099	152	0.050	7511099
Dissolved Magnesium (Mg)	mg/L	29.9	39.9	7511099	41.9	7511099	60.6	7511099	62.0	0.050	7511099
Dissolved Potassium (K)	mg/L	2.15	2.89	7511099	2.42	7511099	2.46	7511099	3.66	0.050	7511099

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL DISSOLVED METALS IN WATER (WATER)

Maxxam ID		JT5271	JT5272		JT5273		JT5274		JT5275		
Sampling Date		2014/05/30 16:04	2014/05/30 16:14		2014/05/31 12:12		2014/05/31 13:34		2014/05/31 16:04		
	UNITS	**LF-XX-03**	**BC-12-538**	**QC Batch**	**BC-66**	**QC Batch**	**BC-19**	**QC Batch**	**BC-22**	**RDL**	**QC Batch**
Dissolved Sodium (Na)	mg/L	1.45	2.72	7511099	10.6	7511099	10.7	7511099	21.1	0.050	7511099
Dissolved Sulphur (S)	mg/L	20.0	54.7	7511099	9.1	7511099	117	7511099	185	3.0	7511099

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL DISSOLVED METALS IN WATER (WATER)

Maxxam ID		JT5276	JT5277			JT5278			JT5279		
Sampling Date		2014/06/01 11:01	2014/06/01 12:00			2014/06/01 14:53			2014/06/04		
	UNITS	**BC-67**	**BC-69**	**RDL**	**QC Batch**	**EBR-12-03**	**RDL**	**QC Batch**	**TRIP BLANK**	**RDL**	**QC Batch**
Misc. Inorganics											
Dissolved Hardness (CaCO3)	mg/L	205	363	0.50	7512280	1290	0.50	7512280	<0.50	0.50	7512280
Dissolved Metals by ICPMS											
Dissolved Aluminum (Al)	mg/L	0.00069	0.00087	0.00050	7515122	<0.0025	0.0025	7515122	<0.00050	0.00050	7515195
Dissolved Antimony (Sb)	mg/L	0.0538	0.00578	0.000020	7515122	<0.00010	0.00010	7515122	<0.000020	0.000020	7515195
Dissolved Arsenic (As)	mg/L	0.00923	0.0275	0.000020	7515122	0.144	0.00010	7515122	<0.000020	0.000020	7515195
Dissolved Barium (Ba)	mg/L	0.147	0.0290	0.000020	7515122	0.00623	0.00010	7515122	<0.000020	0.000020	7515195
Dissolved Beryllium (Be)	mg/L	<0.000010	<0.000010	0.000010	7515122	<0.000050	0.000050	7515122	<0.000010	0.000010	7515195
Dissolved Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	0.0000050	7515122	<0.000025	0.000025	7515122	<0.0000050	0.0000050	7515195
Dissolved Boron (B)	mg/L	<0.050	<0.050	0.050	7515122	<0.25	0.25	7515122	<0.050	0.050	7515195
Dissolved Cadmium (Cd)	mg/L	0.0000550	0.000776	0.0000050	7515122	0.000054	0.000025	7515122	<0.0000050	0.0000050	7515195
Dissolved Chromium (Cr)	mg/L	<0.00010	<0.00010	0.00010	7515122	<0.00050	0.00050	7515122	<0.00010	0.00010	7515195
Dissolved Cobalt (Co)	mg/L	0.000502	0.000600	0.0000050	7515122	0.0163	0.000025	7515122	<0.0000050	0.0000050	7515195
Dissolved Copper (Cu)	mg/L	0.000153	0.000257	0.000050	7515122	<0.00025	0.00025	7515122	<0.000050	0.000050	7515195
Dissolved Iron (Fe)	mg/L	0.0014	<0.0010	0.0010	7515122	7.49	0.0050	7515122	<0.0010	0.0010	7515195
Dissolved Lead (Pb)	mg/L	<0.0000050	<0.0000050	0.0000050	7515122	<0.000025	0.000025	7515122	<0.0000050	0.0000050	7515195
Dissolved Lithium (Li)	mg/L	0.00569	0.00848	0.00050	7515122	0.0261	0.0025	7515122	<0.00050	0.00050	7515195
Dissolved Manganese (Mn)	mg/L	0.195	0.338	0.000050	7515122	0.880	0.00025	7515122	<0.000050	0.000050	7515195
Dissolved Mercury (Hg)	mg/L	<0.000010	<0.000010	0.000010	7515122	<0.000050	0.000050	7515122	<0.000010	0.000010	7515195
Dissolved Molybdenum (Mo)	mg/L	0.000930	0.000407	0.000050	7515122	0.00606	0.00025	7517536	<0.000050	0.000050	7515195
Dissolved Nickel (Ni)	mg/L	0.00895	0.00352	0.000020	7515122	0.0982	0.00010	7515122	<0.000020	0.000020	7515195
Dissolved Phosphorus (P)	mg/L	0.0690	0.0049	0.0020	7515122	<0.010	0.010	7515122	<0.0020	0.0020	7515195
Dissolved Selenium (Se)	mg/L	0.000061	0.000732	0.000040	7515122	0.00025	0.00020	7515122	<0.000040	0.000040	7515195
Dissolved Silicon (Si)	mg/L	4.84	3.02	0.10	7515122	5.66	0.50	7515122	<0.10	0.10	7515195
Dissolved Silver (Ag)	mg/L	<0.0000050	<0.0000050	0.0000050	7515122	<0.000025	0.000025	7515122	<0.0000050	0.0000050	7515195
Dissolved Strontium (Sr)	mg/L	0.381	0.418	0.000050	7515122	0.597	0.00025	7515122	<0.000050	0.000050	7515195
Dissolved Thallium (Tl)	mg/L	0.0000530	0.000268	0.0000020	7515122	0.000137	0.000010	7517536	<0.0000020	0.0000020	7515195
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	0.00020	7515122	0.0011	0.0010	7515122	<0.00020	0.00020	7515195
Dissolved Titanium (Ti)	mg/L	<0.00050	<0.00050	0.00050	7515122	<0.0025	0.0025	7515122	<0.00050	0.00050	7515195
Dissolved Uranium (U)	mg/L	0.00167	0.00194	0.0000020	7515122	0.0180	0.000010	7515122	<0.0000020	0.0000020	7515195
Dissolved Vanadium (V)	mg/L	<0.00020	<0.00020	0.00020	7515122	<0.0010	0.0010	7515122	<0.00020	0.00020	7515195
Dissolved Zinc (Zn)	mg/L	0.0154	0.0993	0.00010	7515122	0.203	0.00050	7515122	<0.00010	0.00010	7515195
Dissolved Zirconium (Zr)	mg/L	<0.00010	<0.00010	0.00010	7515122	<0.00050	0.00050	7515122	<0.00010	0.00010	7515195
Dissolved Calcium (Ca)	mg/L	51.9	68.0	0.050	7511099	323	0.25	7511099	<0.050	0.050	7511099
Dissolved Magnesium (Mg)	mg/L	18.4	47.0	0.050	7511099	118	0.25	7511099	<0.050	0.050	7511099
Dissolved Potassium (K)	mg/L	1.47	5.81	0.050	7511099	5.37	0.25	7511099	<0.050	0.050	7511099

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL DISSOLVED METALS IN WATER (WATER)

Maxxam ID		JT5276	JT5277			JT5278			JT5279		
Sampling Date		2014/06/01 11:01	2014/06/01 12:00			2014/06/01 14:53			2014/06/04		
	UNITS	**BC-67**	**BC-69**	**RDL**	**QC Batch**	**EBR-12-03**	**RDL**	**QC Batch**	**TRIP BLANK**	**RDL**	**QC Batch**
Dissolved Sodium (Na)	mg/L	2.72	1.82	0.050	7511099	3.25	0.25	7511099	<0.050	0.050	7511099
Dissolved Sulphur (S)	mg/L	15.2	26.4	3.0	7511099	362	15	7511099	<3.0	3.0	7511099

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL TOTAL METALS IN WATER (WATER)

Maxxam ID		JT5279		
Sampling Date		2014/06/04		
	UNITS	**TRIP BLANK**	**RDL**	**QC Batch**
Calculated Parameters				
Total Hardness (CaCO3)	mg/L	<0.50	0.50	7512279
Total Metals by ICPMS				
Total Aluminum (Al)	mg/L	<0.00050	0.00050	7513292
Total Antimony (Sb)	mg/L	<0.000020	0.000020	7513292
Total Arsenic (As)	mg/L	<0.000020	0.000020	7513292
Total Barium (Ba)	mg/L	<0.000020	0.000020	7513292
Total Beryllium (Be)	mg/L	<0.000010	0.000010	7513292
Total Bismuth (Bi)	mg/L	<0.0000050	0.0000050	7513292
Total Boron (B)	mg/L	<0.050	0.050	7513292
Total Cadmium (Cd)	mg/L	<0.0000050	0.0000050	7513292
Total Chromium (Cr)	mg/L	<0.00010	0.00010	7513292
Total Cobalt (Co)	mg/L	<0.0000050	0.0000050	7513292
Total Copper (Cu)	mg/L	<0.000050	0.000050	7513292
Total Iron (Fe)	mg/L	<0.0010	0.0010	7513292
Total Lead (Pb)	mg/L	<0.0000050	0.0000050	7513292
Total Lithium (Li)	mg/L	<0.00050	0.00050	7513292
Total Manganese (Mn)	mg/L	<0.000050	0.000050	7513292
Total Molybdenum (Mo)	mg/L	<0.000050	0.000050	7513292
Total Nickel (Ni)	mg/L	<0.000020	0.000020	7513292
Total Phosphorus (P)	mg/L	<0.0020	0.0020	7513292
Total Selenium (Se)	mg/L	<0.000040	0.000040	7513292
Total Silicon (Si)	mg/L	<0.10	0.10	7513292
Total Silver (Ag)	mg/L	<0.0000050	0.0000050	7513292
Total Strontium (Sr)	mg/L	<0.000050	0.000050	7513292
Total Thallium (Tl)	mg/L	<0.0000020	0.0000020	7513292
Total Tin (Sn)	mg/L	<0.00020	0.00020	7513292
Total Titanium (Ti)	mg/L	<0.00050	0.00050	7513292
Total Uranium (U)	mg/L	<0.0000020	0.0000020	7513292
Total Vanadium (V)	mg/L	<0.00020	0.00020	7513292
Total Zinc (Zn)	mg/L	<0.00010	0.00010	7513292
Total Zirconium (Zr)	mg/L	<0.00010	0.00010	7513292
Total Calcium (Ca)	mg/L	<0.050	0.050	7511100
Total Magnesium (Mg)	mg/L	<0.050	0.050	7511100
Total Potassium (K)	mg/L	<0.050	0.050	7511100
Total Sodium (Na)	mg/L	<0.050	0.050	7511100
Total Sulphur (S)	mg/L	<3.0	3.0	7511100

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		JT5181	JT5182		JT5183		JT5184		JT5185		
Sampling Date		2014/05/27 17:50	2014/05/29 09:10		2014/05/29 09:52		2014/05/29 11:54		2014/05/28 10:54		
	UNITS	**BC-17**	**BC-37**	**QC Batch**	**BC-53**	**QC Batch**	**BC-39**	**QC Batch**	**BC-10**	**RDL**	**QC Batch**
Misc. Inorganics											
Dissolved Hardness (CaCO3)	mg/L	176	211	7510949	210	7510949	142	7510949	109	0.50	7510949
Elements											
Dissolved Mercury (Hg)	mg/L	0.0000038	<0.0000020	7516032	<0.0000020	7516212	0.0000035	7516032	0.0000120	0.0000020	7516212

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		JT5181	JT5182		JT5183		JT5184		JT5185		
Sampling Date		2014/05/27 17:50	2014/05/29 09:10		2014/05/29 09:52		2014/05/29 11:54		2014/05/28 10:54		
	UNITS	**BC-17**	**BC-37**	**QC Batch**	**BC-53**	**QC Batch**	**BC-39**	**QC Batch**	**BC-10**	**RDL**	**QC Batch**
Dissolved Metals by ICPMS											
Dissolved Aluminum (Al)	mg/L	0.00088	0.00918	7515212	0.00878	7515212	0.00158	7515195	0.00675	0.00050	7515212
Dissolved Antimony (Sb)	mg/L	0.311	0.00302	7515212	0.00306	7515212	0.000389	7515195	0.0561	0.000020	7515212
Dissolved Arsenic (As)	mg/L	0.0518	0.00317	7515212	0.00317	7515212	0.000360	7515195	0.0119	0.000020	7515212
Dissolved Barium (Ba)	mg/L	0.0840	0.0488	7515212	0.0491	7515212	0.0731	7515195	0.128	0.000020	7515212
Dissolved Beryllium (Be)	mg/L	<0.000010	<0.000010	7515212	<0.000010	7515212	<0.000010	7515195	<0.000010	0.000010	7515212
Dissolved Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	7515212	<0.0000050	7515212	<0.0000050	7515195	<0.0000050	0.0000050	7515212
Dissolved Boron (B)	mg/L	<0.050	<0.050	7515212	<0.050	7515212	<0.050	7515195	<0.050	0.050	7515212
Dissolved Cadmium (Cd)	mg/L	0.0000150	0.0000160	7515212	0.0000140	7515212	0.0000290	7515195	0.0000300	0.0000050	7515212
Dissolved Chromium (Cr)	mg/L	0.00013	<0.00010	7515212	<0.00010	7515212	<0.00010	7515195	<0.00010	0.00010	7515212
Dissolved Cobalt (Co)	mg/L	0.0000170	0.000627	7515212	0.000627	7515212	0.0000870	7515195	0.0000410	0.0000050	7515212
Dissolved Copper (Cu)	mg/L	0.000273	0.000919	7515212	0.000645	7515212	0.000507	7515195	0.000845	0.000050	7515212
Dissolved Iron (Fe)	mg/L	0.0014	0.0586	7515212	0.0533	7515212	0.0020	7515195	0.0094	0.0010	7515212
Dissolved Lead (Pb)	mg/L	<0.0000050	0.0000270	7515212	0.0000110	7515212	<0.0000050	7515195	0.0000100	0.0000050	7515212
Dissolved Lithium (Li)	mg/L	0.00277	0.00819	7515212	0.00812	7515212	0.00145	7515195	0.00146	0.00050	7515212
Dissolved Manganese (Mn)	mg/L	0.000102	0.0181	7515212	0.0156	7515212	0.000292	7515195	0.000332	0.000050	7515212
Dissolved Molybdenum (Mo)	mg/L	0.0102	0.00297	7515212	0.00296	7515212	0.000701	7515195	0.00281	0.000050	7515212
Dissolved Nickel (Ni)	mg/L	0.00198	0.00127	7515212	0.00128	7515212	0.000472	7515195	0.00108	0.000020	7515212
Dissolved Phosphorus (P)	mg/L	0.0065	0.0084	7515212	0.0083	7515212	0.0024	7515195	0.0154	0.0020	7515212
Dissolved Selenium (Se)	mg/L	0.00765	0.00148	7515212	0.00159	7515212	0.000696	7515195	0.00253	0.000040	7515212
Dissolved Silicon (Si)	mg/L	3.51	3.91	7515212	3.89	7515212	2.82	7515195	1.57	0.10	7515212
Dissolved Silver (Ag)	mg/L	<0.0000050	<0.0000050	7515212	<0.0000050	7515212	<0.0000050	7515195	<0.0000050	0.0000050	7515212
Dissolved Strontium (Sr)	mg/L	0.281	0.256	7515212	0.257	7515212	0.231	7515195	0.225	0.000050	7515212
Dissolved Thallium (Tl)	mg/L	0.0000750	<0.0000020	7515212	<0.0000020	7515212	<0.0000020	7515195	0.0000430	0.0000020	7515212
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	7515212	<0.00020	7515212	<0.00020	7515195	<0.00020	0.00020	7515212
Dissolved Titanium (Ti)	mg/L	<0.00050	<0.00050	7515212	<0.00050	7515212	<0.00050	7515195	<0.00050	0.00050	7515212
Dissolved Uranium (U)	mg/L	0.00562	0.00227	7515212	0.00230	7515212	0.000775	7515195	0.00336	0.0000020	7515212
Dissolved Vanadium (V)	mg/L	0.00031	0.00063	7515212	0.00068	7515212	<0.00020	7515195	<0.00020	0.00020	7515212
Dissolved Zinc (Zn)	mg/L	0.00418	0.00030	7515212	0.00026	7515212	0.00110	7515195	0.00027	0.00010	7515212
Dissolved Zirconium (Zr)	mg/L	<0.00010	0.00012	7515212	<0.00010	7515212	<0.00010	7515195	<0.00010	0.00010	7515212
Dissolved Calcium (Ca)	mg/L	47.3	52.2	7511099	52.6	7511099	38.9	7511099	26.7	0.050	7511099
Dissolved Magnesium (Mg)	mg/L	14.0	19.6	7511099	19.2	7511099	11.0	7511099	10.2	0.050	7511099
Dissolved Potassium (K)	mg/L	0.954	1.22	7511099	1.24	7511099	0.598	7511099	2.07	0.050	7511099
Dissolved Sodium (Na)	mg/L	1.19	3.45	7511099	3.38	7511099	2.20	7511099	0.371	0.050	7511099
Dissolved Sulphur (S)	mg/L	21.0	33.8	7511099	36.3	7511099	21.7	7511099	16.4	3.0	7511099

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		JT5186		JT5187		JT5188		JT5189		JT5214		
Sampling Date		2014/06/01 13:23		2014/06/01 17:02		2014/06/01 18:03				2014/05/27 16:49		
	UNITS	**BC-12**	**QC Batch**	**BC-15**	**QC Batch**	**BC-51W**	**QC Batch**	**SAMPLE C**	**QC Batch**	**BC-04**	**RDL**	**QC Batch**
Misc. Inorganics												
Dissolved Hardness (CaCO3)	mg/L	767	7510949	315	7510949	78.1	7510949	78.6	7510949	321	0.50	7517729
Elements												
Dissolved Mercury (Hg)	mg/L	0.0000091	7519002	0.0000039	7516212	0.0000112	7516212	0.0000101	7516032	<0.0000020	0.0000020	7516032

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		JT5186		JT5187		JT5188		JT5189		JT5214		
Sampling Date		2014/06/01 13:23		2014/06/01 17:02		2014/06/01 18:03				2014/05/27 16:49		
	UNITS	**BC-12**	**QC Batch**	**BC-15**	**QC Batch**	**BC-51W**	**QC Batch**	**SAMPLE C**	**QC Batch**	**BC-04**	**RDL**	**QC Batch**
Dissolved Metals by ICPMS												
Dissolved Aluminum (Al)	mg/L	0.00678	7515195	0.00453	7515195	0.798	7515195	0.912	7515195	0.00341	0.00050	7515195
Dissolved Antimony (Sb)	mg/L	0.126	7515195	0.00334	7515195	0.00554	7515195	0.00628	7515195	0.00202	0.000020	7515195
Dissolved Arsenic (As)	mg/L	0.0121	7515195	0.0434	7515195	0.00268	7515195	0.00278	7515195	0.000953	0.000020	7515195
Dissolved Barium (Ba)	mg/L	0.0161	7515195	0.0391	7515195	0.0743	7515195	0.0863	7515195	0.0420	0.000020	7515195
Dissolved Beryllium (Be)	mg/L	0.000122	7515195	<0.000010	7515195	0.00236	7515195	0.00276	7515195	<0.000010	0.000010	7515195
Dissolved Bismuth (Bi)	mg/L	<0.0000050	7515195	<0.0000050	7515195	<0.0000050	7515195	<0.0000050	7515195	<0.0000050	0.0000050	7515195
Dissolved Boron (B)	mg/L	<0.050	7515195	<0.050	7515195	<0.050	7515195	<0.050	7515195	<0.050	0.050	7515195
Dissolved Cadmium (Cd)	mg/L	0.000953	7515195	0.0000160	7515195	0.00109	7515195	0.00124	7515195	0.0000440	0.0000050	7515195
Dissolved Chromium (Cr)	mg/L	<0.00010	7515195	<0.00010	7515195	<0.00010	7515195	<0.00010	7519116	<0.00010	0.00010	7515195
Dissolved Cobalt (Co)	mg/L	0.0302	7515195	0.0000200	7515195	0.0111	7515195	0.0109	7515195	0.000764	0.0000050	7515195
Dissolved Copper (Cu)	mg/L	<0.000050	7515195	0.000108	7515195	0.0559	7515195	0.0559	7515195	0.000278	0.000050	7515195
Dissolved Iron (Fe)	mg/L	1.63	7515195	0.0023	7517536	0.0504	7515195	0.0816	7515195	0.0125	0.0010	7515195
Dissolved Lead (Pb)	mg/L	<0.0000050	7515195	0.0000130	7515195	0.0000140	7515195	0.0000640	7515195	<0.0000050	0.0000050	7515195
Dissolved Lithium (Li)	mg/L	0.00736	7515195	0.00082	7515195	0.00233	7515195	0.00266	7515195	0.00434	0.00050	7515195
Dissolved Manganese (Mn)	mg/L	2.04	7515195	0.000714	7515195	0.542	7515195	0.524	7515195	0.0703	0.000050	7515195
Dissolved Molybdenum (Mo)	mg/L	0.00523	7515195	0.000817	7515195	0.000066	7515195	0.000080	7515195	0.00165	0.000050	7515195
Dissolved Nickel (Ni)	mg/L	0.0886	7515195	0.000585	7515195	0.0360	7515195	0.0353	7515195	0.00391	0.000020	7515195
Dissolved Phosphorus (P)	mg/L	<0.0020	7515195	<0.0020	7515195	0.0048	7515195	0.0053	7515195	0.0029	0.0020	7515195
Dissolved Selenium (Se)	mg/L	0.000348	7515195	0.0136	7515195	0.00148	7515195	0.00156	7515195	0.00190	0.000040	7515195
Dissolved Silicon (Si)	mg/L	4.95	7515195	1.28	7515195	3.18	7515195	3.29	7515195	1.72	0.10	7515195
Dissolved Silver (Ag)	mg/L	0.0000080	7515195	<0.0000050	7515195	0.0000050	7515195	<0.0000050	7515195	<0.0000050	0.0000050	7515195
Dissolved Strontium (Sr)	mg/L	1.31	7515195	0.701	7515195	0.114	7515195	0.127	7515195	0.312	0.000050	7515195
Dissolved Thallium (Tl)	mg/L	0.0000990	7515195	0.0000270	7515195	0.0000500	7515195	0.0000590	7515195	0.0000060	0.0000020	7515195
Dissolved Tin (Sn)	mg/L	<0.00020	7515195	<0.00020	7515195	<0.00020	7515195	<0.00020	7515195	<0.00020	0.00020	7515195
Dissolved Titanium (Ti)	mg/L	<0.00050	7515195	<0.00050	7515195	<0.00050	7515195	<0.00050	7515195	<0.00050	0.00050	7515195
Dissolved Uranium (U)	mg/L	0.00545	7515195	0.00192	7515195	0.000506	7515195	0.000579	7515195	0.00235	0.0000020	7515195
Dissolved Vanadium (V)	mg/L	<0.00020	7515195	<0.00020	7515195	<0.00020	7515195	<0.00020	7515195	0.00023	0.00020	7515195
Dissolved Zinc (Zn)	mg/L	0.125	7515195	0.00042	7515195	0.0837	7515195	0.0847	7515195	0.00315	0.00010	7515195
Dissolved Zirconium (Zr)	mg/L	<0.00010	7515195	<0.00010	7515195	<0.00010	7515195	<0.00010	7515195	<0.00010	0.00010	7515195
Dissolved Calcium (Ca)	mg/L	197	7511099	69.1	7511099	18.1	7511099	18.6	7511099	74.5	0.050	7517927
Dissolved Magnesium (Mg)	mg/L	66.9	7511099	34.5	7511099	7.96	7511099	7.81	7511099	32.7	0.050	7517927
Dissolved Potassium (K)	mg/L	2.94	7511099	0.652	7511099	2.85	7511099	2.83	7511099	1.33	0.050	7517927
Dissolved Sodium (Na)	mg/L	1.43	7511099	0.323(1)	7511099	0.509(1)	7511099	0.368	7511099	1.99	0.050	7517927
Dissolved Sulphur (S)	mg/L	218	7511099	82.2	7511099	27.3	7511099	27.2	7511099	62.6	3.0	7517927

RDL = Reportable Detection Limit
(1) - Dissolved greater than total. Reanalysis yields similar results.

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		JT5215		JT5216		JT5217		JT5218		JT5219		
Sampling Date		2014/05/27 14:39		2014/05/29 10:20		2014/05/29 13:11		2014/05/29 14:12		2014/05/29 15:27		
	UNITS	**BC-41**	**QC Batch**	**BC-01**	**QC Batch**	**BC-31**	**QC Batch**	**BC-36**	**QC Batch**	**BC-32**	**RDL**	**QC Batch**
Misc. Inorganics												
Dissolved Hardness (CaCO3)	mg/L	298	7510949	220	7510949	289	7510949	305	7510949	236	0.50	7510949
Elements												
Dissolved Mercury (Hg)	mg/L	0.0000021	7516212	<0.0000020	7516212	<0.0000020	7516212	<0.0000020	7516212	<0.0000020	0.0000020	7516212

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		JT5215		JT5216		JT5217		JT5218		JT5219		
Sampling Date		2014/05/27 14:39		2014/05/29 10:20		2014/05/29 13:11		2014/05/29 14:12		2014/05/29 15:27		
	UNITS	**BC-41**	**QC Batch**	**BC-01**	**QC Batch**	**BC-31**	**QC Batch**	**BC-36**	**QC Batch**	**BC-32**	**RDL**	**QC Batch**
Dissolved Metals by ICPMS												
Dissolved Aluminum (Al)	mg/L	0.00740	7515212	0.00847	7515195	0.00772	7515195	0.0104	7515212	0.00304	0.00050	7515195
Dissolved Antimony (Sb)	mg/L	0.00252	7515212	0.00314	7515195	0.000621	7515195	0.000173	7515212	0.00965	0.000020	7515195
Dissolved Arsenic (As)	mg/L	0.00239	7515212	0.00356	7515195	0.000647	7515195	0.000223	7515212	0.00307	0.000020	7515195
Dissolved Barium (Ba)	mg/L	0.0551	7515212	0.0516	7515195	0.0548	7515195	0.0603	7515212	0.0543	0.000020	7515195
Dissolved Beryllium (Be)	mg/L	<0.000010	7515212	<0.000010	7515195	<0.000010	7515195	<0.000010	7515212	<0.000010	0.000010	7515195
Dissolved Bismuth (Bi)	mg/L	<0.0000050	7515212	<0.0000050	7515195	<0.0000050	7515195	<0.0000050	7515212	<0.0000050	0.0000050	7515195
Dissolved Boron (B)	mg/L	<0.050	7515212	<0.050	7515195	<0.050	7515195	<0.050	7515212	<0.050	0.050	7515195
Dissolved Cadmium (Cd)	mg/L	0.0000180	7515212	0.0000150	7515195	0.0000310	7515195	0.0000340	7515212	0.0000110	0.0000050	7515195
Dissolved Chromium (Cr)	mg/L	<0.00010	7515212	0.00021	7515195	<0.00010	7515195	0.00017	7515212	<0.00010	0.00010	7515195
Dissolved Cobalt (Co)	mg/L	0.0000640	7515212	0.000665	7515195	0.0000550	7515195	0.0000580	7515212	0.0000130	0.0000050	7515195
Dissolved Copper (Cu)	mg/L	0.000466	7515212	0.000711	7515195	0.000923	7515195	0.00101	7515212	0.000305	0.000050	7515195
Dissolved Iron (Fe)	mg/L	0.0186	7515212	0.0594	7515195	0.0208	7515195	0.0284	7515212	0.0135	0.0010	7515195
Dissolved Lead (Pb)	mg/L	0.0000060	7515212	0.0000300	7515195	<0.0000050	7515195	0.0000060	7515212	<0.0000050	0.0000050	7515195
Dissolved Lithium (Li)	mg/L	0.00608	7515212	0.00844	7515195	0.00557	7515195	0.00493	7515212	0.00581	0.00050	7515195
Dissolved Manganese (Mn)	mg/L	0.00526	7515212	0.0125	7515195	0.00663	7515195	0.0112	7515212	0.000109	0.000050	7515195
Dissolved Molybdenum (Mo)	mg/L	0.00219	7515212	0.00321	7517536	0.00161	7515195	0.00162	7515212	0.00343	0.000050	7515195
Dissolved Nickel (Ni)	mg/L	0.00264	7515212	0.00131	7515195	0.00175	7515195	0.00162	7515212	0.00215	0.000020	7515195
Dissolved Phosphorus (P)	mg/L	0.0058	7515212	0.0070	7515195	0.0040	7515195	0.0065	7515212	0.0038	0.0020	7515195
Dissolved Selenium (Se)	mg/L	0.00228	7515212	0.00162	7515195	0.00156	7515195	0.00200	7515212	0.00112	0.000040	7515195
Dissolved Silicon (Si)	mg/L	2.78	7515212	4.33	7515195	3.23	7515195	3.56	7515212	2.65	0.10	7515195
Dissolved Silver (Ag)	mg/L	<0.0000050	7515212	<0.0000050	7515195	<0.0000050	7515195	<0.0000050	7515212	<0.0000050	0.0000050	7515195
Dissolved Strontium (Sr)	mg/L	0.412	7515212	0.275	7515195	0.356	7515195	0.377	7515212	0.324	0.000050	7515195
Dissolved Thallium (Tl)	mg/L	0.0000040	7515212	0.0000030	7515195	0.0000030	7515195	0.0000020	7515212	0.0000030	0.0000020	7515195
Dissolved Tin (Sn)	mg/L	<0.00020	7515212	<0.00020	7515195	<0.00020	7515195	<0.00020	7515212	<0.00020	0.00020	7515195
Dissolved Titanium (Ti)	mg/L	<0.00050	7515212	<0.00050	7515195	<0.00050	7515195	<0.00050	7515212	<0.00050	0.00050	7515195
Dissolved Uranium (U)	mg/L	0.00350	7515212	0.00234	7515195	0.00344	7515195	0.00420	7515212	0.00229	0.0000020	7515195
Dissolved Vanadium (V)	mg/L	0.00049	7515212	0.00070	7515195	0.00058	7515195	0.00071	7515212	0.00023	0.00020	7515195
Dissolved Zinc (Zn)	mg/L	0.00111	7515212	0.00034	7515195	0.00191	7515195	0.00347	7515212	0.00094	0.00010	7515195
Dissolved Zirconium (Zr)	mg/L	<0.00010	7515212	0.00013	7515195	<0.00010	7515195	<0.00010	7515212	<0.00010	0.00010	7515195
Dissolved Calcium (Ca)	mg/L	74.0	7511099	55.8	7511099	67.9	7511099	74.7	7511099	58.8	0.050	7511099
Dissolved Magnesium (Mg)	mg/L	27.5	7511099	19.6	7511099	28.9	7511099	28.8	7511099	21.5	0.050	7511099
Dissolved Potassium (K)	mg/L	1.28	7511099	1.25	7511099	1.04	7511099	0.910	7511099	1.63	0.050	7511099
Dissolved Sodium (Na)	mg/L	1.59	7511099	3.62	7511099	1.95	7511099	2.14	7511099	1.10	0.050	7511099
Dissolved Sulphur (S)	mg/L	63.4	7511099	36.2	7511099	48.9	7511099	48.4	7511099	32.0	3.0	7511099

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		JT5220		JT5221	JT5222	JT5223	JT5224	JT5225		
Sampling Date		2014/05/29 16:13		2014/05/29 16:52	2014/05/29 12:37	2014/05/29 17:55	2014/05/30 16:49	2014/05/31 10:05		
	UNITS	**BC-35R**	**QC Batch**	**BC-35**	**BC-38**	**BC-06**	**BC-03**	**BC-02**	**RDL**	**QC Batch**
Misc. Inorganics										
Dissolved Hardness (CaCO3)	mg/L	195	7510949	253	118	128	206	146	0.50	7510949
Elements										
Dissolved Mercury (Hg)	mg/L	<0.0000020	7516212	0.0000021	<0.0000020	0.0000059	0.0000027	0.0000037	0.0000020	7516032

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		JT5220		JT5221	JT5222	JT5223	JT5224	JT5225		
Sampling Date		2014/05/29 16:13		2014/05/29 16:52	2014/05/29 12:37	2014/05/29 17:55	2014/05/30 16:49	2014/05/31 10:05		
	UNITS	**BC-35R**	**QC Batch**	**BC-35**	**BC-38**	**BC-06**	**BC-03**	**BC-02**	**RDL**	**QC Batch**
Dissolved Metals by ICPMS										
Dissolved Aluminum (Al)	mg/L	0.00488	7515195	0.00477	0.00459	0.00485	0.0115	0.0617	0.00050	7515195
Dissolved Antimony (Sb)	mg/L	0.000102	7515195	0.000585	0.000172	0.000159	0.00387	0.000420	0.000020	7515195
Dissolved Arsenic (As)	mg/L	0.000288	7515195	0.00104	0.000631	0.000565	0.00237	0.00107	0.000020	7515195
Dissolved Barium (Ba)	mg/L	0.0524	7515195	0.0517	0.0446	0.0499	0.0449	0.0655	0.000020	7515195
Dissolved Beryllium (Be)	mg/L	<0.000010	7515195	<0.000010	<0.000010	<0.000010	0.000010	0.000025	0.000010	7515195
Dissolved Bismuth (Bi)	mg/L	<0.0000050	7515195	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	7515195
Dissolved Boron (B)	mg/L	<0.050	7515195	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7515195
Dissolved Cadmium (Cd)	mg/L	<0.0000050	7515195	0.0000290	0.0000150	0.0000160	0.0000190	0.0000130	0.0000050	7515195
Dissolved Chromium (Cr)	mg/L	<0.00010	7515195	0.00045	<0.00010	0.00066(1)	<0.00010	0.00039	0.00010	7515195
Dissolved Cobalt (Co)	mg/L	0.0000200	7515195	0.000165	0.0000210	0.0000280	0.000162	0.000869	0.0000050	7515195
Dissolved Copper (Cu)	mg/L	0.000340	7515195	0.000374	0.000449	0.00112(1)	0.000476	0.00160	0.000050	7515195
Dissolved Iron (Fe)	mg/L	0.0117	7515195	0.0396	0.0059	0.0085	0.0522	0.780	0.0010	7515195
Dissolved Lead (Pb)	mg/L	0.0000050	7515195	0.0000240	<0.0000050	<0.0000050	0.0000060	0.0000610	0.0000050	7515195
Dissolved Lithium (Li)	mg/L	0.00381	7515195	0.00454	0.00178	0.00193	0.00792	0.00322	0.00050	7515195
Dissolved Manganese (Mn)	mg/L	0.000273	7515195	0.0393	0.00165	0.00208	0.0277	0.275	0.000050	7515195
Dissolved Molybdenum (Mo)	mg/L	0.00161	7515195	0.00207	0.000468	0.000553	0.00243	0.000382	0.000050	7515195
Dissolved Nickel (Ni)	mg/L	0.000566	7515195	0.00452	0.000504	0.00127(1)	0.00185	0.00203	0.000020	7515195
Dissolved Phosphorus (P)	mg/L	0.0077	7515195	0.0036	<0.0020	<0.0020	0.0060	0.0157	0.0020	7515195
Dissolved Selenium (Se)	mg/L	0.000640	7515195	0.000977	0.000481	0.000525	0.00102	0.000422	0.000040	7515195
Dissolved Silicon (Si)	mg/L	2.22	7515195	2.35	2.47	2.56	3.01	3.99	0.10	7515195
Dissolved Silver (Ag)	mg/L	<0.0000050	7515195	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	7515195
Dissolved Strontium (Sr)	mg/L	0.204	7515195	0.285	0.202	0.215	0.275	0.110	0.000050	7515195
Dissolved Thallium (Tl)	mg/L	<0.0000020	7515195	<0.0000020	<0.0000020	<0.0000020	<0.0000020	<0.0000020	0.0000020	7515195
Dissolved Tin (Sn)	mg/L	<0.00020	7515195	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	7515195
Dissolved Titanium (Ti)	mg/L	<0.00050	7515195	<0.00050	<0.00050	<0.00050	<0.00050	0.00125	0.00050	7515195
Dissolved Uranium (U)	mg/L	0.00105	7515195	0.00324	0.000663	0.000705	0.00200	0.000331	0.0000020	7515195
Dissolved Vanadium (V)	mg/L	0.00076	7515195	0.00053	<0.00020	<0.00020	0.00039	0.00077	0.00020	7515195
Dissolved Zinc (Zn)	mg/L	0.00030	7515195	0.0150	0.00077	0.00077	0.00102	0.00101	0.00010	7515195
Dissolved Zirconium (Zr)	mg/L	<0.00010	7515195	<0.00010	<0.00010	<0.00010	<0.00010	0.00073	0.00010	7515195
Dissolved Calcium (Ca)	mg/L	49.3	7511099	61.1	31.6	34.7	52.1	33.2	0.050	7511099
Dissolved Magnesium (Mg)	mg/L	17.5	7511099	24.4	9.56	9.95	18.4	15.3	0.050	7511099
Dissolved Potassium (K)	mg/L	0.737	7511099	0.955	0.457	0.491	1.30	0.576	0.050	7511099
Dissolved Sodium (Na)	mg/L	0.809	7511099	1.42	1.90	2.10	2.13	4.16	0.050	7511099
Dissolved Sulphur (S)	mg/L	25.8	7511099	43.8	17.0	18.3	32.2	36.3	3.0	7511099

RDL = Reportable Detection Limit
(1) - Dissolved greater than total. Reanalysis yields similar results.

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		JT5232		JT5233		JT5234	JT5235		
Sampling Date		2014/05/30 08:54		2014/05/30 10:55		2014/05/02 12:28			
	UNITS	**BC-33**	**QC Batch**	**BC-05**	**QC Batch**	**BC-34**	**SAMPLE D**	**RDL**	**QC Batch**
Misc. Inorganics									
Dissolved Hardness (CaCO3)	mg/L	248	7512280	261	7512280	243	240	0.50	7512280
Elements									
Dissolved Mercury (Hg)	mg/L	0.0000021	7516032	0.0000044	7516032	0.0000035	0.0000026	0.0000020	7516032

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		JT5232		JT5233		JT5234	JT5235		
Sampling Date		2014/05/30 08:54		2014/05/30 10:55		2014/05/02 12:28			
	UNITS	**BC-33**	**QC Batch**	**BC-05**	**QC Batch**	**BC-34**	**SAMPLE D**	**RDL**	**QC Batch**
Dissolved Metals by ICPMS									
Dissolved Aluminum (Al)	mg/L	0.00540	7515195	0.00906	7515212	0.00535	0.00512	0.00050	7515195
Dissolved Antimony (Sb)	mg/L	0.000217	7515195	0.000366	7515212	0.000212	0.000230	0.000020	7515195
Dissolved Arsenic (As)	mg/L	0.000212	7515195	0.000460	7515212	0.000226	0.000201	0.000020	7515195
Dissolved Barium (Ba)	mg/L	0.0428	7515195	0.0469	7515212	0.0410	0.0406	0.000020	7515195
Dissolved Beryllium (Be)	mg/L	<0.000010	7515195	<0.000010	7515212	<0.000010	<0.000010	0.000010	7515195
Dissolved Bismuth (Bi)	mg/L	<0.0000050	7515195	<0.0000050	7515212	<0.0000050	<0.0000050	0.0000050	7515195
Dissolved Boron (B)	mg/L	<0.050	7515195	<0.050	7515212	<0.050	<0.050	0.050	7515195
Dissolved Cadmium (Cd)	mg/L	0.0000540	7515195	0.0000260	7515212	0.0000550	0.0000510	0.0000050	7515195
Dissolved Chromium (Cr)	mg/L	0.00010	7515195	<0.00010	7515212	<0.00010	<0.00010	0.00010	7515195
Dissolved Cobalt (Co)	mg/L	0.0000270	7515195	0.0000640	7515212	0.0000420	0.0000370	0.0000050	7515195
Dissolved Copper (Cu)	mg/L	0.000910	7515195	0.000693	7515212	0.000981	0.00135	0.000050	7515195
Dissolved Iron (Fe)	mg/L	0.0138	7515195	0.0272	7515212	0.0153	0.0160	0.0010	7515195
Dissolved Lead (Pb)	mg/L	0.0000050	7515195	0.0000050	7515212	<0.0000050	0.0000220	0.0000050	7515195
Dissolved Lithium (Li)	mg/L	0.00232	7515195	0.00424	7515212	0.00249	0.00226	0.00050	7515195
Dissolved Manganese (Mn)	mg/L	0.00238	7515195	0.00700	7515212	0.00644	0.00638	0.000050	7515195
Dissolved Molybdenum (Mo)	mg/L	0.00152	7515195	0.00310	7515212	0.00161	0.00152	0.000050	7515195
Dissolved Nickel (Ni)	mg/L	0.00186	7515195	0.00297	7515212	0.00194	0.00191	0.000020	7515195
Dissolved Phosphorus (P)	mg/L	0.0042	7515195	0.0081	7515212	0.0026	0.0030	0.0020	7515195
Dissolved Selenium (Se)	mg/L	0.00168	7515195	0.00118	7515212	0.00165	0.00162	0.000040	7515195
Dissolved Silicon (Si)	mg/L	2.96	7515195	2.74	7515212	2.92	2.84	0.10	7515195
Dissolved Silver (Ag)	mg/L	<0.0000050	7515195	<0.0000050	7515212	<0.0000050	<0.0000050	0.0000050	7515195
Dissolved Strontium (Sr)	mg/L	0.271	7515195	0.261	7515212	0.260	0.260	0.000050	7515195
Dissolved Thallium (Tl)	mg/L	<0.0000020	7515195	<0.0000020	7515212	<0.0000020	<0.0000020	0.0000020	7515195
Dissolved Tin (Sn)	mg/L	<0.00020	7515195	<0.00020	7515212	<0.00020	<0.00020	0.00020	7515195
Dissolved Titanium (Ti)	mg/L	<0.00050	7515195	<0.00050	7515212	<0.00050	<0.00050	0.00050	7515195
Dissolved Uranium (U)	mg/L	0.00170	7515195	0.00268	7515212	0.00168	0.00167	0.0000020	7515195
Dissolved Vanadium (V)	mg/L	0.00087	7515195	0.00081	7515212	0.00082	0.00077	0.00020	7515195
Dissolved Zinc (Zn)	mg/L	0.00446	7515195	0.00673	7515212	0.00418	0.00437	0.00010	7515195
Dissolved Zirconium (Zr)	mg/L	<0.00010	7515195	<0.00010	7515212	<0.00010	<0.00010	0.00010	7515195
Dissolved Calcium (Ca)	mg/L	61.2	7511099	66.1	7511099	60.7	60.1	0.050	7511099
Dissolved Magnesium (Mg)	mg/L	23.1	7511099	23.4	7511099	22.1	21.9	0.050	7511099
Dissolved Potassium (K)	mg/L	0.770	7511099	0.901	7511099	0.738	0.743	0.050	7511099
Dissolved Sodium (Na)	mg/L	1.41	7511099	1.34	7511099	1.61	1.37	0.050	7511099
Dissolved Sulphur (S)	mg/L	43.7	7511099	45.1	7511099	41.3	40.8	3.0	7511099

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		JT5181	JT5182	JT5183		JT5184	JT5185		JT5186		
Sampling Date		2014/05/27 17:50	2014/05/29 09:10	2014/05/29 09:52		2014/05/29 11:54	2014/05/28 10:54		2014/06/01 13:23		
	UNITS	**BC-17**	**BC-37**	**BC-53**	**QC Batch**	**BC-39**	**BC-10**	**RDL**	**BC-12**	**RDL**	**QC Batch**
Calculated Parameters											
Total Hardness (CaCO3)	mg/L	182	217	216	7510948	144	115	0.50	802	0.50	7510948
Elements											
Total Mercury (Hg)	mg/L	0.0000059	<0.0000020	<0.0000020	7516210	<0.0000020	0.0000185	0.0000020	0.0000079	0.0000020	7516210

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		JT5181	JT5182	JT5183		JT5184	JT5185		JT5186		
Sampling Date		2014/05/27 17:50	2014/05/29 09:10	2014/05/29 09:52		2014/05/29 11:54	2014/05/28 10:54		2014/06/01 13:23		
	UNITS	**BC-17**	**BC-37**	**BC-53**	**QC Batch**	**BC-39**	**BC-10**	**RDL**	**BC-12**	**RDL**	**QC Batch**
Total Metals by ICPMS											
Total Aluminum (Al)	mg/L	0.00335	0.128	0.204	7513292	0.00284	0.0261	0.00050	0.0719	0.0025	7513483
Total Antimony (Sb)	mg/L	0.324	0.00319	0.00313	7513292	0.000384	0.0600	0.000020	0.126	0.00010	7513483
Total Arsenic (As)	mg/L	0.0547	0.00479	0.00526	7513292	0.000347	0.0136	0.000020	0.248	0.00010	7513483
Total Barium (Ba)	mg/L	0.0892	0.0701	0.0779	7513292	0.0768	0.163	0.000020	0.0177	0.00010	7513483
Total Beryllium (Be)	mg/L	<0.000010	0.000020	0.000031	7513292	<0.000010	<0.000010	0.000010	0.000209	0.000050	7513483
Total Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	7513292	<0.0000050	<0.0000050	0.0000050	<0.000025	0.000025	7513483
Total Boron (B)	mg/L	<0.050	<0.050	<0.050	7513292	<0.050	<0.050	0.050	<0.25	0.25	7513483
Total Cadmium (Cd)	mg/L	0.0000210	0.0000590	0.0000720	7513292	0.0000310	0.0000760	0.0000050	0.00118	0.000025	7513483
Total Chromium (Cr)	mg/L	0.00012	0.00024	0.00034	7513292	<0.00010	<0.00010	0.00010	<0.00050	0.00050	7513483
Total Cobalt (Co)	mg/L	0.0000170	0.000818	0.000956	7513292	0.0000780	0.000121	0.0000050	0.0350	0.000025	7513483
Total Copper (Cu)	mg/L	0.000325	0.00209	0.00248	7513292	0.000558	0.00118	0.000050	0.00088	0.00025	7513483
Total Iron (Fe)	mg/L	0.0046	0.385	0.556	7513292	0.0092	0.0382	0.0010	2.81	0.0050	7513483
Total Lead (Pb)	mg/L	0.0000150	0.000304	0.000480	7513292	0.0000100	0.000275	0.0000050	0.000032	0.000025	7513483
Total Lithium (Li)	mg/L	0.00250	0.00768	0.00782	7513292	0.00141	0.00138	0.00050	0.0076	0.0025	7513483
Total Manganese (Mn)	mg/L	0.000602	0.0592	0.0837	7513292	0.000473	0.0159	0.000050	2.29	0.00025	7513483
Total Molybdenum (Mo)	mg/L	0.00969	0.00279	0.00269	7513292	0.000679	0.00255	0.000050	0.00446	0.00025	7513483
Total Nickel (Ni)	mg/L	0.00220	0.00209	0.00232	7513292	0.000579	0.00135	0.000020	0.103	0.00010	7513483
Total Phosphorus (P)	mg/L	0.0131	0.0247	0.0312	7513292	<0.0020	0.0188	0.0020	<0.010	0.010	7513483
Total Selenium (Se)	mg/L	0.00833	0.00159	0.00159	7513292	0.000635	0.00269	0.000040	0.00034	0.00020	7513483
Total Silicon (Si)	mg/L	3.52	3.96	4.11	7513292	2.88	1.64	0.10	5.01	0.50	7513483
Total Silver (Ag)	mg/L	<0.0000050	<0.0000050	0.0000050	7513292	<0.0000050	0.0000190	0.0000050	<0.000025	0.000025	7513483
Total Strontium (Sr)	mg/L	0.277	0.258	0.257	7513292	0.228	0.226	0.000050	1.32	0.00025	7513483
Total Thallium (Tl)	mg/L	0.0000690	0.0000020	0.0000020	7513292	<0.0000020	0.0000490	0.0000020	0.000106	0.000010	7513483
Total Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	7513292	<0.00020	<0.00020	0.00020	<0.0010	0.0010	7513483
Total Titanium (Ti)	mg/L	<0.00050	0.00503	0.00787	7513292	<0.00050	<0.00050	0.00050	<0.0025	0.0025	7513483
Total Uranium (U)	mg/L	0.00577	0.00240	0.00245	7513292	0.000793	0.00306	0.0000020	0.00552	0.000010	7513483
Total Vanadium (V)	mg/L	0.00032	0.00143	0.00161	7513292	<0.00020	0.00023	0.00020	<0.0010	0.0010	7513483
Total Zinc (Zn)	mg/L	0.00536	0.00370	0.00405	7513292	0.00210	0.00461	0.00010	0.180	0.00050	7513483
Total Zirconium (Zr)	mg/L	<0.00010	0.00015	0.00018	7513292	<0.00010	<0.00010	0.00010	<0.00050	0.00050	7513483
Total Calcium (Ca)	mg/L	48.0	53.6	54.0	7511100	39.0	28.1	0.050	202	0.25	7511100
Total Magnesium (Mg)	mg/L	15.0	20.2	19.6	7511100	11.2	10.8	0.050	72.5	0.25	7511100
Total Potassium (K)	mg/L	1.00	1.26	1.26	7511100	0.596	2.17	0.050	3.03	0.25	7511100
Total Sodium (Na)	mg/L	1.23	3.45	3.49	7511100	2.36	0.396	0.050	1.39	0.25	7511100
Total Sulphur (S)	mg/L	21.2	36.5	34.6	7511100	24.0	17.2	3.0	239	15	7511100

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		JT5187	JT5188		JT5189		JT5214	JT5215		JT5216		
Sampling Date		2014/06/01 17:02	2014/06/01 18:03				2014/05/27 16:49	2014/05/27 14:39		2014/05/29 10:20		
	UNITS	**BC-15**	**BC-51W**	**QC Batch**	**SAMPLE C**	**QC Batch**	**BC-04**	**BC-41**	**QC Batch**	**BC-01**	**RDL**	**QC Batch**
Calculated Parameters												
Total Hardness (CaCO3)	mg/L	327	80.2	7510948	79.7	7510948	322	313	7510948	223	0.50	7512279
Elements												
Total Mercury (Hg)	mg/L	0.0000092	0.0000203	7516210	0.0000190	7517440	0.0000030	0.0000074	7517461	<0.0000020	0.0000020	7517461

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		JT5187	JT5188		JT5189		JT5214	JT5215		JT5216		
Sampling Date		2014/06/01 17:02	2014/06/01 18:03				2014/05/27 16:49	2014/05/27 14:39		2014/05/29 10:20		
	UNITS	**BC-15**	**BC-51W**	**QC Batch**	**SAMPLE C**	**QC Batch**	**BC-04**	**BC-41**	**QC Batch**	**BC-01**	**RDL**	**QC Batch**
Total Metals by ICPMS												
Total Aluminum (Al)	mg/L	0.0133	1.07	7513483	1.08	7513483	0.0980	0.101	7513292	0.271	0.00050	7513292
Total Antimony (Sb)	mg/L	0.00325	0.00605	7513483	0.00613	7513483	0.00307	0.00276	7513292	0.00309	0.000020	7513292
Total Arsenic (As)	mg/L	0.0450	0.0132	7513483	0.0138	7513483	0.00421	0.00567	7513292	0.00597	0.000020	7513292
Total Barium (Ba)	mg/L	0.0416	0.0848	7513483	0.0839	7513483	0.0729	0.0728	7513292	0.0862	0.000020	7513292
Total Beryllium (Be)	mg/L	<0.000010	0.00262	7513483	0.00262	7513483	0.000012	0.000015	7513292	0.000036	0.000010	7513292
Total Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	7513483	<0.0000050	7513483	<0.0000050	0.0000050	7513292	<0.0000050	0.0000050	7513292
Total Boron (B)	mg/L	<0.050	<0.050	7513483	<0.050	7513483	<0.050	<0.050	7513292	<0.050	0.050	7513292
Total Cadmium (Cd)	mg/L	0.0000190	0.00115	7513483	0.00116	7513483	0.000153	0.000139	7513292	0.0000850	0.0000050	7513292
Total Chromium (Cr)	mg/L	<0.00010	0.00036	7513483	0.00034	7513483	0.00021	0.00022	7513292	0.00046	0.00010	7513292
Total Cobalt (Co)	mg/L	0.0000210	0.0114	7513483	0.0115	7513483	0.00161	0.000681	7513292	0.00114	0.0000050	7513292
Total Copper (Cu)	mg/L	0.000142	0.0669	7513483	0.0679	7513483	0.00115	0.00145	7513292	0.00304	0.000050	7513292
Total Iron (Fe)	mg/L	0.0018	0.561	7513483	0.587	7513483	0.731	0.537	7513292	0.620	0.0010	7513292
Total Lead (Pb)	mg/L	0.0000210	0.000267	7513483	0.000283	7513483	0.000279	0.000663	7513292	0.000631	0.0000050	7513292
Total Lithium (Li)	mg/L	0.00095	0.00242	7513483	0.00240	7513483	0.00727	0.00564	7513292	0.00812	0.00050	7513292
Total Manganese (Mn)	mg/L	0.00111	0.549	7513483	0.553	7513483	0.134	0.111	7513292	0.0882	0.000050	7513292
Total Molybdenum (Mo)	mg/L	0.000766	0.000229	7513483	0.000232	7513483	0.00251	0.00189	7513292	0.00266	0.000050	7513292
Total Nickel (Ni)	mg/L	0.000650	0.0367	7513483	0.0370	7513483	0.00806	0.00408	7513292	0.00280	0.000020	7513292
Total Phosphorus (P)	mg/L	<0.0020	0.0182	7513483	0.0200	7513483	0.0262	0.0299	7513292	0.0471	0.0020	7513292
Total Selenium (Se)	mg/L	0.0148	0.00162	7513483	0.00160	7513483	0.00333	0.00257	7513292	0.00175	0.000040	7513292
Total Silicon (Si)	mg/L	1.34	3.29	7513483	3.22	7513483	2.88	2.93	7513292	4.39	0.10	7513292
Total Silver (Ag)	mg/L	<0.0000050	0.0000200	7513483	0.0000330	7513483	<0.0000050	0.0000080	7513292	<0.0000050	0.0000050	7513292
Total Strontium (Sr)	mg/L	0.673	0.108	7513483	0.108	7513483	0.462	0.412	7513292	0.268	0.000050	7513292
Total Thallium (Tl)	mg/L	0.0000250	0.0000580	7513483	0.0000610	7513483	0.0000090	0.0000070	7513292	0.0000020	0.0000020	7513292
Total Tin (Sn)	mg/L	<0.00020	<0.00020	7513483	<0.00020	7513483	<0.00020	<0.00020	7513292	<0.00020	0.00020	7513292
Total Titanium (Ti)	mg/L	0.00086	0.00134	7513483	0.00163	7513483	0.00389	0.00421	7513292	0.00945	0.00050	7513292
Total Uranium (U)	mg/L	0.00199	0.000767	7513483	0.000789	7513483	0.00394	0.00381	7513292	0.00253	0.0000020	7513292
Total Vanadium (V)	mg/L	<0.00020	0.00027	7513483	0.00032	7513483	0.00164	0.00175	7513292	0.00213	0.00020	7513292
Total Zinc (Zn)	mg/L	0.00055	0.0966	7513483	0.0965	7513483	0.0138	0.00757	7513292	0.00444	0.00010	7513292
Total Zirconium (Zr)	mg/L	<0.00010	0.00021	7513483	0.00016	7513483	0.00011	0.00016	7513292	0.00024	0.00010	7513292
Total Calcium (Ca)	mg/L	72.8	18.3	7511100	18.2	7511100	75.9	76.6	7511100	54.3	0.050	7511100
Total Magnesium (Mg)	mg/L	35.4	8.41	7511100	8.30	7511100	32.3	29.5	7511100	21.1	0.050	7511100
Total Potassium (K)	mg/L	0.664	2.81	7511100	2.92	7511100	1.48	1.34	7511100	1.30	0.050	7511100
Total Sodium (Na)	mg/L	0.259	0.366	7511100	0.369	7511100	1.93	1.74	7511100	3.52	0.050	7511100
Total Sulphur (S)	mg/L	85.6	29.9	7511100	30.2	7511100	64.0	65.6	7511100	38.7	3.0	7511100

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		JT5217		JT5218	JT5219	JT5220	JT5221	JT5222	JT5223	JT5224		
Sampling Date		2014/05/29 13:11		2014/05/29 14:12	2014/05/29 15:27	2014/05/29 16:13	2014/05/29 16:52	2014/05/29 12:37	2014/05/29 17:55	2014/05/30 16:49		
	UNITS	**BC-31**	**QC Batch**	**BC-36**	**BC-32**	**BC-35R**	**BC-35**	**BC-38**	**BC-06**	**BC-03**	**RDL**	**QC Batch**
Calculated Parameters												
Total Hardness (CaCO3)	mg/L	299	7512279	306	240	202	269	124	125	211	0.50	7512279
Elements												
Total Mercury (Hg)	mg/L	0.0000021	7517461	<0.0000020	0.0000050	<0.0000020	0.0000053	0.0000025	<0.0000020	0.0000022	0.0000020	7517440

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		JT5217		JT5218	JT5219	JT5220	JT5221	JT5222	JT5223	JT5224		
Sampling Date		2014/05/29 13:11		2014/05/29 14:12	2014/05/29 15:27	2014/05/29 16:13	2014/05/29 16:52	2014/05/29 12:37	2014/05/29 17:55	2014/05/30 16:49		
	UNITS	**BC-31**	**QC Batch**	**BC-36**	**BC-32**	**BC-35R**	**BC-35**	**BC-38**	**BC-06**	**BC-03**	**RDL**	**QC Batch**
Total Metals by ICPMS												
Total Aluminum (Al)	mg/L	0.0149	7513626	0.0174	0.0774	0.00705	0.0253	0.0211	0.0134	0.0542	0.00050	7513292
Total Antimony (Sb)	mg/L	0.000635	7513626	0.000175	0.0102	0.000117	0.000600	0.000182	0.000169	0.00405	0.000020	7513292
Total Arsenic (As)	mg/L	0.000682	7513626	0.000260	0.00720	0.000268	0.00125	0.000755	0.000604	0.00421	0.000020	7513292
Total Barium (Ba)	mg/L	0.0574	7513626	0.0658	0.0700	0.0581	0.0595	0.0482	0.0530	0.0526	0.000020	7513292
Total Beryllium (Be)	mg/L	<0.000010	7513626	<0.000010	0.000014	<0.000010	<0.000010	<0.000010	<0.000010	0.000022	0.000010	7513292
Total Bismuth (Bi)	mg/L	<0.0000050	7513626	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	7513292
Total Boron (B)	mg/L	<0.050	7513626	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7513292
Total Cadmium (Cd)	mg/L	0.0000380	7513626	0.0000450	0.000118	0.0000140	0.0000710	0.0000240	0.0000250	0.0000710	0.0000050	7513292
Total Chromium (Cr)	mg/L	<0.00010	7513626	0.00011	0.00013	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00010	7513292
Total Cobalt (Co)	mg/L	0.0000750	7513626	0.0000690	0.000475	0.0000370	0.000252	0.0000330	0.0000240	0.000379	0.0000050	7513292
Total Copper (Cu)	mg/L	0.00101	7513626	0.000988	0.00109	0.000432	0.000623	0.000747	0.000652	0.000988	0.000050	7513292
Total Iron (Fe)	mg/L	0.0533	7513626	0.0504	0.405	0.0231	0.101	0.0375	0.0216	0.306	0.0010	7513292
Total Lead (Pb)	mg/L	0.0000350	7513626	0.0000230	0.000382	0.0000090	0.0000500	0.0000590	0.0000290	0.000162	0.0000050	7513292
Total Lithium (Li)	mg/L	0.00520	7513626	0.00502	0.00565	0.00388	0.00478	0.00177	0.00189	0.00801	0.00050	7513292
Total Manganese (Mn)	mg/L	0.0101	7513626	0.0159	0.0983	0.0156	0.0646	0.00464	0.00413	0.0803	0.000050	7513292
Total Molybdenum (Mo)	mg/L	0.00157	7513626	0.00158	0.00291	0.00144	0.00180	0.000437	0.000469	0.00223	0.000050	7513292
Total Nickel (Ni)	mg/L	0.00183	7513626	0.00208	0.00351	0.000710	0.00542	0.000681	0.000626	0.00243	0.000020	7513292
Total Phosphorus (P)	mg/L	0.0044	7513626	0.0077	0.0357	0.0099	0.0082	0.0041	0.0028	0.0193	0.0020	7513292
Total Selenium (Se)	mg/L	0.00174	7513626	0.00204	0.00118	0.000758	0.00113	0.000541	0.000574	0.00114	0.000040	7513292
Total Silicon (Si)	mg/L	3.25	7513626	3.39	2.65	2.30	2.49	2.57	2.34	3.00	0.10	7513292
Total Silver (Ag)	mg/L	0.0000080	7513626	<0.0000050	0.0000080	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	7513292
Total Strontium (Sr)	mg/L	0.343	7513626	0.376	0.325	0.199	0.289	0.206	0.216	0.272	0.000050	7513292
Total Thallium (Tl)	mg/L	0.0000030	7513626	0.0000020	0.0000070	<0.0000020	0.0000020	<0.0000020	<0.0000020	0.0000020	0.0000020	7513292
Total Tin (Sn)	mg/L	<0.00020	7513626	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	7513292
Total Titanium (Ti)	mg/L	<0.00050	7513626	<0.00050	0.00299	<0.00050	0.00052	<0.00050	<0.00050	0.00113	0.00050	7513292
Total Uranium (U)	mg/L	0.00341	7513626	0.00437	0.00239	0.00109	0.00343	0.000700	0.000738	0.00206	0.0000020	7513292
Total Vanadium (V)	mg/L	0.00071	7513626	0.00079	0.00107	0.00080	0.00070	<0.00020	<0.00020	0.00070	0.00020	7513292
Total Zinc (Zn)	mg/L	0.00295	7513626	0.00480	0.00701	0.00091	0.0239	0.00143	0.00137	0.00370	0.00010	7513292
Total Zirconium (Zr)	mg/L	<0.00010	7513626	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00010	7513292
Total Calcium (Ca)	mg/L	68.9	7511100	73.4	58.8	50.2	64.1	33.5	33.2	52.0	0.050	7511100
Total Magnesium (Mg)	mg/L	30.9	7511100	29.8	22.6	18.7	26.5	9.71	10.2	19.6	0.050	7511100
Total Potassium (K)	mg/L	1.06	7511100	0.962	1.65	0.751	1.01	0.465	0.499	1.37	0.050	7511100
Total Sodium (Na)	mg/L	2.07	7511100	2.10	1.09	0.869	1.55	1.98	2.03	2.19	0.050	7511100
Total Sulphur (S)	mg/L	52.6	7511100	50.4	33.4	28.4	45.4	17.3	18.4	35.0	3.0	7511100

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		JT5225	JT5232	JT5233	JT5234	JT5235		JT5248	JT5249	JT5250		
Sampling Date		2014/05/31 10:05	2014/05/30 08:54	2014/05/30 10:55	2014/05/02 12:28					2014/06/01 18:56		
	UNITS	**BC-02**	**BC-33**	**BC-05**	**BC-34**	**SAMPLE D**	**QC Batch**	**SAMPLE A**	**SAMPLE B**	**MH-12-02**	**RDL**	**QC Batch**
Calculated Parameters												
Total Hardness (CaCO3)	mg/L	146	248	268	244	249	7512279	643	<0.50	234	0.50	7512279
Elements												
Total Mercury (Hg)	mg/L	0.0000105	0.0000039	0.0000025	0.0000028	0.0000022	7517440	<0.0000020	<0.0000020	<0.0000020	0.0000020	7517440

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		JT5225	JT5232	JT5233	JT5234	JT5235		JT5248	JT5249	JT5250		
Sampling Date		2014/05/31 10:05	2014/05/30 08:54	2014/05/30 10:55	2014/05/02 12:28					2014/06/01 18:56		
	UNITS	**BC-02**	**BC-33**	**BC-05**	**BC-34**	**SAMPLE D**	**QC Batch**	**SAMPLE A**	**SAMPLE B**	**MH-12-02**	**RDL**	**QC Batch**
Total Metals by ICPMS												
Total Aluminum (Al)	mg/L	0.107	0.0167	0.0152	0.0309	0.0122	7513292	0.185	<0.00050	0.0132	0.00050	7513184
Total Antimony (Sb)	mg/L	0.000473	0.000224	0.000362	0.000233	0.000216	7513292	0.000074	<0.000020	0.00800	0.000020	7513184
Total Arsenic (As)	mg/L	0.00132	0.000252	0.000503	0.000238	0.000235	7513292	0.000318	<0.000020	0.0598	0.000020	7513184
Total Barium (Ba)	mg/L	0.0799	0.0463	0.0524	0.0436	0.0434	7513292	0.0249	0.000071	0.116	0.000020	7513184
Total Beryllium (Be)	mg/L	0.000025	<0.000010	<0.000010	<0.000010	<0.000010	7513292	0.000086	<0.000010	<0.000010	0.000010	7513184
Total Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	7513292	<0.0000050	<0.0000050	<0.0000050	0.0000050	7513184
Total Boron (B)	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	7513292	<0.050	<0.050	<0.050	0.050	7513184
Total Cadmium (Cd)	mg/L	0.0000250	0.0000830	0.0000510	0.0000720	0.0000660	7513292	0.00559	<0.0000050	0.0000080	0.0000050	7513184
Total Chromium (Cr)	mg/L	0.00043	<0.00010	<0.00010	<0.00010	<0.00010	7513292	0.00070	<0.00010	0.00016	0.00010	7513184
Total Cobalt (Co)	mg/L	0.00109	0.0000500	0.0000910	0.0000500	0.0000440	7513292	0.00309	<0.0000050	0.000741	0.0000050	7513184
Total Copper (Cu)	mg/L	0.00217	0.00120	0.000865	0.00155	0.00114	7513292	0.00108	<0.000050	0.000250	0.000050	7513184
Total Iron (Fe)	mg/L	1.11	0.0576	0.0521	0.0432	0.0443	7513292	0.151	<0.0010	0.183	0.0010	7513184
Total Lead (Pb)	mg/L	0.000224	0.0000490	0.0000120	0.0000430	0.0000240	7513292	0.000288	<0.0000050	0.0000370	0.0000050	7513184
Total Lithium (Li)	mg/L	0.00334	0.00229	0.00395	0.00231	0.00221	7513292	0.0500	<0.00050	0.00524	0.00050	7513184
Total Manganese (Mn)	mg/L	0.310	0.00685	0.0204	0.00787	0.00829	7513292	0.253	<0.000050	0.395	0.000050	7513184
Total Molybdenum (Mo)	mg/L	0.000348	0.00149	0.00282	0.00142	0.00151	7513292	0.000211	<0.000050	0.000882	0.000050	7513184
Total Nickel (Ni)	mg/L	0.00233	0.00202	0.00321	0.00212	0.00217	7513292	0.0469	0.000162	0.00203	0.000020	7513184
Total Phosphorus (P)	mg/L	0.0280	0.0074	0.0097	0.0043	0.0044	7513292	0.103	<0.0020	0.0021	0.0020	7513184
Total Selenium (Se)	mg/L	0.000404	0.00178	0.00129	0.00178	0.00169	7513292	0.0873	<0.000040	0.000269	0.000040	7513184
Total Silicon (Si)	mg/L	3.60	2.87	2.76	2.81	2.91	7513292	16.5	<0.10	3.28	0.10	7513184
Total Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	7513292	0.0000060	<0.0000050	0.0000100	0.0000050	7513184
Total Strontium (Sr)	mg/L	0.106	0.255	0.259	0.252	0.254	7513292	0.395	<0.000050	0.576	0.000050	7513184
Total Thallium (Tl)	mg/L	<0.0000020	0.0000030	<0.0000020	0.0000020	0.0000030	7513292	0.0000220	<0.0000020	0.000187	0.0000020	7513184
Total Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	7513292	<0.00020	<0.00020	<0.00020	0.00020	7513184
Total Titanium (Ti)	mg/L	0.00285	0.00051	<0.00050	<0.00050	<0.00050	7513292	<0.00050	<0.00050	<0.00050	0.00050	7513184
Total Uranium (U)	mg/L	0.000393	0.00184	0.00274	0.00174	0.00177	7513292	0.000421	<0.0000020	0.00316	0.0000020	7513184
Total Vanadium (V)	mg/L	0.00117	0.00097	0.00099	0.00076	0.00080	7513292	0.00062	<0.00020	<0.00020	0.00020	7513184
Total Zinc (Zn)	mg/L	0.00263	0.00734	0.00633	0.00731	0.00607	7513292	0.102	<0.00010	0.00472	0.00010	7513184
Total Zirconium (Zr)	mg/L	0.00065	<0.00010	<0.00010	<0.00010	<0.00010	7513292	0.00011	<0.00010	<0.00010	0.00010	7513184
Total Calcium (Ca)	mg/L	31.4	60.7	66.5	60.4	60.5	7511100	159	<0.050	55.0	0.050	7511100
Total Magnesium (Mg)	mg/L	16.4	23.3	24.8	22.7	23.8	7511100	59.5	<0.050	23.5	0.050	7511100
Total Potassium (K)	mg/L	0.605	0.764	0.933	0.762	0.742	7511100	3.69	<0.050	2.21	0.050	7511100
Total Sodium (Na)	mg/L	4.37	1.43	1.35	1.48	1.46	7511100	20.2	<0.050	0.744	0.050	7511100
Total Sulphur (S)	mg/L	37.5	42.4	45.2	42.1	43.1	7511100	177	<3.0	11.7	3.0	7511100

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		JT5251	JT5252		JT5253	JT5254			JT5267		
Sampling Date		2014/05/31 18:22	2014/06/01 09:51		2014/06/01 09:09	2014/06/01 09:28			2014/05/28 10:18		
	UNITS	**BC-21**	**BC-28**	**RDL**	**BC-28A**	**BC-28B**	**RDL**	**QC Batch**	**BC-27**	**RDL**	**QC Batch**
Calculated Parameters											
Total Hardness (CaCO3)	mg/L	380	55.4	0.50	1100	653	0.50	7512279	450	0.50	7512279
Elements											
Total Mercury (Hg)	mg/L	<0.0000020	0.0000071	0.0000020	0.0000395	0.0000397	0.0000020	7517440	0.0000020	0.0000020	7516210

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		JT5251	JT5252		JT5253	JT5254			JT5267		
Sampling Date		2014/05/31 18:22	2014/06/01 09:51		2014/06/01 09:09	2014/06/01 09:28			2014/05/28 10:18		
	UNITS	**BC-21**	**BC-28**	**RDL**	**BC-28A**	**BC-28B**	**RDL**	**QC Batch**	**BC-27**	**RDL**	**QC Batch**
Total Metals by ICPMS											
Total Aluminum (Al)	mg/L	0.00450	0.0695	0.00050	0.0060	0.172	0.0025	7513184	0.0117	0.00050	7513184
Total Antimony (Sb)	mg/L	0.000249	0.00416	0.000020	1.81	1.15	0.00010	7513184	0.00226	0.000020	7513184
Total Arsenic (As)	mg/L	0.0162	0.00278	0.000020	0.313	0.167	0.00010	7513184	0.123	0.000020	7513184
Total Barium (Ba)	mg/L	0.0382	0.142	0.000020	0.0470	0.0412	0.00010	7513184	0.0139	0.000020	7513184
Total Beryllium (Be)	mg/L	<0.000010	<0.000010	0.000010	<0.000050	<0.000050	0.000050	7513184	<0.000010	0.000010	7513184
Total Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	0.0000050	<0.000025	<0.000025	0.000025	7513184	<0.0000050	0.0000050	7513184
Total Boron (B)	mg/L	<0.050	<0.050	0.050	<0.25	<0.25	0.25	7513184	<0.050	0.050	7513184
Total Cadmium (Cd)	mg/L	0.000102	0.0000060	0.0000050	0.000201	0.000042	0.000025	7513184	0.0000600	0.0000050	7513184
Total Chromium (Cr)	mg/L	0.00030	<0.00010	0.00010	<0.00050	<0.00050	0.00050	7513184	0.00040	0.00010	7513184
Total Cobalt (Co)	mg/L	0.00225	0.00326	0.0000050	0.552	0.353	0.000025	7513184	0.000184	0.0000050	7513184
Total Copper (Cu)	mg/L	0.000275	0.000834	0.000050	0.00098	0.00378	0.00025	7513184	0.000529	0.000050	7513184
Total Iron (Fe)	mg/L	0.243	0.300	0.0010	0.221	0.111	0.0050	7513184	1.52	0.0010	7513184
Total Lead (Pb)	mg/L	0.0000190	0.0000540	0.0000050	<0.000025	0.000081	0.000025	7513184	0.0000450	0.0000050	7513184
Total Lithium (Li)	mg/L	0.0295	0.00282	0.00050	0.0046	0.0027	0.0025	7513184	0.00917	0.00050	7513184
Total Manganese (Mn)	mg/L	1.11	0.0433	0.000050	0.0165	0.0268	0.00025	7513184	0.217	0.000050	7513184
Total Molybdenum (Mo)	mg/L	0.000223	0.000204	0.000050	0.0194	0.0140	0.00025	7513184	0.0120	0.000050	7513184
Total Nickel (Ni)	mg/L	0.00370	0.00179	0.000020	0.00627	0.00542	0.00010	7513184	0.00226	0.000020	7513184
Total Phosphorus (P)	mg/L	<0.0020	0.0084	0.0020	0.052	0.025	0.010	7513184	0.0646	0.0020	7513184
Total Selenium (Se)	mg/L	0.00339	0.000268	0.000040	0.145	0.0941	0.00020	7513184	<0.000040	0.000040	7513184
Total Silicon (Si)	mg/L	5.01	1.02	0.10	4.46	1.80	0.50	7513184	4.07	0.10	7513184
Total Silver (Ag)	mg/L	0.0000060	<0.0000050	0.0000050	<0.000025	<0.000025	0.000025	7513184	<0.0000050	0.0000050	7513184
Total Strontium (Sr)	mg/L	0.334	0.0791	0.000050	1.56	0.921	0.00025	7513184	0.771	0.000050	7513184
Total Thallium (Tl)	mg/L	0.0000260	0.0000090	0.0000020	0.000238	0.000122	0.000010	7513184	0.0000050	0.0000020	7513184
Total Tin (Sn)	mg/L	<0.00020	<0.00020	0.00020	<0.0010	<0.0010	0.0010	7513184	<0.00020	0.00020	7513184
Total Titanium (Ti)	mg/L	<0.00050	0.00141	0.00050	<0.0025	<0.0025	0.0025	7513184	0.00071	0.00050	7513184
Total Uranium (U)	mg/L	0.00107	0.0000250	0.0000020	0.0192	0.0101	0.000010	7513184	0.0113	0.0000020	7513184
Total Vanadium (V)	mg/L	<0.00020	<0.00020	0.00020	<0.0010	<0.0010	0.0010	7513184	0.00029	0.00020	7513184
Total Zinc (Zn)	mg/L	0.0583	0.00214	0.00010	0.00593	0.00391	0.00050	7513184	0.0319	0.00010	7513184
Total Zirconium (Zr)	mg/L	<0.00010	<0.00010	0.00010	<0.00050	<0.00050	0.00050	7513184	<0.00010	0.00010	7513184
Total Calcium (Ca)	mg/L	75.3	14.2	0.050	324	188	0.25	7511100	112	0.050	7511100
Total Magnesium (Mg)	mg/L	46.5	4.82	0.050	71.5	44.7	0.25	7511100	41.0	0.050	7511100
Total Potassium (K)	mg/L	3.05	0.951	0.050	4.98	4.05	0.25	7511100	1.41	0.050	7511100
Total Sodium (Na)	mg/L	7.76	6.83	0.050	373	239	0.25	7511100	1.71	0.050	7511100
Total Sulphur (S)	mg/L	55.5	4.4	3.0	269	167	15	7511100	95.5	3.0	7511100

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		JT5268		JT5269	JT5270		JT5271	JT5272		
Sampling Date		2014/05/28 13:55		2014/05/28 15:10	2014/05/28 18:34		2014/05/30 16:04	2014/05/30 16:14		
	UNITS	**LF-12-01**	**RDL**	**LF-XX-02**	**EBR-12-01**	**RDL**	**LF-XX-03**	**BC-12-538**	**RDL**	**QC Batch**
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	199	0.50	326	1880	0.50	355	514	0.50	7512279
Elements										
Total Mercury (Hg)	mg/L	<0.0000020	0.0000020	0.0000218	<0.0000020	0.0000020	0.0000045	0.0000054	0.0000020	7516210

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		JT5268		JT5269	JT5270		JT5271	JT5272		
Sampling Date		2014/05/28 13:55		2014/05/28 15:10	2014/05/28 18:34		2014/05/30 16:04	2014/05/30 16:14		
	UNITS	**LF-12-01**	**RDL**	**LF-XX-02**	**EBR-12-01**	**RDL**	**LF-XX-03**	**BC-12-538**	**RDL**	**QC Batch**
Total Metals by ICPMS										
Total Aluminum (Al)	mg/L	0.00396	0.00050	0.215	0.0038	0.0025	0.0915	0.0133	0.00050	7513184
Total Antimony (Sb)	mg/L	0.000264	0.000020	0.621	0.00254	0.00010	0.0629	0.0219	0.000020	7513184
Total Arsenic (As)	mg/L	0.00417	0.000020	0.0820	0.00053	0.00010	0.191	0.110	0.000020	7513184
Total Barium (Ba)	mg/L	0.0504	0.000020	0.0679	0.00512	0.00010	0.0412	0.0158	0.000020	7513184
Total Beryllium (Be)	mg/L	<0.000010	0.000010	<0.000050	<0.000050	0.000050	0.000045	0.000060	0.000010	7513184
Total Bismuth (Bi)	mg/L	<0.0000050	0.0000050	<0.000025	<0.000025	0.000025	<0.0000050	<0.0000050	0.0000050	7513184
Total Boron (B)	mg/L	<0.050	0.050	<0.25	<0.25	0.25	<0.050	<0.050	0.050	7513184
Total Cadmium (Cd)	mg/L	0.0000060	0.0000050	0.000055	<0.000025	0.000025	0.0000210	0.0000140	0.0000050	7513184
Total Chromium (Cr)	mg/L	0.00144	0.00010	<0.00050	<0.00050	0.00050	0.00053	0.00020	0.00010	7513184
Total Cobalt (Co)	mg/L	0.000575	0.0000050	<0.000025	0.000953	0.000025	0.000724	0.00101	0.0000050	7513184
Total Copper (Cu)	mg/L	0.000089	0.000050	0.00033	0.00049	0.00025	0.000496	0.000078	0.000050	7513184
Total Iron (Fe)	mg/L	0.602	0.0010	0.0206	2.56	0.0050	4.74	3.84	0.0010	7513184
Total Lead (Pb)	mg/L	0.0000950	0.0000050	0.000087	0.000075	0.000025	0.000473	0.0000410	0.0000050	7513184
Total Lithium (Li)	mg/L	0.00314	0.00050	0.0041	0.0355	0.0025	0.0124	0.0278	0.00050	7513184
Total Manganese (Mn)	mg/L	0.242	0.000050	0.00190	0.0337	0.00025	0.193	0.107	0.000050	7513184
Total Molybdenum (Mo)	mg/L	0.0427	0.000050	0.00565	<0.00025	0.00025	0.0194	0.0120	0.000050	7513184
Total Nickel (Ni)	mg/L	0.00460	0.000020	0.00040	0.00055	0.00010	0.0218	0.0272	0.000020	7513184
Total Phosphorus (P)	mg/L	0.0052	0.0020	<0.010	0.013	0.010	0.0084	0.0085	0.0020	7513184
Total Selenium (Se)	mg/L	<0.000040	0.000040	0.0299	0.00029	0.00020	0.000047	<0.000040	0.000040	7513184
Total Silicon (Si)	mg/L	4.33	0.10	4.92	4.08	0.50	3.46	3.13	0.10	7513184
Total Silver (Ag)	mg/L	<0.0000050	0.0000050	<0.000025	<0.000025	0.000025	0.0000160	0.0000130	0.0000050	7513184
Total Strontium (Sr)	mg/L	0.211	0.000050	0.554	1.74	0.00025	0.560	0.788	0.000050	7513184
Total Thallium (Tl)	mg/L	0.0000720	0.0000020	0.000031	0.000013	0.000010	0.000110	0.0000040	0.0000020	7513184
Total Tin (Sn)	mg/L	<0.00020	0.00020	<0.0010	<0.0010	0.0010	<0.00020	<0.00020	0.00020	7513184
Total Titanium (Ti)	mg/L	<0.00050	0.00050	0.0048	<0.0025	0.0025	0.00885	0.00097	0.00050	7513184
Total Uranium (U)	mg/L	0.00793	0.0000020	0.00400	0.00223	0.000010	0.0200	0.0139	0.0000020	7513184
Total Vanadium (V)	mg/L	<0.00020	0.00020	<0.0010	<0.0010	0.0010	0.00197	0.00036	0.00020	7513184
Total Zinc (Zn)	mg/L	0.0353	0.00010	0.00874	0.00592	0.00050	0.159	0.0346	0.00010	7513184
Total Zirconium (Zr)	mg/L	<0.00010	0.00010	<0.00050	0.00071	0.00050	0.00072	0.00099	0.00010	7513184
Total Calcium (Ca)	mg/L	49.4	0.050	78.3	300	0.25	90.9	133	0.050	7511100
Total Magnesium (Mg)	mg/L	18.3	0.050	31.7	276	0.25	31.0	44.3	0.050	7511100
Total Potassium (K)	mg/L	0.996	0.050	1.03	3.78	0.25	2.25	3.17	0.050	7511100
Total Sodium (Na)	mg/L	0.800	0.050	1.15	12.1	0.25	1.40	2.30	0.050	7511100
Total Sulphur (S)	mg/L	8.0	3.0	22	494	15	20.8	58.5	3.0	7511100

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		JT5273	JT5274	JT5275	JT5277		JT5278		
Sampling Date		2014/05/31 12:12	2014/05/31 13:34	2014/05/31 16:04	2014/06/01 12:00		2014/06/01 14:53		
	UNITS	**BC-66**	**BC-19**	**BC-22**	**BC-69**	**RDL**	**EBR-12-03**	**RDL**	**QC Batch**
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	352	590	649	365	0.50	1340	0.50	7512279
Elements									
Total Mercury (Hg)	mg/L	<0.0000020	0.0000021	<0.0000020	<0.0000020	0.0000020	0.0000052	0.0000020	7516210

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		JT5273	JT5274	JT5275	JT5277		JT5278		
Sampling Date		2014/05/31 12:12	2014/05/31 13:34	2014/05/31 16:04	2014/06/01 12:00		2014/06/01 14:53		
	UNITS	**BC-66**	**BC-19**	**BC-22**	**BC-69**	**RDL**	**EBR-12-03**	**RDL**	**QC Batch**
Total Metals by ICPMS									
Total Aluminum (Al)	mg/L	0.219	0.203	0.218	0.0298	0.00050	0.0356	0.0025	7513184
Total Antimony (Sb)	mg/L	0.000408	0.000345	0.000083	0.00612	0.000020	0.00020	0.00010	7513184
Total Arsenic (As)	mg/L	0.000365	0.000964	0.000421	0.0429	0.000020	0.301	0.00010	7513184
Total Barium (Ba)	mg/L	0.0599	0.00509	0.0280	0.0370	0.000020	0.00786	0.00010	7513184
Total Beryllium (Be)	mg/L	0.000014	0.000019	0.000086	0.000012	0.000010	<0.000050	0.000050	7513184
Total Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	<0.000025	0.000025	7513184
Total Boron (B)	mg/L	<0.050	<0.050	<0.050	<0.050	0.050	<0.25	0.25	7513184
Total Cadmium (Cd)	mg/L	0.0000220	0.000450	0.00561	0.000924	0.0000050	0.000138	0.000025	7513184
Total Chromium (Cr)	mg/L	0.00069	0.00063	0.00093	0.00052	0.00010	<0.00050	0.00050	7513184
Total Cobalt (Co)	mg/L	0.0750	0.000336	0.00306	0.000588	0.0000050	0.0169	0.000025	7513184
Total Copper (Cu)	mg/L	0.00109	0.000483	0.00127	0.00131	0.000050	<0.00025	0.00025	7513184
Total Iron (Fe)	mg/L	0.0826	0.197	0.186	0.145	0.0010	13.8	0.0050	7513184
Total Lead (Pb)	mg/L	0.000483	0.000394	0.000444	0.000288	0.0000050	0.000041	0.000025	7513184
Total Lithium (Li)	mg/L	0.0198	0.0335	0.0487	0.00818	0.00050	0.0231	0.0025	7513184
Total Manganese (Mn)	mg/L	0.00314	0.185	0.250	0.346	0.000050	0.887	0.00025	7513184
Total Molybdenum (Mo)	mg/L	0.000275	0.000069	0.000273	0.000349	0.000050	0.00568	0.00025	7513184
Total Nickel (Ni)	mg/L	0.000749	0.00221	0.0466	0.00376	0.000020	0.102	0.00010	7513184
Total Phosphorus (P)	mg/L	0.0135	0.0306	0.113	0.0144	0.0020	<0.010	0.010	7513184
Total Selenium (Se)	mg/L	0.0177	0.00813	0.0868	0.000736	0.000040	<0.00020	0.00020	7513184
Total Silicon (Si)	mg/L	5.31	8.40	16.6	3.09	0.10	5.87	0.50	7513184
Total Silver (Ag)	mg/L	0.0000280	<0.0000050	0.0000170	<0.0000050	0.0000050	<0.000025	0.000025	7513184
Total Strontium (Sr)	mg/L	0.385	0.474	0.417	0.426	0.000050	0.596	0.00025	7513184
Total Thallium (Tl)	mg/L	0.0000150	0.0000090	0.0000330	0.000285	0.0000020	0.000136	0.000010	7513184
Total Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	<0.0010	0.0010	7513184
Total Titanium (Ti)	mg/L	0.00554	0.00985	0.00085	<0.00050	0.00050	<0.0025	0.0025	7513184
Total Uranium (U)	mg/L	0.00100	0.000778	0.000465	0.00208	0.0000020	0.0185	0.000010	7513184
Total Vanadium (V)	mg/L	0.00057	0.00052	0.00088	<0.00020	0.00020	<0.0010	0.0010	7513184
Total Zinc (Zn)	mg/L	0.00567	0.0240	0.0976	0.111	0.00010	0.221	0.00050	7513184
Total Zirconium (Zr)	mg/L	0.00021	0.00020	0.00020	<0.00010	0.00010	<0.00050	0.00050	7513184
Total Calcium (Ca)	mg/L	72.5	133	160	70.7	0.050	332	0.25	7511100
Total Magnesium (Mg)	mg/L	41.4	62.8	60.5	45.7	0.050	124	0.25	7511100
Total Potassium (K)	mg/L	2.50	2.56	3.67	5.72	0.050	5.71	0.25	7511100
Total Sodium (Na)	mg/L	10.7	10.7	20.7	1.73	0.050	3.34	0.25	7511100
Total Sulphur (S)	mg/L	8.5	118	176	25.4	3.0	337	15	7511100

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		JT5276		
Sampling Date		2014/06/01 11:01		
	UNITS	**BC-67**	**RDL**	**QC Batch**
Calculated Parameters				
Total Hardness (CaCO3)	mg/L	321	0.50	7512279
Elements				
Total Mercury (Hg)	mg/L	0.0000228	0.0000020	7516210

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		JT5276		
Sampling Date		2014/06/01 11:01		
	UNITS	**BC-67**	**RDL**	**QC Batch**
Total Metals by ICPMS				
Total Aluminum (Al)	mg/L	25.6	0.015	7513465
Total Antimony (Sb)	mg/L	0.119	0.00025	7513465
Total Arsenic (As)	mg/L	0.767	0.00010	7513465
Total Barium (Ba)	mg/L	1.36	0.00050	7513465
Total Beryllium (Be)	mg/L	0.00398	0.000050	7513465
Total Bismuth (Bi)	mg/L	0.00109	0.00010	7513465
Total Boron (B)	mg/L	<0.25	0.25	7513465
Total Cadmium (Cd)	mg/L	0.00135	0.000025	7513465
Total Chromium (Cr)	mg/L	0.0311	0.0025	7513465
Total Cobalt (Co)	mg/L	0.0559	0.000050	7513465
Total Copper (Cu)	mg/L	0.0556	0.0010	7513465
Total Iron (Fe)	mg/L	63.9	0.025	7513465
Total Lead (Pb)	mg/L	0.0992	0.00025	7513465
Total Lithium (Li)	mg/L	0.0176	0.0025	7513465
Total Manganese (Mn)	mg/L	7.43	0.00050	7513465
Total Molybdenum (Mo)	mg/L	0.00212	0.00025	7513465
Total Nickel (Ni)	mg/L	0.0705	0.00050	7513465
Total Phosphorus (P)	mg/L	4.49	0.050	7513465
Total Selenium (Se)	mg/L	0.00117	0.00020	7513465
Total Silicon (Si)	mg/L	59.8	0.50	7513465
Total Silver (Ag)	mg/L	0.00114	0.000025	7513465
Total Strontium (Sr)	mg/L	0.609	0.00025	7513465
Total Thallium (Tl)	mg/L	0.000895	0.000010	7513465
Total Tin (Sn)	mg/L	0.0018	0.0010	7513465
Total Titanium (Ti)	mg/L	0.140	0.025	7513465
Total Uranium (U)	mg/L	0.0141	0.000025	7513465
Total Vanadium (V)	mg/L	0.0373	0.0025	7513465
Total Zinc (Zn)	mg/L	0.384	0.0050	7513465
Total Zirconium (Zr)	mg/L	0.00751	0.00050	7513465
Total Calcium (Ca)	mg/L	76.8	1.3	7511100
Total Magnesium (Mg)	mg/L	31.5	1.3	7511100
Total Potassium (K)	mg/L	5.9	1.3	7511100
Total Sodium (Na)	mg/L	3.3	1.3	7511100
Total Sulphur (S)	mg/L	<75	75	7511100

RDL = Reportable Detection Limit

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

Package 1	5.0°C
Package 2	5.0°C
Package 3	4.0°C
Package 4	2.0°C
Package 5	5.3°C
Package 6	5.0°C
Package 7	4.3°C
Package 8	2.0°C
Package 9	3.0°C

Each temperature is the average of up to three cooler temperatures taken at receipt

General Comments

Sample JT5249-01: Ion Balance: NC = Not Calculable due to low ion sum [< 0.4 meq/L].

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER) Comments

Sample JT5181-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Sample JT5182-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Sample JT5183-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Sample JT5184-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Sample JT5185-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Sample JT5186-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Sample JT5187-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Sample JT5188-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Sample JT5189-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Sample JT5214-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Sample JT5215-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Sample JT5217-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Sample JT5218-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

Sample	JT5219-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample	JT5220-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample	JT5221-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample	JT5222-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample	JT5223-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample	JT5224-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample	JT5225-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample	JT5232-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample	JT5233-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample	JT5234-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample	JT5235-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample	JT5248-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample	JT5249-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample	JT5250-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample	JT5251-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample	JT5253-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample	JT5254-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample	JT5267-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample	JT5268-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample	JT5269-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample	JT5270-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Sample JT5271-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Sample JT5272-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Sample JT5273-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Sample JT5274-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Sample JT5275-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Sample JT5276-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Sample JT5277-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Sample JT5278-02 Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Sample JT5251, Elements by ICPMS Low Level (dissolved): Test repeated.

LOW LEVEL DISSOLVED METALS IN WATER (WATER) Comments

Sample JT5253-08 Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.

Sample JT5254-08 Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.

Sample JT5269, Elements by ICPMS Low Level (dissolved): Test repeated.
Sample JT5270-08 Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.

Sample JT5270, Elements by ICPMS Low Level (dissolved): Test repeated.
Sample JT5273, Elements by ICPMS Low Level (dissolved): Test repeated.
Sample JT5278-08 Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.

Sample JT5278, Elements by ICPMS Low Level (dissolved): Test repeated.
Sample JT5270-08 Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.

Sample JT5278-08 Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.

Sample JT5187, Elements by ICPMS Low Level (dissolved): Test repeated.
Sample JT5189, Elements by ICPMS Low Level (dissolved): Test repeated.
Sample JT5216, Elements by ICPMS Low Level (dissolved): Test repeated.

LOW LEVEL TOTAL METALS WITH CV HG (WATER) Comments

Sample JT5186-08 Elements by ICPMS Low Level (total): RDL raised due to sample matrix interference.

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

Sample JT5253-07 Elements by ICPMS Low Level (total): RDL raised due to sample matrix interference.

Sample JT5254-07 Elements by ICPMS Low Level (total): RDL raised due to sample matrix interference.

Sample JT5270-07 Elements by ICPMS Low Level (total): RDL raised due to sample matrix interference.

Sample JT5278-07 Elements by ICPMS Low Level (total): RDL raised due to sample matrix interference.

LL TOTAL METALS (DIGESTED) WITH CV HG Comments

Sample JT5276-07 Elements by ICPMS Digested LL (total): RDL raised due to sample matrix interference.

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7512865	Total Suspended Solids	2014/06/06			98	80 - 120	<1.0	mg/L		
7512882	Total Suspended Solids	2014/06/06			101	80 - 120	<1.0	mg/L		
7512889	Total Suspended Solids	2014/06/06			100	80 - 120	<1.0	mg/L		
7512898	Total Suspended Solids	2014/06/06			104	80 - 120	<1.0	mg/L		
7512924	True Colour	2014/06/05					<5.0	Col. Unit	NC(1, 2)	20
7512947	Total Dissolved Solids	2014/06/09	103	80 - 120	102	80 - 120	<10	mg/L	1.7(1)	20
7512968	Orthophosphate (P)	2014/06/05	91	80 - 120	92	80 - 120	<0.0010	mg/L	9.3	20
7512987	Fluoride (F)	2014/06/05	97	80 - 120	100	80 - 120	0.012, RDL=0.010	mg/L	NC	20
7513184	Total Aluminum (Al)	2014/06/06	100	80 - 120	104	80 - 120	<0.00050	mg/L	NC	20
7513184	Total Antimony (Sb)	2014/06/06	97	80 - 120	101	80 - 120	<0.000020	mg/L	NC	20
7513184	Total Arsenic (As)	2014/06/06	104	80 - 120	104	80 - 120	<0.000020	mg/L	NC	20
7513184	Total Barium (Ba)	2014/06/06	98	80 - 120	101	80 - 120	<0.000020	mg/L	NC	20
7513184	Total Beryllium (Be)	2014/06/06	101	80 - 120	99	80 - 120	<0.000010	mg/L	NC	20
7513184	Total Bismuth (Bi)	2014/06/06	95	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
7513184	Total Cadmium (Cd)	2014/06/06	105	80 - 120	102	80 - 120	<0.0000050	mg/L	NC	20
7513184	Total Chromium (Cr)	2014/06/06	100	80 - 120	100	80 - 120	<0.00010	mg/L	NC	20
7513184	Total Cobalt (Co)	2014/06/06	100	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
7513184	Total Copper (Cu)	2014/06/06	102	80 - 120	101	80 - 120	<0.000050	mg/L	NC	20
7513184	Total Iron (Fe)	2014/06/06	103	80 - 120	109	80 - 120	<0.0010	mg/L	NC	20
7513184	Total Lead (Pb)	2014/06/06	98	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
7513184	Total Lithium (Li)	2014/06/06	96	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20
7513184	Total Manganese (Mn)	2014/06/06	100	80 - 120	100	80 - 120	<0.000050	mg/L	NC	20
7513184	Total Molybdenum (Mo)	2014/06/06	98	80 - 120	103	80 - 120	<0.000050	mg/L	NC	20
7513184	Total Nickel (Ni)	2014/06/06	102	80 - 120	102	80 - 120	<0.000020	mg/L	15.9	20
7513184	Total Selenium (Se)	2014/06/06	109	80 - 120	110	80 - 120	<0.000040	mg/L	NC	20
7513184	Total Silver (Ag)	2014/06/06	101	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
7513184	Total Strontium (Sr)	2014/06/06	98	80 - 120	103	80 - 120	<0.000050	mg/L	NC	20
7513184	Total Thallium (Tl)	2014/06/06	99	80 - 120	102	80 - 120	<0.0000020	mg/L	NC	20
7513184	Total Tin (Sn)	2014/06/06	96	80 - 120	98	80 - 120	<0.00020	mg/L	NC	20
7513184	Total Titanium (Ti)	2014/06/06	100	80 - 120	110	80 - 120	<0.00050	mg/L	NC	20
7513184	Total Uranium (U)	2014/06/06	94	80 - 120	98	80 - 120	<0.0000020	mg/L	NC	20
7513184	Total Vanadium (V)	2014/06/06	101	80 - 120	103	80 - 120	<0.00020	mg/L	NC	20
7513184	Total Zinc (Zn)	2014/06/06	111	80 - 120	103	80 - 120	<0.00010	mg/L	NC	20
7513184	Total Boron (B)	2014/06/06					<0.050	mg/L	NC	20
7513184	Total Phosphorus (P)	2014/06/06					<0.0020	mg/L	NC	20
7513184	Total Silicon (Si)	2014/06/06					<0.10	mg/L	NC	20
7513184	Total Zirconium (Zr)	2014/06/06					<0.00010	mg/L	NC	20
7513270	Alkalinity (Total as CaCO3)	2014/06/06	NC	80 - 120	91	80 - 120	<0.50	mg/L	3.8	20
7513270	Alkalinity (PP as CaCO3)	2014/06/06					<0.50	mg/L	NC	20
7513270	Bicarbonate (HCO3)	2014/06/06					<0.50	mg/L	3.9	20

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QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7513270	Carbonate (CO3)	2014/06/06					<0.50	mg/L	NC	20
7513270	Hydroxide (OH)	2014/06/06					<0.50	mg/L	NC	20
7513275	Conductivity	2014/06/06			98	80 - 120	<1.0	uS/cm	0	20
7513276	Alkalinity (Total as CaCO3)	2014/06/06	103	80 - 120	91	80 - 120	<0.50	mg/L	0.1	20
7513276	Alkalinity (PP as CaCO3)	2014/06/06					<0.50	mg/L	NC	20
7513276	Bicarbonate (HCO3)	2014/06/06					<0.50	mg/L	0.1	20
7513276	Carbonate (CO3)	2014/06/06					<0.50	mg/L	NC	20
7513276	Hydroxide (OH)	2014/06/06					<0.50	mg/L	NC	20
7513278	Strong Acid Dissoc. Cyanide (CN)	2014/06/05	80	80 - 120	95	80 - 120	<0.00050	mg/L	NC	20
7513279	Bromide (Br)	2014/06/08	107	78 - 120	100	80 - 120	<0.010	mg/L	NC	20
7513282	Conductivity	2014/06/06			99	80 - 120	1.1, RDL=1.0	uS/cm	0	20
7513284	Alkalinity (Total as CaCO3)	2014/06/06	NC	80 - 120	93	80 - 120	<0.50	mg/L	3.7	20
7513284	Alkalinity (PP as CaCO3)	2014/06/06					<0.50	mg/L	NC	20
7513284	Bicarbonate (HCO3)	2014/06/06					<0.50	mg/L	3.7	20
7513284	Carbonate (CO3)	2014/06/06					<0.50	mg/L	NC	20
7513284	Hydroxide (OH)	2014/06/06					<0.50	mg/L	NC	20
7513285	Weak Acid Dissoc. Cyanide (CN)	2014/06/05	81	80 - 120	97	80 - 120	<0.00050	mg/L	NC	20
7513289	Conductivity	2014/06/06			100	80 - 120	1.2, RDL=1.0	uS/cm	0	20
7513292	Total Aluminum (Al)	2014/06/06	100	80 - 120	103	80 - 120	<0.00050	mg/L	4.5	20
7513292	Total Antimony (Sb)	2014/06/06	106	80 - 120	98	80 - 120	<0.000020	mg/L	4.1	20
7513292	Total Arsenic (As)	2014/06/06	106	80 - 120	101	80 - 120	<0.000020	mg/L	1.7	20
7513292	Total Barium (Ba)	2014/06/06	NC	80 - 120	102	80 - 120	<0.000020	mg/L	0.7	20
7513292	Total Beryllium (Be)	2014/06/06	102	80 - 120	97	80 - 120	<0.000010	mg/L	NC	20
7513292	Total Bismuth (Bi)	2014/06/06	97	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
7513292	Total Cadmium (Cd)	2014/06/06	104	80 - 120	100	80 - 120	<0.0000050	mg/L	1.5	20
7513292	Total Chromium (Cr)	2014/06/06	103	80 - 120	101	80 - 120	<0.00010	mg/L	NC	20
7513292	Total Cobalt (Co)	2014/06/06	100	80 - 120	103	80 - 120	<0.0000050	mg/L	8.7	20
7513292	Total Copper (Cu)	2014/06/06	98	80 - 120	100	80 - 120	<0.000050	mg/L	3.4	20
7513292	Total Iron (Fe)	2014/06/06	100	80 - 120	105	80 - 120	<0.0010	mg/L	9.3	20
7513292	Total Lead (Pb)	2014/06/06	99	80 - 120	98	80 - 120	<0.0000050	mg/L	NC	20
7513292	Total Lithium (Li)	2014/06/06	96	80 - 120	94	80 - 120	<0.00050	mg/L	NC	20
7513292	Total Manganese (Mn)	2014/06/06	NC	80 - 120	101	80 - 120	<0.000050	mg/L	1.5	20
7513292	Total Molybdenum (Mo)	2014/06/06	NC	80 - 120	96	80 - 120	<0.000050	mg/L	1.2	20
7513292	Total Nickel (Ni)	2014/06/06	99	80 - 120	104	80 - 120	<0.000020	mg/L	4.6	20
7513292	Total Selenium (Se)	2014/06/06	110	80 - 120	102	80 - 120	<0.000040	mg/L	1.9	20
7513292	Total Silver (Ag)	2014/06/06	101	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20
7513292	Total Strontium (Sr)	2014/06/06	NC	80 - 120	99	80 - 120	<0.000050	mg/L	0.03	20
7513292	Total Thallium (Tl)	2014/06/06	102	80 - 120	100	80 - 120	<0.0000020	mg/L	NC	20
7513292	Total Tin (Sn)	2014/06/06	98	80 - 120	98	80 - 120	<0.00020	mg/L	NC	20
7513292	Total Titanium (Ti)	2014/06/06	106	80 - 120	97	80 - 120	<0.00050	mg/L	NC	20

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7513292	Total Uranium (U)	2014/06/06	102	80 - 120	98	80 - 120	<0.0000020	mg/L	1.4	20
7513292	Total Vanadium (V)	2014/06/06	103	80 - 120	99	80 - 120	<0.00020	mg/L	NC	20
7513292	Total Zinc (Zn)	2014/06/06	NC	80 - 120	103	80 - 120	<0.00010	mg/L	5.6	20
7513292	Total Boron (B)	2014/06/06					<0.050	mg/L	NC	20
7513292	Total Phosphorus (P)	2014/06/06					<0.0020	mg/L	NC	20
7513292	Total Silicon (Si)	2014/06/06					<0.10	mg/L	3.9	20
7513292	Total Zirconium (Zr)	2014/06/06					<0.00010	mg/L	NC	20
7513303	Bromide (Br)	2014/06/08	100	78 - 120	97	80 - 120	<0.010	mg/L	NC	20
7513322	Bromide (Br)	2014/06/08	106	78 - 120	97	80 - 120	<0.010	mg/L	NC	20
7513465	Total Aluminum (Al)	2014/06/05	NC	80 - 120	101	80 - 120	<0.0030	mg/L	10.1	20
7513465	Total Antimony (Sb)	2014/06/05	94	80 - 120	97	80 - 120	<0.000050	mg/L	NC	20
7513465	Total Arsenic (As)	2014/06/05	97	80 - 120	102	80 - 120	<0.000020	mg/L	1.2	20
7513465	Total Barium (Ba)	2014/06/05	NC	80 - 120	97	80 - 120	<0.00010	mg/L	0.5	20
7513465	Total Beryllium (Be)	2014/06/05	92	80 - 120	94	80 - 120	<0.000010	mg/L	NC	20
7513465	Total Bismuth (Bi)	2014/06/05	94	80 - 120	98	80 - 120	<0.000020	mg/L	NC	20
7513465	Total Cadmium (Cd)	2014/06/05	89	80 - 120	96	80 - 120	<0.0000050	mg/L	0	20
7513465	Total Chromium (Cr)	2014/06/05	103	80 - 120	97	80 - 120	<0.00050	mg/L	NC	20
7513465	Total Cobalt (Co)	2014/06/05	95	80 - 120	96	80 - 120	<0.000010	mg/L	4.7	20
7513465	Total Copper (Cu)	2014/06/05	94	80 - 120	94	80 - 120	<0.00020	mg/L	7.6	20
7513465	Total Iron (Fe)	2014/06/05	NC	80 - 120	102	80 - 120	<0.0050	mg/L	3.3	20
7513465	Total Lead (Pb)	2014/06/05	92	80 - 120	96	80 - 120	<0.000050	mg/L	0.2	20
7513465	Total Lithium (Li)	2014/06/05	103	80 - 120	91	80 - 120	<0.00050	mg/L	4.3	20
7513465	Total Manganese (Mn)	2014/06/05	NC	80 - 120	97	80 - 120	<0.00010	mg/L	0.02	20
7513465	Total Molybdenum (Mo)	2014/06/05	NC	80 - 120	93	80 - 120	<0.000050	mg/L	1.0	20
7513465	Total Nickel (Ni)	2014/06/05	97	80 - 120	98	80 - 120	<0.00010	mg/L	2.7	20
7513465	Total Selenium (Se)	2014/06/05	95	80 - 120	100	80 - 120	<0.000040	mg/L	1.2	20
7513465	Total Silver (Ag)	2014/06/05	97	80 - 120	91	80 - 120	<0.0000050	mg/L	NC	20
7513465	Total Strontium (Sr)	2014/06/05	NC	80 - 120	94	80 - 120	<0.000050	mg/L	2.5	20
7513465	Total Thallium (Tl)	2014/06/05	98	80 - 120	98	80 - 120	<0.0000020	mg/L	6.1	20
7513465	Total Tin (Sn)	2014/06/05	97	80 - 120	93	80 - 120	<0.00020	mg/L	NC	20
7513465	Total Titanium (Ti)	2014/06/05	244 (3)	80 - 120	90	80 - 120	<0.0050	mg/L		
7513465	Total Uranium (U)	2014/06/05	95	80 - 120	94	80 - 120	<0.0000050	mg/L	2.2	20
7513465	Total Vanadium (V)	2014/06/05	115	80 - 120	95	80 - 120	<0.00050	mg/L	NC	20
7513465	Total Zinc (Zn)	2014/06/05	NC	80 - 120	101	80 - 120	<0.0010	mg/L	0.3	20
7513465	Total Boron (B)	2014/06/05					<0.050	mg/L	NC	20
7513465	Total Phosphorus (P)	2014/06/05					<0.010	mg/L		
7513465	Total Silicon (Si)	2014/06/05					<0.10	mg/L		
7513465	Total Zirconium (Zr)	2014/06/05					<0.00010	mg/L		
7513483	Total Aluminum (Al)	2014/06/06	NC	80 - 120	98	80 - 120	<0.00050	mg/L	0.4	20
7513483	Total Antimony (Sb)	2014/06/06	NC	80 - 120	96	80 - 120	<0.000020	mg/L	0.9	20

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7513483	Total Arsenic (As)	2014/06/06	100	80 - 120	99	80 - 120	<0.000020	mg/L	1.1	20
7513483	Total Barium (Ba)	2014/06/06	NC	80 - 120	100	80 - 120	<0.000020	mg/L	2.4	20
7513483	Total Beryllium (Be)	2014/06/06	NC	80 - 120	90	80 - 120	<0.000010	mg/L	0.6	20
7513483	Total Bismuth (Bi)	2014/06/06	NC	80 - 120	100	80 - 120	<0.0000050	mg/L	2.3	20
7513483	Total Cadmium (Cd)	2014/06/06	100	80 - 120	97	80 - 120	<0.0000050	mg/L	1	20
7513483	Total Chromium (Cr)	2014/06/06	NC	80 - 120	99	80 - 120	<0.00010	mg/L	0.8	20
7513483	Total Cobalt (Co)	2014/06/06	NC	80 - 120	99	80 - 120	<0.0000050	mg/L	1.7	20
7513483	Total Copper (Cu)	2014/06/06	NC	80 - 120	98	80 - 120	<0.000050	mg/L	4.5	20
7513483	Total Iron (Fe)	2014/06/06	NC	80 - 120	102	80 - 120	<0.0010	mg/L	1.6	20
7513483	Total Lead (Pb)	2014/06/06	NC	80 - 120	96	80 - 120	<0.0000050	mg/L	0.2	20
7513483	Total Lithium (Li)	2014/06/06	NC	80 - 120	85	80 - 120	<0.00050	mg/L	0.2	20
7513483	Total Manganese (Mn)	2014/06/06	NC	80 - 120	98	80 - 120	<0.000050	mg/L	1.1	20
7513483	Total Molybdenum (Mo)	2014/06/06	NC	80 - 120	96	80 - 120	<0.000050	mg/L	2.0	20
7513483	Total Nickel (Ni)	2014/06/06	NC	80 - 120	100	80 - 120	<0.000020	mg/L	1.1	20
7513483	Total Selenium (Se)	2014/06/06	NC	80 - 120	99	80 - 120	<0.000040	mg/L	3.1	20
7513483	Total Silver (Ag)	2014/06/06	NC	80 - 120	95	80 - 120	<0.0000050	mg/L	3.4	20
7513483	Total Strontium (Sr)	2014/06/06	NC	80 - 120	96	80 - 120	<0.000050	mg/L	0.4	20
7513483	Total Thallium (Tl)	2014/06/06	NC	80 - 120	97	80 - 120	<0.0000020	mg/L	1.0	20
7513483	Total Tin (Sn)	2014/06/06	94	80 - 120	95	80 - 120	<0.00020	mg/L	NC	20
7513483	Total Titanium (Ti)	2014/06/06	109	80 - 120	98	80 - 120	<0.00050	mg/L		
7513483	Total Uranium (U)	2014/06/06	NC	80 - 120	95	80 - 120	<0.0000020	mg/L	1.3	20
7513483	Total Vanadium (V)	2014/06/06	NC	80 - 120	96	80 - 120	<0.00020	mg/L	1.9	20
7513483	Total Zinc (Zn)	2014/06/06	NC	80 - 120	96	80 - 120	<0.00010	mg/L	1.4	20
7513483	Total Boron (B)	2014/06/06					<0.050	mg/L	NC	20
7513483	Total Phosphorus (P)	2014/06/06					<0.0020	mg/L		
7513483	Total Silicon (Si)	2014/06/06					<0.10	mg/L		
7513483	Total Zirconium (Zr)	2014/06/06					<0.00010	mg/L		
7513626	Total Aluminum (Al)	2014/06/08	106	80 - 120	104	80 - 120	0.00092, RDL=0.00050	mg/L	8.0	20
7513626	Total Antimony (Sb)	2014/06/08	101	80 - 120	106	80 - 120	<0.000020	mg/L	NC	20
7513626	Total Arsenic (As)	2014/06/08	103	80 - 120	101	80 - 120	<0.000020	mg/L	5.3	20
7513626	Total Barium (Ba)	2014/06/08	NC	80 - 120	102	80 - 120	<0.000020	mg/L	0.5	20
7513626	Total Beryllium (Be)	2014/06/08	103	80 - 120	101	80 - 120	<0.000010	mg/L	NC	20
7513626	Total Bismuth (Bi)	2014/06/08	95	80 - 120	98	80 - 120	<0.0000050	mg/L	NC	20
7513626	Total Cadmium (Cd)	2014/06/08	102	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
7513626	Total Chromium (Cr)	2014/06/08	101	80 - 120	101	80 - 120	<0.00010	mg/L	NC	20
7513626	Total Cobalt (Co)	2014/06/08	98	80 - 120	101	80 - 120	<0.0000050	mg/L	15.7	20
7513626	Total Copper (Cu)	2014/06/08	100	80 - 120	101	80 - 120	<0.000050	mg/L	NC	20
7513626	Total Iron (Fe)	2014/06/08	NC	80 - 120	108	80 - 120	<0.0010	mg/L	1.4	20
7513626	Total Lead (Pb)	2014/06/08	99	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
7513626	Total Lithium (Li)	2014/06/08	99	80 - 120	94	80 - 120	<0.00050	mg/L	3.7	20

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QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7513626	Total Manganese (Mn)	2014/06/08	NC	80 - 120	101	80 - 120	<0.000050	mg/L	0	20
7513626	Total Molybdenum (Mo)	2014/06/08	97	80 - 120	95	80 - 120	<0.000050	mg/L	NC	20
7513626	Total Nickel (Ni)	2014/06/08	98	80 - 120	102	80 - 120	<0.000020	mg/L	2.2	20
7513626	Total Selenium (Se)	2014/06/08	106	80 - 120	105	80 - 120	<0.000040	mg/L	NC	20
7513626	Total Silver (Ag)	2014/06/08	84	80 - 120	97	80 - 120	0.0000050, RDL=0.0000050	mg/L	NC	20
7513626	Total Strontium (Sr)	2014/06/08	NC	80 - 120	97	80 - 120	<0.000050	mg/L	2.2	20
7513626	Total Thallium (Tl)	2014/06/08	103	80 - 120	102	80 - 120	<0.0000020	mg/L	NC	20
7513626	Total Tin (Sn)	2014/06/08	94	80 - 120	99	80 - 120	<0.00020	mg/L	NC	20
7513626	Total Titanium (Ti)	2014/06/08	100	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20
7513626	Total Uranium (U)	2014/06/08	97	80 - 120	95	80 - 120	<0.0000020	mg/L	NC	20
7513626	Total Vanadium (V)	2014/06/08	104	80 - 120	101	80 - 120	<0.00020	mg/L	NC	20
7513626	Total Zinc (Zn)	2014/06/08	104	80 - 120	105	80 - 120	0.00014, RDL=0.00010	mg/L	1.5	20
7513626	Total Boron (B)	2014/06/08					<0.050	mg/L	NC	20
7513626	Total Phosphorus (P)	2014/06/08					<0.0020	mg/L		
7513626	Total Silicon (Si)	2014/06/08					<0.10	mg/L	1.2	20
7513626	Total Zirconium (Zr)	2014/06/08					<0.00010	mg/L	NC	20
7513938	Nitrate plus Nitrite (N)	2014/06/05	97	80 - 120	103	80 - 120	<0.0020	mg/L	3.9	25
7513942	Nitrite (N)	2014/06/05	94	80 - 120	100	80 - 120	<0.0020	mg/L	NC	25
7513946	Dissolved Chloride (Cl)	2014/06/05	97	80 - 120	101	80 - 120	<0.50	mg/L	7.5	20
7513952	Dissolved Sulphate (SO4)	2014/06/05	NC	80 - 120	96	80 - 120	<0.50	mg/L	3.3	20
7513959	Total Ammonia (N)	2014/06/05	97	80 - 120	97	80 - 120	<0.0050	mg/L	0.3	20
7513975	Total Ammonia (N)	2014/06/05	96	80 - 120	97	80 - 120	<0.0050	mg/L	NC	20
7514708	Total Dissolved Solids	2014/06/09	NC	80 - 120	96	80 - 120	18, RDL=10	mg/L	5.4	20
7514743	Total Dissolved Solids	2014/06/09			112	80 - 120	<10	mg/L	1.5	20
7515026	Strong Acid Dissoc. Cyanide (CN)	2014/06/06	95	80 - 120	96	80 - 120	0.00053, RDL=0.00050	mg/L	NC	20
7515032	Strong Acid Dissoc. Cyanide (CN)	2014/06/09	99	80 - 120	99	80 - 120	0.00055, RDL=0.00050	mg/L	NC	20
7515044	Weak Acid Dissoc. Cyanide (CN)	2014/06/06	97	80 - 120	97	80 - 120	<0.00050	mg/L	NC	20
7515054	Weak Acid Dissoc. Cyanide (CN)	2014/06/09	99	80 - 120	99	80 - 120	0.00059, RDL=0.00050	mg/L	NC	20
7515122	Dissolved Aluminum (Al)	2014/06/07	103	80 - 120	106	80 - 120	<0.00050	mg/L	5.1	20
7515122	Dissolved Antimony (Sb)	2014/06/07	103	80 - 120	102	80 - 120	<0.000020	mg/L	NC	20
7515122	Dissolved Arsenic (As)	2014/06/07	105	80 - 120	104	80 - 120	<0.000020	mg/L	1.9	20
7515122	Dissolved Barium (Ba)	2014/06/07	NC	80 - 120	95	80 - 120	<0.000020	mg/L	0.04	20
7515122	Dissolved Beryllium (Be)	2014/06/07	103	80 - 120	103	80 - 120	<0.000010	mg/L	NC	20
7515122	Dissolved Bismuth (Bi)	2014/06/07	90	80 - 120	103	80 - 120	<0.0000050	mg/L	NC	20
7515122	Dissolved Cadmium (Cd)	2014/06/07	103	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
7515122	Dissolved Chromium (Cr)	2014/06/07	99	80 - 120	103	80 - 120	<0.00010	mg/L	NC	20
7515122	Dissolved Cobalt (Co)	2014/06/07	98	80 - 120	103	80 - 120	<0.0000050	mg/L	10.8	20
7515122	Dissolved Copper (Cu)	2014/06/07	99	80 - 120	101	80 - 120	<0.000050	mg/L	NC	20
7515122	Dissolved Iron (Fe)	2014/06/07	NC	80 - 120	106	80 - 120	<0.0010	mg/L	2.6	20
7515122	Dissolved Lead (Pb)	2014/06/07	93	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20

Maxxam Job #: B445855
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ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7515122	Dissolved Lithium (Li)	2014/06/07	96	80 - 120	98	80 - 120	<0.00050	mg/L	1.1	20
7515122	Dissolved Manganese (Mn)	2014/06/07	95	80 - 120	106	80 - 120	<0.000050	mg/L	0.6	20
7515122	Dissolved Mercury (Hg)	2014/06/07	80	80 - 120	102	80 - 120	<0.000010	mg/L		
7515122	Dissolved Molybdenum (Mo)	2014/06/07	102	80 - 120	104	80 - 120	<0.000050	mg/L	NC	20
7515122	Dissolved Nickel (Ni)	2014/06/07	99	80 - 120	104	80 - 120	<0.000020	mg/L	0.7	20
7515122	Dissolved Selenium (Se)	2014/06/07	112	80 - 120	103	80 - 120	<0.000040	mg/L	NC	20
7515122	Dissolved Silver (Ag)	2014/06/07	97	80 - 120	99	80 - 120	0.0000050, RDL=0.0000050	mg/L	NC	20
7515122	Dissolved Strontium (Sr)	2014/06/07	NC	80 - 120	103	80 - 120	<0.000050	mg/L	0.4	20
7515122	Dissolved Thallium (Tl)	2014/06/07	98	80 - 120	104	80 - 120	<0.0000020	mg/L	NC	20
7515122	Dissolved Tin (Sn)	2014/06/07	88	80 - 120	99	80 - 120	<0.00020	mg/L	NC	20
7515122	Dissolved Titanium (Ti)	2014/06/07	108	80 - 120	106	80 - 120	<0.00050	mg/L	NC	20
7515122	Dissolved Uranium (U)	2014/06/07	94	80 - 120	96	80 - 120	0.0000020, RDL=0.0000020	mg/L	NC	20
7515122	Dissolved Vanadium (V)	2014/06/07	101	80 - 120	101	80 - 120	<0.00020	mg/L	NC	20
7515122	Dissolved Zinc (Zn)	2014/06/07	80	80 - 120	105	80 - 120	<0.00010	mg/L		
7515122	Dissolved Boron (B)	2014/06/07					<0.050	mg/L	NC	20
7515122	Dissolved Phosphorus (P)	2014/06/07					<0.0020	mg/L		
7515122	Dissolved Silicon (Si)	2014/06/07					<0.10	mg/L	1.4	20
7515122	Dissolved Zirconium (Zr)	2014/06/07					<0.00010	mg/L	NC	20
7515195	Dissolved Aluminum (Al)	2014/06/07	NC	80 - 120	105	80 - 120	<0.00050	mg/L	13.0	20
7515195	Dissolved Antimony (Sb)	2014/06/07	NC	80 - 120	101	80 - 120	<0.000020	mg/L	13.3	20
7515195	Dissolved Arsenic (As)	2014/06/07	104	80 - 120	105	80 - 120	<0.000020	mg/L	1.4	20
7515195	Dissolved Barium (Ba)	2014/06/07	NC	80 - 120	98	80 - 120	<0.000020	mg/L	13.2	20
7515195	Dissolved Beryllium (Be)	2014/06/07	101	80 - 120	103	80 - 120	<0.000010	mg/L	10.6	20
7515195	Dissolved Bismuth (Bi)	2014/06/07	97	80 - 120	103	80 - 120	<0.0000050	mg/L	NC	20
7515195	Dissolved Cadmium (Cd)	2014/06/07	99	80 - 120	103	80 - 120	<0.0000050	mg/L	11.8	20
7515195	Dissolved Chromium (Cr)	2014/06/07	90	80 - 120	103	80 - 120	<0.00010	mg/L		
7515195	Dissolved Cobalt (Co)	2014/06/07	NC	80 - 120	102	80 - 120	<0.0000050	mg/L	5.7	20
7515195	Dissolved Copper (Cu)	2014/06/07	NC	80 - 120	100	80 - 120	<0.000050	mg/L	1.1	20
7515195	Dissolved Iron (Fe)	2014/06/07	NC	80 - 120	106	80 - 120	<0.0010	mg/L	14.8	20
7515195	Dissolved Lead (Pb)	2014/06/07	96	80 - 120	97	80 - 120	<0.0000050	mg/L	1.6	20
7515195	Dissolved Lithium (Li)	2014/06/07	100	80 - 120	100	80 - 120	<0.00050	mg/L	NC	20
7515195	Dissolved Manganese (Mn)	2014/06/07	NC	80 - 120	103	80 - 120	<0.000050	mg/L	8.1	20
7515195	Dissolved Mercury (Hg)	2014/06/07	99	80 - 120	98	80 - 120	<0.000010	mg/L		
7515195	Dissolved Molybdenum (Mo)	2014/06/07	107	80 - 120	108	80 - 120	<0.000050	mg/L	NC	20
7515195	Dissolved Nickel (Ni)	2014/06/07	NC	80 - 120	103	80 - 120	<0.000020	mg/L	5.1	20
7515195	Dissolved Selenium (Se)	2014/06/07	100	80 - 120	105	80 - 120	<0.000040	mg/L	1.1	20
7515195	Dissolved Silver (Ag)	2014/06/07	102	80 - 120	103	80 - 120	<0.0000050	mg/L	NC	20
7515195	Dissolved Strontium (Sr)	2014/06/07	NC	80 - 120	106	80 - 120	<0.000050	mg/L	10.1	20
7515195	Dissolved Thallium (Tl)	2014/06/07	99	80 - 120	100	80 - 120	<0.0000020	mg/L	14.5	20
7515195	Dissolved Tin (Sn)	2014/06/07	96	80 - 120	99	80 - 120	<0.00020	mg/L	NC	20

Maxxam Job #: B445855
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ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7515195	Dissolved Titanium (Ti)	2014/06/07	112	80 - 120	93	80 - 120	<0.00050	mg/L	NC	20
7515195	Dissolved Uranium (U)	2014/06/07	96	80 - 120	96	80 - 120	<0.0000020	mg/L	11.5	20
7515195	Dissolved Vanadium (V)	2014/06/07	100	80 - 120	101	80 - 120	<0.00020	mg/L	NC	20
7515195	Dissolved Zinc (Zn)	2014/06/07	NC	80 - 120	104	80 - 120	<0.00010	mg/L	2.3	20
7515195	Dissolved Boron (B)	2014/06/07					<0.050	mg/L	NC	20
7515195	Dissolved Phosphorus (P)	2014/06/07					<0.0020	mg/L	NC	20
7515195	Dissolved Silicon (Si)	2014/06/07					<0.10	mg/L	2.0	20
7515195	Dissolved Zirconium (Zr)	2014/06/07					<0.00010	mg/L	NC	20
7515212	Dissolved Aluminum (Al)	2014/06/07	NC	80 - 120	106	80 - 120	<0.00050	mg/L	3.9	20
7515212	Dissolved Antimony (Sb)	2014/06/07	94	80 - 120	97	80 - 120	<0.000020	mg/L	NC	20
7515212	Dissolved Arsenic (As)	2014/06/07	98	80 - 120	102	80 - 120	<0.000020	mg/L	8.0	20
7515212	Dissolved Barium (Ba)	2014/06/07	NC	80 - 120	97	80 - 120	<0.000020	mg/L	3.0	20
7515212	Dissolved Beryllium (Be)	2014/06/07	94	80 - 120	102	80 - 120	<0.000010	mg/L	13.1	20
7515212	Dissolved Bismuth (Bi)	2014/06/07	93	80 - 120	102	80 - 120	<0.0000050	mg/L	NC	20
7515212	Dissolved Cadmium (Cd)	2014/06/07	NC	80 - 120	99	80 - 120	<0.0000050	mg/L	1.7	20
7515212	Dissolved Chromium (Cr)	2014/06/07	96	80 - 120	100	80 - 120	<0.00010	mg/L	NC	20
7515212	Dissolved Cobalt (Co)	2014/06/07	91	80 - 120	101	80 - 120	<0.0000050	mg/L	3.0	20
7515212	Dissolved Copper (Cu)	2014/06/07	88	80 - 120	101	80 - 120	<0.000050	mg/L	2.3	20
7515212	Dissolved Iron (Fe)	2014/06/07	NC	80 - 120	107	80 - 120	<0.0010	mg/L	0.3	20
7515212	Dissolved Lead (Pb)	2014/06/07	90	80 - 120	95	80 - 120	<0.0000050	mg/L	NC	20
7515212	Dissolved Lithium (Li)	2014/06/07	NC	80 - 120	97	80 - 120	<0.00050	mg/L	1.7	20
7515212	Dissolved Manganese (Mn)	2014/06/07	NC	80 - 120	103	80 - 120	<0.000050	mg/L	0.5	20
7515212	Dissolved Mercury (Hg)	2014/06/07	95	80 - 120	101	80 - 120	<0.000010	mg/L	NC	20
7515212	Dissolved Molybdenum (Mo)	2014/06/07	110	80 - 120	98	80 - 120	<0.000050	mg/L	NC	20
7515212	Dissolved Nickel (Ni)	2014/06/07	NC	80 - 120	102	80 - 120	<0.000020	mg/L	0.03	20
7515212	Dissolved Selenium (Se)	2014/06/07	NC	80 - 120	105	80 - 120	<0.000040	mg/L	1.9	20
7515212	Dissolved Silver (Ag)	2014/06/07	93	80 - 120	98	80 - 120	<0.0000050	mg/L	NC	20
7515212	Dissolved Strontium (Sr)	2014/06/07	NC	80 - 120	102	80 - 120	<0.000050	mg/L	2.0	20
7515212	Dissolved Thallium (Tl)	2014/06/07	95	80 - 120	97	80 - 120	<0.0000020	mg/L	4.4	20
7515212	Dissolved Tin (Sn)	2014/06/07	95	80 - 120	98	80 - 120	<0.00020	mg/L	NC	20
7515212	Dissolved Titanium (Ti)	2014/06/07	100	80 - 120	98	80 - 120	<0.00050	mg/L	NC	20
7515212	Dissolved Uranium (U)	2014/06/07	95	80 - 120	94	80 - 120	<0.0000020	mg/L	4.6	20
7515212	Dissolved Vanadium (V)	2014/06/07	96	80 - 120	100	80 - 120	<0.00020	mg/L	NC	20
7515212	Dissolved Zinc (Zn)	2014/06/07	NC	80 - 120	106	80 - 120	<0.00010	mg/L	0.8	20
7515212	Dissolved Boron (B)	2014/06/07					<0.050	mg/L	NC	20
7515212	Dissolved Phosphorus (P)	2014/06/07					<0.0020	mg/L	10.1	20
7515212	Dissolved Silicon (Si)	2014/06/07					<0.10	mg/L	5.9	20
7515212	Dissolved Zirconium (Zr)	2014/06/07					<0.00010	mg/L	NC	20
7516032	Dissolved Mercury (Hg)	2014/06/07	97	80 - 120	99	80 - 120	<0.0000020	mg/L	NC	20
7516196	Dissolved Organic Carbon (C)	2014/06/07	NC	80 - 120	107	80 - 120	<0.50	mg/L	7.8	20

Maxxam Job #: B445855
Report Date: 2014/06/11

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01

Sampler Initials: AB

QUALITY ASSURANCE REPORT

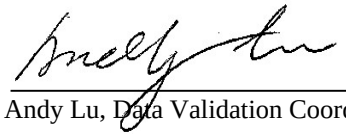
			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7516210	Total Mercury (Hg)	2014/06/09	84	80 - 120	95	80 - 120	<0.0000020	mg/L	NC	20
7516212	Dissolved Mercury (Hg)	2014/06/09	87	80 - 120	84	80 - 120	<0.0000020	mg/L	NC	20
7517440	Total Mercury (Hg)	2014/06/09	94	80 - 120	89	80 - 120	<0.0000020	mg/L	1.3	20
7517461	Total Mercury (Hg)	2014/06/09	90	80 - 120	117	80 - 120	<0.0000020	mg/L	NC	20
7517536	Dissolved Arsenic (As)	2014/06/09			102	80 - 120	<0.000020	mg/L		
7517536	Dissolved Chromium (Cr)	2014/06/09			99	80 - 120	<0.00010	mg/L		
7517536	Dissolved Iron (Fe)	2014/06/09			109	80 - 120	<0.0010	mg/L		
7517536	Dissolved Molybdenum (Mo)	2014/06/09			101	80 - 120	<0.000050	mg/L		
7517536	Dissolved Thallium (Tl)	2014/06/09			100	80 - 120	<0.0000020	mg/L		
7517876	Strong Acid Dissoc. Cyanide (CN)	2014/06/09	NC	80 - 120	97	80 - 120	<0.00050	mg/L	1.4	20
7517878	Weak Acid Dissoc. Cyanide (CN)	2014/06/09	95	80 - 120	96	80 - 120	<0.00050	mg/L	0.4	20
7518300	Dissolved Sulphate (SO4)	2014/06/09			100	80 - 120	0.51, RDL=0.50	mg/L		
7518304	Alkalinity (Total as CaCO3)	2014/06/10	NC	80 - 120	96	80 - 120	0.98, RDL=0.50	mg/L	0.2	20
7518304	Alkalinity (PP as CaCO3)	2014/06/10					<0.50	mg/L	NC	20
7518304	Bicarbonate (HCO3)	2014/06/10					1.20, RDL=0.50	mg/L	0.2	20
7518304	Carbonate (CO3)	2014/06/10					<0.50	mg/L	NC	20
7518304	Hydroxide (OH)	2014/06/10					<0.50	mg/L	NC	20
7519002	Dissolved Mercury (Hg)	2014/06/10	104	80 - 120	95	80 - 120	<0.0000020	mg/L	NC	20
7519030	Orthophosphate (P)	2014/06/10	109	80 - 120	90	80 - 120	<0.0010	mg/L	5.2	20
7519116	Dissolved Chromium (Cr)	2014/10/06			101	80 - 120	<0.00010	mg/L		
7519627	Nitrate plus Nitrite (N)	2014/06/10			102	80 - 120	<0.0020	mg/L		
7519628	Nitrite (N)	2014/06/10			101	80 - 120	<0.0020	mg/L		

N/A = Not Applicable
RDL = Reportable Detection Limit
RPD = Relative Percent Difference
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).
NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).
(1) - Sample arrived to laboratory past recommended hold time.
(2) - Sample analysed past recommended hold time. Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.
(3) - Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Validation Signature Page

Maxxam Job #: B445855

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Andy Lu, Data Validation Coordinator

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Surface Compliance

Maxxam Analytics Inc
4606 Canada Way
Burnaby, BC V5G 1K5
www.maxxam.ca
Phone: (604) 734-7276
Fax.: (604) 630-0110
Toll-Free: 1-800-665-8566

CHAIN-OF CUSTODY RECORD AND ANALYSIS REQUEST

LAB USE ONLY
MAXXAM JOB #: B445855

ANALYSIS REQUEST

LAB USE ONLY: 08393623

COMPANY NAME: #3429 ACCESS CONSULTING GROUP	CLIENT PROJECT NO.: GPBC-12-01
COMPANY ADDRESS: #3 Calcite Business Centre, 151 Industrial Road, Whitehorse, YT, Y1A 2V3	TEL.: (867)668-6463 E-MAIL: david@accessconsulting.ca, scott@accessconsulting.ca, abier@accessconsulting.ca, chenry@accessconsulting.ca, mducharme@accessconsulting.ca FAX: (867)667-6680
SAMPLER NAME (PRINT): A. BIER, W. KAPANIUK	PROJECT MANAGER:
LABORATORY CONTACT: Lanoy Luangkhamdeng	

	FIELD SAMPLE ID	MAXXAM LAB # (LAB USE ONLY)	MATRIX: GROUNDWATER	SURFACE WATER	DRINKING WATER	SOIL	OTHER	SAMPLING: DATE DD/MM/YY	TIME	# CONTAINERS	Total Metals, Hardness (Low-level)	Dissolved Metals, Hardness (Low-level)	Routine (Alk, EC, pH, [redacted])	Cl, F,Br, OrthoPhos, NO2, NO3, NH4, SO4, col.	TDS/TSS (Low-level)	Cyanide (SAD(total) & WAD)	Ammonina-N
1	BC-17	JT5181		X				27/05/14	17:50	11	x	x	x	x	x	x	x
2	BC-37	JT5182		x				29/05/14	0910	11	x	x	x	x	x	x	x
3	BC-53	JT5183		x				29/05/14	0952	11	x	x	x	x	x	x	x
4	BC-39	JT5184		x				29/05/14	1154	11	x	x	x	x	x	x	x
5	BC-10	JT5185		x				28/05/14	1054	11	x	x	x	x	x	x	x
6	BC-12	JT5186		x				01/06/14	1323	11	x	x	x	x	x	x	x
7	BC-15	JT5187		x				01/06/14	1702	11	x	x	x	x	x	x	x
8	BC-5/W	JT5188		x				01/06/14	1803	11	x	x	x	x	x	x	x
9	Sample C	JT5189		x						11	x	x	x	x	x	x	x
10				x						11	x	x	x	x	x	x	x
11				x						11	x	x	x	x	x	x	x
12				x						11	x	x	x	x	x	x	x

TAT (Turnaround Time)
LESS THAN 5 DAY TAT MUST HAVE PRIOR APPROVAL
* Some exceptions apply - please contact laboratory

STANDARD	5 BUSINESS DAYS
RUSH	3 BUSINESS DAYS
RUSH	2 BUSINESS DAYS
URGENT	1 BUSINESS DAY
OTHER BUSINESS DAYS	

CUSTODY RECORD

PO NUMBER OR QUOTE NUMBER:

SPECIAL DETECTION LIMITS / CONTAMINANT TYPE:

ACCOUNTING CONTACT: Kim Borden-Hall

SPECIAL REPORTING OR BILLING INSTRUCTIONS:

CCME
CSR
AB TIER 1
OTHER

JARS USED:

LAB USE ONLY
ARRIVAL TEMPERATURE °C: 6, 4.5, 5.5, 5.1, 4.4, 4
4, 1.1, 6.5, 5.1, 4.5, 6
4, 6, 6.1, 2.2, 2.1, 2.3, 4
DUE DATE:
LOG IN CHECK:

RELINQUISHED BY SAMPLER: A. BIER	DATE: DD/MM/YY 02/06/14	TIME: 2000h.	RECEIVED BY: AIR NORTH CARGO
RELINQUISHED BY:	DATE: DD/MM/YY	TIME:	RECEIVED BY: DARIA IVANOVA
RELINQUISHED BY:	DATE: DD/MM/YY	TIME:	RECEIVED BY LABORATORY:

COCFORM - BC - 20070322

2014/06/04
10:35

SURFACE BASELINE

Maxxam Analytics Inc
4606 Canada Way
Burnaby, BC V5G 1K5
www.maxxam.ca
Phone: (604) 734- 7276
Fax.: (604) 630-0110
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CHAIN-OF CUSTODY RECORD AND ANALYSIS REQUEST

LAB USE ONLY
MAXXAM JOB # B445855

ANALYSIS REQUEST

LAB USE ONLY

08393624

COMPANY NAME:	#3429 ACCESS CONSULTING GROUP
COMPANY ADDRESS:	#3 Calcite Business Centre 151 Industrial Road Whitehorse, YT Y1A 2V3
CLIENT PROJECT NO.:	GPBC-12-01
TEL.:	(867)668-6463
E-MAIL:	david@accessconsulting.ca, scott@accessconsulting.ca abier@accessconsulting.ca, chenry@accessconsulting.ca mducharme@accessconsulting.ca
FAX:	(867)667-6680
SAMPLER NAME (PRINT):	A. BIER, W. KAPANIUK
PROJECT MANAGER:	
LABORATORY CONTACT:	Lanoy Luangkhamdeng

	FIELD SAMPLE ID	MAXXAM LAB # (LAB USE ONLY)	MATRIX: GROUNDWATER	SURFACE WATER	DRINKING WATER	SOIL	OTHER	SAMPLING: DATE DD/MM/YY	TIME	# CONTAINERS	Total Metals, Hardness (Low-level)	Dissolved Metals, Hardness (Low-level)	Routine (Alk, EC, pH, [illegible])	Cl, F,Br, OrthoPhos, NO2, NO3, NH4, SO4, col.	TDS/TSS (Low-level)	Cyanide (SAD/total) & WAD)	DOC	Ammonina-N
1	BC-04	JT5214		X				27/05/14	16:49	12	X	X	X	X	X	X	X	X
2	BC-41	JT5215		X				27/05/14	14:39	12	X	X	X	X	X	X	X	X
3	BC-01	JT5216		X				29/05/14	1020	12	X	X	X	X	X	X	X	X
4	BC-31	JT5217		X				29/05/14	1311	12	X	X	X	X	X	X	X	X
5	BC-36	JT5218		X				29/05/14	1412	12	X	X	X	X	X	X	X	X
6	BC-32	JT5219		X				29/05/14	1527	12	X	X	X	X	X	X	X	X
7	BC-35R	JT5220		X				29/05/14	1613	12	X	X	X	X	X	X	X	X
8	BC-35	JT5221		X				29/05/14	1652	12	X	X	X	X	X	X	X	X
9	BC-38	JT5222		X				29/05/14	1237	12	X	X	X	X	X	X	X	X
10	BC-06	JT5227		X				29/05/14	1755	12	X	X	X	X	X	X	X	X
11	BC-03	JT5224		X				30/05/14	1649	12	X	X	X	X	X	X	X	X
12	BC-02	JT5225		X				31/05/14	1005	12	X	X	X	X	X	X	X	X

TAT (Turnaround Time)
LESS THAN 5 DAY TAT MUST HAVE PRIOR APPROVAL
* Some exceptions apply - please contact laboratory
STANDARD 5 BUSINESS DAYS
RUSH 3 BUSINESS DAYS
RUSH 2 BUSINESS DAYS
URGENT 1 BUSINESS DAY
OTHER BUSINESS DAYS

CUSTODY RECORD

PO NUMBER OR QUOTE NUMBER:

SPECIAL DETECTION LIMITS / CONTAMINANT TYPE:

CCME
CSR
AB TIER 1
OTHER

LAB USE ONLY
ARRIVAL TEMPERATURE °C: 6,4,5/5.5,5/4,4,4 4,3,1/6,5,5/4,5,6 1,6,6/2,2,2/2,3,4
DUE DATE:
LOG IN CHECK:

ACCOUNTING CONTACT: Kim Borden-Hall

SPECIAL REPORTING OR BILLING INSTRUCTIONS:

JARS USED:

	DATE: DD/MM/YY	TIME:	RECEIVED BY:
RELINQUISHED BY SAMPLER: A. BIER	02/06/14	2000 h.	AIR NORTH CARGO
RELINQUISHED BY:			RECEIVED BY: DARIA IVANOVA
RELINQUISHED BY:			RECEIVED BY LABORATORY:

COCFORM - BC - 20070922

2014/06/04
10:35

SURFACE BASELINE

Maxxam Analytics Inc
4606 Canada Way
Burnaby, BC V5G 1K5
www.maxxam.ca
Phone: (604) 734- 7276
Fax.: (604) 630-0110
Toll-Free: 1-800-665-8566

CHAIN-OF CUSTODY RECORD AND ANALYSIS REQUEST

LAB USE ONLY
MAXXAM JOB # B445855

ANALYSIS REQUEST

LAB USE ONLY


08393625

COMPANY NAME:	#3429 ACCESS CONSULTING GROUP
COMPANY ADDRESS:	#3 Calcite Business Centre 151 Industrial Road Whitehorse, YT Y1A 2V3
CLIENT PROJECT NO.:	GPBC-13-01
TEL.:	(867)668-6463
E-MAIL:	david@accessconsulting.ca, lfougere@accessconsulting.ca abien@accessconsulting.ca, chenry@accessconsulting.ca mducharme@accessconsulting.ca,
FAX:	(867)667-6680
SAMPLER NAME (PRINT):	A. BIER, W. KAPANIUK
PROJECT MANAGER:	David Petkovich
LABORATORY CONTACT:	Ken Pomeroy

	FIELD SAMPLE ID	MAXXAM LAB # (LAB USE ONLY)	MATRIX: GROUNDWATER	SURFACE WATER	DRINKING WATER	SOIL	OTHER	SAMPLING: DATE DD/MM/YY	TIME	# CONTAINERS	Total Metals, Hardness (Low-level)	Dissolved Metals, Hardness (Low-level)	Routine (Alk, EC, pH, TDS)	Cl, F,Br, OrthoPhos, NO2, NO3, NH4, SO4, col.	TDS/TSS (Low-level)	Cyanide (SAD/total) & WAD	DOC	Ammonina-N
1	BC-33	JT5232		X				30/05/14	0854	12	X	X	X	X	X	X	X	X
2	BC-05	JT5233		X				30/05/14	10:55	12	X	X	X	X	X	X	X	X
3	BC-34	JT5234		X				02/06/14	12:28	12	X	X	X	X	X	X	X	X
4	SAMPLE D	JT5235		X				—	—	12	X	X	X	X	X	X	X	X
5				X						12								
6				X						12								
7																		
8																		
9																		
10																		
11																		
12																		

TAT (Turnaround Time)
LESS THAN 5 DAY TAT MUST HAVE PRIOR APPROVAL
* Some exceptions apply - please contact laboratory

STANDARD	5 BUSINESS DAYS
RUSH	3 BUSINESS DAYS
RUSH	2 BUSINESS DAYS
URGENT	1 BUSINESS DAY
OTHER BUSINESS DAYS	

PO NUMBER OR QUOTE NUMBER:

SPECIAL DETECTION LIMITS / CONTAMINANT TYPE:

CCME
CSR
AB TIER 1
OTHER

LAB USE ONLY
ARRIVAL TEMPERATURE °C: 6,4,5,5,5,5,4,4,4 4,4,6.5,5,4,5,6 4,6,6,2,4,2,2,3,4
DUE DATE:
LOG IN CHECK:

ACCOUNTING CONTACT: Kim Borden-Hall

SPECIAL REPORTING OR BILLING INSTRUCTIONS:

JARS USED:

RELINQUISHED BY SAMPLER: A. BIER	DATE: DD/MM/YY 02/06/14	TIME: 2000 h.	RECEIVED BY: AIR NORTH
RELINQUISHED BY:	DATE: DD/MM/YY	TIME:	RECEIVED BY: DARIA IVANOVA
RELINQUISHED BY:	DATE: DD/MM/YY	TIME:	RECEIVED BY LABORATORY:

CUSTODY RECORD

COCFORM - BC - 20070822

2014/06/04
10:35

GROUND WATER

Maxxam Analytics Inc
4606 Canada Way
Burnaby, BC V5G 1K5
www.maxxam.ca
Phone: (604) 734- 7276
Fax.: (604) 630-0110
Toll-Free: 1-800-665-8566

CHAIN-OF CUSTODY RECORD AND ANALYSIS REQUEST

LAB USE ONLY
MAXXAM JOB #: B445855

ANALYSIS REQUEST

LAB USE ONLY: 08393626

COMPANY NAME:	#3429 ACCESS CONSULTING GROUP
CLIENT PROJECT NO.:	GPBC-13-01
COMPANY ADDRESS:	#3 Calcite Business Centre 151 Industrial Road Whitehorse, YT Y1A 2V3
TEL.:	(867)668-6463
E-MAIL:	david@accessconsulting.ca, lfougere@accessconsulting.ca abier@accessconsulting.ca, chenry@accessconsulting.ca mducharme@accessconsulting.ca,
FAX:	(867)667-6680
SAMPLER NAME (PRINT):	A. BIER, W. KAPANIUK
PROJECT MANAGER:	David Petkovich
LABORATORY CONTACT:	Ken Pomeroy

	FIELD SAMPLE ID	MAXXAM LAB # (LAB USE ONLY)	MATRIX: GROUNDWATER	SURFACE WATER	DRINKING WATER	SOIL	OTHER	SAMPLING: DATE DD/MM/YY	TIME	# CONTAINERS	Dissolved Metals, Hardness (Low-level)	Routine (Alk, EC, pH)	Cl, F,Br, OrthoPhos, NO2, NO3, NH4, SO4, col.	TDS (filt res.)	Cyanide (SAD(total) & WAD)	Ammonina-N
1	SAMPLE A	JT5235	X							8	X	X	X	X	X	X
2	SAMPLE B	JT5236	X							8	X	X	X	X	X	X
3	MH-12-02	JT5237	X					01/06/14	18:56	8	X	X	X	X	X	X
4	BC-21	JT5238	X					31/05/14	18:22	8	X	X	X	X	X	X
5																
6																
7																
8																
9																
10																
11																
12																

TAT (Turnaround Time)
LESS THAN 5 DAY TAT MUST HAVE PRIOR APPROVAL
* Some exceptions apply - please contact laboratory
STANDARD 5 BUSINESS DAYS
RUSH 3 BUSINESS DAYS
RUSH 2 BUSINESS DAYS
URGENT 1 BUSINESS DAY
OTHER BUSINESS DAYS

CUSTODY RECORD

PO NUMBER OR QUOTE NUMBER:

SPECIAL DETECTION LIMITS / CONTAMINANT TYPE:

ACCOUNTING CONTACT: Kim Borden-Hall

SPECIAL REPORTING OR BILLING INSTRUCTIONS:

CCME
CSR
AB TIER 1
OTHER
JARS USED:

LAB USE ONLY
ARRIVAL TEMPERATURE °C: 6,4,5/5,5,5/4,4,4 4,4/6,5,5/4,5,6 4.6,6/2,2,2/2,3,4
DUE DATE:
LOG IN CHECK:

RELINQUISHED BY SAMPLER:	A. BIER	DATE: DD/MM/YY 02/06/2014	TIME: 2000 HRS.
RECEIVED BY:	AIR NORTH CARGO.		
RELINQUISHED BY:		DATE: DD/MM/YY	TIME:
RECEIVED BY:	DARIA IVANOVA		
RELINQUISHED BY:		DATE: DD/MM/YY	TIME:
RECEIVED BY LABORATORY:			

COCFORM - BC - 20070823

2014/06/04
10:35

Effluent / Pit / Dump

Maxxam Analytics Inc
4606 Canada Way
Burnaby, BC V5G 1K5
www.maxxam.ca
Phone: (604) 734- 7276
Fax.: (604) 630-0110
Toll-Free: 1-800-665-8566

CHAIN-OF CUSTODY RECORD AND ANALYSIS REQUEST

LAB USE ONLY
MAXXAM JOB # B445855

ANALYSIS REQUEST

LAB USE ONLY


08393627

COMPANY NAME:	CLIENT PROJECT NO.:
#3429 ACCESS CONSULTING GROUP	GPBC-12-01

COMPANY ADDRESS:
#3 Calcite Business Centre
151 Industrial Road
Whitehorse, YT
Y1A 2V3

TEL.: (867)668-6463
E-MAIL: david@accessconsulting.ca, scott@accessconsulting.ca; abier@accessconsulting.ca, chenry@accessconsulting.ca; mducharme@accessconsulting.ca
FAX: (867)667-6680

SAMPLER NAME (PRINT): A. BIER, W. KARANIUK
PROJECT MANAGER:
LABORATORY CONTACT: Lanoy Luangkhamdeng

	FIELD SAMPLE ID	MAXXAM LAB # (LAB USE ONLY)	MATRIX: GROUNDWATER	SURFACE WATER	DRINKING WATER	SOIL	OTHER	SAMPLING: DATE DD/MM/YY	TIME	# CONTAINERS	Total Metals, Hardness (Low-level)	EC, Flouride, pH	Cl, Br, OrthoPhos, NO2, NO3, NH4, SO4, col.	TSS (Low-Level)	Cyanide (SAD(total) & WAD)	Ammonina-N
1	BC-28	JT5252		X				01/06/14	0951	8	X	X	X	X	X	X
2	BC-28 A	JT5253					X	01/06/14	0909	8	X	X	X	X	X	X
3	BC-28 B	JT5254		X				01/06/14	0929	8	X	X	X	X	X	X
4																
5																
6																
7																
8																
9																
10																
11																
12																

TAT (Turnaround Time)
LESS THAN 5 DAY TAT MUST HAVE PRIOR APPROVAL
* Some exceptions apply - please contact laboratory

STANDARD	5 BUSINESS DAYS
RUSH	3 BUSINESS DAYS
RUSH	2 BUSINESS DAYS
URGENT	1 BUSINESS DAY

OTHER BUSINESS DAYS

CUSTODY RECORD

PO NUMBER OR QUOTE NUMBER:
SPECIAL DETECTION LIMITS / CONTAMINANT TYPE:

CCME
CSR
AB TIER 1
OTHER

LAB USE ONLY
ARRIVAL TEMPERATURE °C: 6.4, 5.1, 5.5, 4.5, 4.4, 4.1, 1.1, 6.5, 5.5, 4.6, 1.6, 1.6, 6.1, 2.2, 2.1, 2.3, 1.4
DUE DATE:
LOG IN CHECK:

ACCOUNTING CONTACT: Kim Borden-Hall
SPECIAL REPORTING OR BILLING INSTRUCTIONS:
JARS USED:

	DATE: DD/MM/YY	TIME:	RECEIVED BY:
RELINQUISHED BY SAMPLER: A. Bier	02/06/14	2000 h.	AIR NORTH CARGO
RELINQUISHED BY:			RECEIVED BY: DARIA IVANOVA
RELINQUISHED BY:			RECEIVED BY LABORATORY:

COCFORM - BC - 20070822

2014/06/04
10:35


B445855

GROUND WATER

Maxxam Analytics Inc
4606 Canada Way
Burnaby, BC V5G 1K5
www.maxxam.ca
Phone: (604) 734- 7276
Fax.: (604) 630-0110
Toll-Free: 1-800-665-8566

CHAIN-OF CUSTODY RECORD AND ANALYSIS REQUEST

LAB USE ONLY
MAXXAM JOB # B445855

ANALYSIS REQUEST

LAB USE ONLY


08393628


B445855

COMPANY NAME:	#3429 ACCESS CONSULTING GROUP
COMPANY ADDRESS:	#3 Calcite Business Centre 151 Industrial Road Whitehorse, YT Y1A 2V3
CLIENT PROJECT NO.:	GPBC-13-01
TEL.:	(867)668-6463
E-MAIL:	david@accessconsulting.ca, ifougere@accessconsulting.ca abier@accessconsulting.ca, chenry@accessconsulting.ca mducharme@accessconsulting.ca
FAX:	(867)667-6680
SAMPLER NAME (PRINT):	A. BIER, W. KAPANIUK
PROJECT MANAGER:	David Petkovich
LABORATORY CONTACT:	Ken Pomeroy

	FIELD SAMPLE ID	MAXXAM LAB # (LAB USE ONLY)	MATRIX: GROUNDWATER	SURFACE WATER	DRINKING WATER	SOIL	OTHER	SAMPLING: DATE DD/MM/YY	TIME	# CONTAINERS	Dissolved Metals, Hardness (Low-level)	Routine (Alk, EC, pH)	Cl, F,Br, OrthoPhos, NO2, NO3, NH4, SO4, col.	TDS (fil res.)	Cyanide (SAD(total) & WAD)	Ammonina-N
1	BC-27	JT5267	X					28/05/14	10:18	8	X	X	X	X	X	X
2	LF-12-01	JT5268	X					28/05/14	13:55	8	X	X	X	X	X	X
3	LF-XX-02	JT5269	X					28/05/14	15:10	8	X	X	X	X	X	X
4	EBR-12-01	JT5270	X					28/05/14	18:34	8	X	X	X	X	X	X
5	LF-XX-03	JT5271	X					30/05/14	16:04	8	X	X	X	X	X	X
6	BC-12-538	JT5272	X					30/05/14	16:14	8	X	X	X	X	X	X
7	BC-66	JT5273	X					31/05/14	12:12	8	X	X	X	X	X	X
8	BC-19	JT5274	X					31/05/14	13:34	8	X	X	X	X	X	X
9	BC-22	JT5275	X					31/05/14	16:04	8	X	X	X	X	X	X
10	BC-67	JT5276	X					01/06/14	11:01	8	X	X	X	X	X	X
11	BC-69	JT5277	X					01/06/14	12:00	6	X	X	X	X	X	X
12	EBR-12-03	JT5278	X					01/06/14	14:53	8	X	X	X	X	X	X

TAT (Turnaround Time)
LESS THAN 5 DAY TAT MUST HAVE PRIOR APPROVAL
* Some exceptions apply - please contact laboratory
STANDARD 5 BUSINESS DAYS
RUSH 3 BUSINESS DAYS
RUSH 2 BUSINESS DAYS
URGENT 1 BUSINESS DAY
OTHER BUSINESS DAYS

PO NUMBER OR QUOTE NUMBER:

SPECIAL DETECTION LIMITS / CONTAMINANT TYPE:

CCME
CSR
AB TIER 1
OTHER

LAB USE ONLY
ARRIVAL TEMPERATURE °C: 6,4,5,5,5,4,4,4 4,1,1,6,5,5,4,5,6 1,6,6,4,2,2,2,3,4
DUE DATE:
LOG IN CHECK:

ACCOUNTING CONTACT: Kim Borden-Hall

SPECIAL REPORTING OR BILLING INSTRUCTIONS:

JARS USED:

RELINQUISHED BY SAMPLER:	A. BIER	DATE: DD/MM/YY 02/06/14	TIME: 2000 H.
RECEIVED BY:	AIR NORTH CARGO		
RELINQUISHED BY:		DATE: DD/MM/YY	TIME:
RECEIVED BY:	DARIA IVANOVA		
RELINQUISHED BY:		DATE: DD/MM/YY	TIME:
RECEIVED BY LABORATORY:			

CUSTODY RECORD

COCFORM - BC - 20070822

2014/06/04
10:35

Your Project #: GPBC-13-01
Your C.O.C. #: 08398367

Attention:Scott Keesey

ACCESS MINING CONSULTANTS LTD.
#3-151 INDUSRIAL RD
WHITEHORSE, YT
CANADA Y1A 2V3

Report Date: 2014/10/09
Report #: R1660019
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B489903
Received: 2014/10/06, 15:25

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity - Water	6	2014/10/07	2014/10/07	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry	6	N/A	2014/10/07	BBY6SOP-00011	SM 22 4500-Cl- G m
Cyanide SAD (strong acid dissociable)	6	N/A	2014/10/07	BBY6SOP-00004	SM 22 4500-CN O m
Cyanide WAD (weak acid dissociable)	6	N/A	2014/10/07	BBY6SOP-00005	SM 22 4500-CN O
Conductance - water	6	N/A	2014/10/07	BBY6SOP-00026	SM 22 2510 B m
Hardness (calculated as CaCO3)	6	N/A	2014/10/08	BBY7SOP-00002	EPA 6020a R1 m
Mercury (Dissolved-LowLevel) by CVAF	6	N/A	2014/10/09	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Ion Balance	5	N/A	2014/10/08	BBY WI-00033	SM 1030E
Ion Balance	1	N/A	2014/10/09	BBY WI-00033	SM 1030E
Sum of cations, anions	6	N/A	2014/10/08	Calc	
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	6	N/A	2014/10/08	BBY7SOP-00002	EPA 6020A R1 m
Elements by ICPMS Low Level (dissolved)	6	N/A	2014/10/07	BBY7SOP-00002	EPA 6020A R1 m
Ammonia-N (Preserved)	6	N/A	2014/10/07	BBY6SOP-00009	SM 22 4500-NH3- G m
Nitrate+Nitrite (N) (low level)	6	N/A	2014/10/07	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	6	N/A	2014/10/07	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	6	N/A	2014/10/07	BBY6SOP-00010	SM 22 4500-NO3- I m
Filter and HNO3 Preserve for Metals	6	N/A	2014/10/07	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (1)	6	N/A	2014/10/07	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate by Automated Colourimetry	5	N/A	2014/10/07	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate by Automated Colourimetry	1	N/A	2014/10/08	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	6	2014/10/08	2014/10/09	BBY6SOP-00033	SM 22 2540 C m
Total Suspended Solids-Low Level	3	2014/10/07	2014/10/08	BBY6SOP-00034	SM 22 2540 D
Total Suspended Solids-Low Level	3	2014/10/08	2014/10/09	BBY6SOP-00034	SM 22 2540 D

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Your Project #: GPBC-13-01
Your C.O.C. #: 08398367

Attention:Scott Keesey

ACCESS MINING CONSULTANTS LTD.
#3-151 INDUSRIAL RD
WHITEHORSE, YT
CANADA Y1A 2V3

Report Date: 2014/10/09
Report #: R1660019
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B489903
Received: 2014/10/06, 15:25

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ken Pomeroy, Project Manager
Email: KPomeroy@maxxam.ca
Phone# (604)638-5020

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B489903
Report Date: 2014/10/09

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-13-01
Sampler Initials: AB

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		KU4788		KU4789			KU4790		
Sampling Date		2014/10/01 14:10		2014/10/01 17:36			2014/10/01 15:47		
COC Number		08398367		08398367			08398367		
	Units	BC-19	QC Batch	BC-21	RDL	QC Batch	BC-22	RDL	QC Batch
Calculated Parameters									
Anion Sum	meq/L	12	7668859	9.4	N/A	7668859	14	N/A	7668859
Cation Sum	meq/L	13	7668859	10	N/A	7668859	14	N/A	7668859
Filter and HNO3 Preservation	N/A	LAB	7669173	LAB	N/A	7669173	LAB	N/A	7669173
Ion Balance	N/A	1.1	7667445	1.1	0.010	7667445	1.0	0.010	7667445
Nitrate (N)	mg/L	0.392	7668860	0.0166	0.0020	7668860	6.17	0.020	7668860
Misc. Inorganics									
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	7670288	<0.00050	0.00050	7670288	<0.00050	0.00050	7670288
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00053	7670087	<0.00050	0.00050	7670293	<0.00050	0.00050	7670293
Alkalinity (Total as CaCO3)	mg/L	262	7670503	222	0.50	7670512	169	0.50	7670503
Alkalinity (PP as CaCO3)	mg/L	<0.50	7670503	<0.50	0.50	7670512	<0.50	0.50	7670503
Bicarbonate (HCO3)	mg/L	320	7670503	270	0.50	7670512	206	0.50	7670503
Carbonate (CO3)	mg/L	<0.50	7670503	<0.50	0.50	7670512	<0.50	0.50	7670503
Hydroxide (OH)	mg/L	<0.50	7670503	<0.50	0.50	7670512	<0.50	0.50	7670503
Anions									
Dissolved Sulphate (SO4)	mg/L	341	7670365	220	5.0	7670365	479	5.0	7670365
Dissolved Chloride (Cl)	mg/L	1.3	7670364	14	0.50	7670364	1.8	0.50	7670364
Nutrients									
Total Ammonia (N)	mg/L	0.022	7670273	0.095	0.0050	7670273	0.0073	0.0050	7670273
Nitrate plus Nitrite (N)	mg/L	0.392 (1)	7670112	0.0166 (1)	0.0020	7670112	6.17 (1)	0.020	7670112
Nitrite (N)	mg/L	<0.0020 (1)	7670137	<0.0020 (1)	0.0020	7670137	<0.0020 (1)	0.0020	7670137
Physical Properties									
Conductivity	uS/cm	1110	7670506	883	1.0	7670514	1230	1.0	7670506
pH	pH	7.15	7670505	7.49	N/A	7670513	6.45	N/A	7670505
Physical Properties									
Total Suspended Solids	mg/L	2.0	7669419	<1.0	1.0	7669419	17.7	1.0	7669419
Total Dissolved Solids	mg/L	892	7671048	751	10	7671048	1130	10	7671048

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Sample arrived to laboratory past recommended hold time.

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Maxxam Job #: B489903
Report Date: 2014/10/09

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-13-01
Sampler Initials: AB

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		KU4791			KU4792			KU4793		
Sampling Date		2014/10/01 10:12			2014/10/01 12:55					
COC Number		08398367			08398367			08398367		
	Units	BC-27	RDL	QC Batch	BC-66	RDL	QC Batch	SAMPLE A	RDL	QC Batch
Calculated Parameters										
Anion Sum	meq/L	8.7	N/A	7668859	7.5	N/A	7668859	12	N/A	7668859
Cation Sum	meq/L	9.0	N/A	7668859	7.8	N/A	7668859	13	N/A	7668859
Filter and HNO3 Preservation	N/A	LAB	N/A	7669173	LAB	N/A	7669173	LAB	N/A	7669173
Ion Balance	N/A	1.0	0.010	7667445	1.1	0.010	7667445	1.1	0.010	7667445
Nitrate (N)	mg/L	<0.0020	0.0020	7668860	27.8	0.10	7668860	0.375	0.0020	7668860
Misc. Inorganics										
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	7670288	0.00348	0.00050	7670288	<0.00050	0.00050	7670288
Weak Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	7670293	0.00124	0.00050	7670293	<0.00050	0.00050	7670293
Alkalinity (Total as CaCO3)	mg/L	169	0.50	7670512	240	0.50	7670503	267	0.50	7670512
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	7670512	<0.50	0.50	7670503	<0.50	0.50	7670512
Bicarbonate (HCO3)	mg/L	207	0.50	7670512	292	0.50	7670503	326	0.50	7670512
Carbonate (CO3)	mg/L	<0.50	0.50	7670512	<0.50	0.50	7670503	<0.50	0.50	7670512
Hydroxide (OH)	mg/L	<0.50	0.50	7670512	<0.50	0.50	7670503	<0.50	0.50	7670512
Anions										
Dissolved Sulphate (SO4)	mg/L	253	5.0	7670365	25.9	0.50	7671914	325	5.0	7670365
Dissolved Chloride (Cl)	mg/L	1.1	0.50	7670364	5.4	0.50	7670364	1.4	0.50	7670364
Nutrients										
Total Ammonia (N)	mg/L	0.051	0.0050	7670273	0.0067	0.0050	7670273	0.021	0.0050	7670273
Nitrate plus Nitrite (N)	mg/L	<0.0020 (1)	0.0020	7670112	27.8 (1)	0.10	7670112	0.375	0.0020	7670112
Nitrite (N)	mg/L	0.0029 (1)	0.0020	7670137	<0.0020 (1)	0.0020	7670137	<0.0020	0.0020	7670137
Physical Properties										
Conductivity	uS/cm	814	1.0	7670514	724	1.0	7670506	1120	1.0	7670514
pH	pH	7.79	N/A	7670513	7.85	N/A	7670505	7.23	N/A	7670513
Physical Properties										
Total Suspended Solids	mg/L	14.8	1.0	7671041	53.2	1.0	7671041	2.3	1.0	7671041
Total Dissolved Solids	mg/L	644	10	7671048	470	10	7671048	850	10	7671064

RDL = Reportable Detection Limit
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Maxxam Job #: B489903
Report Date: 2014/10/09

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-13-01
Sampler Initials: AB

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		KU4788	KU4789	KU4790	KU4791	KU4792		
Sampling Date		2014/10/01 14:10	2014/10/01 17:36	2014/10/01 15:47	2014/10/01 10:12	2014/10/01 12:55		
COC Number		08398367	08398367	08398367	08398367	08398367		
	Units	BC-19	BC-21	BC-22	BC-27	BC-66	RDL	QC Batch
Misc. Inorganics								
Dissolved Hardness (CaCO3)	mg/L	632	480	669	442	363	0.50	7667444
Elements								
Dissolved Mercury (Hg)	mg/L	<0.0000020	<0.0000020	<0.0000020	<0.0000020	<0.0000020	0.0000020	7672056
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	mg/L	0.00128	0.00091	0.102	0.00108	0.00158	0.00050	7669365
Dissolved Antimony (Sb)	mg/L	0.000222	0.000218	0.000098	0.00219	0.000225	0.000020	7669365
Dissolved Arsenic (As)	mg/L	0.000445	0.0156	0.000251	0.0644	0.000483	0.000020	7669365
Dissolved Barium (Ba)	mg/L	0.00215	0.0310	0.0219	0.0136	0.0539	0.000020	7669365
Dissolved Beryllium (Be)	mg/L	<0.000010	<0.000010	0.000042	<0.000010	<0.000010	0.000010	7669365
Dissolved Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	7669365
Dissolved Boron (B)	mg/L	<0.020	0.026	0.024	<0.020	<0.020	0.020	7669365
Dissolved Cadmium (Cd)	mg/L	0.000519	0.0000830	0.00523	0.0000300	0.0000220	0.0000050	7669365
Dissolved Chromium (Cr)	mg/L	<0.00010	<0.00010	0.00014	<0.00010	<0.00010	0.00010	7669365
Dissolved Cobalt (Co)	mg/L	0.000472	0.00285	0.00307	0.000168	0.0734	0.0000050	7669365
Dissolved Copper (Cu)	mg/L	0.000402	0.000161	0.000715	0.000061	0.000357	0.000050	7669365
Dissolved Iron (Fe)	mg/L	0.0039	0.0232	0.0887	0.0045	0.0016	0.0010	7669365
Dissolved Lead (Pb)	mg/L	<0.0000050	<0.0000050	0.0000060	<0.0000050	0.0000060	0.0000050	7669365
Dissolved Lithium (Li)	mg/L	0.0318	0.0302	0.0451	0.00933	0.0177	0.00050	7669365
Dissolved Manganese (Mn)	mg/L	0.263	1.50	0.237	0.222	0.000896	0.000050	7669365
Dissolved Molybdenum (Mo)	mg/L	0.000069	0.000310	0.000184	0.0126	0.000300	0.000050	7669365
Dissolved Nickel (Ni)	mg/L	0.00244	0.00461	0.0434	0.00210	0.000667	0.000020	7669365
Dissolved Phosphorus (P)	mg/L	0.0197	<0.0020	0.0655	0.0030	0.0062	0.0020	7669365
Dissolved Selenium (Se)	mg/L	0.00805	0.00104	0.0760	<0.000040	0.0154	0.000040	7669365
Dissolved Silicon (Si)	mg/L	7.95	5.82	16.8	3.75	4.72	0.10	7669365
Dissolved Silver (Ag)	mg/L	0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	0.0000050	7669365
Dissolved Strontium (Sr)	mg/L	0.488	0.403	0.406	0.772	0.387	0.000050	7669365
Dissolved Thallium (Tl)	mg/L	0.0000070	0.0000230	0.0000270	0.0000070	0.0000140	0.0000020	7669365
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	7669365
Dissolved Titanium (Ti)	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00050	7669365
Dissolved Uranium (U)	mg/L	0.000806	0.00154	0.000631	0.0116	0.00104	0.0000020	7669365
Dissolved Vanadium (V)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	7669365
Dissolved Zinc (Zn)	mg/L	0.0232	0.0864	0.0969	0.0202	0.00118	0.00010	7669365
Dissolved Zirconium (Zr)	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00010	7669365
Dissolved Calcium (Ca)	mg/L	151	103	166	109	72.0	0.050	7668074
Dissolved Magnesium (Mg)	mg/L	62.0	54.3	62.1	41.4	44.5	0.050	7668074

RDL = Reportable Detection Limit

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Maxxam Job #: B489903
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ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-13-01
Sampler Initials: AB

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		KU4788	KU4789	KU4790	KU4791	KU4792		
Sampling Date		2014/10/01 14:10	2014/10/01 17:36	2014/10/01 15:47	2014/10/01 10:12	2014/10/01 12:55		
COC Number		08398367	08398367	08398367	08398367	08398367		
	Units	**BC-19**	**BC-21**	**BC-22**	**BC-27**	**BC-66**	**RDL**	**QC Batch**
Dissolved Potassium (K)	mg/L	2.52	3.37	3.65	1.45	2.63	0.050	7668074
Dissolved Sodium (Na)	mg/L	10.5	8.27	20.8	1.85	11.6	0.050	7668074
Dissolved Sulphur (S)	mg/L	123	84.7	170	97.0	10.2	3.0	7668074
RDL = Reportable Detection Limit								

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ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-13-01
Sampler Initials: AB

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		KU4793		
Sampling Date				
COC Number		08398367		
	Units	SAMPLE A	RDL	QC Batch
Misc. Inorganics				
Dissolved Hardness (CaCO3)	mg/L	629	0.50	7668857
Elements				
Dissolved Mercury (Hg)	mg/L	<0.0000020	0.0000020	7672056
Dissolved Metals by ICPMS				
Dissolved Aluminum (Al)	mg/L	0.00171	0.00050	7669365
Dissolved Antimony (Sb)	mg/L	0.000225	0.000020	7669365
Dissolved Arsenic (As)	mg/L	0.000602	0.000020	7669365
Dissolved Barium (Ba)	mg/L	0.00223	0.000020	7669365
Dissolved Beryllium (Be)	mg/L	<0.000010	0.000010	7669365
Dissolved Bismuth (Bi)	mg/L	<0.0000050	0.0000050	7669365
Dissolved Boron (B)	mg/L	<0.020	0.020	7669365
Dissolved Cadmium (Cd)	mg/L	0.000508	0.0000050	7669365
Dissolved Chromium (Cr)	mg/L	<0.00010	0.00010	7669365
Dissolved Cobalt (Co)	mg/L	0.000507	0.0000050	7669365
Dissolved Copper (Cu)	mg/L	0.000496	0.000050	7669365
Dissolved Iron (Fe)	mg/L	0.0031	0.0010	7669365
Dissolved Lead (Pb)	mg/L	<0.0000050	0.0000050	7669365
Dissolved Lithium (Li)	mg/L	0.0323	0.00050	7669365
Dissolved Manganese (Mn)	mg/L	0.261	0.000050	7669365
Dissolved Molybdenum (Mo)	mg/L	0.000065	0.000050	7669365
Dissolved Nickel (Ni)	mg/L	0.00279	0.000020	7669365
Dissolved Phosphorus (P)	mg/L	0.0203	0.0020	7669365
Dissolved Selenium (Se)	mg/L	0.00740	0.000040	7669365
Dissolved Silicon (Si)	mg/L	7.70	0.10	7669365
Dissolved Silver (Ag)	mg/L	<0.0000050	0.0000050	7669365
Dissolved Strontium (Sr)	mg/L	0.473	0.000050	7669365
Dissolved Thallium (Tl)	mg/L	0.0000090	0.0000020	7669365
Dissolved Tin (Sn)	mg/L	<0.00020	0.00020	7669365
Dissolved Titanium (Ti)	mg/L	<0.00050	0.00050	7669365
Dissolved Uranium (U)	mg/L	0.000803	0.0000020	7669365
Dissolved Vanadium (V)	mg/L	<0.00020	0.00020	7669365
Dissolved Zinc (Zn)	mg/L	0.0232	0.00010	7669365
Dissolved Zirconium (Zr)	mg/L	<0.00010	0.00010	7669365
Dissolved Calcium (Ca)	mg/L	141	0.050	7668074
Dissolved Magnesium (Mg)	mg/L	67.1	0.050	7668074
RDL = Reportable Detection Limit				

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LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		KU4793		
Sampling Date				
COC Number		08398367		
	Units	**SAMPLE A**	**RDL**	**QC Batch**
Dissolved Potassium (K)	mg/L	2.61	0.050	7668074
Dissolved Sodium (Na)	mg/L	11.4	0.050	7668074
Dissolved Sulphur (S)	mg/L	128	3.0	7668074
RDL = Reportable Detection Limit				

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	7.7°C

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-13-01
Sampler Initials: AB

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
7669365	Dissolved Aluminum (Al)	2014/10/07	111	80 - 120	118	80 - 120	<0.00050	mg/L		
7669365	Dissolved Antimony (Sb)	2014/10/07	108	80 - 120	105	80 - 120	<0.000020	mg/L		
7669365	Dissolved Arsenic (As)	2014/10/07	104	80 - 120	106	80 - 120	<0.000020	mg/L		
7669365	Dissolved Barium (Ba)	2014/10/07	100	80 - 120	102	80 - 120	<0.000020	mg/L		
7669365	Dissolved Beryllium (Be)	2014/10/07	97	80 - 120	100	80 - 120	<0.000010	mg/L		
7669365	Dissolved Bismuth (Bi)	2014/10/07	102	80 - 120	103	80 - 120	<0.0000050	mg/L		
7669365	Dissolved Boron (B)	2014/10/07					<0.020	mg/L		
7669365	Dissolved Cadmium (Cd)	2014/10/07	102	80 - 120	104	80 - 120	<0.0000050	mg/L		
7669365	Dissolved Chromium (Cr)	2014/10/07	100	80 - 120	101	80 - 120	<0.00010	mg/L		
7669365	Dissolved Cobalt (Co)	2014/10/07	100	80 - 120	100	80 - 120	<0.0000050	mg/L		
7669365	Dissolved Copper (Cu)	2014/10/07	101	80 - 120	100	80 - 120	<0.000050	mg/L		
7669365	Dissolved Iron (Fe)	2014/10/07	114	80 - 120	119	80 - 120	<0.0010	mg/L		
7669365	Dissolved Lead (Pb)	2014/10/07	100	80 - 120	104	80 - 120	<0.0000050	mg/L		
7669365	Dissolved Lithium (Li)	2014/10/07	94	80 - 120	95	80 - 120	<0.00050	mg/L		
7669365	Dissolved Manganese (Mn)	2014/10/07	104	80 - 120	105	80 - 120	<0.000050	mg/L		
7669365	Dissolved Molybdenum (Mo)	2014/10/07	95	80 - 120	103	80 - 120	<0.000050	mg/L		
7669365	Dissolved Nickel (Ni)	2014/10/07	96	80 - 120	101	80 - 120	<0.000020	mg/L		
7669365	Dissolved Phosphorus (P)	2014/10/07					<0.0020	mg/L		
7669365	Dissolved Selenium (Se)	2014/10/07	99	80 - 120	104	80 - 120	<0.000040	mg/L		
7669365	Dissolved Silicon (Si)	2014/10/07					<0.10	mg/L	NC	20
7669365	Dissolved Silver (Ag)	2014/10/07	106	80 - 120	104	80 - 120	<0.0000050	mg/L		
7669365	Dissolved Strontium (Sr)	2014/10/07	98	80 - 120	99	80 - 120	<0.000050	mg/L		
7669365	Dissolved Thallium (Tl)	2014/10/07	103	80 - 120	107	80 - 120	<0.0000020	mg/L		
7669365	Dissolved Tin (Sn)	2014/10/07	100	80 - 120	100	80 - 120	<0.00020	mg/L		
7669365	Dissolved Titanium (Ti)	2014/10/07	103	80 - 120	98	80 - 120	<0.00050	mg/L		
7669365	Dissolved Uranium (U)	2014/10/07	97	80 - 120	100	80 - 120	<0.0000020	mg/L		
7669365	Dissolved Vanadium (V)	2014/10/07	100	80 - 120	100	80 - 120	<0.00020	mg/L		
7669365	Dissolved Zinc (Zn)	2014/10/07	106	80 - 120	104	80 - 120	<0.00010	mg/L		
7669365	Dissolved Zirconium (Zr)	2014/10/07					<0.00010	mg/L		
7669419	Total Suspended Solids	2014/10/08			103	80 - 120	<1.0	mg/L		
7670087	Weak Acid Dissoc. Cyanide (CN)	2014/10/07	100	80 - 120	102	80 - 120	0.00051 ,RDL=0.00050	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
7670112	Nitrate plus Nitrite (N)	2014/10/07	NC	80 - 120	106	80 - 120	<0.0020	mg/L	0.46	25
7670137	Nitrite (N)	2014/10/07	96	80 - 120	87	80 - 120	<0.0020	mg/L	NC	25
7670273	Total Ammonia (N)	2014/10/07	NC	80 - 120	98	80 - 120	0.0067 ,RDL=0.0050	mg/L	5.0	20
7670288	Strong Acid Dissoc. Cyanide (CN)	2014/10/07	105	80 - 120	103	80 - 120	<0.00050	mg/L	NC	20
7670293	Weak Acid Dissoc. Cyanide (CN)	2014/10/07	99	80 - 120	101	80 - 120	<0.00050	mg/L	NC	20
7670364	Dissolved Chloride (Cl)	2014/10/07	NC	80 - 120	103	80 - 120	<0.50	mg/L	NC	20
7670365	Dissolved Sulphate (SO4)	2014/10/07			97	80 - 120	<0.50	mg/L	0.049	20
7670503	Alkalinity (PP as CaCO3)	2014/10/07					<0.50	mg/L	NC	20
7670503	Alkalinity (Total as CaCO3)	2014/10/07	NC	80 - 120	96	80 - 120	<0.50	mg/L	0.099	20
7670503	Bicarbonate (HCO3)	2014/10/07					<0.50	mg/L	0.084	20
7670503	Carbonate (CO3)	2014/10/07					<0.50	mg/L	NC	20
7670503	Hydroxide (OH)	2014/10/07					<0.50	mg/L	NC	20
7670505	pH	2014/10/07			101	97 - 103			0.77	N/A
7670506	Conductivity	2014/10/07			100	80 - 120	<1.0	uS/cm	0.25	20
7670512	Alkalinity (PP as CaCO3)	2014/10/07					<0.50	mg/L	NC	20
7670512	Alkalinity (Total as CaCO3)	2014/10/07	NC	80 - 120	91	80 - 120	<0.50	mg/L	1.9	20
7670512	Bicarbonate (HCO3)	2014/10/07					<0.50	mg/L	1.8	20
7670512	Carbonate (CO3)	2014/10/07					<0.50	mg/L	NC	20
7670512	Hydroxide (OH)	2014/10/07					<0.50	mg/L	NC	20
7670513	pH	2014/10/07			101	97 - 103			0.62	N/A
7670514	Conductivity	2014/10/07			100	80 - 120	1.0 ,RDL=1.0	uS/cm	0.20	20
7671041	Total Suspended Solids	2014/10/09			106	80 - 120	<1.0	mg/L		
7671048	Total Dissolved Solids	2014/10/09	NC	80 - 120	110	80 - 120	18 ,RDL=10	mg/L	2.8	20
7671064	Total Dissolved Solids	2014/10/09	NC	80 - 120	98	80 - 120	<10	mg/L	7.5	20
7671914	Dissolved Sulphate (SO4)	2014/10/08	NC	80 - 120	93	80 - 120	<0.50	mg/L	1.1	20
7672056	Dissolved Mercury (Hg)	2014/10/09	86	80 - 120	92	80 - 120	<0.0000020	mg/L	NC	20

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

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Maxxam Job #: B489903
Report Date: 2014/10/09

QUALITY ASSURANCE REPORT(CONT'D)

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-13-01
Sampler Initials: AB

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B489903
Report Date: 2014/10/09

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-13-01
Sampler Initials: AB

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Andy Lu, Data Validation Coordinator

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Maxxam Analytics Inc

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CI

08398367

D ANALYSIS REQUEST

PAGE 1 OF 1

LAB USE ONLY
MAXXAM JOB #: B489903

ANALYSIS REQUEST

LAB USE ONLY
COC #

COMPANY NAME:	#3429 ACCESS CONSULTING GROUP
COMPANY ADDRESS:	#3 Calcite Business Centre 151 Industrial Road Whitehorse, YT Y1A 2V3
CLIENT PROJECT NO.:	GPBC-13-01
TEL.:	(867)668-6463
E-MAIL:	david@accessconsulting.ca, scott@accessconsulting.ca abier@accessconsulting.ca, chenry@accessconsulting.ca mducharme@accessconsulting.ca, lfougere@accessconsulting.ca
FAX:	(867)667-6680
SAMPLER NAME (PRINT):	A. Bier / C. Henry
PROJECT MANAGER:	
LABORATORY CONTACT:	Ken Pomeroy

	FIELD SAMPLE ID	MAXXAM LAB # (LAB USE ONLY)	MATRIX: GROUNDWATER	SURFACE WATER	DRINKING WATER	SOIL	OTHER	SAMPLING: DATE DD/MM/YY	TIME	# CONTAINERS	Dissolved Metals incl. Hg (Low-level)	Routine (Alk, cond, pH)	Anions (chloride, sulphate, nitrate)	TSS, TDS	Cyanide (total & WAD)	Ammonina-N
1	BC-19	KU4788	X					1/10/14	14:10	8	X	X	X	X	X	X
2	BC-21	KU4789	X					1/10/14	17:36	8	X	X	X	X	X	X
3	BC-22	KU4790	X					1/10/14	15:47	8	X	X	X	X	X	X
4	BC-27	KU4791	X					4/10/14	10:12	8	X	X	X	X	X	X
5	[redacted]	AKU4792	[redacted]					[redacted]			[redacted]					
6	BC-66	KU4792	X					1/10/14	12:55	8	X	X	X	X	X	X
7	Sample A	KU4793	X					n/a	n/a	8	X	X	X	X	X	X
8																
9																
10																
11																
12																

B489903

TAT (Turnaround Time)
LESS THAN 5 DAY TAT MUST HAVE PRIOR APPROVAL
* Some exceptions apply - please contact laboratory

STANDARD	5 BUSINESS DAYS
RUSH	3 BUSINESS DAYS
RUSH	2 BUSINESS DAYS
URGENT	1 BUSINESS DAY

OTHER BUSINESS DAYS: _____

CUSTODY RECORD

PO NUMBER OR QUOTE NUMBER:

SPECIAL DETECTION LIMITS / CONTAMINANT TYPE:

ACCOUNTING CONTACT: Kim Borden-Hall

SPECIAL REPORTING OR BILLING INSTRUCTIONS:

RELINQUISHED BY SAMPLER: AB/CH	DATE: DD/MM/YY 5/10/14	TIME: 14:30
RELINQUISHED BY:	DATE: DD/MM/YY	TIME:
RELINQUISHED BY:	DATE: DD/MM/YY	TIME:

CCME
CSR
AB TIER 1
OTHER

JARS USED:

LAB USE ONLY

ARRIVAL TEMPERATURE °C:	DUE DATE:	LOG IN CHECK:
8, 7, 8		

RECEIVED BY:

RECEIVED BY:

RECEIVED BY LABORATORY: ARIBA SULTAN 2014/10/06

COCFORM - BC - 2007002

CS; NA

Maxxam
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Your Project #: GPBC-13-01
Your C.O.C. #: 08398366, 08398365

Attention:Scott Keesey

ACCESS MINING CONSULTANTS LTD.
#3-151 INDUSRIAL RD
WHITEHORSE, YT
CANADA Y1A 2V3

Report Date: 2014/10/17
Report #: R1665046
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B489905
Received: 2014/10/06, 15:25

Sample Matrix: Water
Samples Received: 10

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity - Water	6	2014/10/07	2014/10/07	BBY6SOP-00026	SM 22 2320 B m
Cyanide SAD (strong acid dissociable)	4	N/A	2014/10/07	BBY6SOP-00004	SM 22 4500-CN O m
Cyanide WAD (weak acid dissociable)	4	N/A	2014/10/07	BBY6SOP-00005	SM 22 4500-CN O
Conductance - water	6	N/A	2014/10/07	BBY6SOP-00026	SM 22 2510 B m
Hardness Total (calculated as CaCO3)	10	N/A	2014/10/09	BBY7SOP-00002	EPA 6020a R1 m
Hardness (calculated as CaCO3)	6	N/A	2014/10/09	BBY7SOP-00002	EPA 6020a R1 m
Mercury (Dissolved-LowLevel) by CVAF	6	N/A	2014/10/09	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total-LowLevel) by CVAF	10	2014/10/08	2014/10/09	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	6	N/A	2014/10/09	BBY7SOP-00002	EPA 6020A R1 m
Elements by ICPMS Low Level (dissolved)	2	N/A	2014/10/08	BBY7SOP-00002	EPA 6020A R1 m
Elements by ICPMS Low Level (dissolved)	4	N/A	2014/10/09	BBY7SOP-00002	EPA 6020A R1 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	10	N/A	2014/10/09	BBY7SOP-00002	EPA 6020A R1 m
Elements by ICPMS Low Level (total)	10	N/A	2014/10/08	BBY7SOP-00002	EPA 6020A R1 m
Ammonia-N (Preserved)	10	N/A	2014/10/07	BBY6SOP-00009	SM 22 4500-NH3- G m
Nitrate+Nitrite (N) (low level)	6	N/A	2014/10/07	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	6	N/A	2014/10/07	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	6	N/A	2014/10/07	BBY6SOP-00010	SM 22 4500-NO3- I m
Filter and HNO3 Preserve for Metals	6	N/A	2014/10/07	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (1)	6	N/A	2014/10/07	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate by Automated Colourimetry	4	N/A	2014/10/07	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate by Automated Colourimetry	2	N/A	2014/10/08	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids - Low Level	6	N/A	2014/10/15	BBY6SOP-00033	SM 22 2540 C m
Total Suspended Solids-Low Level	10	2014/10/08	2014/10/09	BBY6SOP-00034	SM 22 2540 D

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

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Your Project #: GPBC-13-01
Your C.O.C. #: 08398366, 08398365

Attention:Scott Keesey

ACCESS MINING CONSULTANTS LTD.
#3-151 INDUSRIAL RD
WHITEHORSE, YT
CANADA Y1A 2V3

Report Date: 2014/10/17
Report #: R1665046
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B489905
Received: 2014/10/06, 15:25

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ken Pomeroy, Project Manager
Email: KPomeroy@maxxam.ca
Phone# (604)638-5020

==========

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Maxxam Job #: B489905
Report Date: 2014/10/17

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-13-01

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		KU4796			KU4797	KU4798		
Sampling Date		2014/10/04 10:56			2014/10/04 12:00	2014/10/04 12:52		
COC Number		08398366			08398366	08398366		
	Units	BC-10	RDL	QC Batch	BC-12	BC-15	RDL	QC Batch
Calculated Parameters								
Filter and HNO3 Preservation	N/A	LAB	N/A	7669173	LAB	LAB	N/A	7669173
Nitrate (N)	mg/L	<0.0020	0.0020	7668860	<0.0020	0.0113	0.0020	7668860
Misc. Inorganics								
Alkalinity (Total as CaCO3)	mg/L	128	0.50	7670515	160	116	0.50	7670515
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	7670515	<0.50	<0.50	0.50	7670515
Bicarbonate (HCO3)	mg/L	157	0.50	7670515	196	142	0.50	7670515
Carbonate (CO3)	mg/L	<0.50	0.50	7670515	<0.50	<0.50	0.50	7670515
Hydroxide (OH)	mg/L	<0.50	0.50	7670515	<0.50	<0.50	0.50	7670515
Anions								
Dissolved Sulphate (SO4)	mg/L	110	0.50	7671914	337	414	5.0	7670366
Nutrients								
Total Ammonia (N)	mg/L	0.0080	0.0050	7670270	0.046	0.0083	0.0050	7670270
Nitrate plus Nitrite (N)	mg/L	<0.0020	0.0020	7670144	<0.0020	0.0113	0.0020	7670144
Nitrite (N)	mg/L	<0.0020	0.0020	7670159	<0.0020	<0.0020	0.0020	7670159
Physical Properties								
Conductivity	uS/cm	447	1.0	7670520	952	978	1.0	7670520
pH	pH	7.99	N/A	7670519	7.43	8.03	N/A	7670519
Physical Properties								
Total Suspended Solids	mg/L	<1.0	1.0	7671041	6.0	8.8	1.0	7671041
Total Dissolved Solids	mg/L	298	1.0	7669396	1170	755	1.0	7669396

RDL = Reportable Detection Limit
N/A = Not Applicable

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Maxxam Job #: B489905
Report Date: 2014/10/17

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-13-01

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		KU4799			KU4800		KU4801		
Sampling Date		2014/10/04 10:32			2014/10/04 13:16				
COC Number		08398366			08398366		08398366		
	Units	BC-17	RDL	QC Batch	BC-51W	RDL	SAMPLE	RDL	QC Batch
Calculated Parameters									
Filter and HNO3 Preservation	N/A	LAB	N/A	7669173	LAB	N/A	LAB	N/A	7669173
Nitrate (N)	mg/L	1.58	0.0020	7668860	<0.0020	0.0020	<0.0020	0.0020	7668860
Misc. Inorganics									
Alkalinity (Total as CaCO3)	mg/L	125	0.50	7670515	<0.50	0.50	1.71	0.50	7670515
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	7670515	<0.50	0.50	<0.50	0.50	7670515
Bicarbonate (HCO3)	mg/L	152	0.50	7670515	<0.50	0.50	2.09	0.50	7670515
Carbonate (CO3)	mg/L	<0.50	0.50	7670515	<0.50	0.50	<0.50	0.50	7670515
Hydroxide (OH)	mg/L	<0.50	0.50	7670515	<0.50	0.50	<0.50	0.50	7670515
Anions									
Dissolved Sulphate (SO4)	mg/L	75.8	0.50	7671914	270	5.0	0.75	0.50	7670369
Nutrients									
Total Ammonia (N)	mg/L	0.0057	0.0050	7670270	0.0065	0.0050	<0.0050	0.0050	7670270
Nitrate plus Nitrite (N)	mg/L	1.58	0.0020	7670144	<0.0020	0.0020	<0.0020	0.0020	7670144
Nitrite (N)	mg/L	<0.0020	0.0020	7670159	<0.0020	0.0020	<0.0020	0.0020	7670159
Physical Properties									
Conductivity	uS/cm	395	1.0	7670520	745	1.0	3.5	1.0	7670520
pH	pH	8.11	N/A	7670519	3.57	N/A	6.43	N/A	7670519
Physical Properties									
Total Suspended Solids	mg/L	<1.0	1.0	7671041	1.9	1.0	<1.0	1.0	7671041
Total Dissolved Solids	mg/L	260	1.0	7669396	492	1.0	1.6	1.0	7669396

RDL = Reportable Detection Limit
N/A = Not Applicable

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Maxxam Job #: B489905
Report Date: 2014/10/17

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-13-01

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		KU4802			KU4819	KU4820	KU4821		
Sampling Date		2014/10/01 18:31			2014/10/01 18:10	2014/10/01 18:39	2014/10/01 18:18		
COC Number		08398366			08398365	08398365	08398365		
	Units	**BC-28A**	**RDL**	**QC Batch**	**BC-28B**	**POND 1**	**POND 3**	**RDL**	**QC Batch**
Misc. Inorganics									
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.504	0.0050	7670288	0.0412	0.0196	0.00317	0.00050	7670288
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.0202	0.00050	7670293	0.0270	0.0124	0.00225	0.00050	7670293
Nutrients									
Total Ammonia (N)	mg/L	0.0084	0.0050	7670267	0.15	0.056	0.15	0.0050	7670270
Physical Properties									
Total Suspended Solids	mg/L	1.2	1.0	7671041	4.3	4.2	1.4	1.0	7671043
RDL = Reportable Detection Limit									

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Maxxam Job #: B489905
Report Date: 2014/10/17

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-13-01

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		KU4796		KU4797		KU4798		
Sampling Date		2014/10/04 10:56		2014/10/04 12:00		2014/10/04 12:52		
COC Number		08398366		08398366		08398366		
	Units	BC-10	QC Batch	BC-12	QC Batch	BC-15	RDL	QC Batch
Misc. Inorganics								
Dissolved Hardness (CaCO3)	mg/L	236	7668857	565	7668857	540	0.50	7668857
Elements								
Dissolved Mercury (Hg)	mg/L	<0.0000020	7672031	0.0000128	7672031	<0.0000020	0.0000020	7672031
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	mg/L	0.00160	7671012	0.00534	7671012	0.00322	0.00050	7671012
Dissolved Antimony (Sb)	mg/L	0.129	7671012	0.262	7671012	0.00421	0.000020	7671012
Dissolved Arsenic (As)	mg/L	0.0179	7671012	0.522	7671012	0.0421	0.000020	7671012
Dissolved Barium (Ba)	mg/L	0.105	7671012	0.0115	7671012	0.0453	0.000020	7671012
Dissolved Beryllium (Be)	mg/L	<0.000010	7671012	0.000045	7671012	<0.000010	0.000010	7671012
Dissolved Bismuth (Bi)	mg/L	<0.0000050	7671012	<0.0000050	7671012	<0.0000050	0.0000050	7671012
Dissolved Boron (B)	mg/L	<0.020	7671012	<0.020	7671012	<0.020	0.020	7671012
Dissolved Cadmium (Cd)	mg/L	0.0000120	7671012	0.000233	7671012	0.0000230	0.0000050	7671012
Dissolved Chromium (Cr)	mg/L	<0.00010	7671012	<0.00010	7671012	<0.00010	0.00010	7671012
Dissolved Cobalt (Co)	mg/L	0.0000120	7671012	0.00822	7678458	0.0000220	0.0000050	7671012
Dissolved Copper (Cu)	mg/L	0.000330	7671012	0.000154	7671012	0.000182	0.000050	7671012
Dissolved Iron (Fe)	mg/L	<0.0010	7671012	3.45	7671012	0.0010	0.0010	7671012
Dissolved Lead (Pb)	mg/L	<0.0000050	7671012	<0.0000050	7671012	<0.0000050	0.0000050	7671012
Dissolved Lithium (Li)	mg/L	0.00259	7671012	0.00574	7671012	0.00114	0.00050	7671012
Dissolved Manganese (Mn)	mg/L	0.000101	7671012	0.645	7678458	0.00125	0.000050	7671012
Dissolved Molybdenum (Mo)	mg/L	0.00401	7671012	0.0213	7671012	0.00112 (1)	0.000050	7671012
Dissolved Nickel (Ni)	mg/L	0.000328	7678458	0.0282	7678458	0.000600	0.000020	7671012
Dissolved Phosphorus (P)	mg/L	<0.0020	7671012	<0.0020	7671012	<0.0020	0.0020	7671012
Dissolved Selenium (Se)	mg/L	0.00431	7671012	0.000093	7671012	0.0182	0.000040	7671012
Dissolved Silicon (Si)	mg/L	1.86	7671012	5.16	7671012	1.74	0.10	7671012
Dissolved Silver (Ag)	mg/L	<0.0000050	7671012	<0.0000050	7671012	<0.0000050	0.0000050	7671012
Dissolved Strontium (Sr)	mg/L	0.484	7671012	0.785	7678458	1.11	0.000050	7671012
Dissolved Thallium (Tl)	mg/L	0.0000640	7671012	0.0000350	7671012	0.0000340	0.0000020	7671012
Dissolved Tin (Sn)	mg/L	<0.00020	7671012	<0.00020	7671012	<0.00020	0.00020	7671012
Dissolved Titanium (Ti)	mg/L	<0.00050	7671012	<0.00050	7671012	<0.00050	0.00050	7671012
Dissolved Uranium (U)	mg/L	0.00845	7671012	0.00816	7671012	0.00384	0.0000020	7671012
Dissolved Vanadium (V)	mg/L	<0.00020	7671012	<0.00020	7671012	<0.00020	0.00020	7671012
Dissolved Zinc (Zn)	mg/L	0.00026	7671012	0.0206	7678458	0.00021	0.00010	7671012
Dissolved Zirconium (Zr)	mg/L	<0.00010	7671012	<0.00010	7671012	<0.00010	0.00010	7671012
Dissolved Calcium (Ca)	mg/L	55.5	7668074	137	7668074	120	0.050	7668074
Dissolved Magnesium (Mg)	mg/L	23.7	7668074	53.8	7668074	58.3	0.050	7668074

RDL = Reportable Detection Limit

(1) Dissolved greater than total. Reanalysis yields similar results.

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Maxxam Job #: B489905
Report Date: 2014/10/17

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-13-01

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		KU4796		KU4797		KU4798		
Sampling Date		2014/10/04 10:56		2014/10/04 12:00		2014/10/04 12:52		
COC Number		08398366		08398366		08398366		
	Units	**BC-10**	**QC Batch**	**BC-12**	**QC Batch**	**BC-15**	**RDL**	**QC Batch**
Dissolved Potassium (K)	mg/L	1.72	7668074	2.05	7668074	0.967	0.050	7668074
Dissolved Sodium (Na)	mg/L	0.669	7668074	1.08	7668074	0.428	0.050	7668074
Dissolved Sulphur (S)	mg/L	35.7	7668074	137	7668074	146	3.0	7668074
RDL = Reportable Detection Limit								

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Maxxam Job #: B489905
Report Date: 2014/10/17

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-13-01

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		KU4799		KU4800		KU4801		
Sampling Date		2014/10/04 10:32		2014/10/04 13:16				
COC Number		08398366		08398366		08398366		
	Units	BC-17	QC Batch	BC-51W	QC Batch	SAMPLE	RDL	QC Batch
Misc. Inorganics								
Dissolved Hardness (CaCO3)	mg/L	202	7668857	263	7668857	<0.50	0.50	7668857
Elements								
Dissolved Mercury (Hg)	mg/L	<0.0000020	7672031	<0.0000020	7672031	<0.0000020	0.0000020	7672031
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	mg/L	0.00105	7671012	5.49	7671042	0.00089	0.00050	7671042
Dissolved Antimony (Sb)	mg/L	0.281	7671012	0.00219	7671042	<0.000020	0.000020	7671042
Dissolved Arsenic (As)	mg/L	0.0532	7671012	0.00955	7671042	<0.000020	0.000020	7671042
Dissolved Barium (Ba)	mg/L	0.0947	7671012	0.0316	7671042	<0.000020	0.000020	7671042
Dissolved Beryllium (Be)	mg/L	<0.000010	7671012	0.0113	7671042	<0.000010	0.000010	7671042
Dissolved Bismuth (Bi)	mg/L	<0.0000050	7671012	<0.0000050	7671042	<0.0000050	0.0000050	7671042
Dissolved Boron (B)	mg/L	<0.020	7671012	<0.020	7671042	<0.020	0.020	7671042
Dissolved Cadmium (Cd)	mg/L	0.0000190	7671012	0.00426	7671042	<0.0000050	0.0000050	7671042
Dissolved Chromium (Cr)	mg/L	0.00016	7671012	0.00155	7671042	<0.00010	0.00010	7671042
Dissolved Cobalt (Co)	mg/L	0.0000070	7671012	0.0449	7671042	<0.0000050	0.0000050	7671042
Dissolved Copper (Cu)	mg/L	0.000134	7671012	0.275	7671042	<0.000050	0.000050	7671042
Dissolved Iron (Fe)	mg/L	<0.0010	7671012	3.20	7671042	<0.0010	0.0010	7671042
Dissolved Lead (Pb)	mg/L	<0.0000050	7671012	0.000160	7671042	<0.0000050	0.0000050	7671042
Dissolved Lithium (Li)	mg/L	0.00243	7671012	0.00979	7671042	<0.00050	0.00050	7671042
Dissolved Manganese (Mn)	mg/L	0.000125	7671012	2.07	7671042	<0.000050	0.000050	7671042
Dissolved Molybdenum (Mo)	mg/L	0.00982	7671012	0.000163	7671042	<0.000050	0.000050	7671042
Dissolved Nickel (Ni)	mg/L	0.00168	7671012	0.137	7671042	<0.000020	0.000020	7678458
Dissolved Phosphorus (P)	mg/L	0.0027	7671012	<0.0020	7671042	<0.0020	0.0020	7671042
Dissolved Selenium (Se)	mg/L	0.00870	7671012	0.00407	7671042	<0.000040	0.000040	7671042
Dissolved Silicon (Si)	mg/L	4.19	7671012	10.7	7671042	<0.10	0.10	7671042
Dissolved Silver (Ag)	mg/L	<0.0000050	7671012	<0.0000050	7671042	<0.0000050	0.0000050	7671042
Dissolved Strontium (Sr)	mg/L	0.292	7671012	0.394	7671042	<0.000050	0.000050	7671042
Dissolved Thallium (Tl)	mg/L	0.0000660	7671012	0.000114	7671042	<0.0000020	0.0000020	7671042
Dissolved Tin (Sn)	mg/L	<0.00020	7671012	<0.00020	7671042	<0.00020	0.00020	7671042
Dissolved Titanium (Ti)	mg/L	<0.00050	7671012	<0.00050	7671042	<0.00050	0.00050	7671042
Dissolved Uranium (U)	mg/L	0.00650	7671012	0.00369	7671042	<0.0000020	0.0000020	7671042
Dissolved Vanadium (V)	mg/L	<0.00020	7671012	<0.00020	7671042	<0.00020	0.00020	7671042
Dissolved Zinc (Zn)	mg/L	0.0133	7671012	0.356	7671042	<0.00010	0.00010	7671042
Dissolved Zirconium (Zr)	mg/L	<0.00010	7671012	<0.00010	7671042	<0.00010	0.00010	7671042
Dissolved Calcium (Ca)	mg/L	54.1	7668074	59.6	7668074	<0.050	0.050	7668074
Dissolved Magnesium (Mg)	mg/L	16.1	7668074	27.8	7668074	<0.050	0.050	7668074
Dissolved Potassium (K)	mg/L	0.789	7668074	1.82	7668074	<0.050	0.050	7668074

RDL = Reportable Detection Limit

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Maxxam Job #: B489905
Report Date: 2014/10/17

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-13-01

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		KU4799		KU4800		KU4801		
Sampling Date		2014/10/04 10:32		2014/10/04 13:16				
COC Number		08398366		08398366		08398366		
	Units	**BC-17**	**QC Batch**	**BC-51W**	**QC Batch**	**SAMPLE**	**RDL**	**QC Batch**
Dissolved Sodium (Na)	mg/L	1.19	7668074	0.702	7668074	<0.050	0.050	7668074
Dissolved Sulphur (S)	mg/L	23.9	7668074	109	7668074	<3.0	3.0	7668074
RDL = Reportable Detection Limit								

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Maxxam Job #: B489905
Report Date: 2014/10/17

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-13-01

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		KU4796		KU4797		KU4798		
Sampling Date		2014/10/04 10:56		2014/10/04 12:00		2014/10/04 12:52		
COC Number		08398366		08398366		08398366		
	Units	BC-10	RDL	BC-12	RDL	BC-15	RDL	QC Batch
Calculated Parameters								
Total Hardness (CaCO3)	mg/L	248	0.50	555	0.50	589	0.50	7668072
Elements								
Total Mercury (Hg)	mg/L	0.0000040	0.0000020	0.0000187	0.0000020	0.0000041	0.0000020	7671945
Total Metals by ICPMS								
Total Aluminum (Al)	mg/L	0.0106	0.00050	0.128	0.0025	0.0465	0.00050	7671191
Total Antimony (Sb)	mg/L	0.138	0.000020	0.302	0.00010	0.00441	0.000020	7671191
Total Arsenic (As)	mg/L	0.0201	0.000020	1.23	0.00010	0.0524	0.000020	7671191
Total Barium (Ba)	mg/L	0.107	0.000020	0.0128	0.00010	0.0515	0.000020	7671191
Total Beryllium (Be)	mg/L	<0.000010	0.000010	0.000089	0.000050	0.000019	0.000010	7671191
Total Bismuth (Bi)	mg/L	<0.0000050	0.0000050	<0.000025	0.000025	<0.0000050	0.0000050	7671191
Total Boron (B)	mg/L	<0.020	0.020	<0.10	0.10	<0.020	0.020	7671191
Total Cadmium (Cd)	mg/L	0.0000210	0.0000050	0.000226	0.000025	0.0000470	0.0000050	7671191
Total Chromium (Cr)	mg/L	<0.00010	0.00010	<0.00050	0.00050	0.00016	0.00010	7671191
Total Cobalt (Co)	mg/L	0.0000270	0.0000050	0.00924	0.000025	0.0000820	0.0000050	7671191
Total Copper (Cu)	mg/L	0.000406	0.000050	0.00227	0.00025	0.000519	0.000050	7671191
Total Iron (Fe)	mg/L	0.0134	0.0010	4.22	0.0050	0.0539	0.0010	7671191
Total Lead (Pb)	mg/L	0.0000320	0.0000050	<0.000025	0.000025	0.000200	0.0000050	7671191
Total Lithium (Li)	mg/L	0.00262	0.00050	0.0050	0.0025	0.00136	0.00050	7671191
Total Manganese (Mn)	mg/L	0.00887	0.000050	0.639	0.00025	0.00894	0.000050	7671191
Total Molybdenum (Mo)	mg/L	0.00358	0.000050	0.0181	0.00025	0.000821	0.000050	7671191
Total Nickel (Ni)	mg/L	0.000506	0.000020	0.0310	0.00010	0.000896	0.000020	7671191
Total Phosphorus (P)	mg/L	0.0042	0.0020	<0.010	0.010	0.0039	0.0020	7671191
Total Selenium (Se)	mg/L	0.00486	0.000040	0.00022	0.00020	0.0203	0.000040	7671191
Total Silicon (Si)	mg/L	2.19	0.10	6.16	0.50	2.05	0.10	7671191
Total Silver (Ag)	mg/L	<0.0000050	0.0000050	<0.000025	0.000025	0.0000070	0.0000050	7671191
Total Strontium (Sr)	mg/L	0.480	0.000050	0.747	0.00025	1.14	0.000050	7671191
Total Thallium (Tl)	mg/L	0.0000640	0.0000020	0.000035	0.000010	0.0000380	0.0000020	7671191
Total Tin (Sn)	mg/L	<0.00020	0.00020	<0.0010	0.0010	<0.00020	0.00020	7671191
Total Titanium (Ti)	mg/L	<0.00050	0.00050	<0.0025	0.0025	<0.00050	0.00050	7671191
Total Uranium (U)	mg/L	0.00813	0.0000020	0.00726	0.000010	0.00373	0.0000020	7671191
Total Vanadium (V)	mg/L	<0.00020	0.00020	<0.0010	0.0010	0.00031	0.00020	7671191
Total Zinc (Zn)	mg/L	0.00033	0.00010	0.0418	0.00050	0.00067	0.00010	7671191
Total Zirconium (Zr)	mg/L	<0.00010	0.00010	<0.00050	0.00050	<0.00010	0.00010	7671191
Total Calcium (Ca)	mg/L	61.3	0.050	136	0.25	132	0.050	7668299
Total Magnesium (Mg)	mg/L	23.2	0.050	52.3	0.25	63.3	0.050	7668299
Total Potassium (K)	mg/L	1.76	0.050	1.93	0.25	1.03	0.050	7668299
RDL = Reportable Detection Limit								

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Maxxam Job #: B489905
Report Date: 2014/10/17

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-13-01

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		KU4796		KU4797		KU4798		
Sampling Date		2014/10/04 10:56		2014/10/04 12:00		2014/10/04 12:52		
COC Number		08398366		08398366		08398366		
	Units	BC-10	RDL	BC-12	RDL	BC-15	RDL	QC Batch
Total Sodium (Na)	mg/L	0.692	0.050	1.39	0.25	0.479	0.050	7668299
Total Sulphur (S)	mg/L	36.0	3.0	130	15	161	3.0	7668299
RDL = Reportable Detection Limit								

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Maxxam Job #: B489905
Report Date: 2014/10/17

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-13-01

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		KU4799	KU4800	KU4801		KU4802		
Sampling Date		2014/10/04 10:32	2014/10/04 13:16			2014/10/01 18:31		
COC Number		08398366	08398366	08398366		08398366		
	Units	BC-17	BC-51W	SAMPLE	RDL	BC-28A	RDL	QC Batch
Calculated Parameters								
Total Hardness (CaCO3)	mg/L	226	283	<0.50	0.50	1510	0.50	7668072
Elements								
Total Mercury (Hg)	mg/L	0.0000022	0.0000035	<0.0000020	0.0000020	0.0000334	0.0000020	7671945
Total Metals by ICPMS								
Total Aluminum (Al)	mg/L	0.00099	5.66	0.00069	0.00050	0.0201	0.0025	7671191
Total Antimony (Sb)	mg/L	0.292	0.00236	<0.000020	0.000020	1.87	0.00010	7671191
Total Arsenic (As)	mg/L	0.0587	0.0106	<0.000020	0.000020	0.343	0.00010	7671191
Total Barium (Ba)	mg/L	0.0954	0.0322	0.000102	0.000020	0.0357	0.00010	7671191
Total Beryllium (Be)	mg/L	<0.000010	0.0128	<0.000010	0.000010	<0.000050	0.000050	7671191
Total Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	0.0000050	<0.000025	0.000025	7671191
Total Boron (B)	mg/L	<0.020	<0.020	<0.020	0.020	<0.10	0.10	7671191
Total Cadmium (Cd)	mg/L	0.0000280	0.00472	<0.0000050	0.0000050	0.000193	0.000025	7671191
Total Chromium (Cr)	mg/L	0.00015	0.00167	<0.00010	0.00010	0.00052	0.00050	7671191
Total Cobalt (Co)	mg/L	0.0000090	0.0468	<0.0000050	0.0000050	0.581	0.000025	7671191
Total Copper (Cu)	mg/L	0.000133	0.302	0.000072	0.000050	0.00131	0.00025	7671191
Total Iron (Fe)	mg/L	0.0029	3.43	<0.0010 (1)	0.0010	0.282	0.0050	7671191
Total Lead (Pb)	mg/L	0.0000090	0.000162	0.0000110	0.0000050	<0.000025	0.000025	7671191
Total Lithium (Li)	mg/L	0.00253	0.0101	<0.00050	0.00050	0.0056	0.0025	7671191
Total Manganese (Mn)	mg/L	0.000424	2.19	0.000070	0.000050	0.0205	0.00025	7671191
Total Molybdenum (Mo)	mg/L	0.00829	0.000186	<0.000050	0.000050	0.0153	0.00025	7671191
Total Nickel (Ni)	mg/L	0.00190	0.144	0.000087 (2)	0.000020	0.00769	0.00010	7671191
Total Phosphorus (P)	mg/L	0.0040	0.0043	<0.0020	0.0020	0.047	0.010	7671191
Total Selenium (Se)	mg/L	0.00977	0.00455	<0.000040	0.000040	0.163	0.00020	7671191
Total Silicon (Si)	mg/L	4.87	11.4	<0.10	0.10	5.71	0.50	7671191
Total Silver (Ag)	mg/L	<0.0000050	0.0000080	<0.0000050	0.0000050	<0.000025	0.000025	7671191
Total Strontium (Sr)	mg/L	0.288	0.396	<0.000050	0.000050	1.90	0.00025	7671191
Total Thallium (Tl)	mg/L	0.0000630	0.000113	<0.0000020	0.0000020	0.000339	0.000010	7671191
Total Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	<0.0010	0.0010	7671191
Total Titanium (Ti)	mg/L	<0.00050	0.00052	<0.00050	0.00050	<0.0025	0.0025	7671191
Total Uranium (U)	mg/L	0.00615	0.00381	<0.0000020	0.0000020	0.0264	0.000010	7671191
Total Vanadium (V)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	<0.0010	0.0010	7671191
Total Zinc (Zn)	mg/L	0.0156	0.426	0.00040 (1)	0.00010	0.00679	0.00050	7671191
Total Zirconium (Zr)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	<0.00050	0.00050	7671191
Total Calcium (Ca)	mg/L	62.9	62.8	<0.050	0.050	429	0.25	7668299

RDL = Reportable Detection Limit

(1) Matrix Spike outside acceptance criteria (10% of analytes failure allowed).

(2) Duplicate RPD above control limit - (10% of analytes failure allowed).

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Maxxam Job #: B489905
Report Date: 2014/10/17

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-13-01

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		KU4799	KU4800	KU4801		KU4802		
Sampling Date		2014/10/04 10:32	2014/10/04 13:16			2014/10/01 18:31		
COC Number		08398366	08398366	08398366		08398366		
	Units	**BC-17**	**BC-51W**	**SAMPLE**	**RDL**	**BC-28A**	**RDL**	**QC Batch**
Total Magnesium (Mg)	mg/L	16.8	30.7	<0.050	0.050	107	0.25	7668299
Total Potassium (K)	mg/L	0.796	1.99	<0.050	0.050	5.85	0.25	7668299
Total Sodium (Na)	mg/L	1.25	0.747	<0.050	0.050	468	0.25	7668299
Total Sulphur (S)	mg/L	25.5	123	<3.0	3.0	409	15	7668299
RDL = Reportable Detection Limit								

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Maxxam Job #: B489905
Report Date: 2014/10/17

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Client Project #: GPBC-13-01

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		KU4819		KU4820	KU4821		
Sampling Date		2014/10/01 18:10		2014/10/01 18:39	2014/10/01 18:18		
COC Number		08398365		08398365	08398365		
	Units	BC-28B	RDL	POND 1	POND 3	RDL	QC Batch
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	907	0.50	299	225	0.50	7668072
Elements							
Total Mercury (Hg)	mg/L	0.0000107	0.0000020	0.0000075	0.0000021	0.0000020	7671945
Total Metals by ICPMS							
Total Aluminum (Al)	mg/L	0.0372	0.0025	0.0389	0.0903	0.00050	7671191
Total Antimony (Sb)	mg/L	1.45	0.00010	0.471	0.380	0.000020	7671191
Total Arsenic (As)	mg/L	0.175	0.00010	0.0482	0.00505	0.000020	7671191
Total Barium (Ba)	mg/L	0.0459	0.00010	0.0901	0.0804	0.000020	7671191
Total Beryllium (Be)	mg/L	<0.000050	0.000050	<0.000010	<0.000010	0.000010	7671191
Total Bismuth (Bi)	mg/L	<0.000025	0.000025	<0.0000050	<0.0000050	0.0000050	7671191
Total Boron (B)	mg/L	<0.10	0.10	0.026	<0.020	0.020	7671191
Total Cadmium (Cd)	mg/L	0.000038	0.000025	0.0000480	0.0000060	0.0000050	7671191
Total Chromium (Cr)	mg/L	<0.00050	0.00050	0.00016	0.00025	0.00010	7671191
Total Cobalt (Co)	mg/L	0.385	0.000025	0.194	0.0184	0.0000050	7671191
Total Copper (Cu)	mg/L	0.00284	0.00025	0.00209	0.00136	0.000050	7671191
Total Iron (Fe)	mg/L	0.0654	0.0050	0.0699	0.0670	0.0010	7671191
Total Lead (Pb)	mg/L	0.000046	0.000025	0.000120	0.0000570	0.0000050	7671191
Total Lithium (Li)	mg/L	0.0029	0.0025	0.00129	<0.00050	0.00050	7671191
Total Manganese (Mn)	mg/L	0.0313	0.00025	0.0110	0.00195	0.000050	7671191
Total Molybdenum (Mo)	mg/L	0.0137	0.00025	0.00593	0.00761	0.000050	7671191
Total Nickel (Ni)	mg/L	0.00459	0.00010	0.00133	0.000407	0.000020	7671191
Total Phosphorus (P)	mg/L	0.024	0.010	0.0443	0.0070	0.0020	7671191
Total Selenium (Se)	mg/L	0.103	0.00020	0.0523	0.0322	0.000040	7671191
Total Silicon (Si)	mg/L	0.67	0.50	2.46	0.26	0.10	7671191
Total Silver (Ag)	mg/L	<0.000025	0.000025	<0.0000050	0.0000060	0.0000050	7671191
Total Strontium (Sr)	mg/L	1.10	0.00025	0.355	0.338	0.000050	7671191
Total Thallium (Tl)	mg/L	0.000152	0.000010	0.0000330	0.0000130	0.0000020	7671191
Total Tin (Sn)	mg/L	<0.0010	0.0010	<0.00020	<0.00020	0.00020	7671191
Total Titanium (Ti)	mg/L	<0.0025	0.0025	0.00164	0.00132	0.00050	7671191
Total Uranium (U)	mg/L	0.0120	0.000010	0.00306	0.00369	0.0000020	7671191
Total Vanadium (V)	mg/L	<0.0010	0.0010	0.00044	0.00037	0.00020	7671191
Total Zinc (Zn)	mg/L	0.00160	0.00050	0.00155	0.00135	0.00010	7671191
Total Zirconium (Zr)	mg/L	<0.00050	0.00050	0.00032	0.00047	0.00010	7671191
Total Calcium (Ca)	mg/L	262	0.25	93.6	60.9	0.050	7668299
Total Magnesium (Mg)	mg/L	61.3	0.25	16.0	17.8	0.050	7668299
Total Potassium (K)	mg/L	4.90	0.25	4.44	3.28	0.050	7668299
RDL = Reportable Detection Limit							

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ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-13-01

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		KU4819		KU4820	KU4821		
Sampling Date		2014/10/01 18:10		2014/10/01 18:39	2014/10/01 18:18		
COC Number		08398365		08398365	08398365		
	Units	**BC-28B**	**RDL**	**POND 1**	**POND 3**	**RDL**	**QC Batch**
Total Sodium (Na)	mg/L	315	0.25	122	116	0.050	7668299
Total Sulphur (S)	mg/L	245	15	60.6	74.7	3.0	7668299
RDL = Reportable Detection Limit							

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.0°C
Package 2	8.0°C

LOW LEVEL TOTAL METALS WITH CV HG (WATER) Comments

Sample KU4797-06 Elements by ICPMS Low Level (total): RDL raised due to sample matrix interference.
Sample KU4802-05 Elements by ICPMS Low Level (total): RDL raised due to sample matrix interference.
Sample KU4819-05 Elements by ICPMS Low Level (total): RDL raised due to sample matrix interference.

Sample KU4796, Elements by ICPMS Low Level (dissolved): Test repeated.
Sample KU4797, Elements by ICPMS Low Level (dissolved): Test repeated.
Sample KU4801, Elements by ICPMS Low Level (dissolved): Test repeated.

Results relate only to the items tested.

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Report Date: 2014/10/17

QUALITY ASSURANCE REPORT

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-13-01

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
7669396	Total Dissolved Solids	2014/10/15	102	80 - 120	104	80 - 120	1.6 ,RDL=1.0	mg/L	19	20
7670144	Nitrate plus Nitrite (N)	2014/10/07	106	80 - 120	105	80 - 120	<0.0020	mg/L	0.076	25
7670159	Nitrite (N)	2014/10/07	99	80 - 120	97	80 - 120	<0.0020	mg/L	NC	25
7670267	Total Ammonia (N)	2014/10/07	86	80 - 120	95	80 - 120	0.0077 ,RDL=0.0050	mg/L	NC	20
7670270	Total Ammonia (N)	2014/10/07	111	80 - 120	103	80 - 120	0.0055 ,RDL=0.0050	mg/L	NC	20
7670288	Strong Acid Dissoc. Cyanide (CN)	2014/10/07	105	80 - 120	103	80 - 120	<0.00050	mg/L	NC	20
7670293	Weak Acid Dissoc. Cyanide (CN)	2014/10/07	99	80 - 120	101	80 - 120	<0.00050	mg/L	NC	20
7670366	Dissolved Sulphate (SO4)	2014/10/07	NC	80 - 120	96	80 - 120	<0.50	mg/L	5.5	20
7670369	Dissolved Sulphate (SO4)	2014/10/07	NC	80 - 120	93	80 - 120	0.67 ,RDL=0.50	mg/L	0.37	20
7670515	Alkalinity (PP as CaCO3)	2014/10/07					<0.50	mg/L	NC	20
7670515	Alkalinity (Total as CaCO3)	2014/10/07	NC	80 - 120	90	80 - 120	<0.50	mg/L	1.4	20
7670515	Bicarbonate (HCO3)	2014/10/07					<0.50	mg/L	1.3	20
7670515	Carbonate (CO3)	2014/10/07					<0.50	mg/L	NC	20
7670515	Hydroxide (OH)	2014/10/07					<0.50	mg/L	NC	20
7670519	pH	2014/10/07			101	97 - 103			1.5	N/A
7670520	Conductivity	2014/10/07			99	80 - 120	1.1 ,RDL=1.0	uS/cm	0.39	20
7671012	Dissolved Aluminum (Al)	2014/10/09	111	80 - 120	106	80 - 120	<0.00050	mg/L	NC	20
7671012	Dissolved Antimony (Sb)	2014/10/09	105	80 - 120	103	80 - 120	<0.000020	mg/L	NC	20
7671012	Dissolved Arsenic (As)	2014/10/09	103	80 - 120	101	80 - 120	<0.000020	mg/L	NC	20
7671012	Dissolved Barium (Ba)	2014/10/09	100	80 - 120	101	80 - 120	<0.000020	mg/L	NC	20
7671012	Dissolved Beryllium (Be)	2014/10/09	101	80 - 120	99	80 - 120	<0.000010	mg/L	NC	20
7671012	Dissolved Bismuth (Bi)	2014/10/09	98	80 - 120	97	80 - 120	<0.0000050	mg/L	NC	20
7671012	Dissolved Boron (B)	2014/10/09					<0.020	mg/L	NC	20
7671012	Dissolved Cadmium (Cd)	2014/10/09	99	80 - 120	98	80 - 120	<0.0000050	mg/L	NC	20
7671012	Dissolved Chromium (Cr)	2014/10/09	100	80 - 120	101	80 - 120	<0.00010	mg/L	NC	20
7671012	Dissolved Cobalt (Co)	2014/10/09	101	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
7671012	Dissolved Copper (Cu)	2014/10/09	100	80 - 120	101	80 - 120	<0.000050	mg/L	NC	20
7671012	Dissolved Iron (Fe)	2014/10/09	109	80 - 120	110	80 - 120	<0.0010	mg/L		
7671012	Dissolved Lead (Pb)	2014/10/09	99	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
7671012	Dissolved Lithium (Li)	2014/10/09	98	80 - 120	92	80 - 120	<0.00050	mg/L	NC	20
7671012	Dissolved Manganese (Mn)	2014/10/09	101	80 - 120	99	80 - 120	<0.000050	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
7671012	Dissolved Molybdenum (Mo)	2014/10/09	98	80 - 120	90	80 - 120	<0.000050	mg/L	NC	20
7671012	Dissolved Nickel (Ni)	2014/10/09	97	80 - 120	101	80 - 120	<0.000020	mg/L		
7671012	Dissolved Phosphorus (P)	2014/10/09					<0.0020	mg/L	NC	20
7671012	Dissolved Selenium (Se)	2014/10/09	95	80 - 120	95	80 - 120	<0.000040	mg/L	NC	20
7671012	Dissolved Silicon (Si)	2014/10/09					<0.10	mg/L	NC	20
7671012	Dissolved Silver (Ag)	2014/10/09	103	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
7671012	Dissolved Strontium (Sr)	2014/10/09	96	80 - 120	95	80 - 120	<0.000050	mg/L	NC	20
7671012	Dissolved Thallium (Tl)	2014/10/09	98	80 - 120	98	80 - 120	<0.0000020	mg/L	NC	20
7671012	Dissolved Tin (Sn)	2014/10/09	98	80 - 120	96	80 - 120	<0.00020	mg/L	NC	20
7671012	Dissolved Titanium (Ti)	2014/10/09	105	80 - 120	106	80 - 120	<0.00050	mg/L	NC	20
7671012	Dissolved Uranium (U)	2014/10/09	95	80 - 120	94	80 - 120	<0.0000020	mg/L	NC	20
7671012	Dissolved Vanadium (V)	2014/10/09	101	80 - 120	102	80 - 120	<0.00020	mg/L	NC	20
7671012	Dissolved Zinc (Zn)	2014/10/09	100	80 - 120	103	80 - 120	<0.00010	mg/L	NC	20
7671012	Dissolved Zirconium (Zr)	2014/10/09					<0.00010	mg/L	NC	20
7671041	Total Suspended Solids	2014/10/09			106	80 - 120	<1.0	mg/L		
7671042	Dissolved Aluminum (Al)	2014/10/08	108	80 - 120	108	80 - 120	<0.00050	mg/L	3.1	20
7671042	Dissolved Antimony (Sb)	2014/10/08	NC	80 - 120	100	80 - 120	<0.000020	mg/L	0.16	20
7671042	Dissolved Arsenic (As)	2014/10/08	106	80 - 120	101	80 - 120	<0.000020	mg/L	0.75	20
7671042	Dissolved Barium (Ba)	2014/10/08	NC	80 - 120	95	80 - 120	<0.000020	mg/L	0.14	20
7671042	Dissolved Beryllium (Be)	2014/10/08	96	80 - 120	97	80 - 120	<0.000010	mg/L	NC	20
7671042	Dissolved Bismuth (Bi)	2014/10/08	94	80 - 120	95	80 - 120	<0.0000050	mg/L	NC	20
7671042	Dissolved Boron (B)	2014/10/08					<0.020	mg/L	NC	20
7671042	Dissolved Cadmium (Cd)	2014/10/08	95	80 - 120	95	80 - 120	<0.0000050	mg/L	2.5	20
7671042	Dissolved Chromium (Cr)	2014/10/08	95	80 - 120	96	80 - 120	<0.00010	mg/L	NC	20
7671042	Dissolved Cobalt (Co)	2014/10/08	94	80 - 120	95	80 - 120	<0.0000050	mg/L	12	20
7671042	Dissolved Copper (Cu)	2014/10/08	93	80 - 120	97	80 - 120	<0.000050	mg/L	3.4	20
7671042	Dissolved Iron (Fe)	2014/10/08	NC	80 - 120	111	80 - 120	<0.0010	mg/L	0.34	20
7671042	Dissolved Lead (Pb)	2014/10/08	94	80 - 120	96	80 - 120	<0.0000050	mg/L	NC	20
7671042	Dissolved Lithium (Li)	2014/10/08	NC	80 - 120	88	80 - 120	<0.00050	mg/L	5.0	20
7671042	Dissolved Manganese (Mn)	2014/10/08	NC	80 - 120	95	80 - 120	<0.000050	mg/L	1.3	20
7671042	Dissolved Molybdenum (Mo)	2014/10/08	NC	80 - 120	96	80 - 120	<0.000050	mg/L	3.9	20
7671042	Dissolved Nickel (Ni)	2014/10/08	90	80 - 120	97	80 - 120	<0.000020	mg/L	0.44	20

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
7671042	Dissolved Phosphorus (P)	2014/10/08					<0.0020	mg/L	NC	20
7671042	Dissolved Selenium (Se)	2014/10/08	95	80 - 120	93	80 - 120	<0.000040	mg/L	1.3	20
7671042	Dissolved Silicon (Si)	2014/10/08					<0.10	mg/L	0.92	20
7671042	Dissolved Silver (Ag)	2014/10/08	97	80 - 120	95	80 - 120	<0.0000050	mg/L	NC	20
7671042	Dissolved Strontium (Sr)	2014/10/08	NC	80 - 120	93	80 - 120	<0.000050	mg/L	0.74	20
7671042	Dissolved Thallium (Tl)	2014/10/08	98	80 - 120	97	80 - 120	<0.0000020	mg/L	NC	20
7671042	Dissolved Tin (Sn)	2014/10/08	98	80 - 120	94	80 - 120	<0.00020	mg/L	NC	20
7671042	Dissolved Titanium (Ti)	2014/10/08	100	80 - 120	90	80 - 120	<0.00050	mg/L	NC	20
7671042	Dissolved Uranium (U)	2014/10/08	95	80 - 120	93	80 - 120	<0.0000020	mg/L	2.5	20
7671042	Dissolved Vanadium (V)	2014/10/08	97	80 - 120	95	80 - 120	<0.00020	mg/L	NC	20
7671042	Dissolved Zinc (Zn)	2014/10/08	90	80 - 120	99	80 - 120	<0.00010	mg/L	0.78	20
7671042	Dissolved Zirconium (Zr)	2014/10/08					<0.00010	mg/L	NC	20
7671043	Total Suspended Solids	2014/10/09			103	80 - 120	<1.0	mg/L		
7671191	Total Aluminum (Al)	2014/10/08	115	80 - 120	113	80 - 120	<0.00050	mg/L	NC	20
7671191	Total Antimony (Sb)	2014/10/08	107	80 - 120	100	80 - 120	<0.000020	mg/L	NC	20
7671191	Total Arsenic (As)	2014/10/08	111	80 - 120	103	80 - 120	<0.000020	mg/L	NC	20
7671191	Total Barium (Ba)	2014/10/08	98	80 - 120	97	80 - 120	<0.000020	mg/L	NC	20
7671191	Total Beryllium (Be)	2014/10/08	114	80 - 120	102	80 - 120	<0.000010	mg/L	NC	20
7671191	Total Bismuth (Bi)	2014/10/08	102	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20
7671191	Total Boron (B)	2014/10/08					<0.020	mg/L	NC	20
7671191	Total Cadmium (Cd)	2014/10/08	110	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20
7671191	Total Chromium (Cr)	2014/10/08	102	80 - 120	99	80 - 120	<0.00010	mg/L	NC	20
7671191	Total Cobalt (Co)	2014/10/08	102	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
7671191	Total Copper (Cu)	2014/10/08	104	80 - 120	101	80 - 120	<0.000050	mg/L	NC	20
7671191	Total Iron (Fe)	2014/10/08	122 (1)	80 - 120	115	80 - 120	<0.0010	mg/L	NC	20
7671191	Total Lead (Pb)	2014/10/08	101	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20
7671191	Total Lithium (Li)	2014/10/08	99	80 - 120	97	80 - 120	<0.00050	mg/L	NC	20
7671191	Total Manganese (Mn)	2014/10/08	102	80 - 120	101	80 - 120	<0.000050	mg/L	NC	20
7671191	Total Molybdenum (Mo)	2014/10/08	98	80 - 120	91	80 - 120	<0.000050	mg/L	NC	20
7671191	Total Nickel (Ni)	2014/10/08	103	80 - 120	101	80 - 120	<0.000020	mg/L	NC	20
7671191	Total Phosphorus (P)	2014/10/08					<0.0020	mg/L	NC	20
7671191	Total Selenium (Se)	2014/10/08	110	80 - 120	97	80 - 120	<0.000040	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
7671191	Total Silicon (Si)	2014/10/08					<0.10	mg/L	NC	20
7671191	Total Silver (Ag)	2014/10/08	101	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
7671191	Total Strontium (Sr)	2014/10/08	100	80 - 120	96	80 - 120	<0.000050	mg/L	NC	20
7671191	Total Thallium (Tl)	2014/10/08	103	80 - 120	101	80 - 120	<0.0000020	mg/L	NC	20
7671191	Total Tin (Sn)	2014/10/08	95	80 - 120	96	80 - 120	<0.00020	mg/L	NC	20
7671191	Total Titanium (Ti)	2014/10/08	106	80 - 120	97	80 - 120	<0.00050	mg/L	NC	20
7671191	Total Uranium (U)	2014/10/08	98	80 - 120	97	80 - 120	<0.0000020	mg/L	NC	20
7671191	Total Vanadium (V)	2014/10/08	104	80 - 120	94	80 - 120	<0.00020	mg/L	NC	20
7671191	Total Zinc (Zn)	2014/10/08	126 (1)	80 - 120	103	80 - 120	<0.00010	mg/L	NC	20
7671191	Total Zirconium (Zr)	2014/10/08					<0.00010	mg/L	NC	20
7671914	Dissolved Sulphate (SO4)	2014/10/08	NC	80 - 120	93	80 - 120	<0.50	mg/L	1.1	20
7671945	Total Mercury (Hg)	2014/10/09	85	80 - 120	97	80 - 120	<0.0000020	mg/L	NC	20
7672031	Dissolved Mercury (Hg)	2014/10/09	96	80 - 120	94	80 - 120	<0.0000020	mg/L	NC	20
7678458	Dissolved Cobalt (Co)	2014/10/15	100	80 - 120	102	80 - 120	<0.0000050	mg/L		
7678458	Dissolved Manganese (Mn)	2014/10/15	99	80 - 120	100	80 - 120	<0.000050	mg/L		
7678458	Dissolved Nickel (Ni)	2014/10/15	101	80 - 120	102	80 - 120	<0.000020	mg/L	NC	20
7678458	Dissolved Strontium (Sr)	2014/10/15	95	80 - 120	97	80 - 120	<0.000050	mg/L		
7678458	Dissolved Zinc (Zn)	2014/10/15	111	80 - 120	102	80 - 120	<0.00010	mg/L		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B489905
Report Date: 2014/10/17

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-13-01

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Andy Lu, Data Validation Coordinator

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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CHAIN-OF CUSTODY RECORD AND ANALYSIS REQUEST

PAGE 1 OF 2

LAB USE ONLY
MAXXAM JOB #: B489905

ANALYSIS REQUEST

LAB USE ONLY
COC #: 08398366

COMPANY NAME:	#3429 ACCESS CONSULTING GROUP
COMPANY ADDRESS:	#3 Calcite Business Centre 151 Industrial Road Whitehorse, YT Y1A 2V3
CLIENT PROJECT NO.:	GPBC-13-01
TEL.:	(867)668-6463
E-MAIL:	david@accessconsulting.ca, scott@accessconsulting.ca abier@accessconsulting.ca, chenry@accessconsulting.ca mducharme@accessconsulting.ca, lfougere@accessconsulting.ca
FAX:	(867)667-6680
SAMPLER NAME (PRINT):	
PROJECT MANAGER:	
LABORATORY CONTACT:	Ken Pomeroy

	FIELD SAMPLE ID	MAXXAM LAB # (LAB USE ONLY)	MATRIX: GROUNDWATER	SURFACE WATER	DRINKING WATER	SOIL	OTHER	SAMPLING: DATE DD/MM/YY	TIME	# CONTAINERS	Total Metals incl. Hg (Low-level)	Dissolved Metals incl. Hg (Low-level)	Anions (sulphate, nitrate)	TSS (Low-Level)	Routine (pH, cond., alk.)	Ammonia-N	TDS (Low-level)	Cyanide (total & WAD)
1	BC-10	KU4796		X				4/10/14	10:56	10	X	X	X	X	X	X	X	
2	~~BC-11~~			~~X~~							~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	
3	BC-12	KU4797		X				4/10/14	12:00	10	X	X	X	X	X	X	X	
4	BC-15	KU4798		X				4/10/14	12:52	10	X	X	X	X	X	X	X	
5	~~BC-16~~			~~X~~							~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	
6	BC-17	KU4799		X				4/10/14	10:32	10	X	X	X	X	X	X	X	
7	~~BC-18S~~			~~X~~							~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	
8	~~BC-18N~~			~~X~~							~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	
9	BC-51W	KU4800		X				4/10/14	13:16	10	X	X	X	X	X	X	X	
10	Sample	KU4801		X				n/a	n/a	10	X	X	X	X	X	X	X	
11	~~BC-[illegible]~~			~~X~~							~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	
12	BC-28A	KU4802		X				1/10/14	18:31	10	X			X		X		X

B489905

TAT (Turnaround Time)
LESS THAN 5 DAY TAT MUST HAVE PRIOR APPROVAL
* Some exceptions apply - please contact laboratory
STANDARD 5 BUSINESS DAYS
RUSH 3 BUSINESS DAYS
RUSH 2 BUSINESS DAYS
URGENT 1 BUSINESS DAY
OTHER BUSINESS DAYS

PO NUMBER OR QUOTE NUMBER:

SPECIAL DETECTION LIMITS / CONTAMINANT TYPE:

ACCOUNTING CONTACT: Kim Borden-Hall

SPECIAL REPORTING OR BILLING INSTRUCTIONS:

RELINQUISHED BY SAMPLER: CH	DATE: DD/MM/YY 5/10/14	TIME: 14:30	RECEIVED BY: Rebecca Banzon 2014/10/06 15:25
RELINQUISHED BY:	DATE: DD/MM/YY	TIME:	RECEIVED BY:
RELINQUISHED BY:	DATE: DD/MM/YY	TIME:	RECEIVED BY LABORATORY:

LAB USE ONLY

CCME
CSR
AB TIER 1
OTHER

JARS USED:

ARRIVAL TEMPERATURE °C: 2,2,5 9,6,4

DUE DATE:

LOG IN CHECK:

CUSTODY RECORD

COCFORM - BC - 20070922

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CHAIN-OF CUSTODY RECORD AND ANALYSIS REQUEST

LAB USE ONLY
MAXXAM JOB #: B489905

ANALYSIS REQUEST

LAB USE ONLY
COC #: 08398365

COMPANY NAME: #3429 ACCESS CONSULTING GROUP

CLIENT PROJECT NO.: GPBC-13-01

COMPANY ADDRESS:
#3 Calcite Business Centre
151 Industrial Road
Whitehorse, YT
Y1A 2V3

TEL.: (867)668-6463
E-MAIL: david@accessconsulting.ca, scott@accessconsulting.ca, abier@accessconsulting.ca, chenry@accessconsulting.ca, mducharme@accessconsulting.ca, lfougere@accessconsulting.ca
FAX: (867)667-6680

SAMPLER NAME (PRINT):

PROJECT MANAGER:

LABORATORY CONTACT: Ken Pomeroy

	FIELD SAMPLE ID		MAXXAM LAB # (LAB USE ONLY)	MATRIX: GROUNDWATER	SURFACE WATER	DRINKING WATER	SOIL	OTHER	SAMPLING: DATE DD/MM/YY	TIME	# CONTAINERS	Total Metals incl. Hg (Low-level)	Dissolved Metals incl. Hg (Low-level)	Anions (sulphate, nitrate)	TSS (Low-Level)	Routine (pH, cond., alk.)	Ammonia-N	TDS (Low-level)	Cyanide (total & WAD)	[illegible]
1	BC-28B		KU4819		X				1/10/14	18:10	10	X			X		X		X	
2	POND 1	KU4820	KU4820		X				1/10/14	18:39	10	X			X		X		X	
3	POND 3	KU4821	KU4821		X				1/10/14	18:18	10	X			X		X		X	
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

B489905

TAT (Turnaround Time)
LESS THAN 5 DAY TAT MUST HAVE PRIOR APPROVAL
* Some exceptions apply - please contact laboratory
STANDARD 5 BUSINESS DAYS
RUSH 3 BUSINESS DAYS
RUSH 2 BUSINESS DAYS
URGENT 1 BUSINESS DAY
OTHER BUSINESS DAYS

PO NUMBER OR QUOTE NUMBER:

SPECIAL DETECTION LIMITS / CONTAMINANT TYPE:

CCME
CSR
AB TIER 1
OTHER

LAB USE ONLY
ARRIVAL TEMPERATURE °C: 2, 2, 5 / 9, 6, 9
DUE DATE:
LOG IN CHECK:

ACCOUNTING CONTACT: Kim Borden-Hall

SPECIAL REPORTING OR BILLING INSTRUCTIONS:

JARS USED:

RELINQUISHED BY SAMPLER: CH	DATE: DD/MM/YY 5/10/14	TIME: 14:30	RECEIVED BY: REBECCA BANZON 2014/10/06 15:25
RELINQUISHED BY:	DATE: DD/MM/YY	TIME:	RECEIVED BY:
RELINQUISHED BY:	DATE: DD/MM/YY	TIME:	RECEIVED BY LABORATORY:

CUSTODY RECORD

COCFORM - BC : 20070622

Maxxam
A Bureau Veritas Group Company

Success Through Science®

Your Project #: GPBC-12-01
Your C.O.C. #: 08398363, 08398364

Attention:Scott Keesey

ACCESS MINING CONSULTANTS LTD.
#3-151 INDUSRIAL RD
WHITEHORSE, YT
CANADA Y1A 2V3

Report Date: 2014/10/15
Report #: R1663307
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B489907
Received: 2014/10/06, 15:25

Sample Matrix: Water
Samples Received: 13

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity - Water	4	2014/10/07	2014/10/07	BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Water	9	2014/10/07	2014/10/08	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry	10	N/A	2014/10/07	BBY6SOP-00011	SM 22 4500-Cl- G m
Cyanide SAD (strong acid dissociable)	6	N/A	2014/10/07	BBY6SOP-00004	SM 22 4500-CN O m
Cyanide WAD (weak acid dissociable)	6	N/A	2014/10/07	BBY6SOP-00005	SM 22 4500-CN O
Carbon (DOC) - field filtered/preserved (1)	1	N/A	2014/10/09	BBY6SOP-00003	SM 22 5310 C m
Conductance - water	4	N/A	2014/10/07	BBY6SOP-00026	SM 22 2510 B m
Conductance - water	9	N/A	2014/10/08	BBY6SOP-00026	SM 22 2510 B m
Hardness Total (calculated as CaCO3)	13	N/A	2014/10/09	BBY7SOP-00002	EPA 6020a R1 m
Hardness (calculated as CaCO3)	12	N/A	2014/10/09	BBY7SOP-00002	EPA 6020a R1 m
Hardness (calculated as CaCO3)	1	N/A	2014/10/15	BBY7SOP-00002	EPA 6020a R1 m
Mercury (Dissolved-LowLevel) by CVAF	13	N/A	2014/10/09	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total-LowLevel) by CVAF	13	2014/10/08	2014/10/09	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Ion Balance	10	N/A	2014/10/09	BBY WI-00033	SM 1030E
Sum of cations, anions	10	N/A	2014/10/09	Calc	
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	12	N/A	2014/10/09	BBY7SOP-00002	EPA 6020A R1 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	1	N/A	2014/10/15	BBY7SOP-00002	EPA 6020A R1 m
Elements by ICPMS Low Level (dissolved)	13	N/A	2014/10/08	BBY7SOP-00002	EPA 6020A R1 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	13	N/A	2014/10/09	BBY7SOP-00002	EPA 6020A R1 m
Elements by ICPMS Low Level (total)	13	N/A	2014/10/08	BBY7SOP-00002	EPA 6020A R1 m
Ammonia-N (Unpreserved)	1	N/A	2014/10/07	BBY6SOP-00009	SM 22 4500-NH3- G m
Ammonia-N (Preserved)	12	N/A	2014/10/07	BBY6SOP-00009	SM 22 4500-NH3- G m
Nitrate+Nitrite (N) (low level)	13	N/A	2014/10/07	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	13	N/A	2014/10/07	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	13	N/A	2014/10/07	BBY6SOP-00010	SM 22 4500-NO3- I m
Filter and HNO3 Preserve for Metals	12	N/A	2014/10/07	BBY7 WI-00004	BCMOE Reqs 08/14
Filter and HNO3 Preserve for Metals	1	N/A	2014/10/08	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (2)	4	N/A	2014/10/07	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (2)	9	N/A	2014/10/08	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate by Automated Colourimetry	13	N/A	2014/10/07	BBY6SOP-00017	SM 22 4500-SO42- E m

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Your Project #: GPBC-12-01
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Attention:Scott Keesey

ACCESS MINING CONSULTANTS LTD.
#3-151 INDUSRIAL RD
WHITEHORSE, YT
CANADA Y1A 2V3

Report Date: 2014/10/15
Report #: R1663307
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B489907
Received: 2014/10/06, 15:25

Sample Matrix: Water
Samples Received: 13

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Total Dissolved Solids - Low Level	13	N/A	2014/10/15	BBY6SOP-00033	SM 22 2540 C m
Carbon (Total Organic) (3)	1	N/A	2014/10/09	BBY6SOP-00003	SM 22 5310 C m
Total Suspended Solids-Low Level	13	2014/10/08	2014/10/09	BBY6SOP-00034	SM 22 2540 D

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) DOC present in the sample should be considered as non-purgeable DOC.
(2) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
(3) TOC present in the sample should be considered as non-purgeable TOC.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ken Pomeroy, Project Manager
Email: KPomeroy@maxxam.ca
Phone# (604)638-5020

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B489907
Report Date: 2014/10/15

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01
Sampler Initials: CH

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		KU4806	KU4807	KU4808		KU4809		
Sampling Date		2014/10/03 10:38	2014/10/01 10:50	2014/10/01 11:28		2014/10/03 13:30		
COC Number		08398363	08398363	08398363		08398363		
	Units	BC-1	BC-2	BC-3	QC Batch	BC-4	RDL	QC Batch
Calculated Parameters								
Anion Sum	meq/L	4.7	4.6	4.9	7668859	6.7	N/A	7668859
Cation Sum	meq/L	4.9	4.8	5.2	7668859	7.0	N/A	7668859
Filter and HNO3 Preservation	N/A	LAB	LAB	LAB	7669173	LAB	N/A	7669173
Ion Balance	N/A	1.0	1.0	1.1	7667445	1.0	0.010	7667445
Nitrate (N)	mg/L	0.172	0.209	0.188	7668860	0.229	0.0020	7668860
Misc. Inorganics								
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00059	0.00115		7670288		0.00050	7670288
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00086	0.00111		7670293		0.00050	7670293
Alkalinity (Total as CaCO3)	mg/L	118	77.1	117	7670515	141	0.50	7670515
Alkalinity (PP as CaCO3)	mg/L	<0.50	<0.50	<0.50	7670515	<0.50	0.50	7670515
Bicarbonate (HCO3)	mg/L	144	94.1	143	7670515	172	0.50	7670515
Carbonate (CO3)	mg/L	<0.50	<0.50	<0.50	7670515	<0.50	0.50	7670515
Hydroxide (OH)	mg/L	<0.50	<0.50	<0.50	7670515	<0.50	0.50	7670515
Anions								
Dissolved Sulphate (SO4)	mg/L	112	144	119	7670369	185	0.50	7670369
Dissolved Chloride (Cl)	mg/L	1.1	1.4	0.90	7670367	0.95	0.50	7670367
Nutrients								
Total Ammonia (N)	mg/L	0.012	0.036	0.011	7670267	0.022	0.0050	7670267
Nitrate plus Nitrite (N)	mg/L	0.172 (1)	0.209 (2)	0.188 (2)	7670144	0.229 (1)	0.0020	7670210
Nitrite (N)	mg/L	<0.0020 (1)	<0.0020 (2)	<0.0020 (2)	7670159	<0.0020 (1)	0.0020	7670211
Physical Properties								
Conductivity	uS/cm	448	438	475	7670520	629	1.0	7670520
pH	pH	8.04	7.86	8.11	7670519	8.10	N/A	7670519
Physical Properties								
Total Suspended Solids	mg/L	9.2	13.2	1.7	7671041	25.4	1.0	7671041
Total Dissolved Solids	mg/L	304	312	301	7669396	421	1.0	7669396

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.
(2) Sample arrived to laboratory past recommended hold time.

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Maxxam Job #: B489907
Report Date: 2014/10/15

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01
Sampler Initials: CH

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		KU4810		KU4811	KU4812	KU4813		
Sampling Date		2014/10/03 14:15		2014/10/03 09:50	2014/10/03 11:25	2014/10/03 14:50		
COC Number		08398363		08398363	08398363	08398363		
	Units	BC-5	QC Batch	BC-6	BC-31	BC-34	RDL	QC Batch
Calculated Parameters								
Anion Sum	meq/L	5.1	7668859	3.0			N/A	7668859
Cation Sum	meq/L	5.4	7668859	3.1			N/A	7668859
Filter and HNO3 Preservation	N/A	LAB	7669173	LAB	LAB	LAB	N/A	7669173
Ion Balance	N/A	1.1	7667445	1.0			0.010	7667445
Nitrate (N)	mg/L	0.0826	7668860	0.0841	0.286	0.166	0.0020	7668860
Misc. Inorganics								
Strong Acid Dissoc. Cyanide (CN)	mg/L		7670288	<0.00050			0.00050	7670288
Weak Acid Dissoc. Cyanide (CN)	mg/L		7670293	<0.00050			0.00050	7670293
Alkalinity (Total as CaCO3)	mg/L	125	7670521	84.4	144	129	0.50	7670515
Alkalinity (PP as CaCO3)	mg/L	<0.50	7670521	<0.50	<0.50	<0.50	0.50	7670515
Bicarbonate (HCO3)	mg/L	153	7670521	103	176	158	0.50	7670515
Carbonate (CO3)	mg/L	<0.50	7670521	<0.50	<0.50	<0.50	0.50	7670515
Hydroxide (OH)	mg/L	<0.50	7670521	<0.50	<0.50	<0.50	0.50	7670515
Anions								
Dissolved Sulphate (SO4)	mg/L	121	7670369	61.2	122	123	0.50	7670369
Dissolved Chloride (Cl)	mg/L	1.0	7670367	0.67			0.50	7670367
Nutrients								
Total Ammonia (N)	mg/L	0.012	7670267	0.0076	0.010	0.014	0.0050	7670267
Nitrate plus Nitrite (N)	mg/L	0.0826 (1)	7670144	0.0841 (1)	0.286 (1)	0.166 (1)	0.0020	7670144
Nitrite (N)	mg/L	<0.0020 (1)	7670159	<0.0020 (1)	<0.0020 (1)	<0.0020 (1)	0.0020	7670159
Physical Properties								
Conductivity	uS/cm	479	7670523	293	511	483	1.0	7670520
pH	pH	7.97	7670522	8.04	8.18	8.09	N/A	7670519
Physical Properties								
Total Suspended Solids	mg/L	1.2	7671041	<1.0	4.0	<1.0	1.0	7671041
Total Dissolved Solids	mg/L	362	7669396	168	364	421	1.0	7669396

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Sample analysed past hold time: sample was received on the hold time expiry date which did not allow sufficient time for preparation and analysis.

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Maxxam Job #: B489907
Report Date: 2014/10/15

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01
Sampler Initials: CH

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		KU4814		KU4815		KU4816		
Sampling Date		2014/10/03 10:08		2014/10/03 09:50		2014/10/03 12:45		
COC Number		08398363		08398363		08398363		
	Units	BC-39	QC Batch	BC-53	QC Batch	BC-41	RDL	QC Batch
Calculated Parameters								
Anion Sum	meq/L		7668859	4.7	7668859	6.7	N/A	7668859
Cation Sum	meq/L		7668859	4.9	7668859	7.0	N/A	7668859
Filter and HNO3 Preservation	N/A	LAB	7669173	LAB	7669173	LAB	N/A	7669173
Ion Balance	N/A		7667445	1.0	7667445	1.0	0.010	7667445
Nitrate (N)	mg/L	0.132	7668860	0.164	7668860	0.279	0.0020	7668860
Misc. Inorganics								
Strong Acid Dissoc. Cyanide (CN)	mg/L		7670288	<0.00050	7670288	<0.00050	0.00050	7670288
Weak Acid Dissoc. Cyanide (CN)	mg/L		7670293	<0.00050	7670293	0.00054	0.00050	7670293
Dissolved Organic Carbon (C)	mg/L				7673546	4.87	0.50	7673546
Alkalinity (Total as CaCO3)	mg/L	87.9	7670512	118	7670515	138	0.50	7670512
Total Organic Carbon (C)	mg/L					5.56	0.50	7673549
Alkalinity (PP as CaCO3)	mg/L	<0.50	7670512	<0.50	7670515	<0.50	0.50	7670512
Bicarbonate (HCO3)	mg/L	107	7670512	144	7670515	169	0.50	7670512
Carbonate (CO3)	mg/L	<0.50	7670512	<0.50	7670515	<0.50	0.50	7670512
Hydroxide (OH)	mg/L	<0.50	7670512	<0.50	7670515	<0.50	0.50	7670512
Anions								
Dissolved Sulphate (SO4)	mg/L	63.2	7670366	110	7670369	188	0.50	7670365
Dissolved Chloride (Cl)	mg/L			1.1	7670367	0.87	0.50	7670364
Nutrients								
Total Ammonia (N)	mg/L	0.0096	7670267	0.012	7670267	0.016	0.0050	7670267
Nitrate plus Nitrite (N)	mg/L	0.132 (1)	7670144	0.164 (1)	7670144	0.279 (1)	0.0020	7670144
Nitrite (N)	mg/L	<0.0020 (1)	7670159	<0.0020 (1)	7670159	<0.0020 (1)	0.0020	7670159
Physical Properties								
Conductivity	uS/cm	302	7670514	445	7670520	637	1.0	7670514
pH	pH	7.70	7670513	8.12	7670519	8.09	N/A	7670513
Physical Properties								
Total Suspended Solids	mg/L	1.1	7671041	2.2	7671043	29.0	1.0	7671043
Total Dissolved Solids	mg/L	146	7669396	314	7669396	380	1.0	7669396

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ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01
Sampler Initials: CH

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		KU4817		KU4822		
Sampling Date				2014/10/06 15:25		
COC Number		08398363		08398364		
	Units	SAMPLE B	QC Batch	TRIP BLANK	RDL	QC Batch
Calculated Parameters						
Anion Sum	meq/L	5.4	7668859	0.049	N/A	7668859
Cation Sum	meq/L	5.8	7668859	0.0022	N/A	7668859
Filter and HNO3 Preservation	N/A	LAB	7669173	FIELD	N/A	ONSITE
Ion Balance	N/A	1.1	7667445	0.045	0.010	7667445
Nitrate (N)	mg/L	0.287	7668860	<0.0020	0.0020	7668860
Misc. Inorganics						
Strong Acid Dissoc. Cyanide (CN)	mg/L		7670288	<0.00050	0.00050	7670288
Weak Acid Dissoc. Cyanide (CN)	mg/L		7670293	<0.00050	0.00050	7670293
Alkalinity (Total as CaCO3)	mg/L	145	7670515	1.88	0.50	7670515
Alkalinity (PP as CaCO3)	mg/L	<0.50	7670515	<0.50	0.50	7670515
Bicarbonate (HCO3)	mg/L	177	7670515	2.29	0.50	7670515
Carbonate (CO3)	mg/L	<0.50	7670515	<0.50	0.50	7670515
Hydroxide (OH)	mg/L	<0.50	7670515	<0.50	0.50	7670515
Anions						
Dissolved Sulphate (SO4)	mg/L	119	7670369	0.53	0.50	7670369
Dissolved Chloride (Cl)	mg/L	0.75	7670367	<0.50	0.50	7670367
Nutrients						
Total Ammonia (N)	mg/L	0.012	7670267		0.0050	
Total Ammonia (N)	mg/L			0.0264	0.0050	7670286
Nitrate plus Nitrite (N)	mg/L	0.287	7670144	<0.0020	0.0020	7670144
Nitrite (N)	mg/L	<0.0020	7670159	<0.0020	0.0020	7670159
Physical Properties						
Conductivity	uS/cm	513	7670520	6.9	1.0	7670520
pH	pH	8.10	7670519	6.50	N/A	7670519
Physical Properties						
Total Suspended Solids	mg/L	4.4	7671043	<1.0	1.0	7671043
Total Dissolved Solids	mg/L	356	7669396	7.7	1.0	7669396

RDL = Reportable Detection Limit
N/A = Not Applicable

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Maxxam Job #: B489907
Report Date: 2014/10/15

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01
Sampler Initials: CH

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		KU4806	KU4807	KU4808	KU4809	KU4810		
Sampling Date		2014/10/03 10:38	2014/10/01 10:50	2014/10/01 11:28	2014/10/03 13:30	2014/10/03 14:15		
COC Number		08398363	08398363	08398363	08398363	08398363		
	Units	**BC-1**	**BC-2**	**BC-3**	**BC-4**	**BC-5**	**RDL**	**QC Batch**
Misc. Inorganics								
Dissolved Hardness (CaCO3)	mg/L	237	223	253	342	265	0.50	7668857
Elements								
Dissolved Mercury (Hg)	mg/L	<0.0000020	<0.0000020	<0.0000020	<0.0000020	0.0000028	0.0000020	7672056
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	mg/L	0.0258	0.0908	0.0383	0.0142	0.0194	0.00050	7671042
Dissolved Antimony (Sb)	mg/L	0.00310	0.000542	0.00379	0.00358	0.000522	0.000020	7671042
Dissolved Arsenic (As)	mg/L	0.00330	0.000614	0.00200	0.00168	0.000525	0.000020	7671042
Dissolved Barium (Ba)	mg/L	0.0565	0.0759	0.0525	0.0710	0.0553	0.000020	7671042
Dissolved Beryllium (Be)	mg/L	0.000014	0.000018	0.000030	<0.000010	<0.000010	0.000010	7671042
Dissolved Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	7671042
Dissolved Boron (B)	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7671042
Dissolved Cadmium (Cd)	mg/L	0.0000250	0.0000140	0.0000370	0.0000930	0.0000470	0.0000050	7671042
Dissolved Chromium (Cr)	mg/L	0.00014	0.00043	0.00016	0.00011	0.00018	0.00010	7671042
Dissolved Cobalt (Co)	mg/L	0.000302	0.00150	0.000476	0.00118	0.0000540	0.0000050	7671042
Dissolved Copper (Cu)	mg/L	0.00135	0.00157	0.00145	0.000548	0.00158	0.000050	7671042
Dissolved Iron (Fe)	mg/L	0.122	0.467	0.121	0.133	0.101	0.0010	7671042
Dissolved Lead (Pb)	mg/L	0.0000340	0.0000170	0.0000080	0.0000160	<0.0000050	0.0000050	7671042
Dissolved Lithium (Li)	mg/L	0.00970	0.00664	0.0118	0.00786	0.00375	0.00050	7671042
Dissolved Manganese (Mn)	mg/L	0.0378	0.120	0.0470	0.110	0.00898	0.000050	7671042
Dissolved Molybdenum (Mo)	mg/L	0.00257 (1)	0.000319	0.00209	0.00247	0.00262	0.000050	7671042
Dissolved Nickel (Ni)	mg/L	0.00241	0.00232	0.00369	0.00582	0.00383	0.000020	7671042
Dissolved Phosphorus (P)	mg/L	0.0089	0.0133	0.0056	0.0042	0.0087	0.0020	7671042
Dissolved Selenium (Se)	mg/L	0.00155	0.00240	0.00133	0.00301	0.00176	0.000040	7671042
Dissolved Silicon (Si)	mg/L	5.54	6.22	5.04	3.82	4.57	0.10	7671042
Dissolved Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	7671042
Dissolved Strontium (Sr)	mg/L	0.265	0.148	0.296	0.479	0.232	0.000050	7671042
Dissolved Thallium (Tl)	mg/L	0.0000020	<0.0000020	0.0000030	0.0000070	0.0000020	0.0000020	7671042
Dissolved Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	7671042
Dissolved Titanium (Ti)	mg/L	<0.00050	0.00130	<0.00050	<0.00050	0.00057	0.00050	7671042
Dissolved Uranium (U)	mg/L	0.00166	0.000720	0.00140	0.00321	0.00159	0.0000020	7671042
Dissolved Vanadium (V)	mg/L	0.00066	0.00037	0.00040	0.00075	0.00084	0.00020	7671042
Dissolved Zinc (Zn)	mg/L	0.00250	0.00109	0.00471	0.00746	0.0113	0.00010	7671042
Dissolved Zirconium (Zr)	mg/L	0.00021	0.00072	0.00022	0.00012	0.00021	0.00010	7671042
Dissolved Calcium (Ca)	mg/L	59.9	53.8	64.0	82.8	68.5	0.050	7668074
Dissolved Magnesium (Mg)	mg/L	21.3	21.4	22.6	32.9	22.8	0.050	7668074

RDL = Reportable Detection Limit

(1) Dissolved greater than total. Reanalysis yields similar results.

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Maxxam Job #: B489907
Report Date: 2014/10/15

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01
Sampler Initials: CH

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		KU4806	KU4807	KU4808	KU4809	KU4810		
Sampling Date		2014/10/03 10:38	2014/10/01 10:50	2014/10/01 11:28	2014/10/03 13:30	2014/10/03 14:15		
COC Number		08398363	08398363	08398363	08398363	08398363		
	Units	**BC-1**	**BC-2**	**BC-3**	**BC-4**	**BC-5**	**RDL**	**QC Batch**
Dissolved Potassium (K)	mg/L	1.15	0.800	1.28	1.34	0.646	0.050	7668074
Dissolved Sodium (Na)	mg/L	3.65	6.02	3.48	2.30	1.70	0.050	7668074
Dissolved Sulphur (S)	mg/L	37.9	47.8	44.4	65.9	41.6	3.0	7668074
RDL = Reportable Detection Limit								

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Maxxam Job #: B489907
Report Date: 2014/10/15

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01
Sampler Initials: CH

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		KU4811		KU4812		KU4813		
Sampling Date		2014/10/03 09:50		2014/10/03 11:25		2014/10/03 14:50		
COC Number		08398363		08398363		08398363		
	Units	BC-6	QC Batch	BC-31	QC Batch	BC-34	RDL	QC Batch
Misc. Inorganics								
Dissolved Hardness (CaCO3)	mg/L	149	7668857	275	7668857	256	0.50	7668857
Elements								
Dissolved Mercury (Hg)	mg/L	<0.0000020	7672056	<0.0000020	7672056	<0.0000020	0.0000020	7672056
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	mg/L	0.00445	7671042	0.0141	7671042	0.00365	0.00050	7678458
Dissolved Antimony (Sb)	mg/L	0.000173	7671042	0.000592	7671042	0.000243	0.000020	7671042
Dissolved Arsenic (As)	mg/L	0.000514	7671042	0.000507	7671042	0.000210	0.000020	7671042
Dissolved Barium (Ba)	mg/L	0.0521	7671042	0.0544	7671042	0.0419	0.000020	7671042
Dissolved Beryllium (Be)	mg/L	<0.000010	7671042	<0.000010	7671042	<0.000010	0.000010	7671042
Dissolved Bismuth (Bi)	mg/L	<0.0000050	7671042	<0.0000050	7671042	<0.0000050	0.0000050	7671042
Dissolved Boron (B)	mg/L	<0.020	7671042	<0.020	7671042	<0.020	0.020	7671042
Dissolved Cadmium (Cd)	mg/L	0.0000320	7671042	0.0000390	7671042	0.0000210	0.0000050	7678458
Dissolved Chromium (Cr)	mg/L	<0.00010	7671042	0.00012	7671042	<0.00010	0.00010	7671042
Dissolved Cobalt (Co)	mg/L	0.0000340	7671042	0.0000560	7671042	0.0000340	0.0000050	7671042
Dissolved Copper (Cu)	mg/L	0.000509	7671042	0.00133	7671042	0.00110	0.000050	7671042
Dissolved Iron (Fe)	mg/L	0.0117	7671042	0.0535	7671042	0.0212	0.0010	7671042
Dissolved Lead (Pb)	mg/L	<0.0000050	7671042	0.0000050	7671042	<0.0000050	0.0000050	7671042
Dissolved Lithium (Li)	mg/L	0.00212	7671042	0.00468	7671042	0.00230	0.00050	7671042
Dissolved Manganese (Mn)	mg/L	0.00513	7671042	0.00928	7671042	0.00597	0.000050	7671042
Dissolved Molybdenum (Mo)	mg/L	0.000569	7671042	0.00140	7671042	0.00150	0.000050	7671042
Dissolved Nickel (Ni)	mg/L	0.000839	7671042	0.00179	7678458	0.00178	0.000020	7678458
Dissolved Phosphorus (P)	mg/L	<0.0020	7671042	0.0048	7671042	0.0042	0.0020	7671042
Dissolved Selenium (Se)	mg/L	0.000585	7671042	0.00175	7671042	0.00232	0.000040	7671042
Dissolved Silicon (Si)	mg/L	2.88	7671042	3.94	7671042	3.39	0.10	7671042
Dissolved Silver (Ag)	mg/L	<0.0000050	7671042	<0.0000050	7671042	<0.0000050	0.0000050	7671042
Dissolved Strontium (Sr)	mg/L	0.228	7671042	0.311	7671042	0.249	0.000050	7671042
Dissolved Thallium (Tl)	mg/L	<0.0000020	7671042	0.0000030	7671042	0.0000020	0.0000020	7671042
Dissolved Tin (Sn)	mg/L	<0.00020	7671042	<0.00020	7671042	<0.00020	0.00020	7671042
Dissolved Titanium (Ti)	mg/L	<0.00050	7671042	<0.00050	7671042	<0.00050	0.00050	7671042
Dissolved Uranium (U)	mg/L	0.000758	7671042	0.00229	7671042	0.00142	0.0000020	7671042
Dissolved Vanadium (V)	mg/L	<0.00020	7671042	0.00066	7671042	0.00073	0.00020	7671042
Dissolved Zinc (Zn)	mg/L	0.00225	7671042	0.00323	7671042	0.00220	0.00010	7678458
Dissolved Zirconium (Zr)	mg/L	<0.00010	7671042	0.00014	7671042	<0.00010	0.00010	7671042
Dissolved Calcium (Ca)	mg/L	40.6	7668074	68.5	7668074	65.2	0.050	7668074
Dissolved Magnesium (Mg)	mg/L	11.5	7668074	25.3	7668074	22.5	0.050	7668074

RDL = Reportable Detection Limit

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Maxxam Job #: B489907
Report Date: 2014/10/15

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01
Sampler Initials: CH

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		KU4811		KU4812		KU4813		
Sampling Date		2014/10/03 09:50		2014/10/03 11:25		2014/10/03 14:50		
COC Number		08398363		08398363		08398363		
	Units	**BC-6**	**QC Batch**	**BC-31**	**QC Batch**	**BC-34**	**RDL**	**QC Batch**
Dissolved Potassium (K)	mg/L	0.460	7668074	0.819	7668074	0.666	0.050	7668074
Dissolved Sodium (Na)	mg/L	2.13	7668074	1.92	7668074	1.39	0.050	7668074
Dissolved Sulphur (S)	mg/L	21.5	7668074	41.0	7668074	41.7	3.0	7668074
RDL = Reportable Detection Limit								

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Maxxam Job #: B489907
Report Date: 2014/10/15

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01
Sampler Initials: CH

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		KU4814		KU4815		KU4816		
Sampling Date		2014/10/03 10:08		2014/10/03 09:50		2014/10/03 12:45		
COC Number		08398363		08398363		08398363		
	Units	BC-39	QC Batch	BC-53	QC Batch	BC-41	RDL	QC Batch
Misc. Inorganics								
Dissolved Hardness (CaCO3)	mg/L	152	7677512	235	7668857	344	0.50	7668857
Elements								
Dissolved Mercury (Hg)	mg/L	<0.0000020	7672056	<0.0000020	7672056	0.0000027	0.0000020	7672056
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	mg/L	0.00116	7678458	0.0250	7671042	0.0131	0.00050	7671042
Dissolved Antimony (Sb)	mg/L	0.000505	7671042	0.00311	7671042	0.00315	0.000020	7671042
Dissolved Arsenic (As)	mg/L	0.000610	7671042	0.00324	7671042	0.00183	0.000020	7671042
Dissolved Barium (Ba)	mg/L	0.0785	7671042	0.0570	7671042	0.0636	0.000020	7671042
Dissolved Beryllium (Be)	mg/L	<0.000010	7671042	0.000010	7671042	<0.000010	0.000010	7671042
Dissolved Bismuth (Bi)	mg/L	<0.0000050	7671042	<0.0000050	7671042	<0.0000050	0.0000050	7671042
Dissolved Boron (B)	mg/L	<0.020	7671042	<0.020	7671042	<0.020	0.020	7671042
Dissolved Cadmium (Cd)	mg/L	0.0000060	7678458	0.0000210	7671042	0.0000240	0.0000050	7678458
Dissolved Chromium (Cr)	mg/L	0.00012	7671042	0.00021	7671042	0.00013	0.00010	7671042
Dissolved Cobalt (Co)	mg/L	0.0000290	7678458	0.000296	7671042	0.000466	0.0000050	7671042
Dissolved Copper (Cu)	mg/L	0.000380	7678458	0.00118	7671042	0.000804	0.000050	7671042
Dissolved Iron (Fe)	mg/L	0.0034	7678458	0.0795	7678458	0.0613	0.0010	7671042
Dissolved Lead (Pb)	mg/L	0.0000080	7671042	0.0000080	7671042	0.0000100	0.0000050	7671042
Dissolved Lithium (Li)	mg/L	0.00227	7671042	0.00928	7671042	0.00638	0.00050	7671042
Dissolved Manganese (Mn)	mg/L	<0.000050	7678458	0.0338	7671042	0.0575	0.000050	7671042
Dissolved Molybdenum (Mo)	mg/L	0.000570	7671042	0.00259	7671042	0.00222	0.000050	7671042
Dissolved Nickel (Ni)	mg/L	0.000379	7678458	0.00234	7671042	0.00355	0.000020	7671042
Dissolved Phosphorus (P)	mg/L	0.0044	7671042	0.0079	7671042	0.0049	0.0020	7671042
Dissolved Selenium (Se)	mg/L	0.000576	7671042	0.00147	7671042	0.00233	0.000040	7671042
Dissolved Silicon (Si)	mg/L	3.45	7671042	5.53	7671042	4.04	0.10	7671042
Dissolved Silver (Ag)	mg/L	<0.0000050	7671042	<0.0000050	7671042	<0.0000050	0.0000050	7671042
Dissolved Strontium (Sr)	mg/L	0.222	7671042	0.267	7671042	0.435	0.000050	7671042
Dissolved Thallium (Tl)	mg/L	<0.0000020	7671042	0.0000020	7671042	0.0000060	0.0000020	7671042
Dissolved Tin (Sn)	mg/L	<0.00020	7671042	0.00020	7671042	<0.00020	0.00020	7671042
Dissolved Titanium (Ti)	mg/L	<0.00050	7671042	<0.00050	7671042	<0.00050	0.00050	7671042
Dissolved Uranium (U)	mg/L	0.000433	7671042	0.00163	7671042	0.00285	0.0000020	7671042
Dissolved Vanadium (V)	mg/L	<0.00020	7671042	0.00069	7671042	0.00058	0.00020	7671042
Dissolved Zinc (Zn)	mg/L	0.00037	7678458	0.00041	7678458	0.00116	0.00010	7678458
Dissolved Zirconium (Zr)	mg/L	<0.00010	7671042	0.00023	7671042	0.00013	0.00010	7671042
Dissolved Calcium (Ca)	mg/L	41.4	7678255	60.0	7668074	86.9	0.050	7668074
Dissolved Magnesium (Mg)	mg/L	11.8	7678255	20.8	7668074	30.9	0.050	7668074

RDL = Reportable Detection Limit

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Maxxam Job #: B489907
Report Date: 2014/10/15

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01
Sampler Initials: CH

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		KU4814		KU4815		KU4816		
Sampling Date		2014/10/03 10:08		2014/10/03 09:50		2014/10/03 12:45		
COC Number		08398363		08398363		08398363		
	Units	**BC-39**	**QC Batch**	**BC-53**	**QC Batch**	**BC-41**	**RDL**	**QC Batch**
Dissolved Potassium (K)	mg/L	0.696	7678255	1.14	7668074	1.17	0.050	7668074
Dissolved Sodium (Na)	mg/L	2.45	7678255	3.66	7668074	2.02	0.050	7668074
Dissolved Sulphur (S)	mg/L	22.4	7678255	39.4	7668074	68.8	3.0	7668074
RDL = Reportable Detection Limit								

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Maxxam Job #: B489907
Report Date: 2014/10/15

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01
Sampler Initials: CH

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		KU4817		KU4822		
Sampling Date				2014/10/06 15:25		
COC Number		08398363		08398364		
	Units	SAMPLE B	QC Batch	TRIP BLANK	RDL	QC Batch
Misc. Inorganics						
Dissolved Hardness (CaCO3)	mg/L	282	7668857	<0.50	0.50	7668857
Elements						
Dissolved Mercury (Hg)	mg/L	0.0000020	7672056	<0.0000020	0.0000020	7672031
Dissolved Metals by ICPMS						
Dissolved Aluminum (Al)	mg/L	0.0147	7671042	<0.00050	0.00050	7671042
Dissolved Antimony (Sb)	mg/L	0.000635	7671042	<0.000020	0.000020	7671042
Dissolved Arsenic (As)	mg/L	0.000534	7671042	<0.000020	0.000020	7671042
Dissolved Barium (Ba)	mg/L	0.0555	7671042	<0.000020	0.000020	7671042
Dissolved Beryllium (Be)	mg/L	<0.000010	7671042	<0.000010	0.000010	7671042
Dissolved Bismuth (Bi)	mg/L	<0.0000050	7671042	<0.0000050	0.0000050	7671042
Dissolved Boron (B)	mg/L	<0.020	7671042	<0.020	0.020	7671042
Dissolved Cadmium (Cd)	mg/L	0.0000400	7671042	<0.0000050	0.0000050	7671042
Dissolved Chromium (Cr)	mg/L	0.00013	7671042	<0.00010	0.00010	7671042
Dissolved Cobalt (Co)	mg/L	0.0000630	7671042	<0.0000050	0.0000050	7671042
Dissolved Copper (Cu)	mg/L	0.00131	7671042	<0.000050	0.000050	7671042
Dissolved Iron (Fe)	mg/L	0.0523	7671042	<0.0010	0.0010	7671042
Dissolved Lead (Pb)	mg/L	<0.0000050	7671042	<0.0000050	0.0000050	7671042
Dissolved Lithium (Li)	mg/L	0.00506	7671042	<0.00050	0.00050	7671042
Dissolved Manganese (Mn)	mg/L	0.00961	7671042	<0.000050	0.000050	7671042
Dissolved Molybdenum (Mo)	mg/L	0.00146	7671042	<0.000050	0.000050	7671042
Dissolved Nickel (Ni)	mg/L	0.00228	7671042	0.000072	0.000020	7671042
Dissolved Phosphorus (P)	mg/L	0.0067	7671042	<0.0020	0.0020	7671042
Dissolved Selenium (Se)	mg/L	0.00174	7671042	<0.000040	0.000040	7671042
Dissolved Silicon (Si)	mg/L	3.98	7671042	<0.10	0.10	7671042
Dissolved Silver (Ag)	mg/L	<0.0000050	7671042	<0.0000050	0.0000050	7671042
Dissolved Strontium (Sr)	mg/L	0.318	7671042	<0.000050	0.000050	7671042
Dissolved Thallium (Tl)	mg/L	0.0000030	7671042	<0.0000020	0.0000020	7671042
Dissolved Tin (Sn)	mg/L	<0.00020	7671042	<0.00020	0.00020	7671042
Dissolved Titanium (Ti)	mg/L	<0.00050	7671042	<0.00050	0.00050	7671042
Dissolved Uranium (U)	mg/L	0.00238	7671042	<0.0000020	0.0000020	7671042
Dissolved Vanadium (V)	mg/L	0.00061	7671042	<0.00020	0.00020	7671042
Dissolved Zinc (Zn)	mg/L	0.00306	7671042	<0.00010	0.00010	7671042
Dissolved Zirconium (Zr)	mg/L	0.00011	7671042	<0.00010	0.00010	7671042
Dissolved Calcium (Ca)	mg/L	68.6	7668074	<0.050	0.050	7668074
Dissolved Magnesium (Mg)	mg/L	26.9	7668074	<0.050	0.050	7668074
RDL = Reportable Detection Limit						

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Maxxam Job #: B489907
Report Date: 2014/10/15

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01
Sampler Initials: CH

LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		KU4817		KU4822		
Sampling Date				2014/10/06 15:25		
COC Number		08398363		08398364		
	Units	**SAMPLE B**	**QC Batch**	**TRIP BLANK**	**RDL**	**QC Batch**
Dissolved Potassium (K)	mg/L	0.866	7668074	<0.050	0.050	7668074
Dissolved Sodium (Na)	mg/L	2.05	7668074	<0.050	0.050	7668074
Dissolved Sulphur (S)	mg/L	43.0	7668074	<3.0	3.0	7668074
RDL = Reportable Detection Limit						

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Maxxam Job #: B489907
Report Date: 2014/10/15

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01
Sampler Initials: CH

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		KU4806	KU4807	KU4808	KU4809		
Sampling Date		2014/10/03 10:38	2014/10/01 10:50	2014/10/01 11:28	2014/10/03 13:30		
COC Number		08398363	08398363	08398363	08398363		
	Units	BC-1	BC-2	BC-3	BC-4	RDL	QC Batch
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	242	229	256	370	0.50	7668072
Elements							
Total Mercury (Hg)	mg/L	<0.0000020	<0.0000020	<0.0000020	<0.0000020	0.0000020	7671915
Total Metals by ICPMS							
Total Aluminum (Al)	mg/L	0.0919	0.155	0.0515	0.170	0.00050	7671191
Total Antimony (Sb)	mg/L	0.00331	0.000567	0.00401	0.00375	0.000020	7671191
Total Arsenic (As)	mg/L	0.00393	0.000770	0.00243	0.00321	0.000020	7671191
Total Barium (Ba)	mg/L	0.0624	0.0819	0.0542	0.0845	0.000020	7671191
Total Beryllium (Be)	mg/L	0.000014	0.000030	0.000039	0.000025	0.000010	7671191
Total Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	7671191
Total Boron (B)	mg/L	<0.020	<0.020	<0.020	<0.020	0.020	7671191
Total Cadmium (Cd)	mg/L	0.0000360	0.0000250	0.0000500	0.000169	0.0000050	7671191
Total Chromium (Cr)	mg/L	0.00032	0.00051	0.00021	0.00040	0.00010	7671191
Total Cobalt (Co)	mg/L	0.000383	0.00163	0.000538	0.00152	0.0000050	7671191
Total Copper (Cu)	mg/L	0.00150	0.00190	0.00167	0.00144	0.000050	7671191
Total Iron (Fe)	mg/L	0.246	0.721	0.180	0.763	0.0010	7671191
Total Lead (Pb)	mg/L	0.000105	0.000158	0.0000330	0.000345	0.0000050	7671191
Total Lithium (Li)	mg/L	0.00952	0.00719	0.0117	0.00882	0.00050	7671191
Total Manganese (Mn)	mg/L	0.0466	0.128	0.0528	0.131	0.000050	7671191
Total Molybdenum (Mo)	mg/L	0.00203	0.000337	0.00184	0.00216	0.000050	7671191
Total Nickel (Ni)	mg/L	0.00261	0.00257	0.00496	0.00755	0.000020	7671191
Total Phosphorus (P)	mg/L	0.0187	0.0224	0.0073	0.0303	0.0020	7671191
Total Selenium (Se)	mg/L	0.00170	0.00262	0.00148	0.00321	0.000040	7671191
Total Silicon (Si)	mg/L	5.53	6.67	5.12	4.11	0.10	7671191
Total Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000050	7671191
Total Strontium (Sr)	mg/L	0.278	0.154	0.300	0.492	0.000050	7671191
Total Thallium (Tl)	mg/L	0.0000020	<0.0000020	0.0000020	0.0000090	0.0000020	7671191
Total Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	0.00020	7671191
Total Titanium (Ti)	mg/L	0.00227	0.00289	0.00064	0.00551	0.00050	7671191
Total Uranium (U)	mg/L	0.00160	0.000717	0.00138	0.00324	0.0000020	7671191
Total Vanadium (V)	mg/L	0.00097	0.00104	0.00039	0.00203	0.00020	7671191
Total Zinc (Zn)	mg/L	0.00254	0.00212	0.00623	0.0148	0.00010	7671191
Total Zirconium (Zr)	mg/L	0.00025	0.00085	0.00028	0.00019	0.00010	7671191
Total Calcium (Ca)	mg/L	60.0	55.1	63.8	87.4	0.050	7668299
Total Magnesium (Mg)	mg/L	22.2	22.3	23.3	36.8	0.050	7668299
RDL = Reportable Detection Limit							

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Maxxam Job #: B489907
Report Date: 2014/10/15

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01
Sampler Initials: CH

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		KU4806	KU4807	KU4808	KU4809		
Sampling Date		2014/10/03 10:38	2014/10/01 10:50	2014/10/01 11:28	2014/10/03 13:30		
COC Number		08398363	08398363	08398363	08398363		
	Units	**BC-1**	**BC-2**	**BC-3**	**BC-4**	**RDL**	**QC Batch**
Total Potassium (K)	mg/L	1.19	0.845	1.34	1.49	0.050	7668299
Total Sodium (Na)	mg/L	3.90	6.30	3.48	2.58	0.050	7668299
Total Sulphur (S)	mg/L	47.6	54.1	46.6	78.5	3.0	7668299
RDL = Reportable Detection Limit							

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Maxxam Job #: B489907
Report Date: 2014/10/15

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01
Sampler Initials: CH

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		KU4810	KU4811	KU4812		KU4813		
Sampling Date		2014/10/03 14:15	2014/10/03 09:50	2014/10/03 11:25		2014/10/03 14:50		
COC Number		08398363	08398363	08398363		08398363		
	Units	BC-5	BC-6	BC-31	QC Batch	BC-34	RDL	QC Batch
Calculated Parameters								
Total Hardness (CaCO3)	mg/L	266	157	286	7668072	268	0.50	7668072
Elements								
Total Mercury (Hg)	mg/L	0.0000024	<0.0000020	0.0000025	7671915	<0.0000020	0.0000020	7672937
Total Metals by ICPMS								
Total Aluminum (Al)	mg/L	0.0319	0.00626	0.0299	7671214	0.00319	0.00050	7671214
Total Antimony (Sb)	mg/L	0.000545	0.000172	0.000633	7671214	0.000272	0.000020	7671214
Total Arsenic (As)	mg/L	0.000544	0.000541	0.000606	7671214	0.000212	0.000020	7671214
Total Barium (Ba)	mg/L	0.0572	0.0548	0.0580	7671214	0.0427	0.000020	7671214
Total Beryllium (Be)	mg/L	0.000013	<0.000010	<0.000010	7671214	<0.000010	0.000010	7671214
Total Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	7671214	<0.0000050	0.0000050	7671214
Total Boron (B)	mg/L	<0.020	<0.020	<0.020	7671214	<0.020	0.020	7671214
Total Cadmium (Cd)	mg/L	0.0000560	0.0000390	0.0000560	7671214	0.0000210	0.0000050	7671214
Total Chromium (Cr)	mg/L	0.00020	<0.00010	0.00010	7671214	<0.00010	0.00010	7671214
Total Cobalt (Co)	mg/L	0.0000790	0.0000380	0.0000960	7671214	0.0000360	0.0000050	7671214
Total Copper (Cu)	mg/L	0.00168	0.000549	0.00157	7671214	0.00115	0.000050	7671214
Total Iron (Fe)	mg/L	0.125	0.0273	0.107	7671214	0.0212	0.0010	7671214
Total Lead (Pb)	mg/L	0.0000160	0.0000100	0.0000540	7671214	<0.0000050	0.0000050	7671214
Total Lithium (Li)	mg/L	0.00400	0.00212	0.00499	7671214	0.00245	0.00050	7671214
Total Manganese (Mn)	mg/L	0.0127	0.00647	0.0148	7671214	0.00561	0.000050	7671214
Total Molybdenum (Mo)	mg/L	0.00225	0.000507	0.00133	7671214	0.00187	0.000050	7671214
Total Nickel (Ni)	mg/L	0.00402	0.000859	0.00225	7671214	0.00189	0.000020	7671214
Total Phosphorus (P)	mg/L	0.0098	<0.0020	0.0063	7671214	<0.0020	0.0020	7671214
Total Selenium (Se)	mg/L	0.00192	0.000645	0.00202	7671214	0.00243	0.000040	7671214
Total Silicon (Si)	mg/L	4.39	2.99	4.03	7671214	3.37	0.10	7671214
Total Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050	7671214	<0.0000050	0.0000050	7671214
Total Strontium (Sr)	mg/L	0.240	0.229	0.321	7671214	0.263	0.000050	7671214
Total Thallium (Tl)	mg/L	0.0000020	<0.0000020	0.0000030	7671214	0.0000020	0.0000020	7671214
Total Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	7671214	<0.00020	0.00020	7671214
Total Titanium (Ti)	mg/L	0.00066	<0.00050	0.00051	7671214	<0.00050	0.00050	7671214
Total Uranium (U)	mg/L	0.00151	0.000720	0.00231	7671214	0.00189	0.0000020	7671214
Total Vanadium (V)	mg/L	0.00090	<0.00020	0.00064	7671214	0.00064	0.00020	7671214
Total Zinc (Zn)	mg/L	0.0143	0.00298	0.00472	7671214	0.00272	0.00010	7671214
Total Zirconium (Zr)	mg/L	0.00023	<0.00010	0.00015	7671214	0.00017	0.00010	7671214
Total Calcium (Ca)	mg/L	66.2	42.6	68.9	7668299	67.1	0.050	7668299
Total Magnesium (Mg)	mg/L	24.5	12.2	27.6	7668299	24.4	0.050	7668299
RDL = Reportable Detection Limit								

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Maxxam Job #: B489907
Report Date: 2014/10/15

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01
Sampler Initials: CH

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		KU4810	KU4811	KU4812		KU4813		
Sampling Date		2014/10/03 14:15	2014/10/03 09:50	2014/10/03 11:25		2014/10/03 14:50		
COC Number		08398363	08398363	08398363		08398363		
	Units	**BC-5**	**BC-6**	**BC-31**	**QC Batch**	**BC-34**	**RDL**	**QC Batch**
Total Potassium (K)	mg/L	0.681	0.494	0.872	7668299	0.703	0.050	7668299
Total Sodium (Na)	mg/L	1.79	2.27	2.01	7668299	1.52	0.050	7668299
Total Sulphur (S)	mg/L	42.7	23.0	43.3	7668299	44.1	3.0	7668299
RDL = Reportable Detection Limit								

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ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01
Sampler Initials: CH

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		KU4814	KU4815	KU4816		KU4817		
Sampling Date		2014/10/03 10:08	2014/10/03 09:50	2014/10/03 12:45				
COC Number		08398363	08398363	08398363		08398363		
	Units	BC-39	BC-53	BC-41	QC Batch	SAMPLE B	RDL	QC Batch
Calculated Parameters								
Total Hardness (CaCO3)	mg/L	158	238	365	7668072	300	0.50	7668072
Elements								
Total Mercury (Hg)	mg/L	<0.0000020	<0.0000020	0.0000023	7672937	<0.0000020	0.0000020	7672937
Total Metals by ICPMS								
Total Aluminum (Al)	mg/L	0.00195	0.0249	0.0280	7671214	0.0337	0.00050	7671191
Total Antimony (Sb)	mg/L	0.000519	0.00346	0.00342	7671214	0.000643	0.000020	7671191
Total Arsenic (As)	mg/L	0.000535	0.00342	0.00196	7671214	0.000620	0.000020	7671191
Total Barium (Ba)	mg/L	0.0766	0.0572	0.0657	7671214	0.0581	0.000020	7671191
Total Beryllium (Be)	mg/L	<0.000010	<0.000010	<0.000010	7671214	<0.000010	0.000010	7671191
Total Bismuth (Bi)	mg/L	<0.0000050	<0.0000050	<0.0000050	7671214	<0.0000050	0.0000050	7671191
Total Boron (B)	mg/L	<0.020	<0.020	<0.020	7671214	<0.020	0.020	7671191
Total Cadmium (Cd)	mg/L	0.0000070	0.0000080	0.0000310	7671214	0.0000560	0.0000050	7671191
Total Chromium (Cr)	mg/L	<0.00010	0.00023	0.00016	7671214	0.00012	0.00010	7671191
Total Cobalt (Co)	mg/L	0.0000330	0.000270	0.000399	7671214	0.0000900	0.0000050	7671191
Total Copper (Cu)	mg/L	0.000357	0.00123	0.000802	7671214	0.00163	0.000050	7671191
Total Iron (Fe)	mg/L	0.0063	0.0937	0.0891	7671214	0.111	0.0010	7671191
Total Lead (Pb)	mg/L	<0.0000050	0.0000090	0.0000250	7671214	0.0000560	0.0000050	7671191
Total Lithium (Li)	mg/L	0.00199	0.00949	0.00670	7671214	0.00490	0.00050	7671191
Total Manganese (Mn)	mg/L	0.000517	0.0308	0.0587	7671214	0.0151	0.000050	7671191
Total Molybdenum (Mo)	mg/L	0.000690	0.00269	0.00233	7671214	0.00125	0.000050	7671191
Total Nickel (Ni)	mg/L	0.000416	0.00214	0.00313	7671214	0.00226	0.000020	7671191
Total Phosphorus (P)	mg/L	<0.0020	0.0049	0.0027	7671214	0.0078	0.0020	7671191
Total Selenium (Se)	mg/L	0.000642	0.00170	0.00262	7671214	0.00195	0.000040	7671191
Total Silicon (Si)	mg/L	3.43	5.45	3.96	7671214	4.40	0.10	7671191
Total Silver (Ag)	mg/L	<0.0000050	<0.0000050	<0.0000050	7671214	<0.0000050	0.0000050	7671191
Total Strontium (Sr)	mg/L	0.218	0.266	0.438	7671214	0.317	0.000050	7671191
Total Thallium (Tl)	mg/L	<0.0000020	0.0000020	0.0000060	7671214	0.0000030	0.0000020	7671191
Total Tin (Sn)	mg/L	<0.00020	<0.00020	<0.00020	7671214	<0.00020	0.00020	7671191
Total Titanium (Ti)	mg/L	<0.00050	<0.00050	<0.00050	7671214	0.00064	0.00050	7671191
Total Uranium (U)	mg/L	0.000380	0.00207	0.00372	7671214	0.00228	0.0000020	7671191
Total Vanadium (V)	mg/L	<0.00020	0.00059	0.00057	7671214	0.00074	0.00020	7671191
Total Zinc (Zn)	mg/L	0.00055	0.00060	0.00193	7671214	0.00502	0.00010	7671191
Total Zirconium (Zr)	mg/L	<0.00010	0.00031	0.00017	7671214	0.00015	0.00010	7671191
Total Calcium (Ca)	mg/L	42.6	58.1	88.8	7668299	74.1	0.050	7668299
Total Magnesium (Mg)	mg/L	12.6	22.5	34.8	7668299	28.0	0.050	7668299

RDL = Reportable Detection Limit

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Maxxam Job #: B489907
Report Date: 2014/10/15

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01
Sampler Initials: CH

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		KU4814	KU4815	KU4816		KU4817		
Sampling Date		2014/10/03 10:08	2014/10/03 09:50	2014/10/03 12:45				
COC Number		08398363	08398363	08398363		08398363		
	Units	**BC-39**	**BC-53**	**BC-41**	**QC Batch**	**SAMPLE B**	**RDL**	**QC Batch**
Total Potassium (K)	mg/L	0.707	1.20	1.24	7668299	0.885	0.050	7668299
Total Sodium (Na)	mg/L	2.65	3.86	2.23	7668299	2.09	0.050	7668299
Total Sulphur (S)	mg/L	23.6	42.6	76.8	7668299	47.6	3.0	7668299
RDL = Reportable Detection Limit								

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ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01
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LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		KU4822		
Sampling Date		2014/10/06 15:25		
COC Number		08398364		
	Units	TRIP BLANK	RDL	QC Batch
Calculated Parameters				
Total Hardness (CaCO3)	mg/L	<0.50	0.50	7668072
Elements				
Total Mercury (Hg)	mg/L	<0.0000020	0.0000020	7671945
Total Metals by ICPMS				
Total Aluminum (Al)	mg/L	<0.00050	0.00050	7671191
Total Antimony (Sb)	mg/L	<0.000020	0.000020	7671191
Total Arsenic (As)	mg/L	<0.000020	0.000020	7671191
Total Barium (Ba)	mg/L	<0.000020	0.000020	7671191
Total Beryllium (Be)	mg/L	<0.000010	0.000010	7671191
Total Bismuth (Bi)	mg/L	<0.0000050	0.0000050	7671191
Total Boron (B)	mg/L	<0.020	0.020	7671191
Total Cadmium (Cd)	mg/L	<0.0000050	0.0000050	7671191
Total Chromium (Cr)	mg/L	<0.00010	0.00010	7671191
Total Cobalt (Co)	mg/L	<0.0000050	0.0000050	7671191
Total Copper (Cu)	mg/L	<0.000050	0.000050	7671191
Total Iron (Fe)	mg/L	<0.0010	0.0010	7671191
Total Lead (Pb)	mg/L	<0.0000050	0.0000050	7671191
Total Lithium (Li)	mg/L	<0.00050	0.00050	7671191
Total Manganese (Mn)	mg/L	<0.000050	0.000050	7671191
Total Molybdenum (Mo)	mg/L	<0.000050	0.000050	7671191
Total Nickel (Ni)	mg/L	<0.000020	0.000020	7679240
Total Phosphorus (P)	mg/L	<0.0020	0.0020	7671191
Total Selenium (Se)	mg/L	<0.000040	0.000040	7671191
Total Silicon (Si)	mg/L	<0.10	0.10	7671191
Total Silver (Ag)	mg/L	<0.0000050	0.0000050	7671191
Total Strontium (Sr)	mg/L	<0.000050	0.000050	7671191
Total Thallium (Tl)	mg/L	<0.0000020	0.0000020	7671191
Total Tin (Sn)	mg/L	<0.00020	0.00020	7671191
Total Titanium (Ti)	mg/L	<0.00050	0.00050	7671191
Total Uranium (U)	mg/L	<0.0000020	0.0000020	7671191
Total Vanadium (V)	mg/L	<0.00020	0.00020	7671191
Total Zinc (Zn)	mg/L	<0.00010	0.00010	7679240
Total Zirconium (Zr)	mg/L	<0.00010	0.00010	7671191
Total Calcium (Ca)	mg/L	<0.050	0.050	7668299
Total Magnesium (Mg)	mg/L	<0.050	0.050	7668299
RDL = Reportable Detection Limit				

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ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01
Sampler Initials: CH

LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		KU4822		
Sampling Date		2014/10/06 15:25		
COC Number		08398364		
	Units	**TRIP BLANK**	**RDL**	**QC Batch**
Total Potassium (K)	mg/L	<0.050	0.050	7668299
Total Sodium (Na)	mg/L	<0.050	0.050	7668299
Total Sulphur (S)	mg/L	<3.0	3.0	7668299
RDL = Reportable Detection Limit				

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ACCESS MINING CONSULTANTS LTD.
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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.3°C
Package 2	4.3°C

Effective October 1, 2013, the BC MOE SAMPLE PRESERVATION & HOLDING TIME REQUIREMENTS states that Mercury in water requires a glass or PTFE container with Hydrochloric Acid (HCl) preservation. Sample container and preservation received was not in compliance - sample KU4822. Maxxam added HCl to stabilize Mercury in this sample prior to analysis.

Sample KU4812, Elements by ICPMS Low Level (dissolved): Test repeated.
Sample KU4813, Elements by ICPMS Low Level (dissolved): Test repeated.
Sample KU4814, Elements by ICPMS Low Level (dissolved): Test repeated.
Sample KU4815, Elements by ICPMS Low Level (dissolved): Test repeated.
Sample KU4816, Elements by ICPMS Low Level (dissolved): Test repeated.
Sample KU4822, Elements by ICPMS Low Level (total): Test repeated.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01
Sampler Initials: CH

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
7669396	Total Dissolved Solids	2014/10/15	102	80 - 120	104	80 - 120	1.6 ,RDL=1.0	mg/L	19	20
7670144	Nitrate plus Nitrite (N)	2014/10/07	106	80 - 120	105	80 - 120	<0.0020	mg/L	0.076	25
7670159	Nitrite (N)	2014/10/07	99	80 - 120	97	80 - 120	<0.0020	mg/L	NC	25
7670210	Nitrate plus Nitrite (N)	2014/10/07	106	80 - 120	106	80 - 120	<0.0020	mg/L	2.1	25
7670211	Nitrite (N)	2014/10/07	103	80 - 120	101	80 - 120	<0.0020	mg/L	NC	25
7670267	Total Ammonia (N)	2014/10/07	86	80 - 120	95	80 - 120	0.0077 ,RDL=0.0050	mg/L	NC	20
7670286	Total Ammonia (N)	2014/10/07	NC	80 - 120	105	80 - 120	0.0073 ,RDL=0.0050	mg/L	1.8	20
7670288	Strong Acid Dissoc. Cyanide (CN)	2014/10/07	105	80 - 120	103	80 - 120	<0.00050	mg/L	NC	20
7670293	Weak Acid Dissoc. Cyanide (CN)	2014/10/07	99	80 - 120	101	80 - 120	<0.00050	mg/L	NC	20
7670364	Dissolved Chloride (Cl)	2014/10/07	NC	80 - 120	103	80 - 120	<0.50	mg/L	NC	20
7670365	Dissolved Sulphate (SO4)	2014/10/07			97	80 - 120	<0.50	mg/L	0.049	20
7670366	Dissolved Sulphate (SO4)	2014/10/07	NC	80 - 120	96	80 - 120	<0.50	mg/L	5.5	20
7670367	Dissolved Chloride (Cl)	2014/10/07	95	80 - 120	96	80 - 120	<0.50	mg/L	NC	20
7670369	Dissolved Sulphate (SO4)	2014/10/07	NC	80 - 120	93	80 - 120	0.67 ,RDL=0.50	mg/L	0.37	20
7670512	Alkalinity (PP as CaCO3)	2014/10/07					<0.50	mg/L	NC	20
7670512	Alkalinity (Total as CaCO3)	2014/10/07	NC	80 - 120	91	80 - 120	<0.50	mg/L	1.9	20
7670512	Bicarbonate (HCO3)	2014/10/07					<0.50	mg/L	1.8	20
7670512	Carbonate (CO3)	2014/10/07					<0.50	mg/L	NC	20
7670512	Hydroxide (OH)	2014/10/07					<0.50	mg/L	NC	20
7670513	pH	2014/10/07			101	97 - 103			0.62	N/A
7670514	Conductivity	2014/10/07			100	80 - 120	1.0 ,RDL=1.0	uS/cm	0.20	20
7670515	Alkalinity (PP as CaCO3)	2014/10/07					<0.50	mg/L	NC	20
7670515	Alkalinity (Total as CaCO3)	2014/10/07	NC	80 - 120	90	80 - 120	<0.50	mg/L	1.4	20
7670515	Bicarbonate (HCO3)	2014/10/07					<0.50	mg/L	1.3	20
7670515	Carbonate (CO3)	2014/10/07					<0.50	mg/L	NC	20
7670515	Hydroxide (OH)	2014/10/07					<0.50	mg/L	NC	20
7670519	pH	2014/10/07			101	97 - 103			1.5	N/A
7670520	Conductivity	2014/10/07			99	80 - 120	1.1 ,RDL=1.0	uS/cm	0.39	20
7670521	Alkalinity (PP as CaCO3)	2014/10/08					<0.50	mg/L	NC	20
7670521	Alkalinity (Total as CaCO3)	2014/10/08	NC	80 - 120	92	80 - 120	0.69 ,RDL=0.50	mg/L	0.10	20

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
7670521	Bicarbonate (HCO3)	2014/10/08					0.84 ,RDL=0.50	mg/L	0.066	20
7670521	Carbonate (CO3)	2014/10/08					<0.50	mg/L	NC	20
7670521	Hydroxide (OH)	2014/10/08					<0.50	mg/L	NC	20
7670522	pH	2014/10/08			101	97 - 103			2.0	N/A
7670523	Conductivity	2014/10/08			100	80 - 120	1.1 ,RDL=1.0	uS/cm	0.63	20
7671041	Total Suspended Solids	2014/10/09			106	80 - 120	<1.0	mg/L		
7671042	Dissolved Aluminum (Al)	2014/10/08	108	80 - 120	108	80 - 120	<0.00050	mg/L	3.1	20
7671042	Dissolved Antimony (Sb)	2014/10/08	NC	80 - 120	100	80 - 120	<0.000020	mg/L	0.16	20
7671042	Dissolved Arsenic (As)	2014/10/08	106	80 - 120	101	80 - 120	<0.000020	mg/L	0.75	20
7671042	Dissolved Barium (Ba)	2014/10/08	NC	80 - 120	95	80 - 120	<0.000020	mg/L	0.14	20
7671042	Dissolved Beryllium (Be)	2014/10/08	96	80 - 120	97	80 - 120	<0.000010	mg/L	NC	20
7671042	Dissolved Bismuth (Bi)	2014/10/08	94	80 - 120	95	80 - 120	<0.0000050	mg/L	NC	20
7671042	Dissolved Boron (B)	2014/10/08					<0.020	mg/L	NC	20
7671042	Dissolved Cadmium (Cd)	2014/10/08	95	80 - 120	95	80 - 120	<0.0000050	mg/L	2.5	20
7671042	Dissolved Chromium (Cr)	2014/10/08	95	80 - 120	96	80 - 120	<0.00010	mg/L	NC	20
7671042	Dissolved Cobalt (Co)	2014/10/08	94	80 - 120	95	80 - 120	<0.0000050	mg/L	12	20
7671042	Dissolved Copper (Cu)	2014/10/08	93	80 - 120	97	80 - 120	<0.000050	mg/L	3.4	20
7671042	Dissolved Iron (Fe)	2014/10/08	NC	80 - 120	111	80 - 120	<0.0010	mg/L	0.34	20
7671042	Dissolved Lead (Pb)	2014/10/08	94	80 - 120	96	80 - 120	<0.0000050	mg/L	NC	20
7671042	Dissolved Lithium (Li)	2014/10/08	NC	80 - 120	88	80 - 120	<0.00050	mg/L	5.0	20
7671042	Dissolved Manganese (Mn)	2014/10/08	NC	80 - 120	95	80 - 120	<0.000050	mg/L	1.3	20
7671042	Dissolved Molybdenum (Mo)	2014/10/08	NC	80 - 120	96	80 - 120	<0.000050	mg/L	3.9	20
7671042	Dissolved Nickel (Ni)	2014/10/08	90	80 - 120	97	80 - 120	<0.000020	mg/L	0.44	20
7671042	Dissolved Phosphorus (P)	2014/10/08					<0.0020	mg/L	NC	20
7671042	Dissolved Selenium (Se)	2014/10/08	95	80 - 120	93	80 - 120	<0.000040	mg/L	1.3	20
7671042	Dissolved Silicon (Si)	2014/10/08					<0.10	mg/L	0.92	20
7671042	Dissolved Silver (Ag)	2014/10/08	97	80 - 120	95	80 - 120	<0.0000050	mg/L	NC	20
7671042	Dissolved Strontium (Sr)	2014/10/08	NC	80 - 120	93	80 - 120	<0.000050	mg/L	0.74	20
7671042	Dissolved Thallium (Tl)	2014/10/08	98	80 - 120	97	80 - 120	<0.0000020	mg/L	NC	20
7671042	Dissolved Tin (Sn)	2014/10/08	98	80 - 120	94	80 - 120	<0.00020	mg/L	NC	20
7671042	Dissolved Titanium (Ti)	2014/10/08	100	80 - 120	90	80 - 120	<0.00050	mg/L	NC	20
7671042	Dissolved Uranium (U)	2014/10/08	95	80 - 120	93	80 - 120	<0.0000020	mg/L	2.5	20

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
7671042	Dissolved Vanadium (V)	2014/10/08	97	80 - 120	95	80 - 120	<0.00020	mg/L	NC	20
7671042	Dissolved Zinc (Zn)	2014/10/08	90	80 - 120	99	80 - 120	<0.00010	mg/L	0.78	20
7671042	Dissolved Zirconium (Zr)	2014/10/08					<0.00010	mg/L	NC	20
7671043	Total Suspended Solids	2014/10/09			103	80 - 120	<1.0	mg/L		
7671191	Total Aluminum (Al)	2014/10/08	115	80 - 120	113	80 - 120	<0.00050	mg/L	NC	20
7671191	Total Antimony (Sb)	2014/10/08	107	80 - 120	100	80 - 120	<0.000020	mg/L	NC	20
7671191	Total Arsenic (As)	2014/10/08	111	80 - 120	103	80 - 120	<0.000020	mg/L	NC	20
7671191	Total Barium (Ba)	2014/10/08	98	80 - 120	97	80 - 120	<0.000020	mg/L	NC	20
7671191	Total Beryllium (Be)	2014/10/08	114	80 - 120	102	80 - 120	<0.000010	mg/L	NC	20
7671191	Total Bismuth (Bi)	2014/10/08	102	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20
7671191	Total Boron (B)	2014/10/08					<0.020	mg/L	NC	20
7671191	Total Cadmium (Cd)	2014/10/08	110	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20
7671191	Total Chromium (Cr)	2014/10/08	102	80 - 120	99	80 - 120	<0.00010	mg/L	NC	20
7671191	Total Cobalt (Co)	2014/10/08	102	80 - 120	101	80 - 120	<0.0000050	mg/L	NC	20
7671191	Total Copper (Cu)	2014/10/08	104	80 - 120	101	80 - 120	<0.000050	mg/L	NC	20
7671191	Total Iron (Fe)	2014/10/08	122 (1)	80 - 120	115	80 - 120	<0.0010	mg/L	NC	20
7671191	Total Lead (Pb)	2014/10/08	101	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20
7671191	Total Lithium (Li)	2014/10/08	99	80 - 120	97	80 - 120	<0.00050	mg/L	NC	20
7671191	Total Manganese (Mn)	2014/10/08	102	80 - 120	101	80 - 120	<0.000050	mg/L	NC	20
7671191	Total Molybdenum (Mo)	2014/10/08	98	80 - 120	91	80 - 120	<0.000050	mg/L	NC	20
7671191	Total Nickel (Ni)	2014/10/08	103	80 - 120	101	80 - 120	<0.000020	mg/L	NC	20
7671191	Total Phosphorus (P)	2014/10/08					<0.0020	mg/L	NC	20
7671191	Total Selenium (Se)	2014/10/08	110	80 - 120	97	80 - 120	<0.000040	mg/L	NC	20
7671191	Total Silicon (Si)	2014/10/08					<0.10	mg/L	NC	20
7671191	Total Silver (Ag)	2014/10/08	101	80 - 120	100	80 - 120	<0.0000050	mg/L	NC	20
7671191	Total Strontium (Sr)	2014/10/08	100	80 - 120	96	80 - 120	<0.000050	mg/L	NC	20
7671191	Total Thallium (Tl)	2014/10/08	103	80 - 120	101	80 - 120	<0.0000020	mg/L	NC	20
7671191	Total Tin (Sn)	2014/10/08	95	80 - 120	96	80 - 120	<0.00020	mg/L	NC	20
7671191	Total Titanium (Ti)	2014/10/08	106	80 - 120	97	80 - 120	<0.00050	mg/L	NC	20
7671191	Total Uranium (U)	2014/10/08	98	80 - 120	97	80 - 120	<0.0000020	mg/L	NC	20
7671191	Total Vanadium (V)	2014/10/08	104	80 - 120	94	80 - 120	<0.00020	mg/L	NC	20
7671191	Total Zinc (Zn)	2014/10/08	126 (1)	80 - 120	103	80 - 120	<0.00010	mg/L	NC	20

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
7671191	Total Zirconium (Zr)	2014/10/08					<0.00010	mg/L	NC	20
7671214	Total Aluminum (Al)	2014/10/08	111	80 - 120	105	80 - 120	<0.00050	mg/L	NC	20
7671214	Total Antimony (Sb)	2014/10/08	105	80 - 120	97	80 - 120	<0.000020	mg/L	NC	20
7671214	Total Arsenic (As)	2014/10/08	106	80 - 120	97	80 - 120	<0.000020	mg/L	NC	20
7671214	Total Barium (Ba)	2014/10/08	100	80 - 120	94	80 - 120	<0.000020	mg/L	NC	20
7671214	Total Beryllium (Be)	2014/10/08	111	80 - 120	96	80 - 120	<0.000010	mg/L	NC	20
7671214	Total Bismuth (Bi)	2014/10/08	99	80 - 120	97	80 - 120	<0.0000050	mg/L	NC	20
7671214	Total Boron (B)	2014/10/08					<0.020	mg/L	NC	20
7671214	Total Cadmium (Cd)	2014/10/08	108	80 - 120	96	80 - 120	<0.0000050	mg/L	NC	20
7671214	Total Chromium (Cr)	2014/10/08	101	80 - 120	98	80 - 120	<0.00010	mg/L	NC	20
7671214	Total Cobalt (Co)	2014/10/08	102	80 - 120	97	80 - 120	<0.0000050	mg/L	NC	20
7671214	Total Copper (Cu)	2014/10/08	106	80 - 120	97	80 - 120	<0.000050	mg/L	NC	20
7671214	Total Iron (Fe)	2014/10/08	112	80 - 120	103	80 - 120	<0.0010	mg/L	NC	20
7671214	Total Lead (Pb)	2014/10/08	101	80 - 120	96	80 - 120	<0.0000050	mg/L	NC	20
7671214	Total Lithium (Li)	2014/10/08	101	80 - 120	93	80 - 120	<0.00050	mg/L	NC	20
7671214	Total Manganese (Mn)	2014/10/08	102	80 - 120	96	80 - 120	<0.000050	mg/L	NC	20
7671214	Total Molybdenum (Mo)	2014/10/08	92	80 - 120	96	80 - 120	<0.000050	mg/L	NC	20
7671214	Total Nickel (Ni)	2014/10/08	102	80 - 120	97	80 - 120	<0.000020	mg/L	NC	20
7671214	Total Phosphorus (P)	2014/10/08					<0.0020	mg/L	NC	20
7671214	Total Selenium (Se)	2014/10/08	105	80 - 120	90	80 - 120	<0.000040	mg/L	NC	20
7671214	Total Silicon (Si)	2014/10/08					<0.10	mg/L	NC	20
7671214	Total Silver (Ag)	2014/10/08	102	80 - 120	99	80 - 120	<0.0000050	mg/L	NC	20
7671214	Total Strontium (Sr)	2014/10/08	97	80 - 120	93	80 - 120	<0.000050	mg/L	NC	20
7671214	Total Thallium (Tl)	2014/10/08	101	80 - 120	96	80 - 120	<0.0000020	mg/L	NC	20
7671214	Total Tin (Sn)	2014/10/08	93	80 - 120	92	80 - 120	<0.00020	mg/L	NC	20
7671214	Total Titanium (Ti)	2014/10/08	108	80 - 120	93	80 - 120	<0.00050	mg/L	NC	20
7671214	Total Uranium (U)	2014/10/08	94	80 - 120	92	80 - 120	<0.0000020	mg/L	NC	20
7671214	Total Vanadium (V)	2014/10/08	103	80 - 120	94	80 - 120	<0.00020	mg/L	NC	20
7671214	Total Zinc (Zn)	2014/10/08	118	80 - 120	97	80 - 120	<0.00010	mg/L	NC	20
7671214	Total Zirconium (Zr)	2014/10/08					<0.00010	mg/L	NC	20
7671915	Total Mercury (Hg)	2014/10/09	97	80 - 120	92	80 - 120	<0.0000020	mg/L	NC	20
7671945	Total Mercury (Hg)	2014/10/09	85	80 - 120	97	80 - 120	<0.0000020	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
7672031	Dissolved Mercury (Hg)	2014/10/09	96	80 - 120	94	80 - 120	<0.0000020	mg/L	NC	20
7672056	Dissolved Mercury (Hg)	2014/10/09	86	80 - 120	92	80 - 120	<0.0000020	mg/L	NC	20
7672937	Total Mercury (Hg)	2014/10/09	93	80 - 120	92	80 - 120	<0.0000020	mg/L	NC	20
7673546	Dissolved Organic Carbon (C)	2014/10/09	NC	80 - 120	109	80 - 120	<0.50	mg/L	1.9	20
7673549	Total Organic Carbon (C)	2014/10/09	93	80 - 120	107	80 - 120	<0.50	mg/L	7.5	20
7678458	Dissolved Aluminum (Al)	2014/10/15	106	80 - 120	107	80 - 120	<0.00050	mg/L		
7678458	Dissolved Cadmium (Cd)	2014/10/15	103	80 - 120	100	80 - 120	<0.0000050	mg/L		
7678458	Dissolved Cobalt (Co)	2014/10/15	100	80 - 120	102	80 - 120	<0.0000050	mg/L		
7678458	Dissolved Copper (Cu)	2014/10/15	102	80 - 120	104	80 - 120	<0.000050	mg/L		
7678458	Dissolved Iron (Fe)	2014/10/15	104	80 - 120	107	80 - 120	<0.0010	mg/L		
7678458	Dissolved Manganese (Mn)	2014/10/15	99	80 - 120	100	80 - 120	<0.000050	mg/L		
7678458	Dissolved Nickel (Ni)	2014/10/15	101	80 - 120	102	80 - 120	<0.000020	mg/L	NC	20
7678458	Dissolved Zinc (Zn)	2014/10/15	111	80 - 120	102	80 - 120	<0.00010	mg/L		
7679240	Total Nickel (Ni)	2014/10/15			103	80 - 120	<0.000020	mg/L		
7679240	Total Zinc (Zn)	2014/10/15			103	80 - 120	<0.00010	mg/L		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Maxxam Job #: B489907
Report Date: 2014/10/15

ACCESS MINING CONSULTANTS LTD.
Client Project #: GPBC-12-01
Sampler Initials: CH

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Andy Lu, Data Validation Coordinator

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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CHAIN-OF CUSTODY RECORD AND ANALYSIS REQUEST

PAGE 1 OF 2

LAB USE ONLY
MAXXAM JOB #
B489907

08398363

LAB USE ONLY #

COMPANY NAME: #3429 ACCESS CONSULTING GROUP

CLIENT PROJECT NO.: GPBC-12-01

COMPANY ADDRESS: #3 Calcite Business Centre, 151 Industrial Road, Whitehorse, YT, Y1A 2V3

TEL.: (867)668-6463
E-MAIL: david@accessconsulting.ca, scott@accessconsulting.ca, abier@accessconsulting.ca, chenry@accessconsulting.ca, mducharme@accessconsulting.ca, lfougere@accessconsulting.ca
FAX: (867)667-6680

SAMPLER NAME (PRINT): C. Henry / A. Bier

PROJECT MANAGER:

LABORATORY CONTACT: Ken Pomeroy

	FIELD SAMPLE ID	MAXXAM LAB # (LAB USE ONLY)	MATRIX: GROUNDWATER	SURFACE WATER	DRINKING WATER	SOIL	OTHER	SAMPLING: DATE DD/MM/YY	TIME	# CONTAINERS	Total Metals incl. Hg (Low-level)	Dissolved Metals incl. Hg (Low-level)	Routine (Alk, cond., pH)	Anions (sulphate, nitrate)	TDS, TSS (Low-level)	Cyanide (SAD,total) & WAD	Ammonina-N	Hardness	Chloride	TOC	DOC
1	BC-1	KU4806		X				3/10/14	10:38	11	X	X	X	X	X	X	X	X	X		
2	BC-2	KU4807		X				1/10/14	10:50	11	X	X	X	X	X	X	X	X	X		
3	BC-3	KU4808		X				1/10/14	11:28	10	X	X	X	X	X		X	X	X		
4	BC-4	KU4809		X				3/10/14	13:30	10	X	X	X	X	X		X	X	X		
5	BC-5	KU4810		X				3/10/14	14:15	10	X	X	X	X	X		X	X	X		
6	BC-6	KU4811		X				3/10/14	9:50	11	X	X	X	X	X	X	X		X		
7	BC-31	KU4812		X				3/10/14	11:25	10	X	X	X	X	X		X				
8	BC-34	KU4813		X				3/10/14	14:50	10	X	X	X	X	X		X				
9	BC-39	KU4814		X				3/10/14	10:08	10	X	X	X	X	X		X				
10	BC-53	KU4815		X				3/10/14	9:50	11	X	X	X	X	X	X	X	X	X		
11	BC-41	KU4816		X				3/10/14	12:45	13	X	X	X	X	X	X	X	X	X	X	X
12	Sample B	KU4817		X						10	X	X	X	X	X		X	X	X		

TAT (Turnaround Time)
LESS THAN 5 DAY TAT MUST HAVE PRIOR APPROVAL
* Some exceptions apply - please contact laboratory
STANDARD 5 BUSINESS DAYS
RUSH 3 BUSINESS DAYS
RUSH 2 BUSINESS DAYS
URGENT 1 BUSINESS DAY
OTHER BUSINESS DAYS

PO NUMBER OR QUOTE NUMBER:

SPECIAL DETECTION LIMITS / CONTAMINANT TYPE:

CCME
CSR
AB TIER 1
OTHER

ACCOUNTING CONTACT: Kim Borden-Hall

SPECIAL REPORTING OR BILLING INSTRUCTIONS:

JARS USED:

RELINQUISHED BY SAMPLER: CH/AB
DATE: DD/MM/YY 5/10/14
TIME: 14:30

RELINQUISHED BY:
DATE: DD/MM/YY
TIME:

RELINQUISHED BY:
DATE: DD/MM/YY
TIME:

RECEIVED BY:

RECEIVED BY:

RECEIVED BY LABORATORY: DARIA IVANOVA 2014/10/06 C.S.-NO 15:25

LAB USE ONLY
ARRIVAL TEMPERATURE °C: 4.5, 4/5.4.4
DUE DATE:
LOG IN CHECK:

CUSTODY RECORD

COCFORM - BC 20070822

B489907

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CHAIN-OF CUSTODY RECORD AND ANALYSIS REQUEST

PAGE 2 OF 2

LAB USE ONLY
MAXXAM JOB #
B489907

08398364

LAB USE ONLY

COMPANY NAME: #3429 ACCESS CONSULTING GROUP

CLIENT PROJECT NO.: GPBC-12-01

COMPANY ADDRESS: #3 Calcite Business Centre, 151 Industrial Road, Whitehorse, YT, Y1A 2V3

TEL.: (867)668-6463
E-MAIL: david@accessconsulting.ca, scott@accessconsulting.ca, abien@accessconsulting.ca, chenry@accessconsulting.ca, mducharme@accessconsulting.ca, lfougere@accessconsulting.ca
FAX: (867)667-6680

SAMPLER NAME (PRINT):

PROJECT MANAGER:

LABORATORY CONTACT: Ken Pomeroy

	FIELD SAMPLE ID	MAXXAM LAB # (LAB USE ONLY)	MATRIX: GROUNDWATER	SURFACE WATER	DRINKING WATER	SOIL	OTHER	SAMPLING: DATE DD/MM/YY	TIME	# CONTAINERS	Total Metals incl. Hg (Low-level)	Dissolved Metals incl. Hg (Low-level)	Routine (Alk, cond., pH)	Anions (sulphate, nitrate)	TDS, TSS (Low-level)	Cyanide (SAD/(total) & WAD)	Ammonia-N	Hardness	Chloride
1	~~Sample~~		~~X~~								~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~
2	Trip Blank	KU4822					X	n/a	n/a	8	X	X	X	X	X	X	X	X	X
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

TAT (Turnaround Time)
LESS THAN 5 DAY TAT MUST HAVE PRIOR APPROVAL
* Some exceptions apply - please contact laboratory

STANDARD 5 BUSINESS DAYS
RUSH 3 BUSINESS DAYS
RUSH 2 BUSINESS DAYS
URGENT 1 BUSINESS DAY
OTHER BUSINESS DAYS

PO NUMBER OR QUOTE NUMBER:

SPECIAL DETECTION LIMITS / CONTAMINANT TYPE:

ACCOUNTING CONTACT: Kim Borden-Hall

SPECIAL REPORTING OR BILLING INSTRUCTIONS:

CCME
CSR
AB TIER 1
OTHER
JARS USED:

LAB USE ONLY
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APPENDIX D

FIELD REPORTS

Memorandum

To: Mike Maslowski, Chief Operating Officer, Americas Bullion Royalty Corporation

From: Access Consulting Group

CC: David Petkovich, Access Consulting Group

Date: February 25, 2014

Re: Brewery Creek Baseline Environmental Data Collection, January/February 2014

1 INTRODUCTION

This letter report describes the field work conducted for Golden Predator Canada Corp. (GPCC) at Brewery Creek Property by Access Consulting Group (ACG) on January 28th to February 2nd, 2014.

ACG employees Anthony Bier and Leia Fougere deployed to Brewery Creek by truck on January 27th, and brought two snowmobiles for accessing the wells on site. Trans North Helicopters were chartered from Dawson on January 31st and February 1st. Contractor Jake Duncan was employed on January 29th due to difficult travel and working conditions on site. Anthony and Leia returned to Whitehorse on February 3rd. The objectives of this trip were to:

- Conduct quarterly discrete discharge measurements and collect water quality samples at 18 baseline surface water quality sites within Brewery Creek property;
- Conduct quarterly water chemistry monitoring at 15 baseline groundwater monitoring wells;
- Download Leveloggers deployed in wells by EBA and add new level loggers to some other wells;
- Inspect two wells at Moosehead to determine the cause of blockage and if removal is possible;
- Conduct a course preliminary aerial wildlife survery with a representative from Tr'ondëk Hwëch'in First Nation lasting one hour; and
- Inspect, download and replace the battery at the meteorological station.

Not all water quality (WQ) site or wells were visited due to a combination of time contraints, site conditions and based on a judgement of the value of visiting knowing that they were historically dry or frozen. Site conditions were extremely challenging with drfited snow of up to a meter across the road in many places. The

snow was faceted with a hard crust which the snowmobiles would break intermittently with the skis and the track would sink to ground. Trails had to be broken to each location without stopping in order for the skimmer to be pulled in with equipment. The snow machines got stuck periodically and operation was difficult even for "second tracks". As a result Jake Duncan was contracted to assist with sampling and for snowmachine piloting to ensure trails were broken to as many sites possible for access the following days. Snowmachine operation in the conditions at site required one to be of substantial weight and size and have at least an intermediate if not advanced level of snow machine operating skill.

Trans North sent pilot Doug Ladue to Dawson City on Monday, Janaury 27th with helicopter flights booked on the 28th and 29th. Due to heavy fog and cloud cover the first attempt to reach site by air was not made until the 30th whereapon icing was experienced just past the Dempster Highway bridge and the team was forced to return to Dawson City. Although some valley fog persisted on site on the 31st and 1st, the team enjoyed full sampling days.

2 BASELINE SURFACE WATER QUALITY AND HYDROLOGY

During the first quarter 2014 trip, in situ data, water quality samples and discharge measurements were not collected at all 18 baseline WQ sites. Some sites were found to be wholey frozen and four sites were not visited due to time constraints. Water quality samples and discharge measurements were taken at sites BC-4, BC-5, BC-32, BC-34, BC-36, and BC-72. Water quality samples only, were gathered at BC-3, BC-6, BC-33, BC-73, and BC-74. Sites BC-2, BC-35 and BC-35R were visited but no water was found. Sites BC-1, BC-31, BC-38 and BC-71 were not visited.

All samples were filtered and preserved in the evening on the day they were collected, except the low level total and dissolved metals samples which are filtered and preserved at the lab (Maxxam Analytics Inc., Burnaby). Samples were kept cool with ice packs prior to shipping to Maxxam. Surface water samples were analyzed for the following parameters:

- Routine parameters (conductivity, pH, alkalinity, hardness, hydroxide, carbonate);
- Total suspended and dissolved solids (TSS/TDS);
- Ammonia;
- Anions (nitrite, nitrate, fluoride, sulphate, cholride, bromide, ortho-phosphate);
- Dissolved organic carbon (DOC);
- Cyanide (Weak Acid Dissociable and Total); and
- Total and dissolved metals (suite of 33 metals, including all parameters found in the CCME and MMER guidelines).

QA/QC samples were collected or prepared as follows:

- Field duplicates – A set of duplicate samples (full suite of parameters) was collected at station BC-34 and labeled "Sample B". Samples were collected simultaneously with BC-34 samples.

- Field blanks – A set of field blanks were processed in the hotel room where all samples were filtered and preserved and labelled "Field Blank". The DI water batch # was 110614-0116. Normally this would have been done in the field, but due to an oversite and lack of time it was missed, however it is still relevant as a test of sample handling.

- Trip blank – Trip blanks provided by Maxxam were carried throughout the trip and were not opened. The trip blank batch # was 110614-0116.

2.1 IN SITU DATA

In-situ field measurements were collected using a YSI multimeter, which was calibrated prior to the trip. The pH meter was functional at the time of calibartion but experienced failure on first use on the second day of field activities. Please note that no samples were collected on the first day. Table 1 below presents the results.

Table 1. Baseline Surface In Situ Data

Station	Date	Time	Temp (ºC)	DO (%)	DO (mg/L)	SPC (µS/cm)	pH	ORP (mV)
BC-2	01-Feb-14	16:15	n/a	n/a	n/a	n/a	n/a	n/a
BC-3	01-Feb-14	15:00	-0.1	87	11.9	730.6	n/a	126.1
BC-4	01-Feb-14	11:41	-0.1	95	12.8	877.8	n/a	63.8
BC-5	31-Jan-14	11:00	-0.1	65	9	958.4	n/a	168.3
BC-6	31-Jan-14	16:50	0.2	68	9.4	456	n/a	147.3
BC-32	31-Jan-14	15:30	-0.1	78	10.6	732.3	n/a	98.7
BC-33	31-Jan-14	10:38	0	95	13.2	646.6	n/a	160.2
BC-34	30-Jan-14	17:00	-0.1	100	13.8	644.9	n/a	154.8
BC-35	31-Jan-14	14:30	n/a	n/a	n/a	n/a	n/a	n/a
BC-35R	31-Jan-14	15:00	n/a	n/a	n/a	n/a	n/a	n/a
BC-36	01-Feb-14	10:17	-0.1	100	13.7	799.1	n/a	80.4
BC-72	01-Feb-14	14:20	0.1	99	13.7	418.2	n/a	150.5
BC-73	01-Feb-14	13:31	-0.1	82	11.4	284.3	n/a	156.7
BC-74	01-Feb-14	12:58	-0.1	90	12.3	205	n/a	150

2.2 HYDROLOGICAL DISCHARGE DATA

Discharge was obtained through the salt dilution (SS) method, as the site conditions were only suitable for this method. As such two access points to flowing water are required and this takes a substantial amount of time, expecially since this is the only winter season visit. In general, access holes were covered with branches and snow to ensure ease of access and to save time should a winter low flow sampling event take place. Ice varied

from open leads to several feet in thickness. Because of the long site visit times and short daylight hours, sites BC-1, BC-31, BC-38 and BC-71 were not visited. ACG elected to do as much as possible, prioritizing the sites closest to the main mine activity site over the two helicopter based work days. Table 2 presents the discharge results from the trip; less than discharges are estimates.

Table 2. Stream Discharge Data

Station	Date	Time	Staff Gauge (m)	Discharge (m^3/sec)	RPD (%)
BC-2	01-Feb-14	16:15	n/a	0	
BC-3	01-Feb-14	15:00	n/a	<0.01	
BC-4	01-Feb-14	12:05	n/a	0.012	n/a
BC-5	31-Jan-14	11:35	n/a	0.024	4.38
BC-6	31-Jan-14	16:50	n/a	n/a	
BC-32	31-Jan-14	16:20	n/a	0.015	1.81
BC-33	31-Jan-14	10:38	n/a	n/a	
BC-34	30-Jan-14	17:29	n/a	0.484	8.05
BC-35	31-Jan-14	14:30	n/a	Frozen	
BC-35R	31-Jan-14	15:00	n/a	Frozen	
BC-36	01-Feb-14	10:41	n/a	0.131	3.45
BC-72	01-Feb-14	14:41	n/a	0.0184	0.55
BC-73	01-Feb-14	14:20	n/a	<0.001	
BC-74	01-Feb-14	13:31	n/a	<0.003	
BC-2	01-Feb-14	12:58	n/a	0	

3 BASELINE GROUNDWATER MONITORING

Ten baseline groundwater wells were visited and six were sampled. Because the wells in the Bohemian/Schooner area have were found dry or frozen on the previous visit, and due the distance and difficult travel conditions, these wells were not visited. Likewise, due to the wells having been previously dry the wells in the West Big Rock deposit were also not visited. Two wells at Moosehead were previously unable to be sampled so a "down-hole" camera was used to investigate the blockage. In the case of MH-12-01 it was simply a cap on the inner casing. The casing is broken off near ground level and the cap had somehow become pressed on the casing out of reach. ACG was able to use hooks and the camera to remove the cap and sample the well. The cap was left off and measurement were taken to the top of the steel outer red casing low point. At MH-12-03 there appears to be a frozen layer (Photo 1), but also perhaps something within that layer. ACG suggests that a soil auger may be used to drill through the ice to see if it is a lens or the result of permafrost. Table 3 provides details for both sites that were sampled and those that were not sampled due to site conditions.

Table 3. Baseline Groundwater Wells Condition, October 2013

Station	Date	Depth to Water (m)	Total Depth (m)	Samples Collected (Y/N)	Volume Purged (L)	Method	Comments
EBR-12-01	02-Feb-14	16.40	98.50	Y	>160	Bailer	Purged over 1 well volume
EBR-12-02	30-Jan-14	27.06	n/a	N	n/a	n/a	Frozen or Dry at measured level
EBR-12-03	30-Jan-13	37.39	n/a	Y	>70	Bailer	Could not reach with snowmobile. Levelogger re-deployed.
MH-12-01	02-Feb-14	31.97	100.90	Y	~70	Bailer	Well not purged because too deep for pump.
MH-12-02	02-Feb-13	19.70	101.00	Y	~100	Bailer	Attempted to pump but Watera froze, subsequent attempts failed. Levelogger deployed.
MH-12-03	28-Jan-14	2.85	n/a	N	n/a	n/a	Ice at measured depth.
LF-12-01	29-Jan-14	77.24	152.25	Y	<10	Bailer	Too deep to conceive of purging with bailer. Levelogger re-deployed.
BC-12-538	29-Jan-14	n/a	n/a	N	n/a	n/a	Valve Frozen
LF-xx-03	29-Jan-14	n/a	n/a	N	n/a	n/a	Valve Frozen
LF-xx-02	29-Jan-14	9.38	14.91	Y	30	Bailer	Purged 3 well volumes.

All samples were preserved in the hotel on the evening of the day they were collected, except the low level dissolved metals samples which are filtered and preserved at the lab (Maxxam Analytics Inc., Burnaby). Samples were kept cool with ice packs prior to shipping to Maxxam Analytics Inc. Samples were analyzed for the following parameters:

- Routine parameters (conductivity, pH, alkalinity, hardness, hydroxide, carbonate);
- Total dissolved solids;
- Ammonia;
- Anions (nitrite, nitrate, fluoride, sulphate, cholride, bromide, ortho-phosphate);
- Cyanide (Weak Acid Dissociable and Total); and
- Dissolved metals (suite of 33 metals, at low level detection limits).

QA/QC samples were collected or prepared as follows:

- Field duplicates – A set of duplicate samples (full suite of parameters) was collected at station LF-XX-02 and labeled “Sample A”. Samples were collected concurrent of LF-XX-02.

- Trip Blank and Field Blank, same as above.

3.1 IN-SITU DATA

In-situ field measurements were collected through the use of a YSI multimeter, which was calibrated prior to the trip. The pH meter was functional at the time of calibartion but experienced failure on first use on the second day of field activities. Please note that no samples were collected on the first day. Table 4 below presents the results.

Table 4. Baseline Groundwater In Situ Data

Station	Date	Time	Temp (ºC)	DO (%)	DO (mg/L)	SPC (µS/cm)	pH	ORP (mV)
EBR-12-01	02-Feb-14	17:30	0.4	29	3.8	2654		-74
EBR-12-02	30-Jan-14	14:05						
EBR-12-03	30-Jan-13	15:30	1.6	40	5.2	2203		62.6
MH-12-01	02-Feb-14	16:40	1.5	52	5.9	554.3		138.3
MH-12-02	02-Feb-13	13:50	3.5	58	6.6	617.8		-56.4
MH-12-03	28-Jan-14	14:00						
LF-12-01	29-Jan-14	13:24	1.6	29	3.6	349.8		-131.9
BC-12-538	29-Jan-14	15:20						
LF-xx-03	29-Jan-14	15:30						
LF-xx-02	29-Jan-14	15:30	3	27	3.2	584.7		124.6

4 WEATHER STATION MAINTENANCE AND DOWNLOAD

The Campbell Scientific meteorological station was visited on January 28th, 2014 shortly after 1200h. A new and larger battery which can operate for longer periods between charges was installed. The logger itself was mounted two low on the panel to allow for installation of the battery so the logger had to be unbolted. Due to the difficulty of working in the low temperature it was left loose until a warmer month when it can be affixed higher inside the protective box. Guy wires were checked and data were downloaded it was noted that the logger had registered low voltage warnings many times. These data are saved on the Access Sharepoint site for Brewery Creek. The tipping bucket rain gauge appeared pull and was free of ice (Photo 2).

5 WILDLIFE SURVEY

Geospatial Technologist Adam Thom from Tr'ondëk Hwëch'in First Nation met the ACG team near the Lee Creek Bridge on January 31st at 1200h and received a helicopter safety briefing. The team conducted a local survey close the main mine road and a wider regional survey. Figure 1 shows the helicopter track and the locations of moose. Table 1 describes the sitings in greater detail. Several photos were taken of moose and some are included in Section 7. No caribou were sighted nor was the team able to identify signs of their presence though the ACG members present were not trained to identify signs of caribou from the air. Extensive animal tracks

exist near the heap ponds, but no animals were seen there. Several fox were also spotted on the property and a moose was sighted on the mine road, usuing it as a travel corridor after the loader partially plowed its way out on the 30th. The survey took approximately one hour, after which Adam was dropped off at his vehicle near the Lee Creek bridge.

Figure 1 – Brewery Creek preliminary wildlife survey with helicopter track and moose sighting locations, January 31st 2014

6 RECOMMENDATIONS

- A winter low flow trip combined with a snow survey would be prudent as these data are becoming ever more important to the permitting process;
- The next trip in winter should assume a longer field operations window if the site is closed. wider track snowmobiles would be an asset;
- The Campbel Scientific data logger should be affixed to the back plate in the housing which will require a phillps screwdrive and some manual dexterity;
- Verify coordinates for BC-27 and BO-12-02, which could not be located in October 2013;
- Desiccant needs to be replaced in the weather station enclosure;
- A snow survey should be carried out at previously sampled locations near peak snowpack (April 1st); and
- Try to drill through ice at monitoring well MH-12-03 using a soil auger.

7 PHOTOGRAPHS

Photographs were taken throughout the field trip to document station conditions and field activities. Please refer to the following links on the Access Consulting Group server for a compilation of all photos collected. Below is a selection of those photos. More photos are available upon request.

Photo 1: Blockage in monitoring well MH-12-03

Photo 2: Tipping bucket at weather station

Photo 3: Settlement ponds showing lots of animal tracks

Photo 4: Bull and moose in lower tributary of Golden creek

Photo 5: large group of moose near dempster/mine road.

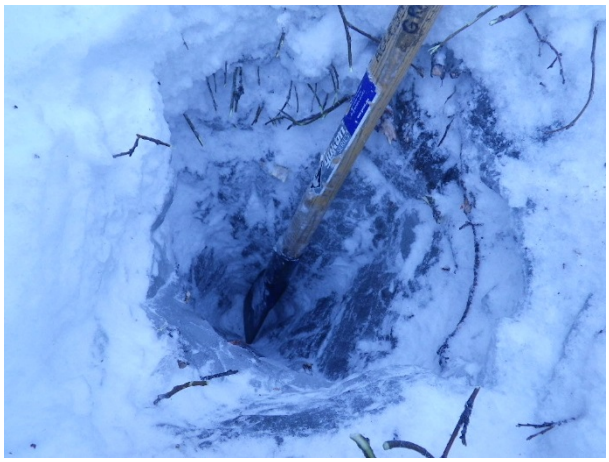

Photo 6: BC-35R, hole chipped to bed

Photo 7: BC-2, looking upstream from below weir, lots of overflow ice

Photo 8: LF-XX-03 valve on and frozen.

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Memorandum

To: Mike Maslowski, Chief Operating Officer, Americas Bullion Royalty Corporation

From: Anthony Bier, Access Consulting Group

CC: David Petkovich, Access Consulting Group

Date: June 18, 2014

Re: Brewery Creek Baseline and Compliance Environmental Data Collection, May/June 2014 Report

1 INTRODUCTION

This letter report describes the field work conducted for Golden Predator Canada Corp. (GPCC) at Brewery Creek Property by Access Consulting Group (ACG) from May 27th to June 2nd, 2014.

ACG employees Anthony Bier and Warren Kapaniuk deployed to Brewery creek by truck with ATVs for on site access. Trans North Helicopters were chartered from Dawson on May 29th and 30th. The objectives of this trip were to:

- Conduct quarterly discrete discharge measurements and collect water quality samples at 14 baseline surface water quality sites within Brewery Creek property;
- Survey the remaining hydrometric stations and deploy Solinst Levelloggers;
- Establish a new surface water monitoring site downstream of the Bohemian and Schooner deposits on Lucky Creek;
- Conduct quarterly water chemistry monitoring at 12-15 baseline groundwater monitoring wells;
- Conduct semi-annual water chemistry monitoring at 3 additional surface water sites, 11 mine-related sites (dump discharge/effluent) and 10 additional groundwater sites, as required under GPCC's WUL QZ96-007;
- Inspect, download and de-winterize the tipping bucket at the meteorological station.

- Photograph the heap and ponds documenting condition with particular attention to an apparent breach in the containment dyke document by Vist Tek Ltd. in October 2012;
- Document any sitings or signs of wildlife; and
- Document any activity by placer mining prospectors in the area.

These tasks were carried out successfully and ACG staff returned to Whitehorse on June 2nd, 2014.

2 BASELINE SURFACE WATER QUALITY AND HYDROLOGY

During the May/June 2014 quarterly baseline sampling 15 existing sites were visited and one new site was established. Sites on the tributary in the Classic area were not sampled as they have been removed from the program scope; these are the BC-7x sites. Discharge was also measured at each site except those on the South Klondike River (BC-6 and BC-38). Generaly conditions were of medium to low flows with ice still present in the channels at BC-35, BC-35R, BC-3 and the new site BC-41. Several key observations and recommendations are covered in detail below.

All samples were filtered and preserved at the time of collection, except the low level total and dissolved metals samples which are filtered and preserved at the lab, and samples were kept cool with ice packs prior to shipping to Maxxam Analytics Inc. Samples were analyzed for the following parameters:

- Routine parameters (conductivity, pH, alkalinity, hardness, hydroxide, carbonate);
- Total suspended and dissolved solids (TSS/TDS);
- Ammonia;
- Anions (nitrite, nitrate, fluoride, sulphate, cholride, bromide, ortho-phosphate);
- Dissolved organic carbon (DOC);
- Cyanide (Weak Acid Dissociable and Total); and
- Total and dissolved metals (suite of 33 metals, including all parameters found in the CCME and MMER guidelines).

QA/QC samples were collected or prepared as follows:

- Field duplicates – A set of duplicate samples (full suite of parameters) was collected at station BC-34 and labeled “Sample D”. Samples were collected simultaneously with BC-34 samples.
- Field blanks – A set of field blanks were processed at station MH-12-02 and labelled “Sample B”. The DI water batch # was 05214-052.

- Trip blank – Trip blanks provided by Maxxam were carried throughout the trip and were not opened. The trip blank batch # was 05141B-0521.

2.1 IN-SITU WATER QUALITY DATA

In-situ field measurements were collected through the use of a YSI multimeter, which was calibrated prior to the trip. Table 1 below presents the results.

Table 1 Baseline Surface In Situ Data

Station	Date	Time	Temp (ºC)	DO (%)	DO (mg/L)	SPC (µS/cm)	pH	ORP (mV)	Comments
BC-1	29-May-14	10:16	0.5	96	13	434.6	8.23	106.4	Water slow moving and turbid
BC-2	31-May-14	10:00	2.6	80	10.1	314.6	7.33	15.2	Multiple channels, Q is <50% of catchment discharge, maybe 1/3
BC-3	30-May-14	16:43	-0.1	99	13.4	404.7	7.83	62.9	Channel ice filled, water moving under bank?
BC-4	27-May-14	16:45	1.1	10	13.9	537	7.67	9.4	
BC-5	30-May-14	10:44	0.3	94	12.7	513.6	7.92	109.2	
BC-6	29-May-14	11:45	7.3	96	10.8	254.8	7.83	130.6	
BC-31	29-May-14	13:04	3.3	100	12.5	554.8	8.2	119.7	
BC-32	29-May-14	15:19	-0.1	87	11.7	439	7.69	68.9	
BC-33	30-May-14	8:45	3.2	96	11.9	476.1	7.96	120.9	
BC-34	2-Jun-14	12:22	4	110	13.5	463.2	8.07	130.7	
BC-35	29-May-14	16:45	0	98	13.2	492.6	8.1	121	Lots of ice, samples collected on top of ice
BC-35R	29-May-14	16:15	-0.2	99	13.4	382.8	8.12	120.6	
BC-36	29-May-14	14:05	3.6	100	12.2	559.7	8.19	124.9	
BC-37	29-May-14	9:06	0.2	99	13.5	422.8	8.06	106.9	
BC-38	29-May-14	12:28	5.7	104	12.2	246.3	7.95	117.8	
BC-41	27-May-14	14:35	-0.1	110	14.7	578.8	7.94	110.4	New stn. D/S BC-4

2.2 HYDROLOMETRIC DATA

The traditional velocity-area method was used for discharge measurements at all stations except at BC-3, BC-35R and BC-2, utilizing a Hach FH 950 electromagnetic velocity meter. Discharge at stations BC-3 and BC-35R were obtained through the salt dilution (SS) method, as the site conditions were more condusive to dilution gaugeing. Bucket flows were taken at the weir at BC-2. Staff gauge observations (where applicable) are the median number between the starting and ending of the discharge measurement. Gauging stations were previously located at BC-3 and BC-35 but were dismantled in an effort to retrieve dataloggers in late 2012 and were never re-established. A new station was establish on Lucky Creek and labelled BC-41. A helicopter pad was cut, but should be enlarged at a later date.

In general, conditions were dry and discharge was generally lower than expected. This appears to be a regional condition in many parts of the Yukon.

The following key notes were made:

- At station BC-5 many of the standing dead trees had fallen and there was significant build up of woody debris in the stream. The channel had been so altered that the staff gauge stood in only 1-2cm or water. The channel had to be modified with changes to the upstream and downstream controls to prevent the stilling well from going dry. The stage discharge relationship at this site will need to be developed from scratch. Although a logger was deployed there will not be enough measurements over three trips in 2014 to establish a continuous discharge record. Both benchmark trees had toppled and the gauge was surveyes to two large pieces of rebar for a new baseline. This will allow a continuous stage record to be obtained.

- At Station BC-2 it was observed that the channel became dispersed in the valley bottom and drains into BC-3 at multiple points. It is estimated that the flow passing the weir is no more than 25-35% of the total flow from Laura Creek. To capture the total flow at this time of a year a new station would need to be established upstream and significant effort may be required to provide an artificial channel in which flows could be adequately captured. It is likely that in late season all flow may return to the weir.

- At station BC-3 a large portion of the flow may be travelling under the bank and if a new hydrometric station is established it may be better positioned further downstream from the original site.

- There is a large beaver dam in the drainage ditch where BC-1 meets the ditch road, this is causing extensive back up both along the ditch and BC-1. BC-1 is prone to exccessive silting and deposition. Removing this dam would improve hydrological conditions at BC-1. However, it would also permanently alter any stage discharge relationship previously established. To date the record is poor so starting a new is not detrimental to the site as a whole.

- Station BC-37 is located a few hundred meters upstream of BC-53 and the discharge and water quality should be effectively similar between the two stations. BC-37 was a recommended Laura Creek Impact study site and has not been sampled with great regularity to date. Due to the difficulty of access to BC-53 it is recommended that these sites be amalgamated. BC-53 is the compliance site so it should be moved to the location of BC-37 and sampled as BC-53 moving forward.

Discharge measurements conducted at baseline surface water sites during the trip are presented in Table 1.

Table 2 Discharge Measurments

Station	Date	Time	Staff Gauge (m)	Discharge (m^3/sec)	RPD (%)	Method
BC-1	29-May-14	11:01	0.481	0.0940	0.19	Hach
BC-2	31-May-14	10:24	0.046	0.0021	9.52	Bucket
BC-3	30-May-14	17:08	n/a	0.1599	1.72	YSI-SS
BC-4	27-May-14	16:35	n/a	0.0266	3.25	Hach
BC-5	30-May-14	11:26	0.214	0.0852	4.00	Hach

Station	Date	Time	Staff Gauge (m)	Discharge (m^3/sec)	RPD (%)	Method
BC-31	29-May-14	13:30	0.304	0.2834	3.29	Hach
BC-32	29-May-14	15:43	n/a	0.0410	4.39	Hach
BC-33	30-May-14	9:28	0.460	1.3147	3.35	Hach
BC-34	02-Jun-14	12:51	n/a	1.5149	1.80	Hach
BC-35	29-May-14	17:16	n/a	0.0575	9.09	Hach
BC-35R	29-May-14	16:36	n/a	0.0602	0.86	Hach
BC-36	29-May-14	14:27	0.362	0.2814	3.48	Hach
BC-37	29-May-14	9:06	n/a	0.0850	4.50	Hach
BC-41	27-May-14	14:19	n/a	0.0612	6.98	Hach

2.3 LEVELOGGER DEPLOYMENT

Solinst™ Levelogger Edge M5 units were deployed at BC-1, BC-2, BC-5, BC-31, BC-33 and BC-36. Solinst™ Barlogger units were previously deployed at some wells and those records will be required for compensation.

2.4 HYDROMETRIC STATION SURVEYS

There are six hydrometric monitoring stations remaining at sites within the scope of the current baseline data collection program. Two additional stations, BC-71 and BC-72, that at sites outside the new scope. Each station consists of a staff gauge with stilling well containing a Solinst™ Levelogger. Leveloggers gather hourly pressure and temperature readings and are used to produce a continuous record of water level which may be used to calculate hourly discharge rates with suffient field observations to support rating curve development. Staff gauges are subject to frost heave and in order to create a more robust record stations are surveyed so data may be corrected to one datum from year to year. The results of the station surveys are presented in Table 3 as the final mean elevations of each benchmark and the top of staff gauge at each hydrometric station. Stations are surveyed to an arbitrary datum of 100.000m which is assigned to benchmark 1.

Table 3 Hydrometric Station Survey Results May 2014

	Elevation (m)			
Site	BM #1	BM #2	BM #3	Staff Gauge
BC-1	99.998	99.853		98.733
BC-2	100.000	100.310		99.892
BC-5	100.000	100.102		99.512
BC-31	100.000	99.707		98.646
BC-33	100.000	99.412	99.797	98.808
BC-36	100.000	100.334		98.862

3 BASELINE GROUNDWATER MONITORING

Fifteen baseling groundwater wells were visited and seven were sampled. The Grundfos submersible pump supplied by Golden Predator with the EZ5000 Honda generator was used in all cases. Table below outlines and conditions at each well, the method of sampling and the purge volume.

Table 4 Baseline Groundwater well conditions, May/June 2014

Station	Date	Time	Depth to Water (m)	Total Depth (m)	Samples Collected (Y/N)	Volume Purged (L)	Method	Comments
BOSC-12-01	27-May-14	11:44	151.48	152.66	N	n/a	n/a	Mud residue on probe (from bottom of well).
BO-12-02	29-May-14	n/a	18.53	n/a	N	n/a	n/a	Frozen, ice on end.
SC-12-03	27-May-14	12:01	n/a	77.50	N	n/a	n/a	Slush/ice on tip.
LF-12-01	28-May-14	13:55	77.02	151.625	Y	>152	Pump	Only one volume purged due to low flow rate. Levelogger d/l'ed
LF-XX-02	28-May-14	15:10	9.78	14.88	Y	>45	Pump	
LF-XX-03	30-May-14	16:00	n/a	n/a	Y	24 hrs	n/a	Valve purged 24 hrs.
BC-12-538	30-May-14	16:10	n/a	n/a	Y	24 hrs	n/a	Valve purged 24 hrs.
MH-12-01	1-Jun-14	17:30	32.95	100.91	N	n/a	n/a	Out of scope. Had time to get a level only
MH-12-02	1-Jun-14	18:54	19.975	100.92	Y	>492	Pump	
MH-12-03	1-Jun-14	17:16	2.90	n/a	N	n/a	n/a	Blockage at 2.9 m - could not sample.
EBR-12-01	28-May-14	18:34	16.08	97.56	Y	>495	Pump	
EBR-12-02	28-May-14	16:45	26.74	n/a	N	n/a	n/a	Frozen or blocked.
EBR-12-03	1-Jun-14	14:51	37.705	71.26	Y	>204	Pump	Levelogger d/l'ed
WBR-12-01B	2-Jun-14	9:51	n/a	48.695	N	n/a	n/a	Dry/Frozen
WBR-12-03	2-Jun-14	10:14	n/a	34.59	N	n/a	n/a	Dry/Frozen

Seven of the baseline groundwater monitoring wells were sampled. All water samples were preserved at the time of collection, except the low level dissolved metals samples which are filtered and preserved at the lab, and samples were kept cool with ice packs prior to shipping to Maxxam Analytics Inc. Samples were analyzed for the following parameters:

- Routine parameters (conductivity, pH, alkalinity, hardness, hydroxide, carbonate);
- Total dissolved solids;
- Ammonia;
- Anions (nitrite, nitrate, fluoride, sulphate, cholride, bromide, ortho-phosphate);
- Cyanide (Weak Acid Dissociable and Total); and
- Dissolved metals (suite of 33 metals, at low level detection limits).

QA/QC samples were collected or prepared as follows:

- Field duplicates – A set of duplicate samples (full suite of parameters) was collected at station BC-22 and labeled "Sample A". Samples were collected within minutes of BC-22 samples.

3.1 IN SITU DATA

In-situ field measurements were collected through the use of a YSI multimeter, which was calibrated prior to the trip. Data were obtained from a bucket while water was being pumped in following full purge volume. Please note that the temperature of LF-12-01 is suspected to have been elevated by the pump which was pumping at its limit and a very low flow rate.

Table 5 Baseline Groundwater In Situ Data

Station	Date	Time	Temp (ºC)	DO (%)	DO (mg/L)	SPC (µS/cm)	pH	ORP (mV)
LF-12-01	28-May-14	13:55	11.5	25	2.5	340	7.6	-115.6
LF-XX-02	28-May-14	15:10	6.5	5	0.6	563	7.11	107.4
LF-XX-03	30-May-14	16:00	2.3	38	4.7	639.2	6.96	-57.8
BC-12-538	30-May-14	16:10	3.3	47	5.6	893	6.95	-41.8
MH-12-02	1-Jun-14	18:54	3.8	6	0.7	427	7.02	-8.9
EBR-12-01	28-May-14	18:34	2.8	8	0.9	2680	6.79	-50.7
EBR-12-03	1-Jun-14	14:51	2.3	6	0.8	2055	6.51	-8.9

4 COMPLIANCE SURFACE WATER AND MINE-RELATED MONITORING

Fourteen additional surface water and mine-related water sites were visited. Of those sites 10 were effectively sampled. The following notes were made on those sites not sampled:

- Lucky pit and dump sites, BC-18N and BC-18S, do not have water present. These sites have been reclaimed. BC-18N is dry and BC-18S is a grassy reclaimed hillslope with trees quickly filling in. These sites should be removed from the monitoring schedule.

- Pacific gulch, BC-16, is the overflow draining from Pacific pit. This channel is dry and appears to have been for some time. It is likely that water flows during spring melt only. Of additional note is that holes have begun appearing across the road near Pacific pit well above the water level in the pit. This is likely in response to the spring runoff as there is no culvert here. This will likely wash out in the next few years if not addressed.

- BC-11, Blue Waste Dump, is a grassy hillslope with no signs of surface water running at any time of year, it is being rapidly reclaimed by trees. This site should be removed from the monitoring schedule.

- BC-39 was located with difficulty as Laura Creek flow is held back in the flood plain by apparent beaver daming. This has caused Laura Creek at BC-39 to be little more than a trickle of 2-3 litres per second.

All samples were preserved at the time of collection, except the low level dissolved metals samples which are filtered and preserved at the lab, and samples were kept cool with ice packs prior to shipping to Maxxam Analytics Inc. All sites were analyzed for the following parameters with the exception or alklainity and TDS not being analysed for effluent sites:

- Routine parameters (conductivity, pH, alkalinity, hardness, hydroxide, carbonate);
- Total suspended and dissolved solids;
- Ammonia;
- Anions (nitrite, nitrate, fluoride, sulphate, cholride, bromide, ortho-phosphate);
- Cyanide (Weak Acid Dissociable and Total); and
- Total and dissolved metals (suite of 33 metals, at low level detection limits).

QA/QC samples were collected or prepared as follows:

- Field duplicates – A set of duplicate samples (full suite of parameters) was collected at station BC-51W and labeled “Sample D”. Samples were collected simultaneously.

4.1 IN SITU DATA

In-situ field measurements were collected through the use of a YSI multimeter, which was calibrated prior to the trip. Table 5 presents the results.

Table 6 Compliance Surface and Mine-Realted Sites In Situ Data

Station	Date	Time	Temp (ºC)	DO (%)	DO (mg/L)	SPC (µS/cm)	pH	ORP (mV)	Comments
BC-10	28-May-14	10:50	11.3	89	8.7	236.6	8.44	81.8	Water Level High.
BC-12	1-Jun-14	13:20	11	50	5.0	1204	6.48	33.5	Sampled from standing water in pit
BC-15	1-Jun-14	16:55	10.2	80	8.0	612.4	8.01	124.1	Standing water from MH pit.

Station	Date	Time	Temp (ºC)	DO (%)	DO (mg/L)	SPC (µS/cm)	pH	ORP (mV)	Comments
BC-17	27-May-14	17:45	9.8	93	9.4	347.8	7.85	143.6	Sampled from pipe running under road
BC-28	1-Jun-14	9:47	5.7	74	8.4	140.1	8.8	176.5	Site dry, sampled uphill at pipe under access ramp to pond, likely runoff from previous days rain.
BC-28A	1-Jun-14	9:05	3.3	99	12.1	3624	7.69	304.7	Valve leaks slightly, but was purged for 24 hours prior to sampling
BC-28B	1-Jun-14	9:25	12.1	123	12	2271	10.19	143.2	Sampled from middle pond south end.
BC-39	29-May-14	11:51	3.2	75	9.5	296.1	7.6	117.8	Upstream beaver dams are holding back flow
BC-51W	1-Jun-14	17:45	12.4	93	9.0	203.3	4.96	338.9	Sampled from Pacific pit, standing water, no discharge.
BC-53	29-May-14	9:48	0.6	105	14.2	422.3	8.08	122.6	Lower Laura Creek d/s ditch road, effectively same as BC-37

5 COMPLIANCE GROUNDWATER MONITORING

Ten additional groundwater wells are required to be monitored under GPCC's WUL, seven of which need to be sampled semi-annually, while the other three are required on an annual basis. Water levels are required on a semi-annual basis for all ten wells. Table 7 below provides details for all sites as this trip was taken as the annual event for those requiring only annual sampling.

The following site specific observations were made:

- BC-27 was successfully located and sampled. New co-ordinates were taken and the database has been updated.
- BC-67 had very dirty water and did not clear up. There was a "catch" felt while lowering the pump in that may be a crack or a break in the connection of the casing allowing sediment to flow into the well.
- BC-68 can be dipped for water level but a pump cannot go down. It may be possible to sample with a hydrolift type pump. Blockage was as ~12.75m.
- BC-70, the blue lysimeter, was found to be dry. The pipe leading to the reservoir was followed up hill and two breaks were found in the pipe, though this should not have necessarily prevented water from making it to the reservoir. The pipe was reconnected and checked top to the bottom. The pipe was dry also. At the openings.

Table 7 Compliance Groundwater Well Condition, May/June 2014

Station	Date	Time	Depth to Water (m)	Total Depth (m)	Samples Collected (Y/N)	Volume Purged (L)	Method	Comments
BC-19	31-May-14	13:34	39.73	57.51	Y	>108	Pump	

Station	Date	Time	Depth to Water (m)	Total Depth (m)	Samples Collected (Y/N)	Volume Purged (L)	Method	Comments
BC-21	31-May-14	18:22	34.24	80.22	Y	>280	Pump	Levelogger in this well d/l'ed
BC-22	31-May-14	16:44	45.40	122.20	Y	>1845	Pump	4" well – long purge time
BC-27	28-May-14	9:47	8.49	17.71	Y	>75	Pump	New Co-ordinated obtained
BC-65	31-May-14	12:43	n/a	66.22	N	n/a	n/a	Dry/frozen/blockage?
BC-66 (1)	31-May-14	11:27	17.06	17.14	N	n/a	n/a	Not enough water to take samples.
BC-66 (2)	31-May-14	11:45	50.46	66.52	Y	>105	Pump	
BC-67	1-Jun-14	11:01	41.08	51.43	Y	>90	Pump	Very Dirty water did not clear up.
BC-68 (1)	1-Jun-14	12:25	n/a	33.24	N	n/a	n/a	Dry.
BC-68 (2)	1-Jun-14	12:30	62.01	76.26	N	n/a	n/a	Not sampled. Could not get pump down.
BC-69 (1)	1-Jun-14	11.40	38.37	41.81	Y	>21	Pump	
BC-69 (2)	1-Jun-14	11:35	n/a	16.20	N	n/a	n/a	Dry/frozen.
BC-70	1-Jun-14	12:45	n/a	n/a	N	n/a	n/a	Lysimeter reservoir was empty, see above

All samples were preserved at the time of collection, except the low level dissolved metals samples which are now filtered and preserved at the lab, and samples were kept cool with ice packs prior to shipping to Maxxam Analytics Inc. Samples were analyzed for the following parameters:

- Routine parameters (conductivity, pH, alkalinity, hardness, hydroxide, carbonate);
- Total dissolved solids;
- Ammonia;
- Anions (nitrite, nitrate, fluoride, sulphate, cholride, bromide, ortho-phosphate);
- Cyanide (Weak Acid Dissociable and Total); and
- Dissolved metals (suite of 33 metals at low level detection limits).

5.1 IN SITU DATA

In-situ field measurements were collected through the use of a YSI multimeter, which was calibrated prior to the trip. Data were obtained from a bucket with water continually pumped in following the purging of three well volumes.

Table 8 Compliance Groundwater In-Situ Data

Station	Date	Time	Temp (ºC)	DO (%)	DO (mg/L)	SPC (µS/cm)	pH	ORP (mV)
BC-19	31-May-14	13:34	2.5	3	0.4	1050	6.46	153.2
BC-21	31-May-14	118:22	3.1	13	21.5	720.4	6.74	63.5
BC-22	31-May-14	16:44	2.4	16	2.0	n/a	5.74	170.6
BC-27	28-May-14	10:18	5.1	8	0.9	800	7.16	-30.2
BC-66 (2)	31-May-14	12:15	4.2	5	0.6	723	7.25	99.6
BC-67	1-Jun-14	11:01	5.4	27	3.1	378.7	7.08	199.4
BC-69 (1)	1-Jun-14	12:00	5.4	9	1.0	638.2	6.99	42.2

6 WEATHER STATION MAINTENANCE AND DOWNLOAD

The Campbell Scientific meteorological station was visited on May 31st, 2014 at which time the rainfall conversion adapter was removed from the tipping bucket which involved draining the antifreeze through the bucket, causing it to register many tips, and collecting the waste in used antifreeze containers. Maintenance could not be completed due to time constraints and the team returned on June 2nd, 2014 in order to adjust the placement of the panel inside the logger box and retrieve the rest of the anti-freeze. The station was downloaded at 1046h on June 2nd, 2014. It is recommended to bring some all weather silicone on the next trip to better seal the hose attached to the antifreeze collection adaper attached to the bottom of the bucket. The downloaded data are available upon request from ACG.

7 WILDLIFE

Although no caribou were seen on the property there is extensive evidence of their passing through on the road in form of tracks and droppings. There were also wolf and bear scat on the road. Wildlife sitings in the area were many. Procupine and fox were seen on the property as well as a Grizzley bear in the Scooner-Bohemian area, close the road near BC-4. Moose, bear and lynx were all seen on the North Forks Road on the west side of Lee Creek.

8 ADDITIONAL REQUESTS

It was requested that ACG note any evidence of placer miners in the area. A camp was noted at the confluence of Carolyn and Laura Creeks (BC-2/BC-3). The camp is in the Carolyn drainage while an equipment cache was located just upstream of BC-3 in Carolyn Creek. Photos are included in Section 10.

There was also a request to photograph what was referred to as a breach in the pit containment dyke by in a report by Vista Tek Ltd. on the conditions at the Brewery Creek property. Please refer to Plate 34, of Addendum B from the report submitted to Jillian Chown on October 3rd 2012 titled *Re: September 2012 Engineering Inspection – Brewery Creek Mine.* A photo of what is believe to be the same area is included in section 10 (Photo 1). This is the area circled in red in Photo 2, it does not appear to be part of the containment dyke structure. In anycase, Photo 2 shows the bench and the containment dyke can be seen above, fully intact.

9 RECOMMENDATIONS

- Bring silicone to seal drain hose on collection funnel for tipping bucket;
- Replace descecant at meteorological station;
- Enlarge helicopter pad created for BC-41;
- Do not visit Scooner/Bohemian or west big rock wells on next baseline trip;
- BC-1 is not an ideal site for continuous discharge data collection mainly because of the downstream beaver dam. This dam could be removed if continuous discharge is of great importance here, but should otherwise not be disturbed. It is the opinion of ACG that BC-1 was too recently established and with the current schedule of sampling, a continuous record of any confidence is unlikely.

10 PHOTOGRAPHS

Photographs were taken throughout the trip and are located on the ACG server. Below is a selection of highlights. More photos are available upon request.

Photo 1: Area believed to be referred to as “breach” above pregnant pond in Vista Tek Ltd. Report

Photo 2: Arrial view of Photo 1, circled in red.

Photo 3: Placer exploration camp above BC-2

Photo 4: Claim post in Lucky Creek

Photo 5: Three ponds below heap

Photo 6: Blue Pit and Dump

Photo 7: Break in pipe to blue lysimeter BC-70

Photo 8: BC-51W Pacific Pit

Photo 9: BC-39 upstream showing dilapidated staff gauge

Photo 10: Golden pit from BC-17

Photo 11: BC-11 Blue dump

Photo 12: BC-10 Kokanee Pit

Photo 13: BC-2 upstream

Photo 14: Beaver pond downstream of BC-1

Photo 15: Flooding on Laura Creek below BC-53

Photo 16: BC-18N, Lucky Pit

Photo 17: Blue Pit

Photo 18: BC-27 hidden in the trees

ACCESS

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Memorandum

To: Mike Maslowski, Chief Operating Officer, Americas Bullion Royalty Corporation

From: Anthony Bier

CC: David Petkovich

Date: October 8, 2014

Re: Brewery Creek QZ96-007 WUL Compliance Environmental Data Collection, October 2014 Field Report

1 INTRODUCTION

This letter report describes the field work conducted for Golden Predator Canada Corp. (GPCC) at Brewery Creek Property by Access Consulting Group (ACG) from October 1st to Oct 4th, 2014.

ACG employees Anthony Bier and Catherine Henry deployed to Brewery Creek by truck with ATVs for on site access from Whitehorse on September 30th 2014. Trans North Helicopters was chartered from Dawson on October 3rd. The objectives of this trip were to:

- Collect water samples at surface water, groundwater and other mine water related sites for lab analysis at Maxxam Analytics in Burnarby BC plus in-situ parameter measurements as per Schedule B-2 Conditions of Water license QZ96-007, amendment 8.
- Observe water level or conduct discharge measurements at same sites as applicable.
- Collect all solinst water leveloggers on site.
- Sample baseline station BC-41 established in June 2014.
- Inspect, download and winterize the tipping bucket with a snowfall converter at the meteorological station.
- Photograph and sample the ponds below the heap.

These tasks were carried out successfully and ACG staff returned to Whitehorse on October 4th, 2014.

2 SURFACE WATER QUALITY AND HYDROLOGY

During the October 2014 semi-annual sampling event the following surface water sites were sampled BC-1, BC-2, BC-3, BC-4, BC-5, BC-6, BC-31, BC-34, BC-39, BC-41 and BC-53. Water levels and discharge were higher than usual at this time of year and ice was beginning to form in most channels.

All samples were filtered and preserved at the time of collection, except the low level total and dissolved metals samples which are filtered and preserved at the lab, and samples were kept cool with ice packs prior to shipping to Maxxam Analytics Inc. Samples were analyzed for the following parameters:

- Routine parameters (conductivity, pH, alkalinity, hardness, hydroxide, carbonate);
- Total suspended and dissolved solids (TSS/TDS);
- Ammonia;
- Anions (nitrite, nitrate, fluoride, sulphate, cholride, bromide, ortho-phosphate);
- Dissolved organic carbon (DOC);
- Cyanide (Weak Acid Dissociable and Total) where applicable; and
- Total and dissolved metals (suite of 33 metals, including all parameters found in the CCME and MMER guidelines).

QA/QC samples were collected or prepared as follows:

- Field duplicates – A set of duplicate samples (full suite of parameters) was collected at station BC-31 and labeled “Sample B”. Samples were collected simultaneously with BC-31 samples.
- Field blanks – A set of field blanks were processed at station BC-19 and labelled “Sample C”. The DI water batch # was 091814-0918.
- Trip blank – Trip blanks provided by Maxxam were carried throughout the trip and were not opened. The trip blank batch # was 091214A-0918.

2.1 IN-SITU WATER QUALITY DATA

In-situ field measurements were collected using a YSI multimeter that was calibrated prior to the trip. Table 1 presents those results.

Table 1 Baseline Surface In Situ Data

Station	Date	Time	Temp (ºC)	DO (%)	DO (mg/L)	SPC (µS/cm)	pH	ORP (mV)	Comments
BC-1	3-Oct-14	10:42	-0.2	99	13.4	434.6	8.23	106.4	
BC-2	1-Oct-14	10:56	-0.2	90	12.4	314.6	7.33	15.2	
BC-3	1-Oct-14	11:31	-0.2	96	13.2	404.7	7.83	62.9	
BC-4	3-Oct-14	13:35	0.3	93	12.1	537	7.67	9.4	
BC-5	3-Oct-14	14:20	-0.1	96	12.9	513.6	7.92	109.2	
BC-6	3-Oct-14	9:54	1.7	99	10.8	254.8	7.83	130.6	
BC-31	3-Oct-14	11:33	3.3	100	12.5	554.8	8.2	119.7	
BC-34	3-Oct-14	14:55	4	110	13.5	463.2	8.07	130.7	
BC-39	3-Oct-14	10:12	0.2	99	13.5	422.8	8.06	106.9	
BC-41	3-Oct-14	12:49	5.7	104	12.2	246.3	7.95	117.8	
BC-53	3-Oct-14	10:14	-0.1	110	14.7	578.8	7.94	110.4	

2.2 HYDROLOMETRIC DATA

The traditional velocity-area method was used for discharge measurements at all stations, utilizing a Hach FH 950 electromagnetic velocity meter. Staff gauge observations (where applicable) are the median number between the start and end of the discharge measurement. Solinst Leveloggers were retrieved from BC-1, BC-2, BC-5, BC-31, BC-33 and BC-36. Unfortunately, due to an error with the launching of the loggers they did not record any data.

The following key observations were made:

- At station BC-2 it appears the majority of flow had returned to the measurement location. We are confident that the discharge measured represents at least 95% of the flow from Carolyn Creek.
- At station BC-31 a dead tree was removed from the measurement reach as well as bank ice this effected a decreasing the stage over the course of the measurement. This indicates that stage observations are now ice affected.
- There are many beaver dams on Laura Creek in the flood plain the the South Klondike River. This has resulted in substantial flooding and dispersal of flow from Laura Creek. The channel at BC-39 is nearly dry. Though water is moving, it is estimated at less than 1 L/s which is less than 1% of the flow at BC-1 or BC-53.
- The beaver dam between BC-1 and BC-53 seems to be diverting a small portion of flow as discharge is lower at BC-53 than at BC-1.
- Station BC-37 is located a few hundred meters upstream of BC-53 and the discharge and water quality should be effectively similar between the two stations. BC-37 was a recommended Laura Creek impact study site and has not been sampled with great regularity to date. While the water sample for BC-53 was

taken downstream at the given waypoint, conditions are not conducive to discharge measurements. As such, discharge was measured at BC-37 (where Laura Creek diversion ditch crosses the ditch road).

Discharge measurements conducted at baseline surface water sites during the trip are presented in Table 2.

Table 2 Discharge Measurments

Station	Date	Time	Staff Gauge (m)	Discharge (m^3/sec)	RPD (%)	Method
BC-1	3-Oct-14	10:54	0.659	0.1188	0.02	Hach
BC-2	1-Oct-14	11:03	0.047	0.0078	0.17	Hach
BC-3	1-Oct-14	11:46	n/a	0.0811	9.18	Hach
BC-4	3-Oct-14	13:36	n/a	0.0263	1.25	Hach
BC-5	3-Oct-14	14:25	0.258	0.1420	2.01	Hach
BC-31	3-Oct-14	11:34	0.500	0.6625	7.35	Hach
BC-34	3-Oct-14	15:02	n/a	1.8656	2.25	Hach
BC-36	3-Oct-14	12:51	0.433	0.4263	0.74	Hach
BC-39	3-Oct-14	10:12	n/a	<0.001	n/a	Estimate
BC-41	3-Oct-14	13:00	n/a	0.0522	3.34	Hach
BC-53	3-Oct-14	9:49	n/a	0.1086	3.17	Hach

3 GROUNDWATER MONITORING

There are six groundwater wells which require semi-annual sampling under QZ96-007 of which five were sampled successfully. A Grundfos submersible pump supplied by Golden Predator with an EZ5000 Honda generator was used to obtain samples from the wells. Table 3 below outlines and conditions at each well, the method of sampling and the purge volume.

Table 3 Baseline Groundwater well conditions, May/June 2014

Station	Date	Time	Depth to Water (m)	Total Depth (m)	Samples Collected (Y/N)	Volume Purged (L)	Method	Comments
BC-19	1-Oct-14	10:40	39.57	57.75	Y	120	Pump	
BC-21	1-Oct-14	17:36	34.23	80.95	Y	300	Pump	
BC-22	1-Oct-14	15:47	44.19	123.10	Y	640	Pump	4" well, 1 well volume purged
BC-27	4-Oct-14	10:12	8.63	17.61	Y	60	Pump	
BC-65	1-Oct-14	13:17	66.54	n/a	N	n/a	n/a	Dry or blocked?
BC-66	1-Oct-14	12:55	20.20	66.60	Y	100	Pump	

All water samples were preserved at the time of collection, except the low level dissolved metals samples which are filtered and preserved at the lab, and samples were kept cool with ice packs prior to shipping to Maxxam Analytics Inc. Samples were analyzed for the following parameters:

- Routine parameters (conductivity, pH, alkalinity, hardness, hydroxide, carbonate);
- Total suspended and dissolved solids;
- Ammonia;
- Anions (nitrite, nitrate, fluoride, sulphate, cholride, bromide, ortho-phosphate);
- Cyanide (Weak Acid Dissociable and Total); and
- Dissolved metals (suite of 33 metals, at low level detection limits).

QA/QC samples were collected or prepared as follows:

- Field duplicates – A set of duplicate samples (full suite of parameters) was collected at station BC-19 and labeled "Sample A". Samples were collected within minutes of BC-19 samples.

3.1 IN SITU DATA

In-situ field measurements were collected using a YSI multimeter that was calibrated prior to the trip. Data were obtained from a bucket while water was being pumped in after the desired purge volume was reached.

Table 4 Baseline Groundwater In Situ Data

Station	Date	Time	Temp (ºC)	DO (%)	DO (mg/L)	SPC (µS/cm)	pH	ORP (mV)
BC-19	1-Oct-14	10:40	2.0	9.0	1.1	997	6.51	144.1
BC-21	1-Oct-14	17:36	2.9	28	3.5	792.2	6.75	39.6
BC-22	1-Oct-14	15:47	2.0	33	4.2	1112	6.20	145.3
BC-27	4-Oct-14	10:12	3.9	16	1.8	727.1	7.09	47.2
BC-66	1-Oct-14	12:55	3.2	13	1.6	647.3	7.26	147.3

4 COMPLIANCE MINE WATER MONITORING

There are 12 mine water related sites that require monitoring under QZ96-007 including pit water/discharge and effluenct from the heap. Seven of those sites had water present. Several are reclaimed areas that no longer have runoff or standing water. Those described as discharge tend to only have standing pit water. Finally, one additional site, BC-70 which is a shallow subsurface water lysimeter does not fit the surface or ground water definition. In any case, BC-70 was found to be dry. Although a broken connection was found in the pipe it should not prevent water from accumulating in the storage tank. It is not known why BC-70 fails to accumulate water.

Some observations from sites visited:

- Lucky pit and dump sites, BC-18N and BC-18S, do not have water present. These sites have been reclaimed. BC-18N is dry and BC-18S is a grassy reclaimed hillslope with trees quickly filling in. These sites should be removed from the monitoring schedule. Photos are included at the end of this memo.

- Pacific gulch, BC-16, is the overflow draining from Pacific pit. This channel is dry and appears to have been for some time. It is likely that water flows during spring melt only.

- BC-11, Blue Waste Dump, is a grassy hillslope with no signs of surface water running at any time of year, it is being rapidly reclaimed by trees. This site should be removed from the monitoring schedule.

- BC-28 was dry, photos are included at the end of this memo.

- BC-12 (Blue Pit) is surrounded with very soft muddy sediment and gravel. It is extremely difficult to sample the water without causing a plume of very light orange precipitate to emanate from the shore. As such it is quite possible that the samples could be adversely affected. It is recommended that a dipper rod with an open 1L bottle be used on future sampling events and be stored on site.

All samples were preserved at the time of collection, except the low level dissolved metals samples which are filtered and preserved at the lab, and samples were kept cool with ice packs prior to shipping to Maxxam Analytics Inc. All sites were analyzed for the following parameters with the exception of anions, alklainity, routine, dissolved metals and TDS not being analysed for effluent sites:

- Routine parameters (conductivity, pH, alkalinity, hardness, hydroxide, carbonate);
- Total suspended and dissolved solids;
- Ammonia;
- Anions (nitrite, nitrate, fluoride, sulphate, cholride, bromide, ortho-phosphate); and
- Total and dissolved metals (suite of 33 metals, at low level detection limits).

QA/QC samples were collected or prepared as follows:

- See above QA/QC for surface and groundwater.

4.1 IN SITU DATA

In-situ field measurements were collected using a YSI multimeter that was calibrated prior to the trip. Table 5 presents these results.

Table 5 Compliance Surface and Mine-Realted Sites In Situ Data

Station	Date	Time	Temp (ºC)	DO (%)	DO (mg/L)	SPC (µS/cm)	pH	ORP (mV)	Comments
BC-10	4-Oct-14	11:00	1.7	86	10.5	402.5	7.98	107.8	
BC-12	4-Oct-14	12:03	4.6	36	4.2	775	7.21	53.2	
BC-15	4-Oct-14	15:52	1.0	90	11.2	866.4	7.92	144.8	
BC-17	4-Oct-14	10:40	1.4	93	11.5	354.7	7.59	105.1	
BC-28A	1-Oct-14	18:35	3.7	98	11.8	3704	7.59	300	Valve leaks slightly, but was purged for ~2 hours prior to sampling
BC-28B	1-Oct-14	18:10	4.2	91	10.9	2453	7.32	103.4	
BC-51W	4-Oct-14	13:23	2.3	94	11.6	707	3.38	409.5	

5 WEATHER STATION MAINTENANCE AND DOWNLOAD

The Campbell Scientific meteorological station was visited on Oct 1st and 4th, 2014. The logger was downloaded on both occasions. The snowfall conversion adapter was installed at 1400 hrs on the 4th with an empty bucket to collect the diluted antifreeze. Desiccant was replaced in the datalogger enclosure and guy wires were tightened. Data are available upon request.

6 PHOTOGRAPHS

Photographs were taken throughout the trip and are located on the ACG server. Below is a selection of highlights. More photos are available upon request.

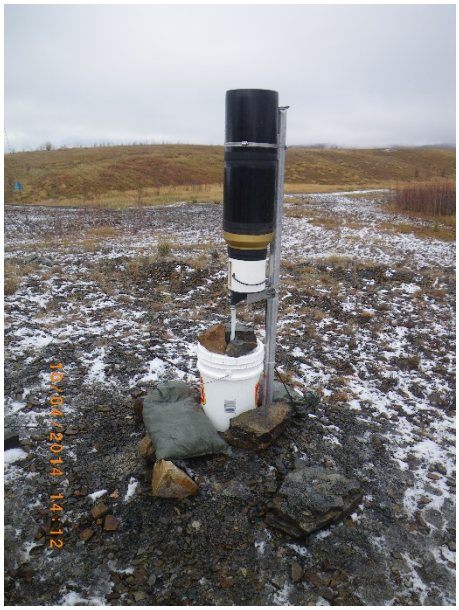


Photo 1: Installed snowfall converter

Photo 2: Pond 3 (left) and pond 2 from East end

Photo 3: Pond 1 from SE corner

Photo 4: Pond 3 from NW

Photo 5: BC-18 N & S both dry/reclaimed

Photo 6: Drainage from Pacific Pit (Dry), BC-16

Photo 7: BC-28

Photo 8: BC-70, empty

Photo 9: BC-11 reclaimed hillside

Photo 10: BC-39

Photo 11: Overflow channel from pond 2 to 3


Photo 12: BC-4

APPENDIX E

GEOTECHINCAL INSPECTION REPORT

Our File: 2012-600

September 10, 2014

Golden Predator Exploration Ltd.
PO Box 36539, Mactaggart PO
Edmonton, Alberta
Canada T6R 0T4

Attention: Mr. Michael Maslowski, Director of Operations

Re: 2014 Engineering Inspection – Brewery Creek Mine

The following summarizes the results of the engineering inspection completed at the Brewery Creek Mine on August 12 and 13, 2014.

1. Introduction

The inspection was completed by Victor Menkal, P.Eng. of Vista Tek Ltd.

With the exception of some exploration work, it is understood that the mine has been dormant since the October 2012 inspection. There were no personnel on site and the mine offices and camp closed at the time of the inspection.

The primary intent of the work was to inspect waste rock dump reclamation works and various civil works structures including:

- Ore on pad,
- Leach pad containment dyke,
- Process ponds,
- External waste dumps,
- Water retaining structures,
- Overflow and drainage structures and
- Haul road and associated drainage works.

Attention was given to potential areas of concern identified in previous annual inspections, specifically the September 2012 inspection completed by Vista Tek Ltd (Victor Menkal, P.Eng.) and the November 16, 2010 inspection report prepared by SRK Consulting (Canada) Inc. (Mr. Peter Mikes, P.Eng.).

The mine site plan is attached in addendum A and the photo documentation of the site visit is attached in addendum B. Where relevant, photos are geo-referenced to the 2012 inspection to provide visual reference to changes since the prior inspection.

2. Haul Roads

The primary haul road extends approximately 7 km from the Ore On Pad to the Lucky Pit with photo documentation presented in appendix B, plates 1 to 24 inclusive.

In 2012, locations were referenced by the mine haul road kilometer posts (KP) on the road. The KP indicators have since been removed and this years inspection was referenced to distance from the Ore On Pad access road. A cross reference of the old and new kilometer post indicators is included with all photos.

The road was found to be in generally good condition with only minor erosion of the base course consistent with the mine being dormant for approximately 2 years.

Additional information for stream crossings and specific areas of interest is noted as follows:

2.1 Stream Crossings

Six stream crossings on the road alignment were inspected with photo documentation presented in plates 1 to 14 in appendix B.

The stream crossings generally consist of shallow swales in the road with riprap armour upstream and downstream of the crossing. The crossings were noted to be in good condition with no visible indications of erosion or embankment failures.

The use of swales is consistent with the seasonal use of the road as personnel are not on site to thaw culverts during the spring thaw – freeze cycles.

A 150mm HDPE pipe conveys water under the road embankment from the Upper Fosters to the Lower Fosters Pits (plate 14). The road is in good condition at the crossing with no visible settlement or channeling around the exterior of the pipe.

Immediately after crossing the road, the water flows over a bedrock embankment and into the Lower Fosters Pit (plates 12 and 13). It appears that additional riprap has been placed in this channel since the 2012 inspection and the additional erosion control works have been effective in reducing erosion.

2.2 Lucky Haul Road Slope Instability

Movement of the Lucky Haul Road was identified during the engineering inspection in 2003 and Viceroy, the mine operator at this time, undertook remediation works by moving riprap material from the existing road crest and reinforcing the unstable slope. Riprap material moved from the road crest was placed on the north slope and a toe berm constructed along the entire embankment.

The resulting riprap slope was measured at approximately 40 degrees with the shoulder of the road is located approximately 5 to 10m from the embankment break.

The old slip failure is still visible on the southwest end of the slope. There does not appear to be any change in this failure from previous inspections as evidenced on plates 15 to 20. The 2014 inspection did not reveal any visual signs of recent material movement, displacement of vegetation, tension cracks or sloughing on the slope or road embankment.

As per previous recommendations, if the road is re-commissioned in the future, a slope stability analysis should be completed before use by heavy equipment.

2.3 Pacific Pit Overflow Sinkholes

The 2010 inspection noted possible sinkholes west of the Pacific Pit overflow (north of Blue Dump). During the 2012 inspection it was identified that the road has been repaired.

A narrow, discontinuous failure diagonally across the road surface was observed during the 2014 inspection (plates 21 and 22). The failure mode resulted in a number of vertical walled crevices with the largest measuring approximately 0.3m wide and 1.2m deep. No failures of the adjacent side slopes were observed

and a source of water movement under the embankment in this area could not be identified.

The level of the blue pit pond was approximately 10m below the road embankment at the time of the inspection and did not appear to be the source of water for the sink holes.

The failure was reported to Golden Predator Exploration Ltd. on August 13, 2014 and marker posts placed to warn of the hazard for maintenance crews.

The drainage channel and road embankment for the Pacific Pit overflow were also inspected and found to be stable with no visible signs of erosion or instability. The drainage channel is lined with riprap 0.1 to 0.3m in size.

2.4 Bohemian Access Trail

The 2010 inspection report identified possible movement or failure of the scarp on the Bohemian Access. It was observed that remedial works were completed and the area regraded at the time of the 2012 inspection. The re-contoured slope was observed to be stable with no signs of distress during the 2014 inspection (plates 49 and 50).

The Bohemian Access Road creek crossing consists of a 600mm diameter CSP centerline culvert and geotextile erosion protection. The culvert was inspected and no evidence of erosion, settlement or deformation was observed.

3. Mine Pits

3.1 Blue Pit Dump

The Blue Pit waste rock dump has been graded, covered and vegetated with healthy plant growth observed throughout the site. The extent of plant cover appears to have increased from approximately 50% of the site in 2012 to 75% of the site area in 2014 (plates 25 and 26).

The Blue Pit overflow structure, riprap erosion protection and toe of berm was inspected and no visible signs of erosion, settlement from the 2012 inspection (plates 29 and 30).

Some erosion gullies were noted at the base of the dump adjacent and above the old access road with depths from 0.1 to 0.5m deep in 2012. Heavy vegetation has established in the channels and adjacent areas which indicates minimal erosion since the 2012 inspection (plates 27 and 28). Measurement of the channels indicates no increase in depth since 2012.

3.2 Moose Head Pit

The Moose Head Pit does not have a waste rock dump (plates 31 and 32) and the inspection was limited to the overflow channel.

Riprap material 100mm to 300mm diameter has been placed across the full width of the overflow channel. The channel appeared to be stable with no signs of erosion, instability or movement in the channel since the 2012 inspection (plates 33 and 34). The discharge from the over flow is to an area with trees and ground cover with no signs of erosion noted.

3.3 Upper Fosters, Lower Fosters Canadian Pit & Kokanee Pits

The Upper Fosters, Lower Fosters, Canadian Pit and Kokanee waste rock dumps have been contoured and covered with well established reclamation vegetation cover and no apparent signs of erosion or slope instability or changes since the 2012 inspection (plates 35 to 38 inclusive).

3.4 North Golden Pit

The North Golden pit has been reclaimed with vegetation well established on the reclaimed waste rock (plates 39 and 40). Some minor erosion gullies were noted on the northwest extremity of the waste rock dump in 2012 but appear to have stabilized with vegetation established on the slopes adjacent to the channels (plates 41 and 42).

3.5 Lucky Pit

Extensive remediation has been undertaken at the Lucky Pit with heavy ground vegetation established on the graded and covered waste rock dumps (plates 45 to 48 inclusive).

No apparent signs of erosion or instability were observed in this area in 2012 or 2014.

4.0 Ore On Pad, Heap Leach Pad and Containment Dyke

No cyanide has been added to the heap leach pad since 2002 and all cells were graded, covered and vegetated since the cessation of mining operations . No visible signs of erosion or instability were noted on the stockpiles or pads during the inspection (plates 53 and 54).

The major diversion channel on the north side of the ore on and heap leach pads and access road crossing is lined with heavy riprap armour and geotextile material and was observed to be in good condition with no signs of erosion or degradation (plates 55 and 56).

As part of the site remediation, the heap leach containment dyke was breached above the pond formerly used to contain pregnant solution from the heap leach process to allow free drainage without impoundment behind the dyke. Since the 2012 inspection, the breach and channel have been lined with geotextile and riprap armour and discharged routed to the north of the old pregnant pond (plates 59 and 60).

The breach and drainage channel appeared to be in good condition without visible indications of settlement, erosion or undercutting.

No other signs of instability, sloughing or erosion were noted on the remainder of the dyke (plates 57 and 58).

5.0 Process Ponds

The three process ponds have been decommissioned and the liners removed in 2012 (plates 61 to 66 inclusive).

Emergency overflow spillways has been constructed on the north side of the old pregnant pond which would be transmitted through a riprap and geotextile lined channel in the event of overflow.

A spillway has been constructed on the southeast side of the old barren pond which would discharge into the overflow pond in the event of excess levels in the barren pond.

The overflow pond has an emergency spillway in the middle of the south berm. Discharge from this pond would be channeled through a riprap and geotextile lined ditch in the event of overflow.

The pond berms, spillways and discharge channels were inspected and, with the exception of some minor settlement on the north berm of the old pregnant pond, were found to be in good condition with no visible signs of overtopping, erosion or berm failures.

The mine was completing management of the waters stored in the ponds during the 2012 inspection. The process consisted of pumping the contents of the ponds into the overflow pond and then pumping from this pond to the overflow pond discharge channel after confirmatory water samples indicated water quality met water licence requirements.

At the time of the 2014 inspection, the barren pond was noted to be approximately 90% full and the overflow pond and pregnant ponds approximately 25% full. Golden Predator (per. com. Mike Maslowski, Director Operations) has indicated that they are currently evaluating alternatives to undertake management of the water contained in the pond on a long term basis.

6.0 Recommendations and Conclusions

6.1 With the exception of the sink hole failure on the mine haul road, no evidence of significant failures of inspected civil works, waste rock dumps or drainage works was identified during the site visit.

6.2 The sink hole failure on the mine haul road will need to be repaired if the road is to be used in the future.

6.3 Remediation efforts at reclaimed waste rock sites were observed to be successful with well established vegetation cover, stable slopes and minimal erosion. Significant improvements in the extent and density of cover was noted from the 2012 inspection.

6.4 With the exception of the repairs required at the sink hole on the mine haul road, recommended site maintenance is limited to site monitoring and implementation of a water management plan for the process ponds.

6.5 Recommended monitoring:

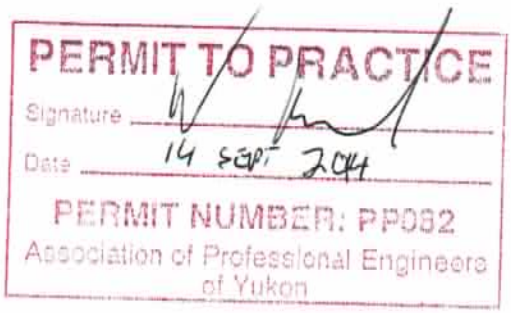
- Undertake slope stability analysis of Lucky Pit haul road side slope especially if it is intended to re-commission the mine
- Monitor process ponds during spring freshet
- Routine inspections of civil works, water storage systems, water conveyance channels, spillways and drainage control works. The frequency of inspections will need to be established based on the short and long term plans for the mine site.

7.0 Closure

If you should have any questions or require additional information on the above, please contact the undersigned directly at 867 334-5330.

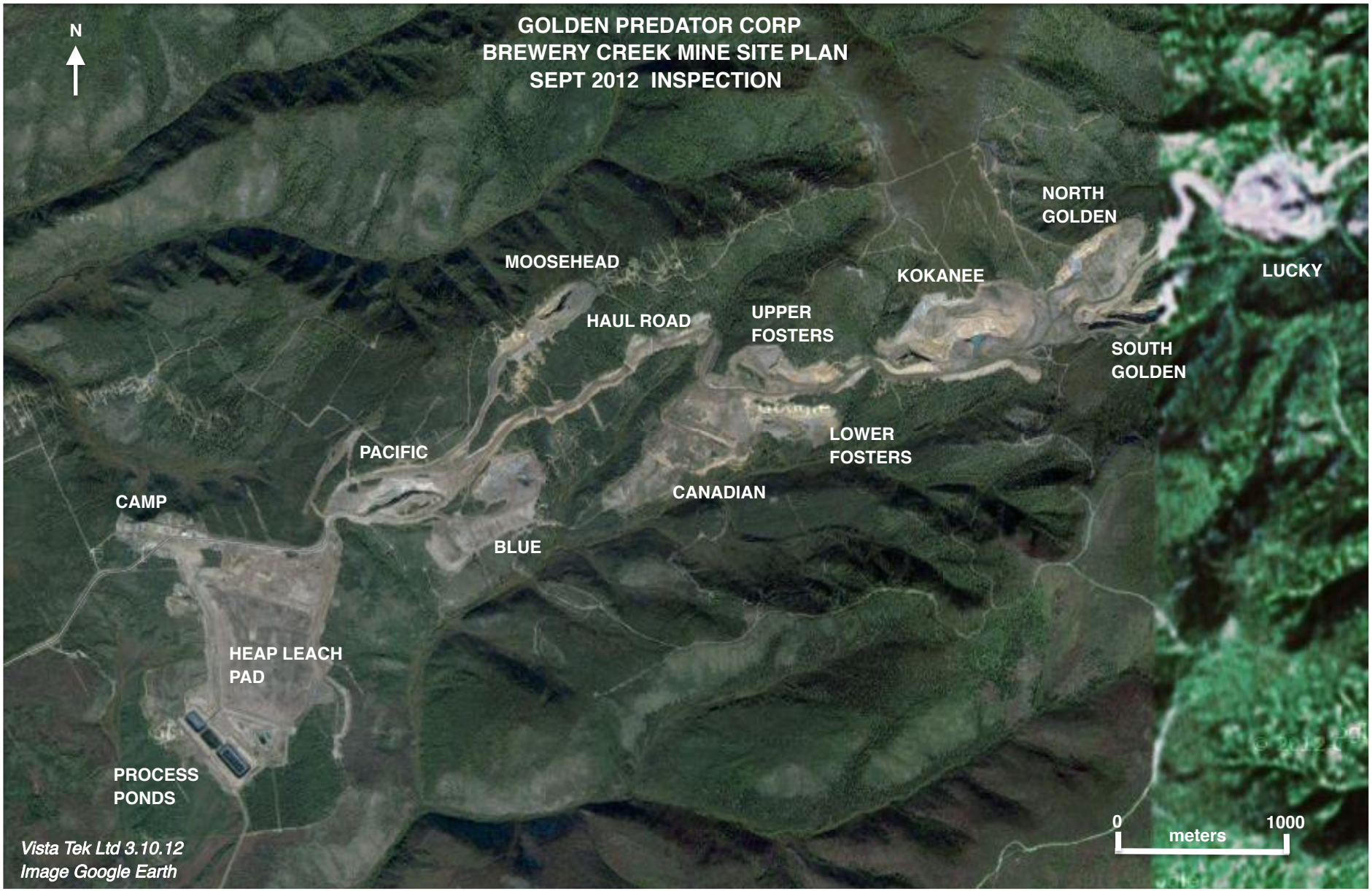
Yours truly,

Vista Tek Ltd.



Victor Menkal, P.Eng.
Senior Engineer

APPENDIX A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GOLDEN PREDATOR CORP
BREWERY CREEK MINE SITE PLAN
SEPT 2012 INSPECTION
NORTH GOLDEN
MOOSEHEAD
KOKANEE
LUCKY
HAUL ROAD
UPPER FOSTERS
SOUTH GOLDEN
LOWER FOSTERS
PACIFIC
CANADIAN
CAMP
BLUE
HEAP LEACH PAD
PROCESS PONDS
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APPENDIX B

Plate 1: 2012 Haul Road Swale Discharge KP 2 (KP 0.6 old markers)

Plate 2: 2014 Haul Road Discharge KP 2 (KP 0.6 old markers)

Plate 3: 2012 Haul Road Swale KP 2.8 (KP 1.2 Old Markers)

Plate 4: 2014 Haul Road Swale KP 2.8 (KP 1.2 Old Markers)

Plate 5: 2012 Haul Road Swale KP 2.8 (Old Marker KP 1.2)

Plate 6 2014 Haul Road Swale KP 2.8 (Old Marker KP 1.2)

Plate 5: 2012 Haul Road Swale Discharge KP 3.1 (Old KP 1.5)

Plate 6: 2014 Haul Road Swale Discharge KP 3.1 (Old KP 1.5)

Plate 6: 2012 Haul Road Swale KP 3.4 (Old KP 1.8) - Repaired Washout

Plate 7: 2014 Haul Road 3.4 (Old KP 1.8) light surface rutting

Plate 8: 2012 Haul Road Swale KP 3.4 (Old KP 1.8) - Repaired Washout

Plate 9: 2014 Haul Road Swale KP 3.4 (Old KP 1.8)

Plate 10: 2012 Haul Road Swale KP 4.7 (Old KP 3.2) - Repaired Washout

Plate 11: 2014 Haul Road Swale KP 4.7 (Old KP 3.2)

Plate 12: 2012 Haul Road Drainage KP 6.3 (Old KP 4.5) From Upper Fosters

Plate 13: 2014 Haul Road KP 6.3 Showing Riprap Repairs

Plate 14: 2012 Haul Road Drainage KP 6.3 (Old KP 4.5) 150mm HDPE Pipe

Plate 15: 2012 Road Embankment at Lucky Haul Road

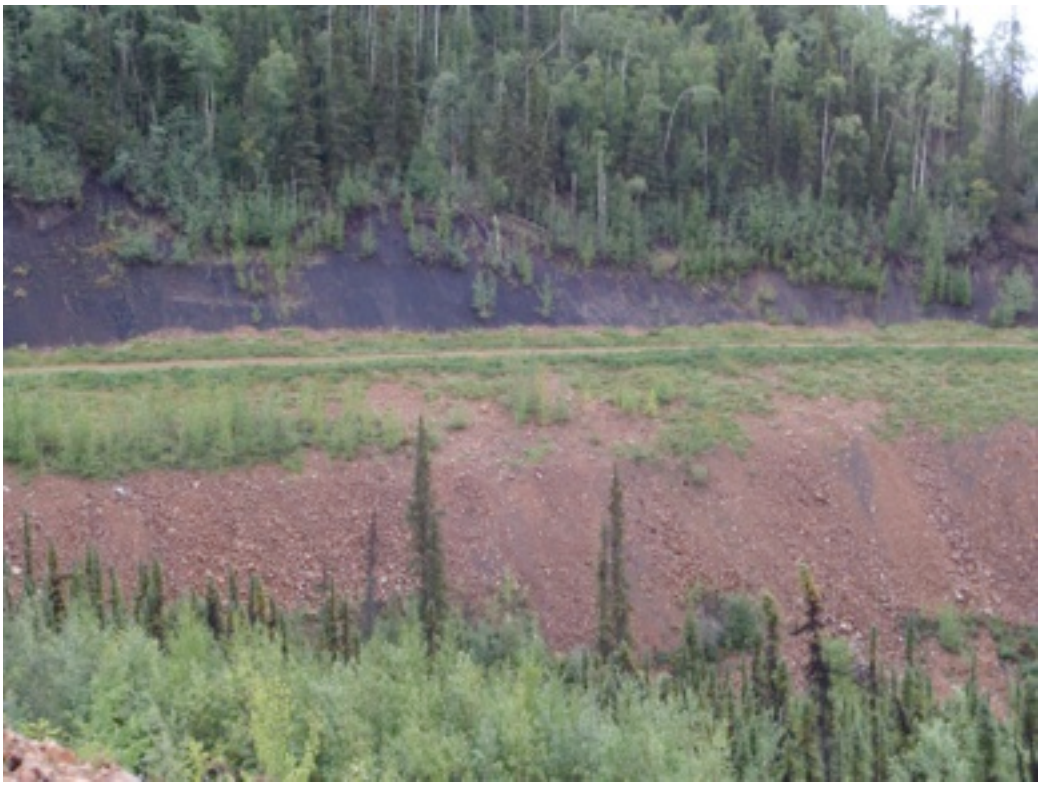

Plate 16: 2014 Road Embankment at Lucky Haul Road

Plate 17: 2012 Road Embankment at Lucky Haul Road

Plate 18: 2014 Road Embankment at Lucky Haul Road

Plate 19: 2012 Lucky Haul Road Embankment Stabilization

Plate: 20 2014 Lucky Haul Road Embankment Stabilization

Plate 21: 2012 Haul Road Sinkhole Repair at Pacific Pit Overflow

Plate 22: 2014 Sinkholes in Haul Road at Pacific Pit Overflow

Plate 23: 2014 Haul Road Sinkhole At Pacific Pit Overflow Depth 1.2m

Plate 24: 2014 Haul Road Sinkhole At Pacific Pit Overflow Width 0.3m

Plate 25: 2012 Blue Pit Looking West from Canadian Pit

Plate 26: 2014 Blue Pit Looking West from Canadian Pit

Plate 27: 2012 Erosion Channel Adjacent to Access Road at Blue Pit

Plate 28: 2014 Erosion Channel Appears to Have Stabilized

Plate 29: 2012 Blue Pit Overflow Channel

Plate 30: 2014 Blue Pit Overflow Channel

Plate 31: 2012 Moosehead Pit

Plate 32: 2014 Moosehead Pit

Plate 33: 2012 Moosehead Pit Overflow Channel

Plate 34: 2014 Moosehead Pit Overflow Channel

Plate 35: 2012 Lower Fosters and Canadian Pits

Plate 36: 2014 Upper Fosters - Toe Berm Between Slope and Road

Plate 37: 2012 Kokanee Pit

Plate 38: 2014 Kokanee Pit

Plate 39: 2012 North Golden Reclaimed Waste Dump

Plate 40: 2014 North Golden Reclaimed Waste Dump

Plate 41: 2012 Erosion NW Corner North Golden Waste Dump

Plate 42: 2014 Erosion Channels North Golden Appear Stable

Plate 43: 2012 South Golden

Plate 44: 2014 South Golden

Plate 45: 2012 Reclaimed Waste Rock Dump Lucky Pit

Plate 46: 2014 Reclaimed Lucky Pit Waste Rock Dump

Plate 47: 2012 Lucky Pit Working Face

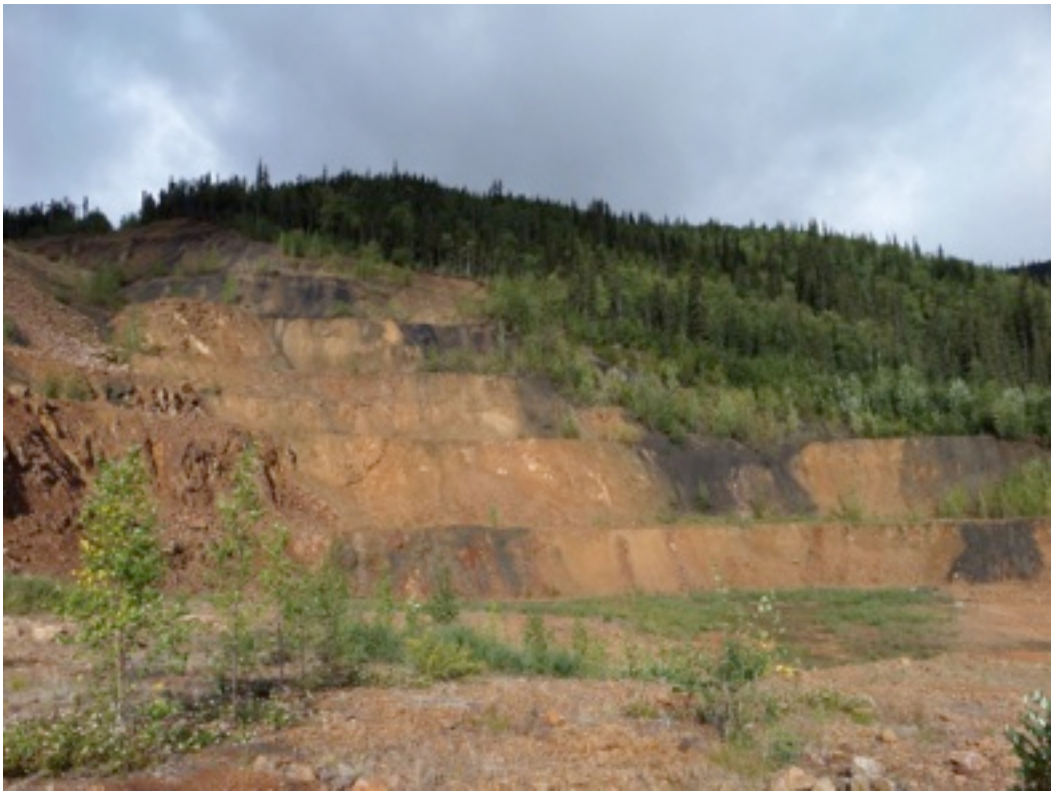

Plate 48: 2014 Lucky Pit Working Face

Plate 49: 2012 Bohemian Access Road Re-contoured Slump Area

Plate 50: 2014 Bohemian Access Road

Plate 51: 2014 Bohemian Access Road Creek Crossing

Plate 52: 2014 Bohemian Access Road 600mm Culvert

Plate 53: 2012 Ore Pad & Heap Leach Site

Plate 54: 2014 Ore Pad & Heap Leach Site

Plate 55: 2014 North Heap Leach Diversion Swale

Plate 56: 2014 North Heap Leach Diversion Swale at Access Road

Plate 57: 2012 Heap Leach Containment Dyke Looking Northwest

Plate 58: 2014 Heap Leach Containment Dyke Looking Northwest

Plate 59: 2012 Breach in Heap Leach Containment Dyke above Pregnant Pond

Plate 60: 2014 Breach In Dyke Erosion Protection Armour & Geotextile

Plate 61: 2012 Pregnant Pond Looking South

Plate 62: 2014 Pregnant Pond looking South

Plate 63: 2012 Barren Pond Showing Access Ramp

Plate 64: 2014 Barren Pond Looking South - Overflow Spillway on Left

Plate 65: 2012 Overflow Pond Looking North Prior to Winter Dewatering

Plate 66: 2014 Overflow Pond Looking South - Overflow Weir Mid Berm