

APPENDIX H

APPENDIX H ACID ROCK DRAINAGE



April 2011

REPORT ON

Geochemical Characterization of Ormsby and Nicholas Lake Waste Rock, Ore, and Tailings Yellowknife Gold Project, NWT

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REPORT



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GEOCHEMICAL CHARACTERIZATION REPORT YELLOWKNIFE GOLD PROJECT

Executive Summary

This report presents the results of a geochemical characterization program carried out for Tyhee NWT Corp. at the Yellowknife Gold Project (YGP) located approximately 90 km north of the City of Yellowknife in the Northwest Territories. Golder Associates Ltd. (Golder) was retained by Tyhee NWT Corp to compile geochemical analytical data from samples of mine wastes collected by Tyhee NWT Corp staff and others. The characterization program includes samples of laboratory metallurgical process rejects (tailings), samples of waste rock from core and from stockpiles resulting from advanced exploration activities at the Ormsby and the Nicholas Lake Deposits.

The YGP will be a 3000 tonnes per day (tpd) gold mining operation, mining approximately 7.7 million tonnes (Mt) over a 7 to 8 year mine life. The Ormsby deposit will be mined initially by open pit followed by an underground development, while the Nicholas Lake deposit will be mined by underground methods. The Ormsby waste rock will be stored in rock storage facilities adjacent to the Ormsby pit. The Nicholas Lake waste rock would be placed on surface in a waste rock storage area or used underground as backfill.

The geochemical tests completed to date on mine waste materials focused on the assessment of the potential to generate acid rock drainage (ARD) and to leach metals to the receiving environment upon exposure of mine wastes to ambient conditions. Testing included laboratory static and kinetic weathering tests and field-scale leaching tests on selected samples of mine wastes. The results are presented and discussed in detail in this report. Results suggest that a management strategy and ARD control measures are required to prevent the oxidation and subsequent release of metals under acidic pH for the following mine waste materials:

- Whole ore tailings (Ormsby-Nicholas Lake mixture of flotation and concentrate tailings);
- Ormsby Transitional greywacke and interbedded argillites; and,
- Nicholas Lake fracture zone and quartz vein rock.

All other rock types tested (Ormsby mineralized and unmineralized amphibolites, Burwash greywacke, Nicholas Lake meta-sediments and granodiorites), have an uncertain bulk ARD potential, largely due to the variability of the ARD characteristics (sulphide mineral content and buffering capacity) of individual samples in these rock groups. Within the Ormsby amphibolite, and Nicholas Lake meta-sediments and granodiorites, some samples are substantially more reactive than others and some samples are non-PAG. Drainage water contacting the amphibolite rock stored on site has maintained alkaline drainage for a decade or more (Golder, 2011), corroborating with results to date on amphibolites that suggest a substantial lag time until the onset of acidic conditions in the field for this rock type, should ARD ever be generated (25 years for amphibolite rock; 15 years for Burwash greywacke, based on samples collected to date). More samples and further testing are required to better define the long-term weathering behaviour of the material having uncertain ARD potential. Due to the probable lag time for ARD to occur, these studies could be carried out during operations and monitoring and remedial measures could be incorporated into the YGP's water licence.

The non-PAG amphibolite rock could be suitable for use as construction material but a segregation criterion should be developed during operation to effectively separate PAG and non-PAG amphibolite rock and to distinguish rock that has the potential to leach arsenic. The risk of using PAG rock in construction is that ARD could (but may not) develop in pockets of PAG rock over the long-term. Until such a segregation criterion is



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defined, consideration should be given to managing the entire rock pile as PAG to minimize potential negative effects to the receiving environment.

Ongoing waste rock and tailing sampling, ahead of, or during operation combined with mine contact water quality monitoring will help to identify waste of potential concern and implement suitable mitigation options.

Arsenic is the principal element of environmental interest in all ore processing wastes and waste rock because of its enrichment in and around the ore bodies and because of its leachability under neutral pH conditions. The available arsenic is anticipated to originate mostly from arsenopyrite and other arsenic-rich sulphide minerals. Arsenic is mobile under neutral conditions and thus measures to control or prevent ARD generation (other than underwater submergence) and leaching of associated metals could effectively control arsenic release. Drainage from waste rock and tailings should be collected, monitored and treated if necessary, prior to discharge to the receiving environment.

This Executive Summary is a synopsis of the findings of this study. For a full understanding of the study, the reader is required to read the entire document presented herein.



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Static Testing Results – Ormsby Waste Rock

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Static Testing Results – Nicholas Lake Waste Rock

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Static Testing Results – Ormsby and Nicholas Lake Tailings

APPENDIX D

Humidity Cell Test Results

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Field Barrel Leaching Test Results (ABA, Mineralogy, and Leachate Results)

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1.0 INTRODUCTION

Golder Associates Ltd. (Golder) was retained by Tyhee NWT Corp. (Tyhee), to compile geochemical data collected by Tyhee and others to characterize mine waste materials that will be produced from mining the Ormsby and Nicholas Lake deposits of the Yellowknife Gold Project (YGP).

The YGP is located approximately 90 km north of the City of Yellowknife in the South Mackenzie Mining District of the Northwest Territories (Figure 1). The YGP includes the Ormsby and the Nicholas Lake Deposits. The Ormsby gold deposit is located near the southern boundary of the YGP. It currently includes an underground exploration portal and decline, a waste rock pad and an ore stockpile (Figure 2). The Nicholas Lake deposit is located to the north of the Ormsby deposit and also consists of an exploration portal and decline, a waste rock stockpile and an ore stockpile.

This report presents geochemical analytical results on samples collected to date from the Ormsby and Nicholas Lake deposit areas which include the following:

- Static test results from waste rock of the Ormsby deposit (162 samples) and Nicholas Lake deposit (55 samples);
- Static test results from samples of ore processing wastes (5 tailings samples);
- Kinetic test results from the operation of 9 humidity cells; and,
- On-site field barrel leaching test results for 7 samples.

This report discusses the static test results for waste rock and tailings expected to be produced during the exploitation of the Ormsby and Nicholas Lake deposits. It describes the analytical methods utilized, presents the interpreted test results, provides preliminary recommendations on mine waste management planning and states the study limitations.

1.1 Geochemical Investigations Completed to Date

The following geochemical investigations have been completed to date:

- 1997 study: Acid Base Accounting (ABA) tests were completed on 10 samples, including 3 amphibolite decline rock samples, 5 mineralized amphibolite samples from underground muck piles, 1 unmineralized amphibolite drill core sample, and 1 amphibolite sample from an unknown location. Although the weathering age of these samples is unknown they are thought to be relatively fresh and unweathered (MESH, 2009).
- 2002 study: ABA tests were conducted on 13 samples collected in 1997 by GMD, including 5 unmineralized amphibolite samples from the waste rock pad at the portal entrance, and 8 samples of underground muck piles collected at 30 foot intervals or every change in lithology. Although the weathering age of these samples is unknown they are thought to be relatively fresh and unweathered (MESH, 2009).
- 2004 study: ABA, sequential net acid generation (NAG), and solid phase chemical composition (ICP) tests were conducted on 4 samples collected from an outcrop near the Ormsby Portal (OOC1 and OOC2) and from the waste pile near the adit/portal (OWD1 and OWD2). Sample lithology was not documented but they are presumed to be gossan expressions of the mineralized deposit (outcrop samples) and



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unmineralized amphibolite (waste pile samples). Data was provided to Tyhee in a draft memorandum (Robertson Geoconsultants Inc., 2004) but Golder understands that a final version of the memorandum or interpretation was not completed.

- 2008 study: Three samples were collected by UMA Engineering Ltd. (UMA) on behalf of INAC for possible use in lining drainage channels at the Discovery Mine Site. Two samples were collected from the 1000 m³ processed (screened) waste rock and one sample was collected from the source waste rock pile. The three samples were subjected to ABA testing only.
- 2007 – 2010 studies: MESH Environmental Inc. (MESH) and later Bruceling Engineering Consultants Inc. (Bruceling) conducted a wider scope geochemical investigation. The MESH (2009) report on ARD contingency provides background information on the site history, geology, historical geochemical characterization studies completed at the site, and presents results and conclusions drawn from data available to the end of 2008. A report produced by Bruceling (2010) presents test results obtained 2009 from kinetic tests, and field leaching tests (barrel tests) on Ormsby and Nicholas Lake waste rock.

1.2 Information Reviewed

This report was prepared using the following information received by Golder from or by the approval of H. Wilson of Tyhee:

- Project Description Report (Tyhee, 2008);
- NI 43-101 Technical Report (EBA, 2008);
- Pre-feasibility report (EBA, 2010) for the Ormsby and Nicholas Lake Deposits;
- Technical memorandum on analytical test results (Robertson Geoconsultants Inc., 2004);
- previous Acid Rock Drainage Monitoring and Contingency Plan reports (MESH, 2007, 2008, 2009; Bruceling, 2010);
- Working files produced by MESH; and,
- Laboratory reports of analysis provided by SGS Canada Inc. (SGS; formerly CEMI) and ALS Environmental Inc. (ALS).



2.0 STUDY AREA DESCRIPTION

This section outlines the regional and site geology and the waste management plan as understood from the 43-101 report (EBA, 2008).

The YGP is located roughly 90km north of the City of Yellowknife in the South Mackenzie Mining District. The project consists of 14 mineral leases and 1 mineral claim that total 6682 ha. Situated in the sub-arctic and semi-arid region of Canada, the YGP receives roughly 287 mm of precipitation per annum and has an average July temperature of 16°C and an average January temperature of -26°C.

Topography around the Discovery Project is defined by typical northern shield rock and boreal forest. Smooth and elongate hills and rock ridges are frequently separated by low-lying land with lakes, ponds, river, marshes and swamps. Cliffs may have up to a 10 m relief in height from bodies of water, while the overall topographic relief of the area is about 265 (surface of Giauque Lake) to about 350 masl (local topographic highs).

Overburden is a thin layer of sandy till with local small sandy eskers. High ground is typically defined by rounded bedrock outcrops.

2.1 Regional Geology

The YGP Discovery property is located in the Yellowknife Greenstone Belt, in the Slave Province of the Archean craton. The Archean Craton which makes up a significant portion of the north-western Canadian Shield and includes granitic and meta-sedimentary rocks ranging from 4.0 Ga to 2.5 Ga. It is bound to the east and west by orogenic belts associated with alternating accretionary events and continental extension.

The Yellowknife greenstone belt is the southernmost of many greenstone belts exposed in the Slave Province. It is mostly comprised of greenschist to amphibolite grade metamorphosed volcanic and sedimentary rocks. Within this belt, the Yellowknife supergroup is composed of a series of metavolcanic and metasedimentary rocks of supracrustal origin, which are host to a number of past producing gold mines including Con and Giant mines in Yellowknife and the Discovery mine, now closed, located in the YGP mine lease. The mafic to felsic metavolcanic basal units include the older (2.73-2.70 Ga) Kam Group and the younger (2.69-2.60 Ga) Banting Group. The Banting Group is overlain by meta-sedimentary greywacke, siltstone and mudstone rocks of the Burwash Formation. Most of this area underwent a prolonged period of regional metamorphism at around 2.60 Ga (EBA, 2008).

2.2 Site Geology

The YGP is an orogenic gold deposit. There are numerous contact metamorphism events identified within the local rocks, resulting in numerous folding events, pro-grade metamorphism as well as a later stage of greenschist retro grade metamorphism (EBA, 2008).

The geology of the Ormsby and Nicholas Lake deposits are described below followed by a description of gold mineralization.



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2.2.1 Ormsby Deposit

The Ormsby deposit is associated with rocks of the Yellowknife Supergroup, including three main rock types:

- 1) Amphibolite grade mafic volcanic rocks, referred to as “Amphibolite” rock by YGP. It is comprised of pillow lavas, breccias and tuff sequences. This unit is host to the economic gold mineralisation. Sulphide mineralization is more intense in this lithology than elsewhere and is distinguished by visible surficial (generally less than 5cm deep) oxidation staining, referred to as “surface gossan” by YGP;
- 2) A “Transitional unit” comprised of layered meta-sedimentary rock that include sandstones, siltstones, mudstones (argillites), and some volcanic sediment. A distinguishing feature of the transition greywacke unit is the absence of tuff layers; and,
- 3) Burwash Formation greywacke comprised of meta-sedimentary sandstones, argillites and turbidites with little sulphide mineralization.

The mafic meta-volcanic body is surrounded by silicified meta-sedimentary rocks with the transitional unit in between the two. A brecciated amphibolite unit called the Ormsby member hosts the gold mineralization at the Ormsby deposit. Generally the amphibolite unit was more susceptible to brittle deformation and veining than the metasedimentary rocks.

Gold mineralization at the Ormsby deposit is typical of most orogenic gold deposits. It is hosted in incompetent units (fractured or brecciated) and occurs in and around quartz veins as disseminated gold. Alteration assemblages of pyrrhotite ± pyrite ± arsenopyrite ± chlorite ± sericite ± calcite occur with the mineralization. Gold is found with pyrrhotite and arsenopyrite, when present. The style of mineralization is typical of stockwork mineralization where zones consist of 5-20% sulphides occurring along bands and quartz veinlets. Mineralization at the Ormsby deposit is thought to be post metamorphism. It is younger than the gold mineralization found at the nearby historic Discovery Mine.

2.2.2 Nicholas Lake Deposit

The main lithologies within the Nicholas Lake deposit include:

- 1) Burwash Formation greywacke consisting of meta-pelites and meta wacke; and,
- 2) Granodiorite intrusive unit.

The intrusive granodiorite unit is characterized by relatively intense quartz veining at the south end of the deposit, which carries gold mineralization.

Mineralization at the Nicholas Lake deposit occurs along shear zone hosted quartz veins which occur within a small granodiorite plug. Sulphide minerals comprise roughly 6% of the veins and include arsenopyrite, pyrite, pyrrhotite, galena and minor chalcopyrite (EBA, 2008).



2.3 Summary of Mining Plan and Waste Management Plans

Mining operations at the YGP will consist of two separate mining locations: Ormsby where the major mine infrastructure will be located (camp, mill, tailings storage facility and Ormsby waste rock pile), and Nicholas Lake located approximately 9 km to the northeast.

The YGP is expected to be a 3000 tonnes per day (tpd) gold mining operation, mining approximately 7.7 million tonnes (Mt) over a 7 to 8 year mine life. The Ormsby deposit will be developed initially by conventional open pit techniques followed by an underground operation. Approximately 5 Mt of ore and 74 Mt of waste will be removed over 5.5 years from the open pit, followed by a 1.4 Mt of ore by underground mining. Ormsby underground operations will begin development during year 3 with a ramp access to be established near the bottom of the pit to recover the underground resources. The Ormsby underground mine will start producing ore at the end of year 4.

The Nicholas Lake site will host a 1.3 Mt underground operation only which will produce approximately 340,000 t of waste rock. The majority of this is planned to be used for operating requirements including road base, stope backfill and general construction. No permanent waste dump design has been developed on surface. An area has been designated to contain waste rock should volumes increase and a permanent dump be required.

The Ormsby open pit will produce ore at a rate of 2,250 tpd, while the Ormsby and Nicholas Lake underground operations will produce ore at a rate of 750 tpd for a total combined rate of 3,000 tpd. The Ormsby waste rock will be stored in rock storage facilities in the Ormsby area.

The open pit at Ormsby will provide approximately 75% of mill feed for the first 4 years. The Nicholas Lake deposit will provide the remaining 25% mill feed. The ore processing circuit includes crushing, grinding, flotation of sulphide concentrate, cyanidation, gold recovery and cyanide destruction prior to discharging of the tailings to the storage facility. The tailings deposition method is being finalized at the time of this report but the tailings are expected to be deposited as a mixed tailing, in a storage facility that will be located near the plant in the Ormsby area.



3.0 SAMPLING AND ANALYTICAL PROGRAM

3.1 Sample Collection

Based on information reviewed to date, sample selection and collection was completed by various parties including Tyhee NWT Corp Geologists, GMD, and MESH/Bruceling staff. Sample selection rationale and sample collection protocols are documented for MESH and Bruceling only. The notes below have been adapted from the Bruceling files provided to Golder:

- Samples collected under the direction of MESH from the Ormsby deposit in July 2007 (102 samples) and November 2007 (15 samples) were collected from exploration drill core, geotechnical drill holes, the existing waste rock pile and ore stockpile at the Ormsby portal, an historic exploration trench in gossanous amphibolite outcrop. Samples were collected from the Nicholas Lake deposit in 2007, with 52 drill core samples selected on in November and 3 waste rock pile samples selected in July 2007.

Target sample lithologies include:

- Ormsby: mineralized and unmineralized amphibolite (designation assigned by Tyhee), transition zone (greywacke), Burwash Formation (greywacke and argillite).
- Nicholas Lake: mineralized and unmineralized granodiorite (designation assigned by MESH), quartz vein, and Burwash Formation (meta-pelite and meta-wacke).
- Potential sample intervals of Burwash greywacke were limited in availability and the four samples selected are suspected of being from the transitional unit because of their proximity to amphibolite and mislabelled because of the absence of tuff (MESH, 2009).
- 14 waste rock and two mineralized amphibolite samples collected in July 2007 from the Ormsby portal stockpiles were sieved on site to collect on fine grained material, to target the more reactive fraction.
- Drill core samples are documented to be selected using cross sections, strip logs, geology logs, and assay data. Tyhee reviewed the final sample selection completed by MESH. Spatial representation was limited by drill hole locations and the unavailability of geology logs.
- The distinction between mineralized and unmineralized amphibolite was defined by Tyhee on the basis of location, Au grade, reported visible gold, and judgement. Samples with visible gold or grades of 0.5 g/tonne gold were logged as mineralized amphibolite and all others were unmineralized amphibolite. Barren intervals were logged as mineralized amphibolite when they were 1) located between two mineralized samples or 2) located below the surface gossan.
- Ormsby pit volumes were not available at the time of sampling to proportion to anticipated waste lithologies. Preliminary waste volume estimates for Nicholas Lake were provided by Tyhee at the time of sampling.



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Table 1: Summary of Geochemical Samples and Tests

Deposit	Rock Type	Sample Count								
		Total Collected	ABA	Whole Rock	Trace Metals	SFE	ABCC Curves	Kinetic Testing	Barrel Testing	Mineralogical Analysis
Ormsby	Argillite	24	24	n.a	24	5	5	1	1	1
	Burwash Greywacke	4	4	n.a	4	n.a	1	n.a	1	1
	Transitional Greywacke	28	28	n.a	28	6	5	1	1	1
	Unmineralized Amphibolite	40 (20)	40 (28)	n.a	40 (20)	6	6 (3)	4 (1)	1	1
	Mineralized Amphibolite	9 (17)	9 (23)	n.a	9 (17)	3	5 (2)	1 (1)	1	1
	OM FLC2 Final Tail ¹	1	1	n.a	1	1	n.a	n.a	n.a	n.a
Nicholas Lake	Meta-pelite	9	9	n.a	9	n.a	n.a	n.a	n.a	n.a
	Meta-wacke	9	9	n.a	9	n.a	n.a	n.a	n.a	n.a
	Quartz Vein/ Fracture Zone	6	6	n.a	6	n.a	n.a	n.a	n.a	n.a
	Unmineralized Granodiorite	21	21	n.a	21	n.a	1	n.a	1	1
	Mineralized Granodiorite	7 (3)	7 (3)	n.a	7 (3)	(3)	1 (1)	n.a	1	1
	NL FLC1 Final Tail ¹	1	1	n.a	1	1	n.a	n.a	n.a	n.a
Tailings	YG1 FLC3 Final Tail ¹	1	1	n.a	1	1	n.a	n.a	n.a	n.a
	YG1 Barren Conc. ¹	1	1	n.a	1	1	n.a	n.a	n.a	n.a
	YG1 Combine ¹	1	1	n.a	1	1	n.a	n.a	n.a	n.a

- 1- Represents a tailing sample
 2- Number of stockpile samples
 n.a = not analyzed



3.2 Static Test Methods

The test program designed by MESH included static and kinetic geochemical methods to characterize the Acid Rock Drainage (ARD) and Metal Leaching (ML) potential of the mine waste expected to be produced during mine life. The testing program included the following components on waste rock and tailings from the Ormsby and Nicholas Lake deposits:

- trace element chemistry (ICP);
- Acid base accounting (ABA) by the Sobek method;
- Net Acid Generation (NAG) tests on tailings samples only;
- Acid-buffering characterization curves (ABCC);
- Readily leachable metals through short-term metal leach testing by a modified version of the shake flask extraction (SFE; Modified ASTM D3987);
- Long-term metal leach testing on select samples, including kinetic testing (method D5744-96; ASTM, 2001) and on-site barrel testing; and,
- Mineralogical composition (barrel test samples only).

All tests and analyses except the mineralogical investigation were performed at SGS Canada Inc. (then CEMI). Laboratory certificates of analysis were provided to Golder directly by SGS. Geochemical characterization methods are discussed in the next sections.

3.2.1 ARD Potential

The potential of geologic material to oxidize and generate acidic drainage is evaluated through acid-base accounting (ABA). This test was conducted following the Sobek method (Sobek et al., 1978) and included determination of the following parameters:

- Paste pH;
- Total sulphur and sulphate sulphur; sulphide sulphur calculated by difference;
- Total Inorganic Carbon (TIC as %C);
- Bulk neutralization potential (NP); and,
- Acid-buffering characterization curves (ABCC).



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Neutralization Potential (NP)

The NP is a bulk measurement of the acid-buffering capacity of a sample provided by various minerals of different reactive capacity and effective neutralization capacity. It is measured by digestion of a pulverized portion of the sample using a strong acid. This process consumes all minerals affected by the acid, including minerals that may not normally be reactive under ambient conditions and minerals that would not neutralize to pH-neutral conditions (such as silicate minerals; Blowes and Ptacek 1994). Because the type and occurrence of neutralizing minerals present in the sample will have a determining effect on whether the ARD potential of a sample will be realized, NP was evaluated using two different analytical techniques to more accurately determine the amount of available NP:

Sobek NP Determination: Represents the bulk NP of the sample, including contributions from some reactive aluminosilicate minerals, if present. It is calculated from the amount of base consumed to neutralize acid remaining from the sample acid-digested at boiling temperature. This test method is modified from the Standard (Sobek) NP method which more aggressively dissolves neutralization minerals and may thus overestimate NP because of the higher digestion temperature (boiling).

Repeat Sobek NP analyses were conducted on samples reporting NP significantly higher than Carbonate NP, which MESH could not attribute to aluminosilicate minerals (MESH, 2009). In these cases, MESH estimated that the Sobek NP was overestimated because of an artificially high fizz rating they attributed to the fine grained samples and/or to highly reactive carbonate minerals. For the repeat Sobek NP analyses, the fizz rating and acid addition were determined from the Carbonate NP. This resulted in lower NP values. For consistency, however, only the Sobek NP values are reported herein with an understanding that the Sobek NP values represent maximum buffering capacity.

Carbonate NP: Represents the NP available from reactive carbonate minerals, including siderite and other divalent metal carbonates (which provide no net neutralization). It was calculated based on the total inorganic carbon (%C) content of the sample, assuming all TIC is in the form of carbonate minerals. Carbonate NP was calculated using the detection limit value for TIC when measured as less than detection limit (<0.01).

Acid Potential (AP)

Following the standard Sobek method (MEND, 2009), the AP was calculated from the sulphide sulphur content of the sample, on the basis that the entire sulphide content of the rock will oxidize to generate acid. The sulphide content of the sample is calculated as the difference between laboratory-measured total sulphur and sulphate sulphur.

Values of AP, NP and CaNP are reported as kg equivalent calcium carbonate per tonne of rock.



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3.2.1.1 Net Acid Generation (NAG)

Net acid generation (NAG) tests are another method of determining ARD potential. Results are used in combination with ABA to help define the ARD potential of a sample. The NAG test uses hydrogen peroxide to induce complete oxidation of sulphide minerals: the sample is allowed to self-neutralize during this process. Unlike ABA results, NAG tests do not provide an estimate of NP relative to AP, but rather the net effect of sulphide oxidation and buffering reactions within a sample. This test is particularly useful for samples containing low AP and low NP or where other results yield conflicting or uncertain ARD predictions. Results of NAG pH are used to verify ARD potential, while NAG leachate chemical composition can be used to assess the degree of metal release upon sulphide oxidation.

NAG tests were conducted on tailings samples only.

3.2.1.2 ARD Screening Criteria

For this study, ABA results were compared to *Guidelines for Acid Rock Drainage Prediction in the North* (INAC 1992). The suggested screening criteria for inferring ARD potential based on the net potential ratio (NPR) are summarized in Tables 2 and 3 for waste rock and tailings, respectively. The NPR is the ratio of NP to AP (or CaNP to AP for CaNPR).

Table 2: Acid-Base Accounting Screening Criteria for Waste Rock (INAC 1992)

Potential for ARD	Initial Screening Criteria	Description
Likely (PAG)	$NPR < 1$	Likely to generate acidity, unless sulphide minerals are non-reactive
Uncertain	$1 < NPR < 3$	Neither clearly acid generating nor acid consuming
None (non-PAG)	$NPR > 3$	Acid consuming

Table 3: Acid-Base Accounting Screening Criteria for Tailings (INAC 1992)

Potential for ARD	Initial Screening Criteria	Description
Likely (PAG)	$NPR < 1.2$	Likely to generate acidity
None (non-PAG)	$NPR > 1.2$	Non acid-generating



3.2.2 Chemical Composition

The chemical composition of each sample was determined through Aqua Regia Digestion with ICP Finish. This information is used to assess the variation in chemical composition by lithology. Results for waste rock are compared to typical crustal abundances (Price 1997).

3.2.3 Metal Leaching Potential

Metal leaching tests are used to assess the potential of the waste rock to release chemicals to the receiving environment by simulating interaction between water and solids.

Leach test results are discussed with respect to the Maximum Average Concentration of the discharge (effluent) limits outlined in Part D Section 6 of the Water License MV2002L2-0017¹, Metal Mining Effluent Regulations (MMER) (DFO, 2006) and Canadian Environmental Quality Guidelines for the Protection of Aquatic Life (CEQG-AL) (CCME, 2007). Although these guidelines and criteria do not specifically apply to leach test results they are referenced here for comparative purposes.

3.2.3.1 Short-Term Leach Potential

Samples were subjected to short-term leach tests using a modified version of the shake flask extraction (ASTM D3987). Crushed samples (< 9.5 mm) were mixed with distilled water (3:1 solution to solid ratio) and the pulp was placed in a flask and shaken for 24 hours using a variable speed shaker table. Leachate was collected from the pump through a 0.45-µm filter and analyzed for pH, sulphate, chloride, and dissolved metals.

Comparison of results to screening criteria is an initial screening tool in the identification of potential constituents of interest for mine site water management planning and to define potential water treatment requirements. Short-term leach tests provide an estimate of which metals have an immediate potential to be released from a particular material. However, actual site drainage chemistry will almost certainly differ from short-term leach test results due to the inability of short-term leach tests to accurately simulate natural conditions, in particular transient processes such as sulphide oxidation. Short term leach test results are therefore only considered as indicators of potential constituents of interest rather than accurate representations of future drainage water compositions.

3.2.3.2 Kinetic Testing

Commencing in 2007, humidity cell testing was completed on nine (9) samples of waste rock associated with the development of the Ormsby deposit. Table 4 presents a summary of information on each sample selected for kinetic testing. Of the Nine (9) samples included in the program, five (5) were terminated in 2009 having realized their ARD potential (terminated after the leachate pH became acidic). Four (4) samples are on-going because they have not yet generated acidic conditions. Testing was initiated by MESH and conducted at SGS Canada Inc. (SGS) of Burnaby, British Columbia (then CEMI). The reader is referred to MESH (2009) and Bruceling (2010) for detailed information of the source of each sample and sample selection procedures, both on the MVLWB public registry.

¹ Developed specifically for discharge from the Ormsby Minewater Settling Pond (SNP 17-3), which no longer exists



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Table 4: Summary of Ormsby Humidity Cell (HC) Samples and Tests

Rock Type	HC Test ID	Sample ID	Sample Material Source	Sample Statistics ¹	Test Start Date	Test End Date	Number of Test Weeks
Argillite	HC2	70770	drill core	PAG (NPR 0.11) 4 th Q. S ²⁻ (4.0%); 1 st Q. NP	12-Nov-07	23-Mar-09	72
Transitional Greywacke	HC1	70766	drill core	PAG (NPR 0.69) 4 th Q. S ²⁻ (0.85%); 4 th Q. NP	12-Nov-07	23-Mar-09	72
	HC3	70799	drill core	Uncertain (NPR 1.4) 3 rd Q. S ²⁻ (0.47%); 4 th Q. NP	12-Nov-07	on-going ³	113
Unmineralized Amphibolite	HC5	70829	drill core	PAG (NPR 0.73) 3 rd Q. S ²⁻ (0.69%); 1 st Q. NP	12-Nov-07	29-Oct-09	103
	HC6 ²	70844	drill core	Uncertain (NPR 1.4) 4 th Q. S ²⁻ (0.93%); 2 nd Q. NP; 4 th Q. As (302 ppm)	12-Nov-07	on-going ³	113
	HC7	DH273-47.07-21.31	drill core	PAG (NPR 0.44) >max S ²⁻ (2.8%); 4 th Q. NP	12-Nov-07	29-Oct-09	103
	HC8	WRT-4 (-3/8")	waste rock stockpile	Uncertain (NPR 2.0) 2 nd Q. S ²⁻ (0.54%); 2 nd Q. NP	24-Mar-08	on-going	147
Mineralized Amphibolite	HC4	70821	drill core	PAG (NPR 0.49) median S ²⁻ (1.3%), <min NP	12-Nov-07	29-Oct-09	103
	HC9	0800701 Rock Sample	ore stockpile	PAG (NPR 0.92) median S ²⁻ (1.1%), 1 st Q. NP	03-Jun-08	on-going	137

Q. = quartile; S²⁻ = sulphide sulphur; NP = neutralization potential; As = arsenic (solid composition)

1- Quartile designation determined by comparing results to statistics calculated for the stockpile samples only (no drill core)

2- Testing of HC6 was terminated on December 11, 2007 and restarted on November 2, 2009

3- On-going humidity cell tests reported to January 10, 2011



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Kinetic testing was performed using the standard humidity cell test (HCT) Method D5744-96 (ASTM 2001), which is a repetitive leach test meant to accelerate weathering of a geological material. According to this method, a 1 kg sample was subjected to a seven day cycle of three days of dry air followed by three days of humid air and subsequent flushing with 1 litre (L) of distilled water on the seventh day. Approximately 1 litre (L) of leachate was collected and filtered through a 0.45 µm filter for analysis of short- and long-suite groups comprising the following parameters:

- Short suite parameter group: pH, conductivity, total alkalinity, acidity, sulphate, and hardness; and,
- Long suite parameter group: aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, calcium, chromium, cobalt, copper, iron, lead, lithium, magnesium, manganese, mercury, molybdenum, nickel, phosphorous, potassium, selenium, silicon, silver, sodium, strontium, thallium, tin, titanium, uranium, vanadium, and zinc.

Waste rock kinetic test leachates were generally analyzed on the following schedule:

- Cycles 1 to 12: weekly short suite and long suite; and,
- Cycles 12 to end of cycle: weekly short suite and biweekly long suite.

Humidity cells are designed to provide a conservative representation of rock weathering (i.e., they tend to overestimate reactivity of a mine waste). Results from humidity cells are used to assist in determining the long term characteristics of mine contact water discharges and mass fluxes from mine facilities. However, the leachates generated by HCTs may not be direct analogues of expected water quality originating from mine facilities such as waste rock facilities, stockpiles and pit walls. Due to their longer-term nature, reaction rates and depletion rates can be determined for the processes of relevance with regard to acid generation, including dissolution of neutralizing minerals, oxidation of sulphides and release of stored oxidation products (e.g., metals and acidity). HCT results are therefore useful for mine design and planning and the development of operational and post-closure mitigation measures.

The results from the last five weeks of humidity cell testing were used to calculate depletion rates for sulphide, CaNP and NP. These calculations used sulphate, CaNP and NP loading rates determined from the humidity cells to estimate the amount of time that is likely to elapse prior to their depletion. If NP is predicted to deplete prior to sulphide sulphur, then acid generation may occur in the long-term. Alternatively, if sulphide sulphur is depleted prior to NP, then long-term acid generation is expected to be unlikely. Depletion calculations were performed in accordance with the guidance provided in Price (1997) and are based on sulphate and alkalinity values.

Time Equivalency of Kinetic Tests

The ASTM method represents accelerated weathering compared to actual site conditions, with humidity cell weathering rates estimated to be at least one order of magnitude greater than actual weathering rates (ASTM D 5744-96). At Tyhee NWT Corp, leaching of mine wastes at site will occur only during times when the ground and waste is frost-free, which is assumed to be six months of each year (26 weekly cycles per year). Furthermore, site climate is such that the proportion of water (as precipitation) to rock is much lower on site compared to the amount of water added to humidity cells on a weekly basis. The lower amount of water at site will result in a slower rate of dissolution of neutralizing minerals.



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Both the lower liquid to solid ratio and the long period of frost at site are expected to decrease the weathering rate of site materials compared to that of the laboratory (Bertrand *et al.*, 2006). Not considering the potential for future warming of site climate, a reasonable time equivalency bracket is estimated at 1 laboratory cycle for 10 weeks of weathering under site conditions.

3.2.3.3 Field Cell Testing

The reader is referred to MESH (2009; Appendix C) for detailed information on sample collection, field barrel installation procedures, and photographs. Field barrel sample sources and frequency are described in Table 5.

Table 5: Summary of Field Barrel Samples and Tests

Deposit	Test ID	Sample Material Source	Lithology	Barrel Size	Test Start Date	Sample Collection Dates		
						2008	2009	2010
Ormsby	ORM-F-MA	crushed surface stockpile	Mineralized Amphibolite	large ¹	03-Sept-08	29-Sep-08	14-Jun-09	12-May-10
	ORM-F-UA	waste rock pad	Unmineralized Amphibolite	large ¹	03-Sept-08		27-Aug-09	06-Aug-10
	ORM-F-BG	drill core	Burwash Greywacke	small ²	27-Aug-09	Not sampled.	27-Aug-09	12-May-10
	ORM-F-ARG	drill core	Argillite	small ²	27-Aug-09			
	ORM-F-TS	drill core	Transitional Greywacke	small ²	27-Aug-09			
Nicholas Lake	NL-F-MGD	Covered stockpile	Mineralized Granodiorite	large ¹	03-Sept-08	29-Sep-08	14-Jun-09	12-May-10
	NL-F-UGD	Waste rock pad	Unmineralized Granodiorite	large ¹	03-Sept-08	29-Sep-08	14-Jun-09	12-May-10
							27-Aug-09	06-Aug-10
							01-Oct-09	

- 1- Large field barrels were constructed using ~200 L plastic barrels with a 20 L pail for leachate collection. Each barrel is estimated to hold ~370 kg of rock (MESH, 2009).
- 2- Small field barrels were constructed using ~20 L plastic barrels with a 20 L pail for leachate collection. Each barrel is estimated to hold ~37 kg of rock (MESH, 2009).



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The two large Ormsby samples consisting of blasted rock (less than 3 inch diameter) were collected by MESH and Tyhee NWT Corp from 6 discrete locations around the perimeters of the mineralized stockpile (ORM-F-MA) and waste rock pad (ORM-F-UA). The two Nicholas Lake samples were collected by MESH and Tyhee NWT Corp from 10 locations around the perimeter of the existing waste rock pile (unmineralized granodiorite; NL-F-UGD) and from a variety of accessible locations along the edge of the covered mineralized stockpile (mineralized granodiorite; NL-F-MGD).

The Burwash greywacke sample (ORM-F-BG) was collected by Tyhee NWT Corp. It consists of rock chips (less than 1.5 inches), collected from a rock trench previously dug through a mineral exposure on surface. The argillite (ORM-F-ARG) and transitional sediments/greywacke samples (ORM-F-TS) were also collected from a trench through a surface mineral exposure but the material was fragmented manually to reduce the particle size to less than 1.5 inches.

A sample split was collected for each field barrel and submitted for geochemical analyses at SGS (then CEMI). Each sample split was screened to produce <2mm fractions. Each whole sample and <2mm fraction were analyzed for acid base accounting (ABA). The whole fraction samples were also analyzed for grain size distribution, chemical composition, ABCC curves and mineralogical analysis by x-ray diffraction (XRD) and evaluation of the XRD patterns by the Rietveld method (conducted at the University of British Columbia and petrographic examination at Lehne & Associates of Germany). The XRD and Rietveld method allows for a quantitative characterisation of the mineralogical composition of a sample for crystalline mineral phases with a detection limit of approximately 1%. XRD does not detect amorphous mineral phases. This analysis assists in the identification and quantification of minerals that provide buffering capacity and acidification potential to the sample.



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4.0 STATIC TEST RESULTS

4.1 Acid Generation Potential

The results of ABA testing are presented as tables and figures in Appendix A-2 for Ormsby waste rock and in Appendix B-2 for Nicholas Lake waste rock. The results provide information on the ARD potential of each sample as determined based on sulphide content, net neutralization potential (NNP = NP - AP), neutralisation potential ratio (NPR = NP/AP), the carbonate mineral NPR (CaNPR = CaNP/AP) and the net acid generation (NAG) pH. Presented with the data are results of statistical analyses and the calculated bulk characteristics for each sample group using average sulphide content, bulk NNP (sum NP – sum AP) and bulk NPR (sum NP / sum AP).

A summary of the ARD potential of each sample group is presented in Table 6. Following INAC (1992), samples that have a potential to generate ARD are referred to as “potentially acid generating” (PAG), while those that are acid-buffering are referred to as non PAG. All other material is referred to as “uncertain” as these samples are neither clearly acid generating nor acid producing or the group of samples have variable NPR results.

4.1.1 Ormsby Deposit

Overall, samples from the Ormsby deposit are either potentially acid generating or have an uncertain potential to generate ARD. Bulk ARD characteristics show that the argillite and transitional greywacke groups are PAG (bulk NPR < 1) and the remaining groups classify as uncertain ($1 < \text{bulk NPR} < 3$).

All paste pH values are circum-neutral to alkaline, ranging from 6.4 to 10. The (Sobek) NP values are consistently higher than Carbonate NP values (CaNP) in all lithologies and particularly in mineralized and unmineralized amphibolites. This is likely due to aluminosilicate minerals being a significant provider of NP. The effective NP may therefore be less than that inferred by Sobek NP values.

The sulphur contents of all lithologies from the Ormsby deposit are in the form of sulphide sulphur (Appendix A-2.1)

Table 6: ARD Potential – Ormsby Waste Rock

Material Information		Sample Count				ARD Potential by Sample Group ¹		
Type	Rock Type	Total	Non PAG	Uncertain	PAG	average S ²⁻	bulk NPR	Bulk ARD Designation ²
Drill Core	Argillite	24	2	3	19	3.0	0.44	PAG
Drill Core	Transitional Greywacke	28	7	12	9	0.63	0.95	PAG
Drill Core	Burwash Greywacke	4	0	4	0	0.26	1.6	Uncertain
BULK BURWASH FORMATION		56	9	19	28	1.3	0.52	PAG
Drill Core	Unmineralized Amphibolite	41	21	13	7	0.65	2.1	Uncertain
Rock Pad	Unmineralized Amphibolite	28	15	12	1	0.51	3.2	Non PAG
Drill Core	Mineralized Amphibolite	9	3	2	4	1.8	1.4	Uncertain
Stockpile	Mineralized Amphibolite	23	1	18	4	1.2	1.5	Uncertain

1- based on bulk ARD calculations

2- NPR < 1 “PAG”; $1 < \text{NPR} < 3$ “uncertain”; NPR > 3 “non PAG” following INAC (1992)



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Static test results to date on the Ormsby **argillite** waste rock has a bulk sulphide content of 3.0% while only having a bulk NPR of 0.44, thus this unit is classified as PAG. Overall the sulphide content is high with a median sulphide content of 2.6%, it also has a low buffering capacity with an average NP of 42 t CaCO_3 /1000 t. Of the 24 argillite samples collected, 1 is classified as non-PAG, 2 are uncertain and 21 are PAG. This lithology is interbedded with the greywacke and forms a minor portion of the meta-sediment package.

The **transitional greywacke** exhibits a wide range in sulphide content, from below analytical detection (<0.5% sulphide sulphur) to some samples that spike to high values (up to 3.7% total sulphur). The NP is generally low, with an average of 19 t CaCO_3 /1000 t. Of the 28 samples collected, 5 are classified as non-PAG, 14 are classified as uncertain and 9 are PAG. The bulk ARD potential of the transitional greywacke is PAG with a bulk NPR of 0.95.

All (4) samples of **Burwash greywacke** have an uncertain ARD potential (bulk NPR of 1.6). The sulphide content of the Burwash greywacke samples is generally low, it range from 0.22% - 0.33% and exhibit a range of NPR values from 1.3 to 2.0. The NP for the Burwash greywacke is low with an average of 13 t CaCO_3 /1000 t.

The **unmineralized amphibolite drill core** has a relatively wide range in sulphide content from 0.1% to 2.8% (median content of 0.38%), while also having a variable range in NPR values from 0.43 to 34. The buffering capacity of this lithology is moderate with an NP average of 43 t CaCO_3 /1000 t. Of the 40 samples of unmineralized drill core selected for testing, 12 are classified as non-PAG, 19 are classified as uncertain and 9 are classified as PAG. The bulk ARD potential of unmineralized amphibolite drill core is uncertain (bulk NPR 2.1).

Samples from the **stockpile of unmineralized amphibolite** show a slightly lower range in sulphide content from 0.04% to 1.1% (median content of 0.53%) while also showing a higher range of NPR values from 0.83 to 17 (median content of 3.5) compared to core samples collected from the entire proposed pit area. The median NP is 44 t CaCO_3 /1000 t. The bulk ARD characteristics for this group classifies it as non PAG (bulk NPR = 3.2). This suggests that the existing rock pad contains material that has a lower ARD potential than waste rock within the outline of the proposed open pit.

The results for the Ormsby **mineralized amphibolite drill core** show a sulphide content range from 0.19% to 5.2% (median content of 1.3%) which indicates that most samples analyzed contain higher sulphide content than the unmineralized amphibolite. The median buffering capacity for these samples is 52 t CaCO_3 /1000 t. The mineralized amphibolite also has a variable ARD potential with a range of NPR values from 0.5 to 7.3. The bulk ARD characteristic is uncertain (bulk NPR 1.1).

Samples from the **stockpile of mineralized amphibolite** show a sulphide content range of 0.26% to 2.3% (median content of 1.2%) while showing an NPR range from 0.65 to 9.0. It has a buffering capacity of 57 t CaCO_3 /1000 t. The bulk ARD characteristics for this group is also uncertain (bulk NPR = 1.5) and similar to the mineralized amphibolite collected from drill core from within the outline of the proposed open pit.



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4.1.2 Nicholas Lake

Nicholas Lake lithologies are either potentially acid generating or have an uncertain ARD potential. In general, sulphide content of the rocks are slightly lower and less variable than the Ormsby lithologies but neutralisation potential is generally lower, corroborated by the silicic alteration. The ARD potential of each rock type is summarized in Table 7 and described further below.

All paste pH values are circum-neutral to alkaline, ranging from 5.6 to 10.0, indicating the presence and availability of buffering capacity in the short-term, prior to onset of ARD should it ever develop. The Sobek NP is generally higher than CaNP indicating that buffering capacity is not solely provided by reactive carbonate minerals, but also by relatively unreactive alumino-silicate minerals. The effective NP may therefore be less than that inferred by Sobek NP values.

Table 7: ARD Potential – Waste Rock Nicholas Lake

Material Information		Sample Count				ARD Potential by Sample Group ¹		
Type	Rock Type	Total	Non PAG	Uncertain	PAG	average S ²⁻	bulk NPR	Bulk ARD Designation ²
Drill Core	Meta-Pelite	9	0	8	1	0.44	1.1	Uncertain
Drill Core	Meta-Wacke	9	0	3	6			
Drill Core	Fracture Zone	1	0	0	1	0.96	0.26	PAG
Drill Core	Quartz Vein	5	0	2	3			
Drill Core	Mineralized Granodiorite	7	0	4	3	0.26	1.1	Uncertain
Drill Core	Unmineralized Granodiorite	21	2	18	1	0.24	1.5	Uncertain
Rock Pad	Granodiorite	3	0	0	3	0.81	0.28	PAG

1- Bulk ARD calculations based on average value.

2- NPR<1 "PAG"; 1<NPR<3 "uncertain"; NPR>3 "non PAG" following INAC (1992)

The Meta Sediment package of Nicholas Lake includes the meta-pelites and meta-wacke rock. The **meta-pelites** show a range in sulphide content from 0.14 wt% to 0.80wt% (median content of 0.29wt %). This lithology has a low net buffering capacity (median of 3.5 t CaCO₃/1000 t), however combined with the relatively low sulphide contents; it has an uncertain ARD potential (bulk NPR of 1.3). The **meta-wacke** lithology has higher sulphide content and has no net buffering capacity (median of -0.90 t CaCO₃/1000 t). The sulphide content ranges from 0.28wt % to 1.1wt % and the NPR values range from 0.84 to 1.4. The bulk ARD potential of meta-wacke rock is PAG (bulk NPR = 0.96).

The meta-pelites and meta-wacke rock are interbedded and not feasibly separated. The bulk ARD potential of the mixture of both rock types, assuming even proportions, yields an uncertain ARD potential (bulk NPR of 1.1).

Quartz vein and **fracture zone** waste rock are mostly PAG, having an average sulphide content of 0.96wt% and low buffering capacity of 7.7 t CaCO₃/1000 t. Sulphide content ranges from 0.04wt% to 3.2wt % while NPR values show a range from 0.026 to 2.6. The bulk ARD potential of this rock group is PAG (bulk NPR 0.26).



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The **mineralized granodiorite** waste rock has a low buffering capacity (9 t CaCO₃/1000 t) and a generally low sulphide content ranging from 0.14 wt % to 0.33 % (median of 0.26wt %). The ARD designation of the seven samples tested varies between PAG and uncertain. The bulk ARD characteristics of this group is uncertain (bulk NPR = 1.1).

The **unmineralized granodiorite** waste rock tested has similar characteristics to the mineralized granodiorite: sulphide content is low (median content of 0.24wt %) and has a range from 0.80wt% to 0.97wt% and the median buffering capacity is low (11 t CaCO₃/1000 t). The bulk ARD potential is slightly lower than for the mineralized granodiorite but still considered uncertain (bulk NPR 1.5).

Three samples from the waste rock stockpile labelled as **granodiorite** range in sulphide content from 0.37wt % to 1.5wt % (median of 0.58wt %), which is higher than the range observed in mineralized granodiorite samples. These three samples have a low buffering capacity (7.8 t CaCO₃/1000 t) and a low range of NPR values (0.086 to 0.84). All three samples are classified as PAG. The bulk ARD characteristic for this group is PAG (NPR = 0.31).

4.1.3 Ormsby and Nicholas Lake Tailings

A number of metallurgical processing tests have been completed to date for this project, on various samples of ore. This report presents the geo-environmental test results completed on the most recent ore processing wastes that are relevant to the current mine plan. Tests were completed on samples of Nicholas Lake tailings, Ormsby tailings, and on a combined sample of ore (flotation, concentrate and whole ore tailings) from both deposits in the proportion of the total ore mined during the life of mine (75% Ormsby ore and 25% Nicholas Lake ore).

Table 8 presents a summary of the acid generation characteristics of the ore processing wastes tested and their designated ARD potential.

Table 8: ARD Potential – Nicholas Lake and Ormsby Tailings

Tailings Sample Material Information			ARD Potential			
Sample ID	Location	Type	NAG pH	S2-	NPR	ARD Designation
NL FLC1 Final Tail	Nicholas Lake	Flotation Tailings	3.3	0.24	0.85	PAG
OM FLC2 Final Tail	Ormsby	Flotation Tailings	6.1	0.12	9.7	non PAG
YG1 FLC3 Final Tail	Ormsby+ Nicholas Lake	combined 25% NL+75% Ormsby flotation tailings	5.9	0.20	4.9	non PAG
YG1 Barren Conc.	Ormsby+ Nicholas Lake	combined 25% NL+75% Ormsby concentrate	2.4	25.8	0.019	PAG
YG1 Combine	Ormsby+ Nicholas Lake	combined 25% NL+75% Ormsby whole tailing	2.4	2.5	0.35	PAG



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The Ormsby flotation reject (sulphide-poor) tailings have low sulphide content and a moderate buffering capacity. These tailings are non PAG but the slightly acidic NAG pH infers a limited buffering capacity. The Nicholas Lake flotation reject tailing, however, have slightly higher sulphide content but hardly any buffering capacity, as expected based on the ore being in a silicate vein system. The acidic NAG pH value corroborates this lack of immediately available buffering capacity to neutralize any ARD that could be generated from Nicholas Lake tailings.

The environmental characteristics of the combined flotation tailing (YG1 FLC3 Final Tail) are more similar to those of the Ormsby tailings given their higher proportion in the mix (75% Ormsby and 25% Nicholas Lake). The ARD potential of the combined flotation tailing is non PAG, however, this tailing has a low buffering capacity and an acidic NAG pH inferring a very limited ability to buffer any acidity that could be generated.

The mixed concentrate tailing (75% Ormsby and 25% Nicholas Lake) has substantial sulphide content and practically no buffering capacity in the short term (based on the acidic NAG pH) and on the long-term (based on the low NPR and low NP values). The spent concentrate is PAG.

The whole ore tailings consisting of flotation reject+spent concentrate from both Ormsby (25%) and Nicholas Lake (75%) ore is PAG and has no immediately available buffering capacity.

4.2 Chemical Composition

The results of chemical analyses are presented in Appendices A-3 and B-3 as tables and figures for Ormsby and Nicholas Lake deposits respectively. Summary statistics are provided for each sample type, including: minimum, maximum, average, median, 75th percentile and standard deviation. Results are compared to typical crustal abundances for each chemical constituent. The project being mineralized and thus, anticipated to be enriched relative to typical crustal abundance, the chemical constituents that exceed 5 times the crustal abundance are highlighted as being substantially enriched in YGP rock.

Figures showing metal content for Ormsby waste rock (Appendix A-3, Figures A-3.1 to A-3.6) and Nicholas Lake waste rock (Appendix B-3, Figures B-3.1 to B-3.5) plot the median concentration for each element. Figures include typical crustal abundance concentrations for comparison purposes only. Element concentrations that are greater than five times the typical crustal abundance for a similar rock type are considered to be significantly enriched.

Overall there was some variation in trace element compositions within each sample group with standard deviation values generally equal to or less than median values; with rare times it being greater than median values. Arsenic and sulphur were found at concentrations exceeding five times typical crustal abundance in all rock types.



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4.2.1 Ormsby Waste Rock

Table 9 summarizes exceedances for Ormsby waste rock compared to crustal abundance. Elements exceeding 5 times the crustal abundance include arsenic, cadmium, sulphur, antimony, selenium and uranium. The exception being that antimony and selenium values for the Burwash Greywacke, do not exceed 5 times the crustal abundance.

Table 9: Summary of Ormsby Waste Rock Chemical Composition

Material Information		Number of Samples	Parameter Concentrations Greater than Five Times Typical Crustal Abundance (Price 1997) ^{1,2}
Type	Rock Type		
Drill Core	Argillite	24	Ag, As , Cd , Cu, Hg , S, Sb, Se, Th, Tl , U, Zn , W
Drill Core	Transitional Greywacke	28	As , Cd , S , Sb , Se, Th, Tl , U, Zn, W
Drill Core	Burwash Greywacke	4	As , Cd , S , U
Drill Core	Unmineralized Amphibolite	40	Ag, As , Cd , Hg , P, S , Sb , Se, Th, Tl , U, Zn, W
Rock Pad	Unmineralized Amphibolite	20	Ag , As , Bi , Hg , P, Pb, S , Tl , W
Drill Core	Mineralized Amphibolite	9	As , Cd , S , Sb , Se, Tl , U, Zn, W
Stockpile	Mineralized Amphibolite	17	Ag, As , Cd , Hg , P, S , Sb, Tl , U, W

1- Where at least one sample exceeds five times crustal abundance

2- Bold values indicate parameters where median concentration exceeded times five the stated typical crustal abundance

The argillite lithology has the highest median values for silver (0.4ppm), thorium (7ppm) and zinc (473 ppm). Phosphorus and iron were highest in the mineralized amphibolite, while Burwash greywacke and transitional greywacke both showed high median values of chromium (~170ppm).

Table 10 shows arsenic, sulphur and antimony chemistry results for mineralized amphibolite (MA) and unmineralized amphibolite (UA) samples collected in the stockpile and collected from drill core. Median arsenic values are much higher in the stockpile MA 314 ppm compared to 33 ppm for the drill core MA. However, median arsenic values for the stockpile UA are only slightly higher than those of the drill core UA, at 61 ppm and 58 ppm respectively. In terms of sulphur values, drill core MA has a higher average value of compared to the stockpile MA, but has a lower median value. For the unmineralized amphibolite, both the average and median values are lower in the drill core compared to the stockpile. Cadmium and antimony values are higher in the drill core for both MA and UA lithologies compared to stockpile MA and UA.



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Table 10: Arsenic and Sulphur Concentrations for Ormsby Amphibolites (ppm).

Parameter	Mineralized Amphibolite				Unmineralized Amphibolite			
	Stockpile (17)		Drill Core (9)		Stockpile (20)		Drill Core (40)	
	Average	Median	Average	Median	Average	Median	Average	Median
As	805	314	120	33	95	61	82	58
S	13065	12600	16922	11300	7430	7600	6003	3600

() indicated number of samples tested

4.2.2 Nicholas Lake Waste Rock

Arsenic, cadmium, sulphur and antimony in all Nicholas Lake lithologies, all exceed 5 times the crustal abundance. Of the above elements, only antimony does not have a median value that also exceeds 5x the crustal abundance. Waste rock granodiorite, quartz vein and mineralized granodiorite have the greatest arsenic concentrations (median values greater than 2500 ppm).

Table 11 lists the elements that exceed 5 times the crustal abundances for the Nicholas Lake lithologies.

Table 11: Summary of Nicholas Lake Waste Rock Chemical Composition

Material Information		Number of Samples	Parameter Concentrations Greater than Five Times Typical Crustal Abundance (Price 1997) ^{1,2}
Type	Rock Type		
Drill Core	Meta-pelite	9	As, Cd, Mo, S, Sb, Se, Th, U, W
Drill Core	Meta-wacke	9	Ag, As, Cd, Mo, Pb, S, Sb, Se, Th, U
Drill Core	Fracture Zone and Quartz Vein	6	Ag, As, Bi, Cd, Pb, S, Sb, W, Zn
Drill Core	Mineralized Granodiorite	7	Ag, As, Bi, Cd, Mo, Pb, S, Sb, Th, W, Zn
Drill Core	Unmineralized Granite/ Granodiorite	21	Ag, As, Bi, Cd, Hg, Mo, Pb, S, Sb, W, Zn
Rock Pad	Granodiorite	3	Ag, As, Bi, Cd, Hg, Pb, S, Sb, W, Zn

1- Where at least one sample exceeds five times crustal abundance

2- Bold values indicate parameters where median concentration exceed times five the stated typical crustal abundance

The same lithologies also have the highest median (greater than 5000 ppm) of sulphur. There is no correlation between arsenic and sulphur concentrations compared to depth (Appendix Figures A-2.6 (Ormsby) and B-2.6 (Nicholas Lake)).

Meta-pelites have the highest iron concentrations (median value of 52600ppm), while the meta-wackes and meta-pelites have the highest chromium concentrations with median values of 215 ppm and 207 ppm respectively.



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Table 12 shows the chemical composition comparisons of both the average and median concentrations between mineralized and unmineralized granodiorite (drill core) and granodiorite (stockpile).

Table 12: Median and Average Concentrations of Chemicals of Interest in Nicholas Lake Granodiorite

Parameter	Mineralized Granodiorite (7)		Unmineralized Granodiorite (21)		Granodiorite (3)	
	Average	Median	Average	Median	Average	Median
Ag	1	0.5	0.6	0.2	6	1.9
As	2893	3356	1373.9	1072.5	4946	2969.1
Cd	5.0	2	1.6	1	33	4.2
Mo	3.7	3	3.5	3	4.6	5
Pb	166	82	82	28	1041	126.2
S	2614	2900	2338	2000	11367	9900
W	58	13	67	19	777	275.1
Zn	315	134	87	68	1513	291

() indicated number of samples tested

4.2.3 Tailings Chemical Composition

Analytical results of chemical composition for the tested tailings are presented Appendix C-3.

The median concentration of arsenic, bismuth, mercury, molybdenum and tungsten exceed 5 times crustal abundances. Silver, cadmium and sulphur also exceed 5 times crustal abundances except for the Ormsby flotation tailing, while the Nicholas Lake flotation tailing is the only sample that does not exceed 5X crustal abundance for selenium. Both the combined concentrate and the combined whole ore tailings sample have the greatest number of exceedances to the 5 times crustal abundance screening criteria.

4.2.3.1 Mineralogical Analysis of Ormsby and Nicholas Lake Tailings

Results of mineralogical analysis (X-Ray diffraction with Reitveld interpretation) are presented in Appendix C-5. The following is a summary of the findings of the mineralogical investigation.

The flotation tailings (Ormsby, Nicholas Lake and the combined sample) consist mainly of quartz, plagioclase feldspar and amphiboles (actinolite) which make up about 80-85wt% of the samples. These samples also contain lesser amounts of K-feldspar, ilmenite (in the Ormsby fraction only), micas, clinocllore and hydroxylapatite. The sulphide mineral content is low, mostly as pyrite (0.3wt% in the Nicholas Lake tailing only). Trace amounts of calcite are present in the Ormsby tailings (1.9 wt%) and in the combined flotation tailings (0.9wt%).



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Conversely, the blended concentrate (sulphide-rich Ormsby-Nicholas Lake combined tailing) consists principally of arsenopyrite, pyrite with lesser amounts of marcasite and pyrrhotite, which make up about 76wt% of the tailing. Amphibole, quartz and plagioclase feldspar make up less than 14wt% of the tailing, while traces of other minerals make up the balance. No carbonate minerals were detected in this sample.

The whole ore tailing is a mix of approximately 10 % combined sulphide concentrate and 90% combined flotation reject. The mineralogy of this sample is proportional to its composition, consisting mainly of the alumino-silicate minerals present in the flotation tailings albeit at a slightly lower content (approximately 77wt%). The sulphide minerals present are similar to those present in the concentrate but at a substantially lower proportion (approximately 6wt%).

4.3 Short-Term Leaching Test Results

A subset of Ormsby waste rock samples were subjected to short-term water-leaching tests (SFE test). Leachate quality results are presented in Appendices A-4, B-4 and C-4 for material from Ormsby, Nicholas Lake and for tailings, respectively. Results are compared with the Maximum Average Concentration of the discharge (effluent) limits outlined in Part D Section 6 of the Water License MV2002L2-0017², with the Metal Mining Effluent Regulations (MMER) (DFO, 2006) and Canadian Environmental Quality Guidelines for the Protection of Aquatic Life (CEQG-AL) (CCME, 2007).

4.3.1 Ormsby Waste Rock

Table 13 presents a summary of parameters exceeding screening criteria from the Ormsby Deposit.

Table 13: Summary of Ormsby Waste Rock Leachable Parameters Exceeding Screening Criteria

Material Information		# of Samples Analyzed	Median Final pH	CEQG ¹	Water License MV2002L2-0017 Max Avg.
Type	Rock Type				
Drill Core	Argillite	5	7.4	Cd, Se	n.e.
Drill Core	Transitional Greywacke	6	7.7	Al, As, Fe,	n.e.
Drill Core	Unmineralized Amphibolite	6	7.9	Al, As	n.e.
Rock Pad	Unmineralized Amphibolite	2	n.e.	n.e.	n.e.
Drill Core	Mineralized Amphibolite	3	7.8	As	n.e.

1- CCME, Canadian Environmental Quality Guidelines for the protection of aquatic life

n.e. no exceedances

Bold where CEQG exceeds values more than once in the lithology

² developed specifically for discharge from the Ormsby Minewater Settling Pond (SNP 17-3), which no longer exists



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The final pH values of the SFE leachates are all alkaline with values ranging from 7.1 to 8.2. For most samples, the alkaline pH values corroborate the presence, albeit in limited amount of, available buffering capacity. Some of these samples are PAG or have an uncertain ARD potential in the long-term. The readily available carbonate buffering is likely to afford a delay until the onset of ARD, should it ever develop in this rock.

The concentrations of most leachate parameters meet CEQG guidelines for the protection of aquatic life (CCME 2006). No exceedances are observed from samples collected in the Ormsby rock pile. In the drill core, exceedances include aluminum, arsenic, cadmium, iron, and selenium. Where aluminum and arsenic recorded multiple exceedances in unmineralized amphibolite and transitional greywacke; cadmium (argillite), iron (transitional greywacke), and selenium (argillite) are isolated exceedances. Arsenic also exceeded once in mineralized amphibolite. All parameters meet the limits of the water license MV2002L2-0017 (Maximum Average Concentrations).

4.3.2 Nicholas Lake Waste Rock

Only two samples from Nicholas Lake were tested for SFE leachate (Table 14), and they were both granodiorites stored at the rock pad. Full results are presented in Appendix B-4. Of these two samples one had an alkaline pH of 7.8, while the other had an acidic pH of 3.7. Unlike samples at Ormsby which have a moderate buffering capacity, the stockpile granodiorites at Nicholas Lake have practically no buffering capacity.

Table 14: Summary of Nicholas Lake Waste Rock Dump SFE Parameters Exceeding Screening Criteria

Material Information			Number of Samples	Final pH	CEQG ¹	Water License MV2002L2-0017 Max Avg.
Location	Type	Rock Type				
Nicholas Lake	Rock Pad	Granodiorite	2	n.e.	pH<6.5, Al, As, Cd, Cr, Cu, Fe Pb, Zn	pH<6.0, As, Cd, Cu, Pb, Zn

1- Canadian Environmental Quality Guidelines for the protection of aquatic life
n.e. no exceedances

The concentrations of many leachate parameters meet CEQG guidelines for the protection of aquatic life (CCME 2006) for the two samples taken, except for pH, chromium, iron, lead and zinc in one sample (NL-3) and aluminum, arsenic, cadmium, and copper in both samples. Concentrations that exceed the water license MV2002L2-0017 (Maximum Average) include pH, arsenic, cadmium, copper, lead and zinc in one sample (NL-3).

4.3.3 Tailings

Results of tailings leachate chemistry are presented in Appendix C-4. A summary of parametric exceedances to the screening criteria is presented in Table 15.

All 5 tailings samples exceed the CEQG aquatic life guidelines for aluminum, arsenic and silver. The Nicholas Lake Tailings release a greater number of chemicals above the CEQG aquatic life guidelines and also release arsenic and zinc at concentrations that exceed the Water Licence Maximum Average Concentrations.



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Table 15: Summary of Tailings SFE-Leachate Parameters Exceeding Screening Criteria

Material Information			CEQG-AL	Water License MV2002L2-0017 Max Avg.
Sample ID	Location	Type		
NL FLC1 Final Tail	Nicholas Lake	Flotation Tailings	pH<6.5, Al, As, Cd, Fe, Ni, Se, Ag, Zn	pH <6.0, As, Zn
OM FLC2 Final Tail	Ormsby	Flotation Tailings	Al, As, Ag	n.e
YG1 FLC3 Final Tail	Ormsby+ Nicholas	combined 25% NL+75% Ormsby flotation tailings	Al, As, Ag	As
YG1 Barren Conc.	Ormsby+ Nicholas	combined 25% NL+75% Ormsby concentrate	Al, As, Cd, Pb, Se, Ag, Zn	n.e
YG1 Combine	Ormsby+ Nicholas	combined 25% NL+75% Ormsby whole tailing	Al, As, Cd, Se, Ag	n.e

4.3.4 NAG Test Leachate Chemistry

Results for NAG pH and metal acidity releases upon sulphide oxidation for the tailings samples tested are presented in Table 16. Metal results for NAG leachates are presented in Appendix Table C-6. Results are compared with CEQG guidelines for the protection of aquatic life (CCME, 2006) and to Water License MV2002L2-0017, but it should be noted that leachate generated by NAG represents “terminal conditions”, or complete and instantaneous oxidation and leaching from all reactive sulphides rather than contact-water quality. In actuality, sulphide oxidation and chemical release will occur gradually and concentrations in leachate are expected to be lower than NAG leachate chemistry at any given time.

Of the 5 tailings samples tested, 3 samples exhibit acidic NAG pH values with a NAG pH of less than 4.5 (NL FLC1 Final Tail, YG1 Barren Conc and YG1 Combine).



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Table 16: Summary of Tailings NAG Parameters Exceeding Screening Criteria

Material Information			CEQG-AL	Water License MV2002L2-0017 Max Avg.
NL FLC1 Final Tail	Nicholas Lake	Flotation Tailings	pH < 6.5, Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Se, Ag, Zn	pH <6.0, As, Zn
OM FLC2 Final Tail	Ormsby	Flotation Tailings	pH < 6.5, Al, As, Cd, Cr, Cu, Hg, Se, Ag	As
YG1 FLC3 Final Tail	Ormsby+ Nicholas Lake	combined 25% NL+75% Ormsby flotation tailings	pH < 6.5, Al, As, Cd, Cr, Cu, Hg, Se, Ag	As
YG1 Barren Conc.	Ormsby+ Nicholas Lake	combined 25% NL+75% Ormsby concentrate	pH < 6.5, Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Se, Zn	pH <6.0, As, Cd, Cu, Pb, Zn
YG1 Combine	Ormsby+ Nicholas Lake	combined 25% NL+75% Ormsby whole tailing	pH < 6.5, Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Se, Ag, Zn	pH <6.0, As, Cd, Cu, Pb, Zn



5.0 HUMIDITY CELLS

Humidity cell testing of waste rock anticipated to be produced from the development of the Ormsby deposit commenced in 2007. Nine (9) samples were included in the program; of which three (5) were terminated in 2009 and three (4) are on-going. Humidity cell samples are briefly described in Section 3.2.3.2, including sample rationale. For detailed information on the program the reader is referred to MESH (2009) and Bruceling (2010). Nicholas Lake mine wastes and tailings were not subjected to kinetic testing.

5.1 Humidity Cell Results

Tabulated results for pre-test and post-test ABA are provided in Table 17, including statistics for mineralized and unmineralized amphibolite sample groups including 1) stockpile samples, and 2) stockpile and drill core samples. All laboratory analytical reports were received from SGS by Golder on January 13, 2011 (email from R. Vos, SGS to V. Bertrand, Golder). Using the laboratory analytical reports, Golder tabulated all data as follows:

- weekly results of kinetic test leach concentrations (Appendix D-1);
- weekly results of kinetic test leach concentrations (Appendix D-2); and,
- mineral depletion calculations for the last five weeks of testing.

Results are compared to the discharge (effluent) limits outlined in Part D Section 6 of the Water License MV2002L2-0017, including the Maximum Average Concentration. Humidity cell results are also compared to Canadian Environmental Quality Guidelines for the Protection of Aquatic Life (CEQG-AL) (CCME, 2007).

Humidity cell results are summarized in Table 17 and are discussed separately below for each rock type group. These results are discussed within the context of their ability to represent surface stockpiled material. However, the ability of these samples to represent drainage composition from waste associated with the future development of the Ormsby deposit is limited by the small portion of the overall deposit they represent, and by having a slightly lower ARD potential than the core samples collected from within the anticipated pit outline.

Most metal concentrations meet Water License MV2002L2-0017 discharge limits with the exception of cadmium, nickel and zinc and most meet CEQG-AL guidelines, with the exception of aluminum, arsenic, cadmium, iron, lead, mercury, nickel, selenium, and zinc. Most exceedances are associated with the onset of acidic conditions (under which the mobility of most metals is increased), except for arsenic and aluminum exceedances which show relatively stable release rates regardless of leachate pH.



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Table 17: Summary of Humidity Cell Results

Sample Information			ARD Potential (Static Testing Results)			ARD and ML Potential (Kinetic Test Results)		
Lithology	Sample ID (Material Source)	Test Timing	S ²⁻ (%)	NP ¹	ARD Designation	pH (last cycle)	> Water License ²	> CEQG Aquatic Life
Argillite	HC2 (drill core)	pre-test	4.0	14	PAG	3.2	pH (<6.0); Cd, Zn	Al, As, Cd, Cu, Ni, Se, Zn
		post-test	0.61	9.4	PAG			
Transitional Greywacke	HC1 (drill core)	pre-test	0.85	18	PAG	3.7	pH(<6.0), Ni	pH(<6.5), Al, Cd, Cu, Hg, Ni, Pb, Se, Zn
		post-test	4.0	8.7	PAG			
	HC3 (drill core)	pre-test	0.47	20	Uncertain	7.3	-	Al, As, Cd, Cu
Unmineralized Amphibolite	HC5 (drill core)	pre-test	0.69	16	PAG	4.1	pH(<6.0)	pH(<6.5), Al, Cd, Cr, Cu, Hg, Ni, Pb, Zn
		post-test	0.60	16	PAG			
	HC6 (drill core)	pre-test	0.93	33	Uncertain	7.3	-	Al, As, Cd, Cu, Hg
	HC7 (drill core)	pre-test	2.8	120	PAG	3.8	pH(<6.0)	pH(<6.5), Al, As, Cd, Cu, Fe, Hg, Pb, Se, Zn
		post-test	2.3	18	PAG			
	HC8 (waste pile)	pre-test	0.54	34	Uncertain	7.2	-	Ag, Al, Cd, Cu, Ni, Pb
Mineralized Amphibolite	HC4 (drill core)	pre-test	1.3	16	PAG	3.8	pH(<6.0)	pH(<6.5), Al, As, Cd, Cu, Hg, Ni, Pb, Se, Zn
		post-test	1.1	16	PAG			
	HC9 (ore stockpile)	pre-test	1.1	31	PAG	6.9	-	Al, As, Cd, Cu, Hg, Pb, Se

1- tonnes CaCO₃ /1000 tonnes

2- monthly average

"-" no exceedances



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Argillite Sample (HC 2)

HC 2 is a PAG sample that was terminated after 72 weeks as it had reached acidic conditions (pH 4) and steady state chemical leaching conditions by week 38. Alkalinity decreased and acidity and metal leaching rates for aluminum, cadmium, cobalt, copper, iron, lead, nickel, selenium, and zinc increased as the pH of this sample dropped from neutral conditions. Arsenic concentrations and leaching rates remained relatively constant throughout testing, and increased slightly when the pH dropped below 6, decreasing again after cycle 40 when the leachate stabilized at pH <4.

HC 2 represents upper quartile sulphide content (4.0%) and a first quartile NP (14 tCaCO₃/1000 t). This sample is highly reactive and ABA tests conducted upon sample termination indicate that the sulphide content of the sample had not been entirely consumed (0.61% remaining).

Transitional Greywacke Samples (HC 1 and HC 3)

PAG sample HC 1 was terminated at week 72 because it had reached acidic conditions. The uncertain ARD sample HC 3 is on-going at 113 weeks and maintains a neutral pH.

HC 1 reports an upper quartile sulphide content (0.85%). HC 1 reached acidic conditions (pH <4) and steady state metal release rates by week 62. Alkalinity decreased and acidity and metal leaching rates for aluminum, cadmium, cobalt, copper, iron, lead, nickel, selenium, and zinc increased as the pH of these samples dropped from neutral conditions. Arsenic concentrations and leaching rates remained relatively constant throughout testing, increasing slightly when the pH dropped below 6.

HC 3 represents moderately reactive transitional greywacke, with third quarter sulphide (0.47%) and high NP (20 tCaCO₃/ 1000t). This sample continues to report stable alkalinity, acidity, and near neutral pH values. HC 3 maintains low sulphate concentrations. Metal leach rates remain stable. Arsenic continues to leach at high concentrations, although they are below the Water License discharge limits and CEQG-AL guidelines.

Leachate results from cells HC 1 and HC 3 can provide insight into the likely future behaviour of the transitional greywacke material. HC 1, which has upper quartile sulphide sulphur and NP, indicates that potentially acid generating (PAG) waste can generate acidity given sufficient time. However, based on the database of results collected to date, the majority of material is more similar to HC 3 which represents third quartile sulphide sulphur and upper quartile NP. HC 3 has an uncertain ARD potential and has not realized acid generation after over 100 weeks of laboratory testing. Metal release rates are low for all samples under neutral conditions with the exception of arsenic, which is high for HC 3. Similarly, sulphide oxidation rates continue to be slow after 100 weeks of accelerated kinetic testing. Continued kinetic testing of HC3 is required to document the evolution of leachate from this cell.

Mineralized Amphibolite Samples (HC 4 and HC 9)

HC 4 was terminated at week 103 and HC 9 is on-going at 137 weeks. Both samples are PAG and although HC 4 has reached acidic conditions, HC 9 maintains a neutral leachate pH.

HC 4, collected from drillcore, represents a high range sulphide sulphur content for this rock type (1.3%) and low NP (16 t CaCO₃ /1000t) content. HC 4 reached acidic conditions (pH <6) in week 60 and steady state conditions were achieved by week 80 at a pH of ~4. Alkalinity decreased and acidity and metal leaching rates for aluminum, cadmium, cobalt, copper, iron, lead, nickel, selenium, and zinc increased as the pH of these



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samples dropped from neutral conditions. Arsenic concentrations and leaching rates remained relatively constant throughout testing, and increased slightly when the pH dropped to less than 5 for the various samples.

HC 9, collected from the existing mineralized stockpile, represents typical sulphide sulphur (1.1%) and NP content (31 t CaCO₃ /1000t) for the mineralized amphibolite pile based on data collected to date. This sample continues to report stable alkalinity, acidity, and near neutral pH values. Sulphate release rates continue to decrease and HC 9 maintains the lowest sulphate concentrations of all humidity cell tests and all chemical concentrations continue to meet the Water License discharge limits and CEQG-AL guidelines. The carbonate molar ratio remains above 1 and continues to fluctuate up to 7, suggesting a higher release of carbonate minerals (calcium and magnesium) compared to sulphate. Together, the high carbonate molar ratio and sulphate leach rates could represent 1) flushing of weathering products that were generated from the material's exposure to ambient conditions prior to humidity cell testing and/or 2) dissolution of carbonate minerals while sulphide minerals remain relatively non-reactive.

Leachate results from cells HC 4, but more so from HC 9 provide insight into the future weathering behaviour of the existing mineralized stockpile. Both samples are PAG but because of variability in buffering capacity, one sample has maintained neutral leachate while the other generated acidity. This suggests that PAG material in the mineralized stockpile with moderate to high sulphide and low to moderate NP can generate acidity after a relatively long lag period. Metal release rates are low for both samples under neutral pH conditions, with the exception of arsenic which leaches from samples at rates proportional to their total arsenic content.

Unmineralized Amphibolite Samples (HC 5, HC 6, HC 7, HC 8)

PAG Samples (HC 5 and HC 7): Two samples were terminated at week 103, having reached acidic conditions (pH <6) in week 70 (HC 5), and week 54 (HC 7). Steady state conditions were achieved at weeks 86 and 70 (pH of ~4), respectively. Alkalinity decreased and acidity and metal leaching rates for aluminum, cadmium, cobalt, copper, iron, lead, nickel, selenium, and zinc increased as the pH of these samples dropped from neutral conditions. Arsenic concentrations and leaching rates remained relatively constant throughout testing, and increased slightly when the pH dropped below around 5 for the various samples.

HC 5 represents poor quality (worst-case with respect to sulphide sulphur and NP content) for the unmineralized amphibolite piles based on data collected to date. HC 7 has a sulphide sulphur content higher than the maximum values from all mineralized and unmineralized samples in the database (2.83% compared to 0.9% average sulphur for both mineralized and unmineralized amphibolite). As such, it is not considered representative of the bulk of the material in the waste rock piles.

Uncertain Samples (HC 6 and HC 8): Two unmineralized amphibolite humidity cell tests are on-going and currently at 113 (HC 6) and 147 (HC 8) weeks of testing. Sample HC 6 is a drill core sample with an uncertain ARD potential and is considered more typical of the existing waste rock pile. It was terminated at week 50 and reinstated approximately 1 year later. HC 8 is sampled from the existing waste rock pile and is also uncertain, reporting lower sulphide sulphur and NP compared to HC 6.

Both samples maintain similar stable alkalinity, acidity and near neutral pH values. Both samples report carbonate molar ratios greater than 1, with HC 6 reporting a higher ratio than HC 8. Sulphate leach rates are similar for both samples and sulphate concentrations are moderate to low compared to other samples. HC 8 reports higher sulphate concentrations than HC 6, with concentrations decreasing steadily from initially high values.



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This could be related to flushing of weathering products and/or to the dissolution of carbonate buffering minerals while sulphide minerals remain relatively non-reactive.

Both samples report steady metal leach rates through testing. HC 6 reports the highest arsenic concentrations of all tested samples, which is expected as it reports upper quartile solid arsenic content (302 ppm). Leachate concentrations are below the Water License discharge limits but exceed CEQG-AL guidelines through the duration of testing. Leachate concentrations for HC 6 are above CEQG and below discharge limits specified in the Water License MV2002L2-0017.

Leachate results from cells HC 5, HC 6, and HC 8 can provide insight into the behaviour of the existing waste rock pad. HC 5, which has third quartile sulphide sulphur and low NP, indicates that some of the potentially acid generating (PAG) waste can generate acidity given sufficient time. However, based on the database of results collected to date, the majority of material is more similar to HC 6 and HC 8 which represent median to upper quartile sulphide sulphur and second quartile NP. Both uncertain samples have not realized acid generation after over 100 weeks of laboratory testing. Metal release rates are low for all samples under neutral conditions with the exception of arsenic, which is dependent on solid arsenic composition. Similarly, sulphide oxidation rates continue to be slow after 100 weeks of accelerated kinetic testing. Continued kinetic testing of HC6 and HC8 is required to document the evolution of leachate from these cells.

5.1.1 Depletion Calculations

Sulphide and NP depletion rates are presented in Table 18. Depletion calculations are based on the last five analytical results of kinetic testing, over which the majority of concentration trends were stable. This calculation serves to estimate by extrapolation, the likelihood of onset of acidic conditions in charge material that has not yet generated acidic drainage. The calculation was made for the other cells that did generate ARD prior to closing for verification (HC1, HC2, HC4, HC5 and HC7). Sulphide (or acid potential) depletion is calculated based on the amount of sulphate released in the leachate, assuming all the sulphate is washed out of the cell and is all due to sulphide oxidation. The NP or buffering capacity depletion is calculated based on 2 elements: 1) on the amount of sulphate generated assuming each molecule of sulphate is buffered by one molecule of calcium carbonate consumed in buffering the acid produced, and 2) on the amount of calcium released assuming that two molecules of calcium are released by one molecule of calcium carbonate. The calcium-based computations have a lower level of confidence in this study because of the presence of non-carbonate calcium-bearing minerals that likely also release calcium (possible bias toward higher buffering depletion than from calcium carbonate consumption). Nonetheless, the calcium-based NP-depletion computations are presented for comparison.

Argillite: All cells generated acidic conditions over the duration of testing. Depletion calculations confirm that NP was depleted from sample ahead of sulphide minerals being completely oxidized.

Transitional Greywacke: The HC1 cell of PAG rock generated acidic conditions within the testing period inferring that the buffering capacity calculation based on sulphate production (rather than calcium release assumed to come from calcium carbonate), provides a more accurate assessment of ARD potential. By extension, HC3 cell which has an uncertain ARD potential and which is still buffering after 110 cycles of leaching, may never generate ARD. This sample represents rock that will either have a long lag time before the onset of acidic conditions or that may never generate ARD.



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Unmineralized Amphibolite: In the tested samples, the NP depletion times are similar to, or lower than the predicted sulphide sulphur depletion time, confirming the ARD potential of the two PAG samples (HC5 and HC7). The uncertain samples yield longer times to NP depletion than the sulphide sulphur depletion time suggesting that the long term behaviour of these samples may be non PAG.

Mineralized Amphibolite: For both samples, NP is likely to be depleted from the humidity cells prior to sulphide sulphur being fully oxidized, confirming that the tested waste rock samples are PAG. However, sample HC 9 is likely to have a long lag time until ARD is generated, if at all.



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Table 18: Summary of Depletion Rates (in years) and ARD Potential for Waste Rock HCT Samples

Sample Information				ARD Potential	Estimated Depletion Time(years) ²			
Lithology	Sample ID (Material Source)	Final Test Week	pH of final kinetic week	Static	Sulphide	NP (SO ₄)	NP (Ca)	Onset of ARD
Argillite	HC2 (drill core)	30	3.2	PAG	45	4.7	28	Yes
Transitional Greywacke	HC1 (drill core)	40	3.7	PAG	12	8.4	42	Yes
	HC3 (drill core)	110 ¹	7.3	Uncertain	166	226	50	Possibly no ARD ²
Unmineralized Amphibolite	HC5 (drill core)	84	4.1	PAG	18	13	23	Yes
	HC6 (drill core)	110 ¹	7.3	Uncertain	262	361	110	Possibly no ARD ²
	HC7 (drill core)	68	3.8	PAG	47	20	17	Yes
	HC8 (waste pile)	144 ¹	7.2	Uncertain	83	150	72	Possibly no ARD ²
Mineralized Amphibolite	HC4 (drill core)	74	3.8	PAG	0.1	0.02	0.04	Yes
	HC9 (ore stockpile)	134 ¹	6.9	PAG	442	394	188	Yes (long lag period)

1- on-going testing.

2- Based on rate of sulphate release and assumed equivalent calcium carbonate buffering rate (NP(SO₄) value)



6.0 FIELD BARREL TESTING

Seven (7) field barrel kinetic tests were set up on the YGP site in 2008 by MESH under the direction of Tyhee, using anticipated waste material from the Ormsby and Nicholas Lake deposits. The reader is referred to MESH (2009; Appendix C) for detailed information on sample collection, field barrel installation procedures, and photographs. The chemical characteristics of each sample subjected to testing are presented in Table 19, along with the leachate chemistry of the last test cycle. The mineralogy of each sample is also presented, which focuses on the identification of mineralogical sources of acidity (sulphides and metal salts) and neutralization capacity (carbonates and/or aluminosilicates).

All laboratory analytical reports were received by Golder on February 1, 2011 (email from H. Wilson of Tyhee to V. Bertrand, Golder). Using the laboratory analytical reports, Golder tabulated all data for both Ormsby and Nicholas Lake field cells (Appendix E).

All field barrel leachate concentration results are compared to the discharge (effluent) limits outlined in Part D Section 6 of the Water License MV2002L2-0017, including the Maximum Average Concentration and Maximum Grab Concentration. Results are also compared to Canadian Environmental Quality Guidelines for the Protection of Aquatic Life (CEQG) (CCME, 2007).

Appendix E-10 shows the mineralogical results for all field barrels from both Ormsby and Nicholas Lake deposits.

6.1 Ormsby Deposit Samples

6.1.1 Mineralogy

The argillite sample consists primarily of quartz (36%) and plagioclase (30%), with lesser amphibole (actinolite; 11%), clinocllore (8.0%), muscovite (6.6%), illmenite (3.2%) and potassium feldspar (3.0%). Other minerals are present in minor amounts. Detectable sulphide minerals include pyrite (1.0%). The argillite sample contained no detectable carbonate minerals.

The greywacke consists primarily of quartz (28%), muscovite (26%) and plagioclase (24%), with lesser clinocllore (14%), biotite (5.6%) and potassium feldspar (3.1%). The sulphide mineral content was below the XRD detection limit. The greywacke sample contained no detectable carbonate minerals.

The transitional sediment sample consists primarily of actinolite (53%) and plagioclase (29%), with lesser quartz (8.3%), biotite (4.2%), and clinocllore (2.3%). The sulphide mineral content was in the form of pyrrhotite (0.9%). The transitional sediment sample contained no detectable carbonate minerals.

The mineralized amphibolite sample consists primarily of actinolite (34%), plagioclase (22%) and quartz (21%). Minerals in lesser amounts include cummingtonite (6.7%), biotite (4.4%), illmenite (3.7%) and clinocllore (2.9%). Other minerals are present in lower amounts. Detectable sulphide minerals include pyrrhotite (3.3%) and pyrite (2.2%). The mineralized amphibolite sample contained carbonates in the form of siderite, representing 1% of the total composition of the sample.

The unmineralized amphibolite sample consists primarily of actinolite (41%), quartz (22%) and plagioclase (19%). Minerals in lesser amounts include clinocllore (6.5%), cummingtonite (4.5%), calcite (3.8%), illmenite (3.7%) and biotite (2.5%). Other minerals are present in lower amounts. Detectable sulphide minerals include pyrite (1.1%). The unmineralized amphibolite contained 3.8% calcite.



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6.1.2 Field Barrel Leachate Quality

Ormsby field barrel test samples are described by lithology in Table 19. All samples maintain neutral to alkaline pH values throughout 22 months of testing with the exception of argillite sample, which is PAG based on static test results. All samples meet the Water License discharge limits with the exception of the argillite sample and various metals exceed CEQG-AL guidelines in all tested samples. Results are discussed in detail below by lithology.

Nitrate and nitrite concentrations above CEQG-AL guidelines are likely associated with blasting residues and are not discussed further below.

Table 19: Summary of Field Barrel Test Results – Ormsby Deposit

Sample Information		ARD Potential (Static Testing Results)			Leachate pH and Exceedances to Screening Criteria		
Lithology	Sample ID (fine fraction)	S ²⁻ (%)	NP	ARD Designation	pH (last cycle)	> Water License	> CEQG Aquatic Life
Argillite	ORM-F-ARG	0.61	14	PAG	3.2	pH, Cd, Cu, Zn	pH, Al, As, Cd, Cr, Cu, Fe, Pb, Ni, Se, Zn
	ORM-F-ARG (- 2mm)	0.52	-17	PAG	-	-	-
Greywacke	ORM-F-BG	0.13	15	Non-PAG	7.1	n.e.	Al, As, Cd, Cr, Cu, Fe, Pb, Ni, Se, Zn
	ORM-F-BG (- 2mm)	0.17	6.9	Uncertain	-	-	-
Transitional Greywacke	ORM-F-TS	0.070	12	Non-PAG	4.6	pH	pH, Al, As, Cd, Cr, Cu, Fe, Pb, Ni, Se, Zn
	ORM-F-TS (- 2mm)	<0.01	7.5	Non-PAG	-	-	-
Mineralized Amphibolite	ORM-F-MA	1.6	42	PAG	7.9	n.e.	NO ₂ , Al, As, Cd, Cu, Se
	ORM-F-MA (- 2mm)	1.2	7.2	Uncertain	-	-	-
Unmineralized Amphibolite	ORM-F-UA	0.56	54	Uncertain	7.5	n.e.	NO ₃ , NO ₂ , Al, As, Cd, Cu, Fe, Se, Zn
	ORM-F-UA (- 2mm)	0.74	32	Uncertain	-	-	-



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Argillite (ORM-F-ARG)

The argillite sample reported acidic pH values from the on-set of testing (August 2009), which has decreased through testing from pH 4.0 to pH of 3.2. This confirms the ARD potential of this sample.

Sulphate, total dissolved solids and conductivity values have increased through testing. Most parameters demonstrate increasing trends in both their total and dissolved fractions, including pH, cadmium, copper and zinc which exceed the YGP Water License discharge criteria, and aluminum, arsenic, chromium, iron, lead, nickel and selenium, which exceed CEQG guidelines.

Greywacke (ORM-F-BG)

Alkaline pH values were maintained through testing (ranging from pH 7.1 to 7.7), confirming the non PAG nature of this sample. Sulphate, total dissolved solids and conductivity values slowly increased through the test period.

All metal concentrations meet Water License MV2002L2-0017 discharge limits. The following metals report concentrations above CEQG guidelines: aluminum, arsenic, cadmium, chromium, copper, lead, nickel, selenium, and zinc. Most metal concentrations fluctuate throughout testing, with only nickel reporting concentrations consistently above CEQG guidelines.

Transitional Greywacke (ORM-F-TS)

Sulphate, total dissolved solids, alkalinity and conductivity values decreased from August 2009 to August 2010. This decrease coincides with drop in pH values from near-neutral to mildly acidic (from 6.6 to 4.6). This sample is classified as non PAG based on low sulphide sulphur content (0.07%); however, higher sulphate content (0.12%) and acidic barrel test pH values indicate that this sample has stored metal acidity in the form of sulpho-salts. These salts are dissolved during flushing of the barrel sample, imparting acidity and metal concentrations on the test leachate.

All metal concentrations meet Water License MV2002L2-0017 discharge limits although pH is below the acceptable range (<6.0). Metal concentrations above CEQG-AL include aluminum, arsenic, cadmium, chromium, copper, iron, lead, nickel and zinc. Aluminum and copper exhibit an increasing trend from 2009 to 2010 in which concentrations stay above CEQG guidelines. All other metals which exceed CEQG exhibit concentrations which may fluctuate to values below or just above CEQG guidelines.

Mineralized Amphibolite (ORM-F-MA) and Unmineralized Amphibolite (ORM-F-UA)

Both samples report neutral to alkaline pH results through testing, including the PAG mineralized sample (ORM-F-MA). The unmineralized amphibolite sample (ORM-F-UA) reports slightly higher total dissolved solids (TDS), total suspended solids, sulphate, alkalinity, and metals concentrations than the mineralized amphibolite sample (ORM-F-MA).

Sulphate, total dissolved solids and conductivity are significantly lower in the June 2009 and May 2010 samples than the other monitoring rounds for both the mineralized and unmineralized samples. This may be due to a decrease in water-rock interaction during the winter months when pore-water is frozen or more flushing proportional to the volume of water present in the cell at the time of sampling (dilution). The high reported sulphate concentrations (average 1460 and 1363 mg/L for ORM-F-MA and ORM-F-UA, respectfully) are not consistent with the neutral pH of their leachate. It is possible that this sulphate sulphur measured in the fines portion of the sample (-2mm fraction) is water soluble and causing high sulphate concentrations in the leachate.



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All metal concentrations meet Water License MV2002L2-0017 discharge limits and CEQG-AL for both samples, with the exception of the following metals above CEQG: aluminum, arsenic, copper, selenium, and zinc (ORM-F-UA only). Aluminum exhibits an increasing trend in 2010 to concentrations above the detection limit and CEQG. Arsenic and copper concentrations reported in 2010 fluctuate within the range measured in 2008 and 2009 for both samples. Selenium concentrations increase slightly for the mineralized sample (ORM-F-MA) while the unmineralized sample reports concentrations within 2008 and 2009 levels.

6.2 Nicholas Lake Deposit

6.2.1 Mineralogy

The mineralized granodiorite sample consists primarily of quartz (36%) and arsenopyrite (32%), with lesser amounts of plagioclase (8.0%), potassium feldspar (3.5%), muscovite (2.8%) and clinocllore (2.5%). Other minerals are present in lower amounts. Detectable sulphide minerals include arsenopyrite (32%) and lesser pyrite (5.6%). The mineralized granodiorite contains calcite (1.7%).

The unmineralized granodiorite sample has a similar mineralogy than the mineralized sample. It also consists primarily of quartz (40%) and plagioclase (38%), with lesser potassium feldspar (7.9%), muscovite (4.1%) and clinocllore (3.7%). The sulphide mineral content is substantially lower, and includes pyrite (2.9%) and arsenopyrite (2.7%). The unmineralized granodiorite contains no detectable carbonate minerals.

6.2.2 Field Barrel Leachate Quality

Nicholas Lake field barrel test samples are described by lithology in Table 20. The unmineralized granodiorite sample has maintained neutral pH values throughout testing while the mineralized granodiorite sample produced acidic leachate from the on-set of testing, confirming its PAG nature. Both samples report some metal concentrations above the Water License discharge limits and CEQG-AL guidelines.

Nitrate and nitrite concentrations above CEQG-AL guidelines are likely associated with blasting residues and are not discussed further.

Table 20: Summary of Field Barrel Test Results – Nicholas Lake Deposit

Sample Information		ARD Potential (Static Testing Results)			ARD and ML Potential (Kinetic Test Results)		
Lithology	Sample ID (fine fraction)	S ²⁻ (%)	NP ¹	ARD Designation	pH (last cycle)	> Water License ²	> CEQG Aquatic Life
Mineralized Granodiorite	NL-F-MGD	9.8	29	PAG	3.2	pH, As, Cd, Cu, Pb, Ni, Zn	pH, Al, As, Cd, Cr, Cu, Fe, Pb, Ni, Se, Ag, Tl, Zn
	NL-F-MGD (-2mm)	1.4	4.4	PAG	-	-	-
Unmineralized Granodiorite	NL-F-UGD	2.1	9.6	PAG	6.7	As, Cd, Zn	NO ₂ , Al, As, Cd, Cu, Fe, Pb, Ni, Se, Zn



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Sample Information		ARD Potential (Static Testing Results)			ARD and ML Potential (Kinetic Test Results)		
Lithology	Sample ID (fine fraction)	S ²⁻ (%)	NP ¹	ARD Designation	pH (last cycle)	> Water License ²	> CEQG Aquatic Life
	NL-F-UGD (-2mm)	1.4	11	PAG	-	-	-

Both the mineralized and unmineralized granodiorite samples represent high range ARD potential compared to the existing static test database. Both samples are PAG based on high sulphide content and low NP. The mineralized granodiorite sample (NL-F-MGD) exhibited acidic values (<4.5) from September 2008 through to August 2010, confirming the acidification potential of the highly mineralized granodiorite material. The PAG unmineralized sample (NL-F-UGD), however, reports neutral pH values (6.6 and 7.2) over the same time period, suggesting a longer lag period to the onset of ARD. As a result of acidification of the mineralized granodiorite (NL-F-MGD) sample reports substantially higher concentrations of total dissolved solids (TDS), sulphate, conductivity and most total metal concentrations compared to the unmineralized granodiorite sample (NL-F-MGD).

Metal concentrations above Water License MV2002L2-0017 discharge limits for both samples include arsenic, cadmium and zinc; however NL-F-MGD further exceeds discharge limits for copper, lead and nickel. CEQG exceedances for both samples include aluminum, arsenic, cadmium, copper, iron, lead, nickel, selenium and zinc. Most metal concentrations fluctuate by up to an order of magnitude, reporting higher values in the summer/fall months than in the spring sample. This likely results from a decrease in water-rock interaction during the winter months when pore-water is frozen and more flushing proportional to the volume of sample present in the cell at the time of sampling (dilution).



7.0 SUMMARY OF ENVIRONMENTAL CHARACTERISTICS

The geochemical characterization program conducted to date includes static and kinetic laboratory tests as well as on-site, large-scale field barrel leaching tests. With these results, it is possible to develop observations with regard to the general geo-environmental properties of the major rock types and mine wastes. The results of the geochemical characterization programs are summarized below, including a comparison of laboratory and field results.

7.1 Ormsby Deposit Waste Rock Summary

7.1.1 Ormsby Rock ARD Potential

The rock types at Ormsby are either potentially acid-generating (argillite, transitional greywacke) or have an uncertain potential to generate ARD (Burwash Formation greywacke).

Argillite: the bulk ARD potential of argillite rock is PAG, and this potential is confirmed through kinetic testing in laboratory conditions and in one field-scale leaching test. This sample reached acidic conditions in week 19, suggesting that the timing to onset of ARD conditions in argillite contact water within approximately 10 years. Since the barrel test sample contains lower quartile sulphur content compared to the sample database, the majority of waste generated from this rock type is expected to be reactive with respect to ARD potential.

Transitional Greywacke: The bulk ARD potential of this rock is PAG, although variable on a sample-by-sample basis (some samples of this group are non PAG and others have an uncertain ARD potential). Two samples subjected to laboratory kinetic testing confirmed the variability of ARD characteristics of this rock type. The PAG sample generated ARD early on (at weekly cycle 28) and based on mineral depletion calculation, may represent a lag period of approximately 15 years. The uncertain ARD sample remains neutral after 110 cycles (weeks) of testing and are anticipated to continue to produce buffered conditions. A Non PAG sample subjected to field-scale leaching test did generate ARD relatively early on.

Burwash greywacke: Few samples of this rock type have been tested to date and only for static tests. Results show the four samples tested have an excess of buffering capacity but not sufficiently elevated to rule out the possibility of eventual ARD. The ARD potential of these samples is uncertain. Additional sampling and further test work are required to better define the long-term weathering characteristics of this rock type.

Unmineralized Amphibolite: Static results return variable ARD potentials, consequently, the bulk of the unmineralized amphibolite rock has an uncertain ARD potential. Two (2) PAG samples subjected to kinetic testing did generate ARD, albeit after a relatively long lag period of 55 weekly cycles. This is calculated to be equivalent to approximately 25 years of exposure in the field. Two (2) uncertain ARD samples maintained neutral pH values through kinetic testing (>100 weeks) and, based on mineral depletion calculations, may not generate ARD in the future. An uncertain ARD sample of unmineralized amphibole subjected to larger-scale field leaching tests also maintains neutral drainage chemistry. No evidence of ARD or sulphide oxidation has yet been noted in drainage from this rock at site (Golder, 2011), keeping in mind however that the rock stockpile material has a higher average buffering capacity than the rock core collected from within the larger outline of the proposed open pit.



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Mineralized Amphibolite: Samples from this rock type also have variable ARD potentials and thus the bulk of the rock has an uncertain ARD potential. Two (2) PAG samples subjected to kinetic testing did generate ARD albeit after a relatively long lag time (60 weekly cycles), calculated to be roughly equivalent to 25 years in the field. Conversely, the uncertain ARD stockpile material sample has maintained neutral pH values (pH 6.9) through kinetic testing (>130 weeks) and, based on mineral depletion calculations, may not generate ARD in the future. Although these samples have similar sulphide content, the stockpile sample has nearly double the buffering capacity of the drill core sample (collected from the larger mine area) which appears to be sufficient to maintain neutral kinetic test leachate pH.

Stockpiled Amphibolite Rock: Existing surface stockpiles of unmineralized and mineralized amphibolite rock associated with the development of the Ormsby decline can provide insight into the long-term weathering behaviour of a portion of this waste type located close to the decline and has a slightly lower ARD potential than the waste within the larger proposed pit outline. To date, the existing waste materials on surface have maintained alkaline drainage for a decade or more (Golder, 2011), corroborating with results to date that suggest a substantial lag time until the onset of acidic conditions in the field.

7.1.2 Ormsby Rock Leaching Potential

Tested Ormsby waste rock is enriched in arsenic, with all tested rock type groups reporting concentrations one to two orders of magnitude more than 5 times typical crustal abundance.

Water leach tests (SFE, kinetic, and barrel tests) report most parameter concentrations below the discharge limits of the water license MV2002L2-0017 (Maximum Average) in all tests, with the exception of pH (<6.0), cadmium, copper, and zinc in some meta-sediment samples. Concentrations of these elements are elevated in the kinetic and field barrel test leachate from the argillite and transitional greywacke units.

All rock types report some leachate parameter concentrations that exceed CEQG-AL guidelines (CCME, 2006) including of pH (<6.5), aluminum, arsenic, cadmium, chromium, copper, iron, lead, mercury, nickel, selenium, and zinc. During kinetic testing, aluminum, cadmium, cobalt, copper, iron, lead, nickel, selenium, and zinc concentrations increased as the pH of PAG samples dropped from neutral conditions. Barrel test results confirm that metal concentrations are higher upon acidification of the test leachate.

Arsenic concentrations remained relatively constant throughout kinetic testing for all samples. Most samples report arsenic concentrations greater than CEQG-AL in the initial test cycles only; however, one transitional greywacke sample and one unmineralized amphibolite sample reports concentrations consistently above CEQG-AL by one order of magnitude throughout testing. All field barrel tests report arsenic concentrations above CEQG-AL guidelines.

7.2 Nicholas Lake Deposit Waste Rock

7.2.1 Nicholas Lake Rock ARD Potential

Rock types associated with the Nicholas Lake deposit are either PAG (fracture zone and quartz vein rock near the ore) or have an uncertain ARD potential (Meta-sedimentary rock and granodiorite). Two samples of Nicholas Lake granodiorite waste rock have been subjected to large-scale field leaching tests to help define long-term weathering behaviour.



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Meta-sediments: Most samples and the bulk of the rock have an uncertain ARD potential; having slightly lower sulphide content than available buffering capacity. No leaching tests or kinetic weathering tests have been completed on meta-sediments from Nicholas Lake and consequently, the weathering behaviour of this rock type is not known.

Mineralized Granodiorite: The 7 samples tested have a variable ARD potential. Large-scale field leaching tests performed on a high sulphide, PAG sample confirms that highly mineralized granodiorite material can generate ARD. More samples and further testing are required to better define the long-term weathering behaviour of the mineralized granodiorite material. Due to the probable lag time for ARD/ML to occur, these studies could be carried out during operations and monitoring and contingency could be incorporated into the YGP's water licence.

Unmineralized Granodiorite: The 21 samples tested returned similar average sulphide content than mineralized granodiorite, but a slightly higher buffering capacity. The bulk of this rock type has an uncertain ARD potential. The field leach test sample represents PAG rock having an unrealistically high sulphide material for this rock type (higher sulphide content than the database of static test results). The leaching from this sample is starting to acidify after a relatively long lag period. Further testing on representative samples from this rock type are required to better define the long-term weathering behaviour of the unmineralized granodiorite.

7.2.2 Nicholas Lake Rock Leaching Potential

Tested Nicholas Lake waste rock is enriched in arsenic, with all tested rock type groups reporting concentrations one to three orders of magnitude above typical crustal abundance. Granodiorite, quartz vein and mineralized granodiorite report the highest average arsenic values (>2500 ppm) and the highest average sulphur values (>5000 ppm or 0.5%).

Water leach tests (SFE and barrel tests) report most parameter concentrations below the discharge limits of the water license MV2002L2-0017 (Maximum Average) in all tests, with the exception of pH (<6.0), arsenic, cadmium, copper, lead, nickel and zinc. Concentrations of these elements are elevated in the short-term leach tests from the granodiorite sample and in the field barrel leachates from the mineralized and unmineralized granodiorite.

Many leachate parameter concentrations exceed CEQG-AL guidelines (CCME, 2006) including pH (<6.5), aluminum, arsenic, cadmium, chromium, copper, iron, lead, nickel, selenium, silver, thallium, and zinc. High metal concentrations in the barrel test are associated with acidification of the leachate, with the mineralized sample reporting elevated concentrations of aluminum, arsenic, cadmium, copper, lead, nickel and zinc. Mineralogical analysis of this sample reported 32wt% arsenopyrite content.

Arsenic concentrations in both field barrel samples are greater (but within the same order of magnitude) than the Water License discharge limits and higher than CEQG-AL by two to four orders of magnitude throughout testing.



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Table 21: Summary of ARD and ML Potential for Ormsby and Nicholas Lake Waste Rock

Deposit/ Rock Type	Sample Source	Static Results		Kinetic / Field Barrel Results		Kinetic Sample Representation	Overall ARD Designation	Approximate Timing To ARD Generation
		average S ²⁻	bulk NPR	final pH (kinetic)	final pH (barrel)			
ORMSBY								
Argillite	drill core	3.0	0.44	3.2 (PAG)	3.2 (PAG)	4 th Q. S ²⁻ 1 st Q. NP	PAG	ARD < 10 years
Burwash Greywacke	drill core	0.26	1.6	n.a.	7.1 (non PAG)	n.a.	Uncertain	n a
Transitional Greywacke	drill core	0.63	0.95	3.7 (PAG) 7.3 (Uncertain)	4.6 (non PAG)	3-4 th Q. S2- 4 th Q. NP	PAG	Variable: from 15 years, to no ARD
Unmineralized Amphibolite	drill core	0.65	2.1	3.8 (PAG) 4.1 (PAG) 7.3 (Uncertain)	7.5 (Uncertain)	3-4 th Q. S2- 1 st -4 th Q. NP	Uncertain	Variable: from 25 years, to no ARD
	waste pile	0.57	2.8	7.2 (Uncertain)	n.a.	2 nd Q. S ²⁻ 2 nd Q. NP	Uncertain	
Mineralized Amphibolite	drill core	1.8	1.4	3.8 (PAG)	7.9 (PAG)	median S ²⁻ <min NP	Uncertain/ PAG	Variable: from 25 years, to no ARD
	stockpile	1.2	1.5	6.9 (PAG)	n.a.	median S ²⁻ 1 st Q. NP	Uncertain/ PAG	
NICHOLAS LAKE								
Meta-pelite/ Meta-wacke	drill core	0.44	1.1	n.a.	n.a.	n.a.	Uncertain	n.a.
Quartz Vein/ Fracture Zone	drill core	0.96	0.26	n.a.	n.a.	n.a.	PAG	n.a.
Unmineralized Granodiorite	drill core	0.24	1.5	n.a.	6.7	n.a.	Uncertain	n.a.
Mineralized Granodiorite	drill core	0.26	1.1	n.a.	3.2	n.a.	Uncertain	n.a.
Granodiorite	stockpile	0.81	0.28	n.a.	n.a.	n.a.	PAG	n.a.

n.a. not analyzed



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Table 22: Summary of ARD and ML Potential for Ormsby and Nicholas Lake Waste Rock

Deposit/ Rock Type	Sample Source	Kinetic Test Results			Field Barrel Results		
		final pH (kinetic)	> Water License	> CEQG Aquatic Life	final pH (barrel)	> Water License	> CEQG Aquatic Life
ORMSBY							
Argillite	drill core	3.2 (PAG)	pH (<6.0); Cd, Cu, Zn	pH (<6.5), Al, As, Cd, Cr, Cu, Fe, Pb, Ni, Se, Zn	3.2	pH (<6.0); Cd, Cu, Zn	pH (<6.5), Al, As, Cd, Cr, Cu, Fe, Pb, Ni, Se, Zn
Greywacke	drill core	n.a.	n.a.	Al, As, Cd, Cr, Cu, Fe, Pb, Ni, Se, Zn	7.1	n.e.	Al, As, Cd, Cr, Cu, Fe, Pb, Ni, Se, Zn
Transitional Greywacke	drill core	3.7 (PAG) 7.3 (Unc.)	pH(<6.0), Ni	pH(<6.5), Al, As, Cd, Cr, Cu, Fe, Hg, Ni, Pb, Se, Zn	4.6	pH(<6.0), Ni	pH(<6.5), Al, As, Cd, Cr, Cu, Fe, Hg, Ni, Pb, Se, Zn
Unmineralized Amphibolite	drill core	3.8 (PAG) 4.1 (PAG) 7.3 (Unc.)	pH(<6.0)	pH(<6.5), Al, As, Cd, Cr, Cu, Fe, Hg, Ni, Pb, Se, Zn	7.5	pH(<6.0)	pH(<6.5), Al, As, Cd, Cr, Cu, Fe, Hg, Ni, Pb, Se, Zn
	waste pile	7.2 (Unc.)	n.e.	Ag, Al, Cd, Cu, Ni, Pb	-	n.e.	Ag, Al, Cd, Cu, Ni, Pb
Mineralized Amphibolite	drill core	3.8 (PAG)	pH(<6.0)	pH(<6.5), Al, As, Cd, Cu, Hg, Ni, Pb, Se, Zn	7.9	pH(<6.0)	pH(<6.5), Al, As, Cd, Cu, Hg, Ni, Pb, Se, Zn
	stockpile	6.9 (PAG)	n.e.	Al, As, Cd, Cu, Hg, Pb, Se	-	n.e.	Al, As, Cd, Cu, Hg, Pb, Se
NICHOLAS LAKE							
Meta-pelite	drill core	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Meta-wacke	drill core	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Quartz Vein/ Fracture Zone	drill core	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Unmineralized Granodiorite	drill core	n.a.	n.a.	n.a.	6.7	As, Cd, Zn	Al, As, Cd, Cu, Fe, Pb, Ni, Se, Zn



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Deposit/ Rock Type	Sample Source	Kinetic Test Results			Field Barrel Results		
		final pH (kinetic)	> Water License	> CEQG Aquatic Life	final pH (barrel)	> Water License	> CEQG Aquatic Life
Mineralized Granodiorite	drill core	n.a.	n.a.	n.a.	3.2	pH, As, Cd, Cu, Pb, Ni, Zn	pH, Al, As, Cd, Cr, Cu, Fe, Pb, Ni, Se, Ag, Tl, Zn
Granodiorite	stockpile	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

n.a. not analyzed



7.3 Tailings Summary

7.3.1 ARD Potential of Tailings

The metallurgical circuit will produce a sulphide-poor flotation reject and a sulphide rich concentrate which will be recombined upon deposition into the tailings storage facility. The Ormsby flotation tailings are non PAG while the Nicholas Lake flotation tailing are PAG because of their lower buffering capacity (both have similar sulphide content). A mixed tailing consisting of 75% Ormsby tailings and 25% Nicholas Lake tailings (representing the anticipated tailing proportion in the storage facility) shows a non PAG flotation tailing and a PAG concentrate which contains approximately 25% sulphides. The combination of the two streams (mixed flotation + concentrate) is, however, PAG. Consequently, should a mixture of 75-25 Ormsby-Nicholas Lake be indeed representative of tailings deposited in the impoundment, this mixture will be potentially acid generating, will have little available buffering capacity and will require means to control the generation of ARD in the short term.

7.3.2 Metal Leach Potential of Tailings

The Ormsby and Nicholas Lake tailings are enriched in arsenic and other elements. All tailings samples tested exceed the CEQG aquatic life guidelines for aluminum arsenic and silver. Nicholas Lake tailings release higher concentrations of chemicals in water than the Ormsby tailings. Indeed, the Nicholas Lake flotation tailings leach arsenic and zinc at concentrations that exceed the Water License Maximum Average Concentrations, but the whole tailing (75% Ormsby and 25% Nicholas Lake mixture of flotation and concentrate) leach concentrations of chemicals that meet the existing YGP Water License Maximum Average limits. The long-term weathering characteristics of YGP tailings have not been investigated.



8.0 MINE WASTE MANAGEMENT CONSIDERATIONS

The following mine waste management considerations are preliminary, based on the limited number of samples collected and analyses performed to date. They are subject to re-evaluation should additional studies be completed, further sampling be carried out and/or if the mine and mine waste management plans change.

Static and kinetic test results corroborate in suggesting that a management strategy and ARD control measures are required to prevent the oxidation and subsequent release of chemical under acidic pH for the following mine waste materials:

- Whole ore tailings (Ormsby-Nicholas Lake mixture of flotation and concentrate tailings)
- Ormsby Transitional greywacke and interbedded argillites
- Nicholas Lake fracture zone and quartz vein rock

All other rock types (Ormsby mineralized and unmineralized amphibolites, Burwash greywacke, Nicholas Lake meta-sediments and granodiorites), have an uncertain bulk ARD potential, largely due to the variability of the ARD characteristics (sulphide mineral content and buffering capacity) of individual samples in these rock groups. Within the Ormsby amphibolite, and Nicholas Lake meta-sediment and granodiorite units, some samples are substantially more reactive than others and some samples are non PAG. Experience at other sites suggests that uneven mixing of reactive and non reactive rock may result in localized areas of acid generation in a waste rock storage facility. Nonetheless, drainage water contacting the amphibolite rock stored on site has maintained alkaline drainage for a decade or more (Golder, 2011), corroborating with results to date that suggest a substantial lag time until the onset of acidic conditions in the field for this rock type, should ARD ever be generated.

The non-PAG amphibolite rock could be suitable for construction but a segregation criterion is required to effectively separate PAG and non-PAG amphibolite and to distinguish rock that has the potential to leach arsenic. Until such a criterion is defined, to avoid future development of uncontrolled ARD seepages, the entire rock pile should be managed as PAG, controlling ARD and associated metal releases to minimize potential negative effects to the receiving environment.

Ongoing waste rock and tailing sampling, ahead of, or during operation combined with mine contact water quality monitoring will help to identify waste of potential concern and implement suitable mitigation options.

Arsenic is the principal element of environmental interest in all ore processing wastes and waste rock because of its enrichment in and around the ore bodies and because of its leachability under neutral pH conditions. The labile arsenic is anticipated to originate mostly from arsenopyrite and other arsenic-rich sulphide minerals. Arsenic is mobile under neutral conditions and thus measures to control or prevent ARD generation (other than underwater submergence) and leaching of associated metals could effectively control arsenic release. Drainage from waste rock and tailings should be captured, monitored and treated if necessary, prior to discharge to the receiving environment.



9.0 LIMITATIONS AND USE OF REPORT

This report was prepared for the use of Tyhee NWT Corp. The report, which specifically includes all tables, figures and appendices, is based on analytical results from samples collected by others at a specific time of filed investigation, and on information provided to Golder Associates (Golder) by Tyhee.

Due to the nature of this project and of this study, the following limitations are relevant:

Except where specifically stated to the contrary, the analytical data contained in these reports was provided to Golder Associates Ltd. by others. The sample collection protocols, sampled materials and sample origin have not been independently verified or otherwise examined by Golder Associates Ltd. to determine its accuracy or completeness. Tyhee NWT Corp provided site specific background and geological information. Laboratory analyses were performed at SGS Vancouver and UBC and provided to Golder by Tyhee and SGS. The accuracy of any reporting is reflective of the availability and accuracy of the information provided by Tyhee NWT Corp and laboratory data provided by the analytical facilities. Golder Associates Ltd. has relied in good faith on this information and does not accept responsibility for any deficiency, misstatements, or inaccuracies contained in the reports as a result of omissions, misinterpretation, fraudulent acts of the persons interviewed or contacted, or errors or omissions in the reviewed documentation.

The assessment of waste rock and ore geochemical characteristics of this project has been made using the results of chemical analysis of discrete rock samples from a limited number of locations. Results of all the test work (static, kinetic and barrel leaching tests) must be evaluated within the context of their representativeness for specific rock types. The geochemical characteristics between sampling locations have been inferred and actual conditions may vary from these sample locations. Additional study, including further subsurface investigation, can reduce the inherent uncertainties associated with this type of study. However, it is never possible, even with exhaustive sampling and testing, to dismiss the possibility that part of a site may have considerably different characteristics.

The services performed as described in this report were conducted in a manner consistent with that level of care and skill normally exercised by other members of the geoscience profession currently practising under similar conditions, subject to the time limits and financial and physical constraints applicable to the services. Any use which a third party makes of this report, or any reliance on, or decisions to be made based of it, are the responsibilities of such third parties. Golder Associates Ltd. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

The data and documents are provided for the information and use of Tyhee. The report is not for publishing or to be presented in part or in whole in a public context or for the purposes of investing, as such certification of the reports under NI 43-101 is not included. Should certification of the reports be required then a written request from the Project owner is necessary and additional scope and budget would be required.

The content of this report is based on information collected by other, our present understanding of the site conditions, and our professional judgement in light of such information at the time of this report. This report provides a professional opinion and therefore no warranty is either expressed, implied, or made as to the conclusions, advice and recommendations offered in this report. This report does not provide a legal opinion regarding compliance with applicable laws. With respect to regulatory compliance issues, it should be noted that regulatory statutes and the interpretation of regulatory statutes are subject to change.



GEOCHEMICAL CHARACTERIZATION REPORT YELLOWKNIFE GOLD PROJECT

The findings and conclusions of this report are valid only as of the date of this report. If new information is discovered in future work, including excavations, borings, mining plan changes, these may warrant an assessment of the need for further waste rock sampling and characterization. In these cases, Golder Associates Ltd. should be requested to re-evaluate the conclusions of this report, and to provide amendments as required.



GEOCHEMICAL CHARACTERIZATION REPORT YELLOWKNIFE GOLD PROJECT

10.0 CLOSURE

We trust this report meets your current requirements. Please contact us should you have any questions or comments.

Yours truly,

GOLDER ASSOCIATES LTD.

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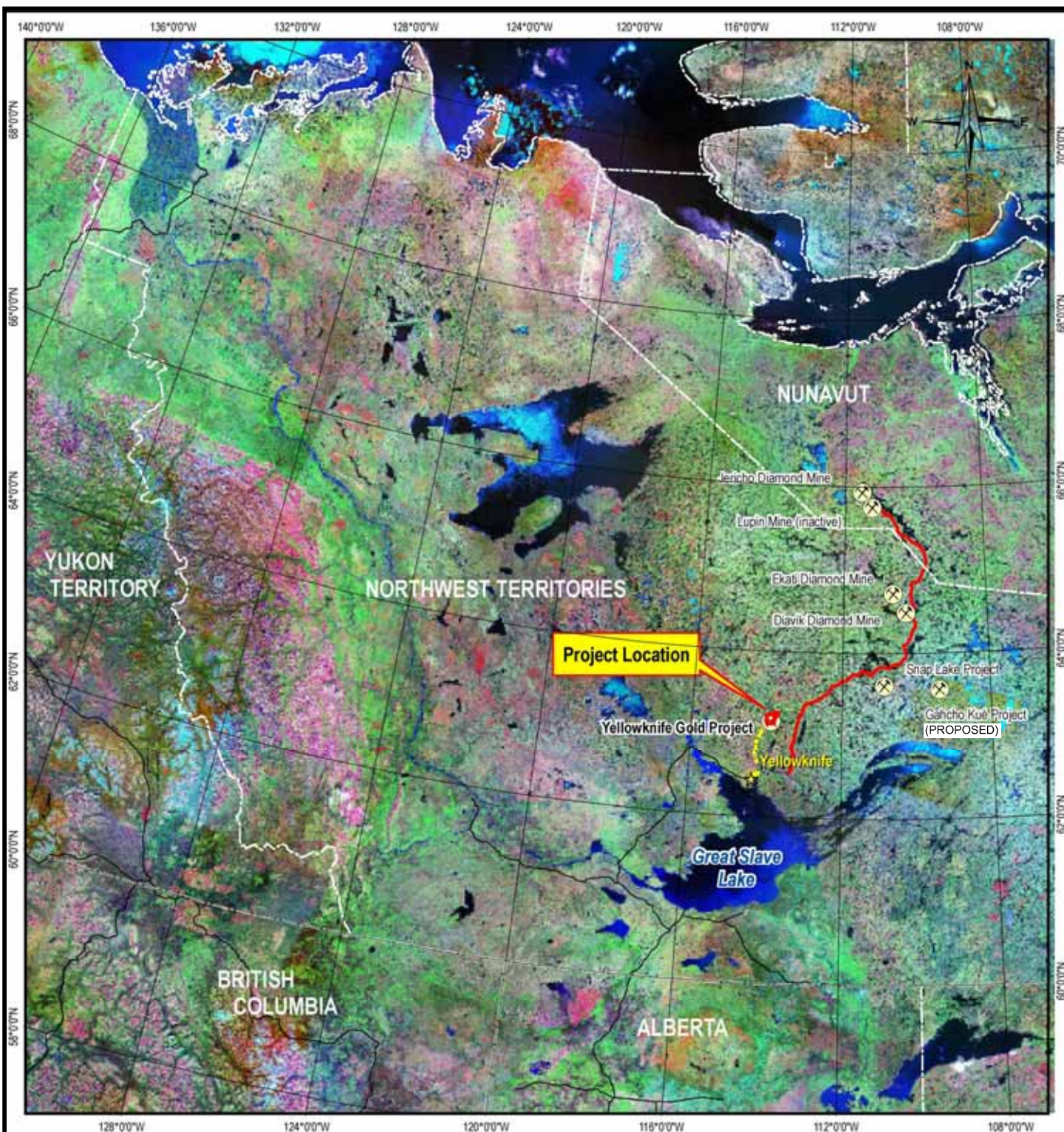
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GEOCHEMICAL CHARACTERIZATION REPORT YELLOWKNIFE GOLD PROJECT

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LEGEND

- ▬ Local Study Area
- ✖ Existing Mine
- Winter Road to Ormsby
- Tibbitt to Contwoyto Winter Road

REFERENCE

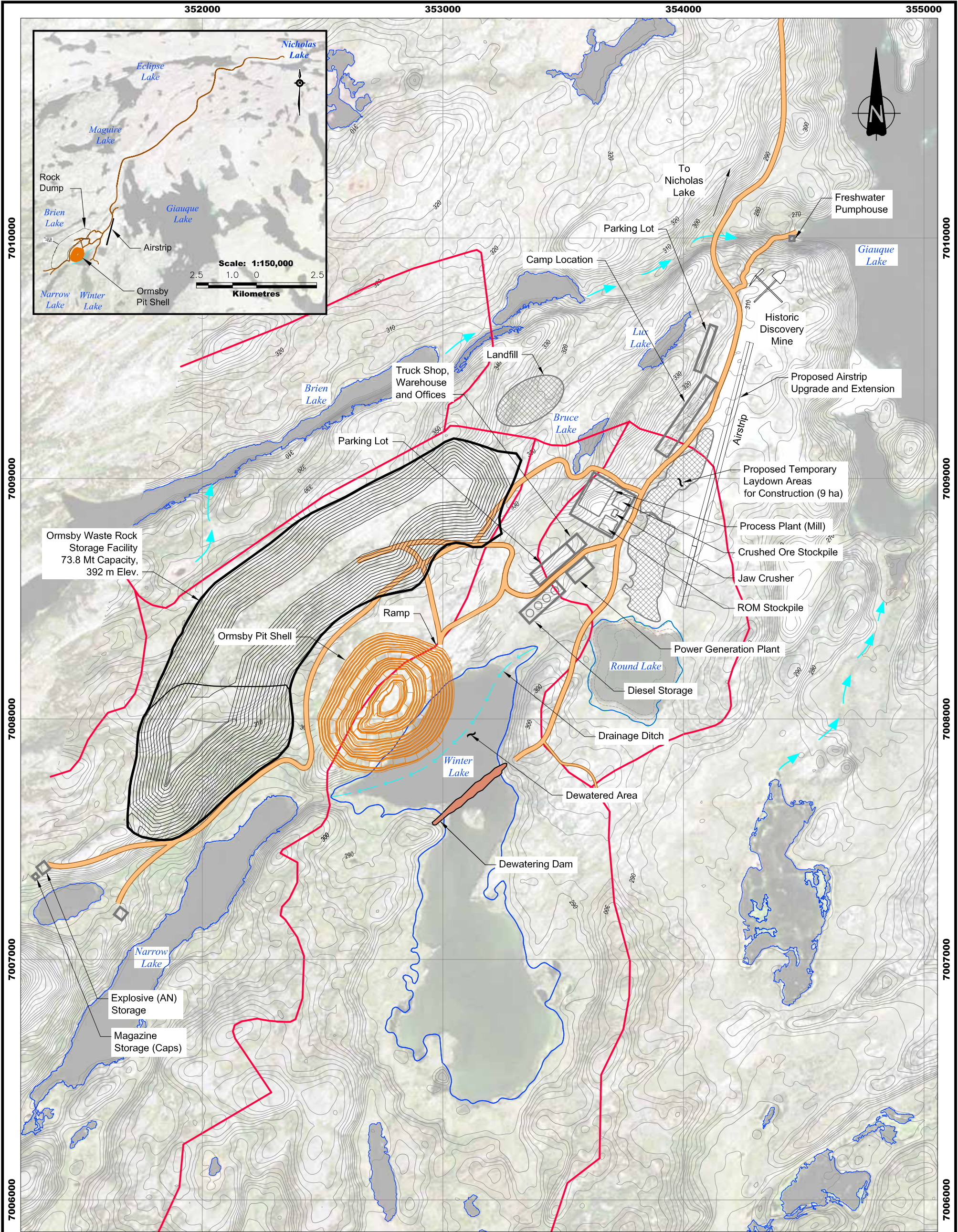
Base map provided by Tyhee 2008.
Base data source: LandSat7 Canada



PROJECT		TYHEE NWT CORP YELLOWKNIFE GOLD PROJECT NORTHWEST TERRITORIES			
TITLE		PROJECT LOCATION			
		PROJECT No. 10-1127-0061		PHASE No. 3000	
DESIGN	BW	10NOV09	SCALE	AS SHOWN	REV. 0
CADD	SRR	13NOV09	FIGURE 1		
CHECK	TG	19APR11			
REVIEW	VJB	19APR11			

 **tyhee NWT Corp**

 **Golder Associates**
Greater Vancouver Office, BC



LEGEND

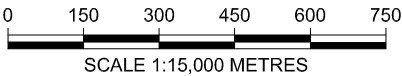
WATERSHED BOUNDARY

NOTES

1. BASE MAPPING FROM WATTS, GRIFFIS AND MCOUAT (DRAWING FILE TDC_07_BASE_INFRASTRUCTURE.DWG)
2. BACKGROUND IMAGERY FROM IKONOS (JULY 27 AND AUGUST 2, 2004) AND LANDSAT TM (AUGUST 11, 2001)
3. EXTRA WATER FEATURES EXTRACTED FROM IKONOS IMAGERY
4. COORDINATES SYSTEM BASED ON NAD 83, UTM ZONE 12
5. TAILINGS IMPOUNDMENT AREA NOT SHOWN

REFERENCES

1. BASE PLAN PROVIDED BY "EBA ENGINEERING CONSULTANTS LTD". CAD FILE: V23201097.006_FIG 4.1-1_R1.dwg DATED: MARCH 14, 2011.



PROJECT		TYHEE NWT CORP YELLOWKNIFE GOLD PROJECT NORTHWEST TERRITORIES	
TITLE		ORMSBY SITE LAYOUT PLAN	
PROJECT No. 10-1127-0061		PHASE No. 3000	
DESIGN	BW	30MAR11	SCALE AS SHOWN REV. 0
CADD	SRR	30MAR11	
CHECK	TG	19APR11	
REVIEW	VJB	19APR11	
Golder Associates Greater Vancouver Office, BC		FIGURE 2	





APPENDIX A

Static Testing Results – Ormsby Waste Rock

A-1 Analytical Program

A-2 ABA Results

A-3 Trace Metals Results

A-4 SFE Leachate Results

Appendix A-1: Ormsby Waste Rock
Summary of Geochemical Characterization Program Samples and Analytical Testing
Yellowknife Gold Project
Tyhee NWT Corp.

SAMPLE ID	ROCK TYPE	SAMPLE TYPE	DEPTH		BULK METAL ANALYSIS	ACID BASE ACCOUNTING	Acid-Buffering Characterization Curves	SFE
			From	To	ICP-MS	Sobek method		ASTM D3987
474788	Argillite	Drill Core	27	29	X	X		X
1000518	Argillite	Drill Core	116	118	X	X	X	X
70767	Argillite	Drill Core	32	34	X	X		
70769	Argillite	Drill Core	118	121	X	X		
70770	Argillite	Drill Core	121	123	X	X	X	X
70777	Argillite	Drill Core	154	155	X	X	X	
70783	Argillite	Drill Core	16	19	X	X		
70793	Argillite	Drill Core	283	286	X	X		
70795	Argillite	Drill Core	42	44.5	X	X		
70801	Argillite	Drill Core	23	24	X	X		X
70803	Argillite	Drill Core	34	34	X	X		
70811	Argillite	Drill Core	244	246	X	X		
70813	Argillite	Drill Core	18	20	X	X		X
70814	Argillite	Drill Core	20	22	X	X		
70823	Argillite	Drill Core	63	65	X	X		
70825	Argillite	Drill Core	107.5	109	X	X		
70833	Argillite	Drill Core	154	155	X	X	X	
70834	Argillite	Drill Core	185	187	X	X		
70837	Argillite	Drill Core	201	204	X	X		
70838	Argillite	Drill Core	217	218	X	X		
70849	Argillite	Drill Core	18	22	X	X	X	
70851	Argillite	Drill Core	70	75	X	X		
70855	Argillite	Drill Core	92	93.5	X	X		
70858	Argillite	Drill Core	145	146	X	X		
70859	Greywacke	Drill Core	146	150	X	X		
70861	Greywacke	Drill Core	145	150	X	X		
70863	Greywacke	Drill Core	161	166	X	X		
70864	Greywacke	Drill Core	15	20	X	X		
474783	Transitional Greywacke	Drill Core	18	20	X	X		X
1000513	Transitional Greywacke	Drill Core	108	110	X	X	X	X
70766	Transitional Greywacke	Drill Core	22	24	X	X	X	X
70768	Transitional Greywacke	Drill Core	77	81	X	X		
70772	Transitional Greywacke	Drill Core	395	399	X	X		
70774	Transitional Greywacke	Drill Core	92	96	X	X		
70776	Transitional Greywacke	Drill Core	87	91	X	X		
70780	Transitional Greywacke	Drill Core	485	487	X	X	X	
70782	Transitional Greywacke	Drill Core	5	9	X	X		X
70792	Transitional Greywacke	Drill Core	277	282	X	X		
70794	Transitional Greywacke	Drill Core	289	292	X	X		
70799	Transitional Greywacke	Drill Core	304	307	X	X	X	X
70807	Transitional Greywacke	Drill Core	250.5	253	X	X		
70808	Transitional Greywacke	Drill Core	5.5	7	X	X		
70812	Transitional Greywacke	Drill Core	10	13	X	X		X
70817	Transitional Greywacke	Drill Core	250	252.5	X	X		
70822	Transitional Greywacke	Drill Core	38	41.5	X	X	X	
70824	Transitional Greywacke	Drill Core	103	107	X	X		
70827	Transitional Greywacke	Drill Core	144	147	X	X		
70831	Transitional Greywacke	Drill Core	435	438	X	X		
70832	Transitional Greywacke	Drill Core	131	133	X	X		
70839	Transitional Greywacke	Drill Core	239	242	X	X		
70848	Transitional Greywacke	Drill Core	5	9.52	X	X		
DH273-273.02-277.32	Transitional Greywacke	Drill Core	273	277	X	X		
70852	Transitional Greywacke	Drill Core	33	38	X	X		
70856	Transitional Greywacke	Drill Core	93	97	X	X		
70860	Transitional Greywacke	Drill Core	131	134	X	X		
70862	Transitional Greywacke	Drill Core	143	146	X	X		
1001202	Mineralized Amphibolite	Drill Core	169	170.5	X	X		X
1001205	Mineralized Amphibolite	Drill Core	173.5	175	X	X	X	X
70784	Mineralized Amphibolite	Drill Core	19	22	X	X	X	
70785	Mineralized Amphibolite	Drill Core	51	55	X	X		
70797	Mineralized Amphibolite	Drill Core	131	131	X	X	X	
70798	Mineralized Amphibolite	Drill Core	131	134	X	X	X	
70804	Mineralized Amphibolite	Drill Core	54	57	X	X		
70809	Mineralized Amphibolite	Drill Core	55	57	X	X		
70821	Mineralized Amphibolite	Drill Core	52	56	X	X	X	X
67351	Unmineralized Amphibolite	Drill Core	262	263.5	X	X		X
1000356	Unmineralized Amphibolite	Drill Core	209.5	211	X	X	X	X
70771	Unmineralized Amphibolite	Drill Core	207	211	X	X		
70773	Unmineralized Amphibolite	Drill Core	1.5	5.5	X	X		X
70775	Unmineralized Amphibolite	Drill Core	59	62	X	X		
70778	Unmineralized Amphibolite	Drill Core	245	248	X	X		
70779	Unmineralized Amphibolite	Drill Core	354	358	X	X	X	
70781	Unmineralized Amphibolite	Drill Core	17	20	X	X		
70786	Unmineralized Amphibolite	Drill Core	85	88	X	X		
70787	Unmineralized Amphibolite	Drill Core	104	105	X	X		
70788	Unmineralized Amphibolite	Drill Core	125	129	X	X		
70789	Unmineralized Amphibolite	Drill Core	146	150	X	X		
70790	Unmineralized Amphibolite	Drill Core	238	242	X	X		

Appendix A-1: Ormsby Waste Rock
Summary of Geochemical Characterization Program Samples and Analytical Testing
Yellowknife Gold Project
Tyhee NWT Corp.

SAMPLE ID	ROCK TYPE	SAMPLE TYPE	DEPTH		BULK METAL ANALYSIS	ACID BASE ACCOUNTING	Acid-Buffering Characterization Curves	SFE
			From	To	ICP-MS	Sobek method		ASTM D3987
70791	Unmineralized Amphibolite	Drill Core	265	267	X	X		
70796	Unmineralized Amphibolite	Drill Core	110	113	X	X		
70800	Unmineralized Amphibolite	Drill Core	7	9	X	X		X
70802	Unmineralized Amphibolite	Drill Core	29	32	X	X		
70805	Unmineralized Amphibolite	Drill Core	79.5	82	X	X		
70806	Unmineralized Amphibolite	Drill Core	125	127	X	X		
70810	Unmineralized Amphibolite	Drill Core	88	90	X	X	X	
70815	Unmineralized Amphibolite	Drill Core	64	68	X	X		
70816	Unmineralized Amphibolite	Drill Core	97	101	X	X		
70818	Unmineralized Amphibolite	Drill Core	139	141	X	X		
70819	Unmineralized Amphibolite	Drill Core	9	14	X	X		
70820	Unmineralized Amphibolite	Drill Core	28	35	X	X		
70826	Unmineralized Amphibolite	Drill Core	281	284	X	X		
70828	Unmineralized Amphibolite	Drill Core	292	294	X	X		
70829	Unmineralized Amphibolite	Drill Core	362	364	X	X	X	
70830	Unmineralized Amphibolite	Drill Core	419	422	X	X		
70840	Unmineralized Amphibolite	Drill Core	349	353	X	X		
70841	Unmineralized Amphibolite	Drill Core	462	463	X	X		
70842	Unmineralized Amphibolite	Drill Core	563	567	X	X		
70843	Unmineralized Amphibolite	Drill Core	735	739	X	X		
70844	Unmineralized Amphibolite	Drill Core	82	84	X	X	X	X
70850	Unmineralized Amphibolite	Drill Core	38.5	43	X	X	X	
DH273-47.07-51.31	Unmineralized Amphibolite	Drill Core	47	51	X	X		X
70853	Unmineralized Amphibolite	Drill Core	103	108	X	X		
70854	Unmineralized Amphibolite	Drill Core	283	286	X	X		
70857	Unmineralized Amphibolite	Drill Core	28	31	X	X		
70865	Unmineralized Amphibolite	Drill Core	163	166	X	X		
M151498S	Unmineralized Amphibolite	Drill Core	-	-		X		
1008011	Mineralized Amphibolite	Stockpile	-	-	X	X		
1008012	Mineralized Amphibolite	Stockpile	-	-	X	X	X	
1008013	Mineralized Amphibolite	Stockpile	-	-	X	X		
1008014	Mineralized Amphibolite	Stockpile	-	-	X	X		
1008015	Mineralized Amphibolite	Stockpile	-	-	X	X		
1008016	Mineralized Amphibolite	Stockpile	-	-	X	X	X	
1008017	Mineralized Amphibolite	Stockpile	-	-	X	X	X	
1008018	Mineralized Amphibolite	Stockpile	-	-	X	X		
1008019	Mineralized Amphibolite	Stockpile	-	-	X	X	X	
1008020	Mineralized Amphibolite	Stockpile	-	-	X	X		
1007967 +3/8"	Mineralized Amphibolite	Stockpile	-	-	X	X		
1007968 +3/8"	Mineralized Amphibolite	Stockpile	-	-	X	X		
70845	Mineralized Amphibolite	Stockpile	-	-	X	X		
70846	Mineralized Amphibolite	Stockpile	-	-	X	X		
1007967 -3/8"	Mineralized Amphibolite	Stockpile	-	-	X	X		
1007968 -3/8"	Mineralized Amphibolite	Stockpile	-	-	X	X		
0800701 Rock Sample	Mineralized Amphibolite	Stockpile	-	-	X	X	X	
M129752S	Mineralized Amphibolite	Stockpile	-	-		X		
M129757S	Mineralized Amphibolite	Stockpile	-	-		X		
M129762S	Mineralized Amphibolite	Stockpile	-	-		X		
M129768S	Mineralized Amphibolite	Stockpile	-	-		X		
M129777S	Mineralized Amphibolite	Stockpile	-	-		X		
M129785S	Mineralized Amphibolite	Stockpile	-	-		X		
08-1	Unmineralized Amphibolite	Stockpile	-	-		X		
08-2	Unmineralized Amphibolite	Stockpile	-	-		X		
08-3	Unmineralized Amphibolite	Stockpile	-	-		X		
87815	Unmineralized Amphibolite	Stockpile	-	-		X		
87816	Unmineralized Amphibolite	Stockpile	-	-		X		
87817	Unmineralized Amphibolite	Stockpile	-	-		X		
87818	Unmineralized Amphibolite	Stockpile	-	-		X		
87819	Unmineralized Amphibolite	Stockpile	-	-		X		
WRT-4	Unmineralized Amphibolite	Stockpile	-	-	X	X	X	
WRT-7	Unmineralized Amphibolite	Stockpile	-	-	X	X		
WRF-1	Unmineralized Amphibolite	Stockpile	-	-	X	X		
WRF-2	Unmineralized Amphibolite	Stockpile	-	-	X	X		
WRF-3	Unmineralized Amphibolite	Stockpile	-	-	X	X	X	
WRF-4	Unmineralized Amphibolite	Stockpile	-	-	X	X		
WRF-5	Unmineralized Amphibolite	Stockpile	-	-	X	X		
WRF-6	Unmineralized Amphibolite	Stockpile	-	-	X	X		
WRF-7	Unmineralized Amphibolite	Stockpile	-	-	X	X		
WRF-8	Unmineralized Amphibolite	Stockpile	-	-	X	X	X	
WRF-9	Unmineralized Amphibolite	Stockpile	-	-	X	X		
WRC-3	Unmineralized Amphibolite	Stockpile	-	-	X	X		
WRC-6	Unmineralized Amphibolite	Stockpile	-	-	X	X		
WRC-9	Unmineralized Amphibolite	Stockpile	-	-	X	X		
Rock #1	Unmineralized Amphibolite	Stockpile	-	-	X	X		
Rock #2	Unmineralized Amphibolite	Stockpile	-	-	X	X		
Rock #3	Unmineralized Amphibolite	Stockpile	-	-	X	X	X	X
Rock #4	Unmineralized Amphibolite	Stockpile	-	-	X	X		
Rock #5	Unmineralized Amphibolite	Stockpile	-	-	X	X		
Rock #6	Unmineralized Amphibolite	Stockpile	-	-	X	X		X

ABA Results
Yellowknife Gold Project
Tyhee NWT Corp.

SAMPLE NUMBER	LOCATION	SAMPLE TYPE	ROCK TYPE	SAMPLE INTERVAL		Paste pH	TIC	CaNP	Sobek NP	S(T)	S(SO4)	S(S-2)	AP	Net NP	NPR	ARD Potential
				TO	FROM	units	%	tCaCO3/1000t		%	%	%	tCaCO3/1000t			
BULK ARD POTENTIAL Argillite																
474788	ORMSBY	Drill Core	Argillite	27	29	8.7	0.030	2.5	15	3.3	0.02	3.3	103	-87	0.15	PAG
1000518	ORMSBY	Drill Core	Argillite	116	118	9.2	0.31	26	13	2.1	<0.01	2.1	67	-53	0.20	PAG
70767	ORMSBY	Drill Core	Argillite	32	34	8.6	<0.01	0.83	18	1.1	<0.01	1.1	35	-17	0.52	PAG
70769	ORMSBY	Drill Core	Argillite	118	121	7.1	<0.01	0.83	16	3.1	0.04	3.1	97	-81	0.16	PAG
70770	ORMSBY	Drill Core	Argillite	121	123	8.1	0.010	0.83	14	4.0	0.02	4.0	126	-111	0.11	PAG
70777	ORMSBY	Drill Core	Argillite	154	155	8.5	0.96	80	114	3.2	0.02	3.1	98	16	1.2	uncertain
70783	ORMSBY	Drill Core	Argillite	16	19	8.1	0.14	12	35	4.4	0.03	4.4	136	-101	0.26	PAG
70793	ORMSBY	Drill Core	Argillite	283	286	8.7	0.30	25	44	2.0	<0.01	2.0	63	-19	0.70	PAG
70795	ORMSBY	Drill Core	Argillite	42	44.5	8.2	0.020	1.7	17	1.8	0.02	1.8	56	-38	0.31	PAG
70801	ORMSBY	Drill Core	Argillite	23	24	8.5	0.85	71	127	2.4	0.01	2.4	75	52	1.7	uncertain
70803	ORMSBY	Drill Core	Argillite	34	34	8.4	1.1	93	162	1.3	<0.01	1.3	41	121	4.0	non PAG
70811	ORMSBY	Drill Core	Argillite	244	246	8.1	0.53	44	85	2.6	0.01	2.6	82	3	1.0	uncertain
70813	ORMSBY	Drill Core	Argillite	18	20	7.9	0.040	3.3	18	5.1	0.02	5.1	160	-141	0.11	PAG
70814	ORMSBY	Drill Core	Argillite	20	22	9.0	0.13	11	35	1.9	<0.01	1.9	60	-25	0.58	PAG
70823	ORMSBY	Drill Core	Argillite	63	65	7.9	0.12	10	20	4.9	0.02	4.9	153	-132	0.13	PAG
70825	ORMSBY	Drill Core	Argillite	107.5	109	8.4	0.46	38	123	1.0	<0.01	1.0	31	92	4.0	non PAG
70833	ORMSBY	Drill Core	Argillite	154	155	7.3	2.7	223	13	10	0.03	10	318	-305	0.040	PAG
70834	ORMSBY	Drill Core	Argillite	185	187	6.4	0.080	6.7	11	2.7	0.06	2.6	82	-71	0.14	PAG
70837	ORMSBY	Drill Core	Argillite	201	204	8.3	0.26	22	14	2.7	0.02	2.7	83	-69	0.17	PAG
70838	ORMSBY	Drill Core	Argillite	217	218	8.4	0.050	4.2	30	3.9	0.01	3.9	123	-92	0.25	PAG
70849	ORMSBY	Drill Core	Argillite	18	22	8.5	0.59	49	24	2.6	0.03	2.5	79	-55	0.30	PAG
70851	ORMSBY	Drill Core	Argillite	70	75	8.7	0.070	5.8	13	3.1	0.01	3.1	98	-85	0.13	PAG
70855	ORMSBY	Drill Core	Argillite	92	93.5	8.5	0.23	19	30	1.7	<0.01	1.7	54	-24	0.56	PAG
70858	ORMSBY	Drill Core	Argillite	145	146	8.5	0.050	4.2	12	1.4	<0.01	1.4	45	-33	0.27	PAG
				MINIMUM		6.4	<0.01	0.83	11	1.0	<0.01	1.0	31	-305	0.040	
				MAXIMUM		9.2	2.7	223	162	10	0.06	10	318	121	4.0	
				MEDIAN		8.4	0.14	11	19	2.7	0.015	2.6	82	-54	0.27	
				AVERAGE		8.2	0.38	31	42	3.0	0.019	3.0	94	-52	0.71	
				STANDARD DEVIATION		0.62	0.58	49	45	1.9	0.012	1.9	59	84	1.08	
				75TH PERCENTILE		8.5	0.48	40	37	3.5	0.02	3.4	108	-18	0.61	
BULK ARD POTENTIAL Burwash Greywacke																
70859	ORMSBY	Drill Core	Greywacke	146	150	8.9	0.030	2.5	12	0.31	<0.01	0.31	9.7	2.7	1.3	uncertain
70861	ORMSBY	Drill Core	Greywacke	145	150	9.2	0.030	2.5	13	0.22	<0.01	0.22	6.9	6.2	1.9	uncertain
70863	ORMSBY	Drill Core	Greywacke	161	166	9.2	0.040	3.3	14	0.22	<0.01	0.22	6.9	7.0	2.0	uncertain
70864	ORMSBY	Drill Core	Greywacke	15	20	9.4	0.040	3.3	13	0.29	<0.01	0.29	9.1	3.8	1.4	uncertain
				MINIMUM		8.9	0.030	2.5	12	0.22	<0.01	0.22	6.9	2.7	1.3	
				MAXIMUM		9.4	0.040	3.3	14	0.31	<0.01	0.31	9.7	7.0	2.0	
				MEDIAN		9.2	0.035	2.9	13	0.26	nc	0.26	8.0	5.0	1.7	
				AVERAGE		9.2	0.035	2.9	13	0.26	nc	0.26	8.1	5.0	1.7	
				STANDARD DEVIATION		0.19	0.0058	0.48	0.62	0.047	nc	0.047	1.5	2.0	0.36	
				75TH PERCENTILE		9.3	0.040	3.3	13	0.30	nc	0.30	9.2	6.4	1.9	

ABA Results
Yellowknife Gold Project
Tyhee NWT Corp.

SAMPLE NUMBER	LOCATION	SAMPLE TYPE	ROCK TYPE	SAMPLE INTERVAL		Paste pH	TIC	CaNP	Sobek NP	S(T)	S(SO4)	S(S-2)	AP	Net NP	NPR	ARD Potential
				TO	FROM	units	%	tCaCO3/1000t	%	%	%	tCaCO3/1000t				
BULK ARD POTENTIAL Transitional Greywacke																
474783	ORMSBY	Drill Core	Transitional Greywacke	18	20	9.7	0.030	2.5	16	0.17	0.01	0.16	5.0	11	3.3	non PAG
1000513	ORMSBY	Drill Core	Transitional Greywacke	108	110	9.7	0.030	2.5	17	0.25	<0.01	0.25	7.8	10	2.2	uncertain
70766	ORMSBY	Drill Core	Transitional Greywacke	22	24	8.6	0.24	20	18	0.85	<0.01	0.85	27	-8.1	0.69	PAG
70768	ORMSBY	Drill Core	Transitional Greywacke	77	81	9.6	<0.01	0.83	13	0.32	<0.01	0.32	10	3.2	1.3	uncertain
70772	ORMSBY	Drill Core	Transitional Greywacke	395	399	9.5	0.040	3.3	16	0.24	<0.01	0.24	7.5	8.9	2.2	uncertain
70774	ORMSBY	Drill Core	Transitional Greywacke	92	96	8.9	0.040	3.3	14	0.46	<0.01	0.46	14	-0.72	0.95	PAG
70776	ORMSBY	Drill Core	Transitional Greywacke	87	91	9.6	0.030	2.5	14	0.15	<0.01	0.15	4.7	9.5	3.0	non PAG
70780	ORMSBY	Drill Core	Transitional Greywacke	485	487	8.9	1.08	90	53	2.2	<0.01	2.2	69	-16	0.77	PAG
70782	ORMSBY	Drill Core	Transitional Greywacke	5	9	8.8	0.030	2.5	11	0.21	<0.01	0.21	6.6	4.3	1.7	uncertain
70792	ORMSBY	Drill Core	Transitional Greywacke	277	282	8.7	0.010	0.83	11	1.1	<0.01	1.1	35	-24	0.30	PAG
70794	ORMSBY	Drill Core	Transitional Greywacke	289	292	9.4	0.020	1.7	15	0.25	<0.01	0.25	7.8	6.9	1.9	uncertain
70799	ORMSBY	Drill Core	Transitional Greywacke	304	307	9.1	0.070	5.8	20	0.47	<0.01	0.47	15	5.1	1.3	uncertain
70807	ORMSBY	Drill Core	Transitional Greywacke	250.5	253	8.8	0.070	5.8	17	1.2	<0.01	1.2	38	-21	0.44	PAG
70808	ORMSBY	Drill Core	Transitional Greywacke	5.5	7	8.2	0.23	19	30	3.7	0.03	3.7	115	-84	0.27	PAG
70812	ORMSBY	Drill Core	Transitional Greywacke	10	13	9.0	0.030	2.5	16	0.12	<0.01	0.12	3.8	13	4.4	non PAG
70817	ORMSBY	Drill Core	Transitional Greywacke	250	252.5	9.4	0.010	0.83	16	0.23	<0.01	0.23	7.2	8.8	2.2	uncertain
70822	ORMSBY	Drill Core	Transitional Greywacke	38	41.5	9.6	0.22	18	36	0.19	<0.01	0.19	5.9	30	6.0	non PAG
70824	ORMSBY	Drill Core	Transitional Greywacke	103	107	9.2	0.030	2.5	19	0.63	<0.01	0.63	20	-1.1	0.94	PAG
70827	ORMSBY	Drill Core	Transitional Greywacke	144	147	8.2	0.040	3.3	16	1.3	<0.01	1.3	40	-24	0.39	PAG
70831	ORMSBY	Drill Core	Transitional Greywacke	435	438	8.7	0.12	10	24	1.8	<0.01	1.8	57	-33	0.42	PAG
70832	ORMSBY	Drill Core	Transitional Greywacke	131	133	9.7	0.020	1.7	14	0.15	<0.01	0.15	4.7	9.6	3.1	non PAG
70839	ORMSBY	Drill Core	Transitional Greywacke	239	242	9.4	0.080	6.7	27	0.040	<0.01	0.040	1.3	26	22	non PAG
70848	ORMSBY	Drill Core	Transitional Greywacke	5	9.52	9.6	0.040	3.3	17	0.28	<0.01	0.28	8.8	8.1	1.9	uncertain
DH273-273.02-277.3	ORMSBY	Drill Core	Transitional Greywacke	273	277	9.0	0.060	5.0	15	0.37	0.02	0.35	11	4.4	1.4	uncertain
70852	ORMSBY	Drill Core	Transitional Greywacke	33	38	9.3	0.010	0.83	16	0.28	<0.01	0.28	8.8	6.8	1.8	uncertain
70856	ORMSBY	Drill Core	Transitional Greywacke	93	97	9.2	0.020	1.7	15	0.44	<0.01	0.44	14	1.5	1.1	uncertain
70860	ORMSBY	Drill Core	Transitional Greywacke	131	134	9.2	<0.01	0.83	14	0.13	<0.01	0.13	4.1	10	3.5	non PAG
70862	ORMSBY	Drill Core	Transitional Greywacke	143	146	9.2	0.020	1.7	15	0.19	<0.01	0.19	5.9	8.6	2.4	uncertain
				MINIMUM		8.2	<0.01	0.83	11	0.040	<0.01	0.040	1.3	-84	0.27	
				MAXIMUM		9.7	1.1	90	53	3.7	0.03	3.7	115	30	22	
				MEDIAN		9.2	0.030	2.5	16	0.28	0.01	0.28	8.8	5.9	1.7	
				AVERAGE		9.2	0.094	7.9	19	0.63	0.01	0.63	20	-1.0	2.6	
				STANDARD DEVIATION		0.43	0.20	17	8.8	0.81	0.004	0.80	25	22	4.0	
				75TH PERCENTILE		9.5	0.070	5.8	18	0.69	0.01	0.69	21	9.5	2.6	
BULK ARD POTENTIAL Burwash Formation																
									1584	1.6		1.6	2847	-1263	0.56	PAG
BULK ARD POTENTIAL Mineralized Amphibolite																
									703	1.8		1.8	518	184	1.4	uncertain
1001202	ORMSBY	Drill Core	Mineralized Amphibolite	169	170.5	9.1	0.58	48	52	2.4	<0.01	2.4	75	-24	0.69	PAG
1001205	ORMSBY	Drill Core	Mineralized Amphibolite	173.5	175	9.2	1.1	93	170	0.75	<0.01	0.75	23	147	7.3	non PAG
70784	ORMSBY	Drill Core	Mineralized Amphibolite	19	22	8.5	1.3	112	70	4.4	0.02	4.4	137	-68	0.51	PAG
70785	ORMSBY	Drill Core	Mineralized Amphibolite	51	55	9.3	0.24	20	50	0.39	<0.01	0.39	12	38	4.1	non PAG
70797	ORMSBY	Drill Core	Mineralized Amphibolite	131	131	8.4	0.64	53	229	5.2	<0.01	5.2	163	67	1.41	uncertain
70798	ORMSBY	Drill Core	Mineralized Amphibolite	131	134	9.3	0.030	2.5	25	1.3	<0.01	1.3	40	-15	0.62	PAG
70804	ORMSBY	Drill Core	Mineralized Amphibolite	54	57	8.8	0.18	15	54	0.70	<0.01	0.70	22	32	2.5	uncertain
70809	ORMSBY	Drill Core	Mineralized Amphibolite	55	57	8.6	0.10	8.3	33	0.19	<0.01	0.19	5.9	27	5.6	non PAG
70821	ORMSBY	Drill Core	Mineralized Amphibolite	52	56	8.9	0.13	11	20	1.3	<0.01	1.3	40	-21	0.49	PAG
				MINIMUM		8.4	0.030	2.5	20	0.19	<0.01	0.19	5.9	-68	0.5	
				MAXIMUM		9.3	1.3	112	229	5.2	0.02	5.2	163	147	7.3	
				MEDIAN		8.9	0.24	20	52	1.3	nc	1.3	40	27.4	1.4	
				AVERAGE		8.9	0.48	40	78	1.8	nc	1.8	58	20.5	2.6	
				STANDARD DEVIATION		0.34	0.47	39	72	1.8	nc	1.8	56	62	2.5	
				75TH PERCENTILE		9.2	0.64	53	70	2.4	nc	2.4	75	38	4.1	

ABA Results
Yellowknife Gold Project
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SAMPLE NUMBER	LOCATION	SAMPLE TYPE	ROCK TYPE	SAMPLE INTERVAL		Paste pH	TIC	CaNP	Sobek NP	S(T)	S(SO4)	S(S-2)	AP	Net NP	NPR	ARD Potential
				TO	FROM	units	%	tCaCO3/1000t	%	%	%	tCaCO3/1000t				
BULK ARD POTENTIAL Unmineralized Amphibolite																
67351	ORMSBY	Drill Core	Unmineralized Amphibolite	262	263.5	9.3	0.35	29	43	0.32	<0.01	0.32	10	33	4.3	non PAG
1000356	ORMSBY	Drill Core	Unmineralized Amphibolite	209.5	211	9.4	0.60	50	96	0.17	<0.01	0.17	5.3	90	18	non PAG
70771	ORMSBY	Drill Core	Unmineralized Amphibolite	207	211	9.2	0.16	13	43	0.63	<0.01	0.63	20	24	2.2	uncertain
70773	ORMSBY	Drill Core	Unmineralized Amphibolite	1.5	5.5	8.6	0.31	26	53	0.63	<0.01	0.63	20	34	2.7	uncertain
70775	ORMSBY	Drill Core	Unmineralized Amphibolite	59	62	9.2	0.16	13	41	0.65	<0.01	0.65	20	20	2.0	uncertain
70778	ORMSBY	Drill Core	Unmineralized Amphibolite	245	248	9.1	0.32	27	22	0.22	<0.01	0.22	6.9	15	3.2	non PAG
70779	ORMSBY	Drill Core	Unmineralized Amphibolite	354	358	8.9	0.55	46	21	0.15	<0.01	0.15	4.7	17	4.5	non PAG
70781	ORMSBY	Drill Core	Unmineralized Amphibolite	17	20	8.8	0.54	45	35	0.38	<0.01	0.38	12	23	2.9	uncertain
70786	ORMSBY	Drill Core	Unmineralized Amphibolite	85	88	9.2	0.15	13	40	0.31	<0.01	0.31	9.7	30	4.1	non PAG
70787	ORMSBY	Drill Core	Unmineralized Amphibolite	104	105	8.8	0.29	24	10	0.60	<0.01	0.60	19	-8	0.6	PAG
70788	ORMSBY	Drill Core	Unmineralized Amphibolite	125	129	9.2	0.26	22	34	0.35	<0.01	0.35	11	23	3.1	non PAG
70789	ORMSBY	Drill Core	Unmineralized Amphibolite	146	150	9.3	0.20	17	35	0.21	<0.01	0.21	6.6	28	5.3	non PAG
70790	ORMSBY	Drill Core	Unmineralized Amphibolite	238	242	9.0	0.26	22	38	0.25	<0.01	0.25	7.8	30	4.9	non PAG
70791	ORMSBY	Drill Core	Unmineralized Amphibolite	265	267	8.8	0.14	12	27	0.38	<0.01	0.38	12	15	2.3	uncertain
70796	ORMSBY	Drill Core	Unmineralized Amphibolite	110	113	9.3	0.040	3.3	32	0.30	<0.01	0.30	9.4	23	3.4	non PAG
70800	ORMSBY	Drill Core	Unmineralized Amphibolite	7	9	8.6	0.18	15	48	2.0	0.01	2.0	61	-13	0.78	PAG
70802	ORMSBY	Drill Core	Unmineralized Amphibolite	29	32	8.8	0.45	38	117	0.64	<0.01	0.64	20	97	5.8	non PAG
70805	ORMSBY	Drill Core	Unmineralized Amphibolite	79.5	82	9.1	0.070	5.8	22	0.40	<0.01	0.40	13	9.2	1.7	uncertain
70806	ORMSBY	Drill Core	Unmineralized Amphibolite	125	127	8.6	0.35	29	42	0.31	<0.01	0.31	9.7	33	4.4	non PAG
70810	ORMSBY	Drill Core	Unmineralized Amphibolite	88	90	8.9	0.58	48	117	0.11	<0.01	0.11	3.4	114	34	non PAG
70815	ORMSBY	Drill Core	Unmineralized Amphibolite	64	68	8.9	0.12	10	28	0.10	<0.01	0.10	3.1	25	9.0	non PAG
70816	ORMSBY	Drill Core	Unmineralized Amphibolite	97	101	9.0	0.39	33	62	0.54	<0.01	0.54	17	45	3.6	non PAG
70818	ORMSBY	Drill Core	Unmineralized Amphibolite	139	141	9.3	0.15	13	33	0.28	<0.01	0.28	8.8	24	3.7	non PAG
70819	ORMSBY	Drill Core	Unmineralized Amphibolite	9	14	9.3	0.11	9.2	25	0.25	<0.01	0.25	7.8	17	3.2	non PAG
70820	ORMSBY	Drill Core	Unmineralized Amphibolite	28	35	9.1	0.27	23	72	0.40	<0.01	0.40	13	59	5.7	non PAG
70826	ORMSBY	Drill Core	Unmineralized Amphibolite	281	284	9.1	0.080	6.7	19	0.30	<0.01	0.30	9.4	9.5	2.0	uncertain
70828	ORMSBY	Drill Core	Unmineralized Amphibolite	292	294	8.7	0.13	11	22	0.21	<0.01	0.21	6.6	15	3.3	non PAG
70829	ORMSBY	Drill Core	Unmineralized Amphibolite	362	364	8.8	0.090	7.5	16	0.69	<0.01	0.69	22	-5.7	0.73	PAG
70830	ORMSBY	Drill Core	Unmineralized Amphibolite	419	422	9.2	0.060	5.0	19	0.51	<0.01	0.51	16	2.9	1.2	uncertain
70840	ORMSBY	Drill Core	Unmineralized Amphibolite	349	353	8.7	0.32	27	75	2.5	0.04	2.5	77	-2	0.98	PAG
70841	ORMSBY	Drill Core	Unmineralized Amphibolite	462	463	8.5	0.18	15	54	1.2	0.05	1.1	35	19	1.6	uncertain
70842	ORMSBY	Drill Core	Unmineralized Amphibolite	563	567	8.9	0.21	18	70	0.26	0.01	0.25	7.8	62	9.0	non PAG
70843	ORMSBY	Drill Core	Unmineralized Amphibolite	735	739	9.1	0.030	2.5	21	0.38	<0.01	0.38	12	9.0	1.8	uncertain
70844	ORMSBY	Drill Core	Unmineralized Amphibolite	82	84	8.9	0.30	25	41	1.0	0.03	0.93	29	12	1.4	uncertain
70850	ORMSBY	Drill Core	Unmineralized Amphibolite	38.5	43	9.1	0.24	20	31	0.82	0.01	0.81	25	5.6	1.2	uncertain
DH273-47.07-51.31	ORMSBY	Drill Core	Unmineralized Amphibolite	47	51	8.6	1.2	99	38	2.9	0.02	2.8	88	-50	0.4	PAG
70853	ORMSBY	Drill Core	Unmineralized Amphibolite	103	108	8.6	0.16	13	21	1.3	0.01	1.2	39	-17	0.55	PAG
70854	ORMSBY	Drill Core	Unmineralized Amphibolite	283	286	8.9	0.73	61	40	2.8	0.02	2.8	86	-46	0.46	PAG
70857	ORMSBY	Drill Core	Unmineralized Amphibolite	28	31	8.9	0.32	27	39	0.49	<0.01	0.49	15	24	2.6	uncertain
70865	ORMSBY	Drill Core	Unmineralized Amphibolite	163	166	9.5	0.11	9.2	36	0.26	<0.01	0.26	8.1	28	4.4	non PAG
M151498S	ORMSBY	Drill Core	Unmineralized Amphibolite	-	-	8.7	n/a	n/a	82	0.90	n/a	0.74	23	59	3.5	non PAG
				MINIMUM		8.5	0.030	2.5	10	0.10	<0.01	0.10	3.1	-50	0.43	
				MAXIMUM		9.5	1.2	99	117	2.9	0.05	2.8	88	114	34	
				MEDIAN		8.9	0.23	19	38	0.38	0.01	0.38	12	23	3.1	
				AVERAGE		9.0	0.28	23	43	0.66	0.01	0.65	20	23	4.2	
				STANDARD DEVIATION		0.26	0.22	19	25	0.69	0.008	0.68	21	32	5.7	
				75TH PERCENTILE		9.2	0.33	27	48	0.65	0.01	0.65	20	30	4.4	

Notes:

carbonate neutralization potential (CaNP), neutralization potential (NP) acid potential (AP), and Net NP reported in t CaCO3 per 1000 t

S(T)=total sulphur; S(SO4)=sulphate sulphur; S(S2)=sulphide sulphur; TIC=total inorganic carbon

1- lithology code provided by Comaplex

2- ARD potential based on INAC (1992)

Trace Metals Results
Yellowknife Gold Project
Tyhee NWT Corp.

			Typical Crustal Abundance (ug/g) (Price, 1997)1			0.075	82300	1.8	425	3	0.0085	41500	0.15	25	102	60	56300	0.085	20850	39	23300	950	1.2
			Typical Crustal Abundance (ug/g) x5			0.375	411500	9	2125	15	0.0425	207500	0.75	125	510	300	281500	0.425	104250	195	116500	4750	6
SAMPLE NUMBER	LOCATION	SAMPLE TYPE	ROCK TYPE	SAMPLE INTERVAL		Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Hg	K	La	Mg	Mn	Mo
				TO	FROM	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
474788	ORMSBY	Drill Core	Argillite	27	29	<0.2	11700	12	48	<0.5	<5	1600	3	39	71	124	41800	1	3900	23	9000	297	3
1000518	ORMSBY	Drill Core	Argillite	116	118	<0.2	16800	16	79	0.6	<5	3000	<1	18	71	150	46000	<1	5100	31	11200	485	4
70767	ORMSBY	Drill Core	Argillite	32	34	<0.2	22500	15	224	<0.5	<5	2100	3	25	152	63	46100	<1	9900	28	17700	546	2
70769	ORMSBY	Drill Core	Argillite	118	121	1.0	10800	193	43	<0.5	<5	2400	3	30	88	106	42700	<1	2400	19	11500	369	<2
70770	ORMSBY	Drill Core	Argillite	121	123	0.6	13400	198	59	0.5	<5	2600	4	25	119	89	56300	<1	4900	21	11700	494	<2
70777	ORMSBY	Drill Core	Argillite	154	155	<0.2	15300	266	35	0.6	<5	31500	2	43	77	42	48500	<1	1800	15	13900	602	<2
70783	ORMSBY	Drill Core	Argillite	16	19	0.2	15200	127	21	<0.5	<5	7200	3	41	126	58	66100	<1	800	16	14100	501	<2
70793	ORMSBY	Drill Core	Argillite	283	286	<0.2	16900	136	90	0.7	<5	19700	3	30	99	142	38900	<1	1800	39	11400	632	<2
70795	ORMSBY	Drill Core	Argillite	42	44.5	3.3	15000	133	54	0.5	<5	2500	6	27	99	184	34200	<1	3400	25	16700	505	<2
70801	ORMSBY	Drill Core	Argillite	23	24	<0.2	5900	46	56	0.8	<5	37100	3	19	131	85	32300	<1	900	58	2800	391	3
70803	ORMSBY	Drill Core	Argillite	34	34	<0.2	12600	16	16	0.5	<5	37500	3	16	152	44	35200	<1	400	15	10100	784	<2
70811	ORMSBY	Drill Core	Argillite	244	246	<0.2	10100	79	<10	<0.5	<5	24600	2	39	230	39	42100	<1	100	18	9900	436	<2
70813	ORMSBY	Drill Core	Argillite	18	20	0.3	24300	6.0	49	0.8	<5	10500	4	69	103	205	89900	<1	6100	25	15300	589	<2
70814	ORMSBY	Drill Core	Argillite	20	22	<0.2	16800	12	130	0.6	<5	6300	3	32	122	107	43600	<1	7600	25	14100	432	<2
70823	ORMSBY	Drill Core	Argillite	63	65	0.3	16100	184	83	<0.5	<5	3500	3	29	167	82	69800	1	7300	28	12200	711	2
70825	ORMSBY	Drill Core	Argillite	107.5	109	<0.2	23500	198	31	0.7	<5	25500	2	28	190	26	39600	<1	1700	32	25000	1065	3
70833	ORMSBY	Drill Core	Argillite	154	155	0.5	11900	16	38	<0.5	<5	2600	9	85	101	350	139500	<1	4100	27	7300	292	<2
70834	ORMSBY	Drill Core	Argillite	185	187	<0.2	10800	198	56	<0.5	<5	2400	3	42	172	127	38400	1	4400	27	7800	441	2
70837	ORMSBY	Drill Core	Argillite	201	204	<0.2	14100	303	76	<0.5	<5	3900	3	35	127	101	51000	1	5500	34	9400	493	2
70838	ORMSBY	Drill Core	Argillite	217	218	<0.2	29300	240	15	0.8	<5	9900	4	56	158	125	74600	<1	1100	27	34700	983	<2
70849	ORMSBY	Drill Core	Argillite	18	22	<0.2	20300	<5	83	0.6	<5	5600	3	37	100	252	56500	<1	6800	30	15700	649	<2
70851	ORMSBY	Drill Core	Argillite	70	75	<0.2	20700	40	61	<0.5	<5	4400	4	37	153	349	65500	<1	4400	29	16600	758	2
70855	ORMSBY	Drill Core	Argillite	92	93.5	<0.2	18600	80	114	0.7	<5	7000	3	29	163	95	51600	<1	3400	27	14500	668	3
70858	ORMSBY	Drill Core	Argillite	145	146	<0.2	24100	34	62	<0.5	<5	2400	5	46	153	79	55200	<1	4100	14	18300	306	3
				MINIMUM		<0.2	5900	<5	<10	<0.5	<5	1600	<1	16	71	26	32300	<1	100	14	2800	292	<2
				MAXIMUM		3.3	29300	303	224	0.8	<5	37500	9	85	230	350	139500	1	9900	58	34700	1065	4
				MEDIAN		0.2	15700	80	56	0.5	nc	5000	3	34	127	104	47300	1	4000	27	13050	503	2
				AVERAGE		0.4	16529	106	64	0.6	nc	10658	3	37	130	126	54392	1	3829	26	13788	560	2
				STANDARD DEVIATION		0.6	5528	95	45	0.1	nc	11744	2	16	40	87	22988	0	2550	9.3	6310	199	0.6
				75TH PERCENTILE		0.2	20400	194	80	0.6	nc	12800	4	41	154	144	58750	1	5200	29	15925	654	2
70859	ORMSBY	Drill Core	Greywacke	146	150	<0.2	17800	15	118	<0.5	<5	1400	1	21	188	46	36000	<1	5800	11	12500	267	2
70861	ORMSBY	Drill Core	Greywacke	145	150	<0.2	24000	333	71	<0.5	<5	2100	2	26	169	41	44900	<1	4600	16	17800	381	<2
70863	ORMSBY	Drill Core	Greywacke	161	166	<0.2	25300	65	114	<0.5	<5	2200	2	31	154	65	46500	<1	7800	17	17200	350	<2
70864	ORMSBY	Drill Core	Greywacke	15	20	<0.2	29400	43	113	<0.5	<5	1500	2	29	169	47	51700	<1	10100	23	20200	344	<2
				MINIMUM		<0.2	17800	15	71	<0.5	<5	1400	1	21	154	41	36000	<1	4600	11	12500	267	<2
				MAXIMUM		<0.2	29400	333	118	<0.5	<5	2200	2	31	188	65	51700	<1	10100	23	20200	381	2
				MEDIAN		nc	24650	54	114	nc	nc	1800	2	28	169	47	45700	nc	6800	17	17500	347	nc
				AVERAGE		nc	24125	114	104	nc	nc	1800	2	27	170	50	44775	nc	7075	17	16925	336	nc
				STANDARD DEVIATION		nc	4804	147	22	nc	nc	408	1	4.3	14	11	6531	nc	2410	4.9	3222	48	nc
				75TH PERCENTILE		nc	26325	132	115	nc	nc	2125	2	30	174	52	47800	nc	8375	19	18400	358	nc
474783	ORMSBY	Drill Core	Transitional Greywacke	18	20	<0.2	20800	19	195	<0.5	<5	2100	<1	19									

Trace Metals Results
Yellowknife Gold Project
Tyhee NWT Corp.

			Typical Crustal Abundance (ug/g) (Price, 1997)1		23550	84	1050	14	350	0.2	22	0.05	370	1.2	5650	0.85	2.7	120	1.25	70	165	
			Typical Crustal Abundance (ug/g) x5		117750	420	5250	70	1750	1	110	0.25	1850	6	28250	4.25	13.5	600	6.25	350	825	
SAMPLE NUMBER	LOCATION	SAMPLE TYPE	ROCK TYPE	SAMPLE INTERVAL		Na	Ni	P	Pb	S	Sb	Sc	Se	Sr	Th	Ti	Tl	U	V	W	Zn	Zr
				TO	FROM	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
474788	ORMSBY	Drill Core	Argillite	27	29	200	100	769	29	30300	<5	2.0	-	6.0	7	200	<10	10	24	<10	1068	20
1000518	ORMSBY	Drill Core	Argillite	116	118	600	77	568	29	21200	<5	4.0	-	34	12	700	12	19	35	<10	394	27
70767	ORMSBY	Drill Core	Argillite	32	34	400	57	603	<2	10300	9	11	0.80	2.0	7	1300	<10	10	81	<10	289	20
70769	ORMSBY	Drill Core	Argillite	118	121	400	63	800	55	30200	<5	2.0	1.5	2.0	5	400	<10	14	29	<10	687	25
70770	ORMSBY	Drill Core	Argillite	121	123	600	78	604	27	38500	7	6.0	1.4	4.0	8	700	14	19	53	<10	738	30
70777	ORMSBY	Drill Core	Argillite	154	155	200	87	564	11	31200	7	3.0	1.3	17.0	9	500	14	<10	29	<10	30	22
70783	ORMSBY	Drill Core	Argillite	16	19	500	62	705	24	42500	8	8.0	1.1	7.0	5	700	23	12	97	<10	150	19
70793	ORMSBY	Drill Core	Argillite	283	286	400	48	639	19	20000	6	5.0	1.1	29	17	700	<10	<10	28	<10	590	27
70795	ORMSBY	Drill Core	Argillite	42	44.5	400	70	711	45	17100	5	4.0	1.5	1.0	8	300	<10	11	40	<10	2250	26
70801	ORMSBY	Drill Core	Argillite	23	24	500	36	120	33	23900	<5	3.0	1.1	24	21	300	<10	29	8.0	<10	873	34
70803	ORMSBY	Drill Core	Argillite	34	34	300	39	354	10	11900	5	3.0	0.60	<1	<5	100	<10	<10	29	<10	589	12
70811	ORMSBY	Drill Core	Argillite	244	246	400	47	549	8	25700	14	6.0	0.60	20	<5	3000	<10	15	76	<10	92	22
70813	ORMSBY	Drill Core	Argillite	18	20	600	77	2072	13	>50000	12	12	0.50	18	<5	2000	<10	35	71	<10	253	30
70814	ORMSBY	Drill Core	Argillite	20	22	500	68	556	7	17400	8	6.0	1.3	2.0	7	1000	<10	12	56	<10	417	23
70823	ORMSBY	Drill Core	Argillite	63	65	500	87	452	37	47800	13	9.0	1.2	10	7	900	<10	<10	69	<10	141	23
70825	ORMSBY	Drill Core	Argillite	107.5	109	300	54	508	7	9700	11	8.0	0.50	5.0	9	1200	<10	<10	65	<10	63	23
70833	ORMSBY	Drill Core	Argillite	154	155	300	243	482	39	>50000	17	3.0	2.7	24	9	700	<10	75	37	16	478	42
70834	ORMSBY	Drill Core	Argillite	185	187	600	83	495	28	25400	12	7.0	1.3	5.0	7	1000	<10	<10	57	<10	535	27
70837	ORMSBY	Drill Core	Argillite	201	204	500	120	517	14	25600	9	6.0	1.1	5.0	11	1500	<10	13	53	<10	166	36
70838	ORMSBY	Drill Core	Argillite	217	218	300	142	1267	12	39400	17	17	1.7	7.0	8	3500	<10	<10	105	<10	180	43
70849	ORMSBY	Drill Core	Argillite	18	22	500	97	602	15	25000	10	4.0	1.3	4.0	10	800	10	<10	45	<10	468	34
70851	ORMSBY	Drill Core	Argillite	70	75	500	105	616	36	32400	<5	7.0	1.1	29	7	600	<10	26	55	<10	696	23
70855	ORMSBY	Drill Core	Argillite	92	93.5	400	100	530	52	18600	<5	9.0	0.90	13	7	700	<10	24	72	<10	564	17
70858	ORMSBY	Drill Core	Argillite	145	146	200	168	707	14	14800	<5	6.0	1.0	6.0	7	600	<10	11	66	<10	1059	17
				MINIMUM		200	36	120	<2	9700	<5	2.0	0.50	<1	<5	100	<10	<10	8.0	<10	30	12
				MAXIMUM		600	243	2072	55	>50000	17	17	2.7	34	21	3500	23	75	105	16	2250	43
				MEDIAN		400	78	585	22	25200	8	6.0	1.1	6.5	7	700	10	12	54	nc	473	24
				AVERAGE		421	88	658	24	25405	9	6.3	1.2	11	8	975	11	17	53	nc	532	26
				STANDARD DEVIATION		128	46	361	15	10440	4	3.5	0.48	10	4	823	2.8	14	24	nc	472	7.7
				75TH PERCENTILE		500	100	706	34	30975	11	8.0	1.3	19	9	1050	10	19	70	nc	689	30
70859	ORMSBY	Drill Core	Greywacke	146	150	200	75	528	10	3300	<5	6.0	0.10	5.0	<5	900	<10	10	63	<10	93	11
70861	ORMSBY	Drill Core	Greywacke	145	150	200	93	639	11	2300	<5	6.0	<0.1	5.0	5	800	<10	14	73	<10	99	14
70863	ORMSBY	Drill Core	Greywacke	161	166	200	109	697	13	2300	<5	6.0	0.10	6.0	5	1100	<10	15	72	<10	107	15
70864	ORMSBY	Drill Core	Greywacke	15	20	200	110	657	14	2800	<5	8.0	0.10	6.0	5	1200	<10	21	83	<10	115	11
				MINIMUM		200	75	528	10	2300	<5	6.0	<0.1	5.0	<5	800	<10	10	63	<10	93	11
				MAXIMUM		200	110	697	14	3300	<5	8.0	0.10	6.0	5	1200	<10	21	83	<10	115	15
				MEDIAN		200	101	648	12	2550	nc	6.0	0.10	5.5	5	1000	nc	15	73	nc	103	13
				AVERAGE		200	97	630	12	2675	nc	6.5	0.10	5.5	5	1000	nc	15	73	nc	104	13
				STANDARD DEVIATION		0	16	72	2	479	nc	1.0	0.00	0.58	0.0	183	nc	4.5	8.2	nc	10	2.1
				75TH PERCENTILE		200	109	667	13	2925	nc	6.5	0.10	6.0	5	1125	nc	17	76	nc	109	14
474783	ORMSBY	Drill Core	Transitional Greywacke	18	20	400	72	573	4	1400	<5	8.0	-	7.0	5	1300	<10	<10	73	<10	72	10
1000513	ORMSBY	Drill Core	Transitional Greywacke	108	110	700	75	687	10	2100	6	12	-	29	6	2100	<10	11	107	<10	87	13
70766	ORMSBY	Drill Core	Transitional Greywacke	22	24	200	112	512	<2	6700	11	4.0	0.70	3.0	<5	800	<10	30	49	<10	103	15
70768	ORMSBY	Drill Core	Transitional Greywacke	77	81	300	92	600	<2	2800	11	8.0	0.30	2.0	<5	1900	<10	<10	82	<10	95	14
70772	ORMSBY	Drill Core	Transitional Greywacke	395	399	600	67	711	<2	2300	14	9.0	0.30	<1	6	2000	13	13	87	<10	63	20

Trace Metals Results
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Tyhee NWT Corp.

			Typical Crustal Abundance (ug/g) (Price, 1997)1		0.075	82300	1.8	425	3	0.0085	41500	0.15	25	102	60	56300	0.085	20850	39	23300	950	1.2	
			Typical Crustal Abundance (ug/g) x5		0.375	411500	9	2125	15	0.0425	207500	0.75	125	510	300	281500	0.425	104250	195	116500	4750	6	
SAMPLE NUMBER	LOCATION	SAMPLE TYPE	ROCK TYPE	SAMPLE INTERVAL		Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Hg	K	La	Mg	Mn	Mo
				TO	FROM	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
					MINIMUM	<0.2	20200	16	21	<0.5	<5	1300	<1	19	77	16	33900	<1	1800	15	12000	254	<2
					MAXIMUM	0.3	36600	229	481	0.8	<5	22400	4	60	219	91	73200	<1	16500	33	26000	930	3
					MEDIAN	nc	25550	39	191	0.5	nc	4500	2	27	168	43	45600	nc	9050	24	15650	448	nc
					AVERAGE	nc	25757	54	198	0.5	nc	5975	2	29	167	43	47104	nc	8861	24	16718	487	nc
					STANDARD DEVIATION	nc	4231	49	117	0.08	nc	4905	0.6	7.0	30	16	9860	nc	4434	4.9	3672	172	nc
					75TH PERCENTILE	nc	28575	51	272	0.5	nc	8200	2	32	182	51	50550	nc	12375	26	19325	545	nc
1001202	ORMSBY	Drill Core	Mineralized Amphibolite	169	170.5	<0.2	13300	15	77	<0.5	<5	19200	<1	40	39	290	63500	<1	1100	25	4900	586	<2
1001205	ORMSBY	Drill Core	Mineralized Amphibolite	173.5	175	<0.2	13400	10	156	<0.5	<5	47500	<1	19	27	66	47700	<1	1900	23	6600	919	<2
70784	ORMSBY	Drill Core	Mineralized Amphibolite	19	22	<0.2	30700	10	103	0.6	<5	27200	5	78	126	111	92800	<1	5600	18	13800	519	<2
70785	ORMSBY	Drill Core	Mineralized Amphibolite	51	55	<0.2	15300	35	223	0.5	<5	19200	2	33	67	<1	48400	<1	5800	37	6100	600	<2
70797	ORMSBY	Drill Core	Mineralized Amphibolite	131	131	0.2	7700	806	52	<0.5	<5	34300	5	39	109	98	98000	<1	1300	32	4500	1036	<2
70798	ORMSBY	Drill Core	Mineralized Amphibolite	131	134	<0.2	14400	33	176	<0.5	<5	20800	3	24	83	11	57800	<1	4600	34	6400	761	<2
70804	ORMSBY	Drill Core	Mineralized Amphibolite	54	57	<0.2	24600	112	151	0.8	<5	32400	3	25	76	10	60900	<1	3200	38	8200	934	<2
70809	ORMSBY	Drill Core	Mineralized Amphibolite	55	57	<0.2	18600	34	86	0.6	<5	25300	2	22	43	<1	52100	<1	1000	34	7400	823	<2
70821	ORMSBY	Drill Core	Mineralized Amphibolite	52	56	<0.2	13700	22	74	<0.5	<5	21900	3	38	60	4.0	59600	<1	1400	33	5900	854	<2
					MINIMUM	<0.2	7700	10	52	<0.5	<5	19200	<1	19	27	<1	47700	<1	1000	18	4500	519	<2
					MAXIMUM	0.2	30700	806	223	0.8	<5	47500	5	78	126	290	98000	<1	5800	38	13800	1036	<2
					MEDIAN	nc	14400	33	103	0.5	nc	25300	3	33	67	11	59600	nc	1900	33	6400	823	nc
					AVERAGE	nc	16856	120	122	0.6	nc	27533	3	35	70	66	64533	nc	2878	30	7089	781	nc
					STANDARD DEVIATION	nc	6906	259	57	0.1	nc	9282	1	18	33	95	18375	nc	1979	6.8	2761	178	nc
					75TH PERCENTILE	nc	18600	35	156	0.6	nc	32400	3	39	83	98	63500	nc	4600	34	7400	919	nc
67351	ORMSBY	Drill Core	Unmineralized Amphibolite	262	263.5	<0.2	14900	43	157	<0.5	<5	21600	<1	41	111	140	28200	<1	1400	<10	5900	456	<2
1000356	ORMSBY	Drill Core	Unmineralized Amphibolite	209.5	211	<0.2	13100	68	61	<0.5	<5	28700	<1	29	62	54	35200	<1	800	<10	7100	839	<2
70771	ORMSBY	Drill Core	Unmineralized Amphibolite	207	211	0.2	15300	35	209	<0.5	<5	18600	2	28	78	<1	50500	<1	6500	32	5900	594	<2
70773	ORMSBY	Drill Core	Unmineralized Amphibolite	1.5	5.5	<0.2	14300	25	129	<0.5	<5	22800	2	24	100	6	49400	<1	2200	38	7300	609	<2
70775	ORMSBY	Drill Core	Unmineralized Amphibolite	59	62	<0.2	12500	26	206	<0.5	<5	13900	2	24	80	<1	43500	<1	5700	38	5800	351	<2
70778	ORMSBY	Drill Core	Unmineralized Amphibolite	245	248	<0.2	11100	56	63	<0.5	<5	21400	1	42	89	57	31500	<1	800	<10	7100	643	<2
70779	ORMSBY	Drill Core	Unmineralized Amphibolite	354	358	<0.2	21000	237	49	<0.5	<5	33800	1	51	116	48	19200	1	700	<10	5100	368	<2
70781	ORMSBY	Drill Core	Unmineralized Amphibolite	17	20	<0.2	16500	329	189	<0.5	<5	29200	2	53	93	83	45500	1	3000	10	8900	896	<2
70786	ORMSBY	Drill Core	Unmineralized Amphibolite	85	88	<0.2	15500	31	173	<0.5	<5	22900	2	23	65	<1	47400	<1	4300	36	6600	695	<2
70787	ORMSBY	Drill Core	Unmineralized Amphibolite	104	105	<0.2	14300	153	63	<0.5	<5	22600	2	42	61	90	43600	<1	700	<10	7700	866	<2
70788	ORMSBY	Drill Core	Unmineralized Amphibolite	125	129	0.3	14400	109	129	<0.5	<5	18100	2	50	117	114	35600	<1	2300	<10	8000	500	<2
70789	ORMSBY	Drill Core	Unmineralized Amphibolite	146	150	0.2	19700	178	162	<0.5	<5	20100	2	79	153	51	41200	<1	2700	<10	7800	712	<2
70790	ORMSBY	Drill Core	Unmineralized Amphibolite	238	242	<0.2	16300	99	109	<0.5	<5	24200	2	54	120	94	35300	1	1500	11	8400	661	<2
70791	ORMSBY	Drill Core	Unmineralized Amphibolite	265	267	<0.2	20900	82	143	<0.5	<5	22000	2	46	113	90	48400	1	1400	11	8400	837	<2
70796	ORMSBY	Drill Core	Unmineralized Amphibolite	110	113	<0.2	15900	18	124	0.5	<5	16700	2	26	84	<1	41900	<1	4500	33	5500	601	<2
70800	ORMSBY	Drill Core	Unmineralized Amphibolite	7	9	<0.2	14000	20	37	0.5	<5	18600	3	55	108	139	47100	1	900	20	8800	473	<2
70802	ORMSBY	Drill Core	Unmineralized Amphibolite	29	32	<0.2	19800	28	39	<0.5	<5	18700	2	24	184	42	41100	<1	1100	29	12500	584	<2
70805	ORMSBY	Drill Core	Unmineralized Amphibolite	79.5	82	<0.2	23600	46	89	<0.5	<5	24800	2	33	110	58	38900						

Trace Metals Results
Yellowknife Gold Project
Tyhee NWT Corp.

			Typical Crustal Abundance (ug/g) (Price, 1997)1		23550	84	1050	14	350	0.2	22	0.05	370	1.2	5650	0.85	2.7	120	1.25	70	165		
			Typical Crustal Abundance (ug/g) x5		117750	420	5250	70	1750	1	110	0.25	1850	6	28250	4.25	13.5	600	6.25	350	825		
SAMPLE NUMBER	LOCATION	SAMPLE TYPE	ROCK TYPE	SAMPLE INTERVAL		Na	Ni	P	Pb	S	Sb	Sc	Se	Sr	Th	Ti	Tl	U	V	W	Zn	Zr	
				TO	FROM	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
					MINIMUM	200	60	512	<2	300	<5	4.0	<0.1	<1	<5	800	<10	<10	<10	49	<10	61	10
					MAXIMUM	1300	112	1243	36	36800	17	12	0.80	41	9	4300	13	30	149	123	330	38	
					MEDIAN	450	77	670	2	2700	11	8.0	0.25	3.5	6	1800	nc	13	82	10	97	18	
					AVERAGE	500	78	676	6	5943	11	8.5	0.31	7.2	6	1746	nc	15	87	15	110	19	
					STANDARD DEVIATION	265	12	134	7	7773	4	2.3	0.21	10	1	693	nc	5.4	22	22	55	6.1	
					75TH PERCENTILE	600	83	718	11	6475	14	10	0.38	7.3	6	2100	nc	18	103	10	118	21	
1001202	ORMSBY	Drill Core	Mineralized Amphibolite	169	170.5	1300	35	4044	10	23000	<5	8.0	-	21	<5	1000	13	15	18	<10	57	17	
1001205	ORMSBY	Drill Core	Mineralized Amphibolite	173.5	175	900	6.0	4846	6	6100	5	8.0	-	70	<5	1000	13	<10	16	<10	75	12	
70784	ORMSBY	Drill Core	Mineralized Amphibolite	19	22	2100	72	957	9	38900	16	18	0.20	71	<5	2800	<10	23	256	<10	396	15	
70785	ORMSBY	Drill Core	Mineralized Amphibolite	51	55	900	12	4965	4	3500	8	16	0.10	1.0	<5	1600	13	14	15	<10	130	20	
70797	ORMSBY	Drill Core	Mineralized Amphibolite	131	131	900	18	2962	9	49600	13	9.0	0.20	8.0	<5	1500	<10	12	16	15	58	31	
70798	ORMSBY	Drill Core	Mineralized Amphibolite	131	134	1300	7.0	5136	<2	12000	13	14	0.30	<1	<5	2000	<10	11	19	<10	126	19	
70804	ORMSBY	Drill Core	Mineralized Amphibolite	54	57	1700	5.0	4477	<2	6200	14	14	<0.1	26	<5	2100	<10	<10	17	17	95	10	
70809	ORMSBY	Drill Core	Mineralized Amphibolite	55	57	2000	7.0	4475	<2	1700	9	12	<0.1	7.0	<5	1400	<10	17	22	<10	97	10	
70821	ORMSBY	Drill Core	Mineralized Amphibolite	52	56	1700	11	4973	<2	11300	9	12	0.70	5.0	<5	1600	<10	<10	19	<10	132	23	
					MINIMUM	900	5.0	957	<2	1700	<5	8.0	<0.1	<1	<5	1000	<10	<10	15	<10	57	10	
					MAXIMUM	2100	72	5136	10	49600	16	18	0.70	71	<5	2800	13	23	256	17	396	31	
					MEDIAN	1300	11	4477	4	11300	9	12	0.20	8.0	nc	1600	10	12	18	nc	97	17	
					AVERAGE	1422	19	4093	5	16922	10	12	0.24	23	nc	1667	11	14	44	nc	130	17	
					STANDARD DEVIATION	474	22	1351	3	16910	4	3.5	0.21	28	nc	568	1.5	4.3	79	nc	104	7	
					75TH PERCENTILE	1700	18	4965	9	23000	13	14	0.25	26	nc	2000	13	15	19	nc	130	20	
67351	ORMSBY	Drill Core	Unmineralized Amphibolite	262	263.5	1700	58	969	5	2900	<5	9.0	-	30	<5	1200	<10	<10	120	<10	36	6.0	
1000356	ORMSBY	Drill Core	Unmineralized Amphibolite	209.5	211	1200	37	1002	4	1300	<5	10	-	16	<5	1100	<10	<10	99	<10	66	7.0	
70771	ORMSBY	Drill Core	Unmineralized Amphibolite	207	211	900	8.0	4689	<2	5500	12	14	0.10	<1	<5	1700	<10	<10	15	<10	115	19	
70773	ORMSBY	Drill Core	Unmineralized Amphibolite	1.5	5.5	800	12	4283	<2	5800	8	14	0.10	<1	<5	1600	<10	<10	30	<10	123	21	
70775	ORMSBY	Drill Core	Unmineralized Amphibolite	59	62	800	4.0	4646	<2	5500	10	14	0.10	1.0	<5	1300	12	13	11	13	101	26	
70778	ORMSBY	Drill Core	Unmineralized Amphibolite	245	248	1300	54	787	<2	2000	8	8.0	0.10	3.0	<5	1300	<10	<10	90	<10	35	7.0	
70779	ORMSBY	Drill Core	Unmineralized Amphibolite	354	358	2600	83	246	<2	1400	9	7.0	0.10	11	<5	1600	<10	<10	71	<10	32	3.0	
70781	ORMSBY	Drill Core	Unmineralized Amphibolite	17	20	1500	62	1025	<2	3500	9	12	<0.1	2.0	<5	1500	15	<10	126	<10	69	9.0	
70786	ORMSBY	Drill Core	Unmineralized Amphibolite	85	88	1500	13	5792	<2	2800	10	13	<0.1	2.0	<5	1500	<10	<10	15	<10	119	17	
70787	ORMSBY	Drill Core	Unmineralized Amphibolite	104	105	1500	56	694	<2	5500	7	8.0	<0.1	2.0	<5	900	19	<10	79	<10	42	6.0	
70788	ORMSBY	Drill Core	Unmineralized Amphibolite	125	129	1300	67	981	<2	3000	8	13	<0.1	3.0	<5	1700	22	<10	157	<10	47	7.0	
70789	ORMSBY	Drill Core	Unmineralized Amphibolite	146	150	1900	121	921	<2	2000	15	16	<0.1	2.0	<5	1600	<10	<10	198	<10	44	7.0	
70790	ORMSBY	Drill Core	Unmineralized Amphibolite	238	242	1600	73	957	<2	2300	11	13	0.70	<1	<5	1900	<10	<10	141	<10	57	7.0	
70791	ORMSBY	Drill Core	Unmineralized Amphibolite	265	267	1900	57	943	<2	3700	9	13	0.40	1.0	<5	1500	<10	<10	140	<10	62	9.0	
70796	ORMSBY	Drill Core	Unmineralized Amphibolite	110	113	1000	9.0	3791	<2	2700	7	13	0.10	<1	<5	1800	<10	<10	10	<10	117	13	
70800	ORMSBY	Drill Core	Unmineralized Amphibolite	7	9	700	58	1008	3	18600	14	7.0	0.30	12	<5	4500	<10	18	129	<10	690	12	
70802	ORMSBY	Drill Core	Unmineralized Amphibolite	29	32	600	59	604	<2	6500	9	7.0	0.30	1.0	9	700	<10	<10	79	<10	101	16	
70805	ORMSBY	Drill Core	Unmineralized Amphibolite	79.5	82	2500	33	923	<2	4000	9	9.0	<0.1	28	<5	1900	<10	<10	45	<10	141	8.0	
70806	ORMSBY	Drill Core	Unmineralized Amphibolite	125	127	2300	31	1071	<2	2700	7	13	<0.1	<1	<5	2000	<10	<10	147	<10	45	8.0	
70810	ORMSBY	Drill Core	Unmineralized Amphibolite	88	90	1500	6.0	4033	<2	900	7	11	<0.1	<1	<5	1300	<10	<10	31	<10	67	14	
70815	ORMSBY	Drill Core	Unmineralized Amphibolite	64	68	1600	39	910	<2	800	8	14	0.20	4.0	<5	1500	<10	<10	127	<10	90	12	
70816	ORMSBY	Drill Core	Unmineralized Amphibolite	97	101	1300	67	809	<2	5400	9	1											

Appendix A-4: Ormsby Deposit - Drill Core Material
SFE Results
Yellowknife Gold Project
Tyhee NWT Corp.

			MV2002L2-0017 Max Avg.		6.0-9.5									1					0.01				0.06		
			CCME (CEQG) (freshwater aquatic life) ¹ (mg/L)		6.5 - 9.0							0.10		0.005					0.000017		0.001 / 0.0089		0.002	0.3	
SAMPLE NUMBER	LOCATION	SAMPLE TYPE	ROCK TYPE	SAMPLE INTERVAL		pH	Redox	Conductivity	Acidity (to pH 8.3)	Alkalinity	SO4	Hardness	Al	Sb	As	Ba	Be	Bi	B	Cd	Ca	Cr	Co	Cu	Fe
				TO	FROM	units	mV	uS/cm	mg CaCO3/L	mg CaCO3/L	mg/L		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
474788	ORMSBY	Drill Core	Argillite	27	29	7.1	397	207	2.9	20	63	53	0.031	0.0002	0.002	0.0046	<0.00005	<0.00005	0.023	0.000040	12	<0.0002	0.0005	0.0003	<0.005
1000518	ORMSBY	Drill Core	Argillite	116	118	7.2	382	140	2.9	25	29	21	0.075	0.0005	0.0009	0.0023	<0.00005	<0.00005	0.036	0.000010	5.4	<0.0002	0.0001	0.0001	0.011
70770	ORMSBY	Drill Core	Argillite	121	123	7.5	440	297	3.5	38	86	123	0.039	0.0003	0.001	0.0040	<0.00001	<0.000005	0.015	0.000012	38	<0.0001	0.0003	0.001	0.010
70801	ORMSBY	Drill Core	Argillite	23	24	7.9	394	223	3.1	57	42	98	0.021	0.0004	0.002	0.012	<0.00001	0.000008	0.012	0.0000070	34	0.0001	0.00007	0.0008	0.0040
70813	ORMSBY	Drill Core	Argillite	18	20	7.4	408	177	3.3	16	51	72	0.012	0.00005	0.00004	0.0074	<0.00001	<0.000005	0.015	<0.000005	20	<0.0001	0.0004	0.0001	0.0030
				MINIMUM		7.1	382	140	2.9	16	29	21	0.012	0.00005	0.00004	0.0023	<0.00001	<0.000005	0.012	<0.000005	5.4	<0.0001	0.00007	0.0001	<0.005
				MAXIMUM		7.9	440	297	3.5	57	86	123	0.075	0.0005	0.002	0.012	<0.00005	<0.00005	0.036	0.000040	38	<0.0002	0.0005	0.001	0.011
				MEDIAN		7.4	397	207	3.1	25	51	72	0.031	0.0003	0.001	0.0046	nc	nc	0.015	0.000010	20	nc	0.0003	0.0003	0.0050
				AVERAGE		7.4	404	209	3.1	31	54	73	0.035	0.0003	0.001	0.0060	nc	nc	0.020	0.000015	22	nc	0.0003	0.0005	0.0066
				STANDARD DEVIATION		nc	22	59	0.27	17	22	39	0.024	0.0002	0.0009	0.0036	nc	nc	0.010	0.000014	14	nc	0.0002	0.0004	0.0036
				75TH PERCENTILE		nc	408	223	3.3	38	63	98	0.039	0.0004	0.002	0.0074	nc	nc	0.023	0.000012	34	nc	0.0004	0.0008	0.010
474783	ORMSBY	Drill Core	Transitional Greywacke	18	20	7.6	375	128	3.6	58	1.0	24	0.23	0.0005	0.01	0.0040	<0.00005	<0.00005	0.010	<0.00001	6.8	<0.0002	0.00003	<0.0001	0.0060
1000513	ORMSBY	Drill Core	Transitional Greywacke	108	110	8.1	314	107	0.88	44	3.0	10	0.28	0.002	0.01	0.0035	<0.00005	<0.00005	0.018	<0.00001	2.7	<0.0002	<0.00002	0.0004	0.013
70766	ORMSBY	Drill Core	Transitional Greywacke	22	24	7.6	409	113	3.2	25	31	38	0.055	0.0007	0.0008	0.0030	<0.00001	0.00001	0.0060	<0.000005	12	0.0002	0.0001	0.002	0.0090
70782	ORMSBY	Drill Core	Transitional Greywacke	5	9	7.3	438	71	2.7	27	4.0	24	0.051	0.0003	0.004	0.0014	<0.00001	0.00001	0.0080	<0.000005	7.5	<0.0001	0.0006	0.0008	0.0090
70799	ORMSBY	Drill Core	Transitional Greywacke	304	307	8.0	398	190	2.9	77	6.0	70	0.28	0.0003	0.01	0.0064	0.00001	0.000009	0.080	<0.000005	24	0.001	0.0002	0.0007	0.36
70812	ORMSBY	Drill Core	Transitional Greywacke	10	13	7.8	395	84	2.8	33	3.0	27	0.082	0.0004	0.005	0.0034	<0.00001	<0.000005	0.013	<0.000005	8.2	0.0002	0.00004	0.001	0.0070
				MINIMUM		7.3	314	71	0.88	25	1.0	10	0.051	0.0003	0.0008	0.0014	<0.00001	<0.000005	0.0060	<0.000005	2.7	<0.0001	<0.00002	<0.0001	0.0060
				MAXIMUM		8.1	438	190	3.6	77	31	70	0.28	0.002	0.01	0.0064	<0.00005	0.00001	0.080	<0.00001	24	0.001	0.0006	0.002	0.36
				MEDIAN		7.7	396	110	2.8	39	3.5	26	0.16	0.0005	0.008	0.0034	nc	nc	0.012	nc	7.8	0.0002	0.00006	0.0008	0.0090
				AVERAGE		7.7	388	116	2.7	44	8.0	32	0.16	0.0007	0.007	0.0036	nc	nc	0.023	nc	10	0.0003	0.0001	0.0008	0.068
				STANDARD DEVIATION		nc	42	42	0.93	20	11	21	0.11	0.0007	0.005	0.0016	nc	nc	0.028	nc	7.5	0.0003	0.0002	0.0006	0.14
				75TH PERCENTILE		nc	406	124	3.1	55	5.5	36	0.26	0.0006	0.01	0.0039	nc	nc	0.017	nc	11	0.0002	0.0001	0.001	0.012
1001202	ORMSBY	Drill Core	Mineralized Amphibolite	169	170.5	7.6	392	110	3.5	43	7.0	50	0.059	0.0006	0.001	0.018	<0.00005	<0.00005	0.039	<0.00001	16	<0.0002	0.00002	0.0003	0.011
1001205	ORMSBY	Drill Core	Mineralized Amphibolite	173.5	175	7.8	367	151	3.9	72	4.0	71	0.066	0.0002	0.0005	0.018	<0.00005	<0.00005	0.019	<0.00001	24	<0.0002	0.00002	0.0003	0.010
70821	ORMSBY	Drill Core	Mineralized Amphibolite	52	56	7.8	394	105	3.0	38	7.0	42	0.046	0.0006	0.007	0.0070	<0.00001	<0.000005	0.0080	<0.000005	13	<0.0001	0.00006	0.001	0.010
				MINIMUM		7.6	367	105	3.0	38	4.0	42	0.046	0.0002	0.0005	0.0070	<0.00001	<0.000005	0.0080	<0.000005	13	<0.0001	0.00002	0.0003	0.010
				MAXIMUM		7.8	394	151	3.9	72	7.0	71	0.066	0.0006	0.007	0.018	<0.00005	<0.00005	0.039	<0.00001	24	<0.0002	0.00006	0.001	0.011
				MEDIAN		7.8	392	110	3.5	43	7.0	50	0.059	0.0006	0.001	0.018	nc	nc	0.019	nc	16	nc	0.00002	0.0003	0.010
				AVERAGE		7.7	384	122	3.5	51	6.0	54	0.057	0.0004	0.003	0.015	nc	nc	0.022	nc	18	nc	0.00003	0.0006	0.010
				STANDARD DEVIATION		nc	15	25	0.48	19	1.7	15	0.010	0.0003	0.004	0.0065	nc	nc	0.016	nc	5.4	nc	0.00002	0.0004	0.00058
				75TH PERCENTILE		nc	393	131	3.7	58	7.0	61	0.063	0.0006	0.004	0.018	nc	nc	0.029	nc	20	nc	0.00004	0.0007	0.011
67351	ORMSBY	Drill Core	Unmineralized Amphibolite	262	263.5	8.2	325	164	0.71	70	3.0	65	0.19	0.0003	0.01	0.013	<0.00005	<0.00005	0.020	<0.00001	21	<0.0002	0.0002	0.0004	0.030
1000356	ORMSBY	Drill Core	Unmineralized Amphibolite	209.5	211	7.8	366	155	4.3	79	4.0	66	0.10	0.0004	0.02	0.010	<0.00005	<0.00005	0.019	<0.00001	21	<0.0002	0.00009	<0.0001	<0.005
70773	ORMSBY	Drill Core	Unmineralized Amphibolite	1.5	5.5	7.9	407	135	2.8	55	3.0	58	0.059	0.0002	0.003	0.096	<0.00001	<0.000005	0.0060	<0.000005	21	<0.0001	0.00007	0.0003	0.0070
70800	ORMSBY	Drill Core	Unmineralized Amphibolite	7	9	7.9	391	173	3.0	51	21	76	0.040	0.00007	0.0006	0.0065	<0.00001	<0.000005	0.014	<0.000005	26	<0.0001	0.00007	0.0002	0.0020
70844	ORMSBY	Drill Core	Unmineralized Amphibolite	82	84	7.9	405	141	3.2	65	5.0	64	0.084	0.0003	0.05	0.016	<0.00001	<0.000005	0.012	<0.000005	22	<0.0001	0.0002	0.0001	0.0020
DH273-47.07-51.31	ORMSBY	Drill Core	Unmineralized Amphibolite	47	51	7.8	403	108	3.0	51	2.0	44	0.050	0.0001	0.0005	0.016	<0.00001	<0.000005	0.014	<0.000005	16	<0.0001	0.00002	0.0007	0.011
				MINIMUM		7.8	325	108	0.71	51	2.0	44	0.040	0.00007	0.0005	0.0065	<0.00001	<0.000005	0.0060	<0.000005	16	<0.0001	0.00002	<0.0001	<0.005
				MAXIMUM		8.2	407	173	4.3	79	21	76	0.19	0.0004	0.05	0.096	<0.00005	<0.00005	0.020	<0.00001	26	<0.0002	0.0002	0.0007	0.030
				MEDIAN		7.9	397	148	3.0	60	3.5	64	0.071	0.0002	0.007	0.015	nc	nc	0.014	nc	21	nc	0.00008	0.0002	0.0060
				AVERAGE		7.9	383	146	2.8	62	6.3	62	0.088	0.0002	0.01	0.026	nc	nc	0.014	nc	21	nc	0.00009	0.0003	0.010
				STANDARD DEVIATION		nc	32	23	1.2	11	7.3	11	0.056	0.0001	0.02	0.034	nc	nc	0.005	nc	3.1	nc	0.00005	0.0002	0.011
				75TH PERCENTILE		nc	405	162	3.2	68	4.8	66	0.10	0.0003	0.02	0.016	nc	nc	0.018	nc	22	nc	0.0001	0.0004	0.010

CCME values for Cu, Pb, Ni assume a hardness of 60 mg/L.
CCME values for Cr show a range from min (for Cr(VI)) to max (for Cr(III))
CCME values for Al ranges, are dependant on pH, Ca and DOC values.
nc = not calculated

Appendix A-4: Ormsby Deposit - Drill Core Material
SFE Results
Yellowknife Gold Project
Tyhee NWT Corp.

			MV2002L2-0017 Max Avg.			0.4						1												1			
			CCME (CEQG) (freshwater aquatic life) ¹ (mg/L)			0.001				0.000026	0.073	0.025 - 0.156			0.001					0.0008				0.03			
SAMPLE NUMBER	LOCATION	SAMPLE TYPE	ROCK TYPE	SAMPLE INTERVAL		Pb	Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S	Tl	Sn	Ti	U	V	Zn	Zr
				TO	FROM	mg/L	mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
474788	ORMSBY	Drill Core	Argillite	27	29	0.0001	0.013	5.7	0.038	<0.05	0.002	0.004	<0.1	25	0.002	2.2	<0.00001	6.3	0.042	31	<0.00005	0.0002	<0.0005	0.00003	0.00016	0.003	<0.005
1000518	ORMSBY	Drill Core	Argillite	116	118	0.00007	0.0059	1.8	0.0077	<0.05	0.005	0.0006	<0.1	22	0.0007	2.0	<0.00001	7.1	0.048	18	<0.00005	0.00007	<0.0005	0.0002	0.00034	0.0005	<0.005
70770	ORMSBY	Drill Core	Argillite	121	123	0.0001	0.0033	6.8	0.17	<0.01	0.0007	0.004	<0.002	6.2	0.0004	1.0	0.000009	8.0	0.17	36	0.00003	0.0001	<0.0005	0.00008	<0.0002	0.002	<0.0001
70801	ORMSBY	Drill Core	Argillite	23	24	0.00004	0.0036	3.1	0.034	<0.01	0.006	0.002	0.004	4.2	0.0003	1.5	<0.000005	4.6	0.13	14	0.000008	0.00008	<0.0005	0.04	0.00020	0.002	0.0002
70813	ORMSBY	Drill Core	Argillite	18	20	0.00002	0.0063	5.1	0.14	<0.01	0.0001	0.002	<0.002	4.7	0.0002	0.85	<0.000005	2.0	0.092	25	0.00001	0.0002	<0.0005	0.000003	<0.0002	0.0008	<0.0001
				MINIMUM		0.00002	0.0033	1.8	0.0077	<0.01	0.0001	0.0006	<0.002	4.2	0.0002	0.85	<0.000005	2.0	0.042	14	0.000008	0.00007	<0.0005	0.000003	0.00016	0.0005	<0.0001
				MAXIMUM		0.0001	0.013	6.8	0.17	<0.05	0.006	0.004	<0.1	25	0.002	2.2	<0.00001	8.0	0.17	36	<0.00005	0.0002	<0.0005	0.04	0.00034	0.003	<0.005
				MEDIAN		0.00007	0.0059	5.1	0.038	nc	0.002	0.002	nc	6.2	0.0004	1.5	nc	6.3	0.092	25	0.00003	0.0001	nc	0.00008	0.00020	0.002	nc
				AVERAGE		0.00008	0.0064	4.5	0.078	nc	0.003	0.002	nc	12	0.0007	1.5	nc	5.6	0.096	25	0.00003	0.0001	nc	0.007	0.00022	0.002	nc
				STANDARD DEVIATION		0.00005	0.0039	2.0	0.072	nc	0.002	0.001	nc	10	0.0006	0.62	nc	2.4	0.053	9.1	0.00002	0.00007	nc	0.02	0.000069	0.001	nc
				75TH PERCENTILE		0.0001	0.0063	5.7	0.14	nc	0.005	0.004	nc	22	0.0007	2.0	nc	7.1	0.13	31	0.00005	0.0002	nc	0.0002	0.00020	0.002	nc
474783	ORMSBY	Drill Core	Transitional Greywacke	18	20	0.00003	0.0042	1.7	0.0048	<0.05	0.0009	<0.0005	<0.1	20	0.0007	1.8	<0.00001	7.5	0.021	1.5	<0.00005	0.0001	<0.0005	0.00002	0.0012	0.0006	<0.005
1000513	ORMSBY	Drill Core	Transitional Greywacke	108	110	0.0002	0.0060	0.84	0.0018	<0.05	0.0003	<0.0005	<0.1	17	<0.0005	1.9	<0.00001	6.4	0.023	1.0	<0.00005	0.0001	0.0008	<0.00001	0.0027	0.0008	<0.005
70766	ORMSBY	Drill Core	Transitional Greywacke	22	24	0.00009	0.00060	2.1	0.085	<0.01	0.0002	0.001	0.002	7.3	0.0001	0.70	<0.000005	1.7	0.029	10	0.00001	0.0003	<0.0005	0.00004	<0.0002	0.002	<0.0001
70782	ORMSBY	Drill Core	Transitional Greywacke	5	9	0.00005	0.0033	1.2	0.014	0.01	0.0008	0.01	0.01	5.0	0.0004	0.92	<0.000005	1.3	0.016	<3	0.00002	0.00009	<0.0005	0.00003	<0.0002	0.0007	<0.0001
70799	ORMSBY	Drill Core	Transitional Greywacke	304	307	0.0002	0.0075	2.3	0.011	<0.01	0.001	0.002	0.02	11	0.0001	2.8	<0.000005	6.5	0.18	<3	0.00003	0.0003	0.01	0.0001	0.0021	0.006	0.0001
70812	ORMSBY	Drill Core	Transitional Greywacke	10	13	0.00006	0.0034	1.6	0.0053	<0.01	0.0007	0.0009	0.003	7.1	0.0001	1.1	<0.000005	2.3	0.032	<3	0.00002	0.0003	<0.0005	0.00001	0.00030	0.001	<0.0001
				MINIMUM		0.00003	0.00060	0.84	0.0018	<0.01	0.0002	<0.0005	0.002	5.0	0.0001	0.70	<0.000005	1.3	0.016	1.0	0.00001	0.00009	<0.0005	<0.00001	<0.0002	0.0006	<0.0001
				MAXIMUM		0.0002	0.0075	2.3	0.085	<0.05	0.001	0.01	0.10	20	0.0007	2.8	<0.00001	7.5	0.18	10	<0.00005	0.0003	0.01	0.0001	0.0027	0.006	<0.005
				MEDIAN		0.00008	0.0038	1.6	0.0080	nc	0.0007	0.001	0.01	9.1	0.0002	1.4	nc	4.3	0.026	3.0	0.00002	0.0002	0.001	0.00002	0.00076	0.0009	nc
				AVERAGE		0.0001	0.0042	1.6	0.020	nc	0.0007	0.003	0.04	11	0.0003	1.5	nc	4.3	0.050	3.6	0.00003	0.0002	0.003	0.00004	0.0011	0.002	nc
				STANDARD DEVIATION		0.00008	0.0024	0.55	0.032	nc	0.0004	0.004	0.05	6.1	0.0003	0.77	nc	2.8	0.063	3.3	0.00002	0.0001	0.006	0.00004	0.0011	0.002	nc
				75TH PERCENTILE		0.0002	0.0056	2.0	0.013	nc	0.0009	0.002	0.08	16	0.0005	1.9	nc	6.4	0.032	3.0	0.00005	0.0003	0.001	0.00004	0.0019	0.002	nc
1001202	ORMSBY	Drill Core	Mineralized Amphibolite	169	170.5	0.00002	0.013	2.4	0.010	<0.05	0.0004	<0.0005	0.10	4.0	<0.0005	2.6	<0.00001	2.6	0.041	6.0	<0.00005	0.0001	<0.0005	0.00005	0.00023	<0.0005	<0.005
1001205	ORMSBY	Drill Core	Mineralized Amphibolite	173.5	175	0.00005	0.014	2.9	0.013	<0.05	0.0003	<0.0005	<0.1	4.6	<0.0005	1.9	<0.00001	3.9	0.092	2.8	<0.00005	0.00008	<0.0005	0.00002	0.00013	<0.0005	<0.005
70821	ORMSBY	Drill Core	Mineralized Amphibolite	52	56	0.00004	0.0053	2.2	0.036	<0.01	0.0003	0.0003	0.03	2.2	0.0001	1.3	<0.000005	3.2	0.078	<3	0.00002	0.0003	<0.0005	0.00005	<0.0002	0.0008	<0.0001
				MINIMUM		0.00002	0.0053	2.2	0.010	<0.01	0.0003	0.0003	0.03	2.2	0.0001	1.3	<0.000005	2.6	0.041	2.8	0.00002	0.00008	<0.0005	0.00002	0.00013	<0.0005	<0.0001
				MAXIMUM		0.00005	0.014	2.9	0.036	<0.05	0.0004	<0.0005	0.10	4.6	<0.0005	2.6	<0.00001	3.9	0.092	6.0	<0.00005	0.0003	<0.0005	0.00005	0.00023	0.0008	<0.005
				MEDIAN		0.00004	0.013	2.4	0.013	nc	0.0003	nc	nc	4.0	nc	1.9	nc	3.2	0.078	nc	nc	0.0001	nc	0.00005	nc	nc	nc
				AVERAGE		0.00004	0.011	2.5	0.020	nc	0.0003	nc	nc	3.6	nc	2.0	nc	3.2	0.070	nc	nc	0.0001	nc	0.00004	nc	nc	nc
				STANDARD DEVIATION		0.00002	0.0048	0.37	0.014	nc	0.00004	nc	nc	1.3	nc	0.68	nc	0.63	0.027	nc	nc	0.00009	nc	0.00002	nc	nc	nc
				75TH PERCENTILE		0.00004	0.014	2.6	0.025	nc	0.0003	nc	nc	4.3	nc	2.3	nc	3.5	0.085	nc	nc	0.0002	nc	0.00005	nc	nc	nc
67351	ORMSBY	Drill Core	Unmineralized Amphibolite	262	263.5	0.00003	0.017	2.9	0.010	<0.05	0.00008	<0.0005	<0.1	3.5	<0.0005	1.6	<0.00001	6.8	0.060	3.7	<0.00005	0.00009	<0.0005	<0.00001	0.0051	<0.0005	<0.005
1000356	ORMSBY	Drill Core	Unmineralized Amphibolite	209.5	211	<0.00002	0.010	2.9	0.014	<0.05	0.0001	<0.0005	<0.1	2.8	<0.0005	2.0	<0.00001	9.1	0.069	1.1	<0.00005	0.00005	<0.0005	<0.00001	0.0026	<0.0005	<0.005
70773	ORMSBY	Drill Core	Unmineralized Amphibolite	1.5	5.5	0.00001	0.010	1.3	0.032	<0.01	0.0007	0.0004	0.01	5.5	0.0001	1.1	<0.000005	2.1	0.061	<3	0.00001	0.0001	<0.0005	0.00003	<0.0002	0.0004	<0.0001
70800	ORMSBY	Drill Core	Unmineralized Amphibolite	7	9	0.00001	0.0041	2.6	0.018	<0.01	0.0003	0.0009	0.01	2.3	0.0001	1.3	<0.000005	3.2	0.045	10	0.000004	0.00008	<0.0005	0.00005	0.00080	0.0008	<0.0001
70844	ORMSBY	Drill Core	Unmineralized Amphibolite	82	84	0.00001	0.0048	2.2	0.010	<0.01	0.0002	0.003	0.01	3.7	0.0001	1.0	<0.000005	3.4	0.13	<3	0.000005	0.00007	<0.0005	0.00001	0.0038	0.0004	<0.0001
DH273-47.07-51.31	ORMSBY	Drill Core	Unmineralized Amphibolite	47	51	0.00007	0.0054	0.84	0.018	<0.01	0.0002	0.0003	0.03	5.5	<0.00004	1.0	<0.000005	1.8	0.039	<3	0.000006	0.0001	<0.0005	0.00002	<0.0002	0.001	<0.0001
				MINIMUM		<0.00002	0.0041	0.84	0.010	<0.01	0.00008	<0.0005	<0.1	2.3	<0.00004	1.0	<0.000005	1.8	0.039	1.1	0.000004	0.00005	<0.0005	<0.00001	<0.0002	0.0004	<0.0001
				MAXIMUM		0.00007	0.017	2.9	0.032	<0.05	0.00303</																



APPENDIX B

Static Testing Results – Nicholas Lake Waste Rock

B-1 Analytical Program

B-2 ABA Results

B-3 Trace Metals Results

B-4 SFE Leachate Results

Appendix B-1: Nicholas Lake Waste Rock
Summary of Geochemical Characterization Program Samples and Analytical Testing
Yellowknife Gold Project
Tyhee NWT Corp.

SAMPLE ID	ROCK TYPE	SAMPLE TYPE	DEPTH		BULK METAL ANALYSIS	ACID BASE ACCOUNTING	SFE
			From	To	ICP-MS	Sobek method	ASTM D3987
70868	Meta-pelite	Drill Core	198	203	X	X	
70869	Meta-pelite	Drill Core	47	52	X	X	
70870	Meta-pelite	Drill Core	92	97	X	X	
70882	Meta-pelite	Drill Core	70	70	X	X	
70883	Meta-pelite	Drill Core	255	260	X	X	
70892	Meta-pelite	Drill Core	10	15	X	X	
70899	Meta-pelite	Drill Core	278	284	X	X	
78208	Meta-pelite	Drill Core	193	197	X	X	
78215	Meta-pelite	Drill Core	78	82	X	X	
70875	Meta-wacke	Drill Core	219	223	X	X	
70885	Meta-wacke	Drill Core	379	383	X	X	
70889	Meta-wacke	Drill Core	280	285	X	X	
70891	Meta-wacke	Drill Core	352	357	X	X	
70898	Meta-wacke	Drill Core	224	228	X	X	
78201	Meta-wacke	Drill Core	62	67	X	X	
78205	Meta-wacke	Drill Core	222	226	X	X	
78206	Meta-wacke	Drill Core	163	168	X	X	
78210	Meta-wacke	Drill Core	221	224	X	X	
70872	Mineralized Granodiorite	Drill Core	140	144	X	X	
70876	Mineralized Granodiorite	Drill Core	132	137	X	X	
70881	Mineralized Granodiorite	Drill Core	45	47	X	X	
70890	Mineralized Granodiorite	Drill Core	339	341	X	X	
70897	Mineralized Granodiorite	Drill Core	210	215	X	X	
78204	Mineralized Granodiorite	Drill Core	198	203	X	X	
78212	Mineralized Granodiorite	Drill Core	238	242	X	X	
70866	Fracture Zone	Drill Core	239	241	X	X	
70867	Quartz Vein	Drill Core	146	146	X	X	
70873	Quartz Vein	Drill Core	144	145	X	X	
70874	Quartz Vein	Drill Core	170	171	X	X	
70879	Quartz Vein	Drill Core	118	122	X	X	
78207	Quartz Vein	Drill Core	239	242	X	X	
70871	Unmineralized Granodiorite	Drill Core	129	132	X	X	
70877	Unmineralized Granodiorite	Drill Core	166	170	X	X	
70878	Unmineralized Granodiorite	Drill Core	23	28	X	X	
70880	Unmineralized Granodiorite	Drill Core	148	153	X	X	
70884	Unmineralized Granodiorite	Drill Core	273	276	X	X	
70886	Unmineralized Granodiorite	Drill Core	34	39	X	X	
70887	Unmineralized Granodiorite	Drill Core	63.5	68.5	X	X	
70888	Unmineralized Granodiorite	Drill Core	97	102	X	X	
70893	Unmineralized Granodiorite	Drill Core	149.5	154.5	X	X	
70894	Unmineralized Granodiorite	Drill Core	77	81	X	X	
70895	Unmineralized Granodiorite	Drill Core	148	153	X	X	
70896	Unmineralized Granodiorite	Drill Core	166	170	X	X	
78202	Unmineralized Granodiorite	Drill Core	144	149	X	X	
78203	Unmineralized Granodiorite	Drill Core	193	197.5	X	X	
78209	Unmineralized Granodiorite	Drill Core	215	219	X	X	
78211	Unmineralized Granodiorite	Drill Core	231	235	X	X	
78213	Unmineralized Granodiorite	Drill Core	266	273	X	X	
78214	Unmineralized Granodiorite	Drill Core	290	296	X	X	
78216	Unmineralized Granodiorite	Drill Core	133	137	X	X	
78217	Unmineralized Granodiorite	Drill Core	149.5	154	X	X	
70900	Unmineralized Granite	Drill Core	301	306	X	X	
NL-1	Granodiorite	Waste Rock Dump	-	-	X	X	
NL-2	Granodiorite	Waste Rock Dump	-	-	X	X	X
NL-3	Granodiorite	Waste Rock Dump	-	-	X	X	X

ABA Results
Yellowknife Gold Project
Tyhee NWT Corp.

SAMPLE NUMBER	LOCATION	SAMPLE TYPE	ROCK TYPE	SAMPLE INTERVAL		Paste pH	TIC	CaNP	Sobek NP	S(T)	S(SO4)	S(S-2)	AP	Net NP	NPR	ARD Potential
				TO	FROM	units	%	tCaCO3/1000t	%	%	tCaCO3/1000t					
BULK ARD POTENTIAL Meta-pelite																
				198	203	9.2	0.04	3.3	115	0.32		0.32	91	25	1.3	uncertain
70868	Nicholas Lake	Drill Core	Meta-pelite													
70869	Nicholas Lake	Drill Core	Meta-pelite	47	52	9.2	0.06	5.0	13	0.17	<0.01	0.17	5.3	7.7	2.4	uncertain
70870	Nicholas Lake	Drill Core	Meta-pelite	92	97	9.0	<0.01	0.83	14	0.37	<0.01	0.37	12	2.4	1.2	uncertain
70882	Nicholas Lake	Drill Core	Meta-pelite	70	70.5	8.9	<0.01	0.83	15	0.80	<0.01	0.80	25	-11	0.58	PAG
70883	Nicholas Lake	Drill Core	Meta-pelite	255	260	9.6	<0.01	0.83	13	0.33	<0.01	0.33	10	2.9	1.3	uncertain
70892	Nicholas Lake	Drill Core	Meta-pelite	10	15	9.3	<0.01	0.83	12	0.14	<0.01	0.14	4.4	7.2	2.7	uncertain
70899	Nicholas Lake	Drill Core	Meta-pelite	278	284	8.6	<0.01	0.83	13	0.27	<0.01	0.27	8.4	4.3	1.5	uncertain
78208	Nicholas Lake	Drill Core	Meta-pelite	193	197	9.3	<0.01	0.83	12	0.29	<0.01	0.29	9.1	3.3	1.4	uncertain
78215	Nicholas Lake	Drill Core	Meta-pelite	78	82	9.7	<0.01	0.83	10	0.22	<0.01	0.22	6.9	3.5	1.5	uncertain
				MINIMUM		8.6	<0.01	0.83	10	0.14	<0.01	0.14	4.4	-11	0.58	
				MAXIMUM		9.7	0.06	5.0	15	0.80	<0.01	0.80	25	7.7	2.7	
				MEDIAN		9.2	nc	nc	13	0.29	nc	0.29	9.1	3.5	1.4	
				AVERAGE		9.2	nc	nc	13	0.32	nc	0.32	10	2.7	1.5	
				STANDARD DEVIATION		0.33	nc	nc	1.2	0.19	nc	0.19	6.1	5.3	0.63	
				75TH PERCENTILE		9.3	nc	nc	13	0.33	nc	0.33	10	4.3	1.5	
BULK ARD POTENTIAL Meta-wacke																
				219	223	9.2	<0.01	0.83	147	0.55		0.55	154	-6.9	0.96	PAG
70875	Nicholas Lake	Drill Core	Meta-wacke													
70885	Nicholas Lake	Drill Core	Meta-wacke	379	383	9.4	0.02	1.7	14	0.48	<0.01	0.48	15	-0.90	0.94	PAG
70889	Nicholas Lake	Drill Core	Meta-wacke	280	285	8.9	0.01	0.83	17	0.60	<0.01	0.60	19	-2.3	0.88	PAG
70891	Nicholas Lake	Drill Core	Meta-wacke	352	357	8.9	0.1	12	33	1.2	<0.01	1.16	36	-2.9	0.92	PAG
70898	Nicholas Lake	Drill Core	Meta-wacke	223.5	227.5	8.8	<0.01	0.8	15	0.46	<0.01	0.46	14	0.32	1.0	uncertain
78201	Nicholas Lake	Drill Core	Meta-wacke	62	67	8.7	0.05	4.2	14	0.47	<0.01	0.47	15	-0.29	0.98	PAG
78205	Nicholas Lake	Drill Core	Meta-wacke	222	226	9.5	<0.01	0.83	14	0.53	<0.01	0.53	17	-2.7	0.84	PAG
78206	Nicholas Lake	Drill Core	Meta-wacke	163	168	9.4	<0.01	0.83	14	0.47	<0.01	0.47	15	-0.49	0.97	PAG
78210	Nicholas Lake	Drill Core	Meta-wacke	221	224	10	<0.01	0.83	14	0.48	<0.01	0.48	15	-0.90	0.94	PAG
				MINIMUM		8.7	<0.01	0.83	12	0.28	<0.01	0.28	8.8	-2.9	0.84	
				MAXIMUM		10	0.1	12	33	1.2	<0.01	1.16	36	3.2	1.4	
				MEDIAN		9.2	0.01	0.83	14	0.48	nc	0.48	15	-0.90	0.94	
				AVERAGE		9.2	0.03	2.5	16	0.55	nc	0.55	17	-0.76	0.98	
				STANDARD DEVIATION		0.41	0.04	3.6	6.5	0.24	nc	0.24	7.6	1.8	0.15	
				75TH PERCENTILE		9.4	0.02	1.7	15	0.53	nc	0.53	17	-0.29	0.98	
BULK ARD POTENTIAL Mineralized Granodiorite																
				140	144	9.6	0.04	3.3	63	0.26		0.26	56	7.0	1.1	uncertain
70872	Nicholas Lake	Drill Core	Mineralized Granodiorite													
70876	Nicholas Lake	Drill Core	Mineralized Granodiorite	132	137	9.6	<0.01	0.83	8.7	0.31	<0.01	0.31	9.7	-1.0	0.90	PAG
70881	Nicholas Lake	Drill Core	Mineralized Granodiorite	45	47	9.7	<0.01	0.83	7.8	0.14	<0.01	0.14	4.4	3.4	1.8	uncertain
70890	Nicholas Lake	Drill Core	Mineralized Granodiorite	339	341	9.2	0.01	0.83	10.0	0.33	<0.01	0.33	10	-0.31	0.97	PAG
70897	Nicholas Lake	Drill Core	Mineralized Granodiorite	210	215	9.0	<0.01	0.83	9.9	0.22	<0.01	0.22	6.9	3.0	1.4	uncertain
78204	Nicholas Lake	Drill Core	Mineralized Granodiorite	198	203	9.7	<0.01	0.83	10.8	0.31	<0.01	0.31	9.7	1.1	1.1	uncertain
78212	Nicholas Lake	Drill Core	Mineralized Granodiorite	238	242	9.8	<0.01	0.83	7.3	0.18	<0.01	0.18	5.6	1.7	1.3	uncertain
				MINIMUM		9.0	<0.01	0.83	7.3	0.14	<0.01	0.14	4.4	-1.0	0.90	
				MAXIMUM		9.8	0.04	3.3	11	0.33	<0.01	0.33	10	3.4	1.8	
				MEDIAN		9.6	nc	nc	8.7	0.31	nc	0.31	9.7	1.1	1.1	
				AVERAGE		9.5	nc	nc	9.0	0.26	nc	0.26	8.0	1.0	1.2	
				STANDARD DEVIATION		0.29	nc	nc	1.3	0.08	nc	0.08	2.4	1.8	0.33	
				75TH PERCENTILE		9.7	nc	nc	10	0.31	nc	0.31	9.7	2.4	1.4	

ABA Results
Yellowknife Gold Project
Tyhee NWT Corp.

SAMPLE NUMBER	LOCATION	SAMPLE TYPE	ROCK TYPE	SAMPLE INTERVAL		Paste pH	TIC	CaNP	Sobek NP	S(T)	S(SO4)	S(S-2)	AP	Net NP	NPR	ARD Potential
				TO	FROM	units	%	tCaCO3/1000t	%	%	%	tCaCO3/1000t				
BULK ARD POTENTIAL Quartz Vein and Fracture Zone																
70866	Nicholas Lake	Drill Core	Fracture Zone	239	241	8.8	0.03	2.5	13	0.94	<0.01	0.94	29	-16	0.45	PAG
70867	Nicholas Lake	Drill Core	Quartz Vein	145.5	146	8.6	0.01	0.83	13	0.16	<0.01	0.16	5.0	7.9	2.6	uncertain
70873	Nicholas Lake	Drill Core	Quartz Vein	144	145	9.1	0.02	1.7	3.8	0.50	<0.01	0.50	16	-12	0.24	PAG
70874	Nicholas Lake	Drill Core	Quartz Vein	170	171	6.1	<0.01	0.83	2.6	3.2	<0.01	3.2	101	-98	0.026	PAG
70879	Nicholas Lake	Drill Core	Quartz Vein	118	122	9.4	<0.01	0.83	11	0.86	<0.01	0.86	27	-16	0.41	PAG
78207	Nicholas Lake	Drill Core	Quartz Vein	239	242	8.1	<0.01	0.83	2.7	0.040	<0.01	0.040	1.3	1.5	2.2	uncertain
				MINIMUM		6.1	<0.01	0.83	2.6	0.040	<0.01	0.040	1.3	-98	0.026	
				MAXIMUM		9.4	0.03	2.5	13	3.2	<0.01	3.2	101	7.9	2.6	
				MEDIAN		8.7	0.01	0.83	7.4	0.68	nc	0.68	21	-14	0.43	
				AVERAGE		8.3	0.02	1.2	7.7	0.96	nc	0.96	30	-22	0.98	
				STANDARD DEVIATION		1.2	0.008	0.70	5.2	1.2	nc	1.2	37	39	1.1	
				75TH PERCENTILE		9.0	0.02	1.5	12	0.92	nc	0.92	29	-1.9	1.7	
BULK ARD POTENTIAL Unmineralized Granodiorite																
70871	Nicholas Lake	Drill Core	Unmineralized Granodiorite	129	132	9.4	0.03	2.5	10	0.18	<0.01	0.18	5.6	4.1	1.7	uncertain
70877	Nicholas Lake	Drill Core	Unmineralized Granodiorite	166	170	9.4	0.04	3.3	15	0.25	<0.01	0.25	7.8	7.2	1.9	uncertain
70878	Nicholas Lake	Drill Core	Unmineralized Granodiorite	23	28	9.9	0.02	1.7	10	0.10	<0.01	0.10	3.1	6.6	3.1	non PAG
70880	Nicholas Lake	Drill Core	Unmineralized Granodiorite	148	153	9.7	0.01	0.83	11	0.29	<0.01	0.29	9.1	2.3	1.3	uncertain
70884	Nicholas Lake	Drill Core	Unmineralized Granodiorite	273	276	9.3	<0.01	0.8	13	0.35	<0.01	0.35	11	2.3	1.2	uncertain
70886	Nicholas Lake	Drill Core	Unmineralized Granodiorite	34	39	9.6	0.01	0.83	11	0.13	<0.01	0.13	4.1	6.8	2.7	uncertain
70887	Nicholas Lake	Drill Core	Unmineralized Granodiorite	63.5	68.5	9.4	0.01	0.83	11	0.13	<0.01	0.13	4.1	6.9	2.7	uncertain
70888	Nicholas Lake	Drill Core	Unmineralized Granodiorite	97	102	9.4	0.03	2.5	12	0.22	<0.01	0.22	6.9	5.2	1.8	uncertain
70893	Nicholas Lake	Drill Core	Unmineralized Granodiorite	149.5	154.5	9.0	<0.01	0.83	8.8	0.22	<0.01	0.22	6.9	1.9	1.3	uncertain
70894	Nicholas Lake	Drill Core	Unmineralized Granodiorite	77	81	9.2	<0.01	0.83	8.0	0.17	<0.01	0.17	5.3	2.7	1.5	uncertain
70895	Nicholas Lake	Drill Core	Unmineralized Granodiorite	148	153	8.8	0.01	0.83	10	0.21	<0.01	0.21	6.6	3.7	1.6	uncertain
70896	Nicholas Lake	Drill Core	Unmineralized Granodiorite	166	170	8.9	<0.01	0.83	13	0.17	<0.01	0.17	5.3	7.2	2.4	uncertain
78202	Nicholas Lake	Drill Core	Unmineralized Granodiorite	144	149	9.5	<0.01	0.83	12	0.26	<0.01	0.26	8.1	4.0	1.5	uncertain
78203	Nicholas Lake	Drill Core	Unmineralized Granodiorite	193	197.5	9.8	<0.01	0.83	12	0.13	<0.01	0.13	4.1	7.4	2.8	uncertain
78209	Nicholas Lake	Drill Core	Unmineralized Granodiorite	215	219	9.8	<0.01	0.83	13	0.32	<0.01	0.32	10	3.4	1.3	uncertain
78211	Nicholas Lake	Drill Core	Unmineralized Granodiorite	231	235	9.8	<0.01	0.83	11	0.19	<0.01	0.19	5.9	5.4	1.9	uncertain
78213	Nicholas Lake	Drill Core	Unmineralized Granodiorite	266	273	9.4	0.03	2.5	13	0.26	<0.01	0.26	8.1	4.9	1.6	uncertain
78214	Nicholas Lake	Drill Core	Unmineralized Granodiorite	290	296	9.5	<0.01	0.83	12	0.22	<0.01	0.22	6.9	5.4	1.8	uncertain
78216	Nicholas Lake	Drill Core	Unmineralized Granodiorite	133	137	9.6	<0.01	0.83	8.2	0.97	<0.01	0.97	30	-22	0.27	PAG
78217	Nicholas Lake	Drill Core	Unmineralized Granodiorite	149.5	154	9.4	<0.01	0.83	9.0	0.18	<0.01	0.18	5.6	3.4	1.6	uncertain
70900	Nicholas Lake	Drill Core	Unmineralized Granite	301	306	8.8	<0.01	0.83	10	0.080	<0.01	0.080	2.5	7.2	3.9	non PAG
				MINIMUM		8.8	<0.01	0.83	8.0	0.080	<0.01	0.080	2.5	-22	0.27	
				MAXIMUM		9.9	0.04	3.3	15	0.97	<0.01	0.97	30	7.4	3.9	
				MEDIAN		9.4	0.01	0.83	11	0.21	nc	0.21	6.6	4.9	1.7	
				AVERAGE		9.4	0.01	1.2	11	0.24	nc	0.24	7.5	3.6	1.9	
				STANDARD DEVIATION		0.32	0.009	0.77	1.9	0.18	nc	0.18	5.7	6.2	0.79	
				75TH PERCENTILE		9.6	0.01	0.83	12	0.26	nc	0.26	8.1	6.8	2.4	
BULK ARD POTENTIAL Granodiorite																
NL-1	Nicholas Lake	Waste Rock Dump	Granodiorite	-	-	9.0	0.05	4.2	10	0.60	0.020	0.58	18	-8.5	0.53	PAG
NL-2	Nicholas Lake	Waste Rock Dump	Granodiorite	-	-	9.3	0.02	1.7	10	0.37	<0.01	0.37	12	-1.9	0.84	PAG
NL-3	Nicholas Lake	Waste Rock Dump	Granodiorite	-	-	5.6	<0.01	0.83	4.0	1.7	0.25	1.5	46	-42	0.086	PAG
				MINIMUM		5.6	<0.01	0.83	4.0	0.37	<0.01	0.37	12	-42	0.086	
				MAXIMUM		9.3	0.05	4.2	10	1.7	0.25	1.5	46	-1.9	0.84	
				MEDIAN		9.0	0.02	1.7	10	0.60	nc	0.58	18	-8.5	0.53	
				AVERAGE		8.0	0.03	nc	7.8	0.90	nc	0.81	25	-18	0.49	
				STANDARD DEVIATION		2.1	0.02	nc	3.3	0.73	nc	0.59	18	22	0.38	
				75TH PERCENTILE		9.2	0.04	nc	10	1.2	nc	1.0	32	-5.2	0.68	

Notes:

carbonate neutralization potential (CaNP), neutralization potential (NP) acid potential (AP), and Net NP reported in t CaCO3 per 1000 t

S(T)=total sulphur; S(SO4)=sulphate sulphur; S(S-2)=sulphide sulphur; TIC=total inorganic carbon

1- lithology code provided by Comaplex

2- ARD potential based on INAC (1992)

Appendix B-3: Nicholas Lake Waste Rock
Trace Metals Results
Yellowknife Gold Project
Tyhee NWT Corp.

				Typical Crustal Abundance (ug/g) (Price, 1997)1		0.075	82300	1.8	425	3	0.0085	41500	0.15	25	102	60	56300	0.085	20850	39	23300
				Typical Crustal Abundance (ug/g) x5		0.375	411500	9	2125	15	0.0425	207500	0.75	125	510	300	281500	0.425	104250	195	116500
SAMPLE NUMBER	LOCATION	SAMPLE TYPE	ROCK TYPE	SAMPLE INTERVAL		Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Hg	K	La	Mg
				TO	FROM	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
70868	Nicholas Lake	Drill Core	Meta-pelite	198	203	<0.2	24700	257	160	0.60	<5	1800	1.0	26	178	42	44900	<1	10400	18	15500
70869	Nicholas Lake	Drill Core	Meta-pelite	47	52	<0.2	32900	41	309	0.50	<5	1500	2.0	30	204	62	54700	<1	14800	15	19100
70870	Nicholas Lake	Drill Core	Meta-pelite	92	97	<0.2	36200	91	234	0.70	<5	1500	2.0	36	200	87	61700	<1	17400	25	21700
70882	Nicholas Lake	Drill Core	Meta-pelite	70	70.5	<0.2	18000	80	19	<0.5	<5	2000	2.0	34	269	<1	44900	<1	500	35	13600
70883	Nicholas Lake	Drill Core	Meta-pelite	255	260	<0.2	33500	299	267	0.50	<5	1400	2.0	29	194	53	58800	<1	15900	10	21000.0
70892	Nicholas Lake	Drill Core	Meta-pelite	10	15	<0.2	25600	29	229	0.50	<5	1200	2.0	23	239	26	46400	<1	9600	14	15300
70899	Nicholas Lake	Drill Core	Meta-pelite	278	284	<0.2	27300	41	136	<0.5	<5	1700	2.0	27	177	38	52600	<1	6700	12	20400
78208	Nicholas Lake	Drill Core	Meta-pelite	193	197	<0.2	28500	31	251	0.60	<5	1100	2.0	27	212	43	50700	<1	13300	14	17200
78215	Nicholas Lake	Drill Core	Meta-pelite	78	82	<0.2	31000	124	220	<0.5	<5	1700	2.0	34	191	49	53300	<1	18200	13	17400
				MINIMUM		<0.2	18000	29	19	<0.5	<5	1100	1.0	23	177	<1	44900	<1	500	10	13600
				MAXIMUM		<0.2	36200	299	309	0.70	<5	2000	2.0	36	269	87	61700	<1	18200	35	21700
				MEDIAN		nc	28500	80	229	0.50	nc	1500	2.0	29	200	43	52600	nc	13300	14	17400
				AVERAGE		nc	28633	110	203	0.54	nc	1544	1.9	30	207	45	52000	nc	11867	17	17911
				STANDARD DEVIATION		nc	5526	101	86	0.073	nc	288	0.33	4.3	30	24	5953	nc	5710	7.9	2817
				75TH PERCENTILE		nc	32900	124	251	0.60	nc	1700	2.0	34	212	53	54700	nc	15900	18	20400
70875	Nicholas Lake	Drill Core	Meta-wacke	219	223	<0.2	22200	168	132	<0.5	<5	1500	2.0	26	278	23	44200	<1	6400	20	14900
70885	Nicholas Lake	Drill Core	Meta-wacke	379	383	<0.2	25700	207	131	<0.5	<5	3500	2.0	33	199	45	52100	<1	8300	23	18200
70889	Nicholas Lake	Drill Core	Meta-wacke	280	285	<0.2	17800	242	49	0.80	<5	2700	1.0	22	202	101	40000	<1	1500	21	20400
70891	Nicholas Lake	Drill Core	Meta-wacke	352	357	2.0	17100	370	36	0.50	<5	6400	2.0	26	206	129	40900	<1	1500	17	17500
70898	Nicholas Lake	Drill Core	Meta-wacke	223.5	227.5	<0.2	28600	1107	146	0.90	<5	1500	2.0	27	155	48	54000	<1	13900	19	19600
78201	Nicholas Lake	Drill Core	Meta-wacke	62	67	<0.2	21100	19	172	<0.5	<5	2600	2.0	26	240	55	42600	<1	6700	21	14300
78205	Nicholas Lake	Drill Core	Meta-wacke	222	226	<0.2	22400	154	213	<0.5	<5	1400	2.0	32	211	54	46400	<1	13100	18	16200
78206	Nicholas Lake	Drill Core	Meta-wacke	163	168	<0.2	21400	32	122	<0.5	<5	2100	2.0	27	225	26	42200	<1	8400	15	14400
78210	Nicholas Lake	Drill Core	Meta-wacke	221	224	<0.2	28800	1064	336	<0.5	<5	1700	2.0	30	217	78	54900	<1	18200	16	20500
				MINIMUM		<0.2	17100	19	36	<0.5	<5	1400	1.0	22	155	23	40000	<1	1500	15	14300
				MAXIMUM		2.0	28800	1107	336	0.90	<5	6400	2.0	33	278	129	54900	<1	18200	23	20500
				MEDIAN		nc	22200	207	132	0.50	nc	2100	2.0	27	211	54	44200	nc	8300	19	17500
				AVERAGE		nc	22789	374	149	0.58	nc	2600	1.9	28	215	62	46367	nc	8667	19	17333
				STANDARD DEVIATION		nc	4197	417	89	0.16	nc	1588	0.33	3.4	33	35	5816	nc	5589	2.6	2509
				75TH PERCENTILE		nc	25700	370	172	0.50	nc	2700	2.0	30	225	78	52100	nc	13100	21	19600
70872	Nicholas Lake	Drill Core	Mineralized Granodiorite	140	144	0.5	5000	4046	15	<0.5	<5	1300	4.0	4.0	152	38	15600	<1	1300	<10	3500
70876	Nicholas Lake	Drill Core	Mineralized Granodiorite	132	137	1.2	5100	3356	18	<0.5	<5	1100	17.0	4.0	184	7	14900	<1	1600	<10	3400
70881	Nicholas Lake	Drill Core	Mineralized Granodiorite	45	47	0.5	3500	1949	11	<0.5	<5	800	9.0	2.0	214	<1	9600	<1	600	<10	2500
70890	Nicholas Lake	Drill Core	Mineralized Granodiorite	339	341	0.6	5300	4984	11	<0.5	<5	1400	<1	3.0	201	11	17600	<1	700	<10	3800
70897	Nicholas Lake	Drill Core	Mineralized Granodiorite	210	215	0.3	17500	445	118	<0.5	<5	1600	1.0	16	161	20	33800	<1	9600	13	11200
78204	Nicholas Lake	Drill Core	Mineralized Granodiorite	198	203	4.6	5600	2076	21	<0.5	13	800	2.0	5.0	134	54	15700	<1	2300	<10	3800
78212	Nicholas Lake	Drill Core	Mineralized Granodiorite	238	242	<0.2	4800	3393	17	<0.5	<5	900	<1	3.0	136	1.0	12800	<1	1600	<10	3400
				MINIMUM		<0.2	3500	445	11	<0.5	<5	800	<1	2.0	134	<1	9600	<1	600	<10	2500
				MAXIMUM		4.6	17500	4984	118	<0.5	13	1600	17	16	214	54	33800	<1	9600	13	11200
				MEDIAN		0.50	5100	3356	17	nc	nc	1100	2.0	4.0	161	11	15600	nc	1600	nc	3500
				AVERAGE		1.1	6686	2893	30	nc	nc	1129	5.0	5.3	169	19	17143	nc	2529	nc	4514
				STANDARD DEVIATION		1.6	4815	1512	39	nc	nc	315	6.0	4.8	31	20	7777	nc	3172	nc	2980
				75TH PERCENTILE		0.9	5450	3720	20	nc	nc	1350	6.5	4.5	193	29	16650	nc	1950	nc	3800

Appendix B-3: Nicholas Lake Waste Rock
Trace Metals Results
Yellowknife Gold Project
Tyhee NWT Corp.

			Typical Crustal Abundance (ug/g) (Price, 1997)1	950	1.2	23550	84	1050	14	350	0.2	22	0.05	370	1.2	5650	0.85	2.7	120	1.25	70	165		
			Typical Crustal Abundance (ug/g) x5	4750	6	117750	420	5250	70	1750	1	110	0.25	1850	6	28250	4.25	13.5	600	6.25	350	825		
SAMPLE NUMBER	LOCATION	SAMPLE TYPE	ROCK TYPE	SAMPLE INTERVAL		Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Se	Sr	Th	Ti	Tl	U	V	W	Zn	Zr
				TO	FROM	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
70868	Nicholas Lake	Drill Core	Meta-pelite	198	203	369	<2	300	73	615	10	3200	<5	8.0	0.1	7.0	6.0	1400	<10	16	81	26	62	7.0
70869	Nicholas Lake	Drill Core	Meta-pelite	47	52	458	<2	400	88	445	18	1800	<5	13	<0.1	6.0	<5	2000	<10	13	118	<10	154	6.0
70870	Nicholas Lake	Drill Core	Meta-pelite	92	97	472	15	300	104	661	19	4000	<5	11	0.1	7.0	<5	2100	<10	22	117	<10	89	8.0
70882	Nicholas Lake	Drill Core	Meta-pelite	70	70.5	358	3.0	300	67	472	14	7900	8.0	5.0	0.4	5.0	10	300	<10	33	65	<10	41	12
70883	Nicholas Lake	Drill Core	Meta-pelite	255	260	409	3.0	300	96	577	20	3400	<5	10	0.1	5.0	<5	1900	<10	<10	108	<10	66	5.0
70892	Nicholas Lake	Drill Core	Meta-pelite	10	15	323	2.0	400	75	485	13	1400	5.0	11	0.1	5.0	<5	1300	<10	13	101	<10	55	7.0
70899	Nicholas Lake	Drill Core	Meta-pelite	278	284	422	<2	200	87	605	11	2900	<5	8.0	0.2	5.0	5.0	900	<10	10	91	<10	72	6.0
78208	Nicholas Lake	Drill Core	Meta-pelite	193	197	337	2.0	300	83	398	13	2600	<5	11	0.1	7.0	5.0	1600	<10	13	102	<10	60	4.0
78215	Nicholas Lake	Drill Core	Meta-pelite	78	82	385	3.0	300	95	544	14	1900	<5	11	<0.1	4.0	<5	2200	<10	11	110	<10	79	6.0
					MINIMUM	323	<2	200	67	398	10	1400	<5	5.0	<0.1	4.0	<5	300	<10	<10	65	<10	41	4.0
					MAXIMUM	472	15	400	104	661	20	7900	8.0	13	0.4	7.0	10	2200	<10	33	118	26	154	12
					MEDIAN	385	2.0	300	87	544	14	2900	nc	11	0.1	5.0	5.0	1600	nc	13	102	nc	66	6.0
					AVERAGE	393	3.8	311	85	534	15	3233	nc	10	0.1	5.7	5.7	1522	nc	16	99	nc	75	6.8
					STANDARD DEVIATION	52	4.2	60	12	88	4	1940	nc	2.4	0.1	1.1	1.7	624	nc	7.5	17	nc	33	2.3
					75TH PERCENTILE	422	3.0	300	95	605	18	3400	nc	11	0.1	7.0	5.0	2000	nc	16	110	nc	79	7.0
70875	Nicholas Lake	Drill Core	Meta-wacke	219	223	336	3.0	400	72	378	19	2900	5.0	10	0.1	5.0	7.0	1100	<10	19	99	<10	58	7.0
70885	Nicholas Lake	Drill Core	Meta-wacke	379	383	575	<2	200	90	635	17	4600	<5	7.0	0.2	6.0	8.0	1800	<10	21	86	<10	91	7.0
70889	Nicholas Lake	Drill Core	Meta-wacke	280	285	284	3.0	400	68	362	14	5900	<5	5.0	0.2	11	5.0	400	<10	19	62	<10	31	13
70891	Nicholas Lake	Drill Core	Meta-wacke	352	357	404	11	300	65	412	86	11400	5.0	4.0	0.6	6.0	5.0	500	<10	15	49	<10	68	7.0
70898	Nicholas Lake	Drill Core	Meta-wacke	223.5	227.5	458	6.0	200	87	535	16	4900	<5	7.0	0.1	5.0	5.0	1700	<10	17	78	<10	74	7.0
78201	Nicholas Lake	Drill Core	Meta-wacke	62	67	402	5.0	300	71	449	17	4400	<5	9.0	0.3	5.0	7.0	800	<10	19	90	<10	68	7.0
78205	Nicholas Lake	Drill Core	Meta-wacke	222	226	454	2.0	300	83	380	22	4600	<5	9.0	0.2	4.0	8.0	2100	<10	16	89	<10	87	7.0
78206	Nicholas Lake	Drill Core	Meta-wacke	163	168	374	3.0	300	66	473	11	4700	<5	8.0	0.2	6.0	6.0	1400	<10	13	83	<10	62	5.0
78210	Nicholas Lake	Drill Core	Meta-wacke	221	224	450	3.0	400	87	401	12	4600	<5	13	0.1	4.0	5.0	2200	<10	14	137	<10	97	5.0
					MINIMUM	284	<2	200	65	362	11	2900	<5	4.0	0.1	4.0	5.0	400	<10	13	49	<10	31	5.0
					MAXIMUM	575	11	400	90	635	86	11400	5.0	13	0.6	11	8.0	2200	<10	21	137	<10	97	13
					MEDIAN	404	3.0	300	72	412	17	4600	nc	8.0	0.2	5.0	6.0	1400	nc	17	86	nc	68	7.0
					AVERAGE	415	4.2	311	77	447	24	5333	nc	8.0	0.2	5.8	6.2	1333	nc	17	86	nc	71	7.2
					STANDARD DEVIATION	83	2.9	78	10	89	24	2401	nc	2.7	0.2	2.1	1.3	671	nc	2.7	25	nc	20	2.3
					75TH PERCENTILE	454	5.0	400	87	473	19	4900	nc	9.0	0.2	6.0	7.0	1800	nc	19	90	nc	87	7.0
70872	Nicholas Lake	Drill Core	Mineralized Granodiorite	140	144	235	3.0	500	8.0	184	88	3100	<5	1.0	0.1	5.0	<5	300	<10	<10	13	13	267	4.0
70876	Nicholas Lake	Drill Core	Mineralized Granodiorite	132	137	214	3.0	400	8.0	161	262	3300	<5	1.0	<0.1	4.0	<5	400	<10	<10	14	<10	1157	4.0
70881	Nicholas Lake	Drill Core	Mineralized Granodiorite	45	47	143	4.0	300	6.0	112	76	1500	5.0	1.0	<0.1	2.0	<5	100	<10	<10	7.0	221	484	2.0
70890	Nicholas Lake	Drill Core	Mineralized Granodiorite	339	341	155	3.0	400	7.0	130	82	3300	6.0	1.0	0.1	4.0	<5	100	<10	<10	12	106	49	4.0
70897	Nicholas Lake	Drill Core	Mineralized Granodiorite	210	215	312	3.0	300	48	450	26	2300	<5	5.0	0.1	4.0	10	1300	<10	11	50	<10	63	10
78204	Nicholas Lake	Drill Core	Mineralized Granodiorite	198	203	253	2.0	400	8.0	173	609	2900	<5	1.0	0.2	3.0	<5	300	<10	<10	11	<10	134	4.0
78212	Nicholas Lake	Drill Core	Mineralized Granodiorite	238	242	222	8.0	400	7.0	129	16	1900	<5	1.0	<0.1	2.0	<5	200	<10	<10	9.0	38	49	4.0
					MINIMUM	143	2.0	300	6.0	112	16	1500	<5	1.0	<0.1	2.0	<5	100	<10	<10	7.0	<10	49	2.0
					MAXIMUM	312	8.0	500	48	450	609	3300	6.0	5.0	0.2	5.0	10	1300	<10	11	50	221	1157	10
					MEDIAN	222	3.0	400	8.0	161	82	2900	nc	1.0	0.1	4.0	nc	300	nc	nc	12	13	134	4.0
					AVERAGE	219	3.7	386	13	191	166	2614	nc	1.6	0.1	3.4	nc	386	nc	nc	17	58	315	4.6
					STANDARD DEVIATION	58	2.0	69	15	117	212	720	nc	1.5	0.0	1.1	nc	418	nc	nc	15	80	404	2.5
					75TH PERCENTILE	244	3.5	400	8.0	179	175	3200	nc	1.0	0.1	4.0	nc	350	nc	nc	14	72	376	4.0

Appendix B-3: Nicholas Lake Waste Rock
Trace Metals Results
Yellowknife Gold Project
Tyhee NWT Corp.

				Typical Crustal Abundance (ug/g) (Price, 1997)1		0.075	82300	1.8	425	3	0.0085	41500	0.15	25	102	60	56300	0.085	20850	39	23300
				Typical Crustal Abundance (ug/g) x5		0.375	411500	9	2125	15	0.0425	207500	0.75	125	510	300	281500	0.425	104250	195	116500
SAMPLE NUMBER	LOCATION	SAMPLE TYPE	ROCK TYPE	SAMPLE INTERVAL		Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Hg	K	La	Mg
				TO	FROM	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
70866	Nicholas Lake	Drill Core	Fracture Zone	239	241	<0.2	16300	8304	120	0.60	<5	2700	<1	30	191	42	37700	<1	5600	10	13700
70867	Nicholas Lake	Drill Core	Quartz Vein	145.5	146	<0.2	27900	51	194	<0.5	<5	2700	2.0	21	199	42	45200	<1	9200	14	15300
70873	Nicholas Lake	Drill Core	Quartz Vein	144	145	1.9	1400	>10000	<10	<0.5	<5	400	1.0	2.0	196	17	14600	<1	300	<10	900
70874	Nicholas Lake	Drill Core	Quartz Vein	170	171	5.1	1500	>10000	<10	<0.5	30	100	9.0	8.0	271	177	47200	<1	100	<10	900
70879	Nicholas Lake	Drill Core	Quartz Vein	118	122	0.5	4000	>10000	<10	0.50	<5	1900	1.0	4.0	178	9.0	24200	<1	700	<10	2700
78207	Nicholas Lake	Drill Core	Quartz Vein	239	242	<0.2	1100	6.0	<10	<0.5	<5	400	<1	1.0	281	2.0	4200	<1	300	<10	400
				MINIMUM		<0.2	1100	6.0	<10	<0.5	<5	100	<1	1.0	178	2.0	4200	<1	100	<10	400
				MAXIMUM		5.1	27900	>10000	194	0.60	30	2700	9.0	30	281	177	47200	<1	9200	14	15300
				MEDIAN		0.4	2750	51	10	nc	nc	1150	1.0	6.0	198	30	30950	nc	500	nc	1800
				AVERAGE		1.4	8700	2787	59	nc	nc	1367	2.5	11	219	48	28850	nc	2700	nc	5650
				STANDARD DEVIATION		2.0	11058	4778	79	nc	nc	1209	3.2	12	45	65	17405	nc	3819	nc	6918
				75TH PERCENTILE		1.6	13225	4178	93	nc	nc	2500	1.8	18	253	42	43325	nc	4375	nc	10950
70871	Nicholas Lake	Drill Core	Unmineralized Granodiorite	129	132	<0.2	6200	1445	29	<0.5	<5	1500	<1	5.0	135	14	15100	<1	2200	<10	3800
70877	Nicholas Lake	Drill Core	Unmineralized Granodiorite	166	170	0.6	8200	4838	23	<0.5	<5	2900	<1	3.0	130	35	18300	<1	700	<10	6800
70878	Nicholas Lake	Drill Core	Unmineralized Granodiorite	23	28	0.2	6100	698	47	<0.5	<5	1200	1.0	4.0	179	<1	14300	1	2800	<10	3700
70880	Nicholas Lake	Drill Core	Unmineralized Granodiorite	148	153	<0.2	5900	1682	27	<0.5	<5	1600	<1	4.0	153	<1	16400	<1	2000	<10	4100
70884	Nicholas Lake	Drill Core	Unmineralized Granodiorite	273	276	<0.2	9200	1008	53	<0.5	<5	1100	1.0	8.0	150	17	20900	<1	1700	<10	8100
70886	Nicholas Lake	Drill Core	Unmineralized Granodiorite	34	39	0.2	6000	1137	26	<0.5	<5	1600	<1	4.0	146	<1	13600	<1	1200	<10	4200
70887	Nicholas Lake	Drill Core	Unmineralized Granodiorite	63.5	68.5	<0.2	6700	257	21	<0.5	<5	2100	1.0	5.0	161	<1	15200	<1	1500	<10	4700
70888	Nicholas Lake	Drill Core	Unmineralized Granodiorite	97	102	0.4	7000	3101	17	<0.5	<5	2200	<1	4.0	145	<1	17300	<1	1000	<10	5800
70893	Nicholas Lake	Drill Core	Unmineralized Granodiorite	149.5	154.5	0.3	5900	2322	26	<0.5	<5	1700	1.0	4.0	164	8.0	15500	<1	2000	<10	4000
70894	Nicholas Lake	Drill Core	Unmineralized Granodiorite	77	81	0.3	7100	480	64	<0.5	<5	700	1.0	5.0	189	11	16500	<1	3500	<10	4000
70895	Nicholas Lake	Drill Core	Unmineralized Granodiorite	148	153	0.3	6200	1641	19	<0.5	<5	2100	1.0	4.0	153	<1	14800	<1	900	<10	4800
70896	Nicholas Lake	Drill Core	Unmineralized Granodiorite	166	170	0.2	6800	750	25	<0.5	<5	2000	7.0	4.0	158	<1	15500	<1	1500	<10	5100
78202	Nicholas Lake	Drill Core	Unmineralized Granodiorite	144	149	<0.2	6000	769	20	<0.5	<5	1600	1.0	9.0	138	10	16600	<1	1800	<10	4000
78203	Nicholas Lake	Drill Core	Unmineralized Granodiorite	193	197.5	<0.2	5600	1761	20	<0.5	<5	900	1.0	4.0	130	5.0	13800	<1	2700	<10	3600
78209	Nicholas Lake	Drill Core	Unmineralized Granodiorite	215	219	<0.2	14100	206	80	<0.5	<5	5900	1.0	4.0	124	24	21200	<1	4200	<10	6700
78211	Nicholas Lake	Drill Core	Unmineralized Granodiorite	231	235	<0.2	5700	2523	34	<0.5	<5	1100	<1	5.0	122	5.0	14400	<1	3000	<10	3700
78213	Nicholas Lake	Drill Core	Unmineralized Granodiorite	266	273	<0.2	7000	802	24	<0.5	<5	3000	1.0	8.0	138	11	17600	<1	1600	<10	5000
78214	Nicholas Lake	Drill Core	Unmineralized Granodiorite	290	296	<0.2	5800	845	19	<0.5	<5	1800	1.0	5.0	150	9.0	15300	<1	1600	<10	4500
78216	Nicholas Lake	Drill Core	Unmineralized Granodiorite	133	137	7.6	6200	>10000	23	<0.5	14	800	7.0	8.0	143	38	28700	<1	2200	<10	4000
78217	Nicholas Lake	Drill Core	Unmineralized Granodiorite	149.5	154	<0.2	6200	1206	12	<0.5	<5	900	<1	3.0	144	2.0	15500	<1	600	<10	4500
70900	Nicholas Lake	Drill Core	Unmineralized Granite	301	306	<0.2	7200	6.0	16	<0.5	<5	1600	<1	3.0	119	<1	15900	<1	1000	13	5700
				MINIMUM		<0.2	5600	6.0	12	<0.5	<5	700	<1	3.0	119	<1	13600	<1	600	<10	3600
				MAXIMUM		7.6	14100	>10000	80	<0.5	14	5900	7.0	9.0	189	38	28700	1	4200	<10	8100
				MEDIAN		0.2	6200	1073	24	nc	nc	1600	1.0	4.0	145	5.0	15500	nc	1700	nc	4500
				AVERAGE		0.6	6910	1374	30	nc	nc	1824	1.6	4.9	146	9.4	16781	nc	1890	nc	4800
				STANDARD DEVIATION		1.6	1865	1143	17	nc	nc	1124	1.8	1.8	18	11	3391	nc	935	nc	1202
				75TH PERCENTILE		0.3	7000	1702	29	nc	nc	2100	1.0	5.0	153	11	17300	nc	2200	nc	5100
NL-1	Nicholas Lake	Waste Rock Dump	Granodiorite	-	-	1.9	5300	2969	20	<1	1.3	1600	1.6	6.2	128	50	16000	1.5	1100	6.0	4000
NL-2	Nicholas Lake	Waste Rock Dump	Granodiorite	-	-	0.9	8600	2258	39	<1	1.1	2900	4.2	9.1	135	50	19800	44	1600	13	6300
NL-3	Nicholas Lake	Waste Rock Dump	Granodiorite	-	-	14	3600	9612	13	<1	13	900	92	5.2	222	211	25700	6.3	700	3.0	2100
				MINIMUM		0.9	3600	2258	13	<1	1.1	900	1.6	5.2	128	50	16000	1.5	700	3.0	2100
				MAXIMUM		14	8600	9612	39	<1	13	2900	92	9.1	222	211	25700	44	1600	13	6300
				MEDIAN		1.9	5300	2969	20	nc	1.3	1600	4.2	6.2	135	50	19800	6.3	1100	6.0	4000
				AVERAGE		5.5	5833	4946	24	nc	5.1	1800	33	6.8	162	103	20500	17	1133	7.3	4133
				STANDARD DEVIATION		7.1	2542	4056	13	nc	6.8	1015	51	2.0	52	93	4888	23	451	5.1	2103
				75TH PERCENTILE		7.8	6950	6290	30	nc	7.1	2250	48	7.7	179	130	22750	25	1350	10	5150

Appendix B-3: Nicholas Lake Waste Rock
Trace Metals Results
Yellowknife Gold Project
Tyhee NWT Corp.

				Typical Crustal Abundance (ug/g) (Price, 1997)1		950	1.2	23550	84	1050	14	350	0.2	22	0.05	370	1.2	5650	0.85	2.7	120	1.25	70	165
				Typical Crustal Abundance (ug/g) x5		4750	6	117750	420	5250	70	1750	1	110	0.25	1850	6	28250	4.25	13.5	600	6.25	350	825
SAMPLE NUMBER	LOCATION	SAMPLE TYPE	ROCK TYPE	SAMPLE INTERVAL		Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Se	Sr	Th	Ti	Tl	U	V	W	Zn	Zr
				TO	FROM	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
70866	Nicholas Lake	Drill Core	Fracture Zone	239	241	287	2.0	500	104	439	17	9400	<5	5.0	0.1	14	5.0	1100	<10	<10	59	<10	54	9.0
70867	Nicholas Lake	Drill Core	Quartz Vein	145.5	146	308	3.0	300	84	1049	10	1600	<5	9.0	0.1	12	<5	1000	<10	12	83	<10	36	6.0
70873	Nicholas Lake	Drill Core	Quartz Vein	144	145	61	4.0	200	7.0	45	93	4900	8.0	<1	0.1	2.0	<5	100	<10	<10	2.0	112	172	2.0
70874	Nicholas Lake	Drill Core	Quartz Vein	170	171	47	4.0	100	11	66	653	31100	15	<1	0.1	2.0	<5	100	<10	<10	1.0	28	742	3.0
70879	Nicholas Lake	Drill Core	Quartz Vein	118	122	188	3.0	300	8.0	756	112	8700	6.0	<1	0.1	2.0	<5	100	<10	<10	6.0	<10	104	3.0
78207	Nicholas Lake	Drill Core	Quartz Vein	239	242	26	5.0	100	9.0	44	3.0	500	7.0	<1	0.1	1.0	<5	100	<10	<10	<1	<10	3.0	1.0
				MINIMUM		26	2.0	100	7.0	44	3.0	500	<5	<1	0.1	1.0	<5	100	<10	<10	<1	<10	3.0	1.0
				MAXIMUM		308	5.0	500	104	1049	653	31100	15	9.0	0.1	14	5.0	1100	<10	12	83	112	742	9.0
				MEDIAN		125	3.5	250	10	253	55	6800	6.5	1.0	0.1	2.0	nc	100	nc	nc	4.0	nc	79	3.0
				AVERAGE		153	3.5	250	37	400	148	9367	7.7	3.0	0.1	5.5	nc	417	nc	nc	25	nc	185	4.0
				STANDARD DEVIATION		126	1.0	152	44	427	252	11240	3.8	3.3	0.0	5.9	nc	492	nc	nc	36	nc	279	3.0
				75TH PERCENTILE		262	4.0	300	66	677	107	9225	7.8	4.0	0.1	10	nc	775	nc	nc	46	nc	155	5.3
70871	Nicholas Lake	Drill Core	Unmineralized Granodiorite	129	132	228	2.0	500	8.0	211	19	1800	<5	2.0	0.1	7.0	<5	500	<10	<10	16	79	72	4.0
70877	Nicholas Lake	Drill Core	Unmineralized Granodiorite	166	170	228	2.0	500	7.0	399	69	2600	<5	1.0	<0.1	5.0	<5	100	<10	<10	18	93	107	4.0
70878	Nicholas Lake	Drill Core	Unmineralized Granodiorite	23	28	227	4.0	500	8.0	160	15	1000	<5	2.0	0.1	4.0	<5	500	<10	<10	15	<10	48	4.0
70880	Nicholas Lake	Drill Core	Unmineralized Granodiorite	148	153	247	3.0	500	7.0	223	61	2700	<5	2.0	0.1	4.0	<5	500	<10	<10	15	368	82	4.0
70884	Nicholas Lake	Drill Core	Unmineralized Granodiorite	273	276	137	3.0	400	23	172	8.0	3400	<5	2.0	0.1	5.0	<5	200	<10	<10	23	<10	40	6.0
70886	Nicholas Lake	Drill Core	Unmineralized Granodiorite	34	39	185	3.0	400	8.0	177	20	1200	<5	1.0	<0.1	5.0	<5	200	<10	<10	15	19	48	4.0
70887	Nicholas Lake	Drill Core	Unmineralized Granodiorite	63.5	68.5	239	3.0	400	8.0	198	50	1400	<5	1.0	0.1	5.0	<5	500	<10	<10	16	40	86	3.0
70888	Nicholas Lake	Drill Core	Unmineralized Granodiorite	97	102	260	2.0	500	8.0	241	60	2200	<5	2.0	<0.1	6.0	<5	200	<10	<10	16	328	83	3.0
70893	Nicholas Lake	Drill Core	Unmineralized Granodiorite	149.5	154.5	245	3.0	500	8.0	194	42	2300	<5	2.0	<0.1	6.0	<5	500	<10	<10	16	79	68	5.0
70894	Nicholas Lake	Drill Core	Unmineralized Granodiorite	77	81	216	11	400	15	143	9.0	1700	<5	2.0	0.1	4.0	<5	400	<10	<10	18	<10	36	5.0
70895	Nicholas Lake	Drill Core	Unmineralized Granodiorite	148	153	225	3.0	500	8.0	192	57	2200	<5	1.0	<0.1	7.0	<5	300	<10	<10	14	16	130	3.0
70896	Nicholas Lake	Drill Core	Unmineralized Granodiorite	166	170	245	3.0	500	7.0	201	40	1800	<5	2.0	<0.1	6.0	<5	500	<10	<10	16	51	127	3.0
78202	Nicholas Lake	Drill Core	Unmineralized Granodiorite	144	149	269	2.0	400	8.0	210	42	2500	<5	2.0	<0.1	4.0	<5	400	<10	<10	14	44	117	3.0
78203	Nicholas Lake	Drill Core	Unmineralized Granodiorite	193	197.5	242	2.0	500	7.0	129	29	1300	<5	1.0	<0.1	4.0	<5	400	<10	<10	11	<10	59	4.0
78209	Nicholas Lake	Drill Core	Unmineralized Granodiorite	215	219	356	2.0	700	8.0	222	8.0	2900	<5	1.0	0.1	15	<5	500	<10	<10	21	90	31	3.0
78211	Nicholas Lake	Drill Core	Unmineralized Granodiorite	231	235	249	11	400	8.0	246	14	1800	<5	1.0	0.1	3.0	<5	400	<10	<10	12	97	50	4.0
78213	Nicholas Lake	Drill Core	Unmineralized Granodiorite	266	273	226	2.0	500	10	193	25	2600	<5	2.0	0.1	6.0	<5	300	<10	<10	17	<10	75	4.0
78214	Nicholas Lake	Drill Core	Unmineralized Granodiorite	290	296	268	3.0	500	8.0	199	20	2000	<5	1.0	0.1	5.0	<5	500	<10	<10	14	19	53	4.0
78216	Nicholas Lake	Drill Core	Unmineralized Granodiorite	133	137	234	3.0	400	15	149	1093	8900	7.0	1.0	0.1	3.0	<5	300	<10	<10	14	<10	470	4.0
78217	Nicholas Lake	Drill Core	Unmineralized Granodiorite	149.5	154	173	3.0	400	7.0	155	28	1800	5.0	1.0	0.1	2.0	<5	100	<10	<10	12	<10	26	3.0
70900	Nicholas Lake	Drill Core	Unmineralized Granite	301	306	155	3.0	400	5.0	311	5.0	1000	<5	1.0	<0.1	4.0	6.0	100	<10	12	13	<10	17	9.0
				MINIMUM		137	2.0	400	5.0	129	5.0	1000	<5	1.0	<0.1	2.0	<5	100	<10	<10	11	<10	17	3.0
				MAXIMUM		356	11	700	23	399	1093	8900	7.0	2.0	0.1	15	6.0	500	<10	12	23	368	470	9.0
				MEDIAN		234	3.0	500	8.0	198	28	2000	nc	1.0	0.1	5.0	nc	400	nc	nc	15	19	68	4.0
				AVERAGE		231	3.5	467	9.1	206	82	2338	nc	1.5	0.1	5.2	nc	352	nc	nc	16	67	87	4.1
				STANDARD DEVIATION		45	2.6	73	4.0	60	233	1633	nc	0.5	0.00	2.6	nc	150	nc	nc	2.9	99	94	1.4
				75TH PERCENTILE		247	3.0	500	8.0	222	50	2600	nc	2.0	0.1	6.0	nc	500	nc	nc	16	79	86	4.0
NL-1	Nicholas Lake	Waste Rock Dump	Granodiorite	-	-	191	3.3	400	8.4	190	117	9900	1.0	1.3	-	6.0	1.3	190	0.10	0.40	12	65	145	3.1
NL-2	Nicholas Lake	Waste Rock Dump	Granodiorite	-	-	229	5.0	400	22	250	126	5300	0.4	2.4	-	17	3.1	250	0.10	0.80	17	1990	291	4.2
NL-3	Nicholas Lake	Waste Rock Dump	Granodiorite	-	-	139	5.6	300	6.2	160	2879	18900	4.5	0.8	-	5.0	0.80	70	0.10	0.50	13	275	4102	2.3
				MINIMUM		139	3.3	300	6.2	160	117	5300	0.4	0.8	-	5.0	0.80	70	0.10	0.40	12	65	145	2.3
				MAXIMUM		229	5.6	400	22	250	2879	18900	4.5	2.4	-	17	3.1	250	0.10	0.80	17	1990	4102	4.2
				MEDIAN		191	5.0	400	8.4	190	126	9900	1.0	1.3	-	6.0	1.3	190	0.10	0.50	13	275	291	3.1
				AVERAGE		186	4.6	367	12	200	1041	11367	2.0	1.5	-	9.3	1.7	170	0.10	0.57	14	777	1513	3.2
				STANDARD DEVIATION		45	1.2	58	8.4	46	1592	6918	2.2	0.8	-	6.7	1.2	92	0.00	0.21	2.6	1056	2244	1.0
				75TH PERCENTILE		210	5.3	400	15	220	1503	14400	2.8	1.9	-	12	2.2	220	0.10	0.65	15	1132	2197	3.7

MV2002L2-0017 Max Avg.				6.0-9.5									1						0.01				0.06		0.4
CCME (CEQG) (freshwater aquatic life) ¹ (mg/L)				6.5 - 9.0								0.005 - 0.1		0.005					0.000017		0.001 / 0.0089		0.002	0.3	0.001
SAMPLE NUMBER	LOCATION	SAMPLE TYPE	ROCK TYPE	pH	Redox	Conductivity	Acidity (to pH 4.5)	Acidity (to pH 8.3)	Alkalinity	SO4	Hardness	Al	Sb	As	Ba	Be	Bi	B	Cd	Ca	Cr	Co	Cu	Fe	Pb
					mV	uS/cm	mg CaCO3/L	mg CaCO3/L	mg CaCO3/L	mg/L		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
NL-2	Nicholas Lake	Waste Rock Dump	Granodiorite	7.8	386	110	-	2.5	33	18	45	0.14	0.0002	0.33	0.003	<0.00001	0.000006	0.006	0.00021	15	<0.0001	0.0001	0.0027	0.011	0.00075
NL-3	Nicholas Lake	Waste Rock Dump	Granodiorite	3.7	576	475	14	134	-	196	65	2.2	0.001	2.6	0.02	0.0007	<0.00003	<0.03	0.77	11	0.003	0.04	0.25	15	3.0

MV2002L2-0017 Max Avg.										1													1	
CCME (CEQG) (freshwater aquatic life) ¹ (mg/L)							0.000026	0.073	0.025 - 0.156			0.001						0.0008					0.03	
SAMPLE NUMBER	LOCATION	SAMPLE TYPE	ROCK TYPE	Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S	Tl	Sn	Ti	U	V	Zn	Zr
				mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
NL-2	Nicholas Lake	Waste Rock Dump	Granodiorite	0.0028	1.5	0.028	<0.01	0.002	0.0012	0.007	2.7	0.0002	1.0	<0.000005	3.0	0.022	9.0	0.00001	0.00003	<0.0005	0.00007	0.0002	0.0057	<0.0001
NL-3	Nicholas Lake	Waste Rock Dump	Granodiorite	0.021	9.2	0.69	<0.05	<0.0003	0.020	<0.01	1.7	0.002	0.83	0.00004	2.9	0.039	63	0.0004	0.0002	0.005	0.0005	<0.001	56	<0.0005

Notes:
CCME values for Cu, Pb, Ni assume a hardness of 60 mg/L.
CCME values for Cr show a range from min (for Cr(VI)) to max (for Cr(III))
CCME values for Al ranges, are dependant on pH, Ca and DOC values.



APPENDIX C

Static Testing Results – Ormsby and Nicholas Lake Tailings

C-1 Analytical Program

C-2 ABA Results

C-3 Trace Metals Results

C-4 SFE Leachate Results

Appendix C-1: Ormsby and Nicholas Lake Tailings
Analytical Program
Yellowknife Gold Project
Tyhee NWT Corp.

SAMPLE ID	BULK METAL ANALYSIS	ACID BASE ACCOUNTING	SFE	NAG	Effluent	Supernatant
	ICP-MS	Sobek method	ASTM D3987	AMIRA 2002		
NI FLC1 Final Tail	X	X	X	X		
OM FLC2 Final Tail	X	X	X	X		
YG1 FLC3 Final Tail	X	X	X	X		
YG1 Barren Conc.	X	X	X	X		
YG1 Combine	X	X	X	X		

ABA Results
Yellowknife Gold Project
Tyhee NWT Corp.

SAMPLE NUMBER	Paste pH	TIC	S(T)	S(SO4)	S(S-2)	CaNP	AP	Modified NP	Net Modified NP	Sobek NP	Net NP	Fizz Test	NPR	ARD Potential
		%	%	%	%	tCaCO3/1000t								
NI FLC1 Final Tail	5.9	<0.01	0.28	0.040	0.24	<0.8	7.5	4.7	-2.8	6.4	-1.1	None	0.85	PAG
OM FLC2 Final Tail	8.3	0.2	0.15	0.030	0.12	17	3.8	36	33	36	33	Slight	9.7	non PAG
YG1 FLC3 Final Tail	8.1	0.14	0.24	0.040	0.2	12	6.3	26	20	31	24	Slight	4.91	non PAG
CL FLC4 Final Tail	8.5	0.29	0.040	0.020	0.02	24	0.63	32	31	37	37	Slight	60	non PAG
YG1 Barren Conc.	7.6	0.06	26	0.040	26	5.0	805	8.2	-797	15	-790	Slight	0.02	PAG
YG1 Combine	7.8	0.12	2.5	0.050	2.5	10	78	23	-55	27	-51	Slight	0.35	PAG
0800701 Head	8.0	0.31	1.3	<0.01	1.3	26	40	35	-	-	-5.0	-	0.88	PAG
0800701 Fresh Flotation Rougher Tailings	7.9	0.16	0.21	<0.01	0.21	13	6.6	33	-	-	26	-	5.0	non PAG
0800701 Cyanidation Residue	7.3	0.19	17	0.040	17	16	524	31	-	-	-493	-	0.06	PAG
0800701 Treated Cyanidation Residue	8.0	0.17	1.1	0.050	1.1	14	33	35	-	-	2.2	-	1.1	uncertain
0800701 Blended Tailings	8.0	0.24	13	0.27	13	20	392	46	-	-	-345	-	0.12	PAG
0800701 Rock Sample	8.5	0.09	1.1	0.030	1.1	7.5	34	31	-	-	-2.9	-	0.92	PAG

Trace Metals Results
Yellowknife Gold Project
Tyhee NWT Corp.

Typical Crustal Abundance (ug/g) (Price, 1997) ¹	0.006	0.075	82300	1.8	425	3	0.0085	41500	0.15		25	102		60	56300	19	
Typical Crustal Abundance (ug/g) x5	0.03	0.375	411500	9	2125	15	0.0425	207500	0.75		125	510		300	281500	95	
SAMPLE NUMBER	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
NI FLC1 Final Tail	0.17	1.0	4500	6992	13	<1	3.4	2000	1.9	7.0	5.5	293	0.50	23	17200	2.0	<0.1
OM FLC2 Final Tail	0.050	0.20	13200	66	170	<1	0.10	33400	0.20	88	6.5	109	1.3	7.0	38300	8.0	0.30
YG1 FLC3 Final Tail	0.080	0.40	11400	1688	96	<1	1.0	27300	1.0	70	7.4	163	1.1	11	35700	7.0	0.20
CL FLC4 Final Tail	0.17	0.40	15800	110	45	<1	0.10	25400	0.20	47	3.9	166	1.2	6.3	20100	5.0	0.10
YG1 Barren Conc.	1.0	13	2600	>10000.0	7.0	<1	115	8000	47	37	158	27	0.20	1433	204500	1.0	1.1
YG1 Combine	0.14	1.6	10700	>10000.0	87	<1	8.2	24300	7.3	67	22	36	1.1	195	58300	6.0	0.30
0800701 Head	-	0.40	13000	548	115	<1	-	-	0.30	-	25	52	-	41	53600	-	-
0800701 Fresh Flotation Rougher Tailings	-	0.30	12500	27	117	<1	-	-	0.30	-	8.1	27	-	24	38400	-	-
0800701 Cyanidation Residue	-	2.0	7400	9357	36	<1	-	-	2.7	-	188	39	-	349	324000	-	-
0800701 Treated Cyanidation Residue	-	0.20	10400	365	114	<1	-	-	0.30	-	19	25	-	56	44700	-	-
0800701 Blended Tailings	-	1.5	9600	4748	21	<1	-	-	2.5	-	145	34	-	633	236500	-	-
0800701 Rock Sample	-	0.40	14000	150	173	<1	-	-	0.30	-	25	99	-	32	53500	-	-

Appendix C-3: Ormsby and Nicholas Lake Tailings
Trace Metals Results
Yellowknife Gold Project
Tyhee NWT Corp.

Typical Crustal Abundance (ug/g) (Price, 1997) ¹		0.085		20850	39	20	23300	950	1.2	23550		84	1050	14			350
Typical Crustal Abundance (ug/g) x5		0.425		104250	195	100	116500	4750	6	117750		420	5250	70			1750
SAMPLE NUMBER	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm
NI FLC1 Final Tail	<0.1	7.4	0.020	1000	3.0	8.4	3600	234	13	200	0.10	125	180	252	5.4	<5	2600
OM FLC2 Final Tail	0.20	0.71	0.060	4000	31	22	5500	803	6.5	600	0.60	49	3450	3.3	17	<5	1000
YG1 FLC3 Final Tail	0.20	2.8	0.060	3200	25	20	5300	683	8.8	500	0.40	70	2950	57	14	<5	2000
CL FLC4 Final Tail	0.50	0.06	0.010	5500	22	9.5	7600	566	7.3	600	0.30	71	440	6.0	26	<5	-
YG1 Barren Conc.	0.20	1.2	0.48	300	10	3.2	800	130	13	100	1.5	38	1230	6374	1.2	<5	93500
YG1 Combine	0.20	3.3	0.10	3100	24	17	4400	610	6.9	400	0.60	11	2550	624	14	<5	15000
0800701 Head	-	0.30	-	2400	30	-	5300	687	2.8	1100	-	11	39200000	8.6	-	-	10900
0800701 Fresh Flotation Rougher Tailings	-	0.30	-	2500	30	-	5400	652	4.3	900	-	8.3	38100000	12	-	-	2400
0800701 Cyanidation Residue	-	0.70	-	1100	30	-	3600	519	15	800	-	70	29000000	161	-	-	>100000
0800701 Treated Cyanidation Residue	-	0.50	-	2300	28	-	4700	575	5.0	800	-	11	34800000	17	-	-	13700
0800701 Blended Tailings	-	0.60	-	1300	33	-	4400	595	14	1700	-	58	34600000	101	-	-	>100000
0800701 Rock Sample	-	0.20	-	3100	37	-	5900	694	5.2	1200	-	8.9	44200000	4.3	-	-	9100

Trace Metals Results
Yellowknife Gold Project
Tyhee NWT Corp.

Typical Crustal Abundance (ug/g) (Price, 1997) ¹	0.2	22	0.05	2.3	370			1.2	5650	0.85	2.7	120	1.25	33	70	
Typical Crustal Abundance (ug/g) x5	1	110	0.25	11.5	1850			6	28250	4.25	13.5	600	6.25	165	350	
SAMPLE NUMBER	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y	Zn	Zr
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
NI FLC1 Final Tail	1.0	1.0	<0.5	0.90	2.0	<0.1	1.3	0.80	110	0.10	0.30	11	404	1.3	124	1.8
OM FLC2 Final Tail	0.10	8.8	1.1	1.1	23	<0.1	<0.1	2.5	1140	0.10	0.20	16	24	51	72	9.9
YG1 FLC3 Final Tail	0.30	7.8	0.9	1	18	<0.1	0.30	2.1	830	0.10	0.20	17	130	41	108	11
CL FLC4 Final Tail	0.20	3.4	<0.5	0.60	20	<0.1	0.20	3.9	1050	0.20	0.50	36	2.3	8.1	46	22
YG1 Barren Conc.	30	1.0	15	2.7	7.0	<0.1	53	1.0	100	0.20	0.30	<2	33	14	2585	7.4
YG1 Combine	2.3	6.7	2.1	1.4	14	<0.1	3.2	2.0	640	0.10	0.20	13	138	38	536	11
0800701 Head	0.10	11	2.0	-	22	-	-	3.6	1210	0.10	0.30	20	13	-	106	16
0800701 Fresh Flotation Rougher Tailings	0.40	11	1.4	-	21	-	-	3.3	1310	0.10	0.30	21	10	-	92	14
0800701 Cyanidation Residue	1.3	9.0	13	-	22	-	-	3.0	790	0.20	0.30	27	9.1	-	451	31
0800701 Treated Cyanidation Residue	0.30	8.8	<0.5	-	19	-	-	3.0	980	0.10	0.20	19	12	-	98	12
0800701 Blended Tailings	1.3	9.2	6.9	-	34	-	-	3.7	920	0.10	0.40	17	12	-	441	24
0800701 Rock Sample	<0.1	14	<0.5	-	24	-	-	4.3	1350	0.10	0.30	16	6.6	-	121	19

SFE Results
Yellowknife Gold Project
Tyhee NWT Corp.

MV2002L2-0017 Max Avg.	6.0-9.5						1					0.01			0.06		
CCME (CEQG) (freshwater aquatic life) ¹ (mg/L)	6.5 - 9.0				0.10		0.005					0.000017		0.001 / 0.0089	0.002	0.3	
SAMPLE NUMBER	pH	Alkalinity	SO4	Hardness	Al	Sb	As	Ba	Be	Bi	B	Cd	Ca	Cr	Co	Cu	Fe
	units	mg CaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
NI FLC1 Final Tail	5.5	1.5	< 0.01	235	0.071	0.0091	42	0.0023	0.00002	0.00004	0.012	0.0017	52	0.0006	0.10	0.001	0.39
OM FLC2 Final Tail	7.9	72	< 0.01	71	0.12	0.00040	0.36	0.027	< 0.00002	0.00001	0.017	0.0000070	24	0.0008	0.00061	< 0.0005	0.010
YG1 FLC3 Final Tail	7.9	59	< 0.01	103	0.085	0.0027	1.6	0.030	< 0.00002	< 0.00001	0.014	0.000016	37	0.0008	0.00024	< 0.0005	< 0.01
CL FLC4 Final Tail	8.0	78	< 0.01	76	0.11	0.0081	0.89	0.0033	< 0.00002	< 0.00001	0.018	< 0.000003	26	0.0009	0.00011	< 0.0005	0.020
YG1 Barren Conc.	7.8	52	< 0.01	179	0.023	0.0042	0.047	0.081	< 0.00002	0.0002	0.010	0.0019	69	0.0008	0.0053	0.001	< 0.01
YG1 Combine	7.8	52	< 0.01	217	0.021	0.0026	0.14	0.038	< 0.00002	< 0.00001	0.014	0.00019	80	0.0008	0.00042	< 0.0005	< 0.01
0800701 Head	5.7		-	-0.18	-0.040	94	0.045	0.00025	0.008	0.017	<0.00001	<0.000005	0.037	0.00001	32	<0.0001	0.000050

SFE Results
Yellowknife Gold Project
Tyhee NWT Corp.

MV2002L2-0017 Max Avg.	0.4						1										
CCME (CEQG) (freshwater aquatic life) ¹ (mg/L)	0.001				0.000026	0.073	0.025 - 0.156			0.001						0.0008	
SAMPLE NUMBER	Pb	Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S	Tl	Sn
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
NI FLC1 Final Tail	0.00042	0.012	26	0.98	< 0.01	0.00039	0.33	0.060	8.0	0.001	2.6	0.00065	2.6	0.036	151	< 0.0002	0.0002
OM FLC2 Final Tail	0.00020	0.025	2.7	0.064	< 0.01	0.0013	0.0024	0.040	14	0.0002	2.0	0.00045	2.9	0.067	10	< 0.0002	0.00018
YG1 FLC3 Final Tail	0.000020	0.021	2.7	0.11	< 0.01	0.0015	0.00090	0.040	15	0.0007	2.1	0.00029	2.6	0.068	24	< 0.0002	0.00018
CL FLC4 Final Tail	0.00021	0.0050	2.9	0.023	< 0.01	0.0019	0.00070	0.12	15	0.0003	2.8	0.00031	3.6	0.048	11	< 0.0002	0.00017
YG1 Barren Conc.	0.14	0.035	2.0	0.077	< 0.01	0.002	0.0024	0.020	6.2	0.002	1.0	0.00087	6.5	0.13	74	< 0.0002	0.00019
YG1 Combine	0.00067	0.025	4.4	0.19	< 0.01	0.024	0.0013	0.040	16	0.002	1.6	0.00029	2.3	0.13	65	< 0.0002	0.0002
0800701 Head	0.0012	0.002	0.000013	0.018	0.0031	0.042	0.050	0.0027	0.0007	0.024	6.1	0.00033	1.3	0.000005	8.4	0.085	25

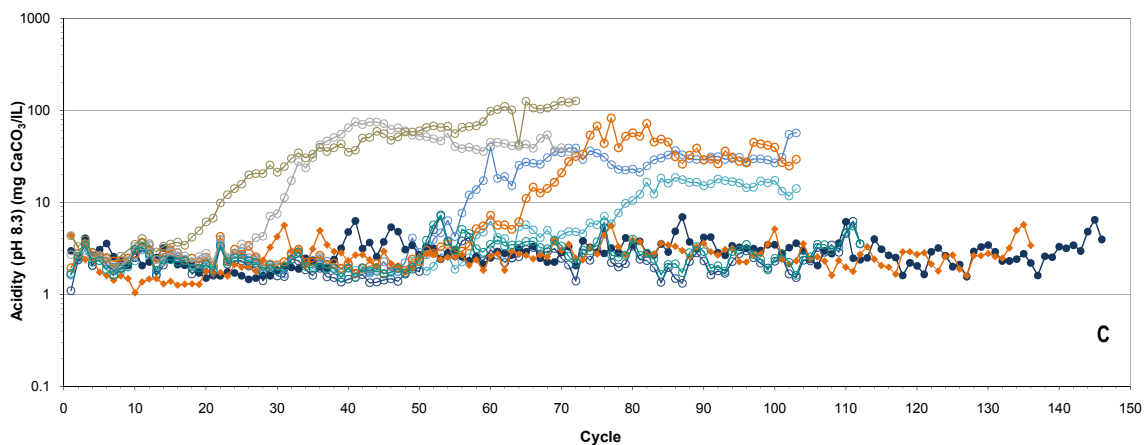
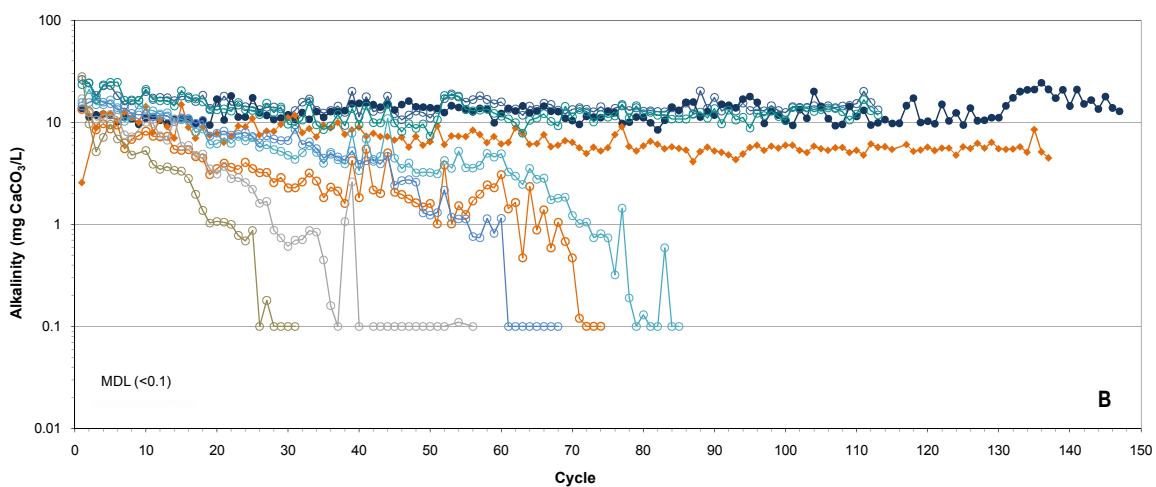
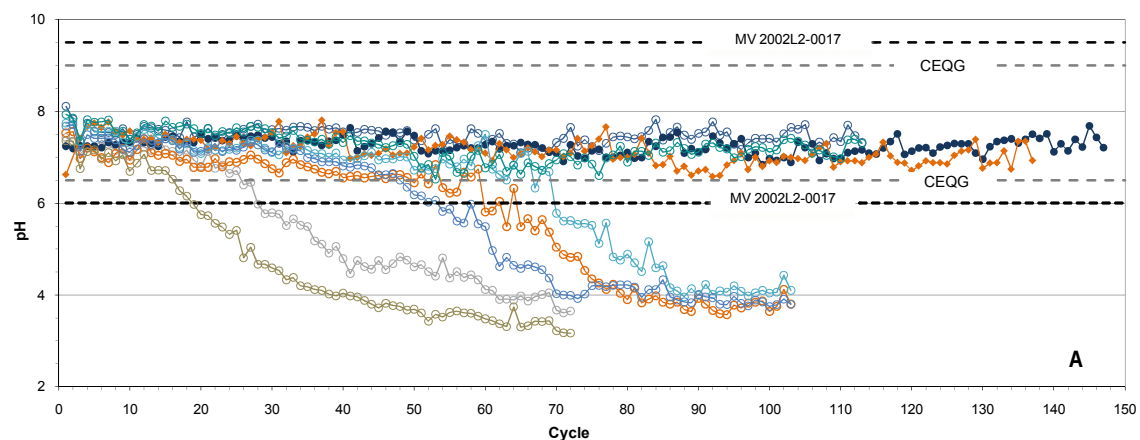
SFE Results
Yellowknife Gold Project
Tyhee NWT Corp.

MV2002L2-0017 Max Avg.				<u>1</u>	
CCME (CEQG) (freshwater aquatic life) ¹ (mg/L)				<u>0.03</u>	
SAMPLE NUMBER	Ti	U	V	Zn	Zr
	mg/L	mg/L	mg/L	mg/L	mg/L
NI FLC1 Final Tail	0.0001	0.00001	0.00047	<u>0.50</u>	0.00005
OM FLC2 Final Tail	0.0007	0.00016	0.00031	0.003	0.00002
YG1 FLC3 Final Tail	0.00010	0.000284	0.00035	0.001	0.00001
CL FLC4 Final Tail	0.00110	0.000426	0.00178	< 0.001	0.00005
YG1 Barren Conc.	< 0.0001	0.000024	0.000	<u>0.052</u>	0.00002
YG1 Combine	< 0.0001	0.00017	0.00006	0.003	0.00009
0800701 Head	<0.000002	0	0.0006	0.000	<0.0002



APPENDIX D

Humidity Cell Test Results



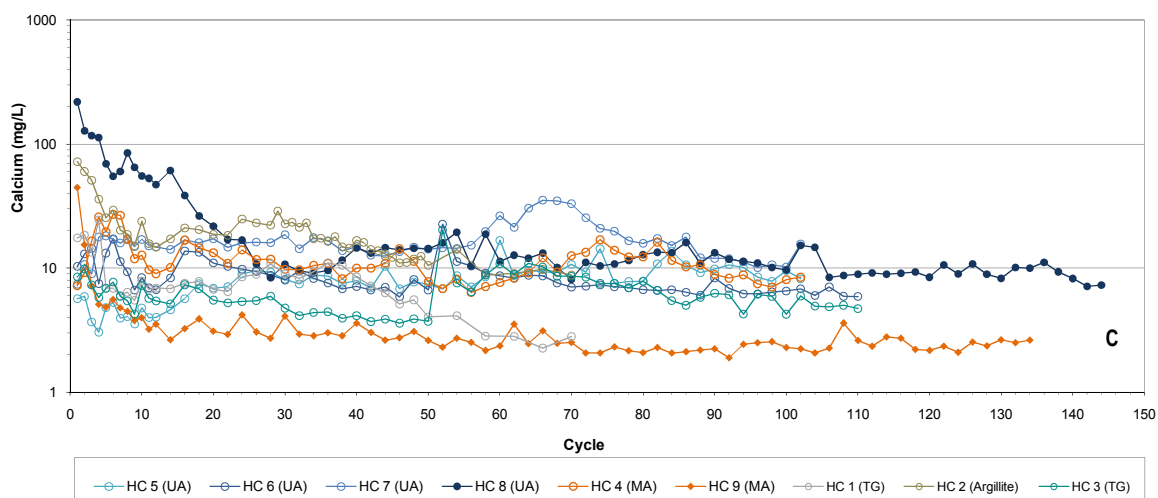
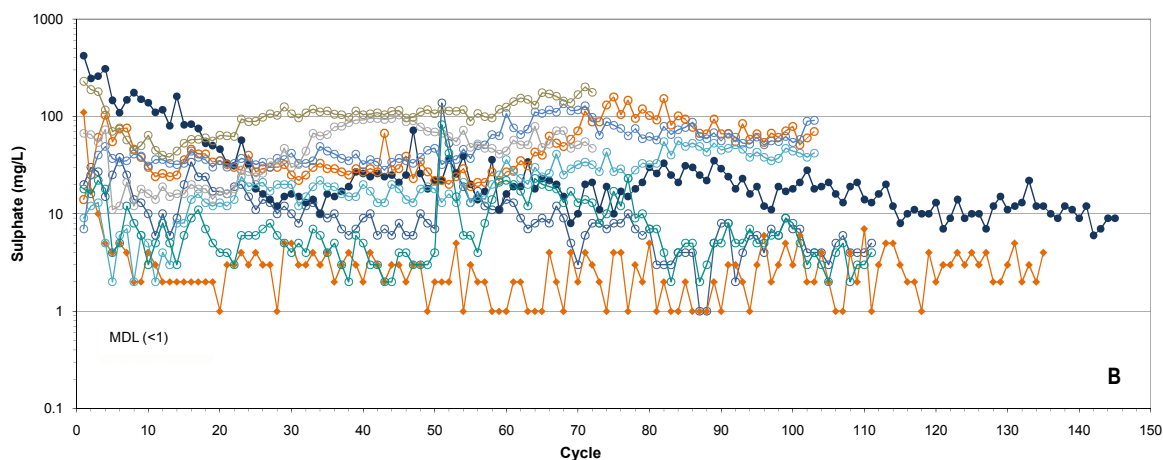
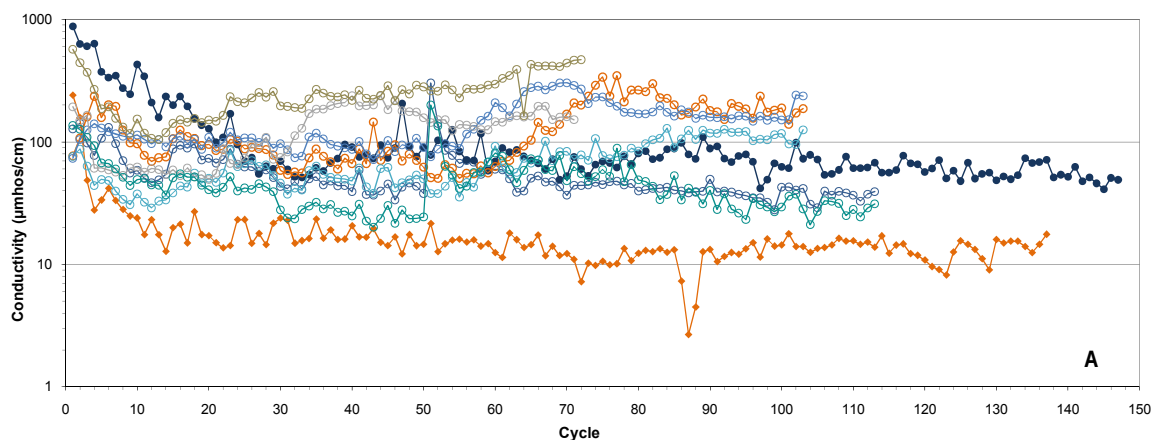
Notes: TG = Transitional Greywacke
 UA = Unmineralized Amphibolite; MA = Mineralized Amphibolite
 Terminated Cells = HC1, HC2, HC4, HC5, HC7
 CEQG Protection of Aquatic Life (Freshwater) (CCME, 2007)
 Water License MV2002L2-0017, Part D-6 Effluent Guidelines
 Values less than method detection limit (MDL) are plotted as MDL value

A) Leachate pH
B) Alkalinity
C) Acidity (pH 8.3)

DRAWN	AJS	DATE	Apr-11
CHECKED		JOB NO	10-1127-0061
REVIEWED	VJB	FIGURE	

Humidity Cell Data Graph
Yellowknife Gold Project (YGP)
Tyhee NWT Corp.





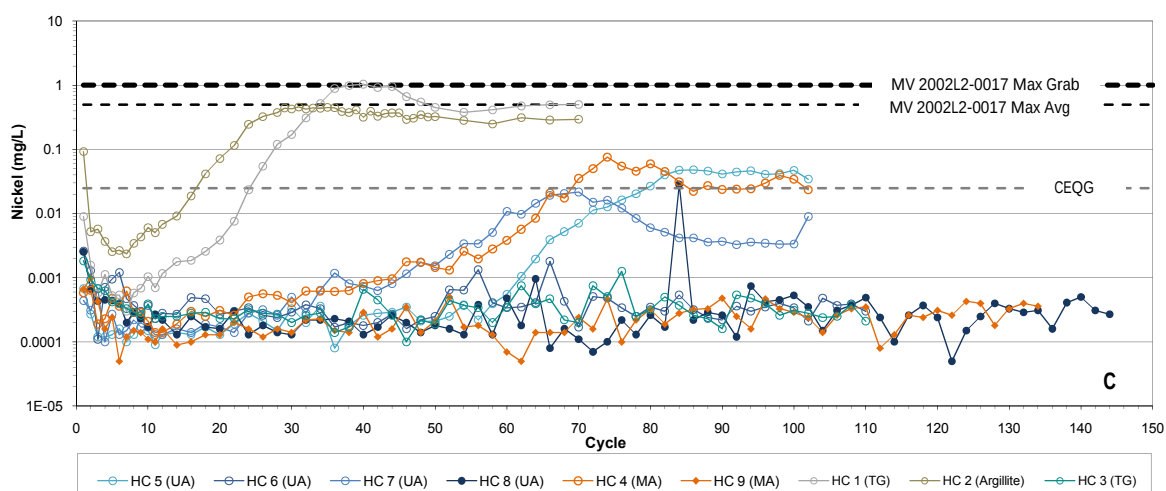
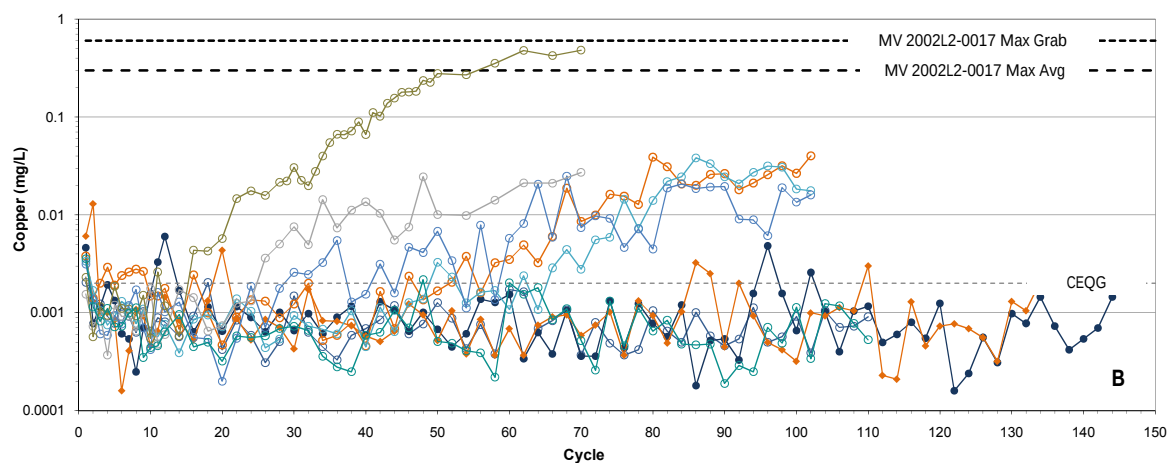
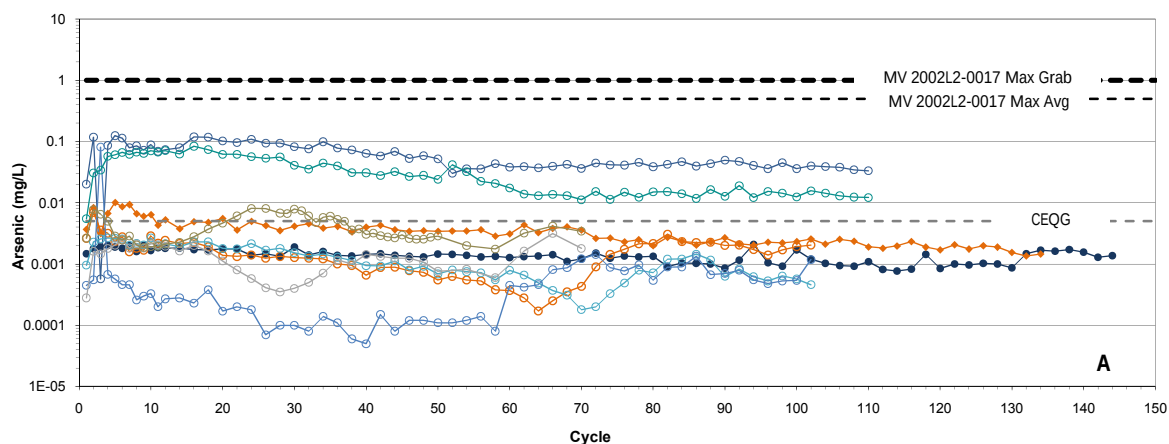
Notes: TG = Transitional Greywacke
 UA = Unmineralized Amphibolite; MA = Mineralized Amphibolite
 Terminated Cells = HC1, HC2, HC4, HC5, HC7
 CEQG Protection of Aquatic Life (Freshwater) (CCME, 2007)
 Water License MV2002L2-0017, Part D-6 Effluent Guidelines
 Values less than method detection limit (MDL) are plotted as MDL value

A) Conductivity
B) Sulphate
C) Calcium

DRAWN	AJS	DATE	Apr-11
CHECKED		JOB NO	10-1127-0061
REVIEWED	VJB	FIGURE	

Humidity Cell Data Graph
Yellowknife Gold Project (YGP)
Tyhee NWT Corp.





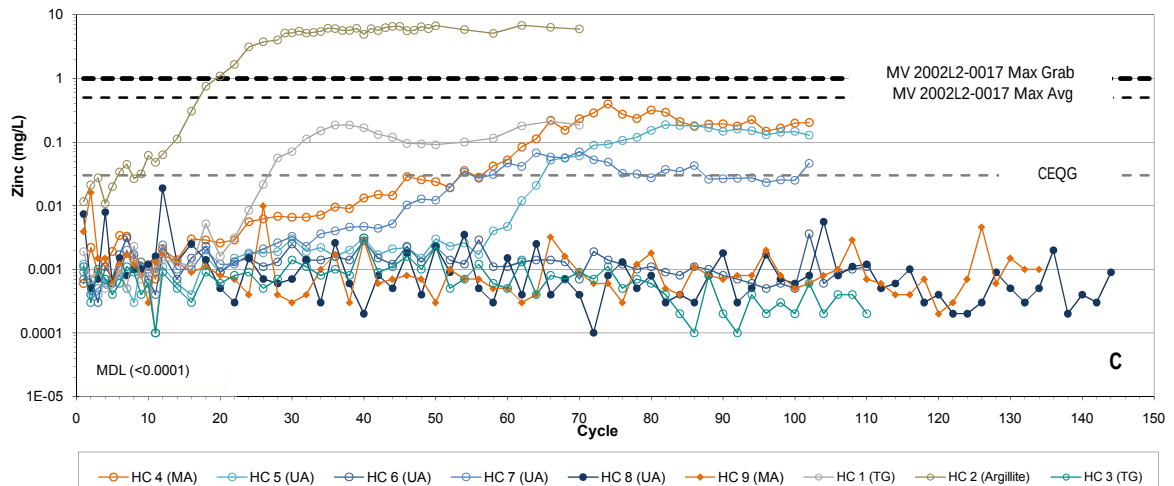
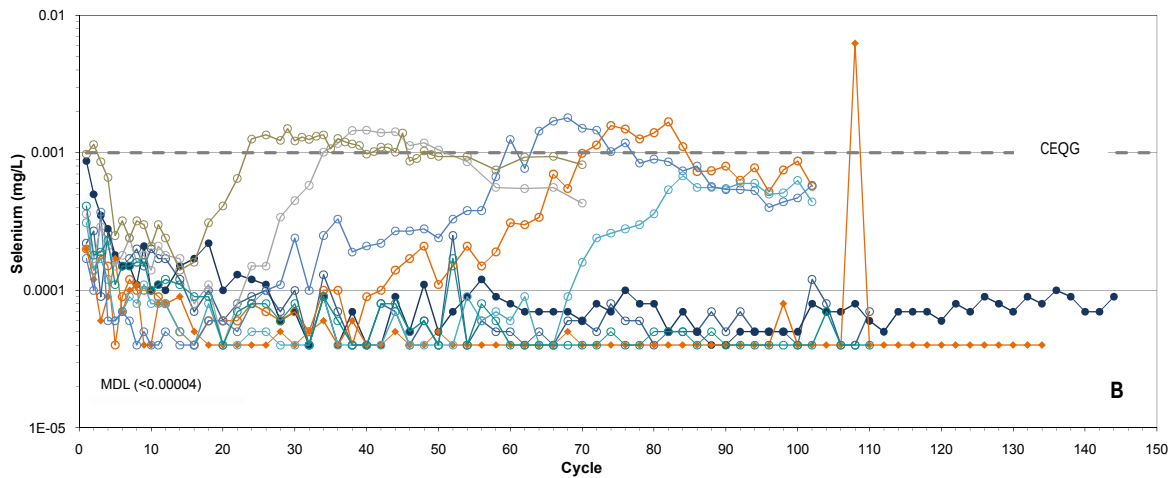
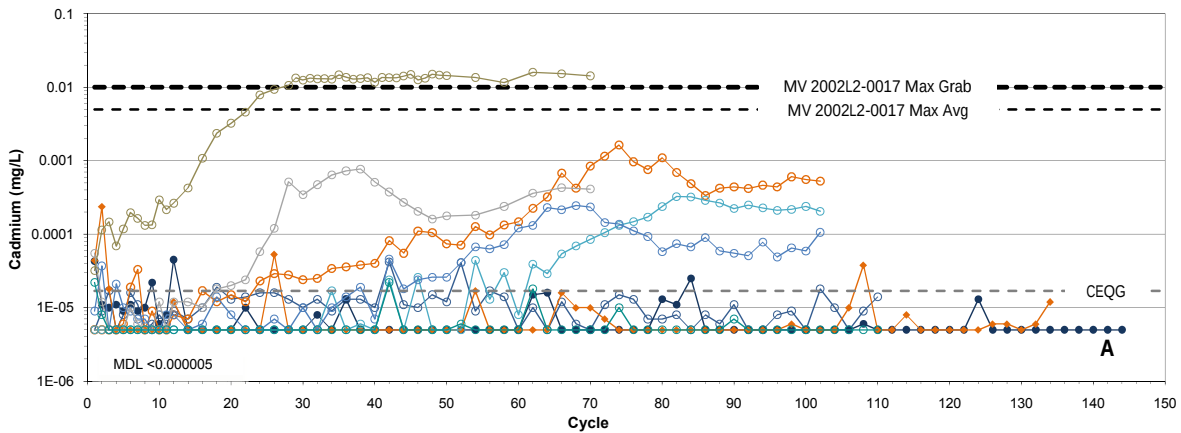
Notes: TG = Transitional Greywacke
 UA = Unmineralized Amphibolite; MA = Mineralized Amphibolite
 Terminated Cells = HC1, HC2, HC4, HC5, HC7
 CEQG Protection of Aquatic Life (Freshwater) (CCME, 2007)
 Water License MV2002L2-0017, Part D-6 Effluent Guidelines
 Values less than method detection limit (MDL) are plotted as MDL value

A) Arsenic
B) Copper
C) Nickel

DRAWN	AJS	DATE	Apr-11
CHECKED		JOB NO	10-1127-0061
REVIEWED	VJB	FIGURE	

Humidity Cell Data Graph
Yellowknife Gold Project (YGP)
Tyhee NWT Corp.





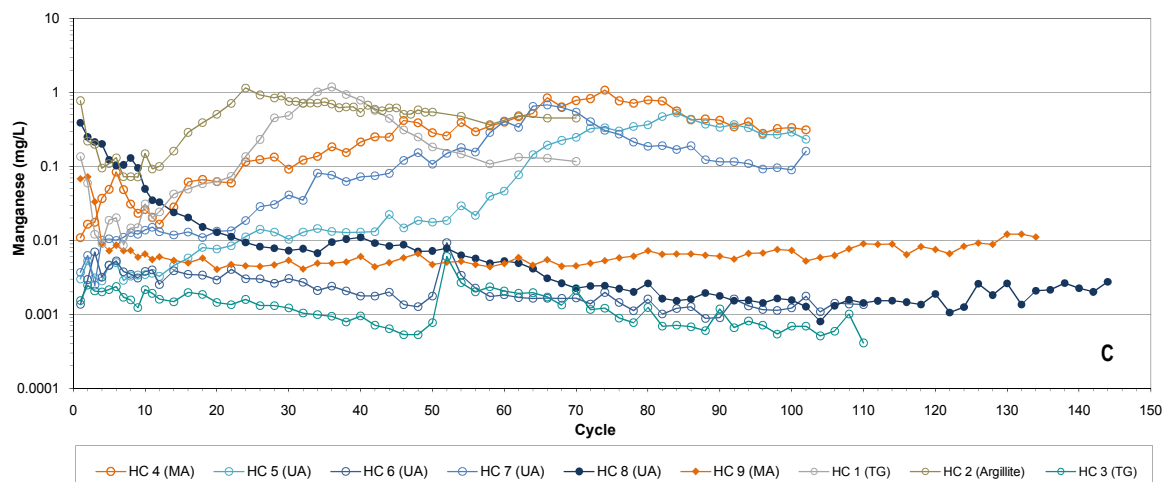
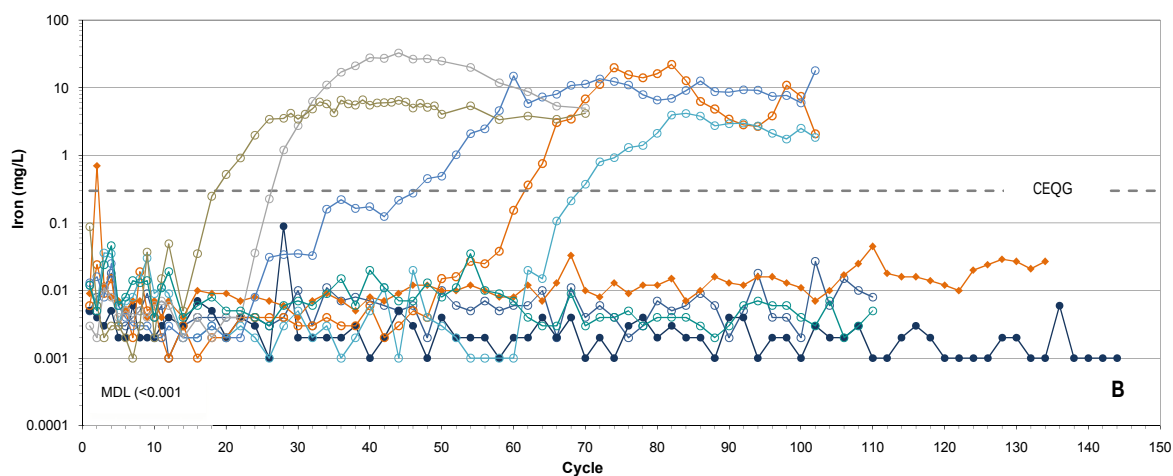
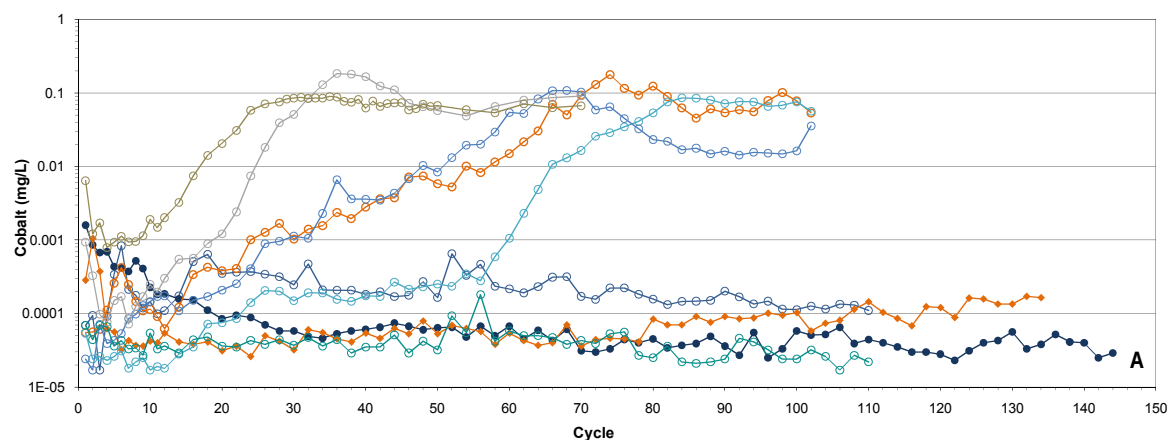
Notes: TG = Transitional Greywacke
 UA = Unmineralized Amphibolite; MA = Mineralized Amphibolite
 Terminated Cells = HC1, HC2, HC4, HC5, HC7
 CEQG Protection of Aquatic Life (Freshwater) (CCME, 2007)
 Water License MV2002L2-0017, Part D-6 Effluent Guidelines
 Values less than method detection limit (MDL) are plotted as MDL value

A) Cadmium
B) Selenium
C) Zinc

DRAWN	AJS	DATE	Apr-11
CHECKED		JOB NO	10-1127-0061
REVIEWED	VJB	FIGURE	

Humidity Cell Data Graph
Yellowknife Gold Project (YGP)
Tyhee NWT Corp.



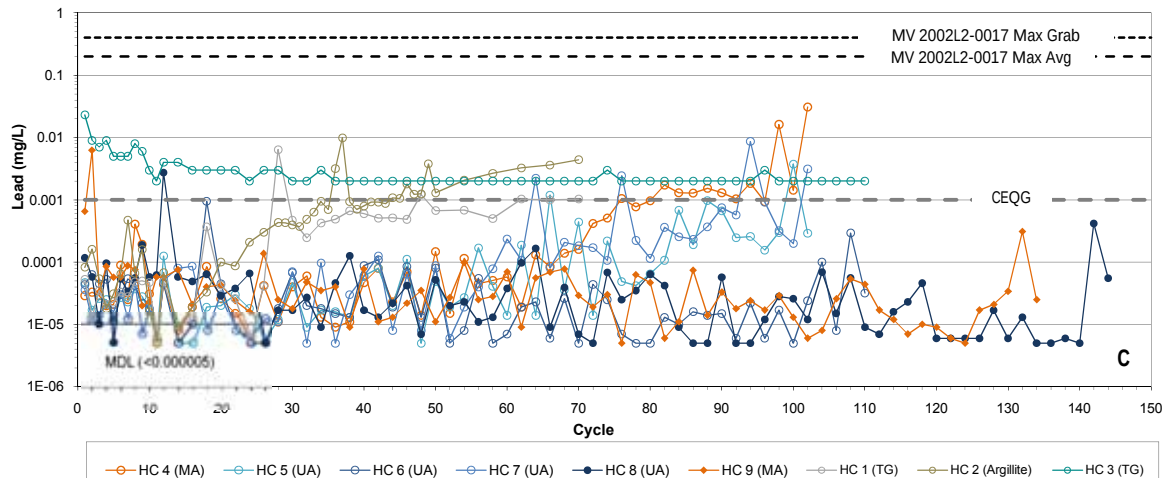
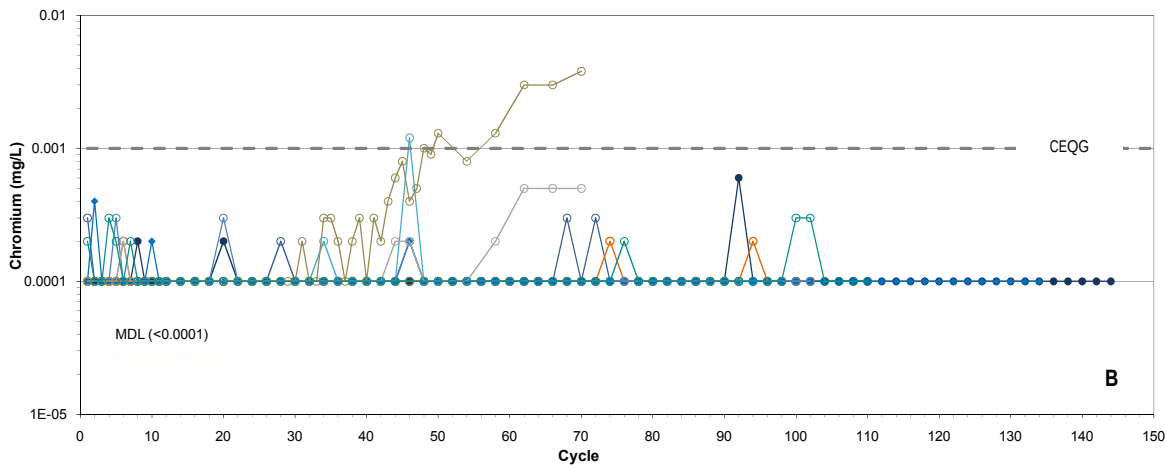
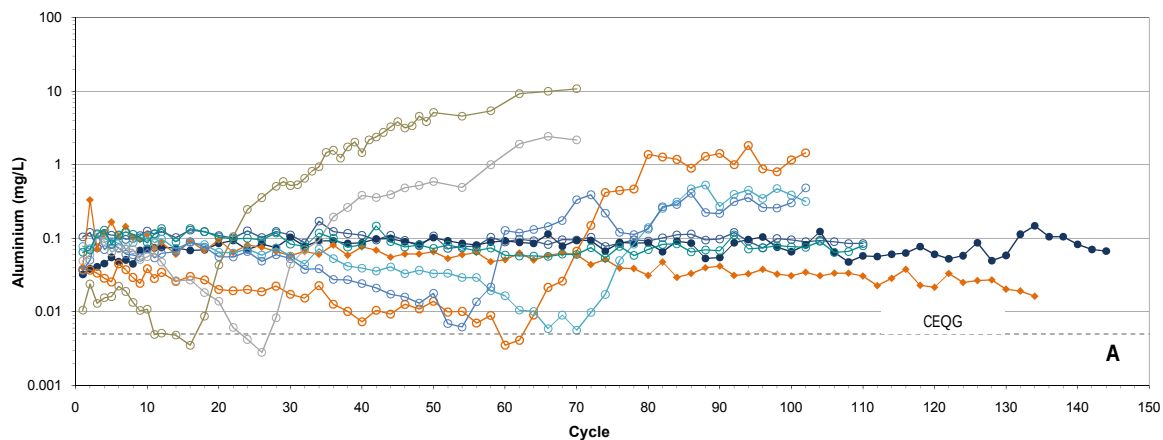


Notes: TG = Transitional Greywacke
 UA = Unmineralized Amphibolite; MA = Mineralized Amphibolite
 Terminated Cells = HC1, HC2, HC4, HC5, HC7
 CEQG Protection of Aquatic Life (Freshwater) (CCME, 2007)
 Water License MV2002L2-0017, Part D-6 Effluent Guidelines
 Values less than method detection limit (MDL) are plotted as MDL value

A) Cobalt	
B) Iron	
C) Manganese	
DRAWN	AJS
CHECKED	VJB
REVIEWED	VJB
DATE	Apr-11
JOB NO	10-1127-0061
FIGURE	

**Humidity Cell Data Graph
 Yellowknife Gold Project (YGP)
 Tyhee NWT Corp.**





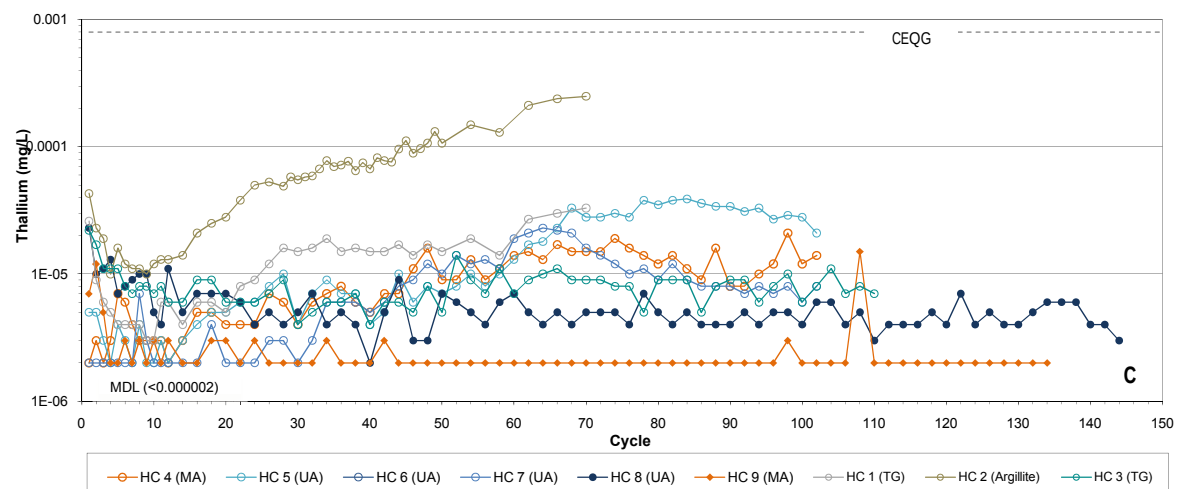
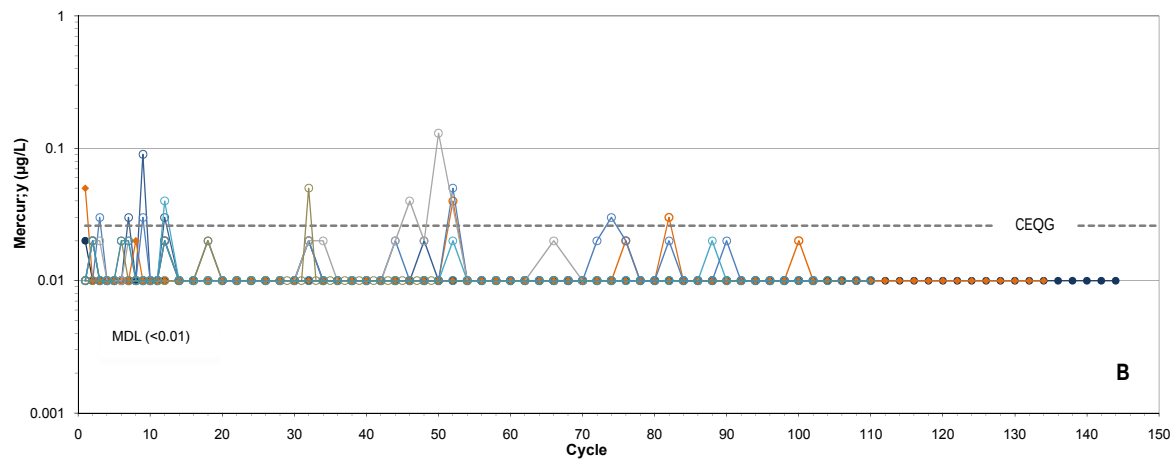
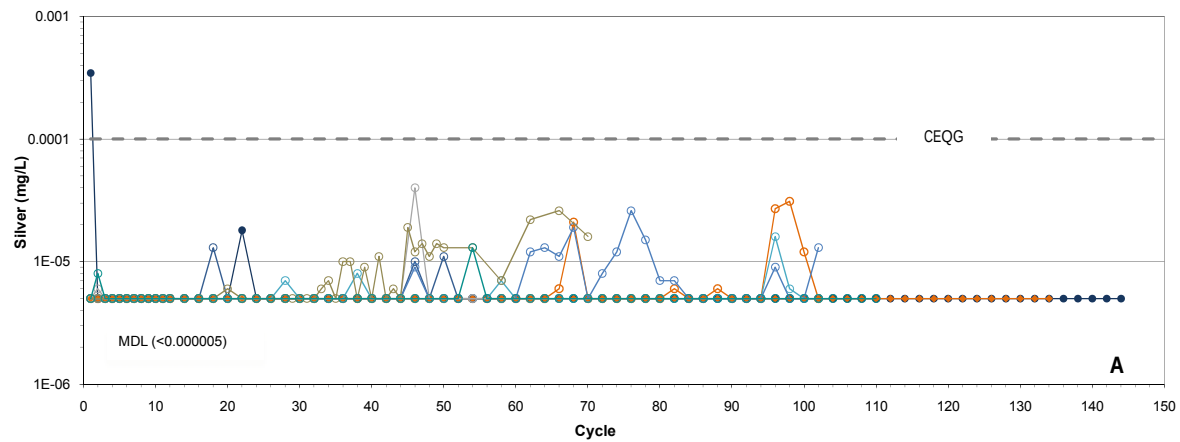
Notes: TG = Transitional Greywacke
 UA = Unmineralized Amphibolite; MA = Mineralized Amphibolite
 Terminated Cells = HC1, HC2, HC4, HC5, HC7
 CEQG Protection of Aquatic Life (Freshwater) (CCME, 2007)
 Water License MV2002L2-0017, Part D-6 Effluent Guidelines
 Values less than method detection limit (MDL) are plotted as MDL value

A) Aluminium
B) Chromium
C) Lead

DRAWN	AJS	DATE	Apr-11
CHECKED		JOB NO	10-1127-0061
REVIEWED	VJB	FIGURE	

Humidity Cell Data Graph
Yellowknife Gold Project (YGP)
Tyhee NWT Corp.





Notes: TG = Transitional Greywacke
 UA = Unmineralized Amphibolite; MA = Mineralized Amphibolite
 Terminated Cells = HC1, HC2, HC4, HC5, HC7
 CEQG Protection of Aquatic Life (Freshwater) (CCME, 2007)
 Water License MV2002L2-0017, Part D-6 Effluent Guidelines
 Values less than method detection limit (MDL) are plotted as MDL value

A) Silver
B) Mercury
C) Thallium

DRAWN	AJS	DATE	Apr-11
CHECKED		JOB NO	10-1127-0061
REVIEWED	VJB	FIGURE	

Humidity Cell Data Graph
Yellowknife Gold Project (YGP)
Tyhee NWT Corp.





APPENDIX E

Field Barrel Leaching Test Results (ABA, Mineralogy, and Leachate Results)

APPENDIX E-1: Field Barrel Data
ORM-F-UA
Unmineralized Amphibolite, Ormsby Deposit
Yellowknife Gold Project
Tyhee NWT Corp.

Parameter	Units	Water License (Max. Conc. Of any sample)	CCME Water		ORM-F-UA											
			Min	Max	Sept-08	June-09	Aug-09	Oct-09	May-10	Aug-10	Min	Max	Avg	Median	Std. Dev.	75th Percentile
Water Analysis																
Chloride (Cl)	mg/L	6.0-9.5	6.5	9	6.0	1.6	2.9	2.9	2.0	2.5	1.6	6.0	3.0	2.7	1.6	2.9
Sulfate (SO4)	mg/L				1360	635	635	1800	1890	719	635	1890	1173	1040	588	1690
Ion Balance	%				102	101	101	100	92	100	92	102	99	101	3.8	101
TDS (Calculated)	mg/L				2200	960	960	2610	2690	1080	960	2690	1750	1640	839	2508
Hardness (as CaCO3)	mg/L				1430	642	642	1780	1740	740	642	1780	1162	1085	549	1663
Nitrate+Nitrite	mg/L				30	2.3	2.3	1.8	1.3	0.2	0.2	30	6.3	2.0	12	2.3
Nitrate-N	mg/L				2.79 30	2.2	1.8	1.3	0.19	0.43	0.19	30	5.9	1.5	12	2.1
Nitrite-N	mg/L				0.06 0.59	0.11	0.11	<0.050	<0.050	<0.050	<0.050	0.59	0.27	0.11	0.28	0.35
pH	units				7.7	7.7	7.7	7.0	7.8	7.5	7.0	7.8	7.6	7.7	0.28	7.7
Conductivity (EC)	uS/cm				2660	1280	1280	2800	2730	1410	1280	2800	2027	2035	773	2713
Bicarbonate (HCO3)	mg/L				88	48	48	54	85	70	48	88	65	62	18	81
Carbonate (CO3)	mg/L				<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	nc	nc	nc	nc
Hydroxide (OH)	mg/L				<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	nc	nc	nc	nc
Alkalinity, Total (as CaCO3)	mg/L				72	39	39	44	69	58	39	72	54	51	15	66
Calcium (Ca)	mg/L				462	217	217	626	612	-	217	626	427	462	202	612
Potassium (K)	mg/L				62	32	32	64	60	-	32	64	50	60	17	62
Magnesium (Mg)	mg/L				68	24	24	53	52	-	24	68	44	52	19	53
Sodium (Na)	mg/L				61	17	17	28	28	-	17	61	30	28	18	28
Dissolved Metals																
Silver (Ag)	mg/L				-	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	nc	nc	nc	nc
Aluminum (Al)	mg/L				-	<0.010	<0.010	<0.010	<0.010	0.071	<0.010	0.071	nc	nc	nc	nc
Arsenic (As)	mg/L				-	0.0048	0.0048	0.049	0.0110	0.0065	0.0048	0.049	0.015	0.0065	0.019	0.011
Boron (B)	mg/L				-	0.073	0.073	0.19	0.25	0.11	0.073	0.25	0.14	0.11	0.079	0.19
Barium (Ba)	mg/L				-	0.016	0.016	0.058	0.048	0.022	0.016	0.058	0.032	0.022	0.020	0.048
Beryllium (Be)	mg/L				-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	nc	nc	nc	nc
Bismuth (Bi)	mg/L				-	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	nc	nc	nc	nc
Calcium (Ca)	mg/L				-	-	-	626	-	237	nc	nc	nc	nc	nc	nc
Cadmium (Cd)	mg/L				-	<0.00010	<0.00010	<0.00010	<0.00010	0.061	<0.00010	0.0612	nc	nc	nc	nc
Cobalt (Co)	mg/L				-	0.0049	0.0049	0.0024	0.0030	0.019	0.0024	0.019	0.0068	0.0049	0.0068	0.0049
Chromium (Cr)	mg/L				-	0.00070	0.00070	<0.00040	0.00112	<0.00040	<0.00040	0.0011	0.00084	0.00070	0.00024	0.00091
Copper (Cu)	mg/L				-	0.0024	0.0073	0.0094	0.016	0.0052	0.0024	0.016	0.0080	0.0073	0.0051	0.0094
Iron (Fe)	mg/L				-	<0.0050	<0.0050	<0.010	0.011	0.025	<0.0050	0.025	0.018	0.018	0.010	0.022
Potassium (K)	mg/L				-	-	-	64	-	35	nc	nc	50	50	21	57
Magnesium (Mg)	mg/L				-	-	-	53	-	36	nc	nc	45	45	12	49
Manganese (Mn)	mg/L				-	0.32	0.32	0.0045	0.068	1.2	0.0045	1.2	0.39	0.32	0.49	0.32
Molybdenum (Mo)	mg/L				-	0.0013	0.0013	0.0044	0.0038	0.0023	0.0013	0.0044	0.0026	0.0023	0.0014	0.0038
Sodium (Na)	mg/L				-	-	28	-	13	19	13	28	20	19	7	23
Nickel (Ni)	mg/L				-	0.0083	0.0083	0.0148	0.020	0.013	0.0083	0.020	0.013	0.013	0.0050	0.015
Lead (Pb)	mg/L				-	<0.00010	<0.00010	0.00013	<0.00010	0.00075	<0.00010	0.00075	nc	nc	nc	nc

APPENDIX E-1: Field Barrel Data
ORM-F-UA
Unmineralized Amphibolite, Ormsby Deposit
Yellowknife Gold Project
Tyhee NWT Corp.

Parameter	Units	Water License (Max. Conc. Of any sample)	CCME Water		ORM-F-UA											
			Min	Max	Sept-08	June-09	Aug-09	Oct-09	May-10	Aug-10	Min	Max	Avg	Median	Std. Dev.	75th Percentile
Antimony (Sb)	mg/L	35			-	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	nc	nc	nc	nc
Selenium (Se)	mg/L				-	0.00076	0.00076	0.0023	0.0024	0.0018	0.00076	0.0024	0.0016	0.0018	0.00081	0.0023
Tin (Sn)	mg/L				-	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	nc	nc	nc	nc
Strontium (Sr)	mg/L				-	0.50	1.8	1.6	0.85	1.6	0.50	1.8	1.3	1.6	0.57	1.6
Titanium (Ti)	mg/L				-	0.00035	0.00035	0.00072	0.00080	<0.00030	<0.00030	0.00080	0.000555	0.00054	0.00024	0.00074
Thallium (Tl)	mg/L				-	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	nc	nc	nc	nc
Uranium (U)	mg/L				-	0.00029	0.00029	0.00034	0.00045	0.00067	0.00029	0.00067	0.000408	0.00034	0.000160	0.00045
Vanadium (V)	mg/L				-	<0.00010	<0.00010	<0.00010	0.00082	<0.00010	<0.00010	0.00082	nc	nc	nc	nc
Zinc (Zn)	mg/L				-	0.0155	0.0155	0.0086	0.0114	2.98	0.0086	2.98	0.6062	0.0155	1.33	0.0155
Total Dissolved Solids	mg/L				2700	-	-	-	1240	2710	1240	2710	2217	2700	846	2705
Total Suspended Solids	mg/L				<3	-	-	-	-	11	nc	nc	nc	nc	nc	nc
Total Metals																
Aluminum (Al)	mg/L	1	<u>0.005</u>	<u>0.1</u>	<u>0.05</u>	<0.020	<0.020	<0.020	<0.020	<u>0.03</u>	<0.020	0.05	0.04	0.04	0.01	0.05
Antimony (Sb)	mg/L				<0.0004	0.00045	0.00045	<0.00040	<0.00040	<0.00040	<0.00040	0.00045	nc	nc	nc	nc
Arsenic (As)	mg/L		<u>0.005</u>		<u>0.01</u>	0.004	0.004	<u>0.05</u>	<u>0.01</u>	<u>0.007</u>	0.004	0.05	0.01	0.009	0.02	0.01
Barium (Ba)	mg/L				0.044	0.017	0.062	0.049	0.025	0.080	0.017	0.080	0.046	0.046	0.023	0.059
Beryllium (Be)	mg/L				<0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	nc	nc	nc	nc
Bismuth (Bi)	mg/L				<0.0001	<0.00010	<0.00010	<0.00020	<0.00020	<0.00020	<0.00010	<0.00020	nc	nc	nc	nc
Boron (B)	mg/L				0.11	0.081	0.081	0.21	0.32	0.11	0.081	0.32	0.15	0.11	0.094	0.18
Cadmium (Cd)	mg/L		<u>0.000017</u>		<0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<u>0.00089</u>	<0.00020	0.00089	nc	nc	nc	nc
Calcium (Ca)	mg/L				477	222	222	683	622	272	222	683	416	374.5	207	586
Chromium (Cr)	mg/L		<u>0.001</u>	<u>0.0089</u>	<0.0008	<0.00080	<0.00080	<0.00080	<0.00080	<0.00080	<0.00080	<0.00080	nc	nc	nc	nc
Cobalt (Co)	mg/L	0.6			0.0085	0.0045	0.0045	0.0024	0.0029	0.014	0.0024	0.014	0.0062	0.0045	0.0046	0.0075
Copper (Cu)	mg/L		<u>0.002</u>		<u>0.01</u>	<u>0.003</u>	<u>0.003</u>	<u>0.008</u>	<u>0.009</u>	<u>0.005</u>	0.003	0.01	0.007	0.007	0.004	0.009
Iron (Fe)	mg/L		<u>0.3</u>		0.05	0.01	0.01	0.02	0.05	<u>0.5</u>	0.01	0.5	0.1	0.03	0.2	0.05
Lead (Pb)	mg/L		<u>0.001</u>		0.0001	<0.00010	<0.00010	0.00015	<0.00010	0.00061	<0.00010	0.0006	0.0003	0.0002	0.0003	0.0004
Magnesium (Mg)	mg/L				69	25	25	56	48	40	25	69	44	44	17	54
Manganese (Mn)	mg/L				0.15	0.33	0.020	0.072	1.3	0.88	0.020	1.3	0.46	0.24	0.52	0.74
Mercury (Hg)	mg/L		<u>0.000026</u>		<0.00010	-	-	-	-	-	nc	nc	nc	nc	nc	nc
Molybdenum (Mo)	mg/L		<u>0.073</u>		0.0034	0.0013	0.0013	0.0042	0.0039	0.0028	0.0013	0.0042	0.0028	0.0031	0.0013	0.0038
Nickel (Ni)	mg/L		<u>0.025</u>		0.017	0.0085	0.0085	0.013	0.019	0.011	0.0085	0.019	0.013	0.012	0.0045	0.016
Potassium (K)	mg/L				73	33	33	67	51	39	33	73	50	45	17	63
Selenium (Se)	mg/L	1	<u>0.001</u>		<u>0.002</u>	0.001	0.001	<u>0.002</u>	<u>0.003</u>	<u>0.001</u>	0.001	0.003	0.002	0.002	0.001	0.002
Silver (Ag)	mg/L		<u>0.0001</u>		<0.0004	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	nc	nc	nc	nc
Sodium (Na)	mg/L				75	18	18	32	25	14	14	75	30	22	23	30
Strontium (Sr)	mg/L				0.85	0.48	0.48	1.7	1.6	0.90	0.48	1.7	1.0	0.88	0.55	1.4
Thallium (Tl)	mg/L		<u>0.0008</u>		<0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	nc	nc	nc	nc
Tin (Sn)	mg/L				<0.0004	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	nc	nc	nc	nc
Titanium (Ti)	mg/L				<0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	nc	nc	nc	nc
Uranium (U)	mg/L				0.00060	0.00037	0.00036	0.00053	0.00080	0.00044	0.00036	0.00080	0.00052	0.00049	0.00017	0.00058
Vanadium (V)	mg/L				<0.0002	<0.00020	<0.00020	0.00055	<0.00050	<0.00050	<0.00020	<0.00050	nc	nc	nc	nc
Zinc (Zn)	mg/L	1	<u>0.03</u>		<u>0.06</u>	0.01	0.01	0.008	0.01	<u>0.05</u>	0.008	0.06	0.03	0.01	0.02	0.04

APPENDIX E-2: Field Barrel Data
ORM-F-MA
Mineralized Amphibolite, Ormsby Deposit
Yellowknife Gold Project
Tyhee NWT Corp.

Parameter	Units	Water License (Max. Conc. Of any sample)	CCME Water		ORM-F-MA														
			Min	Max	Sept-08	June-09	Aug-09	Oct-09	May-10	Aug-10	Min	Max	Avg	Median	Std. Dev.	75th Percentile			
Water Analysis																			
Chloride (Cl)	mg/L	6.0-9.5	6.5	9	1.0	2.9	5.3	3.4	1.5	3.3	1.0	5.3	2.9	3.1	1.5	3.4			
Sulfate (SO4)	mg/L				1160	589	1620	1570	424	1460	424	1620	1137	1310	517	1543			
Ion Balance	%				105	102	101	102	102	93	93	105	101	102	4.2	102			
TDS (Calculated)	mg/L				1750	898	2380	2310	640	2090	640	2380	1678	1920	742	2255			
Hardness (as CaCO3)	mg/L				1290	629	1670	1640	450	1370	450	1670	1175	1330	517	1573			
Nitrate+Nitrite	mg/L				1.5	1.0	1.7	1.1	0.30	0.78	0.30	1.7	1.1	1.1	0.50	1.4			
Nitrate-N	mg/L					2.79		0.90	0.89	1.7	1.1	0.30	0.78	0.30	1.7	0.95	0.90	0.46	1.1
Nitrite-N	mg/L					0.06		0.59	0.13	<0.050	<0.050	<0.050	<0.050	<0.050	0.59	nc	nc	nc	nc
pH	units							7.6	7.6	7.1	7.8	7.5	7.9	7.1	7.9	7.6	7.6	0.28	7.7
Conductivity (EC)	uS/cm							2070	1190	2560	2490	882	2310	882	2560	1917	2190	710	2445
Bicarbonate (HCO3)	mg/L							78	45	60	57	36	58	36	78	56	57	14	60
Carbonate (CO3)	mg/L							<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	nc	nc	nc	nc
Hydroxide (OH)	mg/L							<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	nc	nc	nc	nc
Alkalinity, Total (as CaCO3)	mg/L							64	37	49	47	29	47	29.3	64	46	47	12	49
Calcium (Ca)	mg/L							483	239	628	609	-	-	239	628	490	546	179	614
Potassium (K)	mg/L							35	28	52	51	-	-	28	52	41	43	12	51
Magnesium (Mg)	mg/L							20	7.7	25	29	-	-	7.7	29	20	22	9.4	26
Sodium (Na)	mg/L							5.0	3.9	12	12	-	-	3.9	12	8.4	8.6	4.6	12
Dissolved Metals																			
Silver (Ag)	mg/L				-	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	nc	nc	nc	nc			
Aluminum (Al)	mg/L				-	<0.010	0.010	0.012	<0.010	0.018	<0.010	0.018	0.013	0.012	0.0042	0.015			
Arsenic (As)	mg/L				-	0.0054	0.012	0.018	0.0049	0.012	0.0049	0.018	0.010	0.012	0.0054	0.012			
Boron (B)	mg/L				-	0.032	0.062	0.090	0.025	0.074	0.025	0.090	0.056	0.062	0.028	0.074			
Barium (Ba)	mg/L				-	0.017	0.054	0.042	0.012	0.048	0.012	0.054	0.035	0.042	0.019	0.048			
Beryllium (Be)	mg/L				-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	nc	nc	nc	nc			
Bismuth (Bi)	mg/L				-	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	nc	nc	nc	nc			
Calcium (Ca)	mg/L				-	-	628	-	162	509	162	628	433	509	242	569			
Cadmium (Cd)	mg/L				-	<0.00010	<0.00010	0.0002	<0.00010	<0.00010	<0.00010	0.0002	nc	nc	nc	nc			
Cobalt (Co)	mg/L				-	0.0055	0.010	0.0094	0.0046	0.0062	0.0046	0.010	0.0071	0.0062	0.0024	0.0094			
Chromium (Cr)	mg/L				-	0.00068	<0.00040	<0.0020	<0.00040	<0.0020	<0.00040	<0.0020	nc	nc	nc	nc			
Copper (Cu)	mg/L				-	0.0015	0.0047	0.0025	0.00096	0.0030	0.00096	0.0047	0.0026	0.0025	0.0015	0.0030			
Iron (Fe)	mg/L				-	<0.0050	<0.010	<0.010	<0.010	<0.010	<0.0050	<0.010	nc	nc	nc	nc			
Potassium (K)	mg/L				-	-	52	-	20	49	20	52	40	49	18	50			
Magnesium (Mg)	mg/L				-	-	25	-	11	25	11	25	20	25	8.1	25			
Manganese (Mn)	mg/L				-	0.42	0.74	0.61	0.35	0.22	0.22	0.74	0.47	0.42	0.21	0.61			
Molybdenum (Mo)	mg/L				-	0.0023	0.0078	0.0073	0.0021	0.0089	0.0021	0.0089	0.0057	0.0073	0.0032	0.0078			
Sodium (Na)	mg/L				-	-	12	-	3.1	11	3.1	12	8.6	11	4.9	11			
Nickel (Ni)	mg/L				-	0.0086	0.016	0.014	0.0042	0.014	0.0042	0.016	0.011	0.014	0.0048	0.014			
Lead (Pb)	mg/L				-	<0.00010	0.00014	<0.00010	0.00012	<0.00010	<0.00010	0.00014	nc	nc	nc	nc			

APPENDIX E-2: Field Barrel Data
ORM-F-MA
Mineralized Amphibolite, Ormsby Deposit
Yellowknife Gold Project
Tyhee NWT Corp.

Parameter	Units	Water License (Max. Conc. Of any sample)	CCME Water		ORM-F-MA											
			Min	Max	Sept-08	June-09	Aug-09	Oct-09	May-10	Aug-10	Min	Max	Avg	Median	Std. Dev.	75th Percentile
Antimony (Sb)	mg/L				-	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	nc	nc	nc	nc
Selenium (Se)	mg/L				-	0.00066	0.0017	<0.0020	0.00081	0.0020	0.00066	0.0020	0.0013	0.0012	0.00065	0.0018
Tin (Sn)	mg/L				-	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	nc	nc	nc	nc
Strontium (Sr)	mg/L				-	0.62	1.5	1.2	0.34	0.94	0.34	1.5	0.92	0.94	0.46	1.2
Titanium (Ti)	mg/L				-	0.00033	0.00076	0.00071	<0.00030	0.00031	<0.00030	0.00076	0.00053	0.00052	0.00024	0.00072
Thallium (Tl)	mg/L				-	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	nc	nc	nc	nc
Uranium (U)	mg/L				-	0.00097	0.00086	0.00094	0.00042	0.00052	0.00042	0.00097	0.000742	0.00086	0.000254008	0.00094
Vanadium (V)	mg/L				-	<0.00010	0.00013	<0.00050	<0.00010	<0.00050	<0.00010	<0.00050	nc	nc	nc	nc
Zinc (Zn)	mg/L				-	0.0097	0.015	0.028	0.011	0.0099	0.0097	0.028	0.015	0.011	0.0078	0.015
Total Dissolved Solids	mg/L				2070	-	2590	2450	711	2280	711	2590	2020	2280	757	2450
Total Suspended Solids	mg/L	35			<3	-	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	nc	nc	nc	nc
Total Metals																
Aluminum (Al)	mg/L		0.005	0.1	0.07	<0.020	<0.020	<0.020	<0.020	0.03	<0.020	0.07	nc	nc	nc	nc
Antimony (Sb)	mg/L				<0.0004	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	nc	nc	nc	nc
Arsenic (As)	mg/L	1	0.005		0.007	0.005	0.01	0.01	0.006	0.01	0.005	0.01	0.009	0.009	0.003	0.01
Barium (Ba)	mg/L				0.055	0.020	0.058	0.039	0.015	0.048	0.015	0.058	0.039	0.043	0.018	0.053
Beryllium (Be)	mg/L				<0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	nc	nc	nc	nc
Bismuth (Bi)	mg/L				<0.0001	<0.00010	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	nc	nc	nc	nc
Boron (B)	mg/L				0.070	0.033	0.068	0.065	0.030	0.077	0.030	0.077	0.057	0.067	0.020	0.070
Cadmium (Cd)	mg/L	0.01	0.000017		<0.0002	<0.00020	<0.00020	<0.00020	0.0034	<0.00020	<0.00020	0.0034	n.e.	n.e.	n.e.	n.e.
Calcium (Ca)	mg/L				472	257	-	580	182	620	182	620	422	472	195	580
Chromium (Cr)	mg/L		0.001	0.0089	<0.0008	<0.00080	<0.00080	<0.00080	<0.00080	<0.00080	<0.00080	<0.00080	nc	nc	nc	nc
Cobalt (Co)	mg/L				0.011	0.0054	0.0096	0.0094	0.0061	0.0069	0.0054	0.011	0.0081	0.0081	0.0023	0.0095
Copper (Cu)	mg/L	0.6	0.002		0.01	0.002	0.005	0.003	0.002	0.004	0.002	0.01	0.004	0.003	0.003	0.005
Iron (Fe)	mg/L		0.3		0.04	0.02	<0.010	<0.010	0.02	0.03	0.02	0.04	0.02	0.02	0.01	0.03
Lead (Pb)	mg/L	0.4	0.001		0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.0001	nc	nc	nc	nc
Magnesium (Mg)	mg/L				20	8.5	26	29	13	31	8.5	31	21	23	9.1	28
Manganese (Mn)	mg/L				0.73	0.47	0.76	0.63	0.42	0.30	0.30	0.76	0.55	0.55	0.18	0.70
Mercury (Hg)	mg/L		0.000026		<0.00010	-	-	-	-	-	nc	nc	nc	nc	nc	nc
Molybdenum (Mo)	mg/L		0.073		0.0042	0.0023	0.0073	0.0073	0.0023	0.0089	0.0023	0.0089	0.0054	0.0057	0.0028	0.0073
Nickel (Ni)	mg/L	1	0.025		0.015	0.0094	0.013	0.015	0.0049	0.016	0.0049	0.016	0.012	0.014	0.0042	0.015
Potassium (K)	mg/L				44	29	56	43	22	58	22	58	42	44	14	53
Selenium (Se)	mg/L		0.001		0.001	0.0008	0.002	0.001	0.0007	<0.0020	0.0007	0.002	0.001	0.001	0.0004	0.001
Silver (Ag)	mg/L		0.0001		<0.0004	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	nc	nc	nc	nc
Sodium (Na)	mg/L				8.0	4.0	13	12	3.4	13	3.4	13	8.7	9.8	4.2	12
Strontium (Sr)	mg/L				1.3	0.62	1.4	1.2	0.37	1.1	0.37	1.4	0.99	1.1	0.41	1.26
Thallium (Tl)	mg/L		0.0008		<0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	nc	nc	nc	nc
Tin (Sn)	mg/L				<0.0004	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	nc	nc	nc	nc
Titanium (Ti)	mg/L				<0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	nc	nc	nc	nc
Uranium (U)	mg/L				0.0024	0.0011	0.00086	0.00082	0.00057	0.00055	0.00055	0.0024	0.0011	0.00084	0.00069	0.00105
Vanadium (V)	mg/L				<0.0002	<0.00020	<0.00050	<0.00050	<0.00050	<0.00050	<0.00020	<0.00050	nc	nc	nc	nc
Zinc (Zn)	mg/L	1	0.03		0.02	0.01	0.01	0.01	0.02	0.01	0.01	0.02	0.01	0.01	0.01	0.02

Note:

nc means not calculated

n.e. means no entry exists

Parameter	Units	Water License (Max. Conc. Of any sample)	CCME Water		ORM-F-BG												
			Min	Max	Sept-08	June-09	Aug-09	Oct-09	May-10	Aug-10	Min	Max	Avg	Median	Std. Dev.	75th Percentile	
Water Analysis																	
Chloride (Cl)	mg/L	6.0-9.5	6.5	9	-	-	0.95	<0.50	0.64	0.73	<0.50	0.95	0.77	0.73	0.16	0.84	
Sulfate (SO4)	mg/L				-	-	176	257	219	444	176	444	274	238	118	304	
Ion Balance	%				-	-	107	96.3	105	98	96	107	101	101	5	106	
TDS (Calculated)	mg/L				-	-	317	394	336	625	317	625	418	365	142	452	
Hardness (as CaCO3)	mg/L				-	-	255	285	254	441	254	441	309	270	89	324	
Nitrate+Nitrite	mg/L				-	-	-	-	-	-	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.	
Nitrate-N	mg/L				-	-	2.79	<0.050	0.13	0.29	<0.050	0.59	0.34	0.29	0.23	0.44	
Nitrite-N	mg/L				-	-	0.06	<0.050	<0.050	<0.050	<0.050	<0.050	nc	nc	nc	nc	
pH	units				-	-	-	7.2	7.7	7.4	7.1	7.1	7.7	7.3	7.3	0.3	7.5
Conductivity (EC)	uS/cm				-	-	-	499	556	505	857	499	857	604	531	170	631
Bicarbonate (HCO3)	mg/L				-	-	-	76	49	28	7.2	7.2	76	40	38	29	55
Carbonate (CO3)	mg/L				-	-	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	nc	nc	nc	nc
Hydroxide (OH)	mg/L				-	-	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	nc	nc	nc	nc
Alkalinity, Total (as CaCO3)	mg/L				-	-	-	62	40	23	5.9	5.9	62	33	31	24	45
Calcium (Ca)	mg/L				-	-	-	80	93	-	-	nc	nc	nc	nc	nc	nc
Potassium (K)	mg/L				-	-	-	4.5	5.2	-	-	nc	nc	nc	nc	nc	nc
Magnesium (Mg)	mg/L				-	-	-	14	13	-	-	nc	nc	nc	nc	nc	nc
Sodium (Na)	mg/L				-	-	-	2.6	2.2	-	-	nc	nc	nc	nc	nc	nc
Dissolved Metals																	
Silver (Ag)	mg/L				-	-	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	nc	nc	nc	nc	
Aluminum (Al)	mg/L				-	-	<0.010	<0.010	0.030	<0.010	<0.010	0.030	nc	nc	nc	nc	
Arsenic (As)	mg/L				-	-	0.0075	0.0100	0.012	0.0069	0.0069	0.012	0.0090	0.0087	0.0022	0.010	
Boron (B)	mg/L				-	-	0.011	0.021	0.011	0.027	0.011	0.027	0.017	0.016	0.0081	0.022	
Barium (Ba)	mg/L				-	-	0.0045	0.0058	0.0063	0.014	0.0045	0.014	0.0076	0.0060	0.0043	0.0082	
Beryllium (Be)	mg/L				-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	nc	nc	nc	nc	
Bismuth (Bi)	mg/L				-	-	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	nc	nc	nc	nc	
Calcium (Ca)	mg/L				-	-	80	-	84	143	80	143	102	84	35	114	
Cadmium (Cd)	mg/L				-	-	<0.00010	<0.00010	0.00058	0.00051	<0.00010	0.00058	nc	nc	nc	nc	
Cobalt (Co)	mg/L				-	-	0.0081	0.0030	0.015	0.028	0.0030	0.028	0.014	0.012	0.011	0.018	
Chromium (Cr)	mg/L				-	-	0.00078	<0.0020	<0.00040	<0.00040	<0.00040	0.00078	nc	nc	nc	nc	
Copper (Cu)	mg/L				-	-	0.0013	0.0011	0.011	0.0024	0.0011	0.011	0.0040	0.0018	0.0048	0.0045	
Iron (Fe)	mg/L				-	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	nc	nc	nc	nc	
Potassium (K)	mg/L				-	-	4.5	-	5.2	10	4.5	10	6.6	5.2	3.1	7.7	
Magnesium (Mg)	mg/L				-	-	14	-	11	20	11	20	15	14	4.9	17	
Manganese (Mn)	mg/L				-	-	0.090	0.042	0.27	0.44	0.042	0.44	0.21	0.18	0.18	0.32	
Molybdenum (Mo)	mg/L				-	-	0.00076	0.00085	0.00073	0.00046	0.00046	0.00085	0.00070	0.00075	0.00017	0.00078	
Sodium (Na)	mg/L				-	-	2.6	-	1.5	2.4	1.5	2.6	2.17	2.4	0.59	2.5	
Nickel (Ni)	mg/L				-	-	0.092	0.078	0.096	0.33	0.078	0.33	0.15	0.094	0.12	0.15	
Lead (Pb)	mg/L				-	-	0.00014	<0.00010	<0.00010	<0.00010	<0.00010	0.00014	nc	nc	nc	nc	

Parameter	Units	Water License (Max. Conc. Of any sample)	CCME Water		ORM-F-BG											
			Min	Max	Sept-08	June-09	Aug-09	Oct-09	May-10	Aug-10	Min	Max	Avg	Median	Std. Dev.	75th Percentile
Antimony (Sb)	mg/L				-	-	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	nc	nc	nc	nc
Selenium (Se)	mg/L				-	-	0.0016	<0.0020	0.0013	0.0017	<0.0020	0.0017	0.0015	0.0016	0.00024	0.0017
Tin (Sn)	mg/L				-	-	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	nc	nc	nc	nc
Strontium (Sr)	mg/L				-	-	0.17	0.14	0.098	0.17	0.098	0.17	0.15	0.16	0.034	0.17
Titanium (Ti)	mg/L				-	-	0.0011	0.00077	<0.00030	0.00091	<0.00030	0.0011	0.00092	0.00091	0.000150111	0.00099
Thallium (Tl)	mg/L				-	-	<0.000050	0.000050	<0.000050	0.000095	<0.000095	0.00010	nc	nc	nc	nc
Uranium (U)	mg/L				-	-	0.00048	0.00035	0.00060	<0.00010	<0.00010	0.00060	0.00048	0.00048	0.00013	0.00054
Vanadium (V)	mg/L				-	-	0.00013	<0.00050	<0.00010	<0.00010	<0.00010	0.00013	nc	nc	nc	nc
Zinc (Zn)	mg/L				-	-	0.010	0.0085	0.0581	0.0481	0.0085	0.058	0.031	0.029	0.026	0.051
Total Dissolved Solids	mg/L				-	-	355	388	360	712	355	712	454	374	173	469
Total Suspended Solids	mg/L	35			-	-	<3.0	<3.0	28	<3.0	<3.0	28	nc	nc	nc	nc
Total Metals																
Aluminum (Al)	mg/L		<u>0.005</u>	<u>0.1</u>	-	-	<u>0.2</u>	<0.020	<u>1</u>	<0.020	<0.020	1.05	nc	nc	nc	nc
Antimony (Sb)	mg/L				-	-	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	nc	nc	nc	nc
Arsenic (As)	mg/L	1	<u>0.005</u>		-	-	<u>0.01</u>	<u>0.008</u>	<u>0.03</u>	<u>0.007</u>	0.007	0.03	0.01	0.01	0.01	0.02
Barium (Ba)	mg/L				-	-	0.0067	0.0057	0.0094	0.016	0.0057	0.016	0.0094	0.0080	0.0045	0.011
Beryllium (Be)	mg/L				-	-	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	nc	nc	nc	nc
Bismuth (Bi)	mg/L				-	-	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	nc	nc	nc	nc
Boron (B)	mg/L				-	-	<0.020	<0.020	<0.020	0.028	0.028	0.028	nc	nc	nc	nc
Cadmium (Cd)	mg/L	0.01	<u>0.000017</u>		-	-	<0.00020	<0.00020	<u>0.0004</u>	<u>0.0005</u>	<0.00020	0.00053	nc	nc	nc	nc
Calcium (Ca)	mg/L				-	-	90	93	78	148	78	148	102	91	31	106
Chromium (Cr)	mg/L		<u>0.001</u>	<u>0.0089</u>	-	-	<u>0.001</u>	<0.00080	<u>0.003</u>	<0.00080	<0.00080	0.003	nc	nc	nc	nc
Cobalt (Co)	mg/L				-	-	0.0089	0.0031	0.017	0.028	0.0031	0.028	0.014	0.013	0.011	0.020
Copper (Cu)	mg/L	0.6	<u>0.002</u>		-	-	<u>0.003</u>	0.002	<u>0.02</u>	<u>0.003</u>	0.002	0.02	0.006	0.003	0.007	0.007
Iron (Fe)	mg/L		<u>0.3</u>		-	-	<u>0.4</u>	<0.010	<u>1</u>	<0.010	<0.010	1.4	nc	nc	nc	nc
Lead (Pb)	mg/L	0.4	<u>0.001</u>		-	-	0.0008	<0.00010	<u>0.003</u>	<0.00010	<0.00010	0.003	nc	nc	nc	nc
Magnesium (Mg)	mg/L				-	-	14	13	11	21	11	21	14.68	14	4.5	16
Manganese (Mn)	mg/L				-	-	0.10	0.048	0.29	0.46	0.048	0.46	0.23	0.20	0.19	0.33
Mercury (Hg)	mg/L		<u>0.000026</u>		-	-	-	-	-	-	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.
Molybdenum (Mo)	mg/L		<u>0.073</u>		-	-	0.00077	0.00083	0.00088	0.0005	0.0005	0.00088	0.000745	0.0008	0.000169411	0.0008425
Nickel (Ni)	mg/L	1	<u>0.025</u>		-	-	<u>0.090</u>	<u>0.075</u>	<u>0.11</u>	<u>0.33</u>	0.075	0.33	0.15	0.10	0.12	0.16
Potassium (K)	mg/L				-	-	4.5	5.2	5.1	8.6	4.5	8.6	5.9	5.2	1.8	6.0
Selenium (Se)	mg/L		<u>0.001</u>		-	-	<u>0.0015</u>	<u>0.0015</u>	<u>0.0012</u>	<u>0.0019</u>	0.0012	0.0019	0.0015	0.0015	0.00029	0.0016
Silver (Ag)	mg/L		<u>0.0001</u>		-	-	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	nc	nc	nc	nc
Sodium (Na)	mg/L				-	-	2.9	2.3	1.6	2.5	1.6	2.9	2.3	2.4	0.54	2.6
Strontium (Sr)	mg/L				-	-	0.17	0.14	0.10	0.18	0.10	0.18	0.15	0.15	0.037	0.17
Thallium (Tl)	mg/L		<u>0.0008</u>		-	-	<0.00010	<0.00010	<0.00010	0.0001	<0.00010	0.0001	nc	nc	nc	nc
Tin (Sn)	mg/L				-	-	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	nc	nc	nc	nc
Titanium (Ti)	mg/L				-	-	0.0063	<0.00050	0.017	<0.00050	<0.00050	0.017	nc	nc	nc	nc
Uranium (U)	mg/L				-	-	0.00060	0.00032	0.0011	<0.00010	<0.00010	0.0011	0.00067	0.00060	0.00040	0.00085
Vanadium (V)	mg/L				-	-	0.00063	<0.00050	0.00147	<0.00050	<0.00050	0.00147	nc	nc	nc	nc
Zinc (Zn)	mg/L	1	<u>0.03</u>		-	-	0.009	0.007	<u>0.06</u>	<u>0.05</u>	0.007	0.06	0.03	0.03	0.03	0.05

Note:

nc means not calculated

n.e. means no entry exists

APPENDIX E-4: Field Barrel Data
ORM-F-TS
Transitional Greywacke, Ormsby Deposit
Yellowknife Gold Project
Tyhee NWT Corp.

Parameter	Units	Water License (Max. Conc. Of any sample)	CCME Water		ORM-F-TS												
			Min	Max	Sept-08	June-09	Aug-09	Oct-09	May-10	Aug-10	Min	Max	Avg	Median	Std. Dev.	75th Percentile	
Water Analysis																	
Chloride (Cl)	mg/L	6.0-9.5	6.5	9	-	-	0.98	0.80	0.57	<0.50	<0.50	0.98	0.783	0.80	0.21	0.89	
Sulfate (SO4)	mg/L				-	-	105	102	80	78	78	105	91	91	14	103	
Ion Balance	%				-	-	91	95	89	87	87	95	91	90	3.6	92	
TDS (Calculated)	mg/L				-	-	166	142	110	107	107	166	131	126	28	148	
Hardness (as CaCO3)	mg/L				-	-	108	92	68	61	61	108	82	80	22	96	
Nitrate+Nitrite	mg/L				-	-	-	-	-	-	n.e.	n.e.	nc	nc	nc	nc	
Nitrate-N	mg/L				-	-	0.16	<0.050	0.060	0.06	0.06	0.157	0.092333	0.060	0.056	0.11	
Nitrite-N	mg/L				-	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	nc	nc	nc	nc	
pH	units				-	-	6.6	5.3	5.1	4.6	4.6	6.6	5.4	5.2	0.85	5.6	
Conductivity (EC)	uS/cm				-	-	280	251	198	196	196	280	231	225	41	258	
Bicarbonate (HCO3)	mg/L				-	-	26	<5.0	<5.0	<5.0	<5.0	26	nc	nc	nc	nc	
Carbonate (CO3)	mg/L				-	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	nc	nc	nc	nc	
Hydroxide (OH)	mg/L				-	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	nc	nc	nc	nc	
Alkalinity, Total (as CaCO3)	mg/L				-	-	22	<5.0	<5.0	<5.0	<5.0	22	nc	nc	nc	nc	
Calcium (Ca)	mg/L				-	-	29	25	-	-	nc	nc	nc	nc	nc	nc	
Potassium (K)	mg/L				-	-	5.9	4.3	-	-	nc	nc	nc	nc	nc	nc	
Magnesium (Mg)	mg/L				-	-	8.8	7.2	-	-	nc	nc	nc	nc	nc	nc	
Sodium (Na)	mg/L				-	-	2.7	2.2	-	-	nc	nc	nc	nc	nc	nc	
Dissolved Metals																	
Silver (Ag)	mg/L				-	-	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	nc	nc	nc	nc	
Aluminum (Al)	mg/L				-	-	0.074	0.45	0.71	1.2	0.074	1.2	0.60	0.58	0.46	0.83	
Arsenic (As)	mg/L				-	-	0.0044	0.0011	0.0023	0.0020	0.0011	0.0044	0.0024	0.0021	0.0014	0.0028	
Boron (B)	mg/L				-	-	0.012	0.013	0.0048	0.0094	0.0048	0.013	0.0097	0.011	0.0035	0.012	
Barium (Ba)	mg/L				-	-	0.026	0.035	0.019	0.038	0.019	0.038	0.029	0.030	0.0087	0.035	
Beryllium (Be)	mg/L				-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	nc	nc	nc	nc	
Bismuth (Bi)	mg/L				-	-	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	nc	nc	nc	nc	
Calcium (Ca)	mg/L				-	-	29	-	20	18	18	29	22	20	5.7	24	
Cadmium (Cd)	mg/L				-	-	0.0017	0.0011	0.00077	0.0011	0.00077	0.0017	0.0012	0.0011	0.00041	0.0012	
Cobalt (Co)	mg/L				-	-	0.13	0.11	0.086	0.12	0.086	0.13	0.11	0.12	0.018	0.12	
Chromium (Cr)	mg/L				-	-	0.00070	<0.00040	<0.00040	<0.00040	<0.00040	0.00070	nc	nc	nc	nc	
Copper (Cu)	mg/L				-	-	0.020	0.018	0.029	0.051	0.018	0.051	0.029	0.024	0.015	0.034	
Iron (Fe)	mg/L				-	-	0.025	0.49	0.68	0.12	0.025	0.68	0.33	0.30	0.31	0.54	
Potassium (K)	mg/L				-	-	5.9	-	3.2	5.2	3.2	5.9	4.8	5.2	1.4	5.5	
Magnesium (Mg)	mg/L				-	-	8.8	-	4.4	3.8	3.8	8.8	5.7	4.4	2.7	6.6	
Manganese (Mn)	mg/L				-	-	0.67	0.56	0.46	0.50	0.46	0.67	0.55	0.53	0.091	0.58	
Molybdenum (Mo)	mg/L				-	-	0.00015	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	nc	nc	nc	nc	
Sodium (Na)	mg/L				-	-	2.7	-	1.4	1.4	1.4	2.7	1.8	1.4	0.73	2.0	
Nickel (Ni)	mg/L				-	-	0.19	0.16	0.12	0.18	0.12	0.19	0.16	0.17	0.029	0.18	
Lead (Pb)	mg/L				-	-	0.00063	<0.00010	0.00020	0.00034	<0.00010	0.00063	0.00039	0.00034	0.000219	0.000485	

APPENDIX E-4: Field Barrel Data
ORM-F-TS
Transitional Greywacke, Ormsby Deposit
Yellowknife Gold Project
Tyhee NWT Corp.

Parameter	Units	Water License (Max. Conc. Of any sample)	CCME Water		ORM-F-TS											
			Min	Max	Sept-08	June-09	Aug-09	Oct-09	May-10	Aug-10	Min	Max	Avg	Median	Std. Dev.	75th Percentile
Antimony (Sb)	mg/L	35			-	-	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	nc	nc	nc	nc
Selenium (Se)	mg/L				-	-	0.0012	0.00096	0.00082	0.00052	0.00052	0.0012	0.00087	0.00089	0.00027	0.0010
Tin (Sn)	mg/L				-	-	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	nc	nc	nc	nc
Strontium (Sr)	mg/L				-	-	0.13	0.10	0.062	0.049	0.049	0.13	0.086	0.083	0.037	0.11
Titanium (Ti)	mg/L				-	-	0.0017	0.0017	<0.00030	0.0015	<0.00030	0.0017	0.0016	0.0017	0.00012	0.0017
Thallium (Tl)	mg/L				-	-	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	nc	nc	nc	nc
Uranium (U)	mg/L				-	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	nc	nc	nc	nc
Vanadium (V)	mg/L				-	-	0.00021	0.00055	<0.00010	<0.00010	<0.00010	0.00055	nc	nc	nc	nc
Zinc (Zn)	mg/L	35			-	-	0.14	0.15	0.11	0.14	0.11	0.15	0.14	0.14	0.017	0.15
Total Dissolved Solids	mg/L				-	-	221	183	124	159	124	221	172	171	41	193
Total Suspended Solids	mg/L				-	-	<3.0	<3.0	<3.0	4	<3.0	4	nc	nc	nc	nc
Total Metals																
Aluminium (Al)	mg/L	1	0.005	0.1	-	-	0.3	0.5	1	1	0.3	1	0.7	0.7	0.4	1
Antimony (Sb)	mg/L				-	-	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	nc	nc	nc	nc
Arsenic (As)	mg/L		0.005		-	-	0.008	0.001	0.003	0.002	0.001	0.008	0.004	0.003	0.003	0.004
Barium (Ba)	mg/L				-	-	0.031	0.034	0.020	0.044	0.020	0.044	0.032	0.033	0.010	0.037
Beryllium (Be)	mg/L				-	-	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	nc	nc	nc	nc
Bismuth (Bi)	mg/L				-	-	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	nc	nc	nc	nc
Boron (B)	mg/L				-	-	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	nc	nc	nc	nc
Cadmium (Cd)	mg/L		0.01	0.000017	-	-	0.0017	0.0010	0.00077	0.0012	0.00077	0.0017	0.0012	0.0011	0.0004	0.0013
Calcium (Ca)	mg/L	0.01			-	-	34	28	23	19	19	34	26	25	6.6	29
Chromium (Cr)	mg/L		0.001	0.0089	-	-	<0.00080	<0.00080	0.001	<0.00080	<0.00080	0.00102	nc	nc	nc	nc
Cobalt (Co)	mg/L	0.6			-	-	0.12	0.11	0.091	0.12	0.091	0.12	0.11	0.11	0.01	0.12
Copper (Cu)	mg/L		0.002		-	-	0.02	0.02	0.03	0.05	0.02	0.05	0.03	0.03	0.01	0.03
Iron (Fe)	mg/L	0.4	0.3		-	-	0.2	0.7	1	0.2	0.2	1	0.5	0.5	0.4	0.8
Lead (Pb)	mg/L		0.001		-	-	0.002	0.0002	0.0004	0.0004	0.0002	0.002	0.0008	0.0004	0.0009	0.0008
Magnesium (Mg)	mg/L	1			-	-	9.4	8.3	5.0	3.9	3.9	9.4	6.6	6.7	2.6	8.6
Manganese (Mn)	mg/L				-	-	0.72	0.61	0.53	0.51	0.51	0.72	0.59	0.57	0.09	0.64
Mercury (Hg)	mg/L		0.000026		-	-	-	-	-	-	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.
Molybdenum (Mo)	mg/L		0.073		-	-	0.00014	<0.00010	<0.00010	0.00019	<0.00010	0.00019	nc	nc	nc	nc
Nickel (Ni)	mg/L		0.025		-	-	0.18	0.15	0.13	0.17	0.13	0.18	0.16	0.16	0.021	0.17
Potassium (K)	mg/L				-	-	6.3	4.3	3.9	4.5	3.9	6.3	4.7	4.4	1.1	5.0
Selenium (Se)	mg/L		0.001		-	-	0.001	0.0009	0.0007	0.0006	0.0006	0.001	0.0009	0.0008	0.0003	0.0010
Silver (Ag)	mg/L		0.0001		-	-	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	nc	nc	nc	nc
Sodium (Na)	mg/L	1			-	-	3.2	2.5	1.5	1.6	1.5	3.2	2.2	2.1	0.80	2.7
Strontium (Sr)	mg/L				-	-	0.13	0.094	0.064	0.055	0.055	0.13	0.085	0.079	0.033	0.10
Thallium (Tl)	mg/L		0.0008		-	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	nc	nc	nc	nc
Tin (Sn)	mg/L				-	-	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	nc	nc	nc	nc
Titanium (Ti)	mg/L				-	-	0.0060	<0.00050	0.0061	<0.00050	<0.00050	0.0061	nc	nc	nc	nc
Uranium (U)	mg/L				-	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	nc	nc	nc	nc
Vanadium (V)	mg/L				-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	nc	nc	nc	nc
Zinc (Zn)	mg/L	1	0.03		-	-	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.0	0.2

Note:

nc means not calculated

n.e. means no entry exists

ORM-F-ARG
Argillite, Ormsby Deposit
Yellowknife Gold Project
Tyhee NWT Corp.

Parameter	Units	Water License (Max. Conc. Of any sample)	CCME Water		ORM-F-ARG											
			Min	Max	Sept-08	June-09	Aug-09	Oct-09	May-10	Aug-10	Min	Max	Avg	Median	Std. Dev.	75th Percentile
Water Analysis																
Chloride (Cl)	mg/L	6.0-9.5	6.5	9	-	-	0.94	0.76	0.63	0.90	0.63	0.94	0.81	0.83	0.14	0.91
Sulfate (SO4)	mg/L				-	-	374	734	878	1170	374	1170	789	806	331	951
Ion Balance	%				-	-	71	58	54	46	46	71	57	56	10	61
TDS (Calculated)	mg/L				-	-	479	900	1060	1380	479	1380	955	980	375	1140
Hardness (as CaCO3)	mg/L				-	-	271	432	489	550	271	550	436	461	120	504
Nitrate+Nitrite	mg/L				-	-	-	-	-	-	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.
Nitrate-N	mg/L				-	-	2.79	0.09	<0.050	<0.050	<0.050	0.244	nc	nc	nc	nc
Nitrite-N	mg/L				-	-	0.06	<0.050	<0.050	<0.050	<0.050	<0.050	nc	nc	nc	nc
pH	units				-	-	4.0	3.6	3.6	3.2	3.2	4.0	3.6	3.6	0.29	3.7
Conductivity (EC)	uS/cm				-	-	760	1220	1390	1730	760	1730	1275	1305	404	1475
Bicarbonate (HCO3)	mg/L				-	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	nc	nc	nc	nc
Carbonate (CO3)	mg/L				-	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	nc	nc	nc	nc
Hydroxide (OH)	mg/L				-	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	nc	nc	nc	nc
Alkalinity, Total (as CaCO3)	mg/L				-	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	nc	nc	nc	nc
Calcium (Ca)	mg/L				-	-	83	137	-	-	n.e.	n.e.	nc	nc	nc	nc
Potassium (K)	mg/L				-	-	1.6	2.3	-	-	n.e.	n.e.	nc	nc	nc	nc
Magnesium (Mg)	mg/L				-	-	16	22	-	-	n.e.	n.e.	nc	nc	nc	nc
Sodium (Na)	mg/L				-	-	3.0	3.7	-	-	n.e.	n.e.	nc	nc	nc	nc
Dissolved Metals																
Silver (Ag)	mg/L				-	-	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	nc	nc	nc	nc
Aluminum (Al)	mg/L				-	-	20	48	64	92	20	92	56	56	30	71
Arsenic (As)	mg/L				-	-	0.029	0.026	0.13	0.073	0.026	0.13	0.065	0.051	0.049	0.087
Boron (B)	mg/L				-	-	0.012	0.031	0.016	0.044	0.012	0.044	0.026	0.024	0.015	0.034
Barium (Ba)	mg/L				-	-	0.011	0.012	0.01	0.012	0.01	0.012	0.010	0.011	0.002	0.012
Beryllium (Be)	mg/L				-	-	0.0014	0.0057	0.0049	0.0081	0.0014	0.0081	0.0050	0.0053	0.0028	0.0063
Bismuth (Bi)	mg/L				-	-	<0.000050	<0.000050	<0.000050	0.00011	<0.000050	0.00011	nc	nc	nc	nc
Calcium (Ca)	mg/L				-	-	83	-	159	177	83	177	140	159	50	168
Cadmium (Cd)	mg/L				-	-	0.023	0.048	0.054	0.076	0.023	0.076	0.050	0.051	0.022	0.060
Cobalt (Co)	mg/L				-	-	0.32	0.62	0.63	1.0	0.32	1.0	0.65	0.63	0.29	0.73
Chromium (Cr)	mg/L				-	-	0.00075	<0.0020	0.00116	<0.0020	<0.0020	0.00116	nc	nc	nc	nc
Copper (Cu)	mg/L				-	-	0.38	0.78	0.74	1.5	0.38	1.5	0.85	0.76	0.48	0.96
Iron (Fe)	mg/L				-	-	0.45	0.91	2.2	3.4	0.45	3.4	1.7	1.6	1.3	2.5
Potassium (K)	mg/L				-	-	1.6	-	1.9	2.3	1.6	2.3	1.9	1.9	0.4	2.1
Magnesium (Mg)	mg/L				-	-	16	-	22	26	16	26	21	22	5.4	24
Manganese (Mn)	mg/L				-	-	1.7	3.6	4.2	4.9	1.7	4.9	3.6	3.9	1.4	4.4
Molybdenum (Mo)	mg/L				-	-	<0.00010	<0.00010	<0.00010	0.00015	<0.00010	0.00015	n.e.	n.e.	n.e.	n.e.
Sodium (Na)	mg/L				-	-	3.0	-	2.7	4.3	2.7	4.3	3.3	3.0	0.8	3.7
Nickel (Ni)	mg/L				-	-	0.16	0.32	0.33	0.59	0.16	0.59	0.35	0.32	0.18	0.40
Lead (Pb)	mg/L				-	-	0.00073	0.0017	0.0011	0.0014	0.00073	0.0017	0.0012	0.0012	0.00043	0.0015

ORM-F-ARG
Argillite, Ormsby Deposit
Yellowknife Gold Project
Tyhee NWT Corp.

Parameter	Units	Water License (Max. Conc. Of any sample)	CCME Water		ORM-F-ARG											
			Min	Max	Sept-08	June-09	Aug-09	Oct-09	May-10	Aug-10	Min	Max	Avg	Median	Std. Dev.	75th Percentile
Antimony (Sb)	mg/L				-	-	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	nc	nc	nc	nc
Selenium (Se)	mg/L				-	-	0.0028	0.0045	0.0056	0.0072	0.0028	0.0072	0.0050	0.0050	0.0018	0.0060
Tin (Sn)	mg/L				-	-	<0.00020	<0.00020	<0.00020	0.00022	<0.00020	0.00022	nc	nc	nc	nc
Strontium (Sr)	mg/L				-	-	0.28	0.29	0.27	0.28	0.27	0.29	0.28	0.28	0.012	0.28
Titanium (Ti)	mg/L				-	-	0.0024	0.0043	0.0016	0.0083	0.0016	0.0083	0.0042	0.0034	0.0030	0.0053
Thallium (Tl)	mg/L				-	-	0.000050	0.000095	0.000055	0.00015	0.000050	0.00015	0.000088	0.000075	0.000046	0.00011
Uranium (U)	mg/L				-	-	0.00031	0.00077	0.00058	0.0018	0.00031	0.0018	0.00087	0.00068	0.00067	0.0010
Vanadium (V)	mg/L				-	-	<0.00010	<0.00050	0.00024	<0.00050	<0.00010	0.0002	nc	nc	nc	nc
Zinc (Zn)	mg/L				-	-	1.5	3.3	3.9	5.0	1.5	5.0	3.4	3.6	1.5	4.2
Total Dissolved Solids	mg/L				-	-	640	1130	1370	1830	640	1830	1243	1250	496	1485
Total Suspended Solids	mg/L	35			-	-	4.0	<3.0	34	<3.0	<3.0	34	nc	nc	nc	nc
Total Metals																
Aluminum (Al)	mg/L		<u>0.005</u>	<u>0.1</u>	-	-	<u>18</u>	<u>48</u>	<u>63</u>	<u>88</u>	18	88	54	55	29	69
Antimony (Sb)	mg/L				-	-	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	nc	nc	nc	nc
Arsenic (As)	mg/L	1	<u>0.005</u>		-	-	<u>0.05</u>	<u>0.03</u>	<u>0.2</u>	<u>0.08</u>	0.03	0.2	0.09	0.07	0.08	0.1
Barium (Ba)	mg/L				-	-	0.013	0.011	0.011	0.013	0.011	0.013	0.012	0.012	0.001	0.013
Beryllium (Be)	mg/L				-	-	0.0019	0.0044	0.0039	0.010	0.0019	0.010	0.0051	0.0042	0.0036	0.0059
Bismuth (Bi)	mg/L				-	-	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	nc	nc	nc	nc
Boron (B)	mg/L				-	-	<0.020	0.022	<0.020	0.047	<0.020	0.047	nc	nc	nc	nc
Cadmium (Cd)	mg/L	0.01	<u>0.000017</u>		-	-	<u>0.022</u>	<u>0.046</u>	<u>0.055</u>	<u>0.080</u>	0.022	0.080	0.051	0.051	0.024	0.061
Calcium (Ca)	mg/L				-	-	101	144	176	180	101	180	150	160	37	177
Chromium (Cr)	mg/L		<u>0.001</u>	<u>0.0089</u>	-	-	<0.00080	<0.00080	<u>0.0021</u>	<u>0.0018</u>	<0.00080	0.0021	nc	nc	nc	nc
Cobalt (Co)	mg/L				-	-	0.30	0.58	0.69	1.0	0.30	1.0	0.65	0.64	0.30	0.77
Copper (Cu)	mg/L	0.6	<u>0.002</u>		-	-	<u>0.4</u>	<u>0.7</u>	<u>0.8</u>	<u>2</u>	0.4	1.6	0.9	0.7	0.5	1.0
Iron (Fe)	mg/L		<u>0.3</u>		-	-	<u>1</u>	<u>0.9</u>	<u>4</u>	<u>3.5</u>	0.9	4	2	2	2	4
Lead (Pb)	mg/L	0.4	<u>0.001</u>		-	-	0.0008	<u>0.001</u>	<u>0.002</u>	<u>0.002</u>	0.0008	0.002	0.002	0.001	0.0006	0.002
Magnesium (Mg)	mg/L				-	-	17	24	24	28	17	28	23	24	4	25
Manganese (Mn)	mg/L				-	-	1.8	3.8	4.7	5.1	1.8	5.1	3.8	4.2	1.5	4.8
Mercury (Hg)	mg/L		<u>0.000026</u>		-	-	-	-	-	-	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.
Molybdenum (Mo)	mg/L		<u>0.073</u>		-	-	<0.00010	<0.00010	0.00022	0.00012	<0.00010	0.00022	nc	nc	nc	nc
Nickel (Ni)	mg/L	1	<u>0.025</u>		-	-	<u>0.15</u>	<u>0.29</u>	<u>0.35</u>	<u>0.59</u>	0.15	0.59	0.34	0.32	0.19	0.41
Potassium (K)	mg/L				-	-	1.7	2.2	2.4	2.2	1.7	2.4	2.1	2.2	0.31	2.2
Selenium (Se)	mg/L		<u>0.001</u>		-	-	<u>0.003</u>	<u>0.005</u>	<u>0.006</u>	<u>0.008</u>	0.003	0.008	0.005	0.005	0.002	0.006
Silver (Ag)	mg/L		<u>0.0001</u>		-	-	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	nc	nc	nc	nc
Sodium (Na)	mg/L				-	-	3.5	3.6	3.1	4.6	3.1	4.6	3.7	3.6	0.6	3.9
Strontium (Sr)	mg/L				-	-	0.27	0.29	0.28	0.28	0.27	0.29	0.28	0.28	0.0066	0.28
Thallium (Tl)	mg/L		<u>0.0008</u>		-	-	<0.00010	<0.00010	<0.00010	0.00014	<0.00010	0.00014	nc	nc	nc	nc
Tin (Sn)	mg/L				-	-	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	nc	nc	nc	nc
Titanium (Ti)	mg/L				-	-	<0.0050	<0.0050	0.019	0.0098	<0.0050	0.019	nc	nc	nc	nc
Uranium (U)	mg/L				-	-	0.00035	0.00063	0.00059	0.0020	0.00035	0.0020	0.00089	0.00061	0.00075	0.00097
Vanadium (V)	mg/L				-	-	0.00052	<0.00050	0.00072	<0.00050	<0.00050	0.00072	nc	nc	nc	nc
Zinc (Zn)	mg/L	1	<u>0.03</u>		-	-	<u>2</u>	<u>3</u>	<u>4</u>	<u>6</u>	2	6	3	3	2	4

Note:

nc means not calculated

n.e. means no entry exists

APPENDIX E-6: Field Barrel Data
 NL-F-MGD
 Mineralized Granodiorite, Nicholas Lake Deposit
 Yellowknife Gold Project
 Tyhee NWT Corp.

Parameter	Units	Water License (Max. Conc. Of any sample)	CCME Water		NL-F-MGD											
			Min	Max	Sept-08	June-09	Aug-09	Oct-09	May-10	Aug-10	Min	Max	Avg	Median	Std. Dev.	75th Percentile
Water Analysis																
Chloride (Cl)	mg/L	6.0-9.5	6.5	9	13	1.4	-	13	1.9	11	1.4	13	8.0	11	5.9	13
Sulfate (SO4)	mg/L				<0.05	531	-	5570	544	4030	<0.05	5570	2669	2287	2540	4415
Ion Balance	%				4920	90	-	37	58	49	36.8	4920	1031	57.7	2174	90.1
TDS (Calculated)	mg/L				45	726	-	6250	660	4690	45.4	6250	2474	726	2802	4690
Hardness (as CaCO3)	mg/L				5670	497	-	2120	322	2020	322	5670	2126	2020	2149	2120
Nitrate+Nitrite	mg/L				-	-	-	-	-	-	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.
Nitrate-N	mg/L				2300	0.086	-	<0.050	<0.050	<0.050	<0.050	2300	nc	nc	nc	nc
Nitrite-N	mg/L				0.7	<0.050	-	<0.050	<0.050	<0.050	<0.050	0.7	nc	nc	nc	nc
pH	units				3.9	4.2	-	3.4	3.8	3.2	3.2	4.2	3.7	3.8	0.40	3.9
Conductivity (EC)	uS/cm				5850	1030	-	5660	1030	4580	1030	5850	3630	4580	2422	5660
Bicarbonate (HCO3)	mg/L				<5	<5.0	-	<5.0	<5.0	<5.0	<5.0	<5.0	nc	nc	nc	nc
Carbonate (CO3)	mg/L				<5	<5.0	-	<5.0	<5.0	<5.0	<5.0	<5.0	nc	nc	nc	nc
Hydroxide (OH)	mg/L				<5	<5.0	-	<5.0	<5.0	<5.0	<5.0	<5.0	nc	nc	nc	nc
Alkalinity, Total (as CaCO3)	mg/L				<5	<5.0	-	<5.0	<5.0	<5.0	<5.0	<5.0	nc	nc	nc	nc
Calcium (Ca)	mg/L				397	178	-	359	-	-	178	397	311	359	117	378
Potassium (K)	mg/L				318	2.4	-	9.0	-	-	2.4	318	110	9.0	180	164
Magnesium (Mg)	mg/L				25	13	-	296	-	-	13	296	111	25	160	161
Sodium (Na)	mg/L				<1	<1.0	-	7.9	-	-	<1.0	7.9	nc	nc	nc	nc
Dissolved Metals																
Silver (Ag)	mg/L				-	<0.00020	-	<0.0020	<0.00020	0.00053	<0.00020	<0.0020	nc	nc	nc	nc
Aluminum (Al)	mg/L				-	5.5	-	179	13	118	5.5	179	79	65	84	133
Arsenic (As)	mg/L				-	0.26	-	1.3	0.12	0.56	0.12	1.3	0.55	0.41	0.51	0.74
Boron (B)	mg/L				-	0.0091	-	0.27	0.022	0.32	0.01	0.32	0.16	0.15	0.16	0.28
Barium (Ba)	mg/L				-	0.0013	-	0.0020	0.00094	0.0035	0.00094	0.0035	0.0019	0.0016	0.0012	0.0024
Beryllium (Be)	mg/L				-	0.0018	-	0.078	0.0062	0.061	0.0018	0.078	0.037	0.034	0.039	0.065
Bismuth (Bi)	mg/L				-	<0.000050	-	<0.0010	<0.000050	<0.000050	<0.000050	<0.0010	nc	nc	nc	nc
Calcium (Ca)	mg/L				-	-	-	-	81	360	nc	nc	nc	nc	nc	nc
Cadmium (Cd)	mg/L				-	1.3	-	18	1.7	12	1.3	18	8.2	6.6	8.2	13
Cobalt (Co)	mg/L				-	0.069	-	1.9	0.15	1.2	0.07	1.9	0.83	0.69	0.87	1.4
Chromium (Cr)	mg/L				-	<0.00040	-	<0.040	<0.00040	<0.0020	<0.00040	<0.040	nc	nc	nc	nc
Copper (Cu)	mg/L				-	0.23	-	5.6	0.40	3.5	0.23	5.6	2.4	1.9	2.6	4.0
Iron (Fe)	mg/L				-	4.5	-	92	11	130	4.5	130	59	51	62	102
Potassium (K)	mg/L				-	-	-	-	2.8	8.9	n.e.	n.e.	nc	nc	nc	nc
Magnesium (Mg)	mg/L				-	-	-	-	29	273	n.e.	n.e.	nc	nc	nc	nc
Manganese (Mn)	mg/L				-	1.1	-	25	2.6	22	1.1	25	13	12	12	23
Molybdenum (Mo)	mg/L				-	<0.00010	-	<0.0020	<0.00010	0.00023	<0.00010	<0.0020	nc	nc	nc	nc
Sodium (Na)	mg/L				-	-	-	-	1.3	6.7	1.3	6.7	4.0	4.0	3.8	5.4
Nickel (Ni)	mg/L				-	0.050	-	1.2	0.096	0.68	0.050	1.2	0.50	0.39	0.54	0.80
Lead (Pb)	mg/L				-	0.60	-	1.8	0.31	1.9	0.31	1.9	1.2	1.2	0.83	1.8

APPENDIX E-6: Field Barrel Data
 NL-F-MGD
 Mineralized Granodiorite, Nicholas Lake Deposit
 Yellowknife Gold Project
 Tyhee NWT Corp.

Parameter	Units	Water License (Max. Conc. Of any sample)	CCME Water		NL-F-MGD												
			Min	Max	Sept-08	June-09	Aug-09	Oct-09	May-10	Aug-10	Min	Max	Avg	Median	Std. Dev.	75th Percentile	
Antimony (Sb)	mg/L	35			-	<0.00040	-	<0.0080	<0.00040	0.0041	<0.00040	<0.0080	nc	nc	nc	nc	
Selenium (Se)	mg/L				-	0.0069	-	0.11	0.014	0.089	0.0069	0.11	0.056	0.051	0.054	0.095	
Tin (Sn)	mg/L				-	<0.00020	-	<0.0040	<0.00020	<0.00020	<0.00020	<0.0040	nc	nc	nc	nc	
Strontium (Sr)	mg/L				-	0.053	-	0.14	0.035	0.16	0.035	0.16	0.097	0.096	0.062	0.14	
Titanium (Ti)	mg/L				-	<0.00030	-	<0.0060	<0.00030	0.0091	<0.00030	0.0091	nc	nc	nc	nc	
Thallium (Tl)	mg/L				-	<0.000050	-	<0.0010	<0.000050	0.00030	<0.000050	<0.0010	nc	nc	nc	nc	
Uranium (U)	mg/L				-	0.00044	-	0.015	0.00089	0.014	0.00044	0.015	0.008	0.0075	0.0079	0.014	
Vanadium (V)	mg/L				-	<0.00010	-	<0.010	0.00050	0.0078	<0.00010	<0.010	nc	nc	nc	nc	
Zinc (Zn)	mg/L				-	66	-	995	87	518	66	995	416	302	439	637	
Total Dissolved Solids	mg/L				9850	-	-	8190	936	6300	936	9850	6319	7245	3871	8605	
Total Suspended Solids	mg/L				<3	-	-	-	<3.0	10	<3.0	10	nc	nc	nc	nc	
Total Metals																	
Aluminum (Al)	mg/L	1	0.005	0.1	120	6	-	178	12	116	6	178	86	116	75	120	
Antimony (Sb)	mg/L				0.0041	<0.00040	-	<0.0080	<0.00040	0.0043	<0.00040	<0.0080	nc	nc	nc	nc	
Arsenic (As)	mg/L		0.005	6	0.3	2	0.3	2	0.3	6	2	2	2	2	2	2	
Barium (Ba)	mg/L			0.0017	0.0012	-	<0.0040	0.0025	0.0035	0.0012	<0.0040	0.0022	0.0021	0.0010	0.0027		
Beryllium (Be)	mg/L			0.038	0.0019	-	0.070	0.0056	0.065	0.0019	0.070	0.036	0.038	0.032	0.065		
Bismuth (Bi)	mg/L			<0.0001	<0.00010	-	<0.0040	<0.00020	<0.00020	<0.00010	<0.0040	nc	nc	nc	nc		
Boron (B)	mg/L			0.12	<0.020	-	0.27	0.021	0.29	<0.020	0.29	0.18	0.19	0.13	0.27		
Cadmium (Cd)	mg/L		0.01	0.000017	27	1.3	-	18	1.7	11	1.3	27	12	11	11	18	
Calcium (Ca)	mg/L			294	163	-	378	87	350	87	378	254	294	125	350		
Chromium (Cr)	mg/L		0.001	0.0089	0.007	<0.00080	-	<0.016	<0.00080	<0.00080	<0.016	nc	nc	nc	nc		
Cobalt (Co)	mg/L		1.7	0.068	-	1.8	0.17	1.2	0.068	1.8	0.99	1.2	0.83	1.7			
Copper (Cu)	mg/L	0.6	0.002	6	0.2	-	6	0.4	4	0.2	6	3	4	3	6		
Iron (Fe)	mg/L		0.3	74	5	-	93	11	127	5	127	62	74	53	93		
Lead (Pb)	mg/L	0.4	0.001	1	1	-	2	0.3	2	0.3	2	1	1	0.7	2		
Magnesium (Mg)	mg/L			315	15	-	324	31	267	15	324	190	267	155	315		
Manganese (Mn)	mg/L			23	1.4	-	26	2.7	21	1.4	26	15	21	12	23		
Mercury (Hg)	mg/L		0.000026	<0.00010	-	-	-	-	-	n.e.	n.e.	nc	nc	nc	nc		
Molybdenum (Mo)	mg/L		0.073	0.00040	<0.00010	-	<0.0020	<0.00010	0.00032	<0.00010	<0.0020	nc	nc	nc	nc		
Nickel (Ni)	mg/L	1	0.025	1.1	0.048	-	1.2	0.10	0.66	0.048	1.2	0.62	0.66	0.53	1.1		
Potassium (K)	mg/L			34	2.5	-	8.6	3.1	7.6	2.5	34	11.1	7.6	12.9	8.6		
Selenium (Se)	mg/L		0.001	0.1	0.01	-	0.1	0.01	0.09	0.01	0.1	0.07	0.09	0.06	0.1		
Silver (Ag)	mg/L		0.0001	<0.0004	<0.00040	-	<0.0020	<0.00040	0.001	<0.00040	<0.0020	nc	nc	nc	nc		
Sodium (Na)	mg/L			8.0	<1.0	-	8.7	1.4	6.7	<1.0	8.7	6.2	7.4	3.3	8.2		
Strontium (Sr)	mg/L			0.13	0.057	-	0.14	0.035	0.15	0.035	0.15	0.10	0.13	0.053	0.14		
Thallium (Tl)	mg/L		0.0008	0.0003	<0.00010	-	0.003	<0.00010	0.0003	0.0003	0.003	0.001	0.0003	0.002	0.002		
Tin (Sn)	mg/L			<0.0004	<0.00040	-	<0.0080	<0.00040	<0.00040	<0.00040	<0.0080	nc	nc	nc	nc		
Titanium (Ti)	mg/L			<0.005	<0.0050	-	<0.012	<0.0050	0.0088	<0.0050	<0.012	nc	nc	nc	nc		
Uranium (U)	mg/L			0.015	0.00059	-	0.015	0.0010	0.015	0.00059	0.015	0.0094	0.015	0.0078	0.015		
Vanadium (V)	mg/L			0.0031	<0.00020	-	<0.010	0.00066	0.0082	<0.00020	<0.010	0.0040	0.0031	0.0038	0.0056		
Zinc (Zn)	mg/L	1	0.03	1980	72	-	990	88	523	72	1980	730	523	794	990		

Note:

nc means not calculated

n.e. means no entry exists

APPENDIX E-7: Field Barrel Data
 NL-F-UGD
 Unmineralized Granodiorite, Nicholas Lake Deposit
 Yellowknife Gold Project
 Tyhee NWT Corp.

Parameter	Units	Water License (Max. Conc. Of any sample)	CCME Water		NL-F-UGD												
			Min	Max	Sept-08	June-09	Aug-09	Oct-09	May-10	Aug-10	Min	Max	Avg	Median	Std. Dev.	75th Percentile	
Water Analysis																	
Chloride (Cl)	mg/L	6.0-9.5	6.5	9	6.0	2.3	4.4	3.9	1.8	5.4	1.8	6.0	4.0	4.1	1.7	5.1	
Sulfate (SO4)	mg/L				1270	275	852	1370	283	1150	275	1370	867	1001	487	1240	
Ion Balance	%				105	102	98	91	102	94	91	105	99	100	5.4	102	
TDS (Calculated)	mg/L				1890	426	1220	1890	405	1580	405	1890	1235	1400	681	1813	
Hardness (as CaCO3)	mg/L				1430	320	889	1300	302	1110	302	1430	892	1000	486	1253	
Nitrate+Nitrite	mg/L				-	-	-	-	-	-	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.	
Nitrate-N	mg/L				2.79	0.90	0.42	1.2	0.77	0.25	0.27	0.25	1.2	0.64	0.60	0.39	0.87
Nitrite-N	mg/L				0.06	0.060	0.10	<0.050	<0.050	<0.050	<0.050	<0.050	0.10	nc	nc	nc	nc
pH	units				7.2	7.2	6.9	6.8	6.6	6.7	6.6	7.2	6.9	6.8	0.27	7.1	
Conductivity (EC)	uS/cm				2250	638	1530	2000	611	1830	611	2250	1477	1680	700	1958	
Bicarbonate (HCO3)	mg/L				91	39	34	30	7.6	13	7.6	91	36	32	30	38	
Carbonate (CO3)	mg/L				<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	nc	nc	nc	nc	
Hydroxide (OH)	mg/L				<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	nc	nc	nc	nc	
Alkalinity, Total (as CaCO3)	mg/L				74	32	28	25	6.2	10	6.2	74	29	26	24	31	
Calcium (Ca)	mg/L				455	109	303	422	-	-	109	455	322	363	156	430	
Potassium (K)	mg/L				72	4.9	6.7	9.0	-	-	4.9	72	23	7.9	33	25	
Magnesium (Mg)	mg/L				32	12	32	61	-	-	12	61	34	32	20	39	
Sodium (Na)	mg/L				4.0	1.8	4.5	6.2	-	-	1.8	6.2	4.1	4.3	1.8	4.9	
Dissolved Metals																	
Silver (Ag)	mg/L				-	<0.00020	<0.00020	<0.00040	<0.00020	<0.00020	<0.00020	<0.00040	nc	nc	nc	nc	
Aluminum (Al)	mg/L				-	<0.010	<0.010	<0.020	<0.010	<0.010	<0.010	<0.020	nc	nc	nc	nc	
Arsenic (As)	mg/L				-	1.8	22	32	8.2	23	1.8	32	17	22	12	23	
Boron (B)	mg/L				-	0.0048	0.018	0.037	0.0081	0.029	0.0048	0.037	0.019	0.018	0.014	0.029	
Barium (Ba)	mg/L				-	0.00767	0.024	0.0267	0.00627	0.0285	0.0063	0.029	0.019	0.024	0.011	0.027	
Beryllium (Be)	mg/L				-	<0.00050	<0.00050	<0.0020	<0.00050	<0.00050	<0.00050	<0.0020	nc	nc	nc	nc	
Bismuth (Bi)	mg/L				-	<0.000050	<0.000050	<0.00020	<0.000050	<0.000050	<0.000050	<0.00020	nc	nc	nc	nc	
Calcium (Ca)	mg/L				-	-	303	-	92	323	92	323	239	303	128	313	
Cadmium (Cd)	mg/L				-	0.0013	0.0031	0.0080	0.0017	0.015	0.0013	0.015	0.0057	0.0031	0.0056	0.0080	
Cobalt (Co)	mg/L				-	0.0045	0.023	0.038	0.013	0.12	0.0045	0.12	0.040	0.023	0.048	0.038	
Chromium (Cr)	mg/L				-	0.00071	<0.00040	<0.0080	<0.00040	<0.0020	<0.00040	<0.0080	nc	nc	nc	nc	
Copper (Cu)	mg/L				-	0.0044	0.0163	0.0068	0.0025	0.013	0.0025	0.016	0.0087	0.0068	0.0059	0.013	
Iron (Fe)	mg/L				-	<0.0050	<0.010	0.029	0.018	<0.010	<0.0050	0.029	nc	nc	nc	nc	
Potassium (K)	mg/L				-	-	6.7	-	3.3	11	3.3	11	7.0	6.7	3.8	8.8	
Magnesium (Mg)	mg/L				-	-	32	-	17	75	17	75	41	32	30	53	
Manganese (Mn)	mg/L				-	0.38	0.84	2.4	0.81	4.7	0.38	4.7	1.8	0.84	1.8	2.4	
Molybdenum (Mo)	mg/L				-	0.0031	0.024	0.022	0.0044	0.012	0.0031	0.024	0.013	0.012	0.0095	0.022	
Sodium (Na)	mg/L				-	-	4.5	-	2.0	7.6	2.0	7.6	4.7	4.5	2.8	6.1	
Nickel (Ni)	mg/L				-	0.0078	0.020	0.045	0.015	0.10	0.0078	0.10	0.038	0.020	0.039	0.045	
Lead (Pb)	mg/L				-	<0.00010	0.00015	0.00116	0.00019	0.00137	<0.00010	0.00137	0.000718	0.000675	0.00063819	0.0012125	

APPENDIX E-7: Field Barrel Data
 NL-F-UGD
 Unmineralized Granodiorite, Nicholas Lake Deposit
 Yellowknife Gold Project
 Tyhee NWT Corp.

Parameter	Units	Water License (Max. Conc. Of any sample)	CCME Water		NL-F-UGD											
			Min	Max	Sept-08	June-09	Aug-09	Oct-09	May-10	Aug-10	Min	Max	Avg	Median	Std. Dev.	75th Percentile
Antimony (Sb)	mg/L				-	0.0017	0.0055	0.0046	0.0010	0.0052	0.0010	0.0055	0.0036	0.0046	0.0021	0.0052
Selenium (Se)	mg/L				-	0.0015	0.0034	0.0033	0.00092	0.0042	0.0009	0.0042	0.0027	0.0033	0.0014	0.0034
Tin (Sn)	mg/L				-	<0.00020	<0.00020	<0.00080	<0.00020	<0.00020	<0.00020	<0.00080	nc	nc	nc	nc
Strontium (Sr)	mg/L				-	0.078	0.22	0.27	0.062	0.30	0.062	0.30	0.19	0.22	0.11	0.27
Titanium (Ti)	mg/L				-	0.00041	0.0013	<0.0012	<0.00030	0.0026	<0.00030	0.0026	0.0015	0.0013	0.0011	0.0020
Thallium (Tl)	mg/L				-	<0.000050	<0.000050	<0.00020	<0.000050	0.000080	<0.000050	<0.00020	nc	nc	nc	nc
Uranium (U)	mg/L				-	0.00049	<0.00010	<0.00040	<0.00010	<0.00010	<0.00010	0.00049	nc	nc	nc	nc
Vanadium (V)	mg/L				-	0.00022	0.00080	<0.0020	0.00028	0.0012	0.00022	<0.0020	0.00063	0.00054	0.00047	0.00091
Zinc (Zn)	mg/L				-	0.13	0.19	1.1	0.26	2.5	0.13	2.5	0.84	0.26	1.0	1.1
Total Dissolved Solids	mg/L				2320	-	1500	1950	477	1830	477	2320	1615	1830	701	1950
Total Suspended Solids	mg/L	35			6	-	4	-	<3.0	<3.0	<3.0	6	nc	nc	nc	nc
Total Metals																
Aluminum (Al)	mg/L		0.005	0.1	0.9	<0.020	1	<0.040	<0.020	<0.020	<0.020	1	nc	nc	nc	nc
Antimony (Sb)	mg/L				0.0033	0.0016	0.0054	0.0047	0.00097	0.0051	0.00097	0.0054	0.0035	0.0040	0.0019	0.0050
Arsenic (As)	mg/L	1	0.005		3.8	1.7	23	32	8.0	23	1.7	32	15	16	12	23
Barium (Ba)	mg/L				0.053	0.0094	0.023	0.027	0.0061	0.027	0.0061	0.053	0.024	0.025	0.017	0.027
Beryllium (Be)	mg/L				<0.001	<0.0010	<0.0010	<0.0040	<0.0010	<0.0010	<0.0010	<0.0040	nc	nc	nc	nc
Bismuth (Bi)	mg/L				<0.0001	<0.00010	<0.00020	<0.00080	<0.00020	<0.00020	<0.00010	<0.00080	nc	nc	nc	nc
Boron (B)	mg/L				0.030	<0.020	<0.020	0.037	<0.020	0.033	<0.020	0.037	0.033	0.033	0.0035	0.035
Cadmium (Cd)	mg/L	0.01	0.000017		0.19	0.0013	0.0035	0.0079	0.0017	0.014	0.0013	0.19	0.036	0.0057	0.075	0.013
Calcium (Ca)	mg/L				442	111	319	479	89	330	89	479	295	325	163	414
Chromium (Cr)	mg/L		0.001	0.0089	<0.0008	<0.00080	<0.00080	<0.0032	<0.00080	<0.00080	<0.00080	<0.0032	nc	nc	nc	nc
Cobalt (Co)	mg/L				0.053	0.0046	0.024	0.038	0.014	0.12	0.0046	0.12	0.042	0.031	0.041	0.049
Copper (Cu)	mg/L	0.6	0.002		0.1	0.006	0.03	0.007	0.003	0.01	0.003	0.1	0.03	0.01	0.04	0.03
Iron (Fe)	mg/L		0.3		0.6	0.01	0.06	0.02	<0.010	0.01	<0.010	0.6	0.1	0.02	0.3	0.06
Lead (Pb)	mg/L	0.4	0.001		0.01	0.0002	0.0005	0.001	0.0005	0.002	0.0002	0.01	0.003	0.001	0.005	0.002
Magnesium (Mg)	mg/L				73	12	34	64	17	76	12	76	46	49	29	71
Manganese (Mn)	mg/L				2.4	0.41	0.89	2.6	0.80	4.8	0.41	4.8	2.0	1.7	1.6	2.6
Mercury (Hg)	mg/L		0.000026		<0.00010	-	-	-	-	-	nc	nc	nc	nc	nc	nc
Molybdenum (Mo)	mg/L		0.073		0.0071	0.0033	0.024	0.021	0.0042	0.010	0.0033	0.024	0.011	0.0086	0.0086	0.018
Nickel (Ni)	mg/L	1	0.025		0.052	0.0082	0.022	0.044	0.015	0.10	0.0082	0.10	0.040	0.033	0.034	0.050
Potassium (K)	mg/L				42	5.0	7.2	8.7	3.2	9.2	3.2	42	12.5	8.0	14.4	9.1
Selenium (Se)	mg/L		0.001		0.009	0.002	0.003	0.003	0.0009	0.004	0.0009	0.009	0.004	0.003	0.003	0.004
Silver (Ag)	mg/L		0.0001		<0.0004	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	nc	nc	nc	nc
Sodium (Na)	mg/L				8.0	1.9	4.8	7.0	1.9	7.7	1.9	8.0	5.2	6	2.8	7.5
Strontium (Sr)	mg/L				0.34	0.083	0.22	0.27	0.059	0.27	0.059	0.34	0.21	0.24	0.11	0.27
Thallium (Tl)	mg/L		0.0008		<0.0001	<0.00010	<0.00010	<0.00040	<0.00010	<0.00010	<0.00010	<0.00040	nc	nc	nc	nc
Tin (Sn)	mg/L				<0.0004	<0.00040	<0.00040	<0.0016	<0.00040	<0.00040	<0.00040	<0.0016	nc	nc	nc	nc
Titanium (Ti)	mg/L				<0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	nc	nc	nc	nc
Uranium (U)	mg/L				0.0013	0.00059	<0.00010	<0.00040	<0.00010	<0.00010	<0.00010	0.0013	nc	nc	nc	nc
Vanadium (V)	mg/L				0.00040	0.00025	0.00089	<0.0020	<0.00050	0.0012	0.00025	<0.0020	0.00068	0.00065	0.00043	0.0010
Zinc (Zn)	mg/L	1	0.03		13	0.1	0.3	1.1	0.3	3	0.1	13	3	0.7	5	2

Note:

nc means not calculated

n.e. means no entry exists

Appendix E-8: Field Barrel Trace Metals Results
 Nicholas Lake and Ormsby Deposit
 Yellowknife Gold Project
 Tyhee NWT Corp.

Lithology	Sample ID (Material Source)	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Hg	K	La	Mg	Mn
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Mineralized Granodiorite	NL-F-MGD	23.7	0.22	128000	9	1.0	5.100	0.8	209	34	65	57.900	16.100	17.100	0.050	3.000	0.220	336.000
Unmineralized Granodiorite	NL-F-UGD	4.8	0.520	18600.0	10	1.0	19.800	0.2	5	9	108	106.90	3.19	3.70	0.05	5.00	0.39	154.00
Argillite	ORM-F-ARG	0.5	1.680	569.90	244	1.0	1.90	0.99	2.3	13	57	81.70	6.27	0.10	0.38	20.00	0.62	330.00
Burwash Greywacke	ORM-F-BG	0.3	3.070	233.00	79	1	0.300	0.23	0	25.7	177.0	57.1	4.7	0.1	0.6	25.0	2.0	460.0
Mineralized Amphibolite	ORM-F-MA	0.4	1.23	918	155	1.0	0.500	2.1	0	27	50	44.10	5.98	0.40	0.31	37.00	0.58	683.00
Transitional Sediments	ORM-F-TS	0.3	0.830	71.00	161	1	0.2	0.980	0.1	7.6	46.0	37.9	2.9	0.1	0.2	16.0	0.5	367.0
Unmineralized Amphibolite	ORM-F-UA	0.3	1.69	64	104	1	0.200	2.67	0	29	87	52.2	5.0	0.3	0.2	20.0	0.9	831.0

Lithology	Sample ID (Material Source)	Mo	Na	Ni	P	Pb	S	Sb	Sc	Se	Sr	Th	Ti	Tl	U	V	W	Zn	Zr
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Mineralized Granodiorite	NL-F-MGD	1.200	0.010	7.400	0.003	1.030	9.850	65.800	0.100	2.000	7.000	0.400	0.005	0.100	0.200	2.000	598.600	7801.000	1.100
Unmineralized Granodiorite	NL-F-UGD	2.10	0.04	6.20	0.02	457.90	2.02	3.90	0.50	0.50	4.00	1.10	0.01	0.10	0.30	10.00	139.10	261.00	2.40
Argillite	ORM-F-ARG	3.20	0.11	11.00	0.23	9.30	1.07	0.30	13.50	1.20	62.00	5.40	0.17	0.20	0.60	47.00	1.80	170.00	11.30
Burwash Greywacke	ORM-F-BG	1.9	0.0	86.6	0.1	8.4	0.2	0.1	7.3	0.5	7.0	6.7	0.1	0.3	1.2	72.0	0.6	105.0	11.9
Mineralized Amphibolite	ORM-F-MA	1.80	0.08	6.00	0.37	9.30	1.56	0.20	9.80	0.90	24.00	3.60	0.10	0.20	0.30	13.00	14.90	112.00	14.50
Transitional Sediments	ORM-F-TS	0.9	0.1	8.5	0.1	6.9	0.2	0.1	9.1	0.5	10.0	1.9	0.4	0.2	0.3	82.0	2.1	59.0	8.4
Unmineralized Amphibolite	ORM-F-UA	1.2	0.1	26.1	0.2	7.6	0.7	0.1	13.3	0.5	24.0	2.3	0.2	0.1	0.2	97.0	11.0	82.0	9.5

Sample Information		ARD Potential (Static Testing Results)											
Lithology	Sample ID (Material Source)	Paste pH	TIC	CaNP	Sobek NP	S(T)	S(SO4)	S ²⁻	NP	AP	NNP	NPR	ARD Designation
		units	%	tCaCO3/1000t		%	%	%	tCaCO3/1000t				
Mineralized Granodiorite	NL-F-MGD	7.7	0.29	24	29	9.9	0.050	9.8	29	307	-278	0.095	PAG
Mineralized Granodiorite	NL-F-MGD (-2mm)	5.2	0.010	0.83	4.4	1.5	0.11	1.4	4.4	43	-38	0.10	PAG
Unmineralized Granodiorite	NL-F-UGD	8.2	0.030	2.5	9.6	2.1	0.010	2.1	10	66	-56	0.15	PAG
Unmineralized Granodiorite	NL-F-UGD (-2mm)	7.4	0.050	4.2	11	1.4	0.030	1.4	11	43	-32	0.26	PAG
Argillite	ORM-F-ARG	4.3	0.010	0.83	8.6	1.0	0.40	0.61	8.6	19	-10	0.45	PAG
Argillite	ORM-F-ARG (-2mm)	4.5	0.010	0.83	-0.2	1.8	1.2	0.52	-0.20	16	-16	-0.012	PAG
Burwash Greywacke	ORM-F-BG	7.8	0.010	0.83	12	0.16	0.030	0.13	12	4.1	8.1	3.0	non PAG
Burwash Greywacke	ORM-F-BG (-2mm)	7.2	0.020	1.7	12	0.20	0.030	0.17	12	5.3	6.9	2.3	uncertain
Mineralized Amphibolite	ORM-F-MA	8.0	0.20	17	36	1.6	0.070	1.6	36	49	-13	0.74	PAG
Mineralized Amphibolite	ORM-F-MA (-2mm)	7.8	0.33	28	45	1.4	0.15	1.2	45	38	7.2	1.2	uncertain
Transitional Sediments	ORM-F-TS	6.1	0.010	0.83	9.1	0.19	0.12	0.070	9.1	2.2	6.9	4.2	non PAG
Transitional Sediments	ORM-F-TS (-2mm)	5.4	0.010	0.83	7.5	0.30	0.30	0.010	7.5	0.31	7.2	24	non PAG
Unmineralized Amphibolite	ORM-F-UA	7.9	0.42	35	51	0.64	0.080	0.56	51	18	34	2.9	uncertain
Unmineralized Amphibolite	ORM-F-UA (-2mm)	7.4	0.50	42	56	0.98	0.24	0.74	56	23	33	2.4	uncertain

Notes:

carbonate neutralization potential (CaNP), neutralization potential (NP) acid potential (AP), and Net NP reported in t CaCO₃ per 1000 t
 S(T)=total sulphur; S(SO₄)=sulphate sulphur; S(S₂-)=sulphide sulphur; TIC=total inorganic carbon

Appendix E-10: Quantitative Mineralogical Analysis of Field Barrel Material
Ormsby and Nicholas Lake Deposits
Yellowknife Gold Project
Tyhee NWT Corp.

Mineral Group/Name	Mineral Formula	Field Barrels						
		NL-F-MGD	NL-F-UGD	ORM-F-ARG	ORM-F-BG	ORM-F-MA	ORM-F-TS	ORM-F-UA
Quartz	SiO ₂	40.8	40.9	35.8	27.9	21.8	8.3	21.1
Feldspar Group								
K-feldspar	KAlSi ₃ O ₈	3.5	7.9	3.0	3.1	-	2.1	-
Plagioclase	(Na,Ca)AlSi ₃ O ₈	8.0	37.7	29.6	23.8	19.0	28.8	21.6
Carbonate Group								
Calcite	CaCO ₃	1.7	-	-	-	-	-	3.8
Siderite	Fe ²⁺ CO ₃	-	-	-	-	1.0	-	-
Dolomite Group								
Dolomite	CaMg(CO ₃) ₂	-	-	-	-	-	-	0.9
Amphibole Group								
Actinolite	Ca ₂ (Mg,Fe) ₅ Si ₈ O ₂₂ (OH) ₂	-	-	11.4	-	33.3	53.4	34.4
Cummingtonite	Mg ₇ Si ₈ O ₂₂ (OH) ₂	-	-	-	-	6.7	-	4.5
Phyllosilicates								
Biotite	K(Mg,Fe) ₃ (Al,Fe)Si ₃ O ₁₀ (OH,F) ₂	-	-	-	5.6	4.4	4.2	2.5
Clinocllore	(Mg,Fe ₂₊) ₈ Al(Si ₃ Al)O ₁₀ (OH) ₈	2.5	3.7	8.0	14.1	2.9	2.3	6.5
Muscovite	KAl ₂ (AlSi ₃)O ₁₀ (OH) ₂	2.8	4.1	6.6	25.5	-	-	-
Sulphides								
Arsenopyrite	FeAsS	32.4	2.7	-	-	-	-	-
Pyrite	FeS ₂	5.6	2.9	1.0	-	2.2	-	1.1
Pyrrhotite	Fe _{1-x} S _x	-	-	-	-	3.3	0.9	-
Gypsum	CaSO ₄	-	-	-	-	-	-	-
Galena Group								
Galena	PbS	1.4	-	-	-	-	-	-
Alunite Group								
Jarosite	K ₂ Fe ₆ ³⁺ (SO ₄) ₄ (OH) ₁₂	-	-	0.8	-	-	-	-
Garnet Group								
Grossular	Ca ₃ Al ₂ (SiO ₄) ₃	-	-	0.5	-	-	-	-
Sphalerite Group								
Sphalerite	(Zn,Fe)S	1.3	-	-	-	-	-	-
Kaolinite-Serpentine Group								
Kaolinite	Al ₂ Si ₂ O ₅ (OH) ₄	-	-	-	-	-	-	-
Spinel Group								
Ilmenite	FeTiO ₃			3.2		3.7		3.7
Total (%)		100	100	100	100	100	100	100
Selected chemical characteristics								
NP (kg CaCO ₃ equivalent/tonne)		282	289	252	321	244	75	49
AP (kg CaCO ₃ equivalent/tonne)		5.7	0.9	5.9	8.8	7.8	3.9	1.9
sulphide sulphur content (%)		0.18	0.02	0.19	0.28	0.25	0.13	0.06
ARD potential*		non PAG	non PAG	non PAG	non PAG	non PAG	non PAG	non PAG

Notes:

*based on INAC 1992

NP = neutralization potential

AP = acid potential

ARD = Acid Rock Drainage Potential (per INAC 1992)



APPENDIX F

Laboratory Analytical Reports



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Sobek Acid-Base Accounting
Date : April 17, 2007

Sample ID	Paste pH	TIC %	CaCO3 NP	S(T) %	S(SO4) %	S(S-2) %	AP	NP	Net NP	Fizz Test
1008011	8.98	0.12	10.0	1.69	0.01	1.68	52.5	49.6	-2.9	Slight
1008012	9.03	0.22	18.3	1.47	<0.01	1.47	45.9	59.5	13.6	Slight
1008013	9.13	0.18	15.0	1.15	0.01	1.14	35.6	56.9	21.3	Slight
1008014	8.99	0.2	16.7	0.69	<0.01	0.69	21.6	48.4	26.8	Slight
1008015	9.03	0.16	13.3	1.09	<0.01	1.09	34.1	49.4	15.3	Slight
1008016	9.12	0.21	17.5	1.16	<0.01	1.16	36.3	86.9	50.7	Moderate
1008017	8.93	0.13	10.8	1.9	<0.01	1.9	59.4	59.8	0.4	Slight
1008018	9.10	0.11	9.2	1.2	<0.01	1.2	37.5	53.4	15.9	Slight
1008019	9.08	0.2	16.7	1.31	<0.01	1.31	40.9	55.9	15.0	Slight
1008020	9.06	0.09	7.5	1.25	<0.01	1.25	39.1	53.8	14.7	Slight
Duplicate										
1008011	9.11	0.13		1.72	<0.01			50.0		Slight
1008020	9.12	0.09		1.24	<0.01			50.3		Slight

Note:

AP = Acid potential in tonnes CaCO₃ equivalent per 1000 tonnes of material. AP is determined from calculated sulphide sulphur content: S(T) - S(SO₄).

NP = Neutralization potential in tonnes CaCO₃ equivalent per 1000 tonnes of material.

NET NP = NP - AP

Carbonate NP is calculated from TIC originating from carbonates and is expressed in kg CaCO₃/tonne.

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Metals by Aqua Regia Digestion with ICP Finish
Date : April 10, 2007

Sample ID	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Hg ppm	K %	La ppm	Mg %	Mn ppm
1008011	1.3	1.75	4398	170	0.5	<5	2.53	10	38	73	27	6.61	<1	0.35	29	0.7	793
1008012	<0.2	1.73	1682	117	<0.5	<5	2.84	3	35	53	34	6.7	<1	0.25	29	0.71	875
1008013	<0.2	1.74	97	238	0.5	<5	2.74	<1	29	59	26	6.37	1	0.4	33	0.64	786
1008014	<0.2	1.56	262	154	<0.5	<5	2.73	<1	21	51	24	5.21	<1	0.3	31	0.61	794
1008015	<0.2	1.28	1499	59	<0.5	<5	2.19	4	42	63	43	4.94	1	0.16	22	0.63	661
1008016	<0.2	1.27	101	91	<0.5	<5	2.44	<1	26	62	47	5.02	<1	0.22	25	0.6	740
1008017	<0.2	1.47	46	98	<0.5	<5	2.46	<1	29	81	33	6.7	<1	0.19	29	0.59	876
1008018	<0.2	1.55	324	131	<0.5	<5	2.23	<1	27	48	23	5.83	<1	0.27	29	0.6	809
1008019	<0.2	1.62	421	130	<0.5	<5	2.33	<1	35	86	64	5.86	<1	0.29	22	0.67	811
1008020	<0.2	1.33	47	80	<0.5	<5	2.27	<1	21	61	33	5.53	2	0.22	30	0.56	777

Sample ID	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm	Zr ppm
1008011	<2	0.16	12	4811	2	1.9	7	14	19	<5	0.13	12	13	38	<10	104	24
1008012	<2	0.16	12	4752	2	1.62	7	13	21	<5	0.12	17	16	30	<10	94	24
1008013	<2	0.15	4	5526	<2	1.26	<5	13	21	<5	0.16	18	<10	23	<10	105	22
1008014	2	0.14	4	5605	<2	0.78	8	12	19	5	0.13	11	10	18	<10	91	20
1008015	<2	0.12	21	3689	7	1.17	8	12	15	<5	0.11	<10	<10	53	<10	108	18
1008016	<2	0.12	18	4512	5	1.23	<5	12	21	5	0.13	<10	10	49	10	102	20
1008017	2	0.15	9	4821	4	2	10	11	19	5	0.13	<10	15	19	<10	124	22
1008018	<2	0.14	7	4797	<2	1.25	7	12	17	<5	0.13	<10	<10	20	<10	113	22
1008019	<2	0.14	22	3695	<2	1.41	5	14	18	<5	0.14	<10	13	76	<10	87	18
1008020	<2	0.14	9	5013	<2	1.33	6	13	17	<5	0.15	<10	10	27	<10	93	24

Certified by:

R. J. Vos
 ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Sobek Acid-Base Accounting Repeats
Date : April 1, 2008

Sample ID	Paste pH	TIC %	CaCO3 NP	HCl Norm.	HCl (mL)	Starting pH	NaOH Norm.	NaOH (mL)	NP	Fizz Test
WRF-1	8.27	0.54	45.0	0.10	40	2.62	0.10	15.45	61.9	Slight
WRF-2	8.01	0.56	46.7	0.10	40	2.36	0.10	16.60	59.1	Slight
WRF-3	7.92	0.15	12.5	0.10	20	2.71	0.10	11.00	22.9	Slight
WRF-4	7.97	0.2	16.7	0.10	20	2.87	0.10	9.30	27.1	Slight
WRF-5	8.36	0.33	27.5	0.10	20	3.18	0.10	4.85	38.1	Slight
WRF-6	8.64	0.76	63.3	0.10	40	2.76	0.10	11.25	72.3	Slight
WRF-7	8.68	0.18	15.0	0.10	20	2.77	0.10	9.85	25.7	Slight
WRF-8	8.55	0.4	33.3	0.10	20	4.65	0.10	4.30	39.4	Slight
WRF-9	8.49	0.37	30.8	0.10	40	2.62	0.10	20.15	50.4	Slight
WRC-3	8.39	0.25	20.8	0.10	20	2.96	0.10	12.80	18.5	Slight
WRC-6	8.75	0.79	65.8	0.10	40	2.78	0.10	11.60	71.4	Moderate
WRC-9	9.02	0.22	18.3	0.10	20	2.99	0.10	8.60	28.8	Slight
WRT-4	8.63	0.19	15.8	0.10	20	2.92	0.10	10.20	24.9	Slight
WRT-7	8.96	0.1	8.3	0.10	20	2.78	0.10	12.35	19.6	Slight
1007967 -3/8"	8.37	0.42	35.0	0.10	20	3.64	0.10	7.50	31.5	Slight
1007967 +3/8"	8.94	0.34	28.3	0.10	20	3.1	0.10	8.75	28.4	Slight
1007968 -3/8"	8.38	0.1	8.3	0.10	20	2.98	0.10	9.50	26.6	Slight
1007968 +3/8"	8.75	0.14	11.7	0.10	20	3.45	0.10	7.95	30.4	Slight
1008011	8.98	0.12	10.0	0.10	20	2.88	0.10	10.80	23.4	Slight
1008012	9.03	0.22	18.3	0.10	20	3.45	0.10	8.95	28.0	Slight
1008013	9.13	0.18	15.0	0.10	20	4.69	0.10	9.20	27.3	Slight
1008014	8.99	0.2	16.7	0.10	20	3.05	0.10	9.35	27.0	Slight
1008015	9.03	0.16	13.3	0.10	20	2.87	0.10	10.20	24.9	Slight
1008016	9.12	0.21	17.5	0.10	20	3.38	0.10	8.90	28.1	Slight
1008017	8.93	0.13	10.8	0.10	20	3.39	0.10	10.85	23.3	Slight
1008018	9.10	0.11	9.2	0.10	20	3.04	0.10	9.70	26.1	Slight
1008019	9.08	0.2	16.7	0.10	20	4.29	0.10	9.10	27.6	Slight
1008020	9.06	0.09	7.5	0.10	20	3.35	0.10	11.50	21.7	Slight
Duplicates				0.10			0.10			
WRF-1				0.10	40	2.65	0.10	15.60	61.6	Slight
WRT-7				0.10	20	2.75	0.10	12.45	19.3	Slight
1007967 -3/8"				0.10	20	3.82	0.10	7.30	32.0	Slight
1008020				0.10	20	3.3	0.10	11.75	21.1	Slight

Note: Acid addition based on TIC NP.

Certified by:

R. J. Vos
 ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : 24 Hour NanoPure Water Leach Extraction Test at 3:1 Liquid to Solid Ratio
Date : April 2, 2008

Leachate Analysis

Sample ID			1007967 (+3/8")	1007967 (-3/8")	1007968 (+3/8")	1007968 (-3/8")	Blank
Parameter	Method	Units					
Volume Nanopure water		mL	750	750	750	750	750
Sample Weight		g	250	250	250	250	250
pH	meter		7.33	7.73	7.66	7.84	6.98
Redox	meter	mV	461.91	440.91	432.61	431.64	464.35
Conductivity	meter	uS/cm	65.33	308.76	87.8	222.6	0.69
Acidity (to pH 4.5)	titration	mg CaCO3/L	#N/A	#N/A	#N/A	#N/A	#N/A
Total Acidity (to pH 8.3)	titration	mg CaCO3/L	2.38	2.97	2.53	2.68	1.63
Alkalinity	titration	mg CaCO3/L	30.87	41.44	24.71	47.11	2.2
Sulphate	Turbidity	mg/L	7	125	27	68	<1
Ion Balance							
Major Anions	Calc	meq/L	0.76	3.43	1.06	2.36	#N/A
Major Cations	Calc	meq/L	0.75	3.53	0.97	2.44	#N/A
Difference	Calc	meq/L	0.01	-0.10	0.08	-0.09	#N/A
Balance (%)	Calc	%	0.8%	-1.4%	4.1%	-1.8%	#N/A
Dissolved Metals							
Hardness CaCO3		mg/L	34.3	164	45.6	113	<0.5
Aluminum Al	ICP-MS	mg/L	0.0245	0.0681	0.0205	0.0694	0.0011
Antimony Sb	ICP-MS	mg/L	0.00005	0.00019	0.00004	0.00023	<0.00002
Arsenic As	ICP-MS	mg/L	0.00303	0.0207	0.00077	0.00248	<0.00002
Barium Ba	ICP-MS	mg/L	0.0384	0.0684	0.0511	0.0479	0.00002
Beryllium Be	ICP-MS	mg/L	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Bismuth Bi	ICP-MS	mg/L	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005
Boron B	ICP-MS	mg/L	<0.005	0.025	0.006	0.013	0.006
Cadmium Cd	ICP-MS	mg/L	0.000044	0.000016	0.000014	0.000017	<0.000005
Calcium Ca	ICP-MS	mg/L	13.3	63	17.7	43.7	<0.05
Chromium Cr	ICP-MS	mg/L	<0.0001	<0.0001	<0.0001	0.0002	<0.0001
Cobalt Co	ICP-MS	mg/L	0.000193	0.00102	0.000192	0.0002	<0.000005
Copper Cu	ICP-MS	mg/L	0.00044	0.00216	0.00042	0.00145	0.00064
Iron Fe	ICP-MS	mg/L	0.002	0.003	0.003	0.002	<0.001
Lead Pb	ICP-MS	mg/L	0.000018	0.00003	0.000026	0.000061	0.000016
Lithium Li	ICP-MS	mg/L	0.0042	0.0156	0.0042	0.0135	<0.0005
Magnesium Mg	ICP-MS	mg/L	0.27	1.7	0.31	0.88	<0.05
Manganese Mn	ICP-MS	mg/L	0.0989	0.18	0.106	0.118	0.00006
Mercury Hg	CVAA	ug/L	<0.01	0.02	<0.01	<0.01	<0.01
Molybdenum Mo	ICP-MS	mg/L	0.00008	0.00068	0.00008	0.00065	<0.00005
Nickel Ni	ICP-MS	mg/L	0.00046	0.00075	0.00216	0.00119	0.00011
Phosphorus P	ICP-MS	mg/L	0.003	0.004	0.003	0.01	<0.002
Potassium K	ICP-MS	mg/L	2	7.63	2.17	6.45	<0.05
Selenium Se	ICP-MS	mg/L	0.00012	0.00037	0.00012	0.00027	0.00008
Silicon Si	ICP-MS	mg/L	0.257	1.02	0.315	1.12	<0.1
Silver Ag	ICP-MS	mg/L	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005
Sodium Na	ICP-MS	mg/L	0.33	1.2	0.21	0.61	<0.05
Strontium Sr	ICP-MS	mg/L	0.0274	0.15	0.0369	0.0999	<0.00005
Sulphur (S)	ICP-MS	mg/L	3	48	9	27	<3
Thallium Tl	ICP-MS	mg/L	0.000014	0.000012	0.000017	0.000012	<0.000002
Tin Sn	ICP-MS	mg/L	<0.00001	0.00003	<0.00001	0.00002	<0.00001
Titanium Ti	ICP-MS	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Uranium U	ICP-MS	mg/L	0.000027	0.000227	0.000022	0.000188	<0.000002
Vanadium V	ICP-MS	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Zinc Zn	ICP-MS	mg/L	0.0012	0.0026	0.002	0.0009	0.0004
Zirconium Zr	ICP-MS	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

Certified by:

R. J. Vos
 ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Sobek Acid-Base Accounting
Date : February 21, 2007

Sample ID	Paste pH	TIC %	CaCO3 NP	S(T) %	S(SO4) %	S(S-2) %	AP	NP	Net NP	Fizz Test
Rock #1	9.32	0.03	2.5	0.04	<0.01	0.04	1.3	11.8	10.6	None
Rock #2	9.86	0.05	4.2	0.35	<0.01	0.35	10.9	17.1	6.2	None
Rock #3	9.83	0.38	31.7	0.19	<0.01	0.19	5.9	54.6	48.7	Strong
Rock #4	9.86	0.04	3.3	0.1	<0.01	0.1	3.1	18.6	15.5	None
Rock #5	10.15	0.04	3.3	0.04	<0.01	0.04	1.3	20.9	19.7	None
Rock #6	9.46	0.19	15.8	0.72	<0.01	0.72	22.5	18.6	-3.9	None
Duplicates										
Rock #1		0.03		0.04	<0.01					
Rock #6	9.80							18.8		None

Note:

AP = Acid potential in tonnes CaCO3 equivalent per 1000 tonnes of material. AP is determined from calculated sulphide sulphur content: $S(T) - S(SO_4)$.

NP = Neutralization potential in tonnes CaCO3 equivalent per 1000 tonnes of material.

NET NP = NP - AP

Carbonate NP is calculated from TIC originating from carbonates and is expressed in kg CaCO3/tonne.

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Metals by Aqua Regia Digestion with ICP Finish
Date : February 16, 2007

Sample ID	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Hg ppm	K %	La ppm	Mg %	Mn ppm
Rock #1	<0.2	1.82	202	18	<0.5	<5	1.92	<1	36	64	4	4.65	<1	0.09	12	0.83	1071
Rock #2	<0.2	1.35	204	67	0.6	<5	1.88	<1	31	91	9	4.26	1	0.29	35	0.55	530
Rock #3	<0.2	1.11	30	105	<0.5	<5	2.31	<1	41	143	88	2.72	1	0.26	<10	0.66	486
Rock #4	<0.2	1.79	<5	181	0.6	<5	2.53	<1	14	65	10	4.94	1	0.38	34	0.65	677
Rock #5	<0.2	1.96	21	389	0.6	<5	1.86	<1	30	119	3	3.76	1	0.82	36	0.74	457
Rock #6	<0.2	1.66	17	279	0.5	<5	1.71	<1	30	130	22	5.6	2	0.43	33	0.63	624

Sample ID	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm	Zr ppm
Rock #1	<2	0.18	38	852	4	0.02	<5	16	11	<5	0.13	<10	<10	103	<10	72	10
Rock #2	3	0.12	10	5561	12	0.36	<5	16	13	<5	0.17	19	<10	23	<10	138	22
Rock #3	<2	0.12	46	1034	3	0.19	<5	11	11	<5	0.2	<10	<10	162	<10	57	7
Rock #4	2	0.18	4	6312	8	0.08	<5	17	19	<5	0.17	14	<10	22	<10	100	20
Rock #5	3	0.17	10	5612	5	0.02	<5	26	46	<5	0.21	16	<10	33	<10	178	24
Rock #6	3	0.11	11	4682	14	0.74	<5	16	24	<5	0.19	16	<10	27	<10	143	23

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Sobek Acid-Base Accounting
Date : February 25, 2008

Sample ID	Paste pH	Initial pH	TIC %	CaCO ₃ NP	S(T) %	S(SO ₄) %	S(S-2) %	AP	NP	Net NP	Fizz Test
0800701 Cyanidation Residue Duplicate	7.31	2.37	0.19	15.8	16.8	0.04	16.76	523.8	30.5	-493.3	Slight
0800701 Cyanidation Residue	7.35	2.39	0.18		16.7	0.04			30.2		Slight

Note:

AP = Acid potential in tonnes CaCO₃ equivalent per 1000 tonnes of material. AP is determined from calculated sulphide sulphur content: S(T) - S(SO₄).

NP = Neutralization potential in tonnes CaCO₃ equivalent per 1000 tonnes of material.

NET NP = NP - AP

Carbonate NP is calculated from TIC originating from carbonates and is expressed in kg CaCO₃/tonne.

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Metals by Aqua Regia Digestion with ICP-MS Finish
Date : March 4, 2008

Sample ID	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm	Fe %	Ga ppm	Ge ppm	Hf ppm	Hg ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm
0800701 Cyanidation Residue	2	0.74	9357	36	<1	4.8	1.42	2.7	83	187.8	39	0.6	348.9	>10.00	7	0.7	0.7	0.7	0.12	0.11	30	15	0.36	519

Sample ID	Mo ppm	Na %	Nb ppm	Ni ppm	P %	Pb ppm	Rb ppm	Re ppb	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
0800701 Cyanidation Residue	14.9	0.08	1.6	69.6	0.29	161.3	8.2	5	>10.00	1.3	9	13.1	2	22	<0.1	2.2	3	0.079	0.2	0.3	27	9.1	42.7	451	30.5

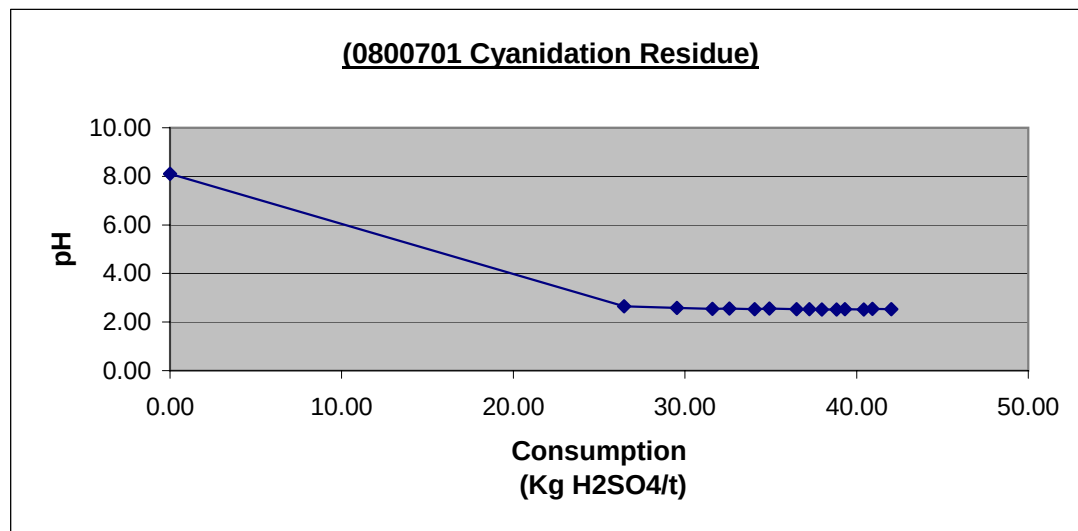
Certified by: _____
R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Acid Buffering Characterization Curves
Date : February 25, 2008

Sample 0800701 Cyanidation Residue
Sobek NP 30.5

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.10
10.80	26.46	2.65
12.05	29.52	2.58
12.90	31.61	2.54
13.30	32.59	2.55
13.90	34.06	2.53
14.25	34.91	2.56
14.90	36.51	2.53
15.20	37.24	2.53
15.50	37.98	2.52
15.85	38.83	2.52
16.05	39.32	2.53
16.50	40.43	2.52
16.70	40.92	2.54
17.15	42.02	2.53



Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Metals by Aqua Regia Digestion with ICP-MS Finish
Date : March 4, 2008

Sample ID	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm	Fe %	Ga ppm	Ge ppm	Hf ppm	Hg ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm
0800701 Cyanidation Residue Duplicate	2	0.74	9357	36	<1	4.8	1.42	2.7	83	187.8	39	0.6	348.9	30.7	7	0.7	0.7	0.7	0.12	0.11	30	15	0.36	519
0800701 Cyanidation Residue	-	-	-	-	-	-	-	-	-	-	-	-	-	32.4	-	-	-	-	-	-	-	-	-	-

Sample ID	Mo ppm	Na %	Nb ppm	Ni ppm	P %	Pb ppm	Rb ppm	Re ppb	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
0800701 Cyanidation Residue Duplicate	14.9	0.08	1.6	69.6	0.29	161.3	8.2	5	>10.00	1.3	9	13.1	2	22	<0.1	2.2	3	0.079	0.2	0.3	27	9.1	42.7	451	30.5
0800701 Cyanidation Residue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Standard Sobek Acid-Base Accounting
Date : February 28, 2008

Sample ID	Paste pH	pH After Reaction	TIC %	CaCO3 NP	S(T) %	S(SO4) %	S(S-2) %	AP	NP	Net NP	Fizz Test
0800701 Treated Cyanidation Residue	8.02	2.14	0.17	14.2	1.1	0.05	1.05	32.8	35.0	2.2	Slight
0800701 Blended Tailings	8.01	2.54	0.24	20.0	12.8	0.27	12.53	391.6	46.3	-345.3	Slight
Duplicate											
0800701 Treated Cyanidation Residue	8.05	2.11							33.9		Slight
0800701 Blended Tailings			0.27		12.8	0.27					

Note:

AP = Acid potential in tonnes CaCO3 equivalent per 1000 tonnes of material. AP is determined from calculated sulphide sulphur content: S(T) - S(SO4).

NP = Neutralization potential in tonnes CaCO3 equivalent per 1000 tonnes of material.

NET NP = NP - AP

Carbonate NP is calculated from TIC originating from carbonates and is expressed in kg CaCO3/tonne.

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Metals by Aqua Regia Digestion with ICP-MS Finish
Date : March 24, 2008

Sample ID	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm	Fe %	Ga ppm	Ge ppm	Hf ppm	Hg ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm
0800701 Treated Cyanidation Residue	0.2	1.04	364.9	114	<1	0.4	1.6	0.3	71	18.7	25	0.8	56.4	4.47	7	0.2	0.4	0.5	0.05	0.23	28	19.1	0.47	575
0800701 Blended Tailings	1.5	0.96	4748.2	21	<1	3.7	2.15	2.5	86	144.9	34	0.5	633.2	>10.00	8	0.6	0.7	0.6	0.11	0.13	33	17.2	0.44	595

Sample ID	Mo ppm	Na %	Nb ppm	Ni ppm	P %	Pb ppm	Rb ppm	Re ppb	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
0800701 Treated Cyanidation Residue	5	0.08	0.5	10.7	0.348	17	12.4	<5	1.37	0.3	8.8	<0.5	1.2	19	<0.1	0.1	3	0.098	0.1	0.2	19	12.2	40.9	98	11.7
0800701 Blended Tailings	13.7	0.17	1.1	57.6	0.346	100.8	6.9	6	>10.00	1.3	9.2	6.9	2.1	34	<0.1	1.3	3.7	0.092	0.1	0.4	17	12.2	45.4	441	23.6

Certified by:

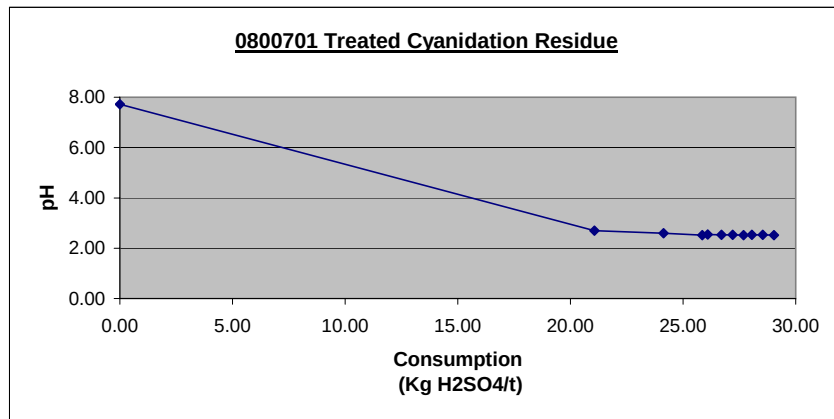
R. J. Vos
ARD Testing Specialist



CLIENT : MESH
 PROJECT : Tyhee
 CEMI Project # : 0709
 Test : Acid Buffering Characterization Curves
 Date : March 3, 2008

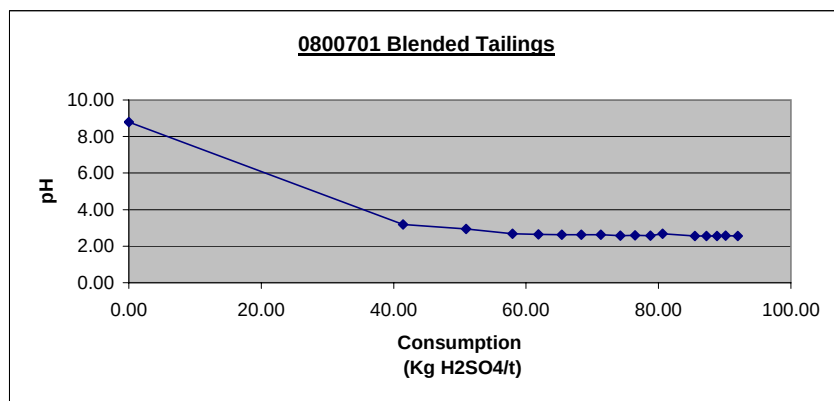
Sample 0800701 Treated Cyanidation Residue
 Sobek NP 35.0

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	7.72
8.60	21.07	2.70
9.85	24.13	2.60
10.55	25.85	2.52
10.65	26.09	2.54
10.90	26.71	2.53
11.10	27.20	2.53
11.30	27.69	2.52
11.45	28.05	2.53
11.65	28.54	2.53
11.85	29.03	2.52



Sample 0800701 Blended Tailings
 Sobek NP 46.3

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.79
16.90	41.41	3.19
20.80	50.96	2.94
23.65	57.94	2.68
25.25	61.86	2.65
26.70	65.42	2.63
27.90	68.36	2.62
29.10	71.30	2.62
30.30	74.24	2.58
31.20	76.44	2.59
32.15	78.77	2.57
32.90	80.61	2.68
34.90	85.51	2.56
35.60	87.22	2.56
36.25	88.81	2.56
36.80	90.16	2.57
37.55	92.00	2.56



Certified by:

R. J. Vos
 ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Standard Sobek Acid-Base Accounting
Date : February 28, 2008

Sample ID	Paste pH	pH After Reaction	TIC %	CaCO ₃ NP	S(T) %	S(SO ₄) %	S(S-2) %	AP	NP	Net NP	Fizz Test
0800701 Blended Tailings	8.02	2.14	0.17	14.2	1.1	0.05	1.05	32.8	35.0	2.2	Slight
0800701 Treated Cyanidation Residue	8.01	2.54	0.24	20.0	12.8	0.27	12.53	391.6	46.3	-345.3	Slight
Duplicate											
0800701 Blended Tailings	8.05	2.11							33.9		Slight
0800701 Treated Cyanidation Residue			0.27		12.8	0.27					

Note:

AP = Acid potential in tonnes CaCO₃ equivalent per 1000 tonnes of material. AP is determined from calculated sulphide sulphur content: S(T) - S(SO₄).

NP = Neutralization potential in tonnes CaCO₃ equivalent per 1000 tonnes of material.

NET NP = NP - AP

Carbonate NP is calculated from TIC originating from carbonates and is expressed in kg CaCO₃/tonne.

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Metals by Aqua Regia Digestion with ICP-MS Finish
Date : March 24, 2008

Sample ID	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm	Fe %	Ga ppm	Ge ppm	Hf ppm	Hg ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm
0800701 Blended Tailings	0.2	1.04	364.9	114	<1	0.4	1.6	0.3	71	18.7	25	0.8	56.4	4.47*	7	0.2	0.4	0.5	0.05	0.23	28	19.1	0.47	575
0800701 Treated Cyanidation Residue	1.5	0.96	4748.2	21	<1	3.7	2.15	2.5	86	144.9	34	0.5	633.2	23.65	8	0.6	0.7	0.6	0.11	0.13	33	17.2	0.44	595

Sample ID	Mo ppm	Na %	Nb ppm	Ni ppm	P %	Pb ppm	Rb ppm	Re ppb	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
0800701 Blended Tailings	5	0.08	0.5	10.7	0.348	17	12.4	<5	1.37	0.3	8.8	<0.5	1.2	19	<0.1	0.1	3	0.098	0.1	0.2	19	12.2	40.9	98	11.7
0800701 Treated Cyanidation Residue	13.7	0.17	1.1	57.6	0.346	100.8	6.9	6	>10.00	1.3	9.2	6.9	2.1	34	<0.1	1.3	3.7	0.092	0.1	0.4	17	12.2	45.4	441	23.6

* Re-assay of the Blended Tailings sample by multi-acid digestion gives a value of 12.9%

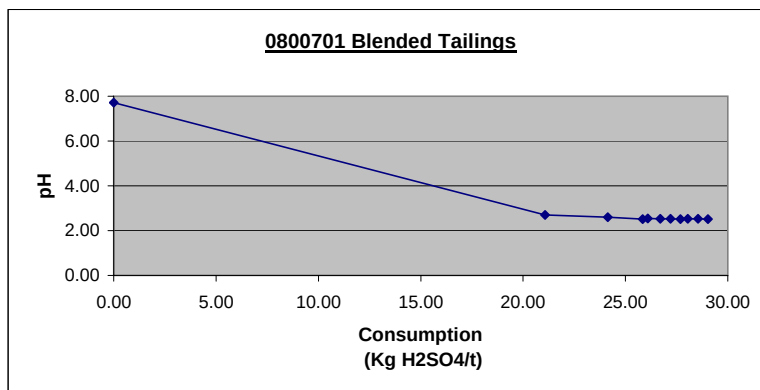
Certified by: _____
R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Acid Buffering Characterization Curves
Date : March 3, 2008

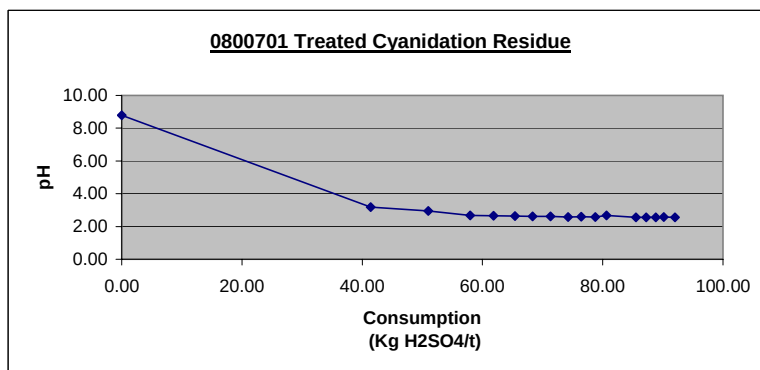
Sample 0800701 Blended Tailings
Sobek NP 35.0

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	7.72
8.60	21.07	2.70
9.85	24.13	2.60
10.55	25.85	2.52
10.65	26.09	2.54
10.90	26.71	2.53
11.10	27.20	2.53
11.30	27.69	2.52
11.45	28.05	2.53
11.65	28.54	2.53
11.85	29.03	2.52



Sample 0800701 Treated Cyanidation Residue
Sobek NP 46.3

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.79
16.90	41.41	3.19
20.80	50.96	2.94
23.65	57.94	2.68
25.25	61.86	2.65
26.70	65.42	2.63
27.90	68.36	2.62
29.10	71.30	2.62
30.30	74.24	2.58
31.20	76.44	2.59
32.15	78.77	2.57
32.90	80.61	2.68
34.90	85.51	2.56
35.60	87.22	2.56
36.25	88.81	2.56
36.80	90.16	2.57
37.55	92.00	2.56



Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Standard Sobek Acid-Base Accounting
Date : February 28, 2008

Sample ID	Paste pH	pH After Reaction	TIC %	CaCO ₃ NP	S(T) %	S(SO ₄) %	S(S-2) %	AP	NP	Net NP	Fizz Test
0800701 Blended Tailings	8.02	2.14	0.17	14.2	1.1	0.05	1.05	32.8	35.0	2.2	Slight
0800701 Treated Cyanidation Residue	8.01	2.54	0.24	20.0	12.8	0.27	12.53	391.6	46.3	-345.3	Slight
Duplicate											
0800701 Blended Tailings	8.05	2.11							33.9		Slight
0800701 Treated Cyanidation Residue			0.27		12.8	0.27					

Note:

AP = Acid potential in tonnes CaCO₃ equivalent per 1000 tonnes of material. AP is determined from calculated sulphide sulphur content: S(T) - S(SO₄).

NP = Neutralization potential in tonnes CaCO₃ equivalent per 1000 tonnes of material.

NET NP = NP - AP

Carbonate NP is calculated from TIC originating from carbonates and is expressed in kg CaCO₃/tonne.

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Metals by Aqua Regia Digestion with ICP-MS Finish
Date : March 24, 2008

Sample ID	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm	Fe %	Ga ppm	Ge ppm	Hf ppm	Hg ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm
0800701 Blended Tailings	0.2	1.04	364.9	114	<1	0.4	1.6	0.3	71	18.7	25	0.8	56.4	4.47	7	0.2	0.4	0.5	0.05	0.23	28	19.1	0.47	575
0800701 Treated Cyanidation Residue	1.5	0.96	4748.2	21	<1	3.7	2.15	2.5	86	144.9	34	0.5	633.2	>10.00	8	0.6	0.7	0.6	0.11	0.13	33	17.2	0.44	595

Sample ID	Mo ppm	Na %	Nb ppm	Ni ppm	P %	Pb ppm	Rb ppm	Re ppb	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
0800701 Blended Tailings	5	0.08	0.5	10.7	0.348	17	12.4	<5	1.37	0.3	8.8	<0.5	1.2	19	<0.1	0.1	3	0.098	0.1	0.2	19	12.2	40.9	98	11.7
0800701 Treated Cyanidation Residue	13.7	0.17	1.1	57.6	0.346	100.8	6.9	6	>10.00	1.3	9.2	6.9	2.1	34	<0.1	1.3	3.7	0.092	0.1	0.4	17	12.2	45.4	441	23.6

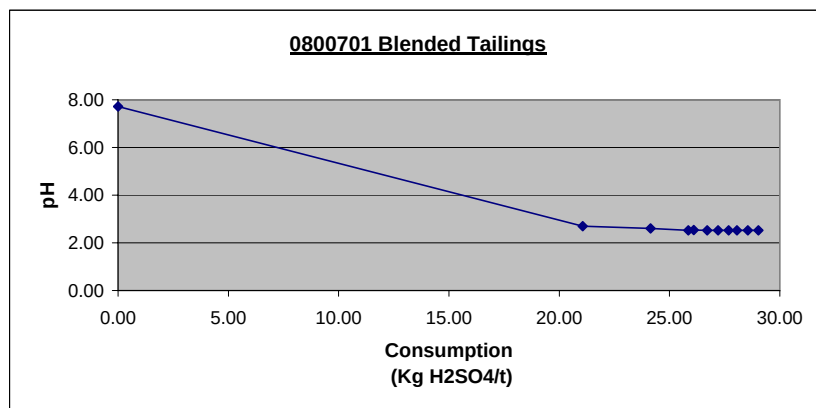
Certified by: _____
R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Acid Buffering Characterization Curves
Date : March 3, 2008

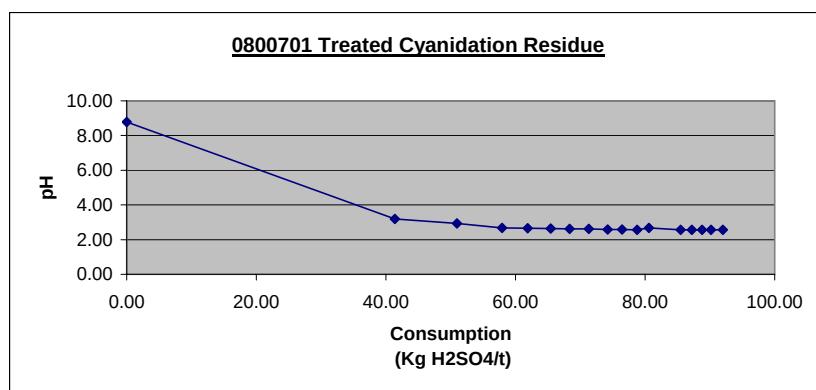
Sample 0800701 Blended Tailings
Sobek NP 35.0

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	7.72
8.60	21.07	2.70
9.85	24.13	2.60
10.55	25.85	2.52
10.65	26.09	2.54
10.90	26.71	2.53
11.10	27.20	2.53
11.30	27.69	2.52
11.45	28.05	2.53
11.65	28.54	2.53
11.85	29.03	2.52



Sample 0800701 Treated Cyanidation Residue
Sobek NP 46.3

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.79
16.90	41.41	3.19
20.80	50.96	2.94
23.65	57.94	2.68
25.25	61.86	2.65
26.70	65.42	2.63
27.90	68.36	2.62
29.10	71.30	2.62
30.30	74.24	2.58
31.20	76.44	2.59
32.15	78.77	2.57
32.90	80.61	2.68
34.90	85.51	2.56
35.60	87.22	2.56
36.25	88.81	2.56
36.80	90.16	2.57
37.55	92.00	2.56



Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Screen Assay
Date : January 20, 2009

Sample ID	Weight (kg)	+2mm		-2mm	
		(g)	(%)	(g)	(%)
NL-F-MGD	1500	1113.0	74.2%	386.8	25.8%
NL-F-UGC	1200	1114.0	74.2%	387.8	25.8%
ORM-F-AGR	1500	1365.2	91.1%	133.3	8.9%
ORM-F-BG	1200	1034.3	86.3%	164.5	13.7%
ORM-F-MA	1300	1194.0	92.0%	104.3	8.0%
ORM-F-TS	1300	1114.0	85.8%	184.9	14.2%
ORM-F-UA	1200	960.1	80.1%	238.6	19.9%

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Size Fraction Analysis
Date : January 22, 2009

NL-F-MGD

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+1/4"	6.300	111.10	55.8%	55.8%
-1/4" + 10	1.700	39.10	19.6%	75.4%
-10 +35	0.425	23.20	11.6%	87.0%
-35 + 100	0.150	7.80	3.9%	91.0%
-100 + 270	0.053	9.10	4.6%	95.5%
-270 + 325	0.045	2.90	1.5%	97.0%
-325	-0.045	6.00	3.0%	100.0%
TOTAL		199.20	100.0%	

NL-F-UGC

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+1/4"	6.300	112.80	56.6%	56.6%
-1/4" + 10	1.700	36.80	18.5%	75.1%
-10 +35	0.425	25.30	12.7%	87.8%
-35 + 100	0.150	8.20	4.1%	91.9%
-100 + 270	0.053	7.60	3.8%	95.7%
-270 + 325	0.045	2.50	1.3%	97.0%
-325	-0.045	6.00	3.0%	100.0%
TOTAL		199.20	100.0%	

ORM-F-AGR

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+1/4"	6.300	131.80	66.1%	66.1%
-1/4" + 10	1.700	54.20	27.2%	93.2%
-10 +35	0.425	8.70	4.4%	97.6%
-35 + 100	0.150	1.10	0.6%	98.1%
-100 + 270	0.053	1.80	0.9%	99.0%
-270 + 325	0.045	0.50	0.3%	99.3%
-325	-0.045	1.40	0.7%	100.0%
TOTAL		199.50	100.0%	

ORM-F-BG

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+1/4"	6.300	92.50	46.4%	46.4%
-1/4" + 10	1.700	80.80	40.5%	86.9%
-10 +35	0.425	11.70	5.9%	92.8%
-35 + 100	0.150	3.10	1.6%	94.3%
-100 + 270	0.053	3.40	1.7%	96.0%
-270 + 325	0.045	1.70	0.9%	96.9%
-325	-0.045	6.20	3.1%	100.0%
TOTAL		199.40	100.0%	

ORM-F-MA

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+1/4"	6.300	94.40	47.6%	47.6%
-1/4" + 10	1.700	72.30	36.4%	84.0%
-10 +35	0.425	15.00	7.6%	91.6%
-35 + 100	0.150	4.40	2.2%	93.8%
-100 + 270	0.053	3.70	1.9%	95.7%
-270 + 325	0.045	1.70	0.9%	96.5%
-325	-0.045	6.90	3.5%	100.0%
TOTAL		198.40	100.0%	

ORM-F-TS

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+1/4"	6.300	99.70	49.9%	49.9%
-1/4" + 10	1.700	60.50	30.3%	80.2%
-10 +35	0.425	20.30	10.2%	90.4%
-35 + 100	0.150	4.50	2.3%	92.6%
-100 + 270	0.053	4.60	2.3%	94.9%
-270 + 325	0.045	2.20	1.1%	96.0%
-325	-0.045	7.90	4.0%	100.0%
TOTAL		199.70	100.0%	

ORM-F-UA

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+1/4"	6.300	75.80	38.1%	38.1%
-1/4" + 10	1.700	65.30	32.8%	70.9%
-10 +35	0.425	23.90	12.0%	83.0%
-35 + 100	0.150	7.90	4.0%	86.9%
-100 + 270	0.053	11.10	5.6%	92.5%
-270 + 325	0.045	2.70	1.4%	93.9%
-325	-0.045	12.20	6.1%	100.0%
TOTAL		198.90	100.0%	

Certified by:

R. J. Vos
 ARD Testing Specialist



CLIENT : MESH
 PROJECT : Tyhee
 CEMI Project # : 0709
 Test : Sobek Acid-Base Accounting
 Date : February 5/6, 2009

Sample ID	Rinse pH	Rinse EC $\mu\text{S/cm}$	Paste pH	Initial pH	Initial pH Sobek repeats	TIC %	CaCO ₃ NP	S(T) %	S(SO ₄) %	S(S-2) %	AP	Sobek NP	Sobek NP (based on TIC)	Siderite NP	Net Sobek NP	Net Siderite NP	Fizz Test
NL-F-MGD			7.68	1.95	3.67	0.29	24.2	9.87	0.05	9.82	306.9	29.1	26.7	35.0	-277.8	-271.9	Slight
NL-F-MGD (-2mm)	3.69	1274	5.21	2.51		0.01	0.8	1.47	0.11	1.36	42.5	4.4			-38.1		None
NL-F-UGD			8.20	2.22		0.03	2.5	2.12	0.01	2.11	65.9	9.6		11.9	-56.3	-54.0	None
NL-F-UGD (-2mm)	6.00	583.0	7.38	2.42		0.05	4.2	1.42	0.03	1.39	43.4	11.1			-32.3		None
ORM-F-ARG			4.32	2.61		<0.01	<0.8	1.01	0.4	0.61	19.1	8.6		13.5	-10.5	-5.6	None
ORM-F-ARG (-2mm)	3.89	1701	4.45	2.52		0.01	0.8	1.75	1.23	0.52	16.3	-0.2			-16.5		None
ORM-F-BG			7.81	2.79		<0.01	<0.8	0.16	0.03	0.13	4.1	12.2		15.0	8.1	10.9	None
ORM-F-BG (-2mm)	5.16	394.00	7.15	2.73		0.02	1.7	0.2	0.03	0.17	5.3	12.2			6.9		None
ORM-F-MA			7.99	2.64	3.78	0.2	16.7	1.63	0.07	1.56	48.8	36.1	26.8	42.1	-12.7	-6.6	Slight
ORM-F-MA (-2mm)	6.90	2500	7.84	2.86	4.49	0.33	27.5	1.35	0.15	1.2	37.5	44.7	35.0		7.2		Slight
ORM-F-TS			6.14	2.34		<0.01	<0.8	0.19	0.12	0.07	2.2	9.1		11.6	6.9	9.4	None
ORM-F-TS (-2mm)	4.50	177.1	5.40	2.48		<0.01	<0.8	0.3	0.3	<0.01	<0.3	7.5			7.5		None
ORM-F-UA			7.88	2.59	3.99	0.42	35.0	0.64	0.08	0.56	17.5	51.4	40.5	54.0	33.9	36.5	Slight
ORM-F-UA (-2mm)	6.73	4490	7.39	2.82	5.36	0.5	41.7	0.98	0.24	0.74	23.1	55.7	45.7*		32.6		Slight
Duplicates																	
NL-F-MGD			7.69	1.90								29.5		34.5			Slight
NL-F-MGD (-2mm)			5.16	2.48		0.01		1.46	0.11			3.6					None
ORM-F-ARG						<0.01		0.97	0.35								

Note:

AP = Acid potential in tonnes CaCO₃ equivalent per 1000 tonnes of material. AP is determined from the calculated sulphide sulphur content: S(T) - S(SO₄).

NP = Neutralization potential in tonnes CaCO₃ equivalent per 1000 tonnes of material.

NET NP = NP - AP

Carbonate NP is calculated from TIC originating from carbonate minerals and is expressed in kg CaCO₃/tonne.

*** sample failed Sobek criterion of >3 mL to reach the endpoint of the titration.**

Certified by:

R. J. Vos
 ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Metals by Aqua Regia Digestion with ICP-MS Finish (Unscreened Whole Fraction)
Date : February 6, 2009

Sample ID	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm	Fe %	Ga ppm	Ge ppm	Hf ppm	Hg ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm
NL-F-MGD	23.7	0.22	>10000.0	9	<1	5.1	0.75	209.2	6	34	65	0.5	57.9	>10.00	1	0.6	<0.1	17.1	0.25	0.05	3	4.9	0.22	336
NL-F-UGC	4.8	0.52	>10000.0	10	<1	19.8	0.18	4.6	10	8.5	108	0.2	106.9	3.19	4	<0.1	<0.1	3.7	0.05	0.05	5	11.2	0.39	154
ORM-F-ARG	0.5	1.68	569.9	244	1	1.9	0.99	2.3	51	12.5	57	2.8	81.7	6.27	15	0.2	0.4	<0.1	0.11	0.38	20	19.9	0.62	330
ORM-F-BG	0.3	3.07	233	79	<1	0.3	0.23	0.1	55	25.7	177	4.3	57.1	4.71	12	0.1	0.4	<0.1	0.02	0.58	25	53.2	1.98	460
ORM-F-MA	0.4	1.23	917.8	155	<1	0.5	2.07	0.3	94	26.9	50	1.4	44.1	5.98	11	0.3	0.4	0.4	0.07	0.31	37	24	0.58	683
ORM-F-TS	0.3	0.83	71	161	<1	0.2	0.98	0.1	33	7.6	46	1.3	37.9	2.86	6	0.1	0.3	<0.1	0.03	0.24	16	11.5	0.5	367
ORM-F-UA	0.3	1.69	63.7	104	<1	0.2	2.67	0.1	53	28.6	87	1.1	52.2	4.95	10	0.2	0.3	0.3	0.06	0.23	20	42.8	0.87	831

Sample ID	Mo ppm	Na %	Nb ppm	Ni ppm	P %	Pb ppm	Rb ppm	Re ppb	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
NL-F-MGD	1.2	0.01	0.3	7.4	0.003	>10000.0	4	<5	9.85	65.8	<0.1	2	3.4	7	<0.1	8.2	0.4	0.005	0.1	0.2	<2	598.6	1.3	7801	1.1
NL-F-UGC	2.1	0.04	0.1	6.2	0.016	457.9	2.6	<5	2.02	3.9	0.5	<0.5	0.7	4	<0.1	4.4	1.1	0.005	0.1	0.3	10	139.1	1	261	2.4
ORM-F-ARG	3.2	0.11	1.3	11	0.225	9.3	24.1	<5	1.07	0.3	13.5	1.2	1.5	62	<0.1	0.3	5.4	0.169	0.2	0.6	47	1.8	25.5	170	11.3
ORM-F-BG	1.9	0.02	0.2	86.6	0.063	8.4	40.5	<5	0.19	0.1	7.3	<0.5	0.3	7	<0.1	0.1	6.7	0.082	0.3	1.2	72	0.6	9.3	105	11.9
ORM-F-MA	1.8	0.08	0.6	6	0.366	9.3	18.3	<5	1.56	0.2	9.8	0.9	1.2	24	<0.1	0.1	3.6	0.101	0.2	0.3	13	14.9	52.2	112	14.5
ORM-F-TS	0.9	0.07	2.4	8.5	0.127	6.9	17.5	<5	0.23	0.1	9.1	<0.5	0.6	10	<0.1	0.1	1.9	0.4	0.2	0.3	82	2.1	11.1	59	8.4
ORM-F-UA	1.2	0.08	0.4	26.1	0.215	7.6	12.3	<5	0.68	0.1	13.3	<0.5	0.9	24	<0.1	0.1	2.3	0.165	0.1	0.2	97	11	32.7	82	9.5

Certified by: _____
R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Single Element Assay (Unscreened Whole Fraction)
Date : February 6, 2009

Sample ID	F ppm
NL-F-MGD	136
NL-F-UGC	<100
ORM-F-ARG	186
ORM-F-BG	123
ORM-F-MA	221
ORM-F-TS	<100
ORM-F-UA	149
Duplicate	
NL-F-MGD	130

Certified by:

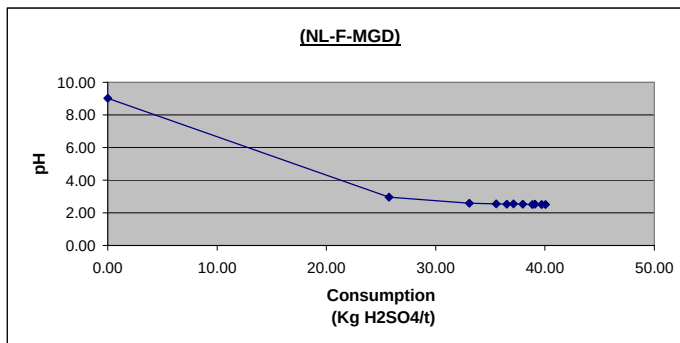
R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Acid Buffering Characterization Curves (Whole sample)
Date : February 9-11, 2009

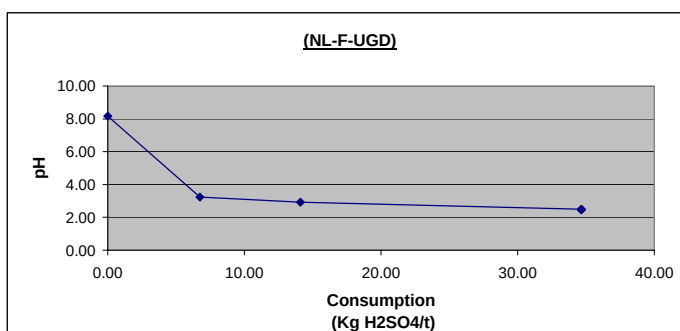
Sample NL-F-MGD
Sobek NP 29.1

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	9.01
10.50	25.73	2.97
13.50	33.08	2.59
14.50	35.53	2.54
14.90	36.51	2.53
15.15	37.12	2.54
15.50	37.98	2.53
15.85	38.83	2.51
15.95	39.08	2.52
16.20	39.69	2.51
16.35	40.06	2.51



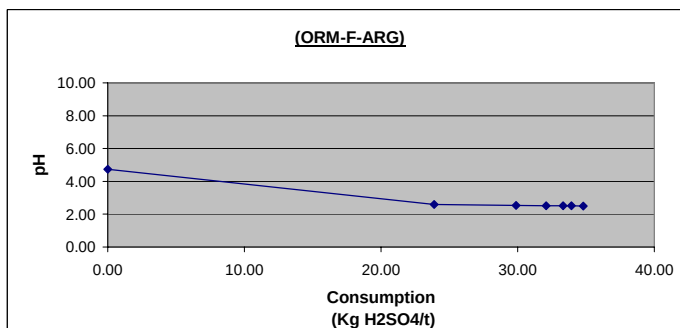
Sample NL-F-UGD
Sobek NP 9.6

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.16
2.75	6.74	3.24
5.75	14.09	2.92
14.15	34.67	2.49
14.15	34.67	2.47
14.15	34.67	2.46



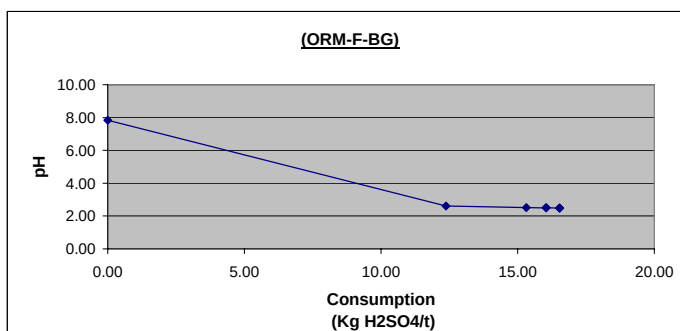
Sample ORM-F-ARG
Sobek NP 8.6

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	4.73
9.75	23.89	2.59
12.20	29.89	2.53
13.10	32.10	2.52
13.60	33.32	2.51
13.85	33.93	2.51
14.20	34.79	2.50

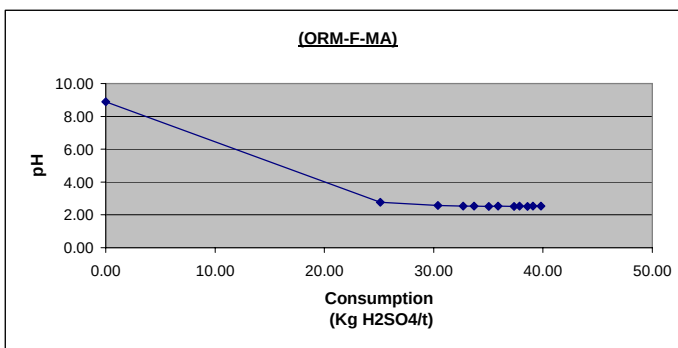


Sample ORM-F-BG
Sobek NP 12.2

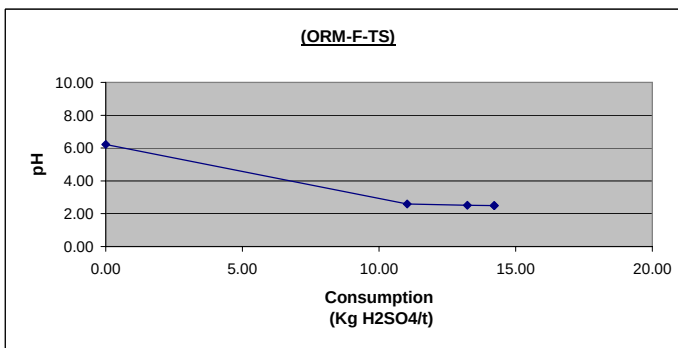
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	7.83
5.05	12.37	2.62
6.25	15.31	2.51
6.55	16.05	2.50
6.55	16.05	2.51
6.75	16.54	2.48
6.75	16.54	2.49



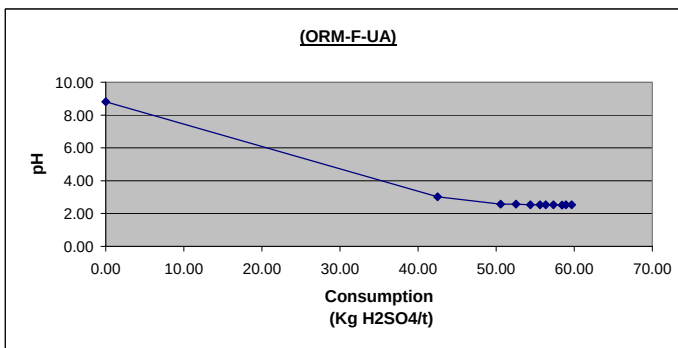
Sample <i>Sobek NP</i>		
ORM-F-MA 36.1		
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.88
10.25	25.11	2.77
12.40	30.38	2.58
13.35	32.71	2.54
13.75	33.69	2.54
14.30	35.04	2.52
14.65	35.89	2.53
15.25	37.36	2.51
15.45	37.85	2.53
15.75	38.59	2.52
15.95	39.08	2.53
16.25	39.81	2.53



Sample <i>Sobek NP</i>		
ORM-F-TS 9.1		
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	6.21
4.50	11.03	2.59
5.40	13.23	2.51
5.80	14.21	2.49
5.80	14.21	2.49



Sample <i>Sobek NP</i>		
ORM-F-UA 51.4		
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.82
17.35	42.51	3.03
20.65	50.59	2.58
21.45	52.55	2.58
22.20	54.39	2.54
22.70	55.62	2.53
23.00	56.35	2.54
23.40	57.33	2.54
23.85	58.43	2.52
24.05	58.92	2.53
24.35	59.66	2.53



Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Screen Assay
Date : January 20, 2009

Sample ID	Weight (kg)	+2mm		-2mm	
		(g)	(%)	(g)	(%)
NL-F-MGD	1500	1113.0	74.2%	386.8	25.8%
NL-F-UGC	1200	1114.0	74.2%	387.8	25.8%
ORM-F-AGR	1500	1365.2	91.1%	133.3	8.9%
ORM-F-BG	1200	1034.3	86.3%	164.5	13.7%
ORM-F-MA	1300	1194.0	92.0%	104.3	8.0%
ORM-F-TS	1300	1114.0	85.8%	184.9	14.2%
ORM-F-UA	1200	960.1	80.1%	238.6	19.9%

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Size Fraction Analysis
Date : January 22, 2009

NL-F-MGD

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+1/4"	6.300	111.10	55.8%	55.8%
-1/4" + 10	1.700	39.10	19.6%	75.4%
-10 +35	0.425	23.20	11.6%	87.0%
-35 + 100	0.150	7.80	3.9%	91.0%
-100 + 270	0.053	9.10	4.6%	95.5%
-270 + 325	0.045	2.90	1.5%	97.0%
-325	-0.045	6.00	3.0%	100.0%
TOTAL		199.20	100.0%	

NL-F-UGC

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+1/4"	6.300	112.80	56.6%	56.6%
-1/4" + 10	1.700	36.80	18.5%	75.1%
-10 +35	0.425	25.30	12.7%	87.8%
-35 + 100	0.150	8.20	4.1%	91.9%
-100 + 270	0.053	7.60	3.8%	95.7%
-270 + 325	0.045	2.50	1.3%	97.0%
-325	-0.045	6.00	3.0%	100.0%
TOTAL		199.20	100.0%	

ORM-F-AGR

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+1/4"	6.300	131.80	66.1%	66.1%
-1/4" + 10	1.700	54.20	27.2%	93.2%
-10 +35	0.425	8.70	4.4%	97.6%
-35 + 100	0.150	1.10	0.6%	98.1%
-100 + 270	0.053	1.80	0.9%	99.0%
-270 + 325	0.045	0.50	0.3%	99.3%
-325	-0.045	1.40	0.7%	100.0%
TOTAL		199.50	100.0%	

ORM-F-BG

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+1/4"	6.300	92.50	46.4%	46.4%
-1/4" + 10	1.700	80.80	40.5%	86.9%
-10 +35	0.425	11.70	5.9%	92.8%
-35 + 100	0.150	3.10	1.6%	94.3%
-100 + 270	0.053	3.40	1.7%	96.0%
-270 + 325	0.045	1.70	0.9%	96.9%
-325	-0.045	6.20	3.1%	100.0%
TOTAL		199.40	100.0%	

ORM-F-MA

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+1/4"	6.300	94.40	47.6%	47.6%
-1/4" + 10	1.700	72.30	36.4%	84.0%
-10 +35	0.425	15.00	7.6%	91.6%
-35 + 100	0.150	4.40	2.2%	93.8%
-100 + 270	0.053	3.70	1.9%	95.7%
-270 + 325	0.045	1.70	0.9%	96.5%
-325	-0.045	6.90	3.5%	100.0%
TOTAL		198.40	100.0%	

ORM-F-TS

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+1/4"	6.300	99.70	49.9%	49.9%
-1/4" + 10	1.700	60.50	30.3%	80.2%
-10 +35	0.425	20.30	10.2%	90.4%
-35 + 100	0.150	4.50	2.3%	92.6%
-100 + 270	0.053	4.60	2.3%	94.9%
-270 + 325	0.045	2.20	1.1%	96.0%
-325	-0.045	7.90	4.0%	100.0%
TOTAL		199.70	100.0%	

ORM-F-UA

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+1/4"	6.300	75.80	38.1%	38.1%
-1/4" + 10	1.700	65.30	32.8%	70.9%
-10 +35	0.425	23.90	12.0%	83.0%
-35 + 100	0.150	7.90	4.0%	86.9%
-100 + 270	0.053	11.10	5.6%	92.5%
-270 + 325	0.045	2.70	1.4%	93.9%
-325	-0.045	12.20	6.1%	100.0%
TOTAL		198.90	100.0%	

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Sobek Acid-Base Accounting
Date : February 5/6, 2009

Sample ID	Rinse pH	Rinse EC $\mu\text{S/cm}$	Paste pH	Initial pH	Initial pH Sobek repeats	TIC %	CaCO ₃ NP	S(T) %	S(SO ₄) %	S(S-2) %	AP	Sobek NP	Sobek NP (based on TIC)	Siderite NP	Net Sobek NP	Net Siderite NP	Fizz Test
NL-F-MGD			7.68	1.95	3.67	0.29	24.2	9.87	0.05	9.82	306.9	29.1	26.7	35.0	-277.8	-271.9	Slight
NL-F-MGD (-2mm)	3.69	1274	5.21	2.51		0.01	0.8	1.47	0.11	1.36	42.5	4.4			-38.1		None
NL-F-UGD			8.20	2.22		0.03	2.5	2.12	0.01	2.11	65.9	9.6		11.9	-56.3	-54.0	None
NL-F-UGD (-2mm)	6.00	583.0	7.38	2.42		0.05	4.2	1.42	0.03	1.39	43.4	11.1			-32.3		None
ORM-F-ARG			4.32	2.61		<0.01	<0.8	1.01	0.4	0.61	19.1	8.6		13.5	-10.5	-5.6	None
ORM-F-ARG (-2mm)	3.89	1701	4.45	2.52		0.01	0.8	1.75	1.23	0.52	16.3	-0.2			-16.5		None
ORM-F-BG			7.81	2.79		<0.01	<0.8	0.16	0.03	0.13	4.1	12.2		15.0	8.1	10.9	None
ORM-F-BG (-2mm)	5.16	394.00	7.15	2.73		0.02	1.7	0.2	0.03	0.17	5.3	12.2			6.9		None
ORM-F-MA			7.99	2.64	3.78	0.2	16.7	1.63	0.07	1.56	48.8	36.1	26.8	42.1	-12.7	-6.6	Slight
ORM-F-MA (-2mm)	6.90	2500	7.84	2.86	4.49	0.33	27.5	1.35	0.15	1.2	37.5	44.7	35.0		7.2		Slight
ORM-F-TS			6.14	2.34		<0.01	<0.8	0.19	0.12	0.07	2.2	9.1		11.6	6.9	9.4	None
ORM-F-TS (-2mm)	4.50	177.1	5.40	2.48		<0.01	<0.8	0.3	0.3	<0.01	<0.3	7.5			7.5		None
ORM-F-UA			7.88	2.59	3.99	0.42	35.0	0.64	0.08	0.56	17.5	51.4	40.5	54.0	33.9	36.5	Slight
ORM-F-UA (-2mm)	6.73	4490	7.39	2.82	5.36	0.5	41.7	0.98	0.24	0.74	23.1	55.7	45.7*		32.6		Slight
Duplicates																	
NL-F-MGD			7.69	1.90								29.5		34.5			Slight
NL-F-MGD (-2mm)			5.16	2.48		0.01		1.46	0.11			3.6					None
ORM-F-ARG						<0.01		0.97	0.35								

Note:

AP = Acid potential in tonnes CaCO₃ equivalent per 1000 tonnes of material. AP is determined from the calculated sulphide sulphur content: S(T) - S(SO₄).

NP = Neutralization potential in tonnes CaCO₃ equivalent per 1000 tonnes of material.

NET NP = NP - AP

Carbonate NP is calculated from TIC originating from carbonate minerals and is expressed in kg CaCO₃/tonne.

** sample failed Sobek criterion of >3 mL to reach the endpoint of the titration.*

Certified by:

R. J. Vos
 ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Metals by Aqua Regia Digestion with ICP-MS Finish (Unscreened Whole Fraction)
Date : February 6, 2009

Sample ID	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm	Fe %	Ga ppm	Ge ppm	Hf ppm	Hg ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm
NL-F-MGD	23.7	0.22	>10000.0	9	<1	5.1	0.75	209.2	6	34	65	0.5	57.9	>10.00	1	0.6	<0.1	17.1	0.25	0.05	3	4.9	0.22	336
NL-F-UGC	4.8	0.52	>10000.0	10	<1	19.8	0.18	4.6	10	8.5	108	0.2	106.9	3.19	4	<0.1	<0.1	3.7	0.05	0.05	5	11.2	0.39	154
ORM-F-ARG	0.5	1.68	569.9	244	1	1.9	0.99	2.3	51	12.5	57	2.8	81.7	6.27	15	0.2	0.4	<0.1	0.11	0.38	20	19.9	0.62	330
ORM-F-BG	0.3	3.07	233	79	<1	0.3	0.23	0.1	55	25.7	177	4.3	57.1	4.71	12	0.1	0.4	<0.1	0.02	0.58	25	53.2	1.98	460
ORM-F-MA	0.4	1.23	917.8	155	<1	0.5	2.07	0.3	94	26.9	50	1.4	44.1	5.98	11	0.3	0.4	0.4	0.07	0.31	37	24	0.58	683
ORM-F-TS	0.3	0.83	71	161	<1	0.2	0.98	0.1	33	7.6	46	1.3	37.9	2.86	6	0.1	0.3	<0.1	0.03	0.24	16	11.5	0.5	367
ORM-F-UA	0.3	1.69	63.7	104	<1	0.2	2.67	0.1	53	28.6	87	1.1	52.2	4.95	10	0.2	0.3	0.3	0.06	0.23	20	42.8	0.87	831

Sample ID	Mo ppm	Na %	Nb ppm	Ni ppm	P %	Pb ppm	Rb ppm	Re ppb	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
NL-F-MGD	1.2	0.01	0.3	7.4	0.003	>10000.0	4	<5	9.85	65.8	<0.1	2	3.4	7	<0.1	8.2	0.4	0.005	0.1	0.2	<2	598.6	1.3	7801	1.1
NL-F-UGC	2.1	0.04	0.1	6.2	0.016	457.9	2.6	<5	2.02	3.9	0.5	<0.5	0.7	4	<0.1	4.4	1.1	0.005	0.1	0.3	10	139.1	1	261	2.4
ORM-F-ARG	3.2	0.11	1.3	11	0.225	9.3	24.1	<5	1.07	0.3	13.5	1.2	1.5	62	<0.1	0.3	5.4	0.169	0.2	0.6	47	1.8	25.5	170	11.3
ORM-F-BG	1.9	0.02	0.2	86.6	0.063	8.4	40.5	<5	0.19	0.1	7.3	<0.5	0.3	7	<0.1	0.1	6.7	0.082	0.3	1.2	72	0.6	9.3	105	11.9
ORM-F-MA	1.8	0.08	0.6	6	0.366	9.3	18.3	<5	1.56	0.2	9.8	0.9	1.2	24	<0.1	0.1	3.6	0.101	0.2	0.3	13	14.9	52.2	112	14.5
ORM-F-TS	0.9	0.07	2.4	8.5	0.127	6.9	17.5	<5	0.23	0.1	9.1	<0.5	0.6	10	<0.1	0.1	1.9	0.4	0.2	0.3	82	2.1	11.1	59	8.4
ORM-F-UA	1.2	0.08	0.4	26.1	0.215	7.6	12.3	<5	0.68	0.1	13.3	<0.5	0.9	24	<0.1	0.1	2.3	0.165	0.1	0.2	97	11	32.7	82	9.5

Overlimit Re-Assay

Sample ID	As %	Fe %	Pb %
NL-F-MGD	12.8	16.1	1.03
NL-F-UGD	1.86	-	-

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R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Single Element Assay (Unscreened Whole Fraction)
Date : February 6, 2009

Sample ID	F ppm
NL-F-MGD	136
NL-F-UGC	<100
ORM-F-ARG	186
ORM-F-BG	123
ORM-F-MA	221
ORM-F-TS	<100
ORM-F-UA	149
Duplicate	
NL-F-MGD	130

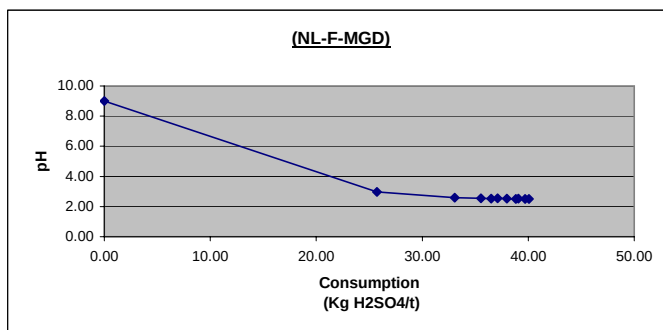
Certified by:

R. J. Vos
ARD Testing Specialist

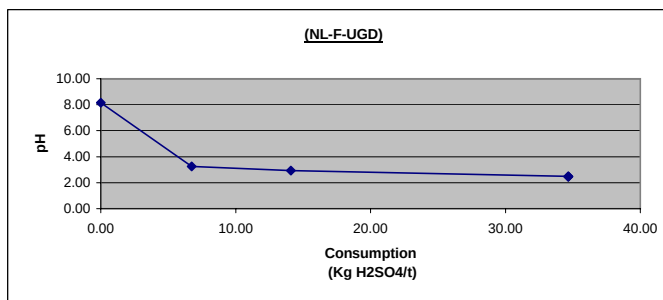


CLIENT : MESH
 PROJECT : Tyhee
 CEMI Project # : 0709
 Test : Acid Buffering Characterization Curves (Whole sample)
 Date : February 9-11, 2009

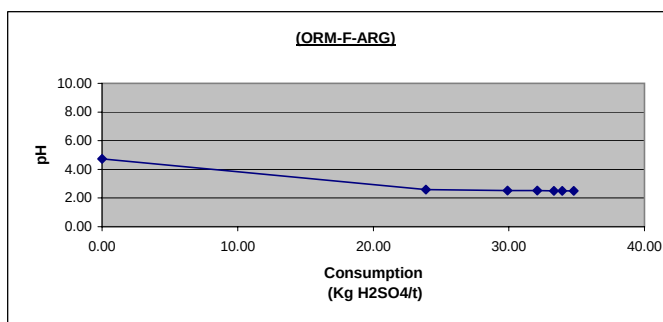
Sample NL-F-MGD		
Sobek NP 29.1		
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	9.01
10.50	25.73	2.97
13.50	33.08	2.59
14.50	35.53	2.54
14.90	36.51	2.53
15.15	37.12	2.54
15.50	37.98	2.53
15.85	38.83	2.51
15.95	39.08	2.52
16.20	39.69	2.51
16.35	40.06	2.51



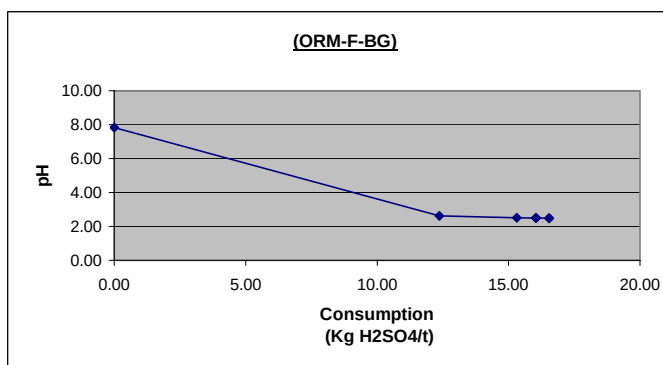
Sample NL-F-UGD		
Sobek NP 9.6		
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.16
2.75	6.74	3.24
5.75	14.09	2.92
14.15	34.67	2.49
14.15	34.67	2.47
14.15	34.67	2.46



Sample ORM-F-ARG		
Sobek NP 8.6		
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	4.73
9.75	23.89	2.59
12.20	29.89	2.53
13.10	32.10	2.52
13.60	33.32	2.51
13.85	33.93	2.51
14.20	34.79	2.50



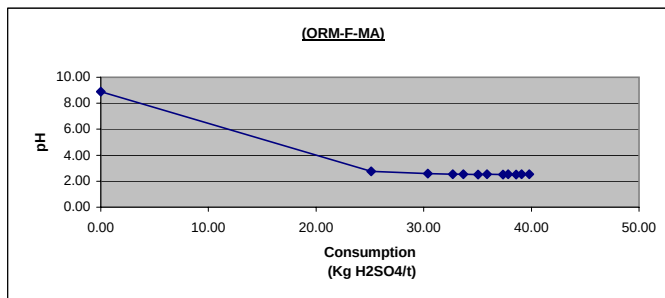
Sample ORM-F-BG		
Sobek NP 12.2		
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	7.83
5.05	12.37	2.62
6.25	15.31	2.51
6.55	16.05	2.50
6.55	16.05	2.51
6.75	16.54	2.48
6.75	16.54	2.49



Sample
Sobek NP

ORM-F-MA
36.1

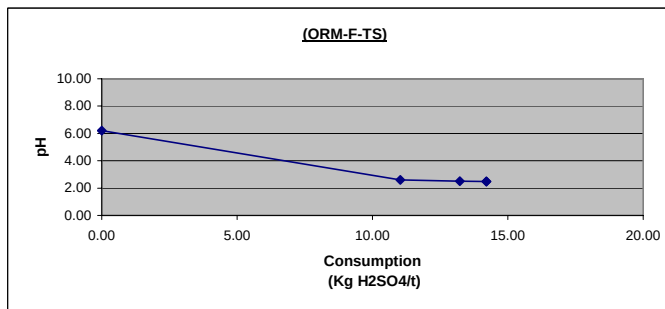
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.88
10.25	25.11	2.77
12.40	30.38	2.58
13.35	32.71	2.54
13.75	33.69	2.54
14.30	35.04	2.52
14.65	35.89	2.53
15.25	37.36	2.51
15.45	37.85	2.53
15.75	38.59	2.52
15.95	39.08	2.53
16.25	39.81	2.53



Sample
Sobek NP

ORM-F-TS
9.1

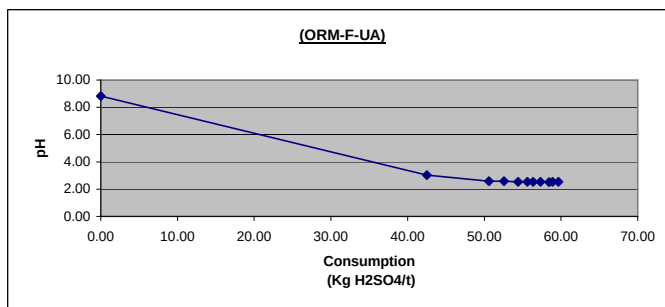
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	6.21
4.50	11.03	2.59
5.40	13.23	2.51
5.80	14.21	2.49
5.80	14.21	2.49



Sample
Sobek NP

ORM-F-UA
51.4

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.82
17.35	42.51	3.03
20.65	50.59	2.58
21.45	52.55	2.58
22.20	54.39	2.54
22.70	55.62	2.53
23.00	56.35	2.54
23.40	57.33	2.54
23.85	58.43	2.52
24.05	58.92	2.53
24.35	59.66	2.53



Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Sobek Acid-Base Accounting
Date : January 25, 2008

Sample ID	Paste pH	Initial pH	TIC %	CaCO ₃ NP	S(T) %	S(SO ₄) %	S(S-2) %	AP	NP	Net NP	Fizz Test
0800701 Head	8.04	2.05	0.31	25.8	1.29	<0.01	1.29	40.3	35.3	-5.0	Slight
0800701 Fresh Flotation Rougher Tailings	7.88	1.85	0.16	13.3	0.21	<0.01	0.21	6.6	32.9	26.3	Slight
Duplicate											
0800701 Head			0.31		1.31	<0.01					
0800701 Fresh Flotation Rougher Tailings	7.76	1.80							31.8		Slight

Note:

AP = Acid potential in tonnes CaCO₃ equivalent per 1000 tonnes of material. AP is determined from calculated sulphide sulphur content: S(T) - S(SO₄).

NP = Neutralization potential in tonnes CaCO₃ equivalent per 1000 tonnes of material.

NET NP = NP - AP

Carbonate NP is calculated from TIC originating from carbonates and is expressed in kg CaCO₃/tonne.

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R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Metals by Aqua Regia Digestion with ICP Finish
Date : February 5 , 2008

Sample ID	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm	Fe %	Ga ppm	Ge ppm	Hf ppm	Hg ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm
0800701 Head	0.4	1.3	547.8	115	<1	0.4	1.79	0.3	77	25	52	0.9	41	5.36	9	0.3	0.5	0.3	0.07	0.24	30	20.7	0.53	687
0800701 Fresh Flotation Rougher Tailings	0.3	1.25	26.8	117	<1	0.2	1.87	0.3	74	8.1	27	0.9	24.3	3.84	9	0.3	0.4	0.3	0.07	0.25	30	20.1	0.54	652

Sample ID	Mo ppm	Na %	Nb ppm	Ni ppm	P %	Pb ppm	Rb ppm	Re ppb	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
0800701 Head	2.8	0.11	0.6	10.6	0.392	8.6	14.2	<5	1.09	0.1	11.4	2	1.2	22	<0.1	0.1	3.6	0.121	0.1	0.3	20	12.8	47.6	106	15.9
0800701 Fresh Flotation Rougher Tailings	4.3	0.09	0.6	8.3	0.381	11.6	14.4	<5	0.24	0.4	10.7	1.4	1.4	21	<0.1	<0.1	3.3	0.131	0.1	0.3	21	10	47.5	92	13.7

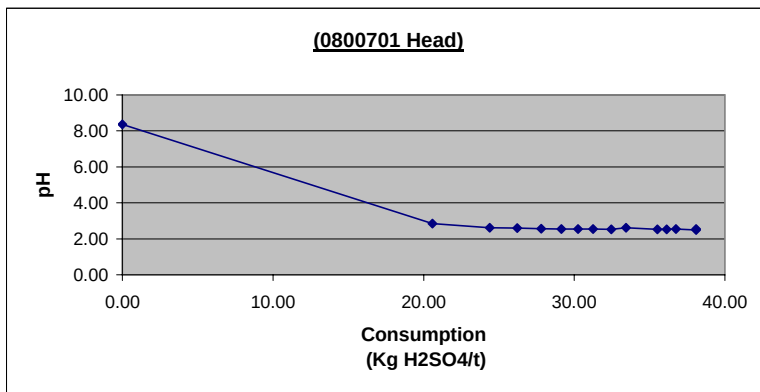
Certified by: _____
R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Acid Buffering Characterization Curves
Date : January 24/25, 2008

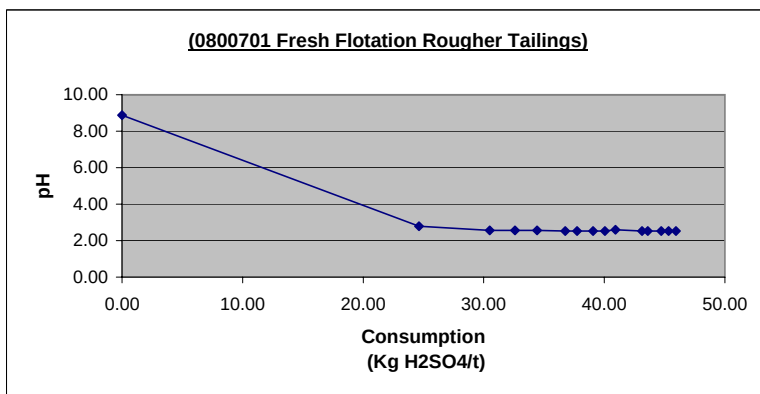
Sample 0800701 Head
Sobek NP 35.3

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.36
8.40	20.58	2.84
9.95	24.38	2.61
10.70	26.22	2.59
11.35	27.81	2.57
11.90	29.16	2.55
12.35	30.26	2.55
12.75	31.24	2.55
13.25	32.46	2.53
13.65	33.44	2.62
14.50	35.53	2.52
14.75	36.14	2.52
15.00	36.75	2.54
15.55	38.10	2.50
15.55	38.10	2.54



Sample 0800701 Fresh Flotation Rougher Tailings
Sobek NP 32.9

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.88
10.05	24.62	2.79
12.45	30.50	2.57
13.30	32.59	2.57
14.05	34.42	2.56
15.00	36.75	2.52
15.40	37.73	2.53
15.95	39.08	2.53
16.35	40.06	2.53
16.70	40.92	2.59
17.60	43.12	2.52
17.80	43.61	2.53
18.25	44.71	2.52
18.50	45.33	2.52
18.75	45.94	2.52



Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : 24 Hour NanoPure Water Leach Extraction Test at 3:1 Liquid to Solid Ratio
Date : January 23, 2008

Leachate Analysis

Sample ID			0800701 Head
Parameter	Method	Units	
Volume Nanopure Water		mL	750
Sample Weight		g	250
pH Nanopure Water	meter		5.71
EC Nanopure Water	meter	uS/cm	1.5
pH Leachate	meter		7.77
Redox	meter	mV	473
Conductivity	meter	uS/cm	246
Acidity (to pH 4.5)	titration	mg CaCO ₃ /L	#N/A
Total Acidity (to pH 8.3)	titration	mg CaCO ₃ /L	2.9
Alkalinity	titration	mg CaCO ₃ /L	53.0
Sulphate	Turbidity	mg/L	55
Ion Balance			
Major Anions	Calc	meq/L	2.21
Major Cations	Calc	meq/L	2.39
Difference	Calc	meq/L	-0.18
Balance (%)	Calc	%	-4.0%
Dissolved Metals			
Hardness CaCO ₃		mg/L	93.5
Aluminum Al	ICP-MS	mg/L	0.0445
Antimony Sb	ICP-MS	mg/L	0.00025
Arsenic As	ICP-MS	mg/L	0.00777
Barium Ba	ICP-MS	mg/L	0.017
Beryllium Be	ICP-MS	mg/L	<0.00001
Bismuth Bi	ICP-MS	mg/L	<0.000005
Boron B	ICP-MS	mg/L	0.037
Cadmium Cd	ICP-MS	mg/L	0.000005
Calcium Ca	ICP-MS	mg/L	32.3
Chromium Cr	ICP-MS	mg/L	<0.0001
Cobalt Co	ICP-MS	mg/L	0.00005
Copper Cu	ICP-MS	mg/L	0.00116
Iron Fe	ICP-MS	mg/L	0.002
Lead Pb	ICP-MS	mg/L	0.000013
Lithium Li	ICP-MS	mg/L	0.0179
Magnesium Mg	ICP-MS	mg/L	3.11
Manganese Mn	ICP-MS	mg/L	0.0418
Mercury Hg	CVAA	ug/L	0.05
Molybdenum Mo	ICP-MS	mg/L	0.00269
Nickel Ni	ICP-MS	mg/L	0.00068
Phosphorus P	ICP-MS	mg/L	0.024
Potassium K	ICP-MS	mg/L	6.06
Selenium Se	ICP-MS	mg/L	0.00033
Silicon Si	ICP-MS	mg/L	1.32
Silver Ag	ICP-MS	mg/L	0.000005
Sodium Na	ICP-MS	mg/L	8.43
Strontium Sr	ICP-MS	mg/L	0.0848
Sulphur (S)	ICP-MS	mg/L	25
Thallium Tl	ICP-MS	mg/L	<0.000002
Tin Sn	ICP-MS	mg/L	0.00002
Titanium Ti	ICP-MS	mg/L	0.0006
Uranium U	ICP-MS	mg/L	0.000056
Vanadium V	ICP-MS	mg/L	<0.0002
Zinc Zn	ICP-MS	mg/L	0.0004
Zirconium Zr	ICP-MS	mg/L	<0.0001

Certified by:

R. J. Vos
 ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Sobek Acid-Base Accounting
Date : August 13-21, 2007

Sample ID	Paste pH	TIC %	CaCO3 NP	S(T) %	S(SO4) %	S(S-2) %	AP	NP	Net NP	Fizz Test
70766	8.61	0.24	20.0	0.85	<0.01	0.85	26.6	18.4	-8.1	None
70767	8.61	<0.01	<0.8	1.11	<0.01	1.11	34.7	17.9	-16.8	None
70768	9.62	<0.01	<0.8	0.32	<0.01	0.32	10.0	13.2	3.2	None
70769	7.07	<0.01	<0.8	3.14	0.04	3.1	96.9	15.7	-81.2	None
70770	8.09	0.01	0.8	4.04	0.02	4.02	125.6	14.4	-111.2	None
70771	9.20	0.16	13.3	0.63	<0.01	0.63	19.7	43.4	23.7	Slight
70772	9.49	0.04	3.3	0.24	<0.01	0.24	7.5	16.4	8.9	None
70773	8.61	0.31	25.8	0.63	<0.01	0.63	19.7	53.4	33.7	Slight
70774	8.93	0.04	3.3	0.46	<0.01	0.46	14.4	13.7	-0.7	None
70775	9.23	0.16	13.3	0.65	<0.01	0.65	20.3	40.6	20.3	Slight
70776	9.61	0.03	2.5	0.15	<0.01	0.15	4.7	14.2	9.5	None
70777	8.50	0.96	80.0	3.16	0.02	3.14	98.1	114.1	16.0	Moderate
70778	9.08	0.32	26.7	0.22	<0.01	0.22	6.9	21.8	14.9	Moderate
70779	8.89	0.55	45.8	0.15	<0.01	0.15	4.7	21.2	16.5	Strong
70780	8.93	1.08	90.0	2.2	<0.01	2.2	68.8	53.1	-15.6	Slight
70781	8.84	0.54	45.0	0.38	<0.01	0.38	11.9	35.0	23.1	Moderate
70782	8.82	0.03	2.5	0.21	<0.01	0.21	6.6	10.8	4.3	None
70783	8.10	0.14	11.7	4.38	0.03	4.35	135.9	35.3	-100.7	Slight
70784	8.53	1.34	111.7	4.41	0.02	4.39	137.2	69.6	-67.6	Slight
70785	9.30	0.24	20.0	0.39	<0.01	0.39	12.2	50.4	38.2	Slight
70786	9.18	0.15	12.5	0.31	<0.01	0.31	9.7	39.9	30.2	Slight
70787	8.77	0.29	24.2	0.6	<0.01	0.6	18.8	10.4	-8.4	Moderate
70788	9.17	0.26	21.7	0.35	<0.01	0.35	10.9	34.4	23.5	Slight
70789	9.31	0.2	16.7	0.21	<0.01	0.21	6.6	34.7	28.1	Slight
70790	9.02	0.26	21.7	0.25	<0.01	0.25	7.8	38.2	30.3	Slight
70791	8.84	0.14	11.7	0.38	<0.01	0.38	11.9	27.1	15.2	Slight
70792	8.69	0.01	0.8	1.12	<0.01	1.12	35.0	10.6	-24.4	None
70793	8.73	0.3	25.0	2	<0.01	2	62.5	43.6	-18.9	Slight
70794	9.38	0.02	1.7	0.25	<0.01	0.25	7.8	14.7	6.9	None
70795	8.15	0.02	1.7	1.81	0.02	1.79	55.9	17.5	-38.5	None
70796	9.29	0.04	3.3	0.3	<0.01	0.3	9.4	31.9	22.5	Slight
70797	8.35	0.64	53.3	5.2	<0.01	5.2	162.5	229.4	66.9	Moderate
70798	9.25	0.03	2.5	1.27	<0.01	1.27	39.7	24.7	-15.0	None
70799	9.10	0.07	5.8	0.47	<0.01	0.47	14.7	19.8	5.1	None
70800	8.59	0.18	15.0	1.97	0.01	1.96	61.3	47.9	-13.4	Slight
70801	8.50	0.85	70.8	2.42	0.01	2.41	75.3	127.2	51.9	Moderate
70802	8.79	0.45	37.5	0.64	<0.01	0.64	20.0	116.6	96.6	Moderate
70803	8.39	1.11	92.5	1.3	<0.01	1.3	40.6	162.1	121.5	Moderate
70804	8.77	0.18	15.0	0.7	<0.01	0.7	21.9	54.1	32.2	Slight
70805	9.07	0.07	5.8	0.4	<0.01	0.4	12.5	21.7	9.2	Slight
70806	8.57	0.35	29.2	0.31	<0.01	0.31	9.7	42.4	32.7	Slight
70807	8.79	0.07	5.8	1.23	<0.01	1.23	38.4	17.1	-21.4	None
70808	8.16	0.23	19.2	3.7	0.03	3.67	114.7	30.4	-84.3	Slight
70809	8.61	0.1	8.3	0.19	<0.01	0.19	5.9	33.3	27.4	Slight
70810	8.91	0.58	48.3	0.11	<0.01	0.11	3.4	117.2	113.8	Moderate
70811	8.10	0.53	44.2	2.64	0.01	2.63	82.2	85.4	3.2	Moderate
70812	9.03	0.03	2.5	0.12	<0.01	0.12	3.8	16.3	12.6	None
70813	7.93	0.04	3.3	5.13	0.02	5.11	159.7	18.3	-141.4	None
70814	8.99	0.13	10.8	1.92	<0.01	1.92	60.0	34.9	-25.1	Slight
70815	8.89	0.12	10.0	0.1	<0.01	0.1	3.1	28.2	25.1	Slight
70816	8.99	0.39	32.5	0.54	<0.01	0.54	16.9	61.6	44.7	Moderate
70817	9.38	0.01	0.8	0.23	<0.01	0.23	7.2	16.0	8.8	None
70818	9.31	0.15	12.5	0.28	<0.01	0.28	8.8	32.7	23.9	Slight
70819	9.32	0.11	9.2	0.25	<0.01	0.25	7.8	25.2	17.4	Slight
70820	9.09	0.27	22.5	0.4	<0.01	0.4	12.5	71.6	59.1	Moderate
70821	8.87	0.13	10.8	1.29	<0.01	1.29	40.3	19.6	-20.7	None
70822	9.55	0.22	18.3	0.19	<0.01	0.19	5.9	35.8	29.8	Slight
70823	7.85	0.12	10.0	4.91	0.02	4.89	152.8	20.4	-132.4	Slight
70824	9.23	0.03	2.5	0.63	<0.01	0.63	19.7	18.6	-1.1	None

Sample ID	Paste pH	TIC %	CaCO ₃ NP	S(T) %	S(SO ₄) %	S(S-2) %	AP	NP	Net NP	Fizz Test
70825	8.39	0.46	38.3	0.99	<0.01	0.99	30.9	123.1	92.2	Moderate
70826	9.12	0.08	6.7	0.3	<0.01	0.3	9.4	18.8	9.5	Slight
70827	8.24	0.04	3.3	1.27	<0.01	1.27	39.7	15.6	-24.1	Slight
70828	8.68	0.13	10.8	0.21	<0.01	0.21	6.6	21.9	15.3	Slight
70829	8.81	0.09	7.5	0.69	<0.01	0.69	21.6	15.8	-5.7	None
70830	9.24	0.06	5.0	0.51	<0.01	0.51	15.9	18.8	2.9	Slight
70831	8.72	0.12	10.0	1.82	<0.01	1.82	56.9	24.1	-32.8	Slight
70832	9.71	0.02	1.7	0.15	<0.01	0.15	4.7	14.3	9.6	Slight
70833	7.29	2.67	222.5	10.2	0.03	10.17	317.8	12.6	-305.2	Slight
70834	6.37	0.08	6.7	2.68	0.06	2.62	81.9	11.3	-70.6	Slight
70837	8.27	0.26	21.7	2.67	0.02	2.65	82.8	13.8	-69.0	Slight
70838	8.37	0.05	4.2	3.93	0.01	3.92	122.5	30.4	-92.1	Slight
70839	9.35	0.08	6.7	0.04	<0.01	0.04	1.3	27.1	25.9	Slight
70840	8.74	0.32	26.7	2.5	0.04	2.46	76.9	75.0	-1.9	Moderate
70841	8.50	0.18	15.0	1.16	0.05	1.11	34.7	53.8	19.1	Slight
70842	8.94	0.21	17.5	0.26	0.01	0.25	7.8	70.0	62.2	Moderate
70843	9.14	0.03	2.5	0.38	<0.01	0.38	11.9	20.9	9.0	None
70844	8.89	0.3	25.0	0.96	0.03	0.93	29.1	41.0	11.9	Slight
70845	8.30	0.28	23.3	1.23	0.03	1.2	37.5	52.8	15.3	Slight
70846	8.44	0.4	33.3	1.65	0.04	1.61	50.3	52.8	2.5	Slight
70848	9.62	0.04	3.3	0.28	<0.01	0.28	8.8	16.8	8.1	None
70849	8.52	0.59	49.2	2.57	0.03	2.54	79.4	24.1	-55.3	Slight
70850	9.07	0.24	20.0	0.82	0.01	0.81	25.3	30.9	5.6	Slight
DH273-47.07-51.31	8.60	1.19	99.2	2.85	0.02	2.83	88.4	38.4	-50.0	Slight
DH273-273.02-277.32	8.96	0.06	5.0	0.37	0.02	0.35	10.9	15.3	4.4	None
Duplicates										
70766	8.97	0.23		0.83	0.01			17.7		None
70775		0.17		0.64	<0.01					
70780	8.98							52.5		slight
70785		0.25		0.39	<0.01					
70790		0.27		0.24	<0.01					
70795	8.17							15.6		None
70796	9.3							34.8		slight
70799		0.08		0.48	<0.01					
70809		0.09		0.19	<0.01					
70810	9.01							116.0		moderate
70811	8.13							91.7		Moderate
70814		0.13		1.93	<0.01					
70823		0.19		4.95	0.03					
70826	9.14							23.9		slight
70833		2.64		10.3	0.04					
70840		0.36		2.5	0.04					
70842	8.96							70.6		moderate
70843	9.21							20.7		None
70850		0.26		0.8	0.02					

Note:

AP = Acid potential in tonnes CaCO₃ equivalent per 1000 tonnes of material. AP is determined from calculated sulphide sulphur content: S(T) - S(SO₄).

NP = Neutralization potential in tonnes CaCO₃ equivalent per 1000 tonnes of material.

NET NP = NP - AP

Carbonate NP is calculated from TIC originating from carbonates and is expressed in kg CaCO₃/tonne.



Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Metals by Aqua Regia Digestion with ICP Finish
Date : September 19, 2007

Sample ID	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	Ti ppm	U ppm	V ppm	W ppm	Zn ppm	Zr ppm
70766	<0.2	2.24	43	103	<0.5	<5	0.13	2	34	159	62	4.65	<1	0.74	20	1.5	254	<2	0.02	112	512	<2	0.67	11	4	3	<5	0.08	<10	30	49	<10	103	15
70767	<0.2	2.25	15	224	<0.5	<5	0.21	3	25	152	63	4.61	<1	0.99	28	1.77	546	2	0.04	57	603	<2	1.03	9	11	2	7	0.13	<10	10	81	<10	289	20
70768	<0.2	2.48	17	241	<0.5	<5	0.15	2	30	152	41	4.23	<1	1.65	21	1.58	411	<2	0.03	92	600	<2	0.28	11	8	2	<5	0.19	<10	<10	82	<10	95	14
70769	1	1.08	193	43	<0.5	<5	0.24	3	30	88	106	4.27	<1	0.24	19	1.15	369	<2	0.04	63	800	55	3.02	<5	2	2	5	0.04	<10	14	29	<10	687	25
70770	0.6	1.34	198	59	0.5	<5	0.26	4	25	119	89	5.63	<1	0.49	21	1.17	494	<2	0.06	78	604	27	3.85	7	6	4	8	0.07	14	19	53	<10	738	30
70771	0.2	1.53	35	209	<0.5	<5	1.86	2	28	78	<1	5.05	<1	0.65	32	0.59	584	<2	0.09	8	4689	<2	0.55	12	14	<1	<5	0.17	<10	<10	15	<10	115	19
70772	<0.2	2.45	22	320	<0.5	<5	0.59	2	26	169	25	4.08	<1	1.2	25	1.33	362	<2	0.06	67	711	<2	0.23	14	9	<1	6	0.2	13	13	87	<10	63	20
70773	<0.2	1.43	25	129	<0.5	<5	2.28	2	24	100	6	4.94	<1	0.22	38	0.73	609	<2	0.08	12	4283	<2	0.58	8	14	<1	<5	0.16	<10	<10	30	<10	123	21
70774	<0.2	2.03	16	109	<0.5	<5	0.37	2	26	160	24	4.16	<1	0.71	21	1.22	339	<2	0.03	78	628	<2	0.42	8	7	<1	5	0.12	<10	18	73	<10	82	16
70775	<0.2	1.25	26	206	<0.5	<5	1.39	2	24	80	<1	4.35	<1	0.57	38	0.58	351	<2	0.08	4	4646	<2	0.55	10	14	1	<5	0.13	12	13	11	13	101	26
70776	<0.2	2.19	19	309	<0.5	<5	0.26	1	24	165	49	3.47	<1	1.26	21	1.5	350	<2	0.05	60	600	<2	0.13	10	9	1	<5	0.17	<10	12	84	<10	71	12
70777	<0.2	1.53	266	35	0.6	<5	3.15	2	43	77	42	4.85	<1	0.18	15	1.39	602	<2	0.02	87	564	11	3.12	7	3	17	9	0.05	14	<10	29	<10	30	22
70778	<0.2	1.11	56	63	<0.5	<5	2.14	1	42	89	57	3.15	<1	0.08	<10	0.71	643	<2	0.13	54	787	<2	0.2	8	8	3	<5	0.13	<10	<10	90	<10	35	7
70779	<0.2	2.1	237	49	<0.5	<5	3.38	1	51	116	48	1.92	1	0.07	<10	0.51	368	<2	0.26	83	246	<2	0.14	9	7	11	<5	0.16	<10	<10	71	<10	32	3
70780	0.3	2.1	136	21	0.8	<5	2.24	4	60	77	33	6.93	<1	0.18	19	1.2	930	<2	0.06	74	1243	2	1.87	17	9	4	<5	0.43	<10	<10	149	123	209	10
70781	<0.2	1.65	329	189	<0.5	<5	2.92	2	53	93	83	4.55	1	0.3	10	0.89	896	<2	0.15	62	1025	<2	0.35	9	12	2	<5	0.15	15	<10	126	<10	69	9
70782	<0.2	2.32	24	45	<0.5	<5	0.28	2	28	118	40	4.79	<1	0.3	18	1.27	370	<2	0.02	92	756	<2	0.19	10	4	4	6	0.09	<10	22	50	<10	118	21
70783	0.2	1.52	127	21	<0.5	<5	0.72	3	41	126	58	6.61	<1	0.08	16	1.41	501	<2	0.05	62	705	24	4.25	8	8	7	5	0.07	23	12	97	<10	150	19
70784	<0.2	3.07	10	103	0.6	<5	2.72	5	78	126	111	9.28	<1	0.56	18	1.38	519	<2	0.21	72	957	9	3.89	16	18	71	<5	0.28	<10	23	256	<10	396	15
70785	<0.2	1.53	35	223	0.5	<5	1.92	2	33	67	<1	4.84	<1	0.58	37	0.61	600	<2	0.09	12	4965	4	0.35	8	16	1	<5	0.16	13	14	15	<10	130	20
70786	<0.2	1.55	31	173	<0.5	<5	2.29	2	23	65	<1	4.74	<1	0.43	36	0.66	695	<2	0.15	13	5792	<2	0.28	10	13	2	<5	0.15	<10	<10	15	<10	119	17
70787	<0.2	1.43	153	63	<0.5	<5	2.26	2	42	61	90	4.36	<1	0.07	<10	0.77	866	<2	0.15	56	694	<2	0.55	7	8	2	<5	0.09	19	<10	79	<10	42	6
70788	0.3	1.44	109	129	<0.5	<5	1.81	2	50	117	114	3.56	<1	0.23	<10	0.8	500	<2	0.13	67	981	<2	0.3	8	13	3	<5	0.17	22	<10	157	<10	47	7
70789	0.2	1.97	178	162	<0.5	<5	2.01	2	79	153	51	4.12	<1	0.27	<10	0.78	712	<2	0.19	121	921	<2	0.2	15	16	2	<5	0.16	<10	<10	198	<10	44	7
70790	<0.2	1.63	99	109	<0.5	<5	2.42	2	54	120	94	3.53	1	0.15	11	0.84	661	<2	0.16	73	957	<2	0.23	11	13	<1	<5	0.19	<10	<10	141	<10	57	7
70791	<0.2	2.09	82	143	<0.5	<5	2.2	2	46	113	90	4.84	1	0.14	11	0.84	837	<2	0.19	57	943	<2	0.37	9	13	1	<5	0.15	<10	<10	140	<10	62	9
70792	<0.2	2.59	229	203	<0.5	<5	0.43	2	33	145	72	5.72	<1	0.3	23	1.45	465	<2	0.05	91	698	<2	1.09	10	8	1	5	0.11	<10	22	82	30	72	22
70793	<0.2	1.69	136	90	0.7	<5	1.97	3	30	99	142	3.89	<1	0.18	39	1.14	632	<2	0.04	48	639	19	2	6	5	29	17	0.07	<10	<10	28	<10	590	27
70794	<0.2	2.95	16	323	<0.5	<5	0.47	2	26	190	49	4.44	<1	1.28	24	1.94	541	<2	0.08	61	629	<2	0.23	9	12	1	6	0.2	<10	14	109	<10	119	18
70795	3.3	1.5	133	54	0.5	<5	0.25	6	27	99	184	3.42	<1	0.34	25	1.67	505	<2	0.04	70	711	45	1.71	5	4	1	8	0.03	<10	11	40	<10	2250	26
70796	<0.2	1.59	18	124	0.5	<5	1.67	2	26	84	<1	4.19	<1	0.45	33	0.55	601	<2	0.1	9	3791	<2	0.27	7	13	<1	<5	0.18	<10	<10	10	<10	117	13
70797	0.2	0.77	806	52	<0.5	<5	3.43	5	39	109	98	9.8	<1	0.13	32	0.45	1036	<2	0.09	18	2962	9	4.96	13	9	8	<5	0.15	<10	12	16	15	58	31
70798	<0.2	1.44	33	176	<0.5	<5	2.08	3	24	83	11	5.78	<1	0.46	34	0.64	761	<2	0.13	7	5136	<2	1.2	13	14	<1	<5	0.2	<10	11	19	<10	126	19
70799	<0.2	2.02	18	146	<0.5	<5	0.92	2	27	169	31	3.85	<1	0.7	30	1.38	358	<2	0.04	62	719	2	0.45	12	7	<1	7	0.19	<10	21	73	<10	76	25
70800	<0.2	1.4	20	37	0.5	<5	1.96	3	55	108	139	4.71	1	0.09	20	0.88	473	<2	0.07	58	1008	3	1.86	14	7	12	<5	0.45	<10	18	129	<10	690	12
70801	<0.2	0.59	46	56	0.8	<5	3.71	3	19	131	85	3.23	<1	0.09	58	0.28	391	3	0.05	36	120	33	2.39	<5	3	24	21	0.03	<10	29	8	<10	873	34
70802	<0.2	1.98	28	39	<0.5	<5	1.87	2	24	184	42	4.11	<1	0.11	29	1.25	584	<2	0.06	59	604	<2	0.65	9	7	1	9	0.07	<10	<10	79	<10	101	16
70803	<0.2	1.26	16	16	0.5	<5	3.75	3	16	152	44	3.52	<1	0.04	15	1.01	784	<2	0.03	39	354	10	1.19	5	3	<1	<5	0.01	<10	<10	29	<10	589	12
70804	<0.2	2.46	112	151	0.8	<5	3.24	3	25	76	10	6.09	<1	0.32	38	0.82	934	<2	0.17	5	4477	<2	0.62	14	14	26	<5	0.21	<10	<10	17	17	95	10
70805	<0.2	2.36	46	89	<0.5	<5	2.48	2	33	110	58	3.89	1	0.18	11	0.56	750	<2	0.25	33	923	<2	0.4	9	9	28	<5	0.19	<10	<10	45	<10	141	8
70806	<0.2	1.89	65	46	<0.5	<5	2.88	1	32	116	141	3.29	<1	0.08	10	0.65	665	<2	0.23	31	1071	<2	0.27	7	13	<1	<5	0.2	<10	<10	147	<10	45	8
70807	<0.2	2.35	102	225	<0.5	<5	0.56	2	32	170	55	4.39	<1	0.82	22	1.63	476	<2	0.05	72	608	12	1.17	12	8	1	6	0.15	<10	17	77	<10	136	21
70808	<0.2	2.08	41	86																														

Sample ID	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm	Zr ppm
70822	<0.2	2.45	34	172	<0.5	<5	1.06	2	27	166	27	3.78	<1	1.02	27	1.54	373	<2	0.03	87	565	5	0.16	15	6	3	6	0.15	<10	10	72	<10	130	18
70823	0.3	1.61	184	83	<0.5	<5	0.35	3	29	167	82	6.98	1	0.73	28	1.22	711	2	0.05	87	452	37	4.78	13	9	10	7	0.09	<10	<10	69	<10	141	23
70824	<0.2	2.85	36	285	0.5	<5	0.65	2	24	209	44	4.44	<1	1.23	26	2.27	661	<2	0.1	66	604	36	0.64	14	11	13	7	0.23	<10	<10	102	<10	330	18
70825	<0.2	2.35	198	31	0.7	<5	2.55	2	28	190	26	3.96	<1	0.17	32	2.5	1065	3	0.03	54	508	7	0.97	11	8	5	9	0.12	<10	<10	65	<10	63	23
70826	<0.2	1.58	304	89	<0.5	<5	1.28	2	96	194	89	3.69	1	0.3	<10	0.63	566	<2	0.12	154	912	<2	0.27	8	13	3	<5	0.18	<10	<10	201	<10	56	7
70827	<0.2	2.6	42	91	<0.5	<5	0.49	2	30	158	91	5.37	<1	0.27	31	1.35	430	<2	0.08	75	669	<2	1.14	11	8	3	7	0.1	<10	17	74	<10	67	19
70828	<0.2	1.54	60	63	<0.5	<5	1.94	2	29	81	45	4.43	<1	0.1	13	0.82	958	<2	0.18	35	794	<2	0.18	12	12	6	<5	0.16	<10	<10	111	<10	48	10
70829	<0.2	1.63	24	105	<0.5	<5	2.13	3	28	75	27	5.76	1	0.28	36	0.56	1064	<2	0.18	13	4295	<2	0.61	10	13	6	<5	0.18	<10	<10	20	<10	125	21
70830	<0.2	1.73	46	280	<0.5	<5	1.86	2	68	80	115	4.85	1	0.47	17	0.88	1078	<2	0.13	64	1099	2	0.48	17	14	6	<5	0.56	<10	<10	219	<10	89	11
70831	<0.2	2.52	48	52	0.6	<5	0.8	3	32	150	31	6.37	<1	0.23	25	2.03	750	<2	0.03	82	714	<2	1.77	15	9	8	8	0.2	<10	<10	92	<10	113	38
70832	<0.2	2.08	40	186	<0.5	<5	0.18	1	27	173	32	3.41	<1	1.33	24	1.26	276	<2	0.04	77	527	<2	0.13	10	6	4	5	0.21	<10	15	71	<10	87	26
70833	0.5	1.19	16	38	<0.5	<5	0.26	9	85	101	350	13.95	<1	0.41	27	0.73	292	<2	0.03	243	482	39	>5.00	17	3	24	9	0.07	<10	75	37	16	478	42
70834	<0.2	1.08	198	56	<0.5	<5	0.24	3	42	172	127	3.94	1	0.44	27	0.78	441	2	0.06	83	495	28	2.54	12	7	5	7	0.1	<10	<10	57	<10	535	27
70837	<0.2	1.41	303	76	<0.5	<5	0.39	3	35	127	101	5.1	1	0.55	34	0.94	493	2	0.05	120	517	14	2.56	9	6	5	11	0.15	<10	13	53	<10	166	36
70838	<0.2	2.93	240	15	0.8	<5	0.99	4	56	158	125	7.46	<1	0.11	27	3.47	983	<2	0.03	142	1267	12	3.94	17	17	7	8	0.35	<10	<10	105	<10	180	43
70839	<0.2	2.83	77	135	0.5	<5	1.3	1	27	182	16	3.55	<1	0.74	29	1.82	447	<2	0.04	81	574	<2	0.03	11	7	2	6	0.21	<10	<10	78	<10	88	27
70840	0.2	1.25	69	57	0.5	<5	2.3	2	62	135	186	4.92	<1	0.11	11	0.82	668	<2	0.1	87	887	6	2.49	12	9	54	<5	0.2	<10	<10	118	<10	71	7
70841	0.3	4.49	80	10	1.5	<5	1.37	3	67	117	<1	7.37	1	0.06	<10	5.58	889	<2	0.03	79	646	<2	1.09	15	13	62	<5	0.29	<10	<10	166	12	29	9
70842	<0.2	2.23	50	38	<0.5	<5	2.04	2	48	157	91	4.43	<1	0.1	12	1.24	694	<2	0.12	50	1329	<2	0.24	11	15	2	<5	0.22	<10	<10	214	<10	83	6
70843	<0.2	1.65	25	156	0.5	<5	2.28	2	27	67	4	4.74	1	0.36	36	0.67	668	<2	0.14	8	5538	<2	0.34	9	13	2	<5	0.17	<10	<10	14	<10	104	15
70844	0.2	2.3	302	199	<0.5	<5	2.01	4	79	116	129	5.65	1	0.43	17	1.29	607	<2	0.11	85	1029	<2	0.93	16	17	12	<5	0.34	<10	<10	317	<10	610	9
70845	0.5	1.44	1306	135	<0.5	<5	2.22	3	29	67	13	5.8	<1	0.28	31	0.64	726	<2	0.11	10	4299	5	1.06	10	11	4	<5	0.11	13	<10	20	<10	140	18
70846	1.1	1.43	1598	110	<0.5	<5	2.18	3	46	77	28	6.28	<1	0.3	31	0.65	768	<2	0.13	13	4300	9	1.38	10	12	5	<5	0.13	11	<10	29	<10	123	22
70848	<0.2	2.66	27	463	<0.5	<5	0.36	2	27	200	35	4.45	<1	1.53	24	1.93	499	<2	0.05	71	653	<2	0.27	16	11	3	6	0.23	<10	<10	105	<10	122	16
70849	<0.2	2.03	<5	83	0.6	<5	0.56	3	37	100	252	5.65	<1	0.68	30	1.57	649	<2	0.05	97	602	15	2.5	10	4	4	10	0.08	10	<10	45	<10	468	34
70850	<0.2	2.23	8	177	0.5	<5	2.03	3	28	68	4	6.07	1	0.5	39	0.82	577	<2	0.09	7	4725	<2	0.69	10	14	4	<5	0.17	<10	10	13	<10	166	20
DH273-47.07-51.31	0.4	1.76	<5	66	<0.5	<5	1.79	4	36	77	32	7.96	<1	0.21	32	0.59	629	<2	0.1	7	3797	<2	2.41	14	9	8	<5	0.11	<10	14	8	<10	87	23
DH273-273.02-277.32	<0.2	3.52	58	92	0.6	<5	1.59	2	32	202	47	4.6	<1	0.96	33	1.65	555	<2	0.13	82	790	<2	0.37	14	11	31	9	0.23	<10	<10	113	<10	77	21



Certified by:

 R. J. Vos
 ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Metals by Aqua Regia Digestion with ICP Finish
Date : September 19, 2007

Sample ID	Se ppm	Sample ID	Se ppm
70766	0.7	70813	0.5
70767	0.8	70814	1.3
70768	0.3	70815	0.2
70769	1.5	70816	0.5
70770	1.4	70817	0.2
70771	0.1	70818	0.5
70772	0.3	70819	0.4
70773	0.1	70820	0.5
70774	0.3	70821	0.7
70775	0.1	70822	0.2
70776	0.2	70823	1.2
70777	1.3	70824	0.4
70778	0.1	70825	0.5
70779	0.1	70826	0.4
70780	0.1	70827	0.5
70781	<0.1	70828	0.2
70782	0.2	70829	0.2
70783	1.1	70830	0.3
70784	0.2	70831	0.8
70785	0.1	70832	<0.1
70786	<0.1	70833	2.7
70787	<0.1	70834	1.3
70788	<0.1	70837	1.1
70789	<0.1	70838	1.7
70790	0.7	70839	<0.1
70791	0.4	70840	0.1
70792	0.4	70841	0.5
70793	1.1	70842	0.1
70794	0.3	70843	0.1
70795	1.5	70844	0.1
70796	0.1	70845	<0.1
70797	0.2	70846	<0.1
70798	0.3	70848	0.3
70799	0.3	70849	1.3
70800	0.3	70850	<0.1
70801	1.1	DH273-47.07-51.31	0.1
70802	0.3	DH273-273.02-277.32	0.2
70803	0.6	Duplicates	
70804	<0.1	70766	0.6
70805	<0.1	70775	0.1
70806	<0.1	70785	0.1
70807	0.6	70790	0.6
70808	0.8	70799	0.3
70809	<0.1	70809	<0.1
70810	<0.1	70814	1.3
70811	0.6	70823	1.2
70812	0.1	70833	2.8
		70840	0.1
		70850	<0.1

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Sobek Acid-Base Accounting
Date : August 13-21, 2007 (Repeated April 1-3, 2008)

Sample ID	Paste pH	TIC %	CaCO3 NP	HCl Norm.	HCl (mL)	Starting pH	NaOH Norm.	NaOH (mL)	NP	Fizz Test
70766	8.61	0.24	20.0	0.1	20	2.52	0.1	16.30	9.9	None
70767	8.61	<0.01	<0.8	0.1	20	2.47	0.1	16.15	10.2	None
70768	9.62	<0.01	<0.8	0.1	20	2.46	0.1	15.85	11.0	None
70769	7.07	<0.01	<0.8	0.1	20	2.27	0.1	14.75	13.7	None
70770	8.09	0.01	0.8	0.1	20	2.41	0.1	15.85	11.0	None
70771	9.20	0.16	13.3	0.1	20	2.73	0.1	11.60	21.4	Slight
70772	9.49	0.04	3.3	0.1	20	2.19	0.1	14.70	13.8	None
70773	8.61	0.31	25.8	0.1	20	3.10	0.1	7.35	31.9	Slight
70774	8.93	0.04	3.3	0.1	20	2.26	0.1	15.30	12.3	None
70775	9.23	0.16	13.3	0.1	20	2.81	0.1	12.80	18.5	None
70776	9.61	0.03	2.5	0.1	20	2.16	0.1	15.35	12.2	None
70777	8.50	0.96	80.0	0.1	40	2.54	0.1	6.50	84.0	Slight
70778	9.08	0.32	26.7	0.1	20	2.77	0.1	7.30	32.0	Slight
70779	8.89	0.55	45.8	0.1	40	2.04	0.1	18.25	55.0	Slight
70780	8.93	1.08	90.0	0.1	40	2.64	0.1	26.60	34.5	Slight
70781	8.84	0.54	45.0	0.1	40	2.14	0.1	19.05	53.1	Slight
70782	8.82	0.03	2.5	0.1	20	2.57	0.1	15.80	11.1	None
70783	8.10	0.14	11.7	0.1	20	2.75	0.1	10.00	25.4	None
70784	8.53	1.34	111.7	0.5	40	1.26	0.5	27.25	163.6	Slight
70785	9.30	0.24	20.0	0.1	20	2.91	0.1	9.75	26.0	Slight
70786	9.18	0.15	12.5	0.1	20	2.66	0.1	11.40	21.7	None
70787	8.77	0.29	24.2	0.1	20	2.93	0.1	7.40	31.8	Slight
70788	9.17	0.26	21.7	0.1	20	2.77	0.1	9.65	26.2	Slight
70789	9.31	0.2	16.7	0.1	20	2.78	0.1	9.45	26.7	Slight
70790	9.02	0.26	21.7	0.1	20	2.85	0.1	7.45	31.7	Slight
70791	8.84	0.14	11.7	0.1	20	2.79	0.1	10.85	23.3	Slight
70792	8.69	0.01	0.8	0.1	20	2.87	0.1	16.05	10.5	None
70793	8.73	0.3	25.0	0.1	20	4.35	0.1	5.75	35.8	Slight
70794	9.38	0.02	1.7	0.1	20	2.61	0.1	14.35	14.7	None
70795	8.15	0.02	1.7	0.1	20	2.78	0.1	13.70	16.3	None
70796	9.29	0.04	3.3	0.1	20	2.56	0.1	13.45	16.9	None
70797	8.35	0.64	53.3	0.1	40	3.78	0.1	15.75	61.2	Slight
70798	9.25	0.03	2.5	0.1	20	3.07	0.1	13.25	17.4	None
70799	9.10	0.07	5.8	0.1	20	2.38	0.1	12.30	19.7	Slight
70800	8.59	0.18	15.0	0.1	20	2.83	0.1	10.35	24.5	Slight
70801	8.50	0.85	70.8	0.1	40	3.12	0.1	7.45	81.7	Slight
70802	8.79	0.45	37.5	0.1	20	2.98	0.1	4.55	38.8	Slight
70803	8.39	1.11	92.5	0.5	40	0.8	0.5	29.70	128.8	Moderate
70804	8.77	0.18	15.0	0.1	20	3.12	0.1	10.75	23.5	Slight
70805	9.07	0.07	5.8	0.1	20	2.69	0.1	14.15	15.1	Slight
70806	8.57	0.35	29.2	0.1	20	3.00	0.1	6.85	33.1	Slight
70807	8.79	0.07	5.8	0.1	20	2.39	0.1	13.00	18.0	None
70808	8.16	0.23	19.2	0.1	20	2.99	0.1	12.80	18.5	Slight
70809	8.61	0.1	8.3	0.1	20	2.47	0.1	12.10	20.2	Slight
70810	8.91	0.58	48.3	0.1	40	2.00	0.1	18.40	54.7	Slight
70811	8.10	0.53	44.2	0.1	40	2.40	0.1	16.25	60.1	Slight
70812	9.03	0.03	2.5	0.1	20	2.30	0.1	14.90	13.4	None
70813	7.93	0.04	3.3	0.1	20	2.97	0.1	13.90	15.8	None
70814	8.99	0.13	10.8	0.1	20	2.58	0.1	10.90	23.2	Slight
70815	8.89	0.12	10.0	0.1	20	2.39	0.1	12.05	20.4	Slight
70816	8.99	0.39	32.5	0.1	20	3.27	0.1	4.80	38.2	Slight
70817	9.38	0.01	0.8	0.1	20	2.61	0.1	14.35	14.7	None
70818	9.31	0.15	12.5	0.1	20	2.52	0.1	11.30	22.2	Slight
70819	9.32	0.11	9.2	0.1	20	2.47	0.1	13.20	17.6	Slight
70820	9.09	0.27	22.5	0.1	20	2.83	0.1	8.00	30.3	Slight
70821	8.87	0.13	10.8	0.1	20	2.62	0.1	13.80	16.1	None
70822	9.55	0.22	18.3	0.1	20	2.50	0.1	9.75	26.0	Slight

Sample ID	Paste pH	TIC %	CaCO ₃ NP	HCl Norm.	HCl (mL)	Starting pH	NaOH Norm.	NaOH (mL)	NP	Fizz Test
70823	7.85	0.12	10.0	0.1	20	2.57	0.1	14.90	13.4	None
70824	9.23	0.03	2.5	0.1	20	2.67	0.1	13.10	17.8	None
70825	8.39	0.46	38.3	0.1	40	2.27	0.1	12.40	69.5	Slight
70826	9.12	0.08	6.7	0.1	20	2.48	0.1	13.75	16.0	None
70827	8.24	0.04	3.3	0.1	20	2.56	0.1	14.90	13.1	None
70828	8.68	0.13	10.8	0.1	20	2.72	0.1	12.50	19.1	Slight
70829	8.81	0.09	7.5	0.1	20	2.55	0.1	13.90	15.6	None
70830	9.24	0.06	5.0	0.1	20	2.30	0.1	13.95	15.5	None
70831	8.72	0.12	10.0	0.1	20	2.59	0.1	12.10	20.0	Slight
70832	9.71	0.02	1.7	0.1	20	2.61	0.1	16.05	10.3	None
70833	7.29	2.67	222.5	0.5	40	1.27	0.5	23.05	212.6	None
70834	6.37	0.08	6.7	0.1	20	2.67	0.1	16.20	9.9	None
70837	8.27	0.26	21.7	0.1	20	2.84	0.1	15.10	12.6	None
70838	8.37	0.05	4.2	0.1	20	2.95	0.1	11.30	22.0	None
70839	9.35	0.08	6.7	0.1	20	2.55	0.1	12.80	18.3	None
70840	8.74	0.32	26.7	0.1	20	3.28	0.1	6.15	34.8	Slight
70841	8.50	0.18	15.0	0.1	20	3.56	0.1	6.95	32.8	Slight
70842	8.94	0.21	17.5	0.1	20	2.80	0.1	9.15	27.4	Slight
70843	9.14	0.03	2.5	0.1	20	2.46	0.1	12.80	18.5	None
70844	8.89	0.3	25.0	0.1	20	2.92	0.1	6.80	33.3	Slight
70845	8.30	0.28	23.3	0.1	20	2.86	0.1	10.20	24.9	Slight
70846	8.44	0.4	33.3	0.1	20	2.69	0.1	10.30	24.6	None
70848	9.62	0.04	3.3	0.1	20	2.38	0.1	13.75	16.1	None
70849	8.52	0.59	49.2	0.1	40	2.45	0.1	31.15	23.3	None
70850	9.07	0.24	20.0	0.1	20	2.93	0.1	12.35	19.6	None
DH273-47.07-51.31	8.60	1.19	99.2	0.5	40	1.09	0.5	30.65	119.7	Slight
DH273-273.02-277.32	8.96	0.06	5.0	0.1	20	2.40	0.1	14.35	14.7	None
Duplicates										
70766	8.97	0.23		0.10	20	2.63		16.40	9.6	None
70775		0.17								
70780	8.98			0.10	40	2.70		27.00	33.5	Slight
70781				0.10	40	2.18		19.20	52.7	Slight
70785		0.25								
70790		0.27								
70795	8.17			0.10	20	2.69		13.75	16.1	None
70796	9.30			0.10	20	2.54		13.25	17.4	None
70799		0.08								
70809		0.09								
70810	9.01			0.10	40	2.17		18.60	54.2	Slight
70811	8.13			0.10	40	2.52		15.75	61.3	Slight
70814		0.13								
70823		0.19								
70825				0.10	40	2.30		12.60	69.0	Slight
70826	9.14			0.10	20	2.59		13.65	16.2	None
70833		2.64								
70840		0.36								
70842	8.96			0.10	20	2.92		8.85	28.1	Slight
70843	9.21			0.10	20	2.47		13.25	17.4	None
70850		0.26								
DH273-273.02-277.32				0.10	20	2.30		14.60	14.0	None

Note:

AP = Acid potential in tonnes CaCO₃ equivalent per 1000 tonnes of material. AP is determined from calculated sulphide sulphur content: S(T) - S(SO₄).

NP = Neutralization potential in tonnes CaCO₃ equivalent per 1000 tonnes of material.

NET NP = NP - AP

Carbonate NP is calculated from TIC originating from carbonates and is expressed in kg CaCO₃/tonne.



Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Sobek Acid-Base Accounting
Date : August 13-21, 2007 (Revised April 7 08)

Sample ID	Paste pH	TIC %	CaCO3 NP	S(T) %	S(SO4) %	S(S-2) %	AP	NP	Net NP	Fizz Test
70766	8.61	0.24	20.0	0.85	<0.01	0.85	26.6	9.9	-16.7	None
70767	8.61	<0.01	<0.8	1.11	<0.01	1.11	34.7	10.2	-24.5	None
70768	9.62	<0.01	<0.8	0.32	<0.01	0.32	10.0	11.0	1.0	None
70769	7.07	<0.01	<0.8	3.14	0.04	3.1	96.9	13.7	-83.2	None
70770	8.09	0.01	0.8	4.04	0.02	4.02	125.6	11.0	-114.6	None
70771	9.20	0.16	13.3	0.63	<0.01	0.63	19.7	21.4	1.7	Slight
70772	9.49	0.04	3.3	0.24	<0.01	0.24	7.5	13.8	6.3	None
70773	8.61	0.31	25.8	0.63	<0.01	0.63	19.7	31.9	12.2	Slight
70774	8.93	0.04	3.3	0.46	<0.01	0.46	14.4	12.3	-2.1	None
70775	9.23	0.16	13.3	0.65	<0.01	0.65	20.3	18.5	-1.8	None
70776	9.61	0.03	2.5	0.15	<0.01	0.15	4.7	12.2	7.5	None
70777	8.50	0.96	80.0	3.16	0.02	3.14	98.1	84.0	-14.1	Slight
70778	9.08	0.32	26.7	0.22	<0.01	0.22	6.9	32.0	25.1	Slight
70779	8.89	0.55	45.8	0.15	<0.01	0.15	4.7	55.0	50.3	Slight
70780	8.93	1.08	90.0	2.2	<0.01	2.2	68.8	34.5	-34.3	Slight
70781	8.84	0.54	45.0	0.38	<0.01	0.38	11.9	53.1	41.2	Slight
70782	8.82	0.03	2.5	0.21	<0.01	0.21	6.6	11.1	4.5	None
70783	8.10	0.14	11.7	4.38	0.03	4.35	135.9	25.4	-110.5	None
70784	8.53	1.34	111.7	4.41	0.02	4.39	137.2	163.6	26.4	Slight
70785	9.30	0.24	20.0	0.39	<0.01	0.39	12.2	26.0	13.8	Slight
70786	9.18	0.15	12.5	0.31	<0.01	0.31	9.7	21.7	12.0	None
70787	8.77	0.29	24.2	0.6	<0.01	0.6	18.8	31.8	13.1	Slight
70788	9.17	0.26	21.7	0.35	<0.01	0.35	10.9	26.2	15.3	Slight
70789	9.31	0.2	16.7	0.21	<0.01	0.21	6.6	26.7	20.1	Slight
70790	9.02	0.26	21.7	0.25	<0.01	0.25	7.8	31.7	23.9	Slight
70791	8.84	0.14	11.7	0.38	<0.01	0.38	11.9	23.3	11.4	Slight
70792	8.69	0.01	0.8	1.12	<0.01	1.12	35.0	10.5	-24.5	None
70793	8.73	0.3	25.0	2	<0.01	2	62.5	35.8	-26.7	Slight
70794	9.38	0.02	1.7	0.25	<0.01	0.25	7.8	14.7	6.9	None
70795	8.15	0.02	1.7	1.81	0.02	1.79	55.9	16.3	-39.6	None
70796	9.29	0.04	3.3	0.3	<0.01	0.3	9.4	16.9	7.5	None
70797	8.35	0.64	53.3	5.2	<0.01	5.2	162.5	61.2	-101.3	Slight
70798	9.25	0.03	2.5	1.27	<0.01	1.27	39.7	17.4	-22.3	None
70799	9.10	0.07	5.8	0.47	<0.01	0.47	14.7	19.7	5.0	Slight
70800	8.59	0.18	15.0	1.97	0.01	1.96	61.3	24.5	-36.8	Slight
70801	8.50	0.85	70.8	2.42	0.01	2.41	75.3	81.7	6.4	Slight
70802	8.79	0.45	37.5	0.64	<0.01	0.64	20.0	38.8	18.8	Slight
70803	8.39	1.11	92.5	1.3	<0.01	1.3	40.6	128.8	88.2	Moderate
70804	8.77	0.18	15.0	0.7	<0.01	0.7	21.9	23.5	1.6	Slight
70805	9.07	0.07	5.8	0.4	<0.01	0.4	12.5	15.1	2.6	Slight
70806	8.57	0.35	29.2	0.31	<0.01	0.31	9.7	33.1	23.4	Slight
70807	8.79	0.07	5.8	1.23	<0.01	1.23	38.4	18.0	-20.4	None
70808	8.16	0.23	19.2	3.7	0.03	3.67	114.7	18.5	-96.2	Slight
70809	8.61	0.1	8.3	0.19	<0.01	0.19	5.9	20.2	14.3	Slight
70810	8.91	0.58	48.3	0.11	<0.01	0.11	3.4	54.7	51.3	Slight
70811	8.10	0.53	44.2	2.64	0.01	2.63	82.2	60.1	-22.1	Slight
70812	9.03	0.03	2.5	0.12	<0.01	0.12	3.8	13.4	9.7	None
70813	7.93	0.04	3.3	5.13	0.02	5.11	159.7	15.8	-143.9	None
70814	8.99	0.13	10.8	1.92	<0.01	1.92	60.0	23.2	-36.8	Slight
70815	8.89	0.12	10.0	0.1	<0.01	0.1	3.1	20.4	17.3	Slight
70816	8.99	0.39	32.5	0.54	<0.01	0.54	16.9	38.2	21.3	Slight
70817	9.38	0.01	0.8	0.23	<0.01	0.23	7.2	14.7	7.5	None
70818	9.31	0.15	12.5	0.28	<0.01	0.28	8.8	22.2	13.5	Slight
70819	9.32	0.11	9.2	0.25	<0.01	0.25	7.8	17.6	9.8	Slight
70820	9.09	0.27	22.5	0.4	<0.01	0.4	12.5	30.3	17.8	Slight
70821	8.87	0.13	10.8	1.29	<0.01	1.29	40.3	16.1	-24.2	None
70822	9.55	0.22	18.3	0.19	<0.01	0.19	5.9	26.0	20.1	Slight
70823	7.85	0.12	10.0	4.91	0.02	4.89	152.8	13.4	-139.4	None

SGS assumes the liabilities for actual cost of the test work only.

Sample ID	Paste pH	TIC %	CaCO ₃ NP	S(T) %	S(SO ₄) %	S(S-2) %	AP	NP	Net NP	Fizz Test
70824	9.23	0.03	2.5	0.63	<0.01	0.63	19.7	17.8	-1.9	None
70825	8.39	0.46	38.3	0.99	<0.01	0.99	30.9	69.5	38.6	Slight
70826	9.12	0.08	6.7	0.3	<0.01	0.3	9.4	16.0	6.6	None
70827	8.24	0.04	3.3	1.27	<0.01	1.27	39.7	13.1	-26.6	None
70828	8.68	0.13	10.8	0.21	<0.01	0.21	6.6	19.1	12.5	Slight
70829	8.81	0.09	7.5	0.69	<0.01	0.69	21.6	15.6	-6.0	None
70830	9.24	0.06	5.0	0.51	<0.01	0.51	15.9	15.5	-0.4	None
70831	8.72	0.12	10.0	1.82	<0.01	1.82	56.9	20.0	-36.9	Slight
70832	9.71	0.02	1.7	0.15	<0.01	0.15	4.7	10.3	5.6	None
70833	7.29	2.67	222.5	10.2	0.03	10.17	317.8	212.6	-105.2	None
70834	6.37	0.08	6.7	2.68	0.06	2.62	81.9	9.9	-72.0	None
70837	8.27	0.26	21.7	2.67	0.02	2.65	82.8	12.6	-70.2	None
70838	8.37	0.05	4.2	3.93	0.01	3.92	122.5	22.0	-100.5	None
70839	9.35	0.08	6.7	0.04	<0.01	0.04	1.3	18.3	17.1	None
70840	8.74	0.32	26.7	2.5	0.04	2.46	76.9	34.8	-42.1	Slight
70841	8.50	0.18	15.0	1.16	0.05	1.11	34.7	32.8	-1.9	Slight
70842	8.94	0.21	17.5	0.26	0.01	0.25	7.8	27.4	19.6	Slight
70843	9.14	0.03	2.5	0.38	<0.01	0.38	11.9	18.5	6.6	None
70844	8.89	0.3	25.0	0.96	0.03	0.93	29.1	33.3	4.2	Slight
70845	8.30	0.28	23.3	1.23	0.03	1.2	37.5	24.9	-12.6	Slight
70846	8.44	0.4	33.3	1.65	0.04	1.61	50.3	24.6	-25.7	None
70848	9.62	0.04	3.3	0.28	<0.01	0.28	8.8	16.1	7.4	None
70849	8.52	0.59	49.2	2.57	0.03	2.54	79.4	23.3	-56.1	None
70850	9.07	0.24	20.0	0.82	0.01	0.81	25.3	19.6	-5.7	None
DH273-47.07-51.31	8.60	1.19	99.2	2.85	0.02	2.83	88.4	119.7	31.3	Slight
DH273-273.02-277.32	8.96	0.06	5.0	0.37	0.02	0.35	10.9	14.7	3.8	None
Duplicates										
70766	8.97	0.23		0.83	0.01			9.6		None
70775		0.17		0.64	<0.01					
70780	8.98							33.5		Slight
70785		0.25		0.39	<0.01					
70790		0.27		0.24	<0.01					
70795	8.17							16.1		None
70796	9.3							17.4		None
70799		0.08		0.48	<0.01					
70809		0.09		0.19	<0.01					
70810	9.01							54.2		Slight
70811	8.13							61.3		Slight
70814		0.13		1.93	<0.01					
70823		0.19		4.95	0.03					
70826	9.14							16.2		None
70833		2.64		10.3	0.04					
70840		0.36		2.5	0.04					
70842	8.96							28.1		Slight
70843	9.21							17.4		None
70850		0.26		0.8	0.02					

Note:

AP = Acid potential in tonnes CaCO₃ equivalent per 1000 tonnes of material. AP is determined from calculated sulphide sulphur content: S(T) - S(SO₄).

NP = Neutralization potential in tonnes CaCO₃ equivalent per 1000 tonnes of material.

NET NP = NP - AP

Carbonate NP is calculated from TIC originating from carbonates and is expressed in kg CaCO₃/tonne.

NPs were repeated with initial acid addition based on calculated TIC NP.



Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Metals by Aqua Regia Digestion with ICP Finish
Date : September 19, 2007

Sample ID	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	Ti ppm	U ppm	V ppm	W ppm	Zn ppm	Zr ppm
70766	<0.2	2.24	43	103	<0.5	<0.13	0.13	2	34	159	62	4.65	<1	0.74	20	1.5	254	<2	0.02	112	512	<2	0.67	11	4	3	<5	0.08	<10	30	49	<10	103	15
70767	<0.2	2.25	15	224	<0.5	<0.21	0.21	3	25	152	63	4.61	<1	0.99	28	1.77	546	2	0.04	57	603	<2	1.03	9	11	2	7	0.13	<10	10	81	<10	289	20
70768	<0.2	2.48	17	241	<0.5	<0.15	0.15	2	30	152	41	4.23	<1	1.65	21	1.58	411	<2	0.03	92	600	<2	0.28	11	8	2	<5	0.19	<10	<10	82	<10	95	14
70769	1	1.08	193	43	<0.5	<0.24	0.24	3	30	88	106	4.27	<1	0.24	19	1.15	369	<2	0.04	63	800	55	3.02	<5	2	2	5	0.04	<10	14	29	<10	687	25
70770	0.6	1.34	198	59	0.5	<0.26	0.26	4	25	119	89	5.63	<1	0.49	21	1.17	494	<2	0.06	78	604	27	3.85	7	6	4	8	0.07	<14	19	53	<10	738	30
70771	0.2	1.53	35	209	<0.5	<0.186	0.186	2	28	78	<1	5.05	<1	0.65	32	0.59	594	<2	0.09	8	4689	<2	0.55	12	14	<1	<5	0.17	<10	<10	15	<10	115	19
70772	<0.2	2.45	22	320	<0.5	<0.59	0.59	2	26	169	25	4.08	<1	1.2	25	1.33	362	<2	0.06	67	711	<2	0.23	14	9	<1	6	0.2	13	13	87	<10	123	21
70773	<0.2	1.43	25	129	<0.5	<0.228	0.228	2	24	100	6	4.94	<1	0.22	38	0.73	609	<2	0.08	12	4293	<2	0.58	8	14	<1	<5	0.16	<10	<10	30	<10	123	21
70774	<0.2	2.03	16	109	<0.5	<0.37	0.37	2	26	160	24	4.16	<1	0.71	21	1.22	339	<2	0.03	78	628	<2	0.42	8	7	<1	5	0.12	<10	18	73	<10	82	16
70775	<0.2	1.25	26	206	<0.5	<0.139	0.139	2	24	80	<1	4.35	<1	0.57	38	0.58	351	<2	0.08	4	4646	<2	0.55	10	14	1	<5	0.13	12	13	11	13	101	26
70776	<0.2	2.19	19	309	<0.5	<0.26	0.26	1	24	165	49	3.47	<1	1.26	21	1.5	350	<2	0.05	60	600	<2	0.13	10	9	1	<5	0.17	<10	12	84	<10	71	12
70777	<0.2	1.53	266	35	0.6	<0.315	0.315	2	43	77	42	4.85	<1	0.18	15	1.39	602	<2	0.02	87	564	11	3.12	7	3	17	9	0.05	14	<10	29	<10	30	22
70778	<0.2	1.11	56	63	<0.5	<0.214	0.214	1	42	89	57	3.15	<1	0.08	<10	0.71	643	<2	0.13	54	787	<2	0.2	8	8	3	<5	0.13	<10	<10	90	<10	35	7
70779	<0.2	2.1	237	49	<0.5	<0.38	0.38	1	51	116	48	1.92	<1	0.07	<10	0.51	368	<2	0.26	83	246	<2	0.14	9	7	11	<5	0.16	<10	<10	71	<10	32	3
70780	0.3	2.1	136	21	0.8	<0.136	0.136	2	60	77	33	6.93	<1	0.18	19	1.2	930	<2	0.06	74	1243	2	1.87	17	9	4	<5	0.43	<10	<10	149	123	209	10
70781	<0.2	1.65	329	189	<0.5	<0.292	0.292	2	53	93	83	4.55	1	0.3	10	0.89	896	<2	0.15	62	1025	<2	0.35	9	12	2	<5	0.15	15	<10	126	<10	69	9
70782	<0.2	2.32	24	45	<0.5	<0.28	0.28	2	28	118	40	4.79	<1	0.3	18	1.27	370	<2	0.02	92	756	<2	0.19	10	4	4	6	0.09	<10	22	50	<10	118	21
70783	0.2	1.52	127	21	<0.5	<0.272	0.272	3	41	126	58	6.61	<1	0.08	16	1.41	501	<2	0.05	62	705	24	4.25	8	8	7	5	0.07	23	12	97	<10	150	19
70784	<0.2	3.07	10	103	0.6	<0.72	0.72	5	78	126	111	9.28	<1	0.56	18	1.38	519	<2	0.21	72	957	9	3.89	16	18	71	<5	0.28	<10	23	256	<10	396	15
70785	<0.2	1.53	35	223	0.5	<0.192	0.192	2	33	67	<1	4.84	<1	0.58	37	0.61	600	<2	0.09	12	4965	4	0.35	8	16	1	<5	0.16	13	14	15	<10	130	20
70786	<0.2	1.55	31	173	<0.5	<0.229	0.229	2	23	65	<1	4.74	<1	0.43	36	0.66	695	<2	0.15	13	5792	<2	0.28	10	13	2	<5	0.15	<10	<10	15	<10	119	17
70787	<0.2	1.43	153	63	<0.5	<0.226	0.226	2	42	61	90	4.36	<1	0.07	<10	0.77	866	<2	0.15	56	694	<2	0.55	7	8	2	<5	0.09	19	<10	79	<10	42	6
70788	0.3	1.44	109	129	<0.5	<0.181	0.181	2	50	117	114	3.56	<1	0.23	<10	0.8	500	<2	0.13	67	981	<2	0.3	8	13	3	<5	0.17	22	<10	157	<10	47	7
70789	0.2	1.97	178	162	<0.5	<0.201	0.201	2	79	153	61	4.12	<1	0.27	<10	0.78	712	<2	0.19	121	921	<2	0.2	15	16	2	<5	0.16	<10	<10	198	<10	44	7
70790	<0.2	1.63	99	109	<0.5	<0.242	0.242	2	54	120	94	3.53	1	0.15	11	0.84	661	<2	0.16	73	957	<2	0.23	11	13	<1	<5	0.19	<10	<10	141	<10	57	7
70791	<0.2	2.09	82	143	<0.5	<0.22	0.22	2	46	113	90	4.84	1	0.14	11	0.84	837	<2	0.19	57	943	<2	0.37	9	13	1	<5	0.15	<10	<10	140	<10	62	9
70792	<0.2	2.59	229	203	<0.5	<0.43	0.43	2	33	145	72	5.72	<1	0.3	23	1.45	465	<2	0.05	91	698	<2	1.09	10	8	1	5	0.11	<10	22	82	30	72	22
70793	<0.2	1.69	136	90	0.7	<0.197	0.197	3	30	99	142	3.89	<1	0.18	39	1.14	632	<2	0.04	48	639	19	2	6	5	29	17	0.07	<10	<10	28	<10	590	27
70794	<0.2	2.95	16	323	<0.5	<0.47	0.47	2	26	190	49	4.44	<1	1.28	24	1.94	541	<2	0.08	61	629	<2	0.23	9	12	1	6	0.2	<10	14	109	<10	119	18
70795	3.3	1.5	133	54	0.5	<0.25	0.25	6	27	99	184	3.42	<1	0.34	25	1.67	505	<2	0.04	70	711	45	1.71	5	4	1	8	0.03	<10	11	40	<10	2250	26
70796	<0.2	1.59	18	124	0.5	<0.167	0.167	2	26	84	<1	4.19	<1	0.45	33	0.55	601	<2	0.1	9	3791	<2	0.27	7	13	<1	<5	0.18	<10	<10	117	<10	117	13
70797	0.2	0.77	806	52	<0.5	<0.343	0.343	5	39	109	68	9.8	<1	0.13	32	0.45	1036	<2	0.09	18	2962	9	4.96	13	9	8	<5	0.15	<10	12	16	15	58	31
70798	<0.2	1.44	33	176	<0.5	<0.208	0.208	3	24	83	11	5.78	<1	0.46	34	0.64	761	<2	0.13	7	5136	<2	1.2	13	14	<1	<5	0.2	<10	11	19	<10	126	19
70799	<0.2	2.02	18	146	<0.5	<0.92	0.92	2	27	169	31	3.85	<1	0.7	30	1.38	358	<2	0.04	62	719	2	0.45	12	7	<1	7	0.19	<10	21	73	<10	76	25
70800	<0.2	1.4	20	37	0.5	<0.186	0.186	3	55	108	139	4.71	1	0.09	20	0.88	473	<2	0.07	58	1008	3	1.86	14	7	12	<5	0.45	<10	18	129	<10	690	12
70801	<0.2	0.59	46	56	0.8	<0.371	0.371	3	19	131	85	3.23	<1	0.09	58	0.28	391	3	0.05	36	120	33	2.39	<5	3	24	21	0.03	<10	29	8	<10	873	34
70802	<0.2	1.98	28	39	<0.5	<0.187	0.187	2	24	184	42	4.11	<1	0.11	29	1.25	584	<2	0.06	59	604	<2	0.65	9	7	1	9	0.07	<10	<10	79	<10	101	16
70803	<0.2	1.26	16	16	0.5	<0.375	0.375	3	16	152	44	3.52	<1	0.04	15	1.01	784	<2	0.03	39	354	10	1.19	5	3	<1	<5	0.01	<10	<10	29	<10	589	12
70804	<0.2	2.46	112	151	0.8	<0.324	0.324	3	25	76	10	6.09	<1	0.32	38	0.82	934	<2	0.17	5	4477	<2	0.62	14	14	26	<5	0.21	<10	<10	17	17	95	10
70805	<0.2	2.35	46	99	<0.5	<0.248	0.248	2	33	110	58	3.89	<1	0.18	11	0.56	750	<2	0.25	33	923	<2	0.4	9	9	28	<5	0.19	<10	<10	45	<10	141	8
70806	<0.2	1.89	65	46	<0.5	<0.288	0.288	1	32	116	141	3.29	<1	0.08	10	0.65	685	<2	0.23	31	1071	<2	0.27	7	13	<1	<5	0.2	<10	<10	147	<10	45	8
70807	<0.2	2.35	102	225	<0.5	<0.56	0.56	2	32	170	55	4.39	<1	0.82	22	1.63																		



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Metals by Aqua Regia Digestion with ICP Finish
Date : September 19, 2007

Sample ID	Se ppm
70766	0.7
70767	0.8
70768	0.3
70769	1.5
70770	1.4
70771	0.1
70772	0.3
70773	0.1
70774	0.3
70775	0.1
70776	0.2
70777	1.3
70778	0.1
70779	0.1
70780	0.1
70781	<0.1
70782	0.2
70783	1.1
70784	0.2
70785	0.1
70786	<0.1
70787	<0.1
70788	<0.1
70789	<0.1
70790	0.7
70791	0.4
70792	0.4
70793	1.1
70794	0.3
70795	1.5
70796	0.1
70797	0.2
70798	0.3
70799	0.3
70800	0.3
70801	1.1
70802	0.3
70803	0.6
70804	<0.1
70805	<0.1
70806	<0.1
70807	0.6
70808	0.8
70809	<0.1
70810	<0.1
70811	0.6

Sample ID	Se ppm
70812	0.1
70813	0.5
70814	1.3
70815	0.2
70816	0.5
70817	0.2
70818	0.5
70819	0.4
70820	0.5
70821	0.7
70822	0.2
70823	1.2
70824	0.4
70825	0.5
70826	0.4
70827	0.5
70828	0.2
70829	0.2
70830	0.3
70831	0.8
70832	<0.1
70833	2.7
70834	1.3
70837	1.1
70838	1.7
70839	<0.1
70840	0.1
70841	0.5
70842	0.1
70843	0.1
70844	0.1
70845	<0.1
70846	<0.1
70848	0.3
70849	1.3
70850	<0.1
DH273-47.07-51.31	0.1
DH273-273.02-277.32	0.2
Duplicates	
70766	0.6
70775	0.1
70785	0.1
70790	0.6
70799	0.3
70809	<0.1
70814	1.3
70823	1.2
70833	2.8
70840	0.1
70850	<0.1

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Sobek Acid-Base Accounting
Date : March 7, 2007

Sample ID	Paste pH	TIC %	CaCO ₃ NP	S(T) %	S(SO ₄) %	S(S-2) %	AP	NP	Net NP	Fizz Test
67351	9.31	0.35	29.2	0.32	<0.01	0.32	10.0	43.0	33.0	Slight
474783	9.71	0.03	2.5	0.17	0.01	0.16	5.0	16.4	11.4	None
474788	8.72	0.03	2.5	3.31	0.02	3.29	102.8	15.4	-87.4	None
1000356	9.44	0.60	50.0	0.17	<0.01	0.17	5.3	95.5	90.2	Moderate
1000513	9.68	0.03	2.5	0.25	<0.01	0.25	7.8	17.4	9.6	None
1000518	9.16	0.39	32.5	2.14	<0.01	2.14	66.9	13.4	-53.5	None
1001202	9.12	0.58	48.3	2.41	<0.01	2.41	75.3	51.7	-23.6	Slight
1001205	9.18	1.11	92.5	0.75	<0.01	0.75	23.4	170.0	146.6	Moderate
1000518 repeat		0.31								
Duplicate										
67351	9.31	0.32		0.34	<0.01			43.8		Slight
1000356	9.51							93.0		Moderate

Note:

AP = Acid potential in tonnes CaCO₃ equivalent per 1000 tonnes of material. AP is determined from calculated sulphide sulphur content: S(T) - S(SO₄).

NP = Neutralization potential in tonnes CaCO₃ equivalent per 1000 tonnes of material.

NET NP = NP - AP

Carbonate NP is calculated from TIC originating from carbonates and is expressed in kg CaCO₃/tonne.

Certified by:

R. J. Vos
 ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Metals by Aqua Regia Digestion with ICP Finish
Date : March 7, 2007

Sample ID	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Hg ppm	K %	La ppm	Mg %	Mn ppm
67351	<0.2	1.49	43	157	<0.5	<5	2.16	<1	41	111	140	2.82	<1	0.14	<10	0.59	456
474783	<0.2	2.08	19	195	<0.5	<5	0.21	<1	19	125	45	3.39	<1	1	15	1.42	373
474788	<0.2	1.17	12	48	<0.5	<5	0.16	3	39	71	124	4.18	1	0.39	23	0.9	297
1000356	<0.2	1.31	68	61	<0.5	<5	2.87	<1	29	62	54	3.52	<1	0.08	<10	0.71	839
1000513	<0.2	2.93	26	481	<0.5	<5	0.42	<1	24	174	54	4.52	<1	1.63	19	1.72	470
1000518	<0.2	1.68	16	79	0.6	<5	0.3	<1	18	71	150	4.6	<1	0.51	31	1.12	485
1001202	<0.2	1.33	15	77	<0.5	<5	1.92	<1	40	39	290	6.35	<1	0.11	25	0.49	586
1001205	<0.2	1.34	10	156	<0.5	<5	4.75	<1	19	27	66	4.77	<1	0.19	23	0.66	919

Sample ID	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm	Zr ppm
67351	<2	0.17	58	969	5	0.29	<5	9	30	<5	0.12	<10	<10	120	<10	36	6
474783	<2	0.04	72	573	4	0.14	<5	8	7	5	0.13	<10	<10	73	<10	72	10
474788	3	0.02	100	769	29	3.03	<5	2	6	7	0.02	<10	10	24	<10	1068	20
1000356	<2	0.12	37	1002	4	0.13	<5	10	16	<5	0.11	<10	<10	99	<10	66	7
1000513	<2	0.07	75	687	10	0.21	6	12	29	6	0.21	<10	11	107	<10	87	13
1000518	4	0.06	77	568	29	2.12	<5	4	34	12	0.07	12	19	35	<10	394	27
1001202	<2	0.13	35	4044	10	2.3	<5	8	21	<5	0.1	13	15	18	<10	57	17
1001205	<2	0.09	6	4846	6	0.61	5	8	70	<5	0.1	13	<10	16	<10	75	12

Certified by:

R. J. Vos
 ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Size Fraction Analysis
Date : March 24, 2008

Sample ID	Weight (kg)	+3/8"		-3/8"	
		(g)	(%)	(g)	(%)
WRT-4	3.00	1194.00	39.8%	1806.00	60.2%

WRT-4 Humidity Cell

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+3/8"	9.500	0.00	0.0%	0.0%
-3/8" + 1/4"	6.300	14.38	14.4%	14.4%
-1/4" +10	2.000	39.12	39.3%	53.7%
-10 + 35	0.425	22.05	22.1%	75.9%
-35 + 100	0.150	6.96	7.0%	82.8%
-100 + 270	0.053	4.30	4.3%	87.2%
-270	-0.053	12.78	12.8%	100.0%
TOTAL		99.59	100.0%	

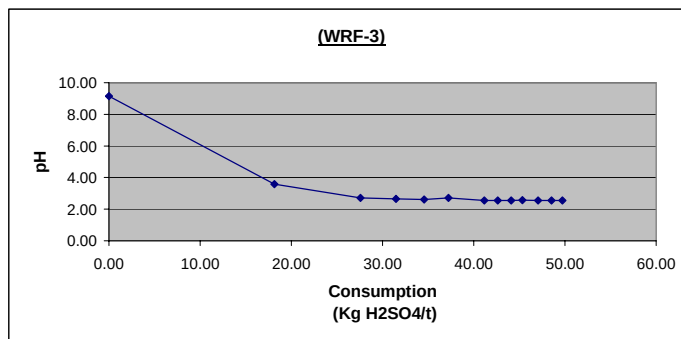
Certified by:

R. J. Vos
ARD Testing Specialist

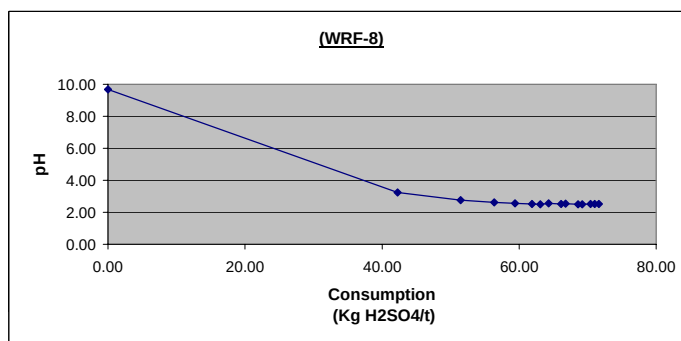


CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Acid Buffering Characterization Curves
Date : March 28, 2008

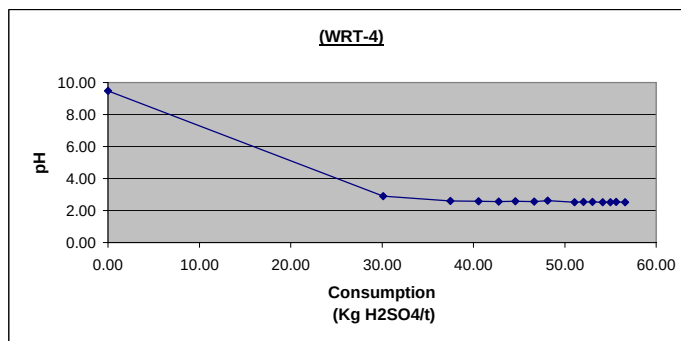
Sample WRF-3		
Sobek NP 41.8		
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	9.14
7.40	18.13	3.58
11.25	27.56	2.72
12.85	31.48	2.65
14.10	34.55	2.61
15.20	37.24	2.72
16.80	41.16	2.55
17.40	42.63	2.55
18.00	44.10	2.55
18.50	45.33	2.57
19.20	47.04	2.55
19.80	48.51	2.55
20.30	49.74	2.55



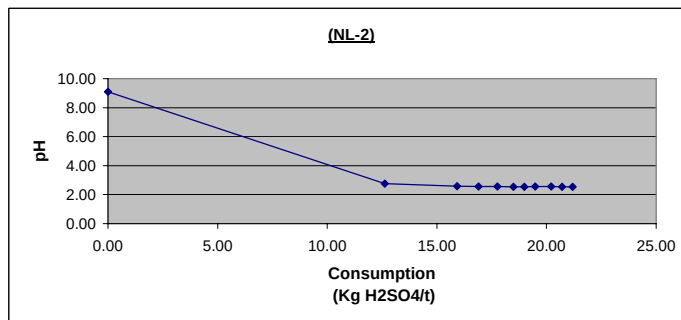
Sample WRF-8		
Sobek NP 106.5		
Vol. 0.5N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	9.68
3.45	42.26	3.24
4.20	51.45	2.77
4.60	56.35	2.63
4.85	59.41	2.57
5.05	61.86	2.53
5.15	63.09	2.51
5.25	64.31	2.57
5.40	66.15	2.52
5.45	66.76	2.54
5.60	68.60	2.51
5.65	69.21	2.51
5.75	70.44	2.52
5.80	71.05	2.52
5.85	71.66	2.52



Sample WRT-4		
Sobek NP 33.5		
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	9.47
12.30	30.14	2.90
15.30	37.49	2.61
16.55	40.55	2.59
17.45	42.75	2.57
18.20	44.59	2.59
19.05	46.67	2.56
19.65	48.14	2.63
20.85	51.08	2.53
21.25	52.06	2.54
21.65	53.04	2.54
22.10	54.15	2.53
22.45	55.00	2.53
22.70	55.62	2.54
23.10	56.60	2.53



Sample NL-2		
Sobek NP 9.7		
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	9.10
5.15	12.62	2.77
6.50	15.93	2.58
6.90	16.91	2.56
7.25	17.76	2.55
7.55	18.50	2.54
7.75	18.99	2.54
7.95	19.48	2.56
8.25	20.21	2.55
8.45	20.70	2.54
8.65	21.19	2.54
8.85	21.68	2.54
9.00	22.05	2.54



R. J. Vos

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Size Fraction Analysis
Date : June 16, 2008

0800701 Rock Sample (Humidity Cell)

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+3/4"	19.000	24.81	24.8%	24.8%
-3/4" + 1/2"	12.500	35.51	35.5%	60.4%
-1/2" + 3/8"	9.500	12.44	12.5%	72.8%
-3/8" + 1/4"	6.300	8.84	8.8%	81.7%
-1/4" +10	1.700	13.07	13.1%	94.8%
-10 + 35	0.425	3.16	3.2%	97.9%
-35 + 100	0.150	0.43	0.4%	98.3%
-100 + 270	0.053	0.44	0.4%	98.8%
-270	-0.053	1.21	1.2%	100.0%
TOTAL		99.91	100.0%	

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Sobek Acid-Base Accounting
Date : June 5, 2008

Sample ID	Paste pH	Initial pH	TIC %	CaCO3 NP	S(T) %	S(SO4) %	S(S-2) %	AP	NP	Net NP	Fizz Test
0800701 Rock Sample	8.50	2.51	0.09	7.5	1.11	0.03	1.08	33.8	30.9	-2.9	Slight
Duplicate											
0800701 Rock Sample	8.49	2.45	0.1		1.12	0.03			29.0		Slight

Note:

AP = Acid potential in tonnes CaCO3 equivalent per 1000 tonnes of material. AP is determined from calculated sulphide sulphur content: $S(T) - S(SO_4)$.

NP = Neutralization potential in tonnes CaCO3 equivalent per 1000 tonnes of material.

NET NP = NP - AP

Carbonate NP is calculated from TIC originating from carbonates and is expressed in kg CaCO3/tonne.

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Metals by Aqua Regia Digestion with ICP-MS Finish
Date : July 10, 2008

Sample ID	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm	Fe %	Ga ppm	Ge ppm	Hf ppm	Hg ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm
0800701 Rock Sample	0.4	1.4	149.9	173	<1	0.5	1.75	0.3	96	24.5	99	0.9	32.1	5.35	11	0.4	0.6	0.2	0.08	0.31	37	21.1	0.59	694

Sample ID	Mo ppm	Na %	Nb ppm	Ni ppm	P %	Pb ppm	Rb ppm	Re ppb	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
0800701 Rock Sample	5.2	0.12	0.6	8.9	0.442	4.3	16.4	<5	0.91	<0.1	13.9	<0.5	1.4	24	<0.1	0.1	4.3	0.135	0.1	0.3	16	6.6	60.8	121	19

Certified by:

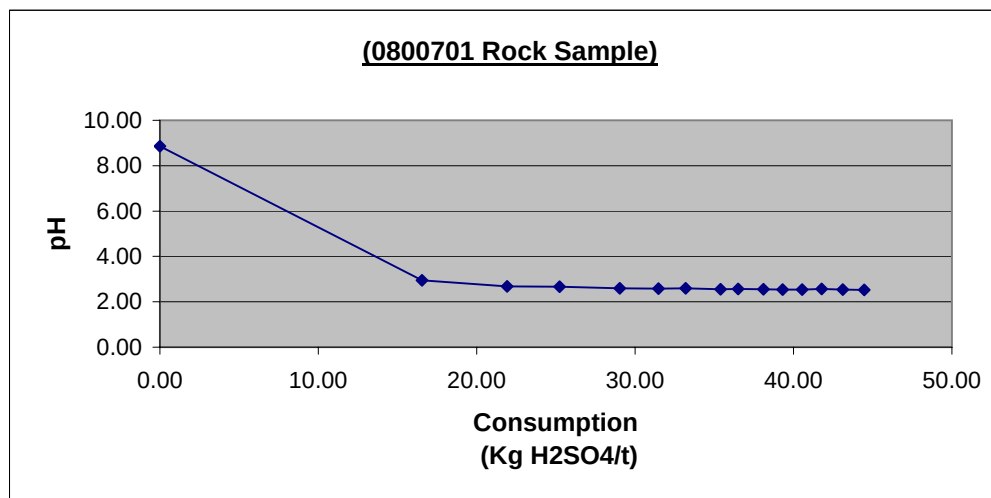
R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Acid Buffering Characterization Curves
Date : June 9, 2008

Sample 0800701 Rock Sample
Sobek NP 30.9

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.86
6.75	16.54	2.95
8.95	21.93	2.68
10.30	25.24	2.67
11.85	29.03	2.60
12.85	31.48	2.58
13.55	33.20	2.59
14.45	35.40	2.55
14.90	36.51	2.56
15.55	38.10	2.55
16.05	39.32	2.54
16.55	40.55	2.54
17.05	41.77	2.56
17.60	43.12	2.54
18.15	44.47	2.53



Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : 24 Hour NanoPure Water Leach Extraction Test at 3:1 Liquid to Solid Ratio
Date : November 6/7, 2007

Leachate Analysis

Sample ID			WRF-1	WRF-3	WRF-4	WRF-5	WRF-8	WRC-3	WRC-6	NL-2	NL-3	Blank
Parameter	Method	Units										
Volume Nanopure water		mL	750	750	750	750	750	750	750	750	750	750
Sample Weight		g	250	250	250	250	250	250	250	250	250	250
pH	meter		7.78	7.61	7.63	7.78	7.98	7.47	7.88	7.79	3.70	6.76
Redox	meter	mV	417	419	414	399	383	394	383	386	576	415
Conductivity	meter	uS/cm	142	752	821	356	159	200	104	110	475	<1
Acidity (to pH 4.5)	titration	mg CaCO3/L	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	13.51	#N/A
Total Acidity (to pH 8.3)	titration	mg CaCO3/L	2.8	3.6	3.4	3.1	2.7	2.6	2.5	133.9	1.9	
Alkalinity	titration	mg CaCO3/L	62.0	30.6	30.5	39.5	62.3	16.5	53.6	33.3	#N/A	1.7
Sulphate	Turbidity	mg/L	11	350	420	120	17	61	2	18	196	<1
Ion Balance												
Major Anions	Calc	meq/L	1.47	7.90	9.36	3.29	1.60	1.60	1.11	1.04	4.08	#N/A
Major Cations	Calc	meq/L	1.44	9.06	10.24	3.71	1.63	1.94	1.16	1.09	4.34	#N/A
Difference	Calc	meq/L	0.03	-1.15	-0.88	-0.42	-0.03	-0.34	-0.04	-0.05	-0.25	#N/A
Balance (%)	Calc	%	0.9%	-6.8%	-4.5%	-6.0%	-1.0%	-9.6%	-1.9%	-2.1%	-3.0%	#N/A
Dissolved Metals												
Hardness CaCO3		mg/L	70.6	436	493	176	78.3	92	55.4	44.5	64.4	<0.5
Aluminum Al	ICP-MS	mg/L	0.0577	0.0426	0.0187	0.0578	0.0409	0.0196	0.0549	0.139	2.23	0.0005
Antimony Sb	ICP-MS	mg/L	0.00022	0.00004	0.00003	0.00009	0.00015	<0.00002	0.00006	0.00022	0.001	<0.00002
Arsenic As	ICP-MS	mg/L	0.0241	0.00173	0.00078	0.009	0.00349	0.00088	0.00811	0.333	2.59	<0.00002
Barium Ba	ICP-MS	mg/L	0.00261	0.0288	0.0576	0.016	0.00285	0.0497	0.0138	0.00314	0.0226	0.00006
Beryllium Be	ICP-MS	mg/L	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	0.00065	<0.00001
Bismuth Bi	ICP-MS	mg/L	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	0.000006	0.000006	<0.00003	<0.000005
Boron B	ICP-MS	mg/L	0.011	0.021	0.036	0.024	0.028	<0.005	<0.005	0.006	<0.03	<0.005
Cadmium Cd	ICP-MS	mg/L	0.000022	0.000019	0.000024	0.000013	0.000008	0.000124	0.000018	0.00021	0.766	<0.000005
Calcium Ca	ICP-MS	mg/L	26.8	161	192	64.7	28.6	35.6	21.5	15.3	10.6	<0.05
Chromium Cr	ICP-MS	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0001	<0.0001	0.003	<0.0001
Cobalt Co	ICP-MS	mg/L	0.000465	0.0011	0.00134	0.00092	0.000231	0.000513	0.000196	0.000124	0.0356	<0.000005
Copper Cu	ICP-MS	mg/L	0.00362	0.00254	0.00179	0.0032	0.00294	0.00187	0.00099	0.00265	0.253	0.00023
Iron Fe	ICP-MS	mg/L	0.003	0.002	0.002	0.003	0.007	0.004	0.008	0.011	14.7	<0.001
Lead Pb	ICP-MS	mg/L	0.000051	0.000026	0.000021	0.000029	0.000077	0.000609	0.00138	0.000753	3.01	0.000017
Lithium Li	ICP-MS	mg/L	0.0044	0.0178	0.0226	0.0125	0.0033	0.0048	0.002	0.0028	0.021	<0.0005
Magnesium Mg	ICP-MS	mg/L	0.87	8.39	3.62	3.54	1.67	0.74	0.41	1.52	9.19	<0.05
Manganese Mn	ICP-MS	mg/L	0.0559	0.197	0.334	0.0895	0.0538	0.0808	0.072	0.0278	0.691	<0.00005
Mercury Hg	CVA	ug/L	<0.01	<0.01	0.02	0.05	<0.01	<0.01	<0.01	<0.01	<0.05	0.02
Molybdenum Mo	ICP-MS	mg/L	0.00043	0.00148	0.00053	0.00126	0.00087	0.00015	0.00008	0.00165	<0.0003	<0.00005
Nickel Ni	ICP-MS	mg/L	0.001	0.00056	0.00075	0.0014	0.00075	0.00048	0.00056	0.00118	0.0195	0.00009
Phosphorus P	ICP-MS	mg/L	0.004	0.007	0.013	0.009	0.01	0.004	0.003	0.007	<0.01	<0.002
Potassium K	ICP-MS	mg/L	0.48	7.98	11.1	2.45	0.79	3.35	1.59	2.66	1.67	<0.05
Selenium Se	ICP-MS	mg/L	0.00023	0.00077	0.00066	0.00044	0.00027	0.00005	<0.00004	0.00016	0.0023	<0.00004
Silicon Si	ICP-MS	mg/L	0.766	0.745	0.688	0.76	1.25	0.3	0.31	0.997	0.832	<0.1
Silver Ag	ICP-MS	mg/L	<0.000005	<0.000005	0.000037	0.000008	<0.000005	<0.000005	0.000008	<0.000005	0.00004	<0.000005
Sodium Na	ICP-MS	mg/L	0.46	2.97	1.82	2.84	1.13	0.45	0.22	2.99	2.86	<0.05
Strontium Sr	ICP-MS	mg/L	0.0701	0.171	0.319	0.201	0.0907	0.0414	0.0376	0.0217	0.039	<0.00005
Sulphur (S)	ICP-MS	mg/L	5	125	157	46	8	29	<3	9	63	<3
Thallium Tl	ICP-MS	mg/L	0.000018	0.00001	0.000022	0.000009	0.000005	0.000025	0.000009	0.000011	0.00042	<0.000002
Tin Sn	ICP-MS	mg/L	0.00003	0.00001	<0.00001	<0.00001	0.00001	<0.00001	<0.00001	0.00003	0.00017	<0.00001
Titanium Ti	ICP-MS	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.005	<0.0005
Uranium U	ICP-MS	mg/L	0.000147	0.000077	0.000118	0.000229	0.000712	0.000008	0.000022	0.000072	0.0005	<0.000002
Vanadium V	ICP-MS	mg/L	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.001	<0.0002
Zinc Zn	ICP-MS	mg/L	0.0013	0.0021	0.0013	0.001	0.0009	0.0086	0.0018	0.0057	56	0.0004
Zirconium Zr	ICP-MS	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001

Note: All SFE carried out on the "as received" material - grain size as indicated in the instructions.

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Sobek Acid-Base Accounting
Date : December 26 - January 7, 2007

Sample ID	Paste pH	TIC %	CaCO3 NP	S(T) %	S(SO4) %	S(S-2) %	AP	NP	Net NP	Fizz Test
70851	8.72	0.07	5.8	3.13	0.01	3.12	97.5	12.6	-84.9	None
70852	9.27	0.01	0.8	0.28	<0.01	0.28	8.8	15.5	6.8	None
70853	8.64	0.16	13.3	1.25	0.01	1.24	38.8	21.3	-17.5	None
70854	8.90	0.73	60.8	2.77	0.02	2.75	85.9	39.5	-46.4	Slight
70855	8.52	0.23	19.2	1.73	<0.01	1.73	54.1	30.1	-24.0	Slight
70856	9.23	0.02	1.7	0.44	<0.01	0.44	13.8	15.2	1.5	None
70857	8.87	0.32	26.7	0.49	<0.01	0.49	15.3	39.2	23.9	Slight
70858	8.50	0.05	4.2	1.43	<0.01	1.43	44.7	12.1	-32.6	None
70859	8.92	0.03	2.5	0.31	<0.01	0.31	9.7	12.4	2.7	None
70860	9.22	<0.01	<0.8	0.13	<0.01	0.13	4.1	14.2	10.1	None
70861	9.23	0.03	2.5	0.22	<0.01	0.22	6.9	13.1	6.2	None
70862	9.23	0.02	1.7	0.19	<0.01	0.19	5.9	14.5	8.6	None
70863	9.24	0.04	3.3	0.22	<0.01	0.22	6.9	13.9	7.0	None
70864	9.36	0.04	3.3	0.29	<0.01	0.29	9.1	12.9	3.8	None
70865	9.45	0.11	9.2	0.26	<0.01	0.26	8.1	35.9	27.8	Slight
70866	8.76	0.03	2.5	0.94	<0.01	0.94	29.4	13.1	-16.3	None
70867	8.59	0.01	0.8	0.16	<0.01	0.16	5.0	12.9	7.9	None
70868	9.19	0.04	3.3	0.31	<0.01	0.31	9.7	13.4	3.7	None
70869	9.17	0.06	5.0	0.17	<0.01	0.17	5.3	13.0	7.7	None
70870	8.97	<0.01	<0.8	0.37	<0.01	0.37	11.6	14.0	2.4	None
70871	9.39	0.03	2.5	0.18	<0.01	0.18	5.6	9.7	4.1	None
70872	9.60	0.04	3.3	0.31	<0.01	0.31	9.7	8.7	-1.0	None
70873	9.11	0.02	1.7	0.5	<0.01	0.5	15.6	3.8	-11.8	None
70874	6.14	<0.01	<0.8	3.23	<0.01	3.23	100.9	2.6	-98.3	None
70875	9.20	<0.01	<0.8	0.28	<0.01	0.28	8.8	11.9	3.2	None
70876	9.61	<0.01	<0.8	0.31	<0.01	0.31	9.7	8.7	-1.0	None
70877	9.40	0.04	3.3	0.25	<0.01	0.25	7.8	15.0	7.2	None
70878	9.90	0.02	1.7	0.1	<0.01	0.1	3.1	9.7	6.6	None
70879	9.35	<0.01	<0.8	0.86	<0.01	0.86	26.9	11.0	-15.9	None
70880	9.65	0.01	0.8	0.29	<0.01	0.29	9.1	11.4	2.3	None
70881	9.66	<0.01	<0.8	0.14	<0.01	0.14	4.4	7.8	3.4	None
70882	8.86	<0.01	<0.8	0.8	<0.01	0.8	25.0	14.5	-10.5	None
70883	9.56	<0.01	<0.8	0.33	<0.01	0.33	10.3	13.2	2.9	None
70884	9.25	<0.01	<0.8	0.35	<0.01	0.35	10.9	13.2	2.3	None
70885	9.44	0.02	1.7	0.48	<0.01	0.48	15.0	14.1	-0.9	None
70886	9.58	0.01	0.8	0.13	<0.01	0.13	4.1	10.9	6.8	None
70887	9.39	0.01	0.8	0.13	<0.01	0.13	4.1	11.0	6.9	None
70888	9.41	0.03	2.5	0.22	<0.01	0.22	6.9	12.1	5.2	None
70889	8.94	0.01	0.8	0.6	<0.01	0.6	18.8	16.5	-2.3	None
70890	9.24	0.01	0.8	0.33	<0.01	0.33	10.3	10.0	-0.3	None
70891	8.85	0.14	11.7	1.16	<0.01	1.16	36.3	33.4	-2.9	Slight
70892	9.32	<0.01	<0.8	0.14	<0.01	0.14	4.4	11.6	7.2	None
70893	8.99	<0.01	<0.8	0.22	<0.01	0.22	6.9	8.8	1.9	None
70894	9.18	<0.01	<0.8	0.17	<0.01	0.17	5.3	8.0	2.7	None
70895	8.81	0.01	0.8	0.21	<0.01	0.21	6.6	10.3	3.7	None
70896	8.91	<0.01	<0.8	0.17	<0.01	0.17	5.3	12.5	7.2	None
70897	8.97	<0.01	<0.8	0.22	<0.01	0.22	6.9	9.9	3.0	None
70898	8.80	<0.01	<0.8	0.46	<0.01	0.46	14.4	14.7	0.3	None
70899	8.63	<0.01	<0.8	0.27	<0.01	0.27	8.4	12.7	4.3	None
70900	8.78	<0.01	<0.8	0.08	<0.01	0.08	2.5	9.7	7.2	None
78201	8.73	0.05	4.2	0.47	<0.01	0.47	14.7	14.4	-0.3	None
78202	9.46	<0.01	<0.8	0.26	<0.01	0.26	8.1	12.1	4.0	None
78203	9.81	<0.01	<0.8	0.13	<0.01	0.13	4.1	11.5	7.4	None
78204	9.70	<0.01	<0.8	0.31	<0.01	0.31	9.7	10.8	1.1	None
78205	9.54	<0.01	<0.8	0.53	<0.01	0.53	16.6	13.9	-2.7	None
78206	9.43	<0.01	<0.8	0.47	<0.01	0.47	14.7	14.2	-0.5	None
78207	8.12	<0.01	<0.8	0.04	<0.01	0.04	1.3	2.7	1.5	None
78208	9.28	<0.01	<0.8	0.29	<0.01	0.29	9.1	12.4	3.3	None
78209	9.75	<0.01	<0.8	0.32	<0.01	0.32	10.0	13.4	3.4	None
78210	9.96	<0.01	<0.8	0.48	<0.01	0.48	15.0	14.1	-0.9	None
78211	9.82	<0.01	<0.8	0.19	<0.01	0.19	5.9	11.3	5.4	None
78212	9.75	<0.01	<0.8	0.18	<0.01	0.18	5.6	7.3	1.7	None
78213	9.41	0.03	2.5	0.26	<0.01	0.26	8.1	13.0	4.9	None
78214	9.54	<0.01	<0.8	0.22	<0.01	0.22	6.9	12.3	5.4	None
78215	9.69	<0.01	<0.8	0.22	<0.01	0.22	6.9	10.4	3.5	None
78216	9.55	<0.01	<0.8	0.97	<0.01	0.97	30.3	8.2	-22.1	None
78217	9.37	<0.01	<0.8	0.18	<0.01	0.18	5.6	9.0	3.4	None
Duplicates										
70851	8.78	0.05		3.12	<0.01			38.6		Slight
70854	8.38							31.1		Slight
70855		0.01		0.13	<0.01					
70860	9.21							13.7		None
70869	9.28	<0.01		0.38	<0.01			13.0		None
70870		<0.01		0.28	<0.01					
70875	9.25	<0.01		0.35	<0.01			12.3		None
70884	8.76							12.9		None
70885		<0.01		0.17	<0.01					
70894	8.67	<0.01		0.29	<0.01			12.6		None
70899	8.86							11.1		None
70900	9.49							12.6		None
78202		<0.01		0.3	<0.01					
78208	9.72							10.1		None
78211	9.31							10.0		None

Note:

AP = Acid potential in tonnes CaCO₃ equivalent per 1000 tonnes of material. AP is determined from calculated sulphide sulphur content: S(T) - S(SO₄).

NP = Neutralization potential in tonnes CaCO₃ equivalent per 1000 tonnes of material.

NET NP = NP - AP

Carbonate NP is calculated from TIC originating from carbonates and is expressed in kg CaCO₃/tonne.

Certified by:

R. J. Vos
 ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Metals by Aqua Regia Digestion with ICP Finish
Date : December 24, 2007

Sample ID	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm	Zr ppm
70851	<0.2	2.07	40	61	<0.5	<5	0.44	4	37	153	349	6.55	<1	0.44	29	1.66	758	2	0.05	105	616	36	3.24	<5	7	29	7	0.06	<10	26	55	<10	696	23
70852	<0.2	2.89	34	219	<0.5	<5	0.22	2	28	181	52	5.45	<1	1.08	25	2.14	559	<2	0.03	84	738	15	0.27	<5	10	10	6	0.15	<10	23	101	<10	104	13
70853	<0.2	1.85	<5	76	0.5	<5	2.09	3	28	73	25	6.56	<1	0.23	42	0.9	561	2	0.07	6	5872	10	1.28	<5	13	26	<5	0.2	<10	37	15	<10	86	17
70854	<0.2	1.05	77	133	<0.5	<5	1.98	3	25	90	54	6.79	<1	0.4	32	0.48	575	2	0.06	6	4799	9	2.51	<5	11	18	<5	0.12	<10	28	11	32	68	19
70855	<0.2	1.86	80	114	0.7	<5	0.7	3	29	163	95	5.16	<1	0.34	27	1.45	668	3	0.04	100	530	52	1.86	<5	9	13	7	0.07	<10	24	72	<10	564	17
70856	<0.2	2.88	37	268	<0.5	<5	0.3	2	26	211	49	5.39	<1	0.92	21	2.13	707	<2	0.04	73	560	13	0.44	<5	12	10	6	0.19	<10	19	120	<10	192	12
70857	<0.2	1.53	35	130	<0.5	<5	2.1	1	33	157	116	3.35	<1	0.19	<10	0.51	511	2	0.13	41	1078	6	0.49	<5	10	21	<5	0.12	<10	<10	134	<10	31	6
70858	<0.2	2.41	34	62	<0.5	<5	0.24	5	46	153	79	5.52	<1	0.41	14	1.83	306	3	0.02	168	707	14	1.48	<5	6	6	7	0.06	<10	11	66	<10	1059	17
70859	<0.2	1.78	15	118	<0.5	<5	0.14	1	21	188	46	3.6	<1	0.58	11	1.25	267	2	0.02	75	528	10	0.33	<5	6	5	<5	0.09	<10	10	63	<10	93	11
70860	<0.2	2.8	149	294	<0.5	<5	0.22	2	26	219	30	4.76	<1	0.89	16	2.16	423	3	0.02	79	770	13	0.13	<5	11	5	5	0.15	<10	14	106	<10	96	18
70861	<0.2	2.4	333	71	<0.5	<5	0.21	2	26	169	41	4.49	<1	0.46	16	1.78	381	<2	0.02	93	639	11	0.23	<5	6	5	5	0.08	<10	14	73	<10	99	14
70862	<0.2	2.66	45	96	<0.5	<5	0.17	2	27	158	52	4.77	<1	0.75	15	1.92	356	<2	0.02	100	678	12	0.2	<5	6	6	<5	0.1	<10	13	70	<10	100	15
70863	<0.2	2.53	65	114	<0.5	<5	0.22	2	31	154	65	4.65	<1	0.78	17	1.72	350	<2	0.02	109	697	13	0.23	<5	6	6	5	0.11	<10	15	72	<10	107	15
70864	<0.2	2.94	43	113	<0.5	<5	0.15	2	29	169	47	5.17	<1	1.01	23	2.02	344	<2	0.02	110	657	14	0.28	<5	8	6	5	0.12	<10	21	83	<10	115	11
70865	<0.2	1.37	26	223	<0.5	<5	2.24	2	26	72	15	4.16	<1	0.48	34	0.56	492	2	0.08	5	6795	5	0.26	<5	11	17	<5	0.13	<10	31	17	<10	114	14
70866	<0.2	1.63	8304	120	0.6	<5	0.27	<1	30	191	42	3.77	<1	0.56	10	1.37	287	2	0.05	104	439	17	0.94	<5	5	14	5	0.11	<10	<10	59	<10	54	9
70867	<0.2	2.79	51	194	<0.5	<5	0.27	2	21	199	42	4.52	<1	0.92	14	1.53	308	3	0.03	84	1049	10	0.16	<5	9	12	<5	0.1	<10	12	83	<10	36	6
70868	<0.2	2.47	257	160	0.6	<5	0.18	1	26	178	42	4.49	<1	1.04	18	1.55	369	<2	0.03	73	615	10	0.32	<5	8	7	6	0.14	<10	16	81	26	62	7
70869	<0.2	3.29	41	309	0.5	<5	0.15	2	30	204	62	5.47	<1	1.48	15	1.91	458	<2	0.04	88	445	18	0.18	<5	13	6	<5	0.2	<10	13	118	<10	154	6
70870	<0.2	3.62	91	234	0.7	<5	0.15	2	36	200	87	6.17	<1	1.74	25	2.17	472	15	0.03	104	661	19	0.4	<5	11	7	<5	0.21	<10	22	117	<10	89	8
70871	<0.2	0.62	1445	29	<0.5	<5	0.15	<1	5	135	14	1.51	<1	0.22	<10	0.38	228	2	0.05	8	211	19	0.18	<5	2	7	<5	0.05	<10	<10	16	79	72	4
70872	0.5	0.5	4046	15	<0.5	<5	0.13	4	4	152	38	1.56	<1	0.13	<10	0.35	235	3	0.05	8	184	88	0.31	<5	1	5	<5	0.03	<10	<10	13	13	267	4
70873	1.9	0.14	>10000	<10	<0.5	<5	0.04	1	2	196	17	1.46	<1	0.03	<10	0.09	61	4	0.02	7	45	93	0.49	8	<1	2	<5	<0.01	<10	<10	2	112	172	2
70874	5.1	0.15	>10000	<10	<0.5	30	0.01	9	8	271	177	4.72	<1	0.01	<10	0.09	47	4	0.01	11	66	653	3.11	15	<1	2	<5	<0.01	<10	<10	1	28	742	3
70875	<0.2	2.22	168	132	<0.5	<5	0.15	2	26	278	23	4.42	<1	0.64	20	1.49	336	3	0.04	72	378	19	0.29	5	10	5	7	0.11	<10	19	99	<10	58	7
70876	1.2	0.51	3356	18	<0.5	<5	0.11	17	4	184	7	1.49	<1	0.16	<10	0.34	214	3	0.04	8	161	262	0.33	<5	1	4	<5	0.04	<10	<10	14	<10	1157	4
70877	0.6	0.82	4838	23	<0.5	<5	0.29	<1	3	130	35	1.83	<1	0.07	<10	0.68	228	2	0.05	7	399	69	0.26	<5	1	5	<5	<0.01	<10	18	93	107	4	
70878	0.2	0.61	698	47	<0.5	<5	0.12	1	4	179	<1	1.43	1	0.28	<10	0.37	227	4	0.05	8	160	15	0.1	<5	2	4	<5	0.05	<10	15	<10	48	4	
70879	0.5	0.4	>10000	<10	0.5	<5	0.19	1	4	178	9	2.42	<1	0.07	<10	0.27	188	3	0.03	8	756	112	0.87	6	<1	2	<5	<0.01	<10	6	<10	104	3	
70880	<0.2	0.59	1682	27	<0.5	<5	0.16	<1	4	153	<1	1.64	<1	0.2	<10	0.41	247	3	0.05	7	223	61	0.27	<5	2	4	<5	0.05	<10	<10	15	368	82	4
70881	0.5	0.35	1949	11	<0.5	<5	0.08	9	2	214	<1	0.96	<1	0.06	<10	0.25	143	4	0.03	6	112	76	0.15	5	1	2	<5	0.01	<10	<10	7	221	484	2
70882	<0.2	1.8	80	19	<0.5	<5	0.2	2	34	269	<1	4.49	<1	0.05	35	1.36	358	3	0.03	67	472	14	0.79	8	5	5	10	0.03	<10	33	65	<10	41	12
70883	<0.2	3.35	299	267	0.5	<5	0.14	2	29	194	53	5.88	<1	1.59	10	2.1	409	3	0.03	96	577	20	0.34	<5	10	5	<5	0.19	<10	<10	108	<10	66	5
70884	<0.2	0.92	1008	53	<0.5	<5	0.11	1	8	150	17	2.09	<1	0.17	<10	0.81	137	3	0.04	23	172	8	0.34	<5	2	5	<5	0.02	<10	<10	23	<10	40	6
70885	<0.2	2.57	207	131	<0.5	<5	0.35	2	33	199	45	5.21	<1	0.83	23	1.82	575	<2	0.02	90	635	17	0.46	<5	7	6	8	0.18	<10	21	86	<10	91	7
70886	0.2	0.6	1137	26	<0.5	<5	0.16	<1	4	146	<1	1.36	<1	0.12	<10	0.42	185	3	0.04	8	177	20	0.12	<5	1	5	<5	0.02	<10	<10	15	19	48	4
70887	<0.2	0.67	257	21	<0.5	<5	0.21	1	5	161	<1	1.52	<1	0.15	<10	0.47	239	3	0.04	8	198	50	0.14	<5	1	5	<5	0.05	<10	<10	16	40	86	3
70888	0.4	0.7	3101	17	<0.5	<5	0.22	<1	4	145	<1	1.73	<1	0.1	<10	0.58	260	2	0.05	8	241	60	0.22	<5	2	6	<5	0.02	<10	<10	16	328	83	3
70889	<0.2	1.78	242	49	0.8	<5	0.27	1	22	202	101	4	<1	0.15	21	2.04	284	3	0.04	68	362	14	0.59	<5	5	11	5	0.04	<10	19	62	<10	31	13
70890	0.6	0.53	4984	11	<0.5	<5	0.14	<1	3	201	11	1.76	<1	0.07	<10	0.38	155	3	0.04	7	130	82	0.33	6	1	4	<5	0.01	<10	<10	12	106	49	4
70891	2	1.71	370	36	0.5	<5	0.64	2	26	206	129	4.09	<1	0.15	17	1.75	404	11	0.03	65	412	86	1.14	5	4	6	5	0.05	<10	15	49	<10	68	7
70892	<0.2	2.56	29	229	0.5	<5	0.12	2	23	239	26	4.64	<1	0.96	14	1.53	323	2	0.04	75	485	13	0.14	5	11	5	<5	0.13	<10	13	101	<10	55	7
70893	0.3	0.59	2322	26	<0.5	<5	0.17	1	4	164</																								



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Metals by Aqua Regia Digestion with ICP Finish
Date : December 24, 2007

Sample ID	Se ppm
70851	1.1
70852	0.2
70853	<0.1
70854	0.2
70855	0.9
70856	0.2
70857	0.1
70858	1
70859	0.1
70860	0.1
70861	<0.1
70862	0.1
70863	0.1
70864	0.1
70865	<0.1
70866	0.1
70867	0.1
70868	0.1
70869	<0.1
70870	0.1
70871	0.1
70872	0.1
70873	0.1
70874	0.1
70875	0.1
70876	<0.1
70877	<0.1
70878	0.1
70879	0.1
70880	0.1
70881	<0.1
70882	0.4
70883	0.1
70884	0.1
70885	0.2
70886	<0.1
70887	0.1
70888	<0.1
70889	0.2
70890	0.1
70891	0.6
70892	0.1
70893	<0.1
70894	0.1
70895	<0.1

Sample ID	Se ppm
70896	<0.1
70897	0.1
70898	0.1
70899	0.2
70900	<0.1
78201	0.3
78202	<0.1
78203	<0.1
78204	0.2
78205	0.2
78206	0.2
78207	0.1
78208	0.1
78209	0.1
78210	0.1
78211	0.1
78212	<0.1
78213	0.1
78214	0.1
78215	<0.1
78216	0.1
78217	0.1
Duplicates	
70851	1.2
70860	0.1
70870	0.1
70875	0.1
70884	0.1
70894	0.1
70899	0.2
78208	0.1

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
PROJECT # : 0709
TEST : Screen Assay
Date : October 25, 2007

Sample ID	+ 3/8"		- 3/8"	
	(g)	(%)	(g)	(%)
1007967	3250	44.8%	4000	55.2%
1007968	4450	47.3%	4950	52.7%

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Sobek Acid-Base Accounting
Date : October 26, 2007

Sample ID	Paste pH	TIC %	CaCO3 NP	S(T) %	S(SO4) %	S(S-2) %	AP	NP	Net NP	Fizz Test
1007967 -3/8"	8.37	0.42	35.0	1.38	0.02	1.36	42.5	44.8	2.3	Slight
1007967 +3/8"	8.94	0.34	28.3	0.68	<0.01	0.68	21.3	36.6	15.4	Slight
1007968 -3/8"	8.38	0.1	8.3	1.9	0.01	1.89	59.1	38.1	-21.0	Slight
1007968 +3/8"	8.75	0.14	11.7	1.03	<0.01	1.03	32.2	83.3	51.1	Slight
Duplicate										
1007967 -3/8"	8.43	0.43		1.4	0.01			50.2		Slight

Note:

AP = Acid potential in tonnes CaCO₃ equivalent per 1000 tonnes of material. AP is determined from calculated sulphide sulphur content: S(T) - S(SO₄).

NP = Neutralization potential in tonnes CaCO₃ equivalent per 1000 tonnes of material.

NET NP = NP - AP

Carbonate NP is calculated from TIC originating from carbonates and is expressed in kg CaCO₃/tonne.

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Se Assay
Date : December 20 , 2007

Sample ID	Se ppm
1007967 -3/8"	0.1
1007967 +3/8"	<0.1
1007968 -3/8"	0.2
1007968 +3/8"	0.2
Duplicate	
1007967 -3/8"	0.1

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Metals by Aqua Regia Digestion with ICP Finish
Date : November 20 , 2007

Sample ID	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Hg ppm	K %	La ppm	Mg %	Mn ppm
1007967 -3/8"	<0.2	1.52	1137	150	<0.5	<5	2.66	2	30	95	22	6.28	<1	0.3	35	0.67	842
1007967 +3/8"	<0.2	1.6	314	187	<0.5	<5	2.61	2	23	72	8	5.49	<1	0.36	37	0.65	737
1007968 -3/8"	<0.2	1.61	254	147	<0.5	<5	2.52	3	35	94	26	7.08	<1	0.31	37	0.68	876
1007968 +3/8"	<0.2	1.79	48	126	<0.5	<5	2.51	2	27	61	13	6.46	<1	0.25	35	0.79	901

Sample ID	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm	Zr ppm
1007967 -3/8"	<2	0.14	5	4228	8	1.34	6	11	4	<5	0.11	<10	<10	28	13	126	20
1007967 +3/8"	<2	0.14	4	4827	<2	0.7	5	13	4	<5	0.14	<10	10	28	<10	120	20
1007968 -3/8"	<2	0.15	9	4292	12	1.86	6	12	8	5	0.14	<10	<10	32	10	141	24
1007968 +3/8"	<2	0.12	6	4055	2	1.01	5	11	7	5	0.12	<10	<10	33	<10	146	17

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
PROJECT # : 0709
TEST : Screen Assay
Date : October 25, 2007

Sample ID	+ 3/8"		- 3/8"	
	(g)	(%)	(g)	(%)
1007967	3250	44.8%	4000	55.2%
1007968	4450	47.3%	4950	52.7%

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Sobek Acid-Base Accounting
Date : October 26, 2007

Sample ID	Paste pH	TIC %	CaCO ₃ NP	S(T) %	S(SO ₄) %	S(S-2) %	AP	NP	Net NP	Fizz Test
1007967 -3/8"	8.37	0.42	35.0	1.38	0.02	1.36	42.5	44.8	2.3	Slight
1007967 +3/8"	8.94	0.34	28.3	0.68	<0.01	0.68	21.3	36.6	15.4	Slight
1007968 -3/8"	8.38	0.1	8.3	1.9	0.01	1.89	59.1	38.1	-21.0	Slight
1007968 +3/8"	8.75	0.14	11.7	1.03	<0.01	1.03	32.2	83.3	51.1	Slight
Duplicate										
1007967 -3/8"	8.43	0.43		1.4	0.01			50.2		Slight

Note:

AP = Acid potential in tonnes CaCO₃ equivalent per 1000 tonnes of material. AP is determined from calculated sulphide sulphur content: S(T) - S(SO₄).

NP = Neutralization potential in tonnes CaCO₃ equivalent per 1000 tonnes of material.

NET NP = NP - AP

Carbonate NP is calculated from TIC originating from carbonates and is expressed in kg CaCO₃/tonne.

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Metals by Aqua Regia Digestion with ICP Finish
Date : November 20 , 2007

Sample ID	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Hg ppm	K %	La ppm	Mg %	Mn ppm
1007967 -3/8"	<0.2	1.52	1137	150	<0.5	<5	2.66	2	30	95	22	6.28	<1	0.3	35	0.67	842
1007967 +3/8"	<0.2	1.6	314	187	<0.5	<5	2.61	2	23	72	8	5.49	<1	0.36	37	0.65	737
1007968 -3/8"	<0.2	1.61	254	147	<0.5	<5	2.52	3	35	94	26	7.08	<1	0.31	37	0.68	876
1007968 +3/8"	<0.2	1.79	48	126	<0.5	<5	2.51	2	27	61	13	6.46	<1	0.25	35	0.79	901

Sample ID	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm	Zr ppm
1007967 -3/8"	<2	0.14	5	4228	8	1.34	6	11	4	<5	0.11	<10	<10	28	13	126	20
1007967 +3/8"	<2	0.14	4	4827	<2	0.7	5	13	4	<5	0.14	<10	10	28	<10	120	20
1007968 -3/8"	<2	0.15	9	4292	12	1.86	6	12	8	5	0.14	<10	<10	32	10	141	24
1007968 +3/8"	<2	0.12	6	4055	2	1.01	5	11	7	5	0.12	<10	<10	33	<10	146	17

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Size Fraction Analysis
Date : November 9, 2007

70766

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+1/4"	6.300	17.40	17.5%	17.5%
-1/4" +10	2.000	41.70	41.8%	59.3%
-10 + 35	0.425	19.88	19.9%	79.2%
-35 + 100	0.150	7.71	7.7%	87.0%
-100 + 270	0.053	4.12	4.1%	91.1%
-270	-0.053	8.85	8.9%	100.0%
TOTAL		99.66	100.0%	

70770

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+1/4"	6.300	7.70	7.7%	7.7%
-1/4" +10	2.000	41.53	41.7%	49.4%
-10 + 35	0.425	26.47	26.6%	76.0%
-35 + 100	0.150	10.87	10.9%	86.9%
-100 + 270	0.053	4.79	4.8%	91.7%
-270	-0.053	8.26	8.3%	100.0%
TOTAL		99.62	100.0%	

70821

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+1/4"	6.300	12.08	12.1%	12.1%
-1/4" +10	2.000	51.03	51.3%	63.4%
-10 + 35	0.425	20.39	20.5%	83.9%
-35 + 100	0.150	6.50	6.5%	90.4%
-100 + 270	0.053	2.91	2.9%	93.3%
-270	-0.053	6.66	6.7%	100.0%
TOTAL		99.57	100.0%	

70844

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+1/4"	6.300	7.80	7.8%	7.8%
-1/4" +10	2.000	53.77	53.9%	61.7%
-10 + 35	0.425	22.59	22.6%	84.4%
-35 + 100	0.150	6.36	6.4%	90.8%
-100 + 270	0.053	2.03	2.0%	92.8%
-270	-0.053	7.19	7.2%	100.0%
TOTAL		99.74	100.0%	

|DH273-47.07-51.31

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+1/4"	6.300	9.55	9.6%	9.6%
-1/4" +10	2.000	46.21	46.5%	56.1%
-10 + 35	0.425	23.91	24.0%	80.1%
-35 + 100	0.150	7.86	7.9%	88.0%
-100 + 270	0.053	1.94	2.0%	89.9%
-270	-0.053	10.00	10.1%	100.0%
TOTAL		99.47	100.0%	

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Sobek Acid-Base Accounting
Date : November 8, 2007

Sample ID	Paste pH	TIC %	CaCO ₃ NP	S(T) %	S(SO ₄) %	S(S-2) %	AP	NP	Net NP	Fizz Test
70766	8.37	0.01	0.8	0.77	<0.01	0.77	24.1	8.6	-15.5	None
70770	7.69	0.1	8.3	4.07	0.02	4.05	126.6	18.5	-108.1	Slight
70821	8.71	0.03	2.5	1.27	<0.01	1.27	39.7	15.5	-24.2	None
70844	8.98	0.3	25.0	0.95	<0.01	0.95	29.7	46.9	17.2	Slight
DH273-47.07-51.31	8.69	0.45	37.5	2.51	<0.01	2.51	78.4	49.6	-28.8	Slight
Duplicates										
70766		0.01		0.77	<0.01					

Note:

AP = Acid potential in tonnes CaCO₃ equivalent per 1000 tonnes of material. AP is determined from calculated sulphide sulphur content: S(T) - S(SO₄).

NP = Neutralization potential in tonnes CaCO₃ equivalent per 1000 tonnes of material.

NET NP = NP - AP

Carbonate NP is calculated from TIC originating from carbonates and is expressed in kg CaCO₃/tonne.

Certified by:

R. J. Vos
ARD Testing Specialist



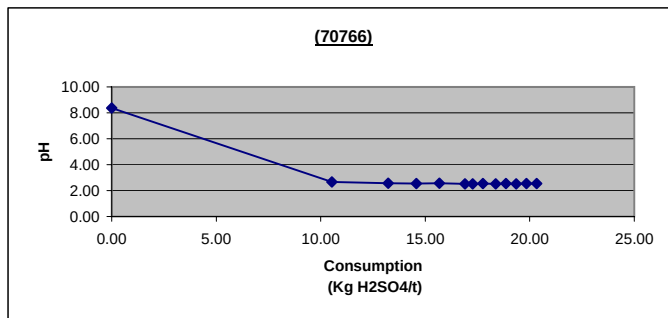
CLIENT : MESH
 PROJECT : Tyhee
 CEMI Project # : 0709
 Test : Acid Buffering Characterization Curves
 Date : November 21-28, 2007

Sample 70766

Sobek NP

8.6

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.36
4.30	10.54	2.66
5.40	13.23	2.57
5.95	14.58	2.55
6.40	15.68	2.57
6.90	16.91	2.52
7.05	17.27	2.53
7.25	17.76	2.54
7.50	18.38	2.53
7.70	18.87	2.54
7.90	19.36	2.53
8.10	19.85	2.54
8.30	20.34	2.54

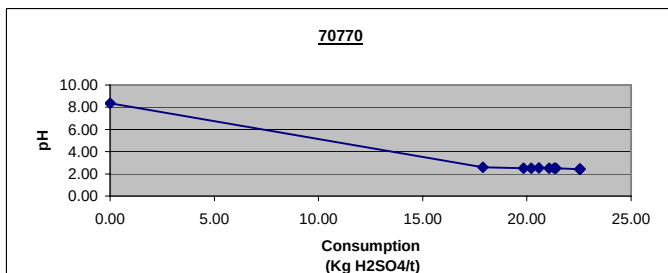


Sample 70770

Sobek NP

18.5

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.36
7.30	17.89	2.58
8.10	19.85	2.52
8.25	20.21	2.51
8.40	20.58	2.53
8.60	21.07	2.51
8.73	21.39	2.50
8.70	21.32	2.51
9.20	22.54	2.42
9.20	22.54	2.43
9.20	22.54	2.43

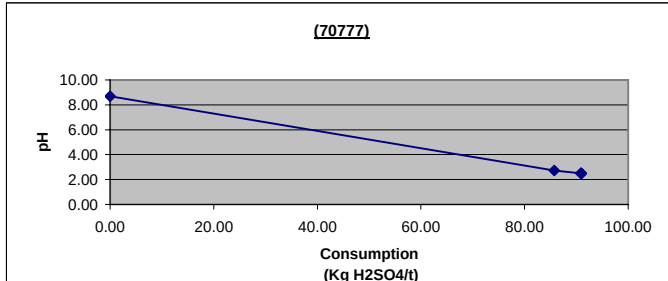


Sample 70777

Sobek NP

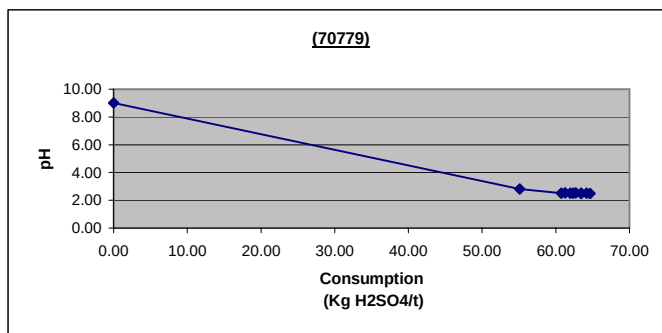
79.5

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.70
35.00	85.75	2.72
37.10	90.90	2.49
37.10	90.90	2.49
37.10	90.90	2.50
37.10	90.90	2.50



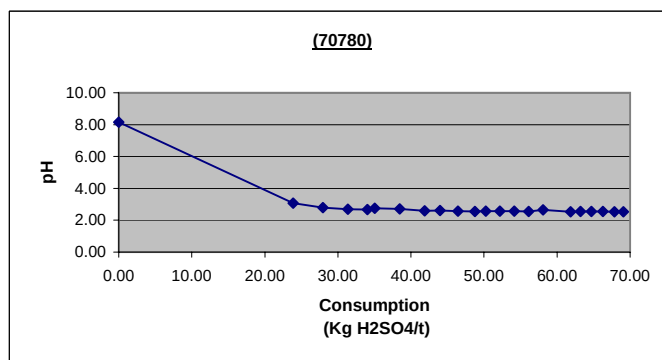
Sample 70779
Sobek NP 82.7

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	9.01
22.50	55.13	2.82
24.80	60.76	2.52
25.00	61.25	2.53
25.30	61.99	2.51
25.45	62.35	2.51
25.60	62.72	2.53
25.90	63.46	2.50
25.90	63.46	2.52
26.20	64.19	2.52
26.40	64.68	2.49



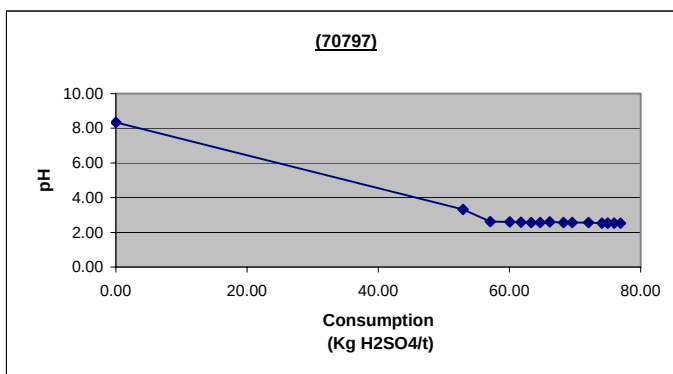
Sample 70780
Sobek NP 32.6

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.16
9.75	23.89	3.07
11.40	27.93	2.79
12.80	31.36	2.70
13.90	34.06	2.67
14.30	35.04	2.76
15.70	38.47	2.72
17.10	41.90	2.60
17.95	43.98	2.61
18.95	46.43	2.58
19.90	48.76	2.56
20.50	50.23	2.58
21.30	52.19	2.58
22.10	54.15	2.57
22.90	56.11	2.56
23.70	58.07	2.66
25.25	61.86	2.54
25.80	63.21	2.55
26.40	64.68	2.55
27.05	66.27	2.55
27.70	67.87	2.53
28.20	69.09	2.53



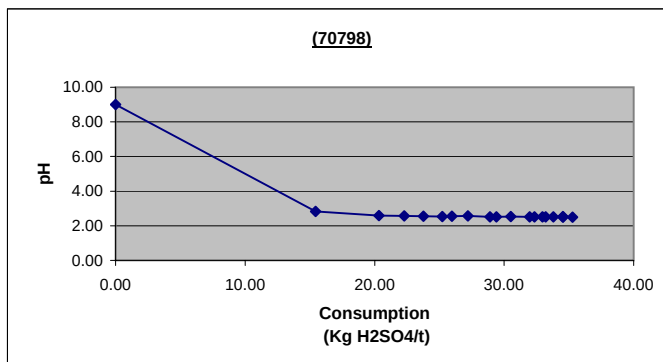
Sample 70797
Sobek NP 99.0

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.34
21.60	52.92	3.33
23.30	57.09	2.62
24.50	60.03	2.60
25.20	61.74	2.58
25.85	63.33	2.57
26.40	64.68	2.57
27.00	66.15	2.61
27.85	68.23	2.56
28.40	69.58	2.57
29.40	72.03	2.56
30.25	74.11	2.53
30.60	74.97	2.53
31.00	75.95	2.53
31.40	76.93	2.53



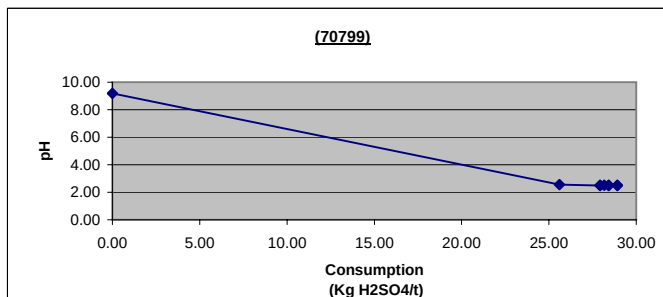
Sample 70798
Sobek NP 18.8

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	9.01
6.30	15.44	2.83
8.30	20.34	2.59
9.10	22.30	2.57
9.70	23.77	2.56
10.30	25.24	2.54
10.60	25.97	2.55
11.10	27.20	2.57
11.80	28.91	2.51
12.00	29.40	2.52
12.45	30.50	2.53
13.05	31.97	2.51
13.20	32.34	2.52
13.45	32.95	2.51
13.55	33.20	2.52
13.80	33.81	2.52
14.10	34.55	2.50
14.10	34.55	2.53
14.40	35.28	2.50



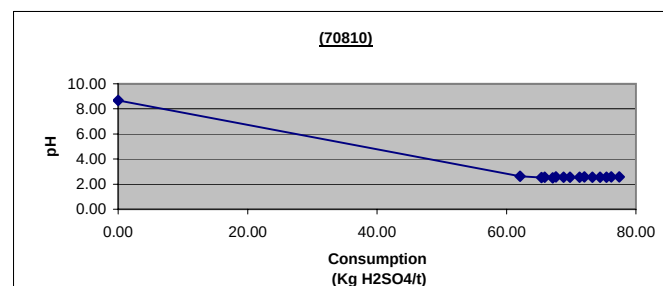
Sample 70799
Sobek NP 29.5

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	9.18
10.45	25.60	2.56
11.40	27.93	2.50
11.40	27.93	2.51
11.50	28.18	2.51
11.60	28.42	2.50
11.60	28.42	2.51
11.80	28.91	2.50
11.80	28.91	2.51



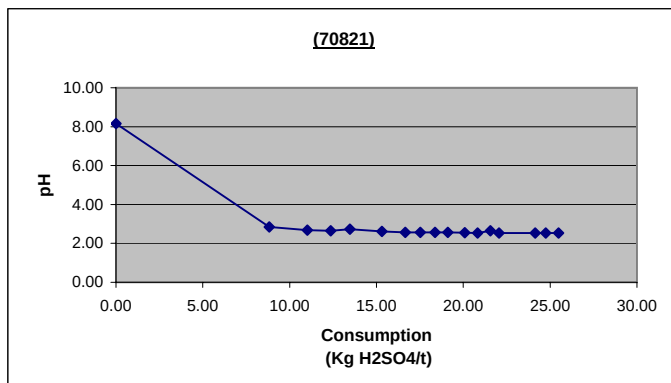
Sample 70810
Sobek NP 57.0

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.67
25.35	62.11	2.62
26.70	65.42	2.52
26.90	65.91	2.55
27.40	67.13	2.51
27.60	67.62	2.57
28.10	68.85	2.54
28.50	69.83	2.56
29.10	71.30	2.55
29.40	72.03	2.57
29.90	73.26	2.56
30.40	74.48	2.56
30.80	75.46	2.55
31.10	76.20	2.57
31.60	77.42	2.57



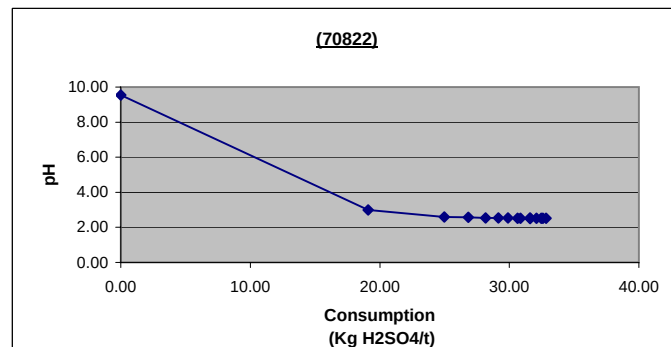
Sample 70821
Sobek NP 15.5

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.16
3.60	8.82	2.85
4.50	11.03	2.68
5.05	12.37	2.64
5.50	13.48	2.73
6.25	15.31	2.61
6.80	16.66	2.56
7.15	17.52	2.57
7.50	18.38	2.56
7.80	19.11	2.57
8.20	20.09	2.55
8.50	20.83	2.54
8.80	21.56	2.65
9.00	22.05	2.54
9.85	24.13	2.53
10.10	24.75	2.53
10.40	25.48	2.53



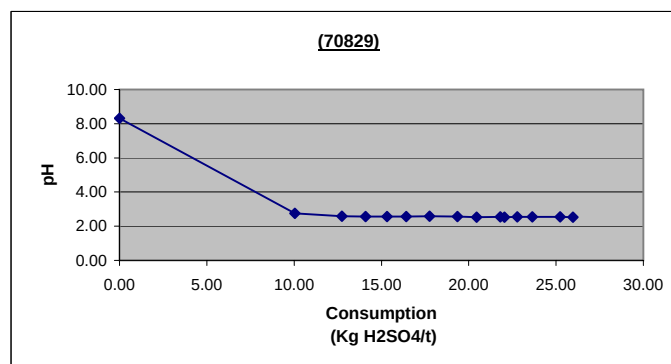
Sample 70822
Sobek NP 29.6

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	9.54
7.80	19.11	2.99
10.20	24.99	2.60
10.95	26.83	2.57
11.50	28.18	2.54
11.90	29.16	2.54
12.20	29.89	2.54
12.50	30.63	2.52
12.60	30.87	2.52
12.90	31.61	2.50
12.90	31.61	2.53
13.10	32.10	2.52
13.25	32.46	2.51
13.30	32.59	2.51
13.40	32.83	2.51



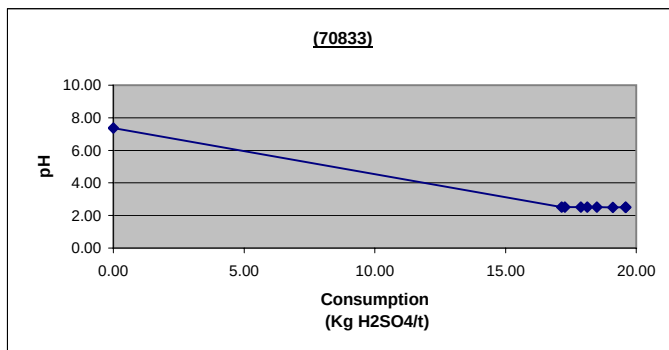
Sample 70829
Sobek NP 14.0

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.32
4.10	10.05	2.75
5.20	12.74	2.59
5.75	14.09	2.57
6.25	15.31	2.57
6.70	16.42	2.56
7.25	17.76	2.58
7.90	19.36	2.56
8.35	20.46	2.53
8.90	21.81	2.54
9.00	22.05	2.53
9.30	22.79	2.54
9.65	23.64	2.54
10.30	25.24	2.54
10.60	25.97	2.53



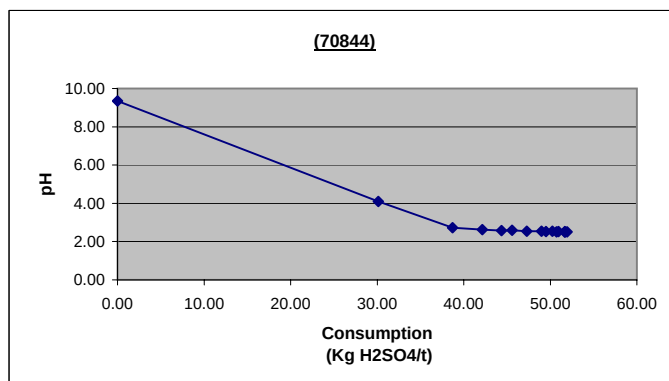
Sample 70833
Sobek NP 10.9

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	7.36
7.00	17.15	2.51
7.05	17.27	2.52
7.30	17.89	2.51
7.40	18.13	2.51
7.55	18.50	2.52
7.80	19.11	2.50
8.00	19.60	2.52
8.00	19.60	2.50



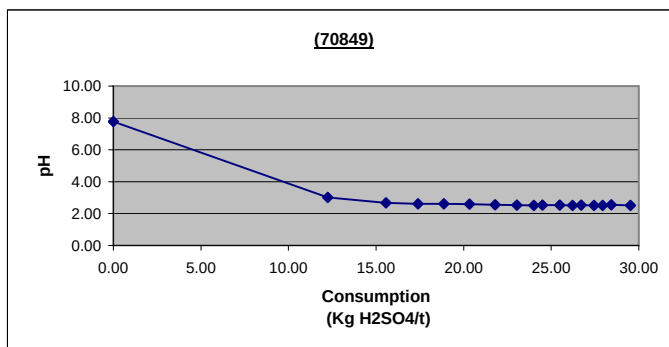
Sample 70844
Sobek NP 46.9

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	9.34
12.30	30.14	4.10
15.80	38.71	2.72
17.20	42.14	2.62
18.10	44.35	2.58
18.60	45.57	2.60
19.30	47.29	2.54
20.00	49.00	2.54
20.20	49.49	2.52
20.50	50.23	2.54
20.70	50.72	2.51
20.80	50.96	2.52
21.10	51.70	2.52
21.10	51.70	2.50
21.20	51.94	2.51



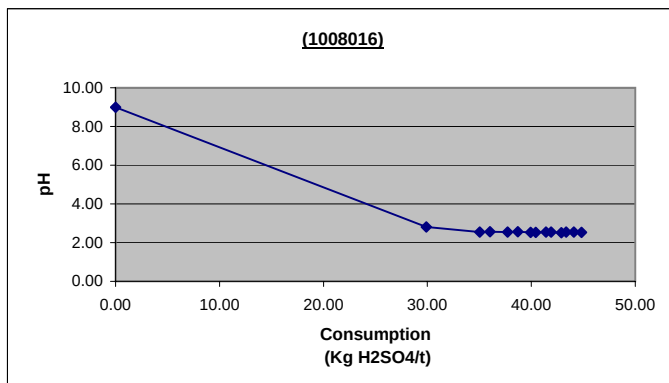
Sample 70849
Sobek NP 22.3

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	7.78
5.00	12.25	3.02
6.35	15.56	2.67
7.10	17.40	2.62
7.70	18.87	2.61
8.30	20.34	2.60
8.90	21.81	2.56
9.40	23.03	2.54
9.80	24.01	2.52
10.00	24.50	2.54
10.40	25.48	2.53
10.70	26.22	2.52
10.90	26.71	2.53
11.20	27.44	2.52
11.40	27.93	2.51
11.60	28.42	2.55
12.05	29.52	2.52



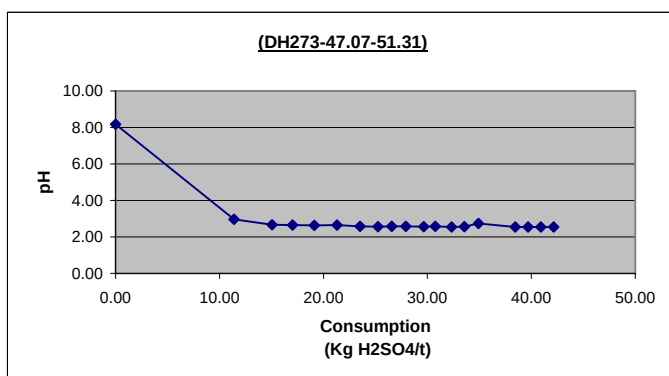
Sample 1008016
Sobek NP 40.0

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	9.00
12.20	29.89	2.81
14.30	35.04	2.55
14.70	36.02	2.57
15.40	37.73	2.55
15.80	38.71	2.56
16.30	39.94	2.53
16.50	40.43	2.53
16.90	41.41	2.54
17.10	41.90	2.54
17.50	42.88	2.52
17.70	43.37	2.54
18.00	44.10	2.54
18.30	44.84	2.53



Sample DH273-47.07-51.31
Sobek NP 49.6

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.18
4.65	11.39	2.97
6.15	15.07	2.66
6.95	17.03	2.65
7.80	19.11	2.64
8.70	21.32	2.65
9.60	23.52	2.58
10.30	25.24	2.57
10.85	26.58	2.58
11.40	27.93	2.58
12.10	29.65	2.57
12.55	30.75	2.58
13.20	32.34	2.55
13.70	33.57	2.57
14.25	34.91	2.73
15.70	38.47	2.54
16.20	39.69	2.55
16.70	40.92	2.55
17.20	42.14	2.55



R. J. Vos

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Metals by Aqua Regia Digestion with ICP Finish
Date : November 19, 2007

Sample ID	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Hg ppm	K %	La ppm	Mg %	Mn ppm
70766	<0.2	2.58	27	112	<0.5	<5	0.17	2	37	171	90	5.25	<1	0.82	25	1.75	297
70770	<0.2	1.4	215	61	0.5	<5	0.31	4	32	130	131	5.94	<1	0.52	22	1.27	535
70821	<0.2	1.33	26	81	<0.5	<5	2.12	2	36	101	18	5.93	<1	0.14	35	0.59	792
70844	<0.2	2.25	269	187	0.5	<5	2.03	3	71	117	127	5.62	<1	0.41	20	1.34	604
DH273-47.07-51.31	<0.2	1.79	<5	67	<0.5	<5	1.76	3	34	87	37	7.88	<1	0.23	33	0.63	646

Sample ID	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm	Zr ppm
70766	<2	0.02	120	568	<2	0.84	5	5	4	9	0.11	16	11	67	<10	118	19
70770	<2	0.07	85	601	29	4.11	6	7	5	12	0.07	<10	10	67	<10	720	30
70821	<2	0.16	11	5002	5	1.22	6	12	5	<5	0.13	<10	<10	31	<10	142	23
70844	<2	0.1	83	1055	2	0.97	<5	16	6	<5	0.3	<10	12	313	<10	505	9
DH273-47.07-51.31	<2	0.09	6	3538	<2	2.47	<5	10	4	<5	0.12	10	19	25	12	92	21

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Se Assay
Date : November 19, 2007

Sample ID	Se ppm
70766	0.4
70770	0.8
70821	0.1
70844	0.2
DH273-47.07-51.31	0.1
Duplicate	
70766	0.4

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : 24 Hour NanoPure Water Leach Extraction Test at 3:1 Liquid to Solid Ratio
Date : November 6/7, 2007

Leachate Analysis

Sample ID			70766	70770	70773	70782	70799	70800	70801	70812	70813	70821	70844	DH273 47.07-51.31	Blank
Parameter	Method	Units													
Volume Nanopure water		mL	750	750	750	750	750	750	750	750	750	750	750	750	750
Sample Weight		g	250	250	250	250	250	250	250	250	250	250	250	250	250
pH	meter		7.55	7.53	7.91	7.25	8.01	7.87	7.88	7.8	7.35	7.76	7.91	7.8	6.52
Redox	meter	mV	409	440	407	438	398	391	394	395	408	394	405	403	424
Conductivity	meter	uS/cm	113	297	135	71	190	173	223	84	177	105	141	108	<1
Acidity (to pH 4.5)	titration	mg CaCO3/L	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total Acidity (to pH 8.3)	titration	mg CaCO3/L	3.2	3.5	2.8	2.7	2.9	3.0	3.1	2.8	3.3	3.0	3.2	3.0	2.3
Alkalinity	titration	mg CaCO3/L	24.8	38.4	55.2	27.0	76.7	51.0	57.1	33.4	15.9	37.6	65.3	50.5	1.5
Sulphate	Turbidity	mg/L	31	86	3	4	6	21	42	3	51	7	5	2	<1
Ion Balance															
Major Anions	Calc	meq/L	1.14	2.56	1.17	0.62	1.66	1.46	2.02	0.73	1.38	0.90	1.41	1.05	#N/A
Major Cations	Calc	meq/L	1.02	2.95	1.38	0.65	1.96	1.71	2.26	0.82	1.64	1.04	1.51	1.10	#N/A
Difference	Calc	meq/L	0.12	-0.39	-0.21	-0.03	-0.31	-0.25	-0.24	-0.09	-0.26	-0.14	-0.10	-0.05	#N/A
Balance (%)	Calc	%	5.4%	-7.0%	-8.4%	-2.1%	-8.4%	-7.9%	-5.6%	-5.6%	-8.6%	-7.3%	-3.3%	-2.4%	#N/A
Dissolved Metals															
Hardness CaCO3		mg/L	38.3	122	57.4	23.4	70.2	75.6	97.4	26.9	71.7	42.1	63.4	44.1	<0.5
Aluminum Al	ICP-MS	mg/L	0.0549	0.0386	0.0588	0.051	0.283	0.0403	0.0206	0.0824	0.012	0.046	0.0837	0.0496	0.0016
Antimony Sb	ICP-MS	mg/L	0.00066	0.00026	0.00017	0.00034	0.00033	0.00007	0.00038	0.00043	0.00005	0.00061	0.00027	0.0001	<0.00002
Arsenic As	ICP-MS	mg/L	0.00083	0.0011	0.00292	0.00431	0.00986	0.00057	0.00188	0.00514	0.00004	0.00745	0.052	0.00046	0.00002
Barium Ba	ICP-MS	mg/L	0.00302	0.00399	0.0958	0.00136	0.00639	0.00652	0.0116	0.00336	0.00737	0.00696	0.016	0.0161	<0.00002
Beryllium Be	ICP-MS	mg/L	<0.00001	<0.00001	<0.00001	<0.00001	0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Bismuth Bi	ICP-MS	mg/L	0.00001	<0.000005	<0.000005	0.000013	0.000009	<0.000005	0.000008	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005
Boron B	ICP-MS	mg/L	0.006	0.015	0.006	0.008	0.08	0.014	0.012	0.013	0.015	0.008	0.012	0.014	<0.005
Cadmium Cd	ICP-MS	mg/L	<0.000005	0.000012	<0.000005	<0.000005	<0.000005	<0.000005	0.000007	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005
Calcium Ca	ICP-MS	mg/L	11.8	37.6	20.9	7.45	24.3	26	33.9	8.16	20.4	13.3	21.8	16.3	<0.5
Chromium Cr	ICP-MS	mg/L	0.0002	<0.0001	<0.0001	<0.0001	0.001	<0.0001	0.0001	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Cobalt Co	ICP-MS	mg/L	0.000082	0.000263	0.000068	0.000577	0.000151	0.000069	0.000066	0.000038	0.000391	0.000061	0.000152	0.000024	<0.000005
Copper Cu	ICP-MS	mg/L	0.00172	0.00105	0.00026	0.00083	0.00068	0.00021	0.00082	0.00099	0.00014	0.00107	0.00014	0.00074	0.00032
Iron Fe	ICP-MS	mg/L	0.009	0.01	0.007	0.009	0.363	0.002	0.004	0.007	0.003	0.01	0.002	0.011	0.002
Lead Pb	ICP-MS	mg/L	0.000092	0.000141	0.000011	0.000046	0.000215	0.000012	0.000044	0.000063	0.000019	0.000036	0.00001	0.000073	0.000015
Lithium Li	ICP-MS	mg/L	0.0006	0.0033	0.0101	0.0033	0.0075	0.0041	0.0036	0.0034	0.0063	0.0053	0.0048	0.0054	<0.0005
Magnesium Mg	ICP-MS	mg/L	2.12	6.83	1.29	1.17	2.29	2.59	3.11	1.59	5.05	2.16	2.15	0.84	<0.05
Manganese Mn	ICP-MS	mg/L	0.0848	0.167	0.0324	0.0135	0.0107	0.0182	0.0343	0.00528	0.143	0.036	0.0104	0.0176	0.00011
Mercury Hg	CVAA	ug/L	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Molybdenum Mo	ICP-MS	mg/L	0.00018	0.00069	0.00073	0.00081	0.0013	0.00029	0.00056	0.00066	0.00007	0.00028	0.00019	0.00016	<0.00005
Nickel Ni	ICP-MS	mg/L	0.00114	0.00384	0.00037	0.0106	0.00177	0.00085	0.00151	0.00089	0.00236	0.00034	0.00331	0.00027	0.00011
Phosphorus P	ICP-MS	mg/L	0.002	<0.002	0.013	0.005	0.018	0.007	0.004	0.003	<0.002	0.03	0.006	0.028	<0.002
Potassium K	ICP-MS	mg/L	7.25	6.24	5.51	4.98	11	2.28	4.19	7.07	4.74	2.21	3.67	5.54	<0.05
Selenium Se	ICP-MS	mg/L	0.00006	0.00042	0.00012	0.00038	0.00007	0.00013	0.00034	0.00011	0.00019	0.00013	0.00007	<0.00004	<0.00004
Silicon Si	ICP-MS	mg/L	0.695	0.955	1.05	0.919	2.76	1.28	1.5	1.12	0.847	1.28	1.02	1.01	<0.1
Silver Ag	ICP-MS	mg/L	<0.000005	0.000009	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005
Sodium Na	ICP-MS	mg/L	1.73	8.02	2.08	1.25	6.46	3.19	4.63	2.28	1.97	3.23	3.39	1.83	<0.05
Strontium Sr	ICP-MS	mg/L	0.0291	0.165	0.0614	0.0156	0.177	0.0448	0.132	0.0323	0.0919	0.0783	0.13	0.039	<0.00005
Sulphur (S)	ICP-MS	mg/L	10	36	<3	<3	<3	10	14	<3	25	<3	<3	<3	<3
Thallium Tl	ICP-MS	mg/L	0.00001	0.000029	0.000011	0.000015	0.000031	0.000004	0.000008	0.000017	0.000013	0.000015	0.000005	0.000006	<0.000002
Tin Sn	ICP-MS	mg/L	0.00031	0.0001	0.00011	0.00009	0.00032	0.00008	0.00008	0.0003	0.00017	0.00025	0.00007	0.00012	0.00007
Titanium Ti	ICP-MS	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	0.0145	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Uranium U	ICP-MS	mg/L	0.00004	0.000077	0.00003	0.000028	0.000121	0.000048	0.0364	0.000013	0.000003	0.000047	0.000007	0.000023	<0.000002
Vanadium V	ICP-MS	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	0.0021	0.0008	0.0002	0.0003	<0.0002	<0.0002	0.0038	<0.0002	0.0038
Zinc Zn	ICP-MS	mg/L	0.0018	0.0021	0.0004	0.0007	0.0061	0.0008	0.0015	0.001	0.0008	0.0008	0.0004	0.001	0.0009
Zirconium Zr	ICP-MS	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	0.0001	<0.0001	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Size Fraction Analysis
Date : November 9, 2007

70766

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+1/4"	6.300	17.40	17.5%	17.5%
-1/4" +10	2.000	41.70	41.8%	59.3%
-10 + 35	0.425	19.88	19.9%	79.2%
-35 + 100	0.150	7.71	7.7%	87.0%
-100 + 270	0.053	4.12	4.1%	91.1%
-270	-0.053	8.85	8.9%	100.0%
TOTAL		99.66	100.0%	

70770

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+1/4"	6.300	7.70	7.7%	7.7%
-1/4" +10	2.000	41.53	41.7%	49.4%
-10 + 35	0.425	26.47	26.6%	76.0%
-35 + 100	0.150	10.87	10.9%	86.9%
-100 + 270	0.053	4.79	4.8%	91.7%
-270	-0.053	8.26	8.3%	100.0%
TOTAL		99.62	100.0%	

70821

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+1/4"	6.300	12.08	12.1%	12.1%
-1/4" +10	2.000	51.03	51.3%	63.4%
-10 + 35	0.425	20.39	20.5%	83.9%
-35 + 100	0.150	6.50	6.5%	90.4%
-100 + 270	0.053	2.91	2.9%	93.3%
-270	-0.053	6.66	6.7%	100.0%
TOTAL		99.57	100.0%	

70844

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+1/4"	6.300	7.80	7.8%	7.8%
-1/4" +10	2.000	53.77	53.9%	61.7%
-10 + 35	0.425	22.59	22.6%	84.4%
-35 + 100	0.150	6.36	6.4%	90.8%
-100 + 270	0.053	2.03	2.0%	92.8%
-270	-0.053	7.19	7.2%	100.0%
TOTAL		99.74	100.0%	

|DH273-47.07-51.31

Sieve Designation	Aperture (mm)	Weight Retained		
		(g)	(%)	Cumulative (%)
+1/4"	6.300	9.55	9.6%	9.6%
-1/4" +10	2.000	46.21	46.5%	56.1%
-10 + 35	0.425	23.91	24.0%	80.1%
-35 + 100	0.150	7.86	7.9%	88.0%
-100 + 270	0.053	1.94	2.0%	89.9%
-270	-0.053	10.00	10.1%	100.0%
TOTAL		99.47	100.0%	

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Sobek Acid-Base Accounting
Date : November 8, 2007

Sample ID	Paste pH	TIC %	CaCO ₃ NP	S(T) %	S(SO ₄) %	S(S-2) %	AP	NP	Net NP	Fizz Test
70766	8.37	0.01	0.8	0.77	<0.01	0.77	24.1	8.6	-15.5	None
70770	7.69	0.1	8.3	4.07	0.02	4.05	126.6	18.5	-108.1	Slight
70821	8.71	0.03	2.5	1.27	<0.01	1.27	39.7	15.5	-24.2	None
70844	8.98	0.3	25.0	0.95	<0.01	0.95	29.7	46.9	17.2	Slight
DH273-47.07-51.31	8.69	0.45	37.5	2.51	<0.01	2.51	78.4	49.6	-28.8	Slight
Duplicates										
70766		0.01		0.77	<0.01					

Note:

AP = Acid potential in tonnes CaCO₃ equivalent per 1000 tonnes of material. AP is determined from calculated sulphide sulphur content: S(T) - S(SO₄).

NP = Neutralization potential in tonnes CaCO₃ equivalent per 1000 tonnes of material.

NET NP = NP - AP

Carbonate NP is calculated from TIC originating from carbonates and is expressed in kg CaCO₃/tonne.

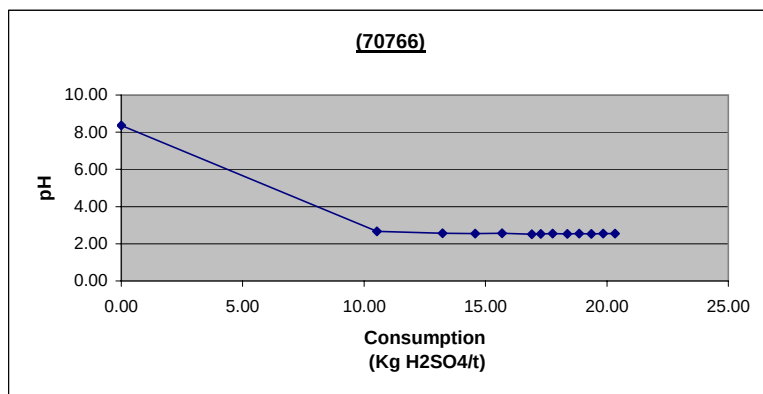
Certified by:

R. J. Vos
ARD Testing Specialist

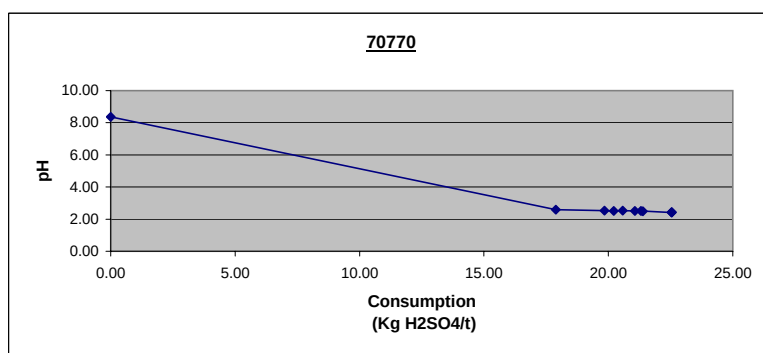


CLIENT : MESH
 PROJECT : Tyhee
 CEMI Project # : 0709
 Test : Acid Buffering Characterization Curves
 Date : November 21-28, 2007

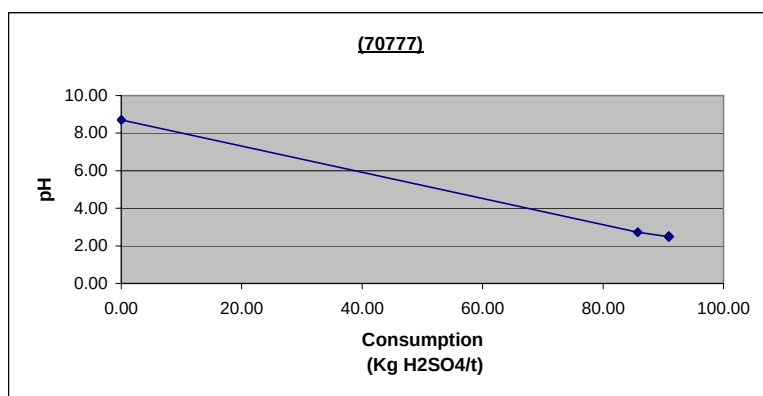
Sample	70766	
Sobek NP	8.6	
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.36
4.30	10.54	2.66
5.40	13.23	2.57
5.95	14.58	2.55
6.40	15.68	2.57
6.90	16.91	2.52
7.05	17.27	2.53
7.25	17.76	2.54
7.50	18.38	2.53
7.70	18.87	2.54
7.90	19.36	2.53
8.10	19.85	2.54
8.30	20.34	2.54



Sample	70770	
Sobek NP	18.5	
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.36
7.30	17.89	2.58
8.10	19.85	2.52
8.25	20.21	2.51
8.40	20.58	2.53
8.60	21.07	2.51
8.73	21.39	2.50
8.70	21.32	2.51
9.20	22.54	2.42
9.20	22.54	2.43
9.20	22.54	2.43



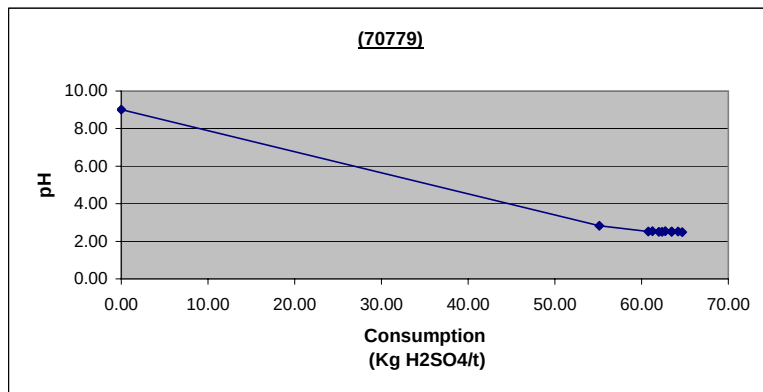
Sample	70777	
Sobek NP	79.5	
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.70
35.00	85.75	2.72
37.10	90.90	2.49
37.10	90.90	2.49
37.10	90.90	2.50
37.10	90.90	2.50



Sample
Sobek NP

70779
82.7

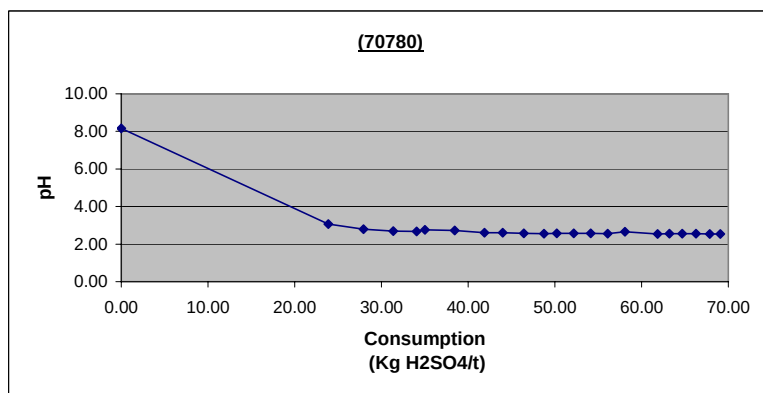
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	9.01
22.50	55.13	2.82
24.80	60.76	2.52
25.00	61.25	2.53
25.30	61.99	2.51
25.45	62.35	2.51
25.60	62.72	2.53
25.90	63.46	2.50
25.90	63.46	2.52
26.20	64.19	2.52
26.40	64.68	2.49



Sample
Sobek NP

70780
32.6

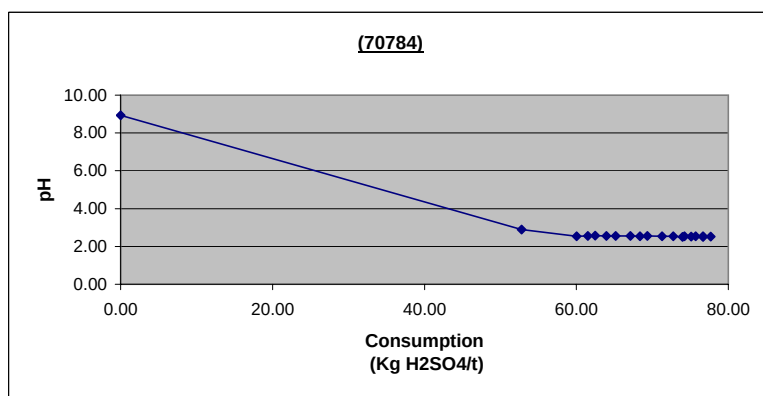
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.16
9.75	23.89	3.07
11.40	27.93	2.79
12.80	31.36	2.70
13.90	34.06	2.67
14.30	35.04	2.76
15.70	38.47	2.72
17.10	41.90	2.60
17.95	43.98	2.61
18.95	46.43	2.58
19.90	48.76	2.56
20.50	50.23	2.58
21.30	52.19	2.58
22.10	54.15	2.57
22.90	56.11	2.56
23.70	58.07	2.66
25.25	61.86	2.54
25.80	63.21	2.55
26.40	64.68	2.55
27.05	66.27	2.55
27.70	67.87	2.53
28.20	69.09	2.53



Sample
Sobek NP

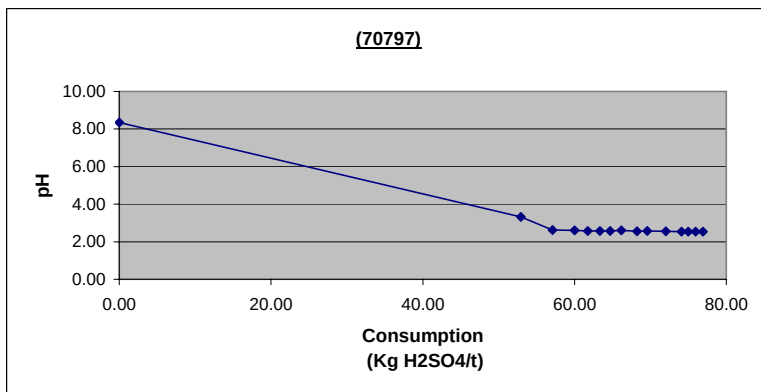
70784
69.6

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.93
21.54	52.77	2.89
24.50	60.03	2.54
25.10	61.50	2.55
25.50	62.48	2.57
26.10	63.95	2.56
26.60	65.17	2.56
27.40	67.13	2.56
27.90	68.36	2.54
28.30	69.34	2.56
29.10	71.30	2.54
29.70	72.77	2.53
30.20	73.99	2.51
30.30	74.24	2.54
30.65	75.09	2.52
30.90	75.71	2.54
31.30	76.69	2.50
31.30	76.69	2.54
31.70	77.67	2.52



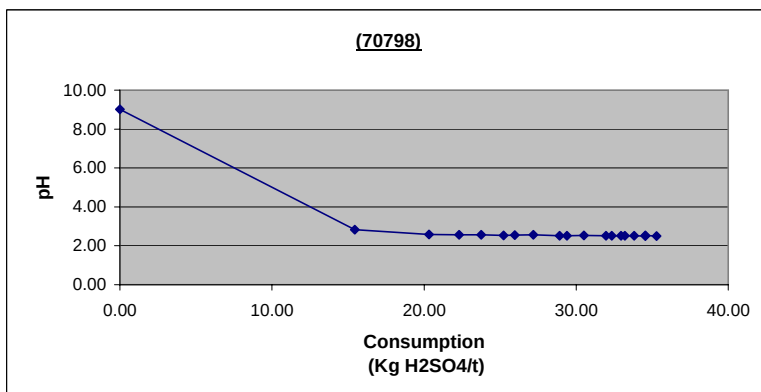
Sample 70797
Sobek NP 99.0

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.34
21.60	52.92	3.33
23.30	57.09	2.62
24.50	60.03	2.60
25.20	61.74	2.58
25.85	63.33	2.57
26.40	64.68	2.57
27.00	66.15	2.61
27.85	68.23	2.56
28.40	69.58	2.57
29.40	72.03	2.56
30.25	74.11	2.53
30.60	74.97	2.53
31.00	75.95	2.53
31.40	76.93	2.53



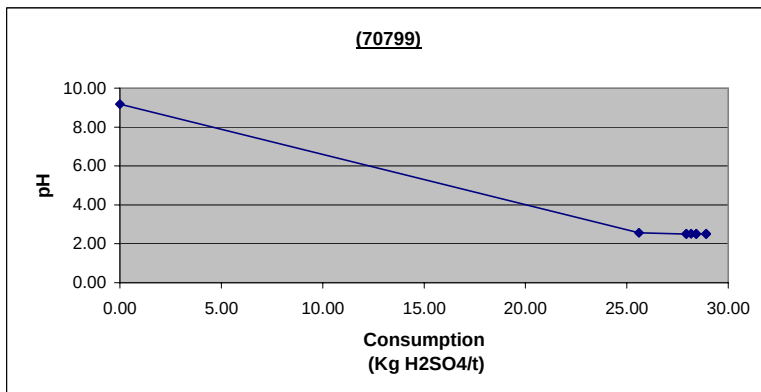
Sample 70798
Sobek NP 18.8

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	9.01
6.30	15.44	2.83
8.30	20.34	2.59
9.10	22.30	2.57
9.70	23.77	2.56
10.30	25.24	2.54
10.60	25.97	2.55
11.10	27.20	2.57
11.80	28.91	2.51
12.00	29.40	2.52
12.45	30.50	2.53
13.05	31.97	2.51
13.20	32.34	2.52
13.45	32.95	2.51
13.55	33.20	2.52
13.80	33.81	2.52
14.10	34.55	2.50
14.10	34.55	2.53
14.40	35.28	2.50

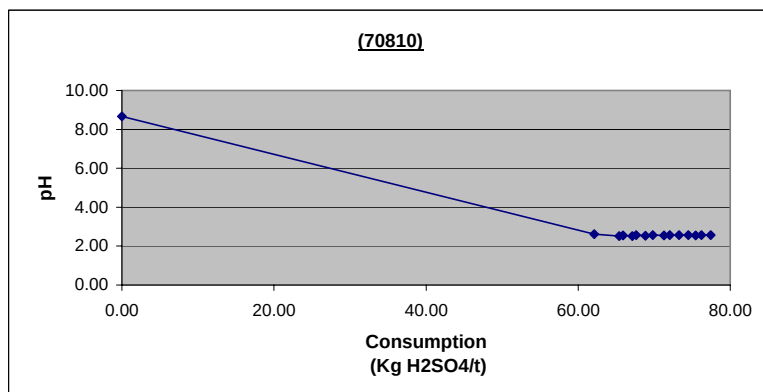


Sample 70799
Sobek NP 29.5

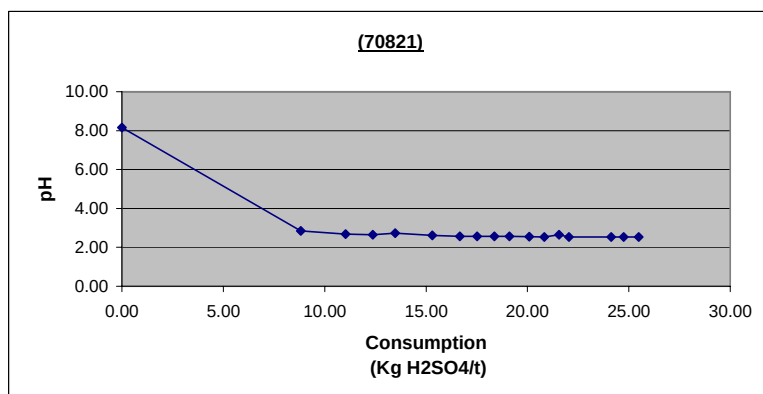
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	9.18
10.45	25.60	2.56
11.40	27.93	2.50
11.40	27.93	2.51
11.50	28.18	2.51
11.60	28.42	2.50
11.60	28.42	2.51
11.80	28.91	2.50
11.80	28.91	2.51



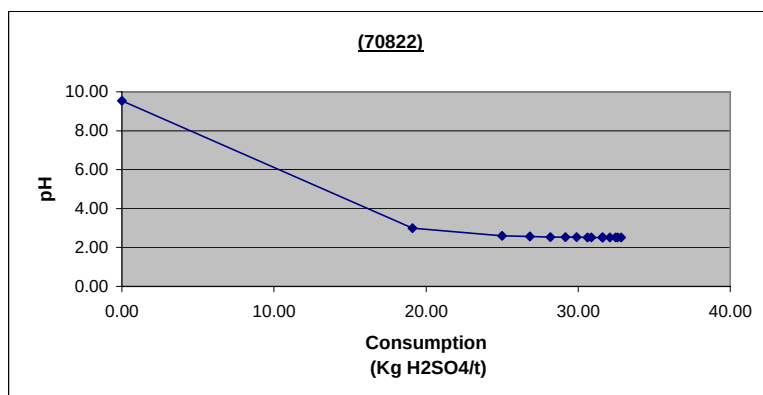
Sample	70810	
Sobek NP	57.0	
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.67
25.35	62.11	2.62
26.70	65.42	2.52
26.90	65.91	2.55
27.40	67.13	2.51
27.60	67.62	2.57
28.10	68.85	2.54
28.50	69.83	2.56
29.10	71.30	2.55
29.40	72.03	2.57
29.90	73.26	2.56
30.40	74.48	2.56
30.80	75.46	2.55
31.10	76.20	2.57
31.60	77.42	2.57



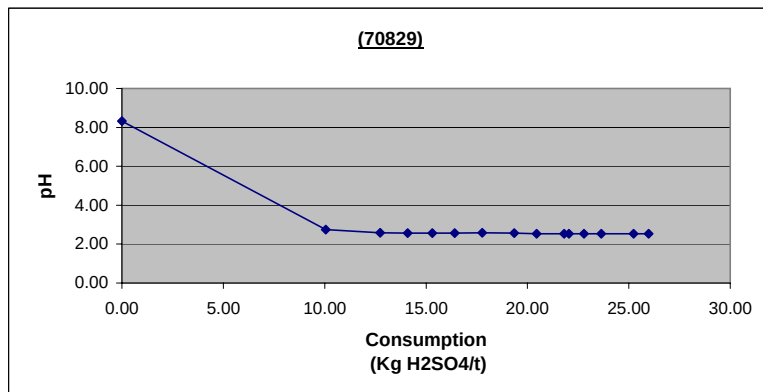
Sample	70821	
Sobek NP	15.5	
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.16
3.60	8.82	2.85
4.50	11.03	2.68
5.05	12.37	2.64
5.50	13.48	2.73
6.25	15.31	2.61
6.80	16.66	2.56
7.15	17.52	2.57
7.50	18.38	2.56
7.80	19.11	2.57
8.20	20.09	2.55
8.50	20.83	2.54
8.80	21.56	2.65
9.00	22.05	2.54
9.85	24.13	2.53
10.10	24.75	2.53
10.40	25.48	2.53



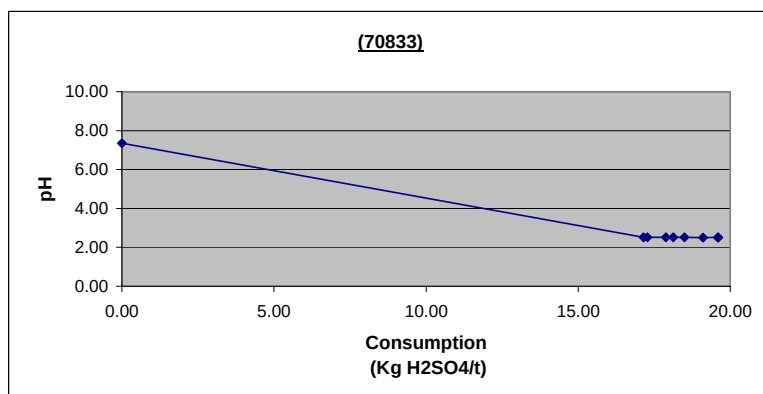
Sample	70822	
Sobek NP	29.6	
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	9.54
7.80	19.11	2.99
10.20	24.99	2.60
10.95	26.83	2.57
11.50	28.18	2.54
11.90	29.16	2.54
12.20	29.89	2.54
12.50	30.63	2.52
12.60	30.87	2.52
12.90	31.61	2.50
12.90	31.61	2.53
13.10	32.10	2.52
13.25	32.46	2.51
13.30	32.59	2.51
13.40	32.83	2.51



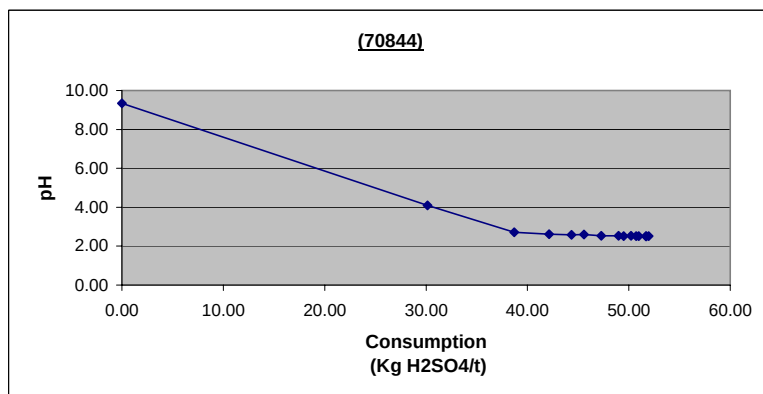
Sample	70829	
Sobek NP	14.0	
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.32
4.10	10.05	2.75
5.20	12.74	2.59
5.75	14.09	2.57
6.25	15.31	2.57
6.70	16.42	2.56
7.25	17.76	2.58
7.90	19.36	2.56
8.35	20.46	2.53
8.90	21.81	2.54
9.00	22.05	2.53
9.30	22.79	2.54
9.65	23.64	2.54
10.30	25.24	2.54
10.60	25.97	2.53



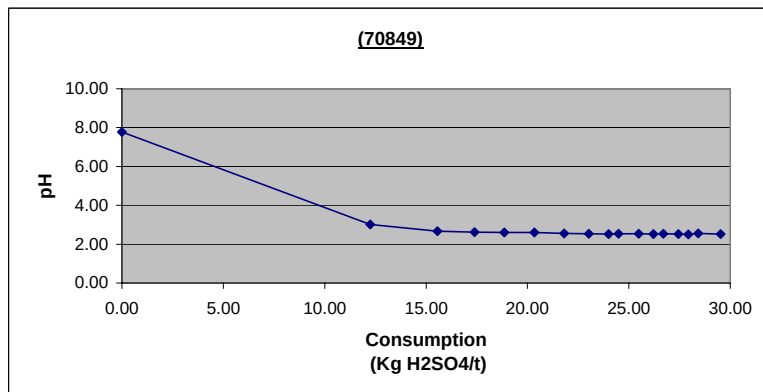
Sample	70833	
Sobek NP	10.9	
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	7.36
7.00	17.15	2.51
7.05	17.27	2.52
7.30	17.89	2.51
7.40	18.13	2.51
7.55	18.50	2.52
7.80	19.11	2.50
8.00	19.60	2.52
8.00	19.60	2.50



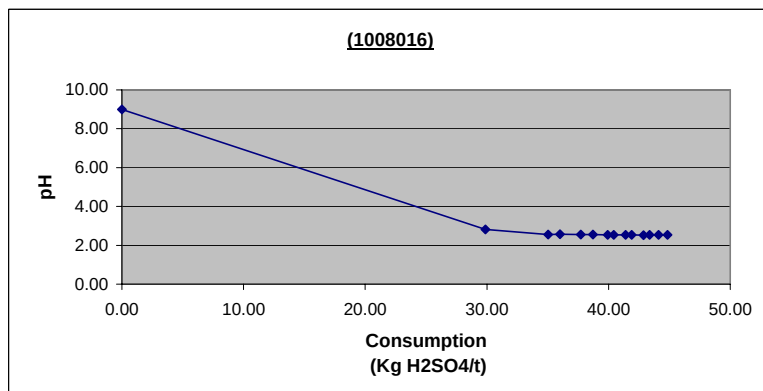
Sample	70844	
Sobek NP	46.9	
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	9.34
12.30	30.14	4.10
15.80	38.71	2.72
17.20	42.14	2.62
18.10	44.35	2.58
18.60	45.57	2.60
19.30	47.29	2.54
20.00	49.00	2.54
20.20	49.49	2.52
20.50	50.23	2.54
20.70	50.72	2.51
20.80	50.96	2.52
21.10	51.70	2.52
21.10	51.70	2.50
21.20	51.94	2.51



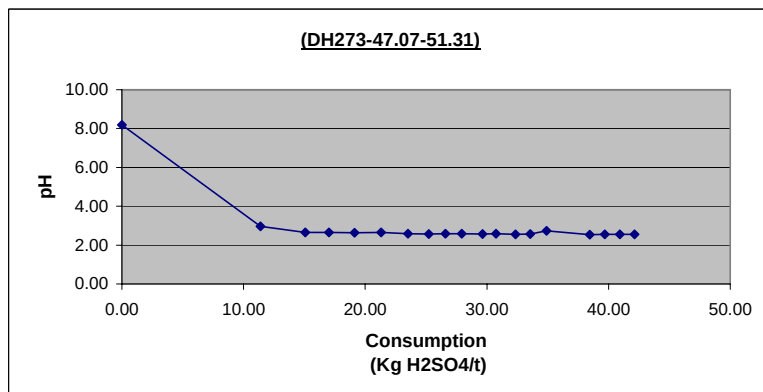
Sample	70849	
Sobek NP	22.3	
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	7.78
5.00	12.25	3.02
6.35	15.56	2.67
7.10	17.40	2.62
7.70	18.87	2.61
8.30	20.34	2.60
8.90	21.81	2.56
9.40	23.03	2.54
9.80	24.01	2.52
10.00	24.50	2.54
10.40	25.48	2.53
10.70	26.22	2.52
10.90	26.71	2.53
11.20	27.44	2.52
11.40	27.93	2.51
11.60	28.42	2.55
12.05	29.52	2.52



Sample	1008016	
Sobek NP	40.0	
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	9.00
12.20	29.89	2.81
14.30	35.04	2.55
14.70	36.02	2.57
15.40	37.73	2.55
15.80	38.71	2.56
16.30	39.94	2.53
16.50	40.43	2.53
16.90	41.41	2.54
17.10	41.90	2.54
17.50	42.88	2.52
17.70	43.37	2.54
18.00	44.10	2.54
18.30	44.84	2.53



Sample	DH273-47.07-51.31	
Sobek NP	49.6	
Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.18
4.65	11.39	2.97
6.15	15.07	2.66
6.95	17.03	2.65
7.80	19.11	2.64
8.70	21.32	2.65
9.60	23.52	2.58
10.30	25.24	2.57
10.85	26.58	2.58
11.40	27.93	2.58
12.10	29.65	2.57
12.55	30.75	2.58
13.20	32.34	2.55
13.70	33.57	2.57
14.25	34.91	2.73
15.70	38.47	2.54
16.20	39.69	2.55
16.70	40.92	2.55
17.20	42.14	2.55



Certified by:



R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Metals by Aqua Regia Digestion with ICP Finish
Date : November 19, 2007

Sample ID	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Hg ppm	K %	La ppm	Mg %	Mn ppm
70766	<0.2	2.58	27	112	<0.5	<5	0.17	2	37	171	90	5.25	<1	0.82	25	1.75	297
70770	<0.2	1.4	215	61	0.5	<5	0.31	4	32	130	131	5.94	<1	0.52	22	1.27	535
70821	<0.2	1.33	26	81	<0.5	<5	2.12	2	36	101	18	5.93	<1	0.14	35	0.59	792
70844	<0.2	2.25	269	187	0.5	<5	2.03	3	71	117	127	5.62	<1	0.41	20	1.34	604
DH273-47.07-51.31	<0.2	1.79	<5	67	<0.5	<5	1.76	3	34	87	37	7.88	<1	0.23	33	0.63	646

Sample ID	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm	Zr ppm
70766	<2	0.02	120	568	<2	0.84	5	5	4	9	0.11	16	11	67	<10	118	19
70770	<2	0.07	85	601	29	4.11	6	7	5	12	0.07	<10	10	67	<10	720	30
70821	<2	0.16	11	5002	5	1.22	6	12	5	<5	0.13	<10	<10	31	<10	142	23
70844	<2	0.1	83	1055	2	0.97	<5	16	6	<5	0.3	<10	12	313	<10	505	9
DH273-47.07-51.31	<2	0.09	6	3538	<2	2.47	<5	10	4	<5	0.12	10	19	25	12	92	21

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Se Assay
Date : November 19, 2007

Sample ID	Se ppm
70766	0.4
70770	0.8
70821	0.1
70844	0.2
DH273-47.07-51.31	0.1
Duplicate	
70766	0.4

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : 24 Hour NanoPure Water Leach Extraction Test at 3:1 Liquid to Solid Ratio
Date : November 6/7, 2007

Leachate Analysis

Sample ID			70766	70770	70773	70782	70799	70800	70801	70812	70813	70821	70844	DH273 47.07-51.31	Blank
Parameter	Method	Units													
Volume Nanopure water		mL	750	750	750	750	750	750	750	750	750	750	750	750	750
Sample Weight		g	250	250	250	250	250	250	250	250	250	250	250	250	250
pH	meter		7.55	7.53	7.91	7.25	8.01	7.87	7.88	7.8	7.35	7.76	7.91	7.8	6.52
Redox	meter	mV	409	440	407	438	398	391	394	395	408	394	405	403	424
Conductivity	meter	uS/cm	113	297	135	71	190	173	223	84	177	105	141	108	<1
Acidity (to pH 4.5)	titration	mg CaCO3/L	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total Acidity (to pH 8.3)	titration	mg CaCO3/L	3.2	3.5	2.8	2.7	2.9	3.0	3.1	2.8	3.3	3.0	3.2	3.0	2.3
Alkalinity	titration	mg CaCO3/L	24.8	38.4	55.2	27.0	76.7	51.0	57.1	33.4	15.9	37.6	65.3	50.5	1.5
Sulphate	Turbidity	mg/L	31	86	3	4	6	21	42	3	51	7	5	2	<1
Ion Balance															
Major Anions	Calc	meq/L	1.14	2.56	1.17	0.62	1.66	1.46	2.02	0.73	1.38	0.90	1.41	1.05	#N/A
Major Cations	Calc	meq/L	1.02	2.95	1.38	0.65	1.96	1.71	2.26	0.82	1.64	1.04	1.51	1.10	#N/A
Difference	Calc	meq/L	0.12	-0.39	-0.21	-0.03	-0.31	-0.25	-0.24	-0.09	-0.26	-0.14	-0.10	-0.05	#N/A
Balance (%)	Calc	%	5.4%	-7.0%	-8.4%	-2.1%	-8.4%	-7.9%	-5.6%	-5.6%	-8.6%	-7.3%	-3.3%	-2.4%	#N/A
Dissolved Metals															
Hardness CaCO3		mg/L	38.3	122	57.4	23.4	70.2	75.6	97.4	26.9	71.7	42.1	63.4	44.1	<0.5
Aluminum Al	ICP-MS	mg/L	0.0549	0.0386	0.0588	0.051	0.283	0.0403	0.0206	0.0824	0.012	0.046	0.0837	0.0496	0.0016
Antimony Sb	ICP-MS	mg/L	0.00066	0.00026	0.00017	0.00034	0.00033	0.00007	0.00038	0.00043	0.00005	0.00061	0.00027	0.0001	<0.00002
Arsenic As	ICP-MS	mg/L	0.00083	0.0011	0.00292	0.00431	0.00986	0.00057	0.00188	0.00514	0.00004	0.00745	0.052	0.00046	0.00002
Barium Ba	ICP-MS	mg/L	0.00302	0.00399	0.0958	0.00136	0.00639	0.00652	0.0116	0.00336	0.00737	0.00696	0.016	0.0161	<0.00002
Beryllium Be	ICP-MS	mg/L	<0.00001	<0.00001	<0.00001	<0.00001	0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Bismuth Bi	ICP-MS	mg/L	0.00001	<0.000005	<0.000005	0.000013	0.000009	<0.000005	0.000008	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005
Boron B	ICP-MS	mg/L	0.006	0.015	0.006	0.008	0.08	0.014	0.012	0.013	0.015	0.008	0.012	0.014	<0.005
Cadmium Cd	ICP-MS	mg/L	<0.000005	0.000012	<0.000005	<0.000005	<0.000005	<0.000005	0.000007	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005
Calcium Ca	ICP-MS	mg/L	11.8	37.6	20.9	7.45	24.3	26	33.9	8.16	20.4	13.3	21.8	16.3	<0.05
Chromium Cr	ICP-MS	mg/L	0.0002	<0.0001	<0.0001	<0.0001	0.001	<0.0001	0.0001	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Cobalt Co	ICP-MS	mg/L	0.000082	0.000263	0.000068	0.000577	0.000151	0.000069	0.000066	0.000038	0.000391	0.000061	0.000152	0.000024	<0.000005
Copper Cu	ICP-MS	mg/L	0.00172	0.00105	0.00026	0.00083	0.00068	0.00021	0.00082	0.00099	0.00014	0.00107	0.00014	0.00074	0.00032
Iron Fe	ICP-MS	mg/L	0.009	0.01	0.007	0.009	0.363	0.002	0.004	0.007	0.003	0.01	0.002	0.011	0.002
Lead Pb	ICP-MS	mg/L	0.000092	0.000141	0.000011	0.000046	0.000215	0.000012	0.000044	0.000063	0.000019	0.000036	0.00001	0.000073	0.000015
Lithium Li	ICP-MS	mg/L	0.0006	0.0033	0.0101	0.0033	0.0075	0.0041	0.0036	0.0034	0.0063	0.0053	0.0048	0.0054	<0.0005
Magnesium Mg	ICP-MS	mg/L	2.12	6.83	1.29	1.17	2.29	2.59	3.11	1.59	5.05	2.16	2.15	0.84	<0.05
Manganese Mn	ICP-MS	mg/L	0.0848	0.167	0.0324	0.0135	0.0107	0.0182	0.0343	0.00528	0.143	0.036	0.0104	0.0176	0.00011
Mercury Hg	CVAA	ug/L	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Molybdenum Mo	ICP-MS	mg/L	0.00018	0.00069	0.00073	0.00081	0.0013	0.00029	0.0056	0.00066	0.00007	0.00028	0.00019	0.00016	<0.00005
Nickel Ni	ICP-MS	mg/L	0.00114	0.00384	0.00037	0.0106	0.00177	0.00085	0.00151	0.00089	0.00236	0.00034	0.00331	0.00027	0.00011
Phosphorus P	ICP-MS	mg/L	0.002	<0.002	0.013	0.005	0.018	0.007	0.004	0.003	<0.002	0.03	0.006	0.028	<0.002
Potassium K	ICP-MS	mg/L	7.25	6.24	5.51	4.98	11	2.28	4.19	7.07	4.74	2.21	3.67	5.54	<0.05
Selenium Se	ICP-MS	mg/L	0.00006	0.00042	0.00012	0.00038	0.00007	0.00013	0.00034	0.00011	0.00019	0.00013	0.00007	<0.00004	<0.00004
Silicon Si	ICP-MS	mg/L	0.695	0.955	1.05	0.919	2.76	1.28	1.5	1.12	0.847	1.28	1.02	1.01	<0.1
Silver Ag	ICP-MS	mg/L	<0.000005	0.000009	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005
Sodium Na	ICP-MS	mg/L	1.73	8.02	2.08	1.25	6.46	3.19	4.63	2.28	1.97	3.23	3.39	1.83	<0.05
Strontium Sr	ICP-MS	mg/L	0.0291	0.165	0.0614	0.0156	0.177	0.0448	0.132	0.0323	0.0919	0.0783	0.13	0.039	<0.00005
Sulphur (S)	ICP-MS	mg/L	10	36	<3	<3	<3	10	14	<3	25	<3	<3	<3	<3
Thallium Tl	ICP-MS	mg/L	0.00001	0.000029	0.000011	0.000015	0.000031	0.000004	0.000008	0.000017	0.000013	0.000015	0.000005	0.000006	<0.000002
Tin Sn	ICP-MS	mg/L	0.00031	0.0001	0.00011	0.00009	0.00032	0.00008	0.00008	0.0003	0.00017	0.00025	0.00007	0.00012	0.00007
Titanium Ti	ICP-MS	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	0.0145	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Uranium U	ICP-MS	mg/L	0.00004	0.000077	0.00003	0.000028	0.000121	0.000048	0.0364	0.000013	0.000003	0.000047	0.000007	0.000023	<0.000002
Vanadium V	ICP-MS	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	0.0021	0.0008	0.0002	0.0003	<0.0002	0.0038	<0.0002	<0.0002	<0.0002
Zinc Zn	ICP-MS	mg/L	0.0018	0.0021	0.0004	0.0007	0.0061	0.0008	0.0015	0.001	0.0008	0.0008	0.0004	0.001	0.0009
Zirconium Zr	ICP-MS	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	0.0001	<0.0001	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

RJ Vos

Certified by:

R. J. Vos
 ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Metals by Aqua Regia Digestion with ICP-MS Finish (Humidity Cell Residues)
Date : November 27, 2009

Sample ID	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm	Fe %	Ga ppm	Ge ppm	Hf ppm	Hg ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm
HC 1	<0.01	1.4	1.3	253.3	54	1	1.2	0.18	2.4	35	23.6	101	1.9	104.2	5.47	7	0.1	0.6	0.163	0.1	0.45	17	23.1	1.13	469
HC 2	0.02	0.3	2.25	15.8	93	<1	0.6	0.11	0.3	39	21.4	149	2.7	81.1	3.93	8	0.1	0.3	0.081	0.01	0.71	18	43.8	1.49	226
HC 4	0.02	0.4	1.23	25	65	<1	0.3	1.73	0.4	84	25.5	52	0.5	28.2	4.85	9	0.2	0.5	0.159	0.07	0.1	32	9.5	0.52	627
HC 5	0.11	0.3	1.4	29.7	107	<1	0.6	1.56	0.3	88	19.6	56	2.9	38.4	4.56	9	0.2	0.4	0.158	0.07	0.25	34	19.9	0.48	820
HC 7	<0.01	1.4	1.36	251.9	54	<1	1.2	0.19	2.4	37	22.7	101	1.8	112	5.35	7	0.1	0.7	0.15	0.09	0.45	18	20.4	1.18	470
Duplicate																									
HC 1	<0.01	1.4	1.41	254.1	54	1	1.2	0.19	2.5	35	23.5	100	1.9	104.6	5.62	7	0.1	0.6	0.156	0.1	0.47	17	23.4	1.16	472

Sample ID	Mo ppm	Na %	Nb ppm	Ni ppm	P %	Pb ppm	Rb ppm	Re ppb	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
HC 1	4.1	0.04	0.3	67.8	0.056	44.3	29.9	5	3.17	0.3	6.6	<0.5	0.7	6	<0.1	0.4	10	0.065	0.2	1.9	52	0.5	7.7	516	22.7
HC 2	2	0.02	0.4	72.4	0.048	7.4	44.4	<5	0.64	<0.1	4.4	<0.5	0.3	4	<0.1	0.1	6.1	0.09	0.4	1	48	0.2	5.2	102	12.6
HC 4	1.4	0.14	0.7	7.9	0.488	7.5	7.9	<5	1.12	0.1	10.7	<0.5	1.3	20	<0.1	0.1	3.7	0.11	0.1	0.3	14	2.1	49.6	119	16
HC 5	2	0.14	0.7	12.1	0.393	4.2	16.1	<5	0.6	<0.1	10.3	<0.5	1.1	26	<0.1	0.1	3.7	0.13	0.1	0.3	16	1.5	45.2	114	14.1
HC 7	3.4	0.05	0.3	64.6	0.056	43.5	30.7	<5	2.82	0.2	6.5	0.6	0.7	6	<0.1	0.4	10.4	0.069	0.5	1.9	55	0.4	8.1	497	26.2
Duplicate																									
HC 1	3.7	0.05	0.3	68.2	0.057	45.4	30.1	<5	3.25	0.3	6.6	<0.5	0.7	6	<0.1	0.3	10.1	0.064	0.2	1.7	52	0.5	7.7	523	22.2

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : 24 Hour Bottle Roll Extraction Test at 3:1 Liquid to Solid Ratio (Humidity Cell Residues)
Date : November 3/4, 2009

Leachate Analysis

Sample ID			HC 1	HC 2	HC 4	HC 5	HC 7
Parameter	Method	Units					
Volume Nanopure Water		mL	3000	3000	3000	3000	3000
Sample Weight		g	1000	1000	1000	1000	1000
pH	meter		4.82	4.62	5.89	7.07	6.23
Redox	meter	mV	247	304	259	214	198
Conductivity	meter	uS/cm	188	294	134	88	118
Acidity (to pH 4.5)	titration	mg CaCO ₃ /L	#N/A	#N/A	#N/A	#N/A	#N/A
Total Acidity (to pH 8.3)	titration	mg CaCO ₃ /L	15.3	24.1	17.1	5.1	11.0
Alkalinity	titration	mg CaCO ₃ /L	0.8	<0.1	1.1	2.7	1.1
Sulphate	Turbidity	mg/L	79	131	56	33	46
Ion Balance							
Major Anions	Calc	meq/L	1.66	2.73	1.19	0.74	0.98
Major Cations	Calc	meq/L	1.41	2.42	1.01	0.61	0.89
Difference	Calc	meq/L	0.26	0.31	0.18	0.13	0.09
Balance (%)	Calc	%	8.4%	6.1%	8.3%	9.9%	4.9%
Dissolved Metals							
Hardness CaCO ₃		mg/L	32.5	83.9	32.8	17.3	29.5
Aluminum Al	ICP-MS	mg/L	0.0293	0.861	0.0733	0.0036	0.0219
Antimony Sb	ICP-MS	mg/L	<0.00002	0.00006	<0.00002	<0.00002	0.00016
Arsenic As	ICP-MS	mg/L	0.00058	0.00193	0.00063	0.00019	0.00035
Barium Ba	ICP-MS	mg/L	0.0372	0.0664	0.0705	0.059	0.0869
Beryllium Be	ICP-MS	mg/L	0.00003	0.00055	0.00002	<0.00001	<0.00001
Bismuth Bi	ICP-MS	mg/L	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005
Boron B	ICP-MS	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Cadmium Cd	ICP-MS	mg/L	0.000695	0.00982	0.000276	0.000035	0.000067
Calcium Ca	ICP-MS	mg/L	2.35	11.8	7.45	4.69	8.53
Chromium Cr	ICP-MS	mg/L	<0.0001	0.0001	0.0001	<0.0001	<0.0001
Cobalt Co	ICP-MS	mg/L	0.188	0.0537	0.0364	0.0168	0.0441
Copper Cu	ICP-MS	mg/L	0.00261	0.0204	0.00107	0.00306	0.00442
Iron Fe	ICP-MS	mg/L	3.58	1.55	4.64	0.125	2.68
Lead Pb	ICP-MS	mg/L	0.000154	0.00283	0.000134	0.000143	0.000947
Lithium Li	ICP-MS	mg/L	0.0225	0.0215	0.0149	0.0253	0.0145
Magnesium Mg	ICP-MS	mg/L	6.46	13.2	3.45	1.36	1.99
Manganese Mn	ICP-MS	mg/L	0.234	0.866	0.399	0.212	0.155
Mercury Hg	ICP-MS	ug/L	<0.01	<0.01	<0.01	<0.01	<0.01
Molybdenum Mo	ICP-MS	mg/L	0.00015	<0.00005	<0.00005	<0.00005	<0.00005
Nickel Ni	ICP-MS	mg/L	0.807	0.283	0.0138	0.0122	0.00775
Phosphorus P	ICP-MS	mg/L	0.004	0.002	<0.002	<0.002	<0.002
Potassium K	ICP-MS	mg/L	20.1	10.5	4.02	7.99	6.79
Selenium Se	ICP-MS	mg/L	0.0009	0.00269	0.00093	0.00078	0.0006
Silicon Si	ICP-MS	mg/L	5.01	7.09	4.45	2.48	2.72
Silver Ag	ICP-MS	mg/L	0.000015	0.000007	<0.000005	0.000014	0.000007
Sodium Na	ICP-MS	mg/L	1.65	4.63	1.47	1.04	0.55
Strontium Sr	ICP-MS	mg/L	0.0247	0.0424	0.0237	0.0162	0.0226
Sulphur (S)	ICP-MS	mg/L	26	42	17	11	19
Thallium Tl	ICP-MS	mg/L	0.000056	0.000275	0.000061	0.000072	0.00005
Tin Sn	ICP-MS	mg/L	0.00007	0.00007	0.00002	0.00002	<0.00001
Titanium Ti	ICP-MS	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Uranium U	ICP-MS	mg/L	0.000208	0.00118	0.000012	<0.000002	0.000007
Vanadium V	ICP-MS	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Zinc Zn	ICP-MS	mg/L	0.0856	2.54	0.108	0.0131	0.0183
Zirconium Zr	ICP-MS	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

Certified by:

R. J. Vos
 ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Sobek Acid-Base Accounting on Humidity Cell Residues
Date : November 19, 2009

Sample ID	Final Wt. g	Paste pH	Initial pH	TIC %	CaCO ₃ NP	S(T) %	S(SO ₄) %	S(S-2) %	AP	NP	Net NP	Fizz Test
HC 1	983	6.78	2.75	<0.01	<0.8	4.05	0.05	4	125.0	8.7	-116.3	None
HC 2	987	6.33	3.01	<0.01	<0.8	0.63	0.02	0.61	19.1	9.4	-9.7	None
HC 4	990	6.77	3.37	0.01	0.8	1.14	0.07	1.07	33.4	15.5	-17.9	None
HC 5	986	7.96	3.23	0.02	1.7	0.65	0.05	0.6	18.8	15.6	-3.2	None
HC 7	984	6.99	2.51	0.02	1.7	2.38	0.07	2.31	72.2	18.2	-54.0	None
Duplicate												
HC 1		6.80	2.82	<0.01		4.02	0.05			9.1		None

Note:

AP = Acid potential in tonnes CaCO₃ equivalent per 1000 tonnes of material. AP is determined from the calculated sulphide sulphur content: S(T) - S(SO₄).

NP = Neutralization potential in tonnes CaCO₃ equivalent per 1000 tonnes of material.

NET NP = NP - AP

Carbonate NP is calculated from TIC originating from carbonate minerals and is expressed in kg CaCO₃/tonne.

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Sobek Acid-Base Accounting
Date : October 15, 2007

Sample ID	Rinse pH	Rinse EC $\mu\text{S/cm}$	Paste pH	TIC %	CaCO ₃ NP	S(T) %	S(SO ₄) %	S(S-2) %	AP	NP	Net NP	Fizz Test
WRF-1	8.39	123.8	8.27	0.54	45.0	1.04	<0.01	1.04	32.5	76.4	43.9	Moderate
WRF-2	7.80	1153	8.01	0.56	46.7	0.92	0.31	0.61	19.1	81.5	62.4	Moderate
WRF-3	7.73	1260	7.92	0.15	12.5	1.23	0.22	1.01	31.6	41.8	10.2	Slight
WRF-4	7.72	1130	7.97	0.2	16.7	0.88	0.29	0.59	18.4	42.3	23.9	Slight
WRF-5	7.98	561	8.36	0.33	27.5	0.41	0.05	0.36	11.3	86.5	75.3	Moderate
WRF-6	8.05	97.80	8.64	0.76	63.3	0.9	0.01	0.89	27.8	139.7	111.9	Moderate
WRF-7	7.89	210	8.68	0.18	15.0	0.72	0.02	0.7	21.9	38.3	16.4	Slight
WRF-8	8.44	168.40	8.55	0.4	33.3	0.75	0.01	0.74	23.1	106.5	83.4	Moderate
WRF-9	8.25	177.70	8.49	0.37	30.8	0.75	0.02	0.73	22.8	47.5	24.7	Slight
WRC-3	-	-	8.39	0.25	20.8	1.16	0.05	1.11	34.7	40.8	6.1	Slight
WRC-6	-	-	8.75	0.79	65.8	0.74	<0.01	0.74	23.1	122.8	99.7	Moderate
WRC-9	-	-	9.02	0.22	18.3	0.37	<0.01	0.37	11.6	37.1	25.5	Slight
WRT-4	7.96	560	8.63	0.19	15.8	0.63	0.09	0.54	16.9	33.5	16.6	Slight
WRT-7	7.96	122.60	8.96	0.1	8.3	0.45	0.01	0.44	13.8	34.6	20.9	Slight
NL-1	7.99	83.90	9.01	0.05	4.2	0.6	0.02	0.58	18.1	9.6	-8.5	None
NL-2	8.24	106.20	9.32	0.02	1.7	0.37	<0.01	0.37	11.6	9.7	-1.9	None
NL-3	3.42	580	5.56	<0.01	<0.8	1.73	0.25	1.48	46.3	4.0	-42.3	None
Duplicate												
WRF-1			8.64	0.52		1.04	0.01			80.2		Moderate
WRC-3				0.29		1.18	0.05					
NL-1			8.88							9.7		None

Note:

AP = Acid potential in tonnes CaCO₃ equivalent per 1000 tonnes of material. AP is determined from calculated sulphide sulphur content: S(T) - S(SO₄).

NP = Neutralization potential in tonnes CaCO₃ equivalent per 1000 tonnes of material.

NET NP = NP - AP

Carbonate NP is calculated from TIC originating from carbonates and is expressed in kg CaCO₃/tonne.

Certified by:

R. J. Vos
 ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Metals by Aqua Regia Digestion with ICP Finish
Date : October 23, 2007

Sample ID	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Hg ppm	K %	La ppm	Mg %	Mn ppm
WRF-1	0.6	2.05	295.9	118	<1	0.3	2.89	0.3	46.5	127	220.5	6.43	0.2	0.24	14	0.9	1055
WRF-2	0.4	1.87	292.6	103	<1	0.2	2.88	0.3	46.9	149	165	5.69	0.1	0.21	13	0.89	942
WRF-3	0.5	1.57	135.2	167	<1	0.5	1.87	0.2	25.6	84	35.2	6.3	0.4	0.4	33	0.54	654
WRF-4	0.4	1.15	45.5	202	<1	0.2	2.3	0.2	19.1	100	28.1	5.28	0.1	0.31	34	0.49	662
WRF-5	1.2	1.7	67.8	132	<1	0.1	2.67	0.2	30.3	102	62.7	4.71	0.2	0.26	22	0.69	784
WRF-6	0.4	2.33	124.8	102	<1	0.2	3.12	0.3	39.5	142	117.9	6.23	0.1	0.25	12	1.02	1062
WRF-7	0.6	1.66	106.5	118	<1	0.2	2.2	0.3	27	85	31.2	5.25	0.3	0.3	35	0.62	711
WRF-8	0.4	1.84	63.4	99	<1	0.2	2.97	0.3	28.9	81	70.8	6.05	0.1	0.16	38	0.78	1119
WRF-9	0.4	1.69	50.1	103	<1	0.2	2.53	0.3	27.5	103	27.9	5.83	0.1	0.26	38	0.72	815
WRC-3	0.5	1.03	14.1	144	<1	0.3	1.67	0.1	20.7	90	22.4	5.16	0.2	0.36	30	0.39	465
WRC-6	0.3	2.06	108.9	76	<1	0.1	2.97	0.2	28.3	115	86.3	5.65	<0.1	0.19	10	0.91	957
WRC-9	0.3	1.53	58.9	102	<1	0.3	2.16	0.2	20.2	92	21.4	4.63	<0.1	0.24	30	0.53	688
WRT-4	0.4	1.14	9.1	173	<1	0.1	2.23	0.2	16.1	107	16.7	4.87	<0.1	0.27	32	0.45	629
WRT-7	0.3	1.07	48.2	86	<1	0.1	1.86	0.1	22.1	110	17.7	4.13	0.1	0.23	32	0.48	573
NL-1	1.9	0.53	2969.1	20	<1	1.3	0.16	1.6	6.2	128	49.8	1.6	1.5	0.11	6	0.4	191
NL-2	0.9	0.86	2257.5	39	<1	1.1	0.29	4.2	9.1	135	49.5	1.98	44.3	0.16	13	0.63	229
NL-3	13.7	0.36	9611.6	13	<1	12.9	0.09	91.9	5.2	222	210.7	2.57	6.3	0.07	3	0.21	139

Sample ID	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm	Zr ppm
WRF-1	2.3	0.08	69.2	0.073	10.9	1.36	0.2	14.2	28	1.8	0.129	0.3	0.2	126	5.8	130	5.8
WRF-2	2.8	0.08	62.5	0.073	13	1.14	0.1	13.2	25	1.5	0.138	0.2	0.2	135	4.8	117	5.4
WRF-3	3.6	0.07	9.7	0.331	14.2	1.42	0.1	13.4	24	3.6	0.143	0.2	0.4	14	16.8	125	15.6
WRF-4	4	0.1	8.1	0.291	17.8	1.01	0.1	11.8	33	3.8	0.142	0.2	0.3	9	3.4	98	21
WRF-5	2.6	0.11	29.8	0.238	12.1	0.73	0.1	14.7	22	2.5	0.171	0.1	0.2	77	6.9	100	11.7
WRF-6	3.3	0.06	57.4	0.061	137.7	0.99	0.1	14	30	1.6	0.135	0.2	0.2	137	2.2	124	4.4
WRF-7	3.5	0.09	14.5	0.357	50.1	0.75	0.1	15.3	18	3.7	0.168	0.2	0.3	21	10.9	155	16.7
WRF-8	3.1	0.11	16.6	0.311	22.2	0.85	0.1	16.3	27	3	0.152	0.1	0.3	37	2.3	170	14.1
WRF-9	4.8	0.07	12.3	0.347	13.7	0.86	0.1	14.9	22	3.7	0.156	0.2	0.3	14	3.6	191	15
WRC-3	4	0.07	7.2	0.361	2.7	1.26	<0.1	12.3	19	3.7	0.119	0.2	0.3	6	9	90	12.4
WRC-6	2	0.05	47.3	0.064	3.5	0.76	<0.1	12.5	29	1.6	0.101	0.2	0.1	113	1.8	92	3.4
WRC-9	4.5	0.09	8.2	0.381	3.6	0.58	0.1	14.3	17	3.9	0.139	0.1	0.3	12	1.6	111	14.8
WRT-4	4.2	0.12	5.5	0.303	4.4	0.98	0.1	11.5	30	4.1	0.132	0.2	0.4	2	2	86	20.1
WRT-7	4.5	0.09	12.3	0.405	8.9	0.76	0.2	15.3	15	4.3	0.151	0.1	0.3	13	5.7	114	16
NL-1	3.3	0.04	8.4	0.019	117.4	0.99	1	1.3	6	1.3	0.019	0.1	0.4	12	64.9	145	3.1
NL-2	5	0.04	21.7	0.025	126.2	0.53	0.4	2.4	17	3.1	0.025	0.1	0.8	17	1989.7	291	4.2
NL-3	5.6	0.03	6.2	0.016	2879.1	1.89	4.5	0.8	5	0.8	0.007	0.1	0.5	13	275.1	4102	2.3

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Sobek Acid-Base Accounting
Date : October 15, 2007

Sample ID	Rinse pH	Rinse EC $\mu\text{S/cm}$	Paste pH	TIC %	CaCO ₃ NP	S(T) %	S(SO ₄) %	S(S-2) %	AP	NP	Net NP	Fizz Test
WRF-1	8.39	123.8	8.27	0.54	45.0	1.04	<0.01	1.04	32.5	76.4	43.9	Moderate
WRF-2	7.80	1153	8.01	0.56	46.7	0.92	0.31	0.61	19.1	81.5	62.4	Moderate
WRF-3	7.73	1260	7.92	0.15	12.5	1.23	0.22	1.01	31.6	41.8	10.2	Slight
WRF-4	7.72	1130	7.97	0.2	16.7	0.88	0.29	0.59	18.4	42.3	23.9	Slight
WRF-5	7.98	561	8.36	0.33	27.5	0.41	0.05	0.36	11.3	86.5	75.3	Moderate
WRF-6	8.05	97.80	8.64	0.76	63.3	0.9	0.01	0.89	27.8	139.7	111.9	Moderate
WRF-7	7.89	210	8.68	0.18	15.0	0.72	0.02	0.7	21.9	38.3	16.4	Slight
WRF-8	8.44	168.40	8.55	0.4	33.3	0.75	0.01	0.74	23.1	106.5	83.4	Moderate
WRF-9	8.25	177.70	8.49	0.37	30.8	0.75	0.02	0.73	22.8	47.5	24.7	Slight
WRC-3	-	-	8.39	0.25	20.8	1.16	0.05	1.11	34.7	40.8	6.1	Slight
WRC-6	-	-	8.75	0.79	65.8	0.74	<0.01	0.74	23.1	122.8	99.7	Moderate
WRC-9	-	-	9.02	0.22	18.3	0.37	<0.01	0.37	11.6	37.1	25.5	Slight
WRT-4	7.96	560	8.63	0.19	15.8	0.63	0.09	0.54	16.9	33.5	16.6	Slight
WRT-7	7.96	122.60	8.96	0.1	8.3	0.45	0.01	0.44	13.8	34.6	20.9	Slight
NL-1	7.99	83.90	9.01	0.05	4.2	0.6	0.02	0.58	18.1	9.6	-8.5	None
NL-2	8.24	106.20	9.32	0.02	1.7	0.37	<0.01	0.37	11.6	9.7	-1.9	None
NL-3	3.42	580	5.56	<0.01	<0.8	1.73	0.25	1.48	46.3	4.0	-42.3	None
Duplicate												
WRF-1			8.64	0.52		1.04	0.01			80.2		Moderate
WRC-3				0.29		1.18	0.05					
NL-1			8.88							9.7		None

Note:

AP = Acid potential in tonnes CaCO₃ equivalent per 1000 tonnes of material. AP is determined from calculated sulphide sulphur content: S(T) - S(SO₄).

NP = Neutralization potential in tonnes CaCO₃ equivalent per 1000 tonnes of material.

NET NP = NP - AP

Carbonate NP is calculated from TIC originating from carbonates and is expressed in kg CaCO₃/tonne.

Certified by:

R. J. Vos
 ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : Metals by Aqua Regia Digestion with ICP Finish
Date : October 23, 2007

Sample ID	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Hg ppm	K %	La ppm	Mg %	Mn ppm
WRF-1	0.6	2.05	295.9	118	<1	0.3	2.89	0.3	46.5	127	220.5	6.43	0.2	0.24	14	0.9	1055
WRF-2	0.4	1.87	292.6	103	<1	0.2	2.88	0.3	46.9	149	165	5.69	0.1	0.21	13	0.89	942
WRF-3	0.5	1.57	135.2	167	<1	0.5	1.87	0.2	25.6	84	35.2	6.3	0.4	0.4	33	0.54	654
WRF-4	0.4	1.15	45.5	202	<1	0.2	2.3	0.2	19.1	100	28.1	5.28	0.1	0.31	34	0.49	662
WRF-5	1.2	1.7	67.8	132	<1	0.1	2.67	0.2	30.3	102	62.7	4.71	0.2	0.26	22	0.69	784
WRF-6	0.4	2.33	124.8	102	<1	0.2	3.12	0.3	39.5	142	117.9	6.23	0.1	0.25	12	1.02	1062
WRF-7	0.6	1.66	106.5	118	<1	0.2	2.2	0.3	27	85	31.2	5.25	0.3	0.3	35	0.62	711
WRF-8	0.4	1.84	63.4	99	<1	0.2	2.97	0.3	28.9	81	70.8	6.05	0.1	0.16	38	0.78	1119
WRF-9	0.4	1.69	50.1	103	<1	0.2	2.53	0.3	27.5	103	27.9	5.83	0.1	0.26	38	0.72	815
WRC-3	0.5	1.03	14.1	144	<1	0.3	1.67	0.1	20.7	90	22.4	5.16	0.2	0.36	30	0.39	465
WRC-6	0.3	2.06	108.9	76	<1	0.1	2.97	0.2	28.3	115	86.3	5.65	<0.1	0.19	10	0.91	957
WRC-9	0.3	1.53	58.9	102	<1	0.3	2.16	0.2	20.2	92	21.4	4.63	<0.1	0.24	30	0.53	688
WRT-4	0.4	1.14	9.1	173	<1	0.1	2.23	0.2	16.1	107	16.7	4.87	<0.1	0.27	32	0.45	629
WRT-7	0.3	1.07	48.2	86	<1	0.1	1.86	0.1	22.1	110	17.7	4.13	0.1	0.23	32	0.48	573
NL-1	1.9	0.53	2969.1	20	<1	1.3	0.16	1.6	6.2	128	49.8	1.6	1.5	0.11	6	0.4	191
NL-2	0.9	0.86	2257.5	39	<1	1.1	0.29	4.2	9.1	135	49.5	1.98	44.3	0.16	13	0.63	229
NL-3	13.7	0.36	9611.6	13	<1	12.9	0.09	91.9	5.2	222	210.7	2.57	6.3	0.07	3	0.21	139

Sample ID	Mo ppm	Na %	Ni ppm	P %	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	Ti ppm	U ppm	V ppm	W ppm	Zn ppm	Zr ppm
WRF-1	2.3	0.08	69.2	0.073	10.9	1.36	0.2	14.2	28	1.8	0.129	0.3	0.2	126	5.8	130	5.8
WRF-2	2.8	0.08	62.5	0.073	13	1.14	0.1	13.2	25	1.5	0.138	0.2	0.2	135	4.8	117	5.4
WRF-3	3.6	0.07	9.7	0.331	14.2	1.42	0.1	13.4	24	3.6	0.143	0.2	0.4	14	16.8	125	15.6
WRF-4	4	0.1	8.1	0.291	17.8	1.01	0.1	11.8	33	3.8	0.142	0.2	0.3	9	3.4	98	21
WRF-5	2.6	0.11	29.8	0.238	12.1	0.73	0.1	14.7	22	2.5	0.171	0.1	0.2	77	6.9	100	11.7
WRF-6	3.3	0.06	57.4	0.061	137.7	0.99	0.1	14	30	1.6	0.135	0.2	0.2	137	2.2	124	4.4
WRF-7	3.5	0.09	14.5	0.357	50.1	0.75	0.1	15.3	18	3.7	0.168	0.2	0.3	21	10.9	155	16.7
WRF-8	3.1	0.11	16.6	0.311	22.2	0.85	0.1	16.3	27	3	0.152	0.1	0.3	37	2.3	170	14.1
WRF-9	4.8	0.07	12.3	0.347	13.7	0.86	0.1	14.9	22	3.7	0.156	0.2	0.3	14	3.6	191	15
WRC-3	4	0.07	7.2	0.361	2.7	1.26	<0.1	12.3	19	3.7	0.119	0.2	0.3	6	9	90	12.4
WRC-6	2	0.05	47.3	0.064	3.5	0.76	<0.1	12.5	29	1.6	0.101	0.2	0.1	113	1.8	92	3.4
WRC-9	4.5	0.09	8.2	0.381	3.6	0.58	0.1	14.3	17	3.9	0.139	0.1	0.3	12	1.6	111	14.8
WRT-4	4.2	0.12	5.5	0.303	4.4	0.98	0.1	11.5	30	4.1	0.132	0.2	0.4	2	2	86	20.1
WRT-7	4.5	0.09	12.3	0.405	8.9	0.76	0.2	15.3	15	4.3	0.151	0.1	0.3	13	5.7	114	16
NL-1	3.3	0.04	8.4	0.019	117.4	0.99	1	1.3	6	1.3	0.019	0.1	0.4	12	64.9	145	3.1
NL-2	5	0.04	21.7	0.025	126.2	0.53	0.4	2.4	17	3.1	0.025	0.1	0.8	17	1989.7	291	4.2
NL-3	5.6	0.03	6.2	0.016	2879.1	1.89	4.5	0.8	5	0.8	0.007	0.1	0.5	13	275.1	4102	2.3

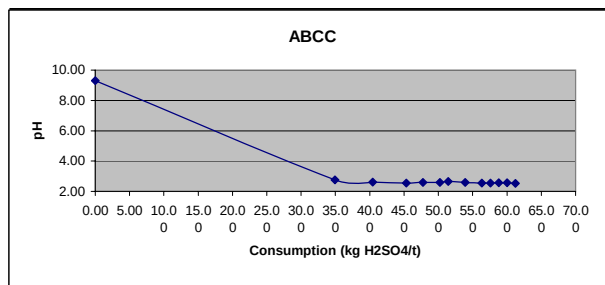
Certified by:

R. J. Vos
 ARD Testing Specialist

CLIENT : MESH
PROJECT : Tyhee
PROJECT # : 0709
TEST : Acid Buffering Characterization Curves (ABCC)
Date : Sept 20, 2007

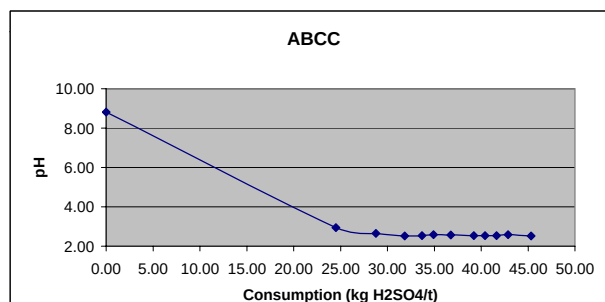
Sample 1008012

Vol. 0.5N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	9.30
2.85	34.91	2.75
3.30	40.43	2.62
3.70	45.33	2.54
3.90	47.78	2.59
4.10	50.23	2.59
4.20	51.45	2.65
4.40	53.90	2.59
4.60	56.35	2.54
4.70	57.58	2.54
4.80	58.80	2.56
4.90	60.03	2.56
5.00	61.25	2.53



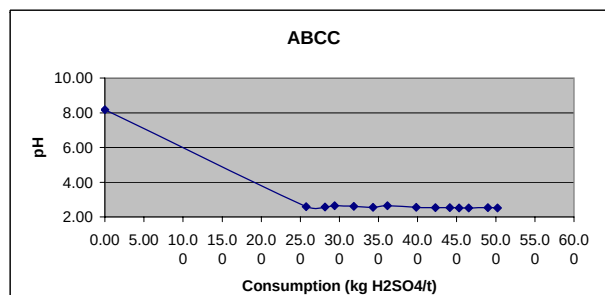
Sample 1008016

Vol. 0.5N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.82
2.00	24.50	2.94
2.35	28.79	2.65
2.60	31.85	2.52
2.75	33.69	2.54
2.85	34.91	2.58
3.00	36.75	2.57
3.20	39.20	2.54
3.30	40.43	2.54
3.40	41.65	2.54
3.50	42.88	2.58
3.70	45.33	2.52



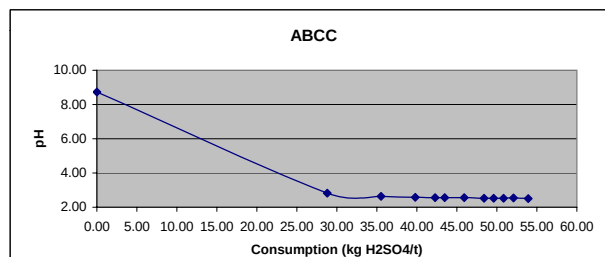
Sample 1008017

Vol. 0.5N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.17
2.10	25.73	2.59
2.30	28.18	2.57
2.40	29.40	2.64
2.60	31.85	2.60
2.80	34.30	2.55
2.95	36.14	2.64
3.25	39.81	2.55
3.45	42.26	2.54
3.60	44.10	2.53
3.70	45.33	2.51
3.80	46.55	2.52
4	49.00	2.53
4.1	50.225	2.52



Sample 1008019

Vol. 0.5N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.72
2.35	28.79	2.82
2.90	35.53	2.64
3.25	39.81	2.58
3.45	42.26	2.56
3.55	43.49	2.56
3.75	45.94	2.56
3.95	48.39	2.52
4.05	49.61	2.52
4.15	50.84	2.53
4.25	52.06	2.54
4.40	53.90	2.50



R. J. Vos

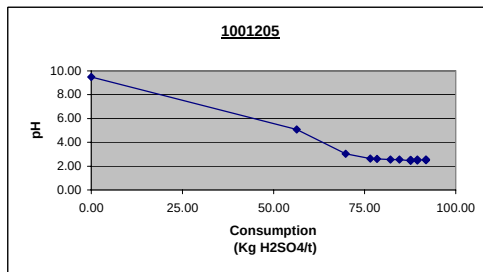
Certified by:

R. J. Vos
ARD Testing Specialist

CLIENT : MESH
 PROJECT : Tyhee
 CEMI Project # : 0709
 Test : Acid Buffering Characterization Curves
 Date : May 4-8, 2007

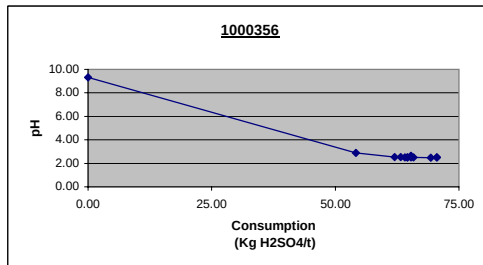
Sample 1001205
 Sobek NP 170.0

Vol. 0.5N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	9.49
4.60	56.35	5.08
5.70	69.83	3.04
6.25	76.56	2.64
6.40	78.40	2.61
6.70	82.08	2.55
6.90	84.53	2.56
7.15	87.59	2.45
7.15	87.59	2.50
7.15	87.59	2.54
7.30	89.43	2.48
7.30	89.43	2.55
7.50	91.88	2.50
7.50	91.88	2.52
7.50	91.88	2.56



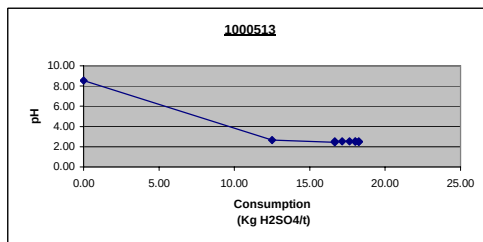
Sample 1000356
 Sobek NP 95.5

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	9.31
22.10	54.15	2.90
25.30	61.99	2.54
25.80	63.21	2.53
26.15	64.07	2.52
26.35	64.56	2.51
26.35	64.56	2.52
26.65	65.29	2.51
26.65	65.29	2.64
26.85	65.78	2.52
28.30	69.34	2.49
28.80	70.56	2.50
28.80	70.56	2.51



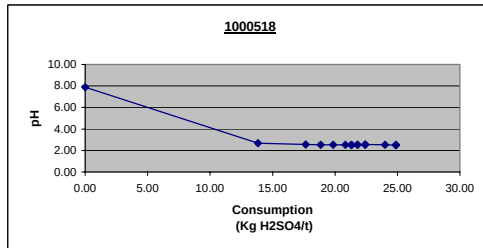
Sample 1000513
 Sobek NP 17.4

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	8.55
5.10	12.50	2.66
6.80	16.66	2.45
6.80	16.66	2.52
7.00	17.15	2.53
7.20	17.64	2.52
7.35	18.01	2.51
7.35	18.01	2.53
7.45	18.25	2.50
7.45	18.25	2.51
7.45	18.25	2.51



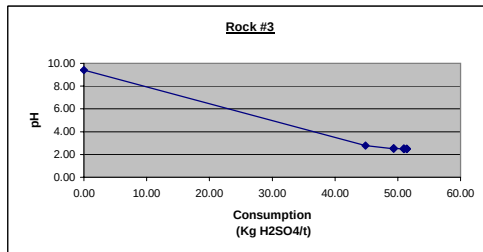
Sample 1000518
 Sobek NP 13.4

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	7.90
5.65	13.84	2.69
7.20	17.64	2.56
7.70	18.87	2.54
8.10	19.85	2.54
8.50	20.83	2.52
8.70	21.32	2.51
8.70	21.32	2.53
8.90	21.81	2.52
8.90	21.81	2.54
9.15	22.42	2.52
9.15	22.42	2.57
9.80	24.01	2.53
10.15	24.87	2.51
10.15	24.87	2.51
10.15	24.87	2.52



Sample Rock # 3
 Sobek NP 54.6

Vol. 0.1N HCl (mL)	Consumption (kg H ₂ SO ₄ /t)	Stable pH after 1000 sec.
0.00	0.00	9.42
18.30	44.84	2.79
20.15	49.37	2.51
20.15	49.37	2.57
20.80	50.96	2.48
20.80	50.96	2.50
20.80	50.96	2.52
21.00	51.45	2.48
21.00	51.45	2.50
21.00	51.45	2.51



Certified by:

R. J. Vos
 ARD Testing Specialist



CLIENT : MESH
PROJECT : Tyhee
CEMI Project # : 0709
Test : 24 Hour NanoPure Water Leach Extraction Test at 3:1 Liquid to Solid Ratio
Date : April 26 & May 1, 2007

Leachate Analysis

Sample ID			1000356	1000518	1001202	1001205	474783	474788	1000513	67351	Rock # 3	Rock # 6	Blank
Parameter	Method	Units											
Volume Nanopure water		mL	750	750	750	750	750	750	750	750	750	750	750
Sample Weight		g	250	250	250	250	250	250	250	250	250	250	250
pH	meter		7.76	7.22	7.58	7.76	7.62	7.12	8.10	8.20	8.04	7.87	5.55
Redox	meter	mV	366	382	392	367	375	397	314	325	321	335	396
Conductivity	meter	uS/cm	155	140	110	151	128	207	107	164	132	85	1
Acidity (to pH 4.5)	titration	mg CaCO3/L	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total Acidity (to pH 8.3)	titration	mg CaCO3/L	4.3	2.9	3.5	3.9	3.6	2.9	0.9	0.7	1.1	1.3	2.6
Alkalinity	titration	mg CaCO3/L	79.1	25.0	43.2	72.4	58.2	20.1	43.7	69.6	60.2	37.4	0.8
Sulphate	Turbidity	mg/L	4	29	7	4	1	63	3	3	1	<1	<1
Ion Balance													
Major Anions	Calc	meq/L	1.66	1.10	1.01	1.53	1.18	1.71	0.94	1.45	1.22	0.75	#N/A
Major Cations	Calc	meq/L	1.78	1.28	1.21	1.71	1.31	1.97	0.93	1.69	1.34	0.80	#N/A
Difference	Calc	meq/L	-0.11	-0.17	-0.20	-0.17	-0.12	-0.26	0.01	-0.23	-0.11	-0.06	#N/A
Balance (%)	Calc	%	-3.2%	-7.3%	-8.8%	-5.4%	-5.0%	-6.9%	0.5%	-7.4%	-4.4%	-3.6%	#N/A
Dissolved Metals													
Hardness CaCO3		mg/L	65.4	20.9	49.6	71.1	23.9	52.6	10.2	65.2	58.8	29.2	<0.5
Aluminum Al	ICP-MS	mg/L	0.101	0.0747	0.0594	0.0657	0.231	0.0308	0.275	0.192	0.0917	0.0834	0.0011
Antimony Sb	ICP-MS	mg/L	0.00037	0.00048	0.00055	0.00015	0.00053	0.00023	0.0021	0.00028	0.00015	0.00027	<0.00005
Arsenic As	ICP-MS	mg/L	0.017	0.0009	0.0014	0.0005	0.0116	0.0023	0.0125	0.0114	0.0033	0.002	<0.0001
Barium Ba	ICP-MS	mg/L	0.00964	0.00233	0.0183	0.0183	0.00401	0.00458	0.0035	0.0133	0.013	0.0255	0.00004
Beryllium Be	ICP-MS	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Bismuth Bi	ICP-MS	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Boron B	ICP-MS	mg/L	0.019	0.036	0.039	0.019	0.01	0.023	0.018	0.02	0.011	<0.008	<0.008
Cadmium Cd	ICP-MS	mg/L	<0.00001	0.00001	<0.00001	<0.00001	<0.00001	0.00004	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Calcium Ca	ICP-MS	mg/L	21.4	5.36	15.9	23.7	6.79	11.8	2.68	21.3	22.3	10.8	<0.05
Chromium Cr	ICP-MS	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Cobalt Co	ICP-MS	mg/L	0.00009	0.0001	0.00002	0.00002	0.00003	0.00046	<0.00002	0.00016	0.00013	0.00004	<0.00002
Copper Cu	ICP-MS	mg/L	<0.0001	0.0001	0.0003	0.0003	<0.0001	0.0003	0.0004	0.0004	0.0004	0.0002	0.0004
Iron Fe	ICP-MS	mg/L	<0.005	0.011	0.011	0.01	0.006	<0.005	0.013	0.03	0.01	0.008	<0.005
Lead Pb	ICP-MS	mg/L	<0.00002	0.00007	0.00002	0.00005	0.00003	0.00013	0.00019	0.00003	0.00003	<0.00002	0.00004
Lithium Li	ICP-MS	mg/L	0.0102	0.0059	0.0132	0.0139	0.0042	0.013	0.006	0.0171	0.0055	0.0105	<0.0002
Magnesium Mg	ICP-MS	mg/L	2.91	1.83	2.39	2.88	1.69	5.65	0.84	2.89	0.75	0.52	<0.05
Manganese Mn	ICP-MS	mg/L	0.0138	0.0077	0.0104	0.0133	0.0048	0.0383	0.00181	0.00996	0.0277	0.0311	0.0001
Mercury Hg	CVAA	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Molybdenum Mo	ICP-MS	mg/L	0.00013	0.00457	0.00036	0.00032	0.00089	0.00169	0.00034	0.00008	0.00011	0.00023	<0.00002
Nickel Ni	ICP-MS	mg/L	<0.0005	0.0006	<0.0005	<0.0005	<0.0005	0.0035	<0.0005	<0.0005	0.0006	<0.0005	<0.0005
Phosphorus P	ICP-MS	mg/L	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Potassium K	ICP-MS	mg/L	2.78	21.6	4.02	4.63	19.8	25.1	17.4	3.54	2.87	6.25	0.068
Selenium Se	ICP-MS	mg/L	<0.0005	0.0007	<0.0005	<0.0005	0.0007	0.0018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Silicon Si	ICP-MS	mg/L	2.03	2.03	2.63	1.94	1.75	2.23	1.91	1.59	0.83	0.95	<0.05
Silver Ag	ICP-MS	mg/L	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Sodium Na	ICP-MS	mg/L	9.14	7.06	2.6	3.86	7.47	6.29	6.41	6.77	2.06	1.42	<0.05
Strontium Sr	ICP-MS	mg/L	0.069	0.0478	0.0407	0.0919	0.0205	0.0424	0.023	0.0596	0.0609	0.0263	0.00005
Sulphur (S)	ICP-MS	mg/L	1.1	17.5	6	2.8	1.5	30.7	1	3.7	0.8	0.3	<0.1
Thallium Tl	ICP-MS	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Tin Sn	ICP-MS	mg/L	0.00005	0.00007	0.00011	0.00008	0.0001	0.00024	0.00011	0.00009	0.0002	0.00012	0.00015
Titanium Ti	ICP-MS	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0008	<0.0005	<0.0005	<0.0005	<0.0005
Uranium U	ICP-MS	mg/L	<0.00001	0.00016	0.00005	0.00002	0.00002	0.00003	<0.00001	<0.00001	0.00002	0.00001	<0.00001
Vanadium V	ICP-MS	mg/L	0.00263	0.00034	0.00023	0.00013	0.00122	0.00016	0.0027	0.00512	0.00268	0.00042	0.00007
Zinc Zn	ICP-MS	mg/L	<0.0005	0.0005	<0.0005	<0.0005	0.0006	0.0031	0.0008	<0.0005	0.0028	0.0007	0.0015
Zirconium Zr	ICP-MS	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Certified by:

R. J. Vos
ARD Testing Specialist



CLIENT : Tyhee
PROJECT : Sludge Samples Received June 5, 2007
CEMI Project # : 0709
Test :TCLP
Date : June 11, 2007

Sample ID	Water Leach pH	HCl Leach pH	TCLP Ext. Fluid	Final TCLP pH	Aluminum mg/L	Antimony mg/L	Arsenic mg/L	Barium mg/L	Beryllium mg/L	Bismuth mg/L	Boron mg/L	Cadmium mg/L	Calcium mg/L	Chromium mg/L	Cobalt mg/L	Copper mg/L	Iron mg/L	Lead mg/L
1008022	7.66	1.5	1	5.07	0.84	<0.05	1.22	0.157	0.0003	<0.05	0.025	0.046	41	<0.005	0.057	0.072	4.71	0.11
1008023	7.55	1.52	1	5.13	1.18	<0.05	0.85	0.156	0.0003	<0.05	0.028	0.065	116	0.006	0.069	0.13	4.56	0.07
1008024	7.42	1.5	1	5.01	1.15	<0.05	1.9	0.123	0.0003	<0.05	0.048	0.027	87.4	<0.005	0.087	0.053	3.6	<0.03
1008025	7.43	1.53	1	5.11	1.05	<0.05	2.19	0.118	0.0003	<0.05	0.074	0.143	188	<0.005	0.075	0.276	1.44	0.17
1008026	7.34	1.45	1	4.89	1.34	<0.05	1.92	0.141	0.0003	<0.05	0.039	0.04	70.8	<0.005	0.084	0.023	5.57	0.03
1008027	7.60	1.51	1	5.14	0.85	<0.05	1.09	0.154	0.0003	<0.05	0.038	0.042	54.8	<0.005	0.08	0.047	4.8	0.04
1008028	8.24	1.49	1	4.97	1.23	<0.05	1.77	0.137	0.0003	<0.05	0.016	0.041	83.3	<0.005	0.057	0.032	4.14	0.07
1008029	7.70	1.47	1	4.91	1.41	<0.05	2.1	0.133	0.0003	<0.05	0.016	0.063	84.1	<0.005	0.071	0.104	3.89	0.12
1008030	7.17	1.48	1	4.92	1.26	<0.05	2.05	0.094	0.0004	<0.05	0.021	0.039	119	0.006	0.09	0.084	5.02	0.04
1008031	7.70	1.52	1	5.13	0.9	<0.05	1.12	0.223	0.0003	<0.05	0.018	0.139	87.1	<0.005	0.064	0.232	3.21	0.3
BLANK	n/a	n/a	1	4.92	<0.02	<0.05	<0.05	<0.001	<0.0002	<0.05	<0.008	<0.002	<0.05	<0.005	<0.005	<0.005	0.01	<0.03

Sample ID	Magnesium mg/L	Manganese mg/L	Molybdenum mg/L	Nickel mg/L	Phosphorus mg/L	Potassium mg/L	Selenium mg/L	Silicon mg/L	Silver mg/L	Sodium mg/L	Strontium mg/L	Sulphur mg/L	Thallium mg/L	Tin mg/L	Titanium mg/L	Vanadium mg/L	Zinc mg/L	Zirconium mg/L
1008022	8.46	1.32	<0.005	0.055	<0.1	18	<0.03	3.46	<0.01	1750	0.087	7.6	<0.03	<0.02	<0.003	<0.005	3.64	<0.005
1008023	14.1	1.69	<0.005	0.062	<0.1	20	0.03	4.85	<0.01	1870	0.19	55.9	<0.03	<0.02	<0.003	<0.005	6.24	<0.005
1008024	15.6	1.54	<0.005	0.07	<0.1	17	<0.03	5.19	<0.01	1540	0.161	32.4	<0.03	<0.02	<0.003	<0.005	5.51	<0.005
1008025	27	3.51	0.005	0.046	<0.1	17	<0.03	4.97	<0.01	1840	0.294	130	<0.03	<0.02	<0.003	<0.005	9.83	<0.005
1008026	11.9	1.26	<0.005	0.07	<0.1	18	<0.03	4.66	<0.01	1340	0.139	31.4	<0.03	<0.02	<0.003	<0.005	5.04	<0.005
1008027	12.4	1.67	<0.005	0.058	<0.1	16	0.03	4.74	<0.01	1880	0.131	8	<0.03	<0.02	<0.003	<0.005	5.23	<0.005
1008028	10.5	1.87	<0.005	0.056	<0.1	16	<0.03	3.87	<0.01	1170	0.115	11.3	<0.03	<0.02	<0.003	<0.005	3.6	<0.005
1008029	10.4	1.28	<0.005	0.067	<0.1	17	<0.03	4.87	<0.01	1100	0.15	42.4	<0.03	<0.02	<0.003	<0.005	5.13	<0.005
1008030	16.4	1.48	<0.005	0.079	<0.1	17	<0.03	4.61	<0.01	1190	0.181	76.6	<0.03	<0.02	<0.003	<0.005	6.18	<0.005
1008031	16.4	2.11	<0.005	0.049	<0.1	16	0.03	5.33	<0.01	1890	0.161	18.8	<0.03	<0.02	<0.003	<0.005	9.05	<0.005
BLANK	<0.05	<0.001	<0.005	<0.008	<0.1	<1	<0.03	<0.05	<0.01	1050	<0.001	0.1	<0.03	<0.02	<0.003	<0.005	<0.005	<0.005

Certified by:

R. J. Vos
ARD Testing Specialist

Cell No.	Sample ID	Sample Type	Method Reference	Column Dimensions			Column Packing			Pore Volume	Total Volume of Initial Flushings	Flushing Rate/Weekly Input*	Temp	Sampling Frequency	Start-up date	Sampling Day	Operation Procedure	Sample prep for flushings
				Inner Diameter (cm)	Length (cm)	Distance from Top of column to Sample (cm)	Dry Wt. of Sample (kg)	Other Materials Used	Column Material	(mL)	(mL)	(mL)	(°C)		2007 / 2008			
1	70766	Waste Rock					1.00	PVC perforated disk & nylon mesh	Plexiglas		750	500	20-22 °C	Weekly	12-Nov	Monday		none
2	70770	Waste Rock					1.00	PVC perforated disk & nylon mesh	Plexiglas		750	500	20-22 °C	Weekly	12-Nov	Monday		none
3	70799	Waste Rock					1.00	PVC perforated disk & nylon mesh	Plexiglas		750	500	20-22 °C	Weekly	12-Nov	Monday		none
4	70821	Waste Rock					1.00	PVC perforated disk & nylon mesh	Plexiglas		750	500	20-22 °C	Weekly	12-Nov	Monday		none
5	70829	Waste Rock					1.00	PVC perforated disk & nylon mesh	Plexiglas		750	500	20-22 °C	Weekly	12-Nov	Monday		none
6	70844	Waste Rock					1.00	PVC perforated disk & nylon mesh	Plexiglas		750	500	20-22 °C	Weekly	12-Nov	Monday		none
7	DH273-47.07-51.31	Waste Rock					1.00	PVC perforated disk & nylon mesh	Plexiglas		750	500	20-22 °C	Weekly	12-Nov	Monday		none
8	WRT-4 (-3/8")	Waste Rock					1.00	PVC perforated disk & nylon mesh	Plexiglas		500	500	20-22 °C	Weekly	24-Mar	Monday		none
9	0800701 Rock sample	Waste Rock					1.00	PVC perforated disk & nylon mesh	Plexiglas		500	500	20-22 °C	Weekly	3-Jun	Monday		none



HC 3

Sample = 70799

CONFIDENTIAL

DRAFT

Date	Cycle	Volume mL		pH	Cond. umhos/cm	Acidity (pH 4.5)	Acidity (pH 8.3)	Alkalinity mgCaCO3/L	Sulphate (mg/L)	Hardness CaCO3 mg/L	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L
		Input	Output			mgCaCO3/L	mgCaCO3/L																	
12-Nov-07	1	750	380	7.93	137	#N/A	1.7	23.5	18	24.4	0.0643	0.00026	0.0055	0.0019	<0.00001	<0.000005	0.084	0.000022	8.46	0.0002	0.000069	0.0036	0.012	0.000126
19-Nov-07	2	500	500	7.85	127	#N/A	2.6	24.3	16	28.5	0.0693	0.00064	0.0307	0.0018	<0.00001	<0.000005	0.136	0.000008	9.82	<0.0001	0.000044	0.0012	0.005	0.000108
26-Nov-07	3	500	420	7.36	109	#N/A	3.4	16.7	22	21.7	0.115	0.00036	0.0341	0.0017	<0.00001	<0.000005	0.087	<0.000005	7.29	0.0001	0.000069	0.0008	0.024	0.00012
3-Dec-07	4	500	385	7.82	93	#N/A	2.2	23.2	18	18.2	0.129	0.00058	0.0574	0.0017	<0.00001	<0.000005	0.088	<0.000005	5.79	0.0003	0.000066	0.0011	0.046	0.000092
10-Dec-07	5	500	500	7.76	68	#N/A	2.3	24.7	4	20.2	0.0824	0.00049	0.0609	0.0014	<0.00001	<0.000005	0.066	<0.000005	6.86	0.0002	0.000036	0.0007	0.006	0.00003
17-Dec-07	6	500	495	7.77	67	#N/A	1.9	24.8	5	22.6	0.111	0.00035	0.0667	0.0013	<0.00001	<0.000005	0.041	<0.000005	7.69	<0.0001	0.000043	0.0007	0.008	0.000051
24-Dec-07	7	500	405	7.81	60	#N/A	1.6	16.4	12	17.7	0.122	0.00021	0.0616	0.0012	<0.00001	<0.000005	0.027	<0.000005	5.91	0.0002	0.000033	0.001	0.014	0.000155
31-Dec-07	8	500	400	7.53	51	#N/A	1.9	16.6	8	16.9	0.113	0.00027	0.0672	0.0011	<0.00001	0.000008	0.03	<0.000005	5.44	0.0001	0.000034	0.0011	0.013	0.000065
7-Jan-08	9	500	385	7.57	44	#N/A	2.0	16.3	6	13.3	0.101	0.00023	0.0638	0.0008	<0.00001	<0.000005	0.024	<0.000005	4.25	<0.0001	0.000027	0.0004	0.014	0.000021
14-Jan-08	10	500	510	7.39	49	#N/A	3.1	21.1	3	21.2	0.087	0.00029	0.0708	0.0016	<0.00001	<0.000005	0.027	<0.000005	7.22	<0.0001	0.000054	0.0004	0.004	0.000021
21-Jan-08	11	500	420	7.53	50	#N/A	3.3	16.8	5	17.4	0.115	0.00015	0.0673	0.0011	<0.00001	<0.000005	0.018	<0.000005	5.71	<0.0001	0.000033	0.0005	0.011	0.000016
28-Jan-08	12	500	410	7.71	44	#N/A	2.7	16.2	8	16.6	0.135	0.00014	0.0712	0.0011	<0.00001	<0.000005	0.016	<0.000005	5.43	<0.0001	0.000036	0.0006	0.019	0.000087
4-Feb-08	13	500	400	7.68	44	#N/A	1.8	16.4	5															
11-Feb-08	14	500	470	7.57	37	#N/A	2.4	14.5	3	15.4	0.089	0.00017	0.0627	0.0009	<0.00001	<0.000005	0.017	<0.000005	5.14	<0.0001	0.000029	0.001	0.004	0.000016
18-Feb-08	15	500	480	7.79	51	#N/A	2.4	20.5	6															
25-Feb-08	16	500	470	7.65	55	#N/A	2.3	17.2	9	22	0.135	0.00018	0.084	0.0019	<0.00001	0.000013	0.023	<0.000005	7.33	<0.0001	0.000044	0.0005	0.006	0.000026
3-Mar-08	17	500	470	7.67	51	#N/A	2.3	17.0	11															
10-Mar-08	18	500	475	7.72	52	#N/A	1.9	15.9	7	20.3	0.123	0.00014	0.074	0.0014	<0.00001	<0.000005	0.013	<0.000005	6.79	<0.0001	0.000048	0.0005	0.008	0.000022
17-Mar-08	19	500	460	7.62	44	#N/A	1.9	13.3	5															
24-Mar-08	20	500	460	7.52	41	#N/A	2.1	13.3	4	16.1	0.104	0.00009	0.0618	0.001	<0.00001	<0.000005	0.011	<0.000005	5.51	<0.0001	0.000036	0.0003	0.005	0.000033
31-Mar-08	21	500	465	7.62	38	#N/A	1.8	13.6	4															
7-Apr-08	22	500	460	7.48	43	#N/A	3.4	12.9	3	15.5	0.0976	0.00009	0.062	0.0009	<0.00001	<0.000005	0.005	<0.000005	5.25	<0.0001	0.000035	0.0006	0.005	0.000019
14-Apr-08	23	500	495	7.56	52	#N/A	2.3	15.7	6															
21-Apr-08	24	500	460	7.52	40	#N/A	2.5	13.3	6	15.7	0.0998	0.00009	0.0567	0.001	<0.00001	<0.000005	<0.05	<0.000005	5.37	<0.0001	0.000043	0.0006	0.004	0.000009
28-Apr-08	25	500	465	7.64	42	#N/A	2.5	13.1	6															
5-May-08	26	500	480	7.55	41	#N/A	2.3	12.0	7	16	0.0944	0.00008	0.0534	0.001	<0.00001	<0.000005	<0.05	<0.000005	5.46	<0.0001	0.000038	0.0006	0.003	0.000009
12-May-08	27	500	505	7.67	46	#N/A	2.2	15.4	8															
19-May-08	28	500	495	7.65	43	#N/A	1.8	12.5	6	17.4	0.118	0.00009	0.0559	0.0012	<0.00001	<0.000005	<0.05	<0.000005	5.93	0.0001	0.000044	0.0007	0.006	0.000035
26-May-08	29	500	485	7.62	39	#N/A	2.1	14.2	5															
2-Jun-08	30	500	465	7.54	28	#N/A	1.8	9.6	4	13.8	0.0831	0.00008	0.041	0.0011	<0.00001	<0.000005	<0.05	<0.000005	4.75	<0.0001	0.000037	0.0007	0.007	0.000053
9-Jun-08	31	500	465	7.42	24	#N/A	2.0	9.4	5															
16-Jun-08	32	500	460	7.46	24	#N/A	2.4	10.6	4	12	0.0774	0.00006	0.0356	0.0008	<0.00001	<0.000005	<0.05	<0.000005	4.13	<0.0001	0.000047	0.0007	0.006	0.000021
23-Jun-08	33	500	510	7.58	28	#N/A	2.9	16.1	7															
30-Jun-08	34	500	440	7.40	30	#N/A	2.0	9.5	6	12.6	0.117	0.00005	0.0446	0.0009	<0.00001	<0.000005	<0.05	<0.000005	4.38	<0.0001	0.000036	0.0004	0.009	0.000024
7-Jul-08	35	500	445	7.37	32	#N/A	1.9	8.5	4															
14-Jul-08	36	500	460	7.33	28	#N/A	2.1	9.3	5	12.9	0.1	0.00005	0.0401	0.0009	<0.00001	<0.000005	<0.05	<0.000005	4.43	<0.0001	0.000044	0.0003	0.015	0.000043
21-Jul-08	37	500	485	7.39	31	#N/A	1.9	12.0	3															
28-Jul-08	38	500	470	7.28	27	#N/A	1.9	9.3	2	11.2	0.0756	0.00005	0.0311	0.0008	<0.00001	<0.000005	<0.05	<0.000005	3.93	<0.0001	0.000029	0.0003	0.006	0.000018
4-Aug-08	39	500	430	7.44	27	#N/A	1.5	13.7	6															
11-Aug-08	40	500	450	7.32	25	#N/A	1.9	9.5	5	11.9	0.082	0.00004	0.0309	0.001	<0.00001	<0.000005	<0.05	<0.000005	4.13	<0.0001	0.000035	0.0006	0.02	0.00014
18-Aug-08	41	500	445	7.47	31	#N/A	1.5	14.5	3															
25-Aug-08	42	500	475	7.35	23	#N/A	2.0	9.9	3	10.7	0.147	0.00004	0.028	0.0008	<0.00001	<0.000005	<0.05	0.000022	3.7	0.0001	0.000035	0.0006	0.011	0.000103
1-Sep-08	43	500	455	7.36	20	#N/A	1.8	9.9	2															
8-Sep-08	44	500	470	7.31	24	#N/A	1.9	15.0	2	11.2	0.0896	0.00004	0.0324	0.0009	<0.00001	<0.000005	<0.05	<0.000005	3.87	0.0001	0.000051	0.0011	0.007	0.000071
15-Sep-08	45	500	450	7.28	30	#N/A	1.7	9.9	4															
22-Sep-08	46	500	460	7.21	22	#N/A	1.7	8.1	4	10.4	0.0758	0.00004	0.0269	0.0017	<0.00001	<0.000005	<0.05	<0.000005	3.59	<0.0001	0.000029	0.0007	0.007	0.000086
29-Sep-08	47	500	465	7.25	28	#N/A	1.9	9.7	3															
6-Oct-08	48	500	465	7.32	24	#N/A	1.7	8.7	3	11.3	0.0811	0.00003	0.0281	0.0008	<0.00001	<0.000005	<0.05	<0.000005	3.89	<0.0001	0.000042	0.0022	0.013	0.000065
13-Oct-08	49	500	460	7.28	24	#N/A	2.0	9.7	3															
20-Oct-08	50	500	460	7.02	24	#N/A	2.4	7.3	4	10.8	0.0727	<0.00002	0.0241	0.0012	<0.00001	<0.000005	<0.05	<0.000005	3.72	<0.0001	0.000032	0.0005	0.008	0.000073

Cell Re-instated

2-Nov-09	51	500	345	6.77	200	#N/A	3.9	10.6	82															
9-Nov-09	52	500	465	6.84	135	#N/A	5.7	18.4	42	58.4	0.0807	0.00013	0.0419	0.0036	<0.00001	<0.000005	<0.05	0.000006	20.3	<0.0001	0.000093	0.0005	0.011	0.000032
16-Nov-09	53	500	450	6.52	63	#N/A	7.3	18.4	15															
23-Nov-09	54	500	485	7.10	54	#N/A	3.7	18.1	6	21.8	0.0735	0.00007	0.0321	0.0015	<0.00001	<0.000005	<0.05	<0.000005	7.58	<0.0001	0.000055	0.0004	0.035	0.00003
30-Nov-09	55	500	440	7.03	42	#N/A	3.0	13.5	6															
7-Dec-09	56	500	475	6.67	44	#N/A	5.1	13.0	4	18.6	0.0678	0.0001	0.0224	0.0016	<0.00001	<0.000005	<0.05	<0.000005	6.43	<0.0001	0.00018	0.0004	0.01	0.000072
14-Dec-09	57	500	470	6.65	56	#N/A	4.6	13.2	8															
21-Dec-09	58	500	450	7.02	57	#N/A	3.1	13.5	14	25	0.0738	0.00006	0.0207	0.0019	<0.00001	<0.000005	<0.05	<0.000005	8.81	<0.0001	0.000042	0.0002	0.009	0.000025
28-Dec-09	59	500	455	7.15	69	#N/A	2.9	12.3	21															



HC 3

CONFIDENTIAL

DRAFT

Sample = 70799

Date	Cycle	Volume mL		pH	Cond. umhos/cm	Acidity	Acidity	Alkalinity mgCaCO3/L	Sulphate (mg/L)	Hardness CaCO3 mg/L	Al	Sb	As	Ba	Be	Bi	B	Cd	Ca	Cr	Co	Cu	Fe	Pb
		Input	Output			(pH 4.5) mgCaCO3/L	(pH 8.3) mgCaCO3/L				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
4-Jan-10	60	500	465	6.77	81	#N/A	3.5	11.5	22	30	0.0589	0.00003	0.0175	0.002	<0.00001	<0.000005	<0.05	<0.000005	10.8	<0.0001	0.000058	0.002	0.007	0.000028
11-Jan-10	61	500	455	6.84	76	#N/A	3.9	10.9	20															
18-Jan-10	62	500	455	7.06	60	#N/A	3.4	9.9	17	25	0.0572	0.00002	0.0139	0.0019	<0.00001	0.000006	<0.05	0.000018	8.89	<0.0001	0.00005	0.0016	0.004	0.000036
25-Jan-10	63	500	450	6.69	47	#N/A	3.5	7.9	12															
1-Feb-10	64	500	485	6.83	59	#N/A	3.5	10.5	23	30.5	0.0572	0.00003	0.0131	0.0077	<0.00001	<0.000005	<0.05	<0.000005	10.9	<0.0001	0.00005	0.0018	0.003	0.000017
8-Feb-10	65	500	450	6.63	73	#N/A	3.8	11.0	20															
15-Feb-10	66	500	465	6.88	71	#N/A	3.8	12.2	19	28.2	0.0565	0.00003	0.0137	0.0021	<0.00001	<0.000005	<0.05	<0.000005	10.2	0.0001	0.000047	0.0009	0.003	0.000051
22-Feb-10	67	500	475	6.80	59	#N/A	3.2	10.2	18															
1-Mar-10	68	500	450	6.72	58	#N/A	3.1	9.2	13	23.8	0.0606	0.00004	0.0131	0.0017	<0.00001	0.000006	<0.05	<0.000005	8.6	0.0001	0.000038	0.0011	0.009	0.000086
8-Mar-10	69	500	490	6.86	77	#N/A	3.9	14.3	17															
15-Mar-10	70	500	495	6.94	48	#N/A	3.4	11.3	13	23.6	0.0602	0.00003	0.0112	0.0018	<0.00001	0.000016	<0.05	<0.000005	8.59	<0.0001	0.000043	0.0005	0.003	0.000029
22-Mar-10	71	500	475	7.08	63	#N/A	2.6	13.4	14															
29-Mar-10	72	500	465	7.01	55	#N/A	2.2	12.7	13	23.2	0.0745	0.00003	0.0153	0.0044	<0.00001	<0.000005	<0.05	<0.000005	8.45	<0.0001	0.000039	0.0003	0.004	0.00002
5-Apr-10	73	500	465	6.83	48	#N/A	3.0	10.1	8															
12-Apr-10	74	500	460	6.99	52	#N/A	3.0	11.9	10	20.5	0.0537	0.00003	0.0114	0.0057	<0.00001	<0.000005	<0.05	0.00001	7.52	<0.0001	0.000053	0.0013	0.004	0.000054
19-Apr-10	75	500	465	6.85	60	#N/A	3.7	11.2	17															
26-Apr-10	76	500	470	6.60	52	#N/A	6.1	11.6	12	20.5	0.0773	0.00003	0.0149	0.0016	<0.00001	<0.000005	<0.05	<0.000005	7.51	0.0002	0.000056	0.0005	0.005	0.000037
3-May-10	77	500	485	6.98	89	#N/A	2.7	15.1	23															
10-May-10	78	500	455	7.05	47	#N/A	2.6	11.0	9	18.7	0.0581	<0.00002	0.0123	0.0016	<0.00001	<0.000005	<0.05	<0.000005	6.92	<0.0001	0.000027	0.0011	0.003	0.000009
17-May-10	79	500	475	7.24	65	#N/A	2.7	14.5	10															
24-May-10	80	500	450	6.89	49	#N/A	4.0	12.2	7	21.1	0.0701	0.00003	0.0151	0.0026	<0.00001	<0.000005	<0.05	<0.000005	7.82	<0.0001	0.000025	0.0007	0.004	0.000015
31-May-10	81	500	450	7.13	48	#N/A	2.7	12.5	7															
7-Jun-10	82	500	455	7.13	43	#N/A	2.8	11.8	4	17.8	0.0822	0.00003	0.0152	0.0034	<0.00001	<0.000005	<0.05	<0.000005	6.6	<0.0001	0.000036	0.0008	0.004	0.000025
14-Jun-10	83	500	465	7.04	34	#N/A	2.4	11.9	2															
21-Jun-10	84	500	445	7.31	37	#N/A	1.7	10.8	4	14.7	0.0837	0.00002	0.0141	0.0013	<0.00001	0.000012	<0.05	<0.000005	5.45	<0.0001	0.000022	0.0005	0.004	0.000017
28-Jun-10	85	500	440	7.11	53	#N/A	2.1	10.8	5															
5-Jul-10	86	500	440	7.14	34	#N/A	2.2	10.8	5	13.6	0.0651	0.00002	0.0118	0.0012	<0.00001	<0.000005	<0.05	<0.000005	5.01	<0.0001	0.000021	0.0005	0.003	0.000013
12-Jul-10	87	500	470	7.32	42	#N/A	1.7	12.0	2															
19-Jul-10	88	500	440	7.19	39	#N/A	2.8	12.6	3	15.7	0.0693	0.00004	0.0165	0.0014	<0.00001	<0.000005	<0.05	<0.000005	5.81	<0.0001	0.000022	0.0005	0.002	0.000027
26-Jul-10	89	500	465	7.06	31	#N/A	3.3	11.0	5															
2-Aug-10	90	500	485	7.11	40	#N/A	2.9	13.7	5	16.9	0.0677	0.00003	0.0128	0.0019	<0.00001	<0.000005	<0.05	0.000007	6.26	<0.0001	0.000024	0.0002	0.003	0.000013
9-Aug-10	91	500	465	7.29	28	#N/A	1.9	9.7	8															
16-Aug-10	92	500	460	7.31	38	#N/A	2.1	13.1	5	16.3	0.111	0.00004	0.019	0.0016	<0.00001	<0.000005	<0.05	<0.000005	6.08	<0.0001	0.000046	0.0003	0.006	0.000021
23-Aug-10	93	500	445	7.21	28	#N/A	1.8	10.6	5															
30-Aug-10	94	500	445	7.18	26	#N/A	2.9	11.2	7	11.5	0.0715	<0.00002	0.0122	0.0013	<0.00001	<0.000005	<0.05	<0.000005	4.25	<0.0001	0.000041	0.0003	0.007	0.00003
6-Sep-10	95	500	430	6.99	23	#N/A	3.0	8.8	5															
13-Sep-10	96	500	465	7.01	34	#N/A	3.5	12.3	5	16.5	0.0738	0.00003	0.0153	0.0014	<0.00001	<0.000005	<0.05	<0.000005	6.14	<0.0001	0.000032	0.0007	0.006	0.000027
20-Sep-10	97	500	430	7.17	31	#N/A	2.7	11.6	6															
27-Sep-10	98	500	460	7.23	29	#N/A	2.4	13.0	6	15.7	0.0789	0.00003	0.0144	0.0014	<0.00001	<0.000005	<0.05	<0.000005	5.9	0.0001	0.000024	0.0005	0.006	0.000035
4-Oct-10	99	500	440	7.21	27	#N/A	1.8	11.4	9															
11-Oct-10	100	500	455	7.11	29	#N/A	2.5	10.5	8	11.4	0.0767	<0.00002	0.0125	0.0023	<0.00001	<0.000005	<0.05	<0.000005	4.24	0.0003	0.000024	0.0011	0.004	0.000007
18-Oct-10	101	500	470	7.16	36	#N/A	2.7	14.0	5															
25-Oct-10	102	500	465	7.38	37	#N/A	2.2	13.8	3	15.8	0.0751	0.00002	0.0157	0.0021	<0.00001	<0.000005	<0.05	<0.000005	5.95	0.0003	0.000032	0.0003	0.003	0.000013
1-Nov-10	103	500	465	7.41	28	#N/A	1.6	13.9	4															
8-Nov-10	104	500	445	7.35	21	#N/A	2.6	12.8	3	13.2	0.0904	0.00003	0.0144	0.0018	<0.00001	<0.000005	<0.05	<0.000005	4.93	0.0001	0.000026	0.0012	0.007	0.000028
15-Nov-10	105	500	430	7.27	27	#N/A	2.6	13.4	2															
22-Nov-10	106	500	470	7.09	33	#N/A	3.5	13.9	4	13	0.0642	<0.00002	0.013	0.0015	<0.00001	<0.000005	<0.05	<0.000005	4.87	<0.0001	0.000017	0.0012	0.002	0.000009
29-Nov-10	107	500	465	7.16	33	#N/A	3.5	13.6	5															
6-Dec-10	108	500	465	7.04	32	#N/A	3.0	12.8		13.4	0.0658	<0.00002	0.0124	0.0046	<0.00001	<0.000005	<0.05	<0.000005	5.01	<0.0001	0.000027	0.0008	0.003	0.000315
13-Dec-10	109	500	455	7.01	25	#N/A	3.3	10.5																

Certified by:

Rik J. Vos
ARD Testing Specialist
SGS Canada Inc.



Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S	Ti	Sn	Ti	U	V	Zn	Zr	Major Anions	Major Cations	Diff	Diff %
mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L				
0.0033	0.79	0.0015	<0.01	0.0025	0.0018	0.023	10.3	0.00041	1.46	<0.000005	12.6	0.0753	7	0.000022	0.00006	0.0008	0.00012	0.0036	0.0011	<0.0001	0.85	1.30	0.45	21.1%
0.005	0.96	0.0025	0.02	0.0036	0.0009	0.009	8.37	0.00018	1.94	0.000008	9.51	0.0887	8	0.000017	0.00004	<0.0005	0.00126	0.0033	0.0003	<0.0001	0.82	1.20	0.38	18.7%
0.0036	0.84	0.0021	<0.01	0.0028	0.0007	0.007	6.7	0.00019	1.04	<0.000005	8.37	0.0711	8	0.000011	0.00004	0.0016	0.00047	0.0036	0.001	0.0001	0.79	0.97	0.18	10.0%
0.0044	0.9	0.002	<0.01	0.0015	0.0006	0.009	7.89	0.00023	1.34	<0.000005	6.59	0.0601	6	0.000011	0.00003	0.0024	0.00111	0.0043	0.0007	<0.0001	0.84	0.85	0.01	0.7%
0.004	0.75	0.0022	0.01	0.0008	0.0004	0.005	4.25	0.00011	1.32	<0.000005	2.6	0.0626	3	0.000011	0.00004	0.0006	0.00139	0.0041	0.0004	<0.0001	0.58	0.63	0.05	4.0%
0.0035	0.82	0.0024	0.02	0.0007	0.0004	0.005	3.8	0.00015	0.991	<0.000005	2.1	0.0659	3	0.000008	0.00002	<0.0005	0.00148	0.0036	0.0006	<0.0001	0.60	0.64	0.04	3.2%
0.0029	0.72	0.0017	0.02	0.0009	0.0003	0.005	3.61	0.00015	0.967	<0.000005	1.9	0.0551	4	0.000007	0.00001	0.0007	0.0007	0.0035	0.0011	<0.0001	0.58	0.53	-0.05	-4.5%
0.0033	0.81	0.0016	<0.01	0.0006	0.0003	0.008	4.3	0.00016	1.11	<0.000005	1.74	0.0481	3	0.000008	<0.00001	0.0006	0.00107	0.0035	0.0009	<0.0001	0.50	0.52	0.02	2.4%
0.0026	0.65	0.0012	<0.01	0.0005	0.0003	0.006	3.58	0.00016	0.88	<0.000005	1.34	0.0411	<3	0.000008	0.00001	0.0011	0.00094	0.0034	0.0004	<0.0001	0.45	0.42	-0.04	-4.2%
0.0029	0.78	0.0022	<0.01	0.0005	0.0004	0.003	2.89	0.0001	1.51	<0.000005	0.96	0.0568	<3	0.000007	0.00003	<0.0005	0.0018	0.0034	0.0006	<0.0001	0.48	0.54	0.06	5.4%
0.0026	0.76	0.0019	<0.01	0.0006	0.0002	0.002	3.08	0.00011	0.944	<0.000005	0.95	0.0515	<3	0.000008	0.00003	0.0011	0.00088	0.0034	<0.0001	<0.0001	0.44	0.47	0.03	3.1%
0.0023	0.74	0.0016	0.02	0.0005	0.0003	0.004	2.67	0.00012	0.996	<0.000005	0.87	0.0458	<3	0.000006	0.00008	0.0008	0.00082	0.0036	0.0009	<0.0001	0.49	0.44	-0.05	-5.7%
0.0023	0.62	0.0015	<0.01	0.0005	0.0003	0.004	2.25	0.00011	0.844	<0.000005	0.6	0.0422	<3	0.000006	<0.00001	0.0006	0.00181	0.0027	0.0005	<0.0001	0.35	0.39	0.04	5.1%
0.0029	0.89	0.002	<0.01	0.0007	0.0003	0.003	2.73	0.00009	1.86	<0.000005	0.63	0.0634	3	0.000009	<0.00001	<0.0005	0.00194	0.0037	0.0003	<0.0001	0.53	0.54	0.00	0.4%
0.0025	0.81	0.0019	0.01	0.0006	0.0003	0.003	2.32	0.00009	1.22	<0.000005	0.51	0.058	3	0.000009	0.00004	<0.0005	0.00174	0.0031	0.0009	<0.0001	0.46	0.49	0.02	2.5%
0.0018	0.57	0.0014	<0.01	0.0006	0.0002	0.003	1.95	<0.00004	0.725	<0.000005	0.32	0.0463	<3	0.000006	<0.00001	<0.0005	0.00131	0.0025	0.0006	<0.0001	0.35	0.39	0.04	4.9%
0.0019	0.58	0.0014	<0.01	0.0006	0.0002	0.003	1.9	0.00007	0.855	<0.000005	0.35	0.0424	<3	0.000006	<0.00001	<0.0005	0.00133	0.0025	0.0008	<0.0001	0.32	0.37	0.05	7.7%
0.0017	0.56	0.0016	<0.01	0.0007	0.0003	<0.002	1.88	0.00008	0.866	<0.000005	0.36	0.0408	3	0.000006	<0.00001	<0.0005	0.00129	0.0024	0.0009	<0.0001	0.39	0.38	-0.01	-1.7%
0.0018	0.58	0.0013	<0.01	0.0006	0.0003	0.003	1.86	0.00008	0.844	<0.000005	0.31	0.0409	<3	0.000007	<0.00001	<0.0005	0.0014	0.0027	0.0005	<0.0001	0.38	0.38	0.00	-0.5%
0.0018	0.62	0.0013	<0.01	0.0006	0.0003	0.003	1.95	0.00006	1.08	<0.000005	0.33	0.0403	<3	0.000009	0.00001	<0.0005	0.00157	0.0028	0.0007	<0.0001	0.37	0.41	0.04	4.7%
0.0012	0.47	0.0012	<0.01	0.0005	0.0002	0.002	1.49	0.00008	0.743	<0.000005	0.27	0.0319	<3	0.000004	0.00001	<0.0005	0.00096	0.0018	0.0014	<0.0001	0.28	0.34	0.06	9.7%
0.0012	0.4	0.001	0.01	0.0005	0.0003	<0.002	1.32	<0.00004	0.716	<0.000005	0.23	0.03	<3	0.000005	0.00001	<0.0005	0.00108	0.0016	0.0011	<0.0001	0.29	0.29	0.00	-0.5%
0.0014	0.41	0.001	<0.01	0.0006	0.0003	0.003	1.43	0.00009	0.895	<0.000005	0.24	0.0325	<3	0.000006	<0.00001	<0.0005	0.0008	0.0023	0.0008	<0.0001	0.31	0.31	0.00	-0.3%
0.0012	0.44	0.0009	<0.01	0.0006	0.0001	<0.002	1.41	0.00006	0.718	<0.000005	0.2	0.0309	<3	0.000006	0.00001	0.0009	0.00082	0.0022	0.001	<0.0001	0.29	0.31	0.02	4.1%
0.001	0.35	0.0008	<0.01	0.0004	0.0002	<0.002	1.13	<0.00004	0.759	<0.000005	0.17	0.0266	<3	0.000007	<0.00001	0.0009	0.00091	0.0013	0.0008	<0.0001	0.23	0.27	0.04	8.6%
0.0011	0.39	0.001	<0.01	0.0005	0.0007	<0.002	1.24	<0.00004	0.739	<0.000005	0.2	0.0264	<3	0.000004	<0.00001	<0.0005	0.00085	0.0016	0.0031	<0.0001	0.29	0.29	-0.01	-1.0%
0.001	0.35	0.0007	<0.01	0.0004	0.0005	<0.002	1.13	0.00008	0.577	<0.000005	0.2	0.0252	<3	0.000006	<0.00001	<0.0005	0.00081	0.0016	0.0009	<0.0001	0.26	0.27	0.01	1.3%
0.0011	0.38	0.0006	<0.01	0.0005	0.0003	<0.002	1.26	0.00008	0.649	<0.000005	0.25	0.0267	<3	0.000006	0.00004	<0.0005	0.00081	0.0018	0.0011	<0.0001	0.34	0.28	-0.06	-10.4%
0.0009	0.34	0.0005	<0.01	0.0004	0.0001	<0.002	1.13	0.00005	0.634	<0.000005	0.22	0.0237	<3	0.000005	0.00002	0.0007	0.00074	0.0017	0.0016	<0.0001	0.25	0.25	0.01	1.8%
0.001	0.37	0.0005	<0.01	0.0004	0.0002	<0.002	1.19	0.00006	0.664	<0.000005	0.17	0.0249	<3	0.000008	0.00001	<0.0005	0.00083	0.0017	0.001	<0.0001	0.24	0.27	0.04	6.9%
0.0008	0.37	0.0008	<0.01	0.0004	0.0002	<0.002	1.15	<0.00004	0.572	<0.000005	0.18	0.0213	<3	0.000005	0.00001	<0.0005	0.00065	0.0015	0.0023	<0.0001	0.23	0.26	0.03	6.5%
0.0026	1.87	0.006	<0.01	0.0032	0.0004	<0.002	2.68	0.00017	1.58	<0.000005	0.77	0.111	16	0.000014	0.00002	0.0006	0.0025	0.003	0.0005	<0.0001	1.24	1.28	0.04	1.4%
0.0014	0.7	0.0027	<0.01	0.0008	0.0004	<0.002	1.49	<0.00004	1.1	0.000013	0.34	0.0422	4	0.000009	0.00006	<0.0005	0.00117	0.0022	0.0007	<0.0001	0.49	0.50	0.01	1.2%
0.0013	0.62	0.002	0.01	0.0005	0.0003	<0.002	1.16	0.00008	0.894	<0.000005	0.33	0.0361	<3	0.000007	0.00004	<0.0005	0.00112	0.0016	0.0012	<0.0001	0.34	0.42	0.08	10.5%
0.0015	0.73	0.0024	<0.01	0.0005	0.0002	<0.002	1.42	0.00006	0.898	<0.000005	0.23	0.0452	5	0.000011	0.00004	<0.0005	0.00118	0.0013	0.0006	<0.0001	0.56	0.55	-0.01	-0.7%



Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S	Ti	Sn	Ti	U	V	Zn	Zr	Major Anions	Major Cations	Diff	Diff %
mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L				
0.0013	0.77	0.0021	<0.01	0.0006	0.0004	<0.002	1.48	0.00004	0.838	<0.000005	0.28	0.052	7	0.000007	0.00002	0.0005	0.00102	0.0012	0.0005	<0.0001	0.69	0.66	-0.03	-2.1%
0.0013	0.67	0.0019	<0.01	0.0005	0.0008	<0.002	1.38	<0.00004	0.719	<0.000005	0.22	0.0404	6	0.000009	0.00012	<0.0005	0.00085	0.0009	0.0014	<0.0001	0.55	0.55	0.00	-0.2%
0.0012	0.81	0.002	<0.01	0.0006	0.0004	<0.002	1.54	<0.00004	0.694	<0.000005	0.28	0.05	7	0.00001	0.00009	<0.0005	0.001	0.001	0.0004	<0.0001	0.69	0.67	-0.02	-1.5%
0.0011	0.68	0.0017	<0.01	0.0006	0.0005	<0.002	1.43	<0.00004	0.832	<0.000005	0.24	0.045	7	0.000011	0.00014	<0.0005	0.00106	0.0009	0.0008	<0.0001	0.64	0.62	-0.02	-1.6%
0.0011	0.55	0.0013	<0.01	0.0006	0.0002	0.002	1.36	0.00004	0.712	<0.000005	0.16	0.0373	6	0.000009	0.00011	<0.0005	0.00082	0.001	0.0007	<0.0001	0.46	0.52	0.07	6.9%
0.001	0.51	0.0021	<0.01	0.0005	0.0002	<0.002	1.3	<0.00004	0.766	<0.000005	0.18	0.0348	<10	0.000009	<0.00001	<0.0005	0.00089	0.0009	0.0009	<0.0001	0.50	0.52	0.02	2.1%
0.001	0.5	0.0012	<0.01	0.0006	0.0008	<0.002	1.42	<0.00004	0.865	<0.000005	0.2	0.0332	<10	0.000009	<0.00001	<0.0005	0.00079	0.0011	0.0007	<0.0001	0.53	0.52	-0.01	-0.9%
0.0009	0.41	0.0012	<0.01	0.0006	0.0005	0.003	1.21	0.00005	0.742	<0.000005	0.2	0.03	<10	0.000008	0.00005	<0.0005	0.00076	0.001	0.0011	<0.0001	0.45	0.45	0.01	1.0%
0.0009	0.41	0.0009	<0.01	0.0008	0.0013	<0.002	1.32	0.00004	0.725	<0.000005	0.24	0.0288	<10	0.000008	<0.00001	<0.0005	0.00141	0.0012	0.0005	<0.0001	0.48	0.46	-0.02	-2.0%
0.0009	0.34	0.0008	<0.01	0.0008	0.0003	<0.002	1.19	<0.00004	0.687	<0.000005	0.15	0.0247	<10	0.000005	<0.00001	<0.0005	0.00056	0.0009	0.0007	<0.0001	0.41	0.42	0.01	1.1%
0.0008	0.38	0.0012	<0.01	0.0009	0.0003	<0.002	1.34	0.00005	0.729	<0.000005	0.19	0.0266	<10	0.000009	0.00002	<0.0005	0.00058	0.0011	0.0006	<0.0001	0.39	0.47	0.08	9.6%
0.001	0.31	0.0007	<0.01	0.0009	0.0005	<0.002	1.25	0.00005	0.741	<0.000005	0.18	0.0241	<10	0.000009	0.00001	<0.0005	0.0005	0.0012	0.0004	<0.0001	0.32	0.40	0.09	11.9%
0.0007	0.26	0.0007	<0.01	0.0008	0.0004	<0.002	1.08	0.00005	0.721	<0.000005	0.17	0.0204	<10	0.000009	0.00003	<0.0005	0.00042	0.0012	0.0002	<0.0001	0.30	0.34	0.04	6.1%
0.0007	0.27	0.0007	<0.01	0.0006	0.0003	<0.002	1.02	<0.00004	0.616	<0.000005	0.21	0.018	<10	0.000005	<0.00001	<0.0005	0.00038	0.0008	0.0001	<0.0001	0.32	0.31	-0.01	-0.8%
0.0008	0.28	0.0006	<0.01	0.0006	0.0002	<0.002	1.16	0.00005	0.778	<0.000005	0.19	0.021	<10	0.000008	0.00002	<0.0005	0.0005	0.0013	0.0008	<0.0001	0.32	0.36	0.04	6.5%
0.0008	0.3	0.0012	<0.01	0.0005	0.0002	<0.002	1.1	0.00004	0.835	<0.000005	0.14	0.0254	<10	0.000009	<0.00001	<0.0005	0.0007	0.0011	0.0002	<0.0001	0.38	0.38	0.00	0.2%
0.0009	0.27	0.0007	<0.01	0.0006	0.0005	<0.002	1.33	0.00004	0.878	<0.000005	0.2	0.0206	<10	0.000009	0.00003	0.0006	0.00044	0.0018	0.0001	<0.0001	0.37	0.38	0.01	1.9%
<0.0005	0.21	0.0008	<0.01	0.0004	0.0005	<0.002	0.95	<0.00004	0.672	<0.000005	0.17	0.0153	<10	0.000006	0.00006	<0.0005	0.00036	0.001	0.0004	<0.0001	0.37	0.27	-0.10	-15.7%
0.0009	0.27	0.0007	<0.01	0.0006	0.0004	0.003	1.2	<0.00004	0.789	<0.000005	0.17	0.0195	<10	0.000008	0.00004	<0.0005	0.00056	0.0011	0.0002	<0.0001	0.35	0.38	0.03	3.5%
0.0008	0.24	0.0005	<0.01	0.0004	0.0003	<0.002	1.04	<0.00004	0.777	<0.000005	0.21	0.0211	<10	0.00001	0.00001	0.0006	0.00061	0.0012	0.0003	<0.0001	0.38	0.36	-0.03	-3.4%
0.0006	0.2	0.0007	<0.01	0.0004	0.0003	<0.002	0.99	<0.00004	0.664	<0.000005	0.2	0.0158	<10	0.000006	<0.00001	0.0006	0.00046	0.0012	0.0002	<0.0001	0.38	0.27	-0.11	-16.3%
0.0008	0.23	0.0007	<0.01	0.0005	0.0003	<0.002	1.09	<0.00004	0.885	<0.000005	0.21	0.0206	<10	0.000008	<0.00001	0.0008	0.00065	0.0012	0.0006	<0.0001	0.34	0.36	0.02	3.3%
0.0007	0.21	0.0005	<0.01	0.0005	0.0002	<0.002	1.06	0.00007	0.766	<0.000005	0.2	0.0192	<10	0.000011	0.00001	<0.0005	0.00055	0.0012	0.0002	<0.0001	0.32	0.31	-0.01	-1.3%
0.0006	0.22	0.0006	<0.01	0.0004	0.0003	<0.002	1.09	<0.00004	0.729	<0.000005	0.17	0.018	<10	0.000007	0.00002	<0.0005	0.00054	0.0011	0.0004	<0.0001	0.36	0.30	-0.06	-8.6%
0.0007	0.22	0.001	<0.01	0.0004	0.0004	<0.002	1.06	<0.00004	0.691	<0.000005	0.18	0.0179	<10	0.000008	0.00001	0.0007	0.00078	0.0012	0.0004	<0.0001				



HC 6

Sample = 70844

CONFIDENTIAL

DRAFT

Date	Cycle	Volume mL		pH	Cond. umhos/cm	Acidity (pH 4.5) mgCaCO3/L	Acidity (pH 8.3) mgCaCO3/L	Alkalinity mgCaCO3/L	Sulphate (mg/L)	Hardness CaCO3 mg/L	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L
		Input	Output																					
12-Nov-07	1	750	430	8.11	128	#N/A	1.1	26.3	20	33.6	0.104	0.00032	0.0201	0.0077	<0.00001	<0.000005	0.021	<0.000005	10.3	0.0003	0.000069	0.002	0.005	0.000044
19-Nov-07	2	500	520	7.83	142	#N/A	2.4	24.4	30	45	0.12	0.00055	0.118	0.0061	<0.00001	<0.000005	0.043	0.000009	13	<0.0001	0.000094	0.0014	0.008	0.000063
26-Nov-07	3	500	430	7.33	98	#N/A	3.6	18.4	27	43.1	0.0744	0.00021	0.0006	0.006	<0.00001	<0.000005	0.036	0.000017	14.4	<0.0001	0.000017	0.0012	0.011	0.000045
3-Dec-07	4	500	430	7.74	78	#N/A	2.1	22.8	15	26	0.116	0.00036	0.0868	0.0044	<0.00001	<0.000005	0.019	<0.000005	7.47	0.0001	0.000091	0.0009	0.018	0.000053
10-Dec-07	5	500	510	7.57	107	#N/A	2.7	23.0	25	43.5	0.11	0.00031	0.125	0.0073	<0.00001	<0.000005	0.017	0.000008	13.2	<0.0001	0.000341	0.0008	0.003	0.000011
17-Dec-07	6	500	490	7.54	132	#N/A	2.1	18.3	38	55.2	0.108	0.00023	0.114	0.0081	<0.00001	<0.000005	0.013	0.000016	17.2	<0.0001	0.000833	0.0012	0.003	0.00003
24-Dec-07	7	500	425	7.54	97	#N/A	1.8	14.8	25	36.3	0.0966	0.00012	0.079	0.0066	<0.00001	<0.000005	0.006	0.000011	11.3	<0.0001	0.000212	0.0009	0.004	0.000054
31-Dec-07	8	500	425	7.50	70	#N/A	1.9	16.2	14	30.2	0.0998	0.00016	0.0852	0.0049	<0.00001	<0.000005	0.006	<0.000005	9.32	<0.0001	0.000176	0.0006	0.005	0.000042
7-Jan-08	9	500	425	7.62	56	#N/A	2.1	16.5	13	21.2	0.108	0.00014	0.0725	0.0034	<0.00001	<0.000005	<0.005	0.000006	6.66	<0.0001	0.000119	0.001	0.009	0.000022
14-Jan-08	10	500	445	7.39	59	#N/A	2.5	20.1	10	25.6	0.125	0.00015	0.0889	0.0043	<0.00001	<0.000005	0.006	0.000008	8.36	<0.0001	0.000144	0.0007	0.004	0.000018
21-Jan-08	11	500	445	7.50	51	#N/A	3.2	17.3	6	21.6	0.114	0.0001	0.0692	0.0035	<0.00001	<0.000005	<0.005	0.000006	6.92	<0.0001	0.000099	0.0009	0.006	<0.000005
28-Jan-08	12	500	430	7.67	47	#N/A	2.8	17.6	10	20.8	0.123	0.00012	0.0736	0.0036	<0.00001	<0.000005	<0.005	0.000009	6.68	<0.0001	0.000109	0.0008	0.001	0.000046
4-Feb-08	13	500	420	7.64	49	#N/A	1.6	17.5	6															
11-Feb-08	14	500	475	7.61	54	#N/A	2.1	16.3	9	24.6	0.102	0.0001	0.0792	0.0039	<0.00001	<0.000005	0.005	0.000007	8.33	<0.0001	0.000173	0.0006	0.003	<0.000005
18-Feb-08	15	500	485	7.59	88	#N/A	2.7	18.1	20															
25-Feb-08	16	500	470	7.55	94	#N/A	2.4	17.8	34	40.3	0.129	0.00011	0.119	0.0066	<0.00001	<0.000005	0.009	0.00001	13.7	<0.0001	0.00051	0.0009	0.004	0.00001
3-Mar-08	17	500	475	7.43	89	#N/A	2.3	16.0	24															
10-Mar-08	18	500	465	7.77	97	#N/A	1.7	18.5	24	38.8	0.122	0.0001	0.118	0.0063	<0.00001	<0.000005	<0.005	0.000019	13.4	<0.0001	0.000637	0.002	0.004	0.000948
17-Mar-08	19	500	465	7.44	71	#N/A	1.9	13.7	17															
24-Mar-08	20	500	465	7.50	73	#N/A	1.9	14.5	17	30.9	0.109	0.00006	0.102	0.0049	<0.00001	<0.000005	<0.005	0.000013	11	<0.0001	0.000349	0.0004	0.004	0.000045
31-Mar-08	21	500	465	7.63	67	#N/A	1.6	18.1	16															
7-Apr-08	22	500	460	7.44	72	#N/A	3.4	14.7	19	29.1	0.101	0.00006	0.0965	0.0046	<0.00001	<0.000005	<0.005	0.000014	10.3	<0.0001	0.000363	0.0008	0.004	0.000008
14-Apr-08	23	500	495	7.50	87	#N/A	2.1	14.9	20															
21-Apr-08	24	500	445	7.54	66	#N/A	2.3	14.3	15	27.5	0.126	0.00006	0.109	0.005	<0.00001	<0.000005	<0.05	0.000016	9.79	<0.0001	0.000371	0.0006	0.004	<0.000005
28-Apr-08	25	500	470	7.50	62	#N/A	2.3	14.0	11															
5-May-08	26	500	475	7.61	63	#N/A	2.0	13.3	14	26.2	0.102	0.00005	0.0938	0.004	<0.00001	<0.000005	<0.05	0.000016	9.37	<0.0001	0.000342	0.0003	0.003	<0.000005
12-May-08	27	500	475	7.67	57	#N/A	1.9	14.0	13															
19-May-08	28	500	500	7.72	59	#N/A	1.4	14.2	10	24.5	0.123	0.00006	0.0943	0.004	<0.00001	<0.000005	<0.05	0.000013	8.74	0.0002	0.000317	0.0005	0.004	0.000018
26-May-08	29	500	450	7.53	51	#N/A	1.9	13.6	12															
2-Jun-08	30	500	455	7.60	43	#N/A	1.6	11.6	10	22.2	0.111	0.00006	0.0821	0.0035	<0.00001	<0.000005	<0.05	0.00001	8.01	<0.0001	0.000245	0.0015	0.01	0.000068
9-Jun-08	31	500	480	7.63	41	#N/A	1.6	13.1	8															
16-Jun-08	32	500	510	7.59	48	#N/A	2.4	15.7	12	26.1	0.0865	0.00006	0.0762	0.0052	<0.00001	<0.000005	<0.05	0.000013	9.45	0.0001	0.000471	0.0006	0.003	0.00002
23-Jun-08	33	500	475	7.66	41	#N/A	2.3	17.0	13															
30-Jun-08	34	500	440	7.67	50	#N/A	1.9	13.2	10	22.5	0.17	0.00004	0.0994	0.0044	<0.00001	<0.000005	<0.05	0.000009	8.24	<0.0001	0.000209	0.0005	0.011	0.000018
7-Jul-08	35	500	455	7.65	52	#N/A	1.6	12.3	9															
14-Jul-08	36	500	460	7.58	44	#N/A	1.9	13.1	10	20.8	0.123	0.00004	0.0783	0.0039	<0.00001	<0.000005	<0.05	0.000013	7.56	<0.0001	0.000207	0.0003	0.007	0.000015
21-Jul-08	37	500	450	7.67	48	#N/A	1.6	14.4	7															
28-Jul-08	38	500	445	7.61	44	#N/A	1.5	12.5	6	18.7	0.116	0.00003	0.0728	0.0037	<0.00001	<0.000005	<0.05	0.000013	6.79	<0.0001	0.000207	0.0006	0.008	0.000013
4-Aug-08	39	500	450	7.64	44	#N/A	1.4	20.1	7															
11-Aug-08	40	500	460	7.55	39	#N/A	1.5	11.4	9	19.5	0.11	0.00003	0.0639	0.0036	<0.00001	<0.000005	<0.05	0.00001	7.1	<0.0001	0.000183	0.0007	0.007	0.000088
18-Aug-08	41	500	505	7.53	59	#N/A	1.5	17.8	10															
25-Aug-08	42	500	465	7.54	37	#N/A	1.6	12.8	6	18.1	0.0944	0.00003	0.0583	0.0036	<0.00001	<0.000005	<0.05	0.000042	6.65	<0.0001	0.000198	0.0009	0.006	0.000109
1-Sep-08	43	500	470	7.61	37	#N/A	1.3	13.5	7															
8-Sep-08	44	500	460	7.59	40	#N/A	1.4	18.1	6	19.2	0.11	0.00004	0.0689	0.0035	<0.00001	<0.000005	<0.05	0.000011	7.02	<0.0001	0.00017	0.0012	0.005	0.000019
15-Sep-08	45	500	455	7.57	45	#N/A	1.4	12.2	8															
22-Sep-08	46	500	465	7.48	34	#N/A	1.5	10.6	6	16	0.0931	0.00003	0.0531	0.0031	<0.00001	<0.000005	<0.05	0.00001	5.86	<0.0001	0.000177	0.0006	0.006	0.000085
29-Sep-08	47	500	465	7.53	43	#N/A	1.4	11.8	6															
6-Oct-08	48	500	500	7.53	46	#N/A	1.7	12.9	10	22.2	0.0786	0.00004	0.0589	0.0044	<0.00001	<0.000005	<0.05	0.000015	8.08	<0.0001	0.000271	0.0008	0.002	0.000013
13-Oct-08	49	500	440	7.58	43	#N/A	1.9	12.5	8															
20-Oct-08	50	500	455	7.37	38	#N/A	1.8	11.0	7	18.1	0.107	<0.00002	0.0524	0.0033	<0.00001	<0.000005	<0.05	0.000012	6.65	<0.0001	0.000165	0.0013	0.01	0.00008

Cell Re-instated

2-Nov-09	51	500	425	7.36	303	#N/A	3.3	13.4	137															
9-Nov-09	52	500	470	7.50	142	#N/A	5.0	17.0	53	62.8	0.0726	0.00005	0.0303	0.0116	<0.00001	<0.000005	<0.05	0.000041	22.6	<0.0001	0.00065	0.0009	0.006	<0.000005
16-Nov-09	53	500	455	7.62	85	#N/A	7.1	19.0	26															
23-Nov-09	54	500	470	7.19	78	#N/A	3.8	17.8	19	31.3	0.077	0.00005	0.036	0.0086	<0.00001	<0.000005	<0.05	0.000009	11.3	<0.0001	0.000331	0.0004	0.005	0.000008
30-Nov-09	55	500	470	7.39	67	#N/A	2.6	15.8	13															
7-Dec-09	56	500	490	7.30	70	#N/A	3.8	16.7	17	28.7	0.0779	0.00005	0.0359	0.0074	<0.00001	<0.000005	<0.05	0.000017	10.4	<0.0001	0.000467	0.0008	0.007	0.000055
14-Dec-09	57	500	510	7.29	69	#N/A	4.2	18.2	12															
21-Dec-09	58	500	475	7.62	54	#N/A	2.5	16.8	11	24.8	0.103	0.00004	0.0434	0.006	<0.00001	<0.000005	<0.05	0.000014	9.12	<0.0001	0.000235	0.0004	0.005	<0.000005
28-Dec-09	59	500	420	7.52	59	#N/A	2.3	15.2	11															



HC 6

CONFIDENTIAL

DRAFT

Sample = 70844

Date	Cycle	Volume mL		pH	Cond. umhos/cm	Acidity	Acidity	Alkalinity	Sulphate	Hardness	Al	Sb	As	Ba	Be	Bi	B	Cd	Ca	Cr	Co	Cu	Fe	Pb
		Input	Output			(pH 4.5) mgCaCO3/L	(pH 8.3) mgCaCO3/L																	
4-Jan-10	60	500	460	7.36	60	#N/A	3.1	15.9	14	23.4	0.0892	0.00003	0.0383	0.0057	<0.00001	<0.000005	<0.05	0.000005	8.66	<0.0001	0.000216	0.0017	0.006	0.000007
11-Jan-10	61	500	465	7.39	59	#N/A	2.7	13.5	13															
18-Jan-10	62	500	475	7.52	50	#N/A	2.2	13.6	9	22.3	0.0972	<0.00002	0.0392	0.0053	<0.00001	<0.000005	<0.05	0.00001	8.3	<0.0001	0.000191	0.0016	0.006	0.000019
25-Jan-10	63	500	460	7.30	39	#N/A	2.5	11.7	7															
1-Feb-10	64	500	475	7.29	40	#N/A	2.6	14.4	8	23.6	0.0923	0.00003	0.0372	0.0052	<0.00001	<0.000005	<0.05	0.000005	8.74	0.0001	0.000233	0.0007	0.01	0.000023
8-Feb-10	65	500	460	7.10	50	#N/A	3.1	13.5	9															
15-Feb-10	66	500	520	7.20	53	#N/A	3.2	15.4	8	23.3	0.0817	0.00003	0.0394	0.0055	<0.00001	<0.000005	<0.05	0.000012	8.64	<0.0001	0.000312	0.0008	0.002	0.000006
22-Feb-10	67	500	505	7.23	47	#N/A	2.8	15.0	12															
1-Mar-10	68	500	465	7.13	48	#N/A	2.9	13.2	9	20.3	0.0956	0.00003	0.0424	0.0052	<0.00001	<0.000005	<0.05	0.000006	7.59	0.0003	0.000316	0.0011	0.011	0.000026
8-Mar-10	69	500	440	7.13	43	#N/A	3.2	12.1	5															
15-Mar-10	70	500	475	7.32	37	#N/A	2.5	13.4	3	18.8	0.0947	<0.00002	0.0364	0.0077	<0.00001	<0.000005	<0.05	0.000005	7.01	<0.0001	0.000171	0.0004	0.004	0.000005
22-Mar-10	71	500	475	7.41	44	#N/A	2.1	13.9	6															
29-Mar-10	72	500	460	7.65	44	#N/A	1.4	13.4	8	19.2	0.103	0.00002	0.0446	0.0049	<0.00001	<0.000005	<0.05	0.000011	7.15	0.0003	0.000156	0.0008	0.006	0.000044
5-Apr-10	73	500	450	7.24	45	#N/A	2.8	12.7	8															
12-Apr-10	74	500	480	7.38	47	#N/A	2.3	14.2	7	19.6	0.0775	0.00005	0.0416	0.0066	<0.00001	<0.000005	<0.05	0.000015	7.32	<0.0001	0.000222	0.0005	0.004	0.000025
19-Apr-10	75	500	455	7.23	45	#N/A	3.1	12.8	8															
26-Apr-10	76	500	480	7.14	47	#N/A	5.3	13.8	8	18.9	0.0847	0.00003	0.0413	0.0164	<0.00001	<0.000005	<0.05	0.000013	7.06	<0.0001	0.000222	0.0004	0.002	0.000007
3-May-10	77	500	480	7.30	48	#N/A	2.2	14.5	10															
10-May-10	78	500	450	7.44	44	#N/A	2.0	13.1	7	18.5	0.0951	<0.00002	0.0457	0.0041	<0.00001	<0.000005	<0.05	0.000007	6.93	<0.0001	0.000183	0.0004	0.003	<0.000005
17-May-10	79	500	430	7.46	46	#N/A	2.2	13.9	6															
24-May-10	80	500	450	7.44	40	#N/A	3.3	12.9	7	17.9	0.0917	<0.00002	0.0389	0.0043	<0.00001	<0.000005	<0.05	0.000007	6.69	<0.0001	0.000157	0.0011	0.007	0.000005
31-May-10	81	500	445	7.40	41	#N/A	2.4	13.0	3															
7-Jun-10	82	500	430	7.45	42	#N/A	2.3	12.8	3	17.6	0.101	0.00002	0.0425	0.0046	<0.00001	<0.000005	<0.05	0.000008	6.59	<0.0001	0.000132	0.0007	0.005	0.000013
14-Jun-10	83	500	445	7.58	42	#N/A	1.9	12.7	3															
21-Jun-10	84	500	440	7.82	43	#N/A	1.4	13.9	4	17.9	0.111	0.00003	0.047	0.0038	<0.00001	<0.000005	<0.05	<0.000005	6.7	<0.0001	0.000146	0.0005	0.006	0.00001
28-Jun-10	85	500	430	7.37	40	#N/A	2.0	12.4	4															
5-Jul-10	86	500	445	7.54	40	#N/A	1.5	15.5	4	17.1	0.114	<0.00002	0.0398	0.0063	<0.00001	<0.000005	<0.05	0.000008	6.38	<0.0001	0.000147	0.001	0.009	0.000016
12-Jul-10	87	500	435	7.66	38	#N/A	1.3	12.2	1															
19-Jul-10	88	500	435	7.48	39	#N/A	2.3	20.3	<1	16.1	0.0944	0.00003	0.0436	0.0034	<0.00001	<0.000005	<0.05	0.000006	6.04	<0.0001	0.000151	0.0006	0.006	0.000014
26-Jul-10	89	500	430	7.39	40	#N/A	2.8	13.8	5															
2-Aug-10	90	500	485	7.52	49	#N/A	2.3	17.6	8	22.1	0.0973	0.00003	0.0496	0.005	<0.00001	<0.000005	<0.05	0.000011	8.31	0.0001	0.000201	0.0005	0.002	0.000015
9-Aug-10	91	500	425	7.55	39	#N/A	1.6	12.9	8															
16-Aug-10	92	500	450	7.77	40	#N/A	1.8	14.3	2	18.1	0.12	0.00002	0.0474	0.0045	<0.00001	0.000005	<0.05	0.000005	6.86	<0.0001	0.000169	0.0005	0.005	0.000006
23-Aug-10	93	500	445	7.48	39	#N/A	1.7	12.9	4															
30-Aug-10	94	500	425	7.55	37	#N/A	2.3	15.4	6	16.4	0.0913	<0.00002	0.0408	0.0044	<0.00001	<0.000005	<0.05	<0.000005	6.19	<0.0001	0.000135	0.0011	0.018	0.000022
6-Sep-10	95	500	425	7.28	36	#N/A	2.8	13.1	6															
13-Sep-10	96	500	475	7.17	35	#N/A	3.0	13.2	4	16.4	0.074	<0.00002	0.0362	0.0036	<0.00001	<0.000005	<0.05	0.000008	6.2	<0.0001	0.000147	0.0005	0.004	0.000006
20-Sep-10	97	500	440	7.31	35	#N/A	2.5	13.0	7															
27-Sep-10	98	500	435	7.41	32	#N/A	2.2	14.6	6	17	0.0989	0.00003	0.045	0.0042	<0.00001	<0.000005	<0.05	0.000009	6.4	<0.0001	0.000115	0.0006	0.004	0.000017
4-Oct-10	99	500	450	7.40	28	#N/A	1.9	13.1	9															
11-Oct-10	100	500	445	7.41	43	#N/A	2.3	12.5	7	17.2	0.095	<0.00002	0.0362	0.006	<0.00001	<0.000005	<0.05	<0.000005	6.53	<0.0001	0.000113	0.0009	0.002	<0.000005
18-Oct-10	101	500	435	7.33	43	#N/A	2.5	14.3	7															
25-Oct-10	102	500	425	7.51	40	#N/A	1.7	14.1	4	17.9	0.0897	0.00002	0.0401	0.0047	<0.00001	<0.000005	<0.05	0.000018	6.79	<0.0001	0.000126	0.0004	0.027	0.000024
1-Nov-10	103	500	445	7.65	42	#N/A	1.5	14.1	4															
8-Nov-10	104	500	435	7.61	31	#N/A	2.3	14.5	4	16	0.0931	0.00002	0.039	0.004	<0.00001	<0.000005	<0.05	0.00001	6.02	<0.0001	0.000115	0.0011	0.006	0.0001
15-Nov-10	105	500	445	7.71	29	#N/A	2.3	14.1	3															
22-Nov-10	106	500	450	7.23	40	#N/A	3.2	14.5	5	18.6	0.0895	<0.00002	0.038	0.0044	<0.00001	<0.000005	<0.05	<0.000005	7.03	0.0001	0.000134	0.0007	0.015	0.000008
29-Nov-10	107	500	450	7.33	37	#N/A	2.9	14.0	6															
6-Dec-10	108	500	450	7.25	39	#N/A	3.5	14.5		15.8	0.0847	<0.00002	0.0345	0.0048	<0.00001	<0.000005	<0.05	0.000009	5.92	<0.0001	0.00013	0.0007	0.01	0.000294
13-Dec-10	109	500	440	7.43	38	#N/A	2.9	14.6																

Certified by:

Rik J. Vos
ARD Testing Specialist
SGS Canada Inc.



Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S	Tl	Sn	Ti	U	V	Zn	Zr	Major Anions	Major Cations	Diff	Diff %
mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L				
0.0038	1.91	0.0014	0.01	0.00058	0.0026	0.013	5.29	0.00022	1.03	<0.000005	10.3	0.0935	9	0.000005	0.00006	<0.0005	<0.000002	0.0078	0.0007	<0.0001	0.94	1.25	0.31	14.2%
0.0067	3.01	0.003	0.02	0.00087	0.0013	0.006	3.77	0.00027	1.77	<0.000005	8.18	0.13	12	0.000005	0.00003	<0.0005	0.000043	0.0122	0.0007	<0.0001	1.11	1.35	0.24	9.6%
0.005	1.71	0.007	<0.01	0.00055	0.0001	0.009	4.6	0.00009	1.25	<0.000005	3.5	0.0534	13	0.000002	0.00003	<0.0005	0.000134	<0.0002	0.0003	<0.0001	0.93	1.13	0.20	9.7%
0.0042	1.78	0.0032	<0.01	0.00022	0.0007	0.005	2.57	0.00026	0.928	<0.000005	3.18	0.0686	5	<0.000002	0.00002	0.0014	0.000019	0.009	0.0011	<0.0001	0.77	0.72	-0.05	-3.0%
0.0055	2.57	0.0046	<0.01	0.00032	0.001	0.002	2.5	0.00017	1.1	<0.000005	2.28	0.118	11	0.000002	0.00002	<0.0005	0.00008	0.0091	0.0007	<0.0001	0.98	1.03	0.05	2.6%
0.006	3	0.0053	<0.01	0.00047	0.0012	<0.002	2.6	0.00015	0.791	<0.000005	2.08	0.14	14	0.000003	0.00002	<0.0005	0.000088	0.0071	0.0017	<0.0001	1.16	1.26	0.11	4.4%
0.0039	1.96	0.0038	0.03	0.00049	0.0005	0.003	2.01	0.00017	0.66	<0.000005	1.28	0.0939	9	0.000003	0.00004	<0.0005	0.000035	0.0056	0.0031	<0.0001	0.82	0.83	0.02	0.9%
0.0039	1.67	0.0035	<0.01	0.00025	0.0004	0.005	2.26	0.0002	0.87	<0.000005	1.11	0.0685	7	0.000004	<0.00001	<0.0005	0.000031	0.0058	0.0017	<0.0001	0.62	0.71	0.09	7.0%
0.0028	1.1	0.0031	0.09	0.00016	0.0003	<0.002	1.74	0.00015	0.565	<0.000005	0.86	0.051	<3	0.000003	<0.00001	<0.0005	0.000026	0.0058	0.0011	<0.0001	0.60	0.50	-0.10	-8.7%
0.0033	1.16	0.0038	<0.01	0.00012	0.0004	0.005	2.05	0.0002	0.955	<0.000005	0.88	0.0554	<3	<0.000002	0.00002	<0.0005	0.000024	0.0064	0.0007	<0.0001	0.61	0.60	-0.01	-0.6%
0.0027	1.04	0.004	<0.01	0.00011	0.0002	0.002	1.62	0.00017	0.665	<0.000005	0.67	0.049	3	0.000003	0.00002	0.0012	0.000017	0.0059	0.0004	<0.0001	0.47	0.50	0.03	3.1%
0.0024	1	0.0025	0.03	0.00009	0.0003	0.003	1.64	0.00017	0.73	<0.000005	0.72	0.045	<3	<0.000002	0.00004	0.0005	0.000019	0.0063	0.0018	<0.0001	0.56	0.49	-0.07	-6.8%
0.0024	0.93	0.0039	<0.01	0.00011	0.0003	<0.002	1.37	0.00012	0.667	<0.000005	0.57	0.0482	4	<0.000002	<0.00001	0.0007	0.000039	0.0062	0.0007	<0.0001	0.51	0.55	0.04	3.5%
0.0032	1.48	0.0035	<0.01	0.0004	0.0005	<0.002	1.83	0.00007	1.57	<0.000005	0.67	0.077	9	0.000003	0.00002	<0.0005	0.00005	0.0075	0.0015	<0.0001	1.07	0.88	-0.18	-9.4%
0.003	1.31	0.0034	<0.01	0.00045	0.0005	<0.002	1.66	0.0001	0.945	0.000013	0.58	0.0722	9	0.000006	0.00002	<0.0005	0.000065	0.0061	0.0023	<0.0001	0.87	0.84	-0.03	-1.5%
0.0021	0.87	0.0029	<0.01	0.00038	0.0003	<0.002	1.42	0.00006	0.601	<0.000005	0.39	0.0527	7	0.000002	<0.00001	<0.0005	0.000026	0.005	0.0009	<0.0001	0.64	0.67	0.03	2.3%
0.0022	0.83	0.004	<0.01	0.00037	0.0003	0.002	1.38	0.00008	0.682	<0.000005	0.43	0.0469	6	0.000003	<0.00001	0.0006	0.000024	0.0046	0.0013	<0.0001	0.69	0.64	-0.05	-4.0%
0.002	0.73	0.003	<0.01	0.0004	0.0003	<0.002	1.39	0.00009	0.755	<0.000005	0.41	0.0431	6	0.000003	<0.00001	<0.0005	0.000026	0.0055	0.0015	<0.0001	0.60	0.60	0.00	0.3%
0.0018	0.68	0.003	<0.01	0.00031	0.0003	<0.002	1.26	0.0001	0.681	<0.000005	0.35	0.0369	5	0.000002	<0.00001	<0.0005	0.000036	0.0051	0.0011	<0.0001	0.56	0.57	0.01	1.1%
0.0016	0.64	0.0026	<0.01	0.00029	0.0002	<0.002	1.2	0.00007	0.744	<0.000005	0.32	0.0335	5	0.000004	0.00002	0.0007	0.000033	0.0051	0.0013	<0.0001	0.49	0.53	0.04	4.1%
0.0013	0.53	0.003	<0.01	0.00022	0.0003	<0.002	1.02	0.0001	0.668	<0.000005	0.38	0.0286	4	<0.000002	<0.00001	0.0006	0.00002	0.0044	0.0025	<0.0001	0.44	0.49	0.05	4.9%
0.0016	0.6	0.0027	<0.01	0.00029	0.0004	<0.002	1.1	<0.00004	0.733	<0.000005	0.3	0.0357	4	0.000003	0.00002	<0.0005	0.000045	0.0038	0.0014	<0.0001	0.56	0.56	0.00	-0.2%
0.0014	0.47	0.0021	<0.01	0.00019	0.0003	<0.002	1.15	0.00013	0.847	<0.000005	0.3	0.0313	4	0.000003	<0.00001	0.0011	0.000031	0.0058	0.0014	<0.0001	0.47	0.49	0.02	2.1%
0.0012	0.47	0.0024	<0.01	0.00024	0.0002	<0.002	1.05	0.00007	0.572	<0.000005	0.24	0.0251	<3	0.000003	<0.00001	0.0011	0.000027	0.0044	0.0016	<0.0001	0.47	0.45	-0.02	-1.8%
0.0011	0.42	0.0021	<0.01	0.00019	0.0002	0.002	0.94	<0.00004	0.618	<0.000005	0.23	0.0224	<3	0.000002	<0.00001	0.0016	0.000013	0.0039	0.0014	<0.0001	0.38	0.41	0.03	4.0%
0.0011	0.44	0.0018	<0.01	0.00018	0.0002	<0.002	0.96	0.00004	0.58	<0.000005	0.24	0.0224	4	<0.000002	<0.00001	0.0007	0.000016	0.0037	0.0028	<0.0001	0.41	0.43	0.01	1.3%
0.0009	0.37	0.0018	<0.01	0.00016	0.0002	0.002	0.84	0.00008	0.483	<0.000005	0.24	0.0215	<3	<0.000002	<0.00001	0.0006	0.000024	0.0033	0.0015	<0.0001	0.38	0.39	0.01	1.8%
0.0011	0.41	0.002	<0.01	0.00017	0.0003	<0.002	0.92	0.00007	0.532	<0.000005	0.26	0.0225	3	0.000002	0.00002	0.0008	0.000017	0.0038	0.0012	<0.0001	0.49	0.42	-0.07	-7.5%
0.0009	0.34	0.0014	<0.01	0.00014	0.0002	<0.002	0.76	<0.00004	0.434	0.00001	0.21	0.0188	<3	0.000003	0.00001	0.0009	0.000022	0.0031	0.0023	<0.0001	0.34	0.35	0.01	1.8%
0.0012	0.5	0.0013	0.02	0.0002	0.0002	<0.002	0.92	0.00006	0.655	<0.000005	0.23	0.0241	4	0.000004	<0.00001	<0.0005	0.000036	0.0033	0.0013	<0.0001	0.47	0.48	0.01	1.1%
0.0013	0.37	0.0018	<0.01	0.00018	0.0003	<0.002	0.82	<0.00004	0.491	0.000011	0.2	0.0177	3	0.000003	0.00001	0.001	0.000016	0.0032	0.0023	<0.0001	0.37	0.39	0.03	3.4%
0.0021	1.56	0.0093	<0.01	0.00027	0.0007	<0.002	1.6	0.00025	0.738	<0.000005	0.6	0.0577	17	0.000005	0.00003	<0.0005	0.000042	0.0026	0.0014	<0.0001	1.44	1.32	-0.12	-4.4%
0.0015	0.74	0.0034	<0.01	0.0002	0.0006	<0.002	1.08	<0.00004	0.668	<0.000005	0.39	0.033	6	0.000004	0.00004	0.0005	0.000016	0.0027	0.0012	<0.0001	0.75	0.67	-0.08	-5.8%
0.0014	0.69	0.0023	<0.01	0.00022	0.0013	0.002	0.92	0.00006	0.564	<0.000005	0.39	0.0293	5	0.000003	0.00002	<0.0005	0.000789	0.0023	0.0029	<0.0001	0.69	0.62	-0.07	-5.5%
0.0013	0.48	0.0017	<0.01	0.00019	0.0004	<0.002	0.9	0.00005	0.654	<0.000005	0.26	0.023	4	0.000003	0.00002	<0.0005	0.000034	0.0024	0.0011	<0.0001	0.56	0.53	-0.04	-3.3%



Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S	Tl	Sn	Ti	U	V	Zn	Zr	Major Anions	Major Cations	Diff	Diff %
mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L				
0.001	0.44	0.0018	<0.01	0.00019	0.0003	<0.002	0.85	0.00005	0.64	<0.000005	0.24	0.0205	4	<0.000002	0.00009	0.0007	0.000025	0.002	0.0011	<0.0001	0.61	0.50	-0.11	-9.8%
0.0011	0.38	0.0017	<0.01	0.00037	0.0004	<0.002	0.84	<0.00004	0.587	<0.000005	0.22	0.0183	4	0.000004	0.00014	<0.0005	0.000053	0.002	0.0013	<0.0001	0.46	0.48	0.02	1.8%
0.001	0.42	0.0016	<0.01	0.00026	0.0004	<0.002	0.84	0.00005	0.501	<0.000005	0.3	0.0188	4	0.000003	0.00015	<0.0005	0.00004	0.002	0.0014	<0.0001	0.46	0.51	0.05	5.2%
0.0011	0.42	0.0017	<0.01	0.00025	0.0018	<0.002	0.86	0.00004	0.595	<0.000005	0.22	0.0183	5	0.000002	0.00007	<0.0005	0.000824	0.0018	0.0014	<0.0001	0.47	0.50	0.02	2.3%
0.0009	0.32	0.0016	<0.01	0.0002	0.0004	0.003	0.7	0.00006	0.56	<0.000005	0.27	0.0156	<3	0.000002	0.00008	<0.0005	0.000012	0.0021	0.0013	<0.0001	0.45	0.43	-0.02	-1.8%
0.0008	0.33	0.0017	<0.01	0.00018	0.0002	<0.002	0.73	0.00006	0.523	<0.000005	0.21	0.0135	<10	0.000002	<0.00001	<0.0005	0.000013	0.0019	0.0007	<0.0001	0.33	0.40	0.07	10.1%
0.0008	0.31	0.0014	<0.01	0.00023	0.0005	<0.002	0.75	0.00005	0.555	<0.000005	0.17	0.0129	<10	0.000003	<0.00001	<0.0005	0.000015	0.0021	0.0019	<0.0001	0.44	0.41	-0.03	-3.1%
0.0007	0.33	0.002	<0.01	0.00027	0.0005	0.002	0.73	0.00008	0.599	<0.000005	0.22	0.0143	<10	0.000005	0.0001	<0.0005	0.000013	0.002	0.0014	<0.0001	0.43	0.42	-0.01	-1.1%
0.0008	0.3	0.0014	<0.01	0.00019	0.0003	<0.002	0.74	0.00006	0.495	<0.000005	0.19	0.014	<10	0.000004	0.00002	<0.0005	0.000023	0.002	0.0012	<0.0001	0.44	0.40	-0.04	-4.5%
0.0008	0.29	0.0011	<0.01	0.00018	0.0003	<0.002	0.73	0.00006	0.519	<0.000005	0.16	0.012	<10	<0.000002	0.00004	<0.0005	0.000008	0.0021	0.001	<0.0001	0.41	0.40	-0.01	-1.6%
0.0006	0.29	0.0016	<0.01	0.00015	0.0004	<0.002	0.73	0.00004	0.461	<0.000005	0.19	0.0108	<10	0.000002	0.00002	<0.0005	0.000008	0.0019	0.0011	<0.0001	0.40	0.38	-0.02	-2.4%
0.0009	0.28	0.001	<0.01	0.0002	0.0003	<0.002	0.78	0.00005	0.479	<0.000005	0.18	0.0115	<10	0.000003	0.00003	<0.0005	0.000008	0.0021	0.0009	<0.0001	0.32	0.38	0.06	8.9%
0.0007	0.28	0.0012	<0.01	0.00019	0.0005	<0.002	0.79	0.00005	0.54	<0.000005	0.18	0.0117	<10	0.000004	0.00003	<0.0005	0.000113	0.0025	0.0008	<0.0001	0.36	0.39	0.02	3.2%
0.0008	0.28	0.0013	<0.01	0.00019	0.0003	<0.002	0.74	0.00005	0.46	<0.000005	0.23	0.0105	<10	<0.000002	<0.00001	0.0007	0.000009	0.002	0.0011	<0.0001	0.39	0.37	-0.02	-2.9%
0.0007	0.25	0.0009	<0.01	0.00044	0.0002	<0.002	0.7	0.00007	0.491	<0.000005	0.18	0.0103	<10	0.000003	0.00002	<0.0005	0.000007	0.0021	0.001	<0.0001	0.41	0.35	-0.06	-7.8%
0.0007	0.32	0.0009	<0.01	0.00016	0.0002	<0.002	0.79	0.00005	0.634	<0.000005	0.16	0.0128	<10	0.000004	0.00002	<0.0005	0.000024	0.0024	0.0008	<0.0001	0.52	0.47	-0.05	-5.1%
0.0009	0.23	0.0016	<0.01	0.0001	0.0004	<0.002	0.77	0.00007	0.546	<0.000005	0.17	0.0106	<10	<0.000002	0.00002	<0.0005	0.000005	0.0027	0.0007	<0.0001	0.33	0.39	0.06	8.4%
<0.0005	0.23	0.0013	<0.01	0.00007	0.0003	<0.002	0.77	0.00005	0.505	<0.000005	0.17	0.01	<10	0.000004	<0.00001	<0.0005	0.000004	0.0018	0.0006	<0.0001	0.43	0.35	-0.08	-10.0%
0.0008	0.23	0.0012	<0.01	0.00012	0.0004	<0.002	0.67	0.00005	0.45	<0.000005	0.16	0.0091	<10	<0.000002	0.00003	0.0011	0.000038	0.0016	0.0005	<0.0001	0.35	0.35	0.01	0.8%
0.0007	0.24	0.0011	<0.01	0.00005	0.0004	<0.002	0.81	0.00005	0.48	<0.000005	0.21	0.0105	<10	0.000003	0.00001	<0.0005	0.000097	0.0022	0.0006	<0.0001	0.42	0.37	-0.05	-6.0%
0.0006	0.23	0.0012	<0.01	<0.00005	0.0003	<0.002	0.77	<0.00004	0.476	<0.000005	0.17	0.0099	<10	0.000003	0.00002	<0.0005	0.00001	0.0019	0.0005	<0.0001	0.40	0.37	-0.02	-3.1%
0.0008	0.23	0.0018	<0.01	<0.00005	0.0002	<0.002	0.76	0.00012	0.543	<0.000005	0.13	0.0095	<10	0.000004	<0.00001	<0.0005	0.000013	0.002	0.0036	<0.0001	0.36	0.38	0.02	2.4%
0.0006	0.23	0.0011	<0.01	0.00007	0.0005	<0.002	0.83	0.00008	0.485	<0.000005	0.19	0.0089	<10	0.000004	<0.00001	<0.0005	0.000351	0.002	0.0006	<0.0001	0.37	0.35	-0.03	-3.5%
0.0006	0.24	0.0014	<0.01	0.0002	0.0004	<0.002	0.88	0.00004	0.512	<0.000005	0.17	0.0089	<10	0.000003	<0.00001	<0.0005	0.000008	0.002	0.0009	<0.0001	0.39	0.40	0.01	0.7%
0.0007	0.24	0.0014	<0.01	<0.00005	0.0004	<0.002	0.85	0.00004	0.413	<0.000005	0.16	0.0092	<10	0.000003	<0.00001	<0.0005	0.00001	0.0018	0.001	<0.0001				



HC 8

CONFIDENTIAL

DRAFT

Sample = WRT-4 (-3/8")

Date	Cycle	Volume mL		pH	Cond. umhos/cm	Acidity	Acidity	Alkalinity	Sulphate	Hardness	Al	Sb	As	Ba	Be	Bi	B	Cd	Ca	Cr	Co	Cu	Fe	Pb
		Input	Output			(pH 4.5) mgCaCO3/L	(pH 8.3) mgCaCO3/L	mgCaCO3/L	(mg/L)	CaCO3 mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
24-Mar-08	1	500	395	7.24	876	#N/A	3.0	13.7	418	566	0.0321	0.00007	0.0015	0.0415	<0.00001	<0.000005	0.031	0.000043	219	0.0001	0.00159	0.0046	0.005	0.000117
31-Mar-08	2	500	495	7.19	630	#N/A	2.5	11.3	245	337	0.0383	0.00004	0.0018	0.0363	<0.00001	<0.000005	0.036	0.000011	128	<0.0001	0.000856	0.0008	0.004	0.000058
7-Apr-08	3	500	495	7.25	604	#N/A	4.1	11.8	259	306	0.0408	0.00004	0.0019	0.031	<0.00001	<0.000005	0.026	0.00001	117	<0.0001	0.000674	0.0012	0.003	0.00001
14-Apr-08	4	500	485	7.24	634	#N/A	2.7	12.0	308	295	0.0452	0.00004	0.002	0.029	<0.00001	<0.000005	0.029	0.000011	113	<0.0001	0.000692	0.0019	0.005	0.000096
21-Apr-08	5	500	480	7.24	374	#N/A	3.1	11.7	146	181	0.0549	0.00003	0.0019	0.0297	<0.00001	<0.000005	0.025	0.000009	69.3	<0.0001	0.000433	0.0013	0.002	<0.000005
28-Apr-08	6	500	485	7.21	335	#N/A	3.6	10.2	109	144	0.0481	0.00003	0.0018	0.0244	<0.00001	<0.000005	<0.05	0.000011	54.9	<0.0001	0.000417	0.0006	0.002	0.000054
5-May-08	7	500	485	7.32	348	#N/A	2.6	11.2	148	157	0.0507	0.00003	0.002	0.0264	<0.00001	<0.000005	<0.05	0.000009	60.1	<0.0001	0.000375	0.0005	0.006	0.000034
12-May-08	8	500	490	7.27	275	#N/A	2.4	10.9	175	219	0.0446	0.00004	0.0016	0.0242	<0.00001	<0.000005	<0.05	0.00001	84.9	0.0002	0.000522	0.0003	0.002	0.000056
19-May-08	9	500	490	7.32	245	#N/A	2.1	9.6	150	168	0.068	0.00003	0.002	0.0252	<0.00001	<0.000005	<0.05	0.000022	64.9	<0.0001	0.00041	0.0007	0.002	0.000188
26-May-08	10	500	445	7.33	429	#N/A	3.0	11.0	138	143	0.0711	0.00002	0.0017	0.0207	<0.00001	<0.000005	<0.05	0.000006	55.3	<0.0001	0.000226	0.0016	0.002	0.000058
2-Jun-08	11	500	445	7.41	344	#N/A	2.1	11.2	110	137	0.0737	0.00005	0.0019	0.0177	<0.00001	<0.000005	<0.05	0.000008	52.9	<0.0001	0.000181	0.0033	0.003	0.000062
9-Jun-08	12	500	450	7.32	210	#N/A	2.3	10.5	117	122	0.0743	0.00002	0.0018	0.0188	<0.00001	<0.000005	<0.05	0.000045	47.2	<0.0001	0.000185	0.006	0.004	0.000274
16-Jun-08	13	500	445	7.31	158	#N/A	2.5	9.7	80															
23-Jun-08	14	500	440	7.24	235	#N/A	3.2	10.7	160	156	0.0729	<0.00002	0.0018	0.0162	<0.00001	<0.000005	<0.05	<0.000005	61.2	<0.0001	0.000158	0.0017	0.003	0.000058
30-Jun-08	15	500	415	7.44	200	#N/A	2.4	11.0	82															
7-Jul-08	16	500	430	7.45	235	#N/A	2.1	10.8	83	98	0.068	0.00003	0.0017	0.016	<0.00001	<0.000005	<0.05	0.000005	38.4	<0.0001	0.000153	0.0006	0.007	0.000049
14-Jul-08	17	500	425	7.35	195	#N/A	2.1	9.7	75															
21-Jul-08	18	500	425	7.34	154	#N/A	2.1	10.5	53	67.5	0.0696	0.00003	0.0017	0.0126	<0.00001	<0.000005	<0.05	<0.000005	26.3	<0.0001	0.000111	0.0012	0.005	0.000064
28-Jul-08	19	500	430	7.32	137	#N/A	1.7	9.4	50															
4-Aug-08	20	500	415	7.49	128	#N/A	1.5	16.9	46	55.8	0.085	0.00003	0.0018	0.0136	<0.00001	<0.000005	<0.05	<0.000005	21.8	0.0002	0.000085	0.0007	0.002	0.000029
11-Aug-08	21	500	430	7.40	100	#N/A	1.6	10.6	33															
18-Aug-08	22	500	425	7.42	109	#N/A	1.6	18.2	31	43.6	0.0932	0.00003	0.0018	0.0139	<0.00001	<0.000005	<0.05	0.00001	17	<0.0001	0.000095	0.0012	0.004	0.000038
25-Aug-08	23	500	430	7.36	170	#N/A	1.8	11.3	57															
1-Sep-08	24	500	430	7.37	95	#N/A	1.7	11.3	32	42.8	0.0697	0.00003	0.0014	0.0119	<0.00001	<0.000005	<0.05	<0.000005	16.8	<0.0001	0.000088	0.0009	0.003	0.000066
8-Sep-08	25	500	430	7.47	70	#N/A	1.6	17.4	18															
15-Sep-08	26	500	425	7.42	75	#N/A	1.5	12.4	16	27.7	0.0835	0.00003	0.0015	0.0102	<0.00001	<0.000005	<0.05	<0.000005	10.8	<0.0001	0.00007	0.0006	0.001	<0.000005
22-Sep-08	27	500	440	7.46	55	#N/A	1.5	11.7	14															
29-Sep-08	28	500	450	7.48	63	#N/A	1.6	10.7	12	21.6	0.0746	0.00002	0.0013	0.0116	<0.00001	<0.000005	<0.05	<0.000005	8.37	<0.0001	0.000058	0.001	0.089	0.000017
6-Oct-08	29	500	460	7.42	60	#N/A	1.6	11.1	15															
13-Oct-08	30	500	440	7.44	70	#N/A	1.8	11.9	16	27.8	0.103	0.00003	0.0019	0.0126	<0.00001	<0.000005	<0.05	<0.000005	10.7	<0.0001	0.000058	0.0007	0.002	0.000017
20-Oct-08	31	500	435	7.29	60	#N/A	2.0	10.7	15															
27-Oct-08	32	500	430	7.35	52	#N/A	2.0	12.5	13	24.5	0.0779	0.00003	0.0014	0.011	<0.00001	0.000038	<0.05	0.000008	9.44	<0.0001	0.000049	0.001	0.002	0.000027
3-Nov-08	33	500	430	7.12	51	#N/A	1.9	10.7	14															
10-Nov-08	34	500	435	7.36	54	#N/A	2.5	12.7	10	23.6	0.0925	0.00003	0.0016	0.011	<0.00001	<0.000005	<0.05	<0.000005	9.13	<0.0001	0.000046	0.0006	0.002	0.000009
17-Nov-08	35	500	495	7.36	62	#N/A	2.3	11.2	16															
24-Nov-08	36	500	460	7.33	58	#N/A	2.0	12.8	15	24.8	0.0923	0.00002	0.0014	0.0149	<0.00001	<0.000005	<0.05	0.000013	9.56	<0.0001	0.000053	0.0009	0.002	0.000046
1-Dec-08	37	500	455	7.26	67	#N/A	1.9	12.8	17															
8-Dec-08	38	500	440	7.35	73	#N/A	2.4	13.1	19	30.4	0.085	0.00002	0.0014	0.0161	<0.00001	<0.000005	<0.05	<0.000005	11.6	<0.0001	0.000058	0.0012	0.003	0.000126
15-Dec-08	39	500	445	7.37	96	#N/A	3.2	15.2	27															
22-Dec-08	40	500	450	7.48	91	#N/A	4.8	15.4	26	37.6	0.0866	<0.00002	0.0014	0.0164	<0.00001	<0.000005	<0.05	<0.000005	14.5	<0.0001	0.000061	0.0006	0.001	0.000017
29-Dec-08	41	500	435	7.64	76	#N/A	6.3	15.5	24															
5-Jan-09	42	500	440	7.14	78	#N/A	3.2	14.9	26	34.5	0.0976	0.00003	0.0015	0.0159	<0.00001	<0.000005	<0.05	<0.000005	13.2	<0.0001	0.000065	0.0013	0.002	0.000013
12-Jan-09	43	500	430	7.23	73	#N/A	3.7	14.1	24															
19-Jan-09	44	500	415	7.29	94	#N/A	2.6	15.2	25	37.8	0.0991	0.00007	0.0014	0.0177	<0.00001	<0.000005	<0.05	<0.000005	14.6	<0.0001	0.000074	0.0011	0.005	0.000022
26-Jan-09	45	500	455	7.42	74	#N/A	3.7	13.2	21															
2-Feb-09	46	500	445	7.56	89	#N/A	5.4	15.0	25	36.6	0.0894	0.00005	0.0013	0.0161	<0.00001	<0.000005	<0.05	<0.000005	14	<0.0001	0.000067	0.0007	0.003	0.000042
9-Feb-09	47	500	450	7.54	205	#N/A	4.8	16.2	72															



HC 8

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Sample = WRT-4 (-3/8")

Date	Cycle	Volume mL		pH	Cond. umhos/cm	Acidity (pH 4.5) mgCaCO3/L	Acidity (pH 8.3) mgCaCO3/L	Alkalinity mgCaCO3/L	Sulphate (mg/L)	Hardness CaCO3 mg/L	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L
		Input	Output																					
25-May-09	62	500	470	7.18	83	#N/A	2.8	13.0	19	33.3	0.0874	0.00002	0.0013	0.0139	<0.00001	<0.000005	<0.05	0.000015	12.7	<0.0001	0.000045	0.0003	0.002	0.000097
1-Jun-09	63	500	485	7.25	86	#N/A	2.7	14.5	34															
8-Jun-09	64	500	455	7.25	76	#N/A	3.1	12.4	18	31.5	0.0849	0.00002	0.0014	0.0109	<0.00001	0.000007	<0.05	0.000016	12	<0.0001	0.000059	0.0006	0.004	0.000166
15-Jun-09	65	500	490	7.32	71	#N/A	2.9	12.9	23															
22-Jun-09	66	500	470	7.28	67	#N/A	3.3	14.5	22	34.5	0.114	<0.00002	0.0014	0.0119	<0.00001	<0.000005	<0.05	<0.000005	13.2	<0.0001	0.000043	0.0004	0.002	0.000009
29-Jun-09	67	500	475	7.27	60	#N/A	2.5	12.9	20															
6-Jul-09	68	500	470	7.20	72	#N/A	2.2	12.8	15	26.4	0.0774	<0.00002	0.0011	0.0111	<0.00001	<0.000005	<0.05	<0.000005	10.1	<0.0001	0.000061	0.0011	0.004	0.000039
13-Jul-09	69	500	480	7.11	49	#N/A	2.3	11.0	8															
20-Jul-09	70	500	475	7.09	53	#N/A	2.9	10.4	10	21.1	0.0941	<0.00002	0.0012	0.0096	<0.00001	<0.000005	<0.05	<0.000005	8.09	<0.0001	0.000031	0.0004	0.001	0.000007
27-Jul-09	71	500	465	6.91	76	#N/A	3.3	9.6	20															
3-Aug-09	72	500	465	7.27	60	#N/A	2.1	11.4	21	29	0.0928	0.00002	0.0015	0.0118	<0.00001	<0.000005	<0.05	<0.000005	11.1	<0.0001	0.00003	0.0004	0.002	<0.000005
10-Aug-09	73	500	465	7.03	53	#N/A	3.8	11.2	11															
17-Aug-09	74	500	475	6.97	65	#N/A	3.3	11.1	19	27.1	0.0667	<0.00002	0.0013	0.0116	<0.00001	<0.000005	<0.05	<0.000005	10.4	<0.0001	0.000033	0.0013	<0.001	0.000068
24-Aug-09	75	500	490	7.14	69	#N/A	2.9	12.7	10															
31-Aug-09	76	500	490	7.17	67	#N/A	2.8	12.5	17	28.2	0.0874	0.00002	0.0014	0.0137	<0.00001	<0.000005	<0.05	<0.000005	10.8	<0.0001	0.000044	0.0004	0.003	0.000025
7-Sep-09	77	500	470	7.00	62	#N/A	3.2	9.8	15															
14-Sep-09	78	500	475	7.00	76	#N/A	2.9	10.1	18	30.1	0.0856	0.00002	0.0013	0.0125	<0.00001	<0.000005	<0.05	<0.000005	11.5	<0.0001	0.00004	0.0012	0.004	0.000035
21-Sep-09	79	500	445	7.04	66	#N/A	4.1	11.3	21															
28-Sep-09	80	500	435	7.10	81	#N/A	3.4	11.1	30	33.4	0.0868	<0.00002	0.0013	0.0127	<0.00001	<0.000005	<0.05	0.000013	12.8	<0.0001	0.000045	0.0008	0.002	0.000064
5-Oct-09	81	500	470	6.98	84	#N/A	3.8	9.9	26															
12-Oct-09	82	500	465	6.99	72	#N/A	2.8	8.5	33	34.7	0.0653	<0.00002	0.0009	0.0122	<0.00001	<0.000005	<0.05	0.000011	13.4	<0.0001	0.000034	0.0006	0.003	0.000042
19-Oct-09	83	500	430	7.34	74	#N/A	2.7	10.5	25															
26-Oct-09	84	500	450	7.24	87	#N/A	3.5	14.0	21	34.6	0.0908	<0.00002	0.001	0.0108	<0.00001	<0.000005	<0.05	0.000025	13.3	<0.0001	0.000037	0.0012	0.002	0.000009
2-Nov-09	85	500	470	7.43	88	#N/A	2.9	13.2	31															
9-Nov-09	86	500	495	7.44	98	#N/A	4.8	15.8	30	41.7	0.0858	<0.00002	0.001	0.0167	<0.00001	<0.000005	<0.05	<0.000005	16.1	<0.0001	0.000039	0.0002	0.002	<0.000005
16-Nov-09	87	500	460	7.54	79	#N/A	6.9	15.8	25															
23-Nov-09	88	500	480	7.09	73	#N/A	3.7	11.3	22	28.2	0.053	<0.00002	0.001	0.0146	<0.00001	<0.000005	<0.05	<0.000005	10.9	<0.0001	0.000049	0.0005	<0.001	<0.000005
30-Nov-09	89	500	485	7.19	110	#N/A	3.1	12.7	35															
7-Dec-09	90	500	475	7.12	88	#N/A	4.2	11.8	29	34.4	0.0548	<0.00002	0.0009	0.0158	<0.00001	<0.000005	<0.05	<0.000005	13.3	<0.0001	0.000036	0.0005	0.004	0.000057
14-Dec-09	91	500	485	7.17	92	#N/A	4.2	15.1	24															
21-Dec-09	92	500	475	7.46	73	#N/A	2.8	14.7	18	30.6	0.0868	0.00002	0.0012	0.0158	<0.00001	<0.000005	<0.05	<0.000005	11.8	0.0006	0.000027	0.0003	0.004	<0.000005
28-Dec-09	93	500	460	7.31	69	#N/A	2.7	13.9	23															
4-Jan-10	94	500	475	7.20	77	#N/A	3.4	16.9	16	29.3	0.0956	<0.00002	0.0021	0.0153	<0.00001	<0.000005	<0.05	<0.000005	11.3	<0.0001	0.000055	0.0016	0.001	<0.000005
11-Jan-10	95	500	445	7.29	79	#N/A	3.2	18.0	19															
18-Jan-10	96	500	480	7.40	69	#N/A	3.2	15.7	12	28.5	0.104	<0.00002	0.0011	0.0145	<0.00001	<0.000005	<0.05	<0.000005	11	<0.0001	0.000025	0.0048	0.002	0.000012
25-Jan-10	97	500	465	6.99	42	#N/A	3.2	9.8	11															
1-Feb-10	98	500	490	7.09	49	#N/A	3.0	12.8	19	26.2	0.0753	<0.00002	0.0009	0.0153	<0.00001	<0.000005	<0.05	<0.000005	10.1	<0.0001	0.000033	0.0016	0.002	0.000028
8-Feb-10	99	500	450	6.84	67	#N/A	3.5	11.8	17															
15-Feb-10	100	500	475	6.97	62	#N/A	3.5	10.3	18	25	0.0653	<0.00002	0.0017	0.0144	<0.00001	<0.000005	<0.05	<0.000005	9.61	<0.0001	0.000058	0.0007	0.001	0.000026
22-Feb-10	101	500	490	6.93	61	#N/A	2.8	9.4	21															
1-Mar-10	102	500	481	6.99	99	#N/A	3.2	13.4	28	39.3	0.0805	<0.00002	0.0012	0.0202	<0.00001	<0.000005	<0.05	<0.000005	15.2	0.0001	0.000051	0.0026	0.003	0.000012
8-Mar-10	103	500	415	6.89	73	#N/A	3.6	11.0	18															
15-Mar-10	104	500	510	7.33	78	#N/A	3.0	20.1	19	38.3	0.123	<0.00002	0.001	0.0192	<0.00001	0.000029	<0.05	<0.000005	14.7	<0.0001	0.000052	0.001	0.002	0.000069
22-Mar-10	105	500	465	7.21	72	#N/A	2.4	14.3	21															
29-Mar-10	106	500	465	7.29	54	#N/A	2.1	10.9	16	21.8	0.064	<0.00002	0.0009	0.0202	<0.00001	<0.000005	<0.05	<0.000005	8.42	<0.0001	0.000065	0.0004	0.002	0.000015
5-Apr-10	107	500	470	6.93	55	#N/A	3.0	9.3	13															
12-Apr-10	108	500	495	7.08	59	#N/A	2.8	9.5	19	22.6	0.0476	<0.00002	0.0009	0.0149	<0.00001	<0.000005	<0.05	0.000006	8.69	<0.0001	0.000039	0.001	0.003	0.000056
19-Apr-10	109	500	465	6.97	76	#N/A	3.6	14.4	21															
26-Apr-10	110	500	470	6.97	61	#N/A	6.1	11.4	14	23.2	0.0577	<0.00002	0.0011	0.014	<0.00001	<0.000005	<0.05	<0.000005	8.93	<0.0001	0.000044	0.0012	0.001	0.000009
3-May-10	111	500	495	7.10	61	#N/A	2.5	13.1	13															
10-May-10	112	500	470	7.13	62																			



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Sample = WRT-4 (-3/8")

Date	Cycle	Volume mL		pH	Cond. umhos/cm	Acidity (pH 4.5)	Acidity (pH 8.3)	Alkalinity	Sulphate (mg/L)	Hardness CaCO3 mg/L	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L
		Input	Output			mgCaCO3/L	mgCaCO3/L	mgCaCO3/L																
26-Jul-10	123	500	445	7.09	50	#N/A	3.2	10.3	14															
2-Aug-10	124	500	495	7.22	58	#N/A	2.6	12.4	9	23.4	0.0578	<0.00002	0.001	0.0131	<0.00001	<0.000005	<0.05	0.000013	8.96	<0.0001	0.000031	0.0002	<0.001	0.000006
9-Aug-10	125	500	460	7.26	48	#N/A	2.0	9.4	10															
16-Aug-10	126	500	455	7.30	68	#N/A	2.1	13.8	10	28	0.0867	0.00002	0.001	0.0211	<0.00001	<0.000005	<0.05	<0.000005	10.8	<0.0001	0.00004	0.0006	0.001	0.000006
23-Aug-10	127	500	440	7.29	50	#N/A	1.6	10.4	7															
30-Aug-10	128	500	450	7.29	55	#N/A	2.9	10.5	12	23.2	0.0494	<0.00002	0.001	0.0122	<0.00001	<0.000005	<0.05	<0.000005	8.93	<0.0001	0.000043	0.0003	0.002	0.000017
6-Sep-10	129	500	435	7.09	56	#N/A	3.3	11.2	15															
13-Sep-10	130	500	450	6.96	48	#N/A	3.4	11.1	11	21.5	0.0583	<0.00002	0.0009	0.0154	<0.00001	<0.000005	<0.05	<0.000005	8.25	<0.0001	0.000056	0.001	0.002	0.000006
20-Sep-10	131	500	435	7.23	52	#N/A	2.9	14.5	12															
27-Sep-10	132	500	450	7.34	50	#N/A	2.3	17.4	13	26.4	0.113	0.00003	0.0015	0.0139	<0.00001	<0.000005	<0.05	<0.000005	10.1	<0.0001	0.000033	0.0008	0.001	0.000013
4-Oct-10	133	500	460	7.37	54	#N/A	2.3	20.0	22															
11-Oct-10	134	500	440	7.40	74	#N/A	2.4	20.8	12	26.2	0.148	0.00003	0.0017	0.0186	<0.00001	<0.000005	<0.05	<0.000005	10	0.0001	0.000038	0.0015	<0.001	<0.000005
18-Oct-10	135	500	440	7.31	67	#N/A	2.8	21.0	12															
25-Oct-10	136	500	435	7.39	69	#N/A	2.2	24.4	10	28.8	0.105	0.00003	0.0016	0.018	<0.00001	<0.000005	<0.05	<0.000005	11.1	<0.0001	0.000052	0.0007	0.006	<0.000005
1-Nov-10	137	500	435	7.50	72	#N/A	1.6	21.1	9															
8-Nov-10	138	500	460	7.41	51	#N/A	2.6	17.3	12	24.3	0.105	0.00002	0.0017	0.0191	<0.00001	<0.000005	<0.05	<0.000005	9.32	<0.0001	0.000041	0.0004	0.001	0.000006
15-Nov-10	139	500	435	7.51	54	#N/A	2.5	20.9	11															
22-Nov-10	140	500	440	7.12	52	#N/A	3.3	14.5	9	21.4	0.0823	<0.00002	0.0016	0.0149	<0.00001	<0.000005	<0.05	<0.000005	8.23	<0.0001	0.00004	0.0005	0.001	<0.000005
29-Nov-10	141	500	450	7.29	63	#N/A	3.2	20.9	12															
6-Dec-10	142	500	445	7.14	48	#N/A	3.4	15.2		18.6	0.0704	<0.00002	0.0013	0.0133	<0.00001	<0.000005	<0.05	<0.000005	7.11	<0.0001	0.000025	0.0007	<0.001	0.000416
13-Dec-10	143	500	440	7.39	51	#N/A	3.0	16.6																

Certified by:

Rik J. Vos
ARD Testing Specialist
SGS Canada Inc.



Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S	Tl	Sn	Ti	U	V	Zn	Zr	Major Anions	Major Cations	Diff	Diff %
mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L				
0.0171	4.74	0.39	0.02	0.0003	0.0025	0.021	9.55	0.00087	0.417	0.000346	3.08	0.35	180	0.000023	0.00003	0.0006	0.000056	<0.0002	0.0074	<0.0001	8.98	11.70	2.71	13.1%
0.0178	4.31	0.251	<0.01	0.0006	0.0007	0.008	8.77	0.0005	0.606	<0.000005	2.94	0.221	114	0.00001	0.00002	0.0009	0.000066	<0.0002	0.0005	<0.0001	5.33	7.09	1.76	14.2%
0.0173	3.63	0.214	<0.01	0.0008	0.0004	0.003	7.65	0.00035	0.571	<0.000005	2.2	0.197	101	0.000011	0.00001	<0.0005	0.000063	<0.0002	0.0007	<0.0001	5.63	6.43	0.80	6.6%
0.0178	2.97	0.201	<0.01	0.0009	0.0005	0.002	7.98	0.00028	0.725	<0.000005	1.79	0.195	102	0.000013	0.00002	0.0006	0.000071	<0.0002	0.0079	<0.0001	6.66	6.17	-0.49	-3.8%
0.0133	1.97	0.123	<0.01	0.0008	0.0004	<0.002	7.53	0.00018	0.544	<0.000005	1.23	0.117	63	0.000007	<0.00001	<0.0005	0.000039	<0.0002	0.0006	<0.0001	3.28	3.87	0.59	8.3%
0.0118	1.54	0.103	<0.01	0.0006	0.0004	<0.002	6.21	0.00015	0.531	<0.000005	0.95	0.0956	48	0.000008	<0.00001	<0.0005	0.000038	<0.0002	0.0015	<0.0001	2.48	3.07	0.59	10.7%
0.013	1.61	0.105	<0.01	0.0007	0.0002	<0.002	6.09	0.00015	0.544	<0.000005	0.79	0.1	50	0.000009	<0.00001	<0.0005	0.000039	<0.0002	0.0008	<0.0001	3.31	3.32	0.01	0.2%
0.013	1.81	0.13	<0.01	0.0007	0.0003	<0.002	6.86	0.00011	0.623	<0.000005	0.83	0.119	74	0.00001	<0.00001	<0.0005	0.000051	<0.0002	0.001	<0.0001	3.86	4.60	0.73	8.7%
0.0127	1.51	0.0953	<0.01	0.0006	0.0002	<0.002	6.56	0.00021	0.677	<0.000005	0.72	0.0943	57	0.00001	<0.00001	<0.0005	0.000044	<0.0002	0.001	<0.0001	3.32	3.56	0.25	3.6%
0.0091	1.15	0.0497	<0.01	0.0005	0.0002	<0.002	4.99	0.0001	0.429	<0.000005	0.53	0.0866	45	0.000005	<0.00001	<0.0005	0.000034	<0.0002	0.0012	<0.0001	3.10	3.00	-0.09	-1.5%
0.0086	1.13	0.0349	<0.01	0.0004	0.0003	<0.002	4.58	0.00011	0.464	<0.000005	0.61	0.0837	46	0.000004	<0.00001	0.0006	0.00004	<0.0002	0.0016	<0.0001	2.52	2.88	0.36	6.7%
0.0086	0.91	0.0328	<0.01	0.0004	0.0002	0.003	4.34	0.0001	0.436	<0.000005	0.4	0.0763	39	0.000011	0.00002	<0.0005	0.000037	<0.0002	0.0188	<0.0001	2.65	2.56	-0.09	-1.7%
0.0077	0.83	0.0239	<0.01	0.0005	0.0001	<0.002	4.19	0.00015	0.367	<0.000005	0.42	0.104	53	0.000005	<0.00001	<0.0005	0.000035	<0.0002	0.0013	<0.0001	3.55	3.25	-0.30	-4.4%
0.0074	0.55	0.0204	<0.01	0.0007	0.0003	<0.002	3.79	0.00017	0.554	<0.000005	0.31	0.0663	31	0.000007	<0.00001	<0.0005	0.000051	<0.0002	0.0025	<0.0001	1.94	2.07	0.13	3.2%
0.0058	0.42	0.0152	0.01	0.0005	0.0002	<0.002	3.03	0.00022	0.466	<0.000005	0.28	0.0467	21	0.000007	0.00001	<0.0005	0.000049	<0.0002	0.0014	<0.0001	1.31	1.44	0.12	4.4%
0.0056	0.36	0.0129	<0.01	0.0005	0.0002	<0.002	2.94	0.0001	0.479	<0.000005	0.29	0.0402	16	0.000007	0.00001	<0.0005	0.000021	<0.0002	0.0005	<0.0001	1.30	1.21	-0.09	-3.6%
0.0054	0.28	0.0112	0.01	0.0004	0.0003	0.003	2.82	0.00013	0.525	0.000018	0.3	0.0328	12	0.000006	0.00002	<0.0005	0.000035	<0.0002	0.0003	<0.0001	1.01	0.96	-0.05	-2.7%
0.0041	0.2	0.0094	<0.01	0.0004	0.0001	<0.002	2.18	0.00012	0.44	<0.000005	0.24	0.0337	12	0.000004	0.00001	<0.0005	0.000017	<0.0002	0.0015	<0.0001	0.89	0.92	0.03	1.5%
0.0046	0.19	0.0083	<0.01	0.0003	0.0002	0.003	2.25	0.00011	0.418	0.000005	0.17	0.0226	7	0.000005	0.00004	<0.0005	0.00001	<0.0002	0.0007	<0.0001	0.58	0.62	0.04	3.1%
0.0036	0.16	0.0079	<0.01	0.0003	0.0001	<0.002	1.94	0.00006	0.396	<0.000005	0.25	0.0183	5	0.000004	0.00004	0.0006	0.000012	<0.0002	0.0006	<0.0001	0.46	0.49	0.03	2.9%
0.0049	0.23	0.0073	<0.01	0.0003	0.0001	<0.002	2.43	0.00007	0.433	<0.000005	0.24	0.0241	6	0.000005	0.00001	<0.0005	0.000017	<0.0002	0.0007	<0.0001	0.57	0.63	0.05	4.6%
0.0041	0.23	0.0077	<0.01	0.0002	0.0002	0.004	2.2	<0.00004	0.42	<0.000005	0.28	0.019	5	0.000007	<0.00001	<0.0005	0.00001	<0.0002	0.0014	<0.0001	0.52	0.56	0.04	3.5%
0.0041	0.2	0.0067	0.01	0.0002	0.0002	<0.002	2.12	0.00009	0.46	<0.000005	0.22	0.0201	5	0.000004	<0.00001	0.0006	0.000008	<0.0002	0.0003	<0.0001	0.46	0.54	0.07	7.3%
0.0037	0.23	0.0095	<0.01	0.0002	0.0002	<0.002	2.16	<0.00004	0.372	<0.000005	0.17	0.0219	6	0.000005	<0.00001	<0.0005	0.00003	<0.0002	0.0026	<0.0001	0.57	0.56	-0.01	-0.9%
0.0046	0.36	0.0104	<0.01	0.0002	0.0002	<0.002	2.72	0.00007	0.475	<0.000005	0.26	0.0232	8	0.000004	<0.00001	<0.0005	0.000011	<0.0002	0.0006	<0.0001	0.66	0.69	0.03	2.4%
0.0046	0.35	0.011	<0.01	0.0002	0.0001	0.002	2.64	<0.00004	0.497	<0.000005	0.18	0.027	10	<0.000002	<0.00001	<0.0005	0.000007	<0.0002	0.0002	<0.0001	0.85	0.83	-0.02	-1.3%
0.0046	0.36	0.0092	<0.01	0.0002	0.0002	<0.002	2.73	0.00004	0.49	<0.000005	0.23	0.0268	9	0.000005	<0.00001	<0.0005	0.000012	<0.0002	0.0008	<0.0001	0.84	0.77	-0.07	-4.4%
0.0051	0.36	0.0084	<0.01	0.0002	0.0003	<0.002	3.05	0.00009	0.631	<0.000005	0.24	0.03	10	0.000009	<0.00001	<0.0005	0.00002	<0.0002	0.0005	<0.0001	0.83	0.85	0.02	1.3%
0.0045	0.38	0.0088	<0.01	0.0002	0.0002	<0.002	2.79	0.00005	0.492	<0.000005	0.28	0.0264	10	0.000003	<0.00001	<0.0005	0.000011	<0.0002	0.0018	<0.0001	0.82	0.81	-0.01	-0.4%
0.0038	0.34	0.0071	<0.01	0.0002	0.0001	<0.002	2.3	0.00011	0.48	<0.000005	0.21	0.0261	10	0.000003	<0.00001	<0.0005	0.000009	<0.0002	0.0004	<0.0001	0.83	0.81	-0.01	-0.7%
0.0036	0.37	0.0072	<0.01	0.0002	0.0002	<0.002	2.37	0.00005	0.557	<0.000005	0.21	0.0274	10	0.000007	<0.00001	<0.0005	0.000034	<0.0002	0.0023	<0.0001	0.74	0.81	0.08	4.9%
0.0036	0.42	0.0078	<0.01	0.0002	0.0002	<0.002	2.62	0.00007	0.53	<0.000005	0.24	0.0306	12	0.000006	<0.00001	<0.0005	0.000017	<0.0002	0.0009	<0.0001	1.02	0.91	-0.11	-5.7%
0.0041	0.4	0.0063	0.01	0.0002	0.0001	0.003	2.56	0.00009	0.549	<0.000005	0.25	0.0357	14	0.000005	<0.00001	<0.0005	0.000014	<0.0002	0.0035	<0.0001	1.09	1.08	-0.01	-0.7%
0.003	0.29	0.0057	<0.01	0.0002	0.0004	<0.002	1.84	0.00012	0.44	<0.000005	0.29	0.0192	6	0.000004	<0.00001	<0.0005	0.000009	<0.0002	0.0005	<0.0001	0.55	0.60	0.06	4.9%
0.0038	0.39	0.0049	<0.01	0.0002	0.0001	0.003	2.57	0.00009	0.547	<0.000005	0.24	0.0354	14	0.000006	0.00003	<0.0005	0.000014	<0.0002	0.0003	<0.0001	1.02	1.04	0.02	1.2%
0.0033	0.34	0.0053	<0.01	0.0002	0.0005	<0.002	2.19	0.00008	0.533	<0.000005	0.35	0.0192	7	0.000007	<0.00001	<0.0005	0.000013	<0.0002	0.0015	<0.0001	0.58	0.66	0.09	6.9%



Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S	Tl	Sn	Ti	U	V	Zn	Zr	Major Anions	Major Cations	Diff	Diff %
mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L				
0.0036	0.4	0.0049	<0.01	0.0002	0.0002	<0.002	2.32	0.00007	0.53	<0.000005	0.22	0.022	10	0.000005	0.00001	<0.0005	0.000012	<0.0002	0.0004	<0.0001	0.66	0.74	0.08	5.8%
0.003	0.35	0.0041	<0.01	0.0003	0.001	0.002	2.03	0.00007	0.494	<0.000005	0.27	0.0203	8	0.000004	<0.00001	<0.0005	0.000009	<0.0002	0.0025	<0.0001	0.62	0.69	0.07	5.2%
0.0034	0.38	0.0031	<0.01	0.0004	8E-05	<0.002	2.29	0.00007	0.685	<0.000005	0.25	0.0222	9	0.000005	<0.00001	<0.0005	0.000015	<0.0002	0.0004	<0.0001	0.75	0.76	0.01	0.8%
0.0029	0.3	0.0026	<0.01	0.0005	0.0002	<0.002	1.8	0.00007	0.442	<0.000005	0.21	0.019	7	0.000004	<0.00001	<0.0005	0.000011	<0.0002	0.0007	<0.0001	0.57	0.58	0.02	1.4%
0.0022	0.22	0.0023	<0.01	0.0004	0.0001	<0.002	1.45	0.00006	0.382	<0.000005	0.17	0.0146	5	0.000005	<0.00001	<0.0005	0.000012	<0.0002	0.0004	<0.0001	0.42	0.47	0.05	5.7%
0.0025	0.3	0.0024	<0.01	0.0006	7E-05	0.003	1.78	0.00008	0.476	<0.000005	0.19	0.0192	7	0.000005	<0.00001	<0.0005	0.000014	<0.0002	0.0001	<0.0001	0.67	0.63	-0.03	-2.6%
0.0026	0.28	0.0024	<0.01	0.0006	0.0001	<0.002	1.71	0.00007	0.474	<0.000005	0.18	0.0179	8	0.000005	0.00003	<0.0005	0.00001	<0.0002	0.0008	<0.0001	0.62	0.59	-0.02	-2.0%
0.0027	0.32	0.0022	0.01	0.0006	0.0002	<0.002	1.72	0.0001	0.544	<0.000005	0.22	0.019	6	0.000004	<0.00001	<0.0005	0.000011	<0.0002	0.0013	<0.0001	0.60	0.62	0.01	1.2%
0.0026	0.32	0.002	<0.01	0.0008	0.0001	0.003	1.74	0.00008	0.549	<0.000005	0.22	0.0202	7	0.000007	<0.00001	<0.0005	0.000024	<0.0002	0.0005	<0.0001	0.58	0.65	0.08	6.4%
0.0025	0.36	0.0026	<0.01	0.0008	0.0003	<0.002	1.8	0.00008	0.556	<0.000005	0.29	0.0209	9	0.000005	<0.00001	<0.0005	0.000013	<0.0002	0.0008	<0.0001	0.85	0.73	-0.12	-7.6%
0.0022	0.3	0.0016	<0.01	0.0006	0.0002	0.003	1.51	0.00005	0.387	<0.000005	0.19	0.0218	11	0.000004	<0.00001	<0.0005	0.000013	<0.0002	0.0003	<0.0001	0.86	0.74	-0.12	-7.3%
0.0027	0.36	0.0015	<0.01	0.0008	0.0285	0.004	1.95	0.00007	0.508	<0.000005	0.26	0.0213	8	0.000005	0.00005	<0.0005	0.00001	<0.0002	0.0004	<0.0001	0.72	0.75	0.04	2.5%
0.0024	0.33	0.0016	<0.01	0.0006	0.0002	<0.002	1.8	0.00005	0.576	<0.000005	0.19	0.0264	11	0.000004	<0.00001	<0.0005	0.000017	<0.0002	0.0003	<0.0001	0.94	0.88	-0.06	-3.0%
0.0019	0.25	0.0019	<0.01	0.0003	0.0003	<0.002	1.29	<0.00004	0.442	<0.000005	0.21	0.0197	8	0.000004	0.00003	<0.0005	0.00001	<0.0002	0.0008	<0.0001	0.68	0.61	-0.08	-5.9%
0.0019	0.3	0.0018	<0.01	0.0003	0.0003	<0.002	1.37	0.00004	0.426	<0.000005	0.18	0.0224	8	0.000004	<0.00001	<0.0005	0.000021	<0.0002	0.0018	<0.0001	0.84	0.73	-0.11	-6.9%
0.0025	0.26	0.0015	<0.01	0.0004	0.0001	<0.002	1.71	0.00005	0.73	<0.000005	0.26	0.0211	7	0.000005	<0.00001	<0.0005	0.00003	<0.0002	0.0003	<0.0001	0.67	0.67	0.00	-0.3%
0.0025	0.27	0.0016	<0.01	0.0004	0.0007	<0.002	1.8	0.00005	0.73	<0.000005	0.2	0.0195	7	0.000004	0.00003	<0.0005	0.000296	<0.0002	0.0005	<0.0001	0.67	0.64	-0.03	-2.3%
0.0025	0.26	0.0014	<0.01	0.0004	0.0004	0.002	1.91	0.00005	0.671	<0.000005	0.22	0.0191	6	0.000005	0.0001	0.0005	0.000012	<0.0002	0.0017	<0.0001	0.56	0.63	0.06	5.4%
0.002	0.24	0.0016	<0.01	0.0003	0.0005	<0.002	1.57	0.00005	0.456	<0.000005	0.2	0.0171	6	0.000005	0.00002	<0.0005	0.000012	<0.0002	0.0007	<0.0001	0.65	0.57	-0.08	-6.5%
0.0019	0.25	0.0016	<0.01	0.0004	0.0005	<0.002	1.45	0.00005	0.418	<0.000005	0.16	0.0163	6	0.000004	0.00011	<0.0005	0.000199	<0.0002	0.0006	<0.0001	0.58	0.54	-0.04	-3.2%
0.0026	0.33	0.0013	<0.01	0.0006	0.0004	0.004	1.82	0.00008	0.607	<0.000005	0.24	0.0255	10	0.000006	0.00008	<0.0005	0.000017	<0.0002	0.0008	<0.0001	0.85	0.84	-0.01	-0.5%
0.0033	0.37	0.0008	<0.01	0.0009	0.0002	<0.002	2.32	0.00007	0.83	<0.000005	0.2	0.0246	<10	0.000006	0.00002	<0.0005	0.000014	<0.0002	0.0056	<0.0001	0.80	0.83	0.03	2.1%
0.0016	0.19	0.0013	<0.01	0.0005	0.0003	<0.002	1.15	0.00007	0.473	<0.000005	0.14	0.0139	<10	0.000004	<0.00001	<0.0005	0.000011	<0.0002	0.0008	<0.0001	0.55	0.47	-0.08	-7.8%
0.0017	0.21	0.0016	<0.01	0.0007	0.0004	0.002	1.17	0.00008	0.51	<0.000005	0.18	0.0151	<10	0.000005	0.00005	<0.0005	0.000028	<0.0002	0.0011	<0.0001	0.59	0.49	-0.10	-9.1%
0.0015	0.21	0.0014	<0.01	0.0007	0.0005	<0.002	1.19	0.00006	0.404	<0.000005	0.18	0.0152	<10	0.000003	<0.00001	<0.0005	0.000299	<0.0002	0.0012	<0.0001	0.52	0.50	-0.02	-1.9%
0.0017	0.22	0.0015	<0.01	0.0008	0.0002	<0.002	1.24	0.00005	0.397	<0.000005	0.16	0.0146	<10	0.000004	<0.00001	<0.0005	0.000006	<0.0002	0.0005	<0.0001	0.52	0.51	-0.01	-0.9%
0.0016	0.22	0.0015	<0.01	0.0009	0.0001	<0.002	1.27	0.00007	0.391	<0.000005	0.13	0.014	<10	0.000004	0.00005	<0.0005	0.000007	<0.0002	0.0006	<0.0001	0.46	0.50	0.04	3.9%
0.0018	0.23	0.0015	<0.01	0.0011	0.0003	<0.002	1.27	0.00007	0.376	<0.000005	0.17	0.0148	<10	0.000004	0.00002	<0.0005	0.00001	<0.0002	0.001	<0.0001	0.40	0.51	0.11	11.8%
0.0017	0.24	0.0014	<0.01	0.001	0.0004	<0.002	1.3	0.00007	0.429	<0.000005	0.2	0.0172	<10	0.000005	0.00003	<0.0005	0.00007	<0.0002	0.0003	<0.0001	0.55	0.53	-0.03	-2.5%
0.0017	0.26	0.0019	<0.01	0.0011	0.0002	<0.002	1.33	0.00006	0.399	<0.000005	0.23	0.0144	<10	0.000004	<0.00001	<0.0005	0.000009	<0.0002	0.0004	<0.0001	0.48	0.49	0.01	1.0%
0.0021	0.26	0.0011	<0.01	0.0011	5E-05	<0.002	1.37	0.00008	0.573	<0.000005	0.12	0.0186	<10	0.000007	<0.00001	<0.0005	0.000012	<0.0002	0.0002	<0.0001	0.49	0.59	0.10	9.5%



Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S	Tl	Sn	Ti	U	V	Zn	Zr
mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
0.0016	0.24	0.0013	<0.01	0.001	0.0002	<0.002	1.19	0.00007	0.481	<0.000005	0.14	0.0146	<10	0.000004	<0.00001	<0.0005	0.000015	<0.0002	0.0002	<0.0001
0.0023	0.27	0.0026	<0.01	0.0013	0.0003	<0.002	1.68	0.00009	0.596	<0.000005	0.24	0.0181	<10	0.000005	<0.00001	<0.0005	0.000009	<0.0002	0.0003	<0.0001
0.0014	0.22	0.0018	<0.01	0.0006	0.0004	<0.002	1.31	0.00008	0.537	<0.000005	0.18	0.015	<10	0.000004	<0.00001	<0.0005	0.00003	<0.0002	0.0009	<0.0001
0.0018	0.21	0.0026	<0.01	0.0005	0.0003	0.002	1.24	0.00007	0.46	<0.000005	0.19	0.0146	<10	0.000004	0.00002	0.0006	0.000023	<0.0002	0.0005	<0.0001
0.0025	0.29	0.0014	<0.01	0.0006	0.0003	<0.002	1.87	0.00009	0.747	<0.000005	0.23	0.018	<10	0.000005	0.00001	<0.0005	0.000055	<0.0002	0.0003	<0.0001
0.0025	0.28	0.0021	<0.01	0.0005	0.0003	<0.002	2.23	0.00008	0.811	<0.000005	0.21	0.02	<10	0.000006	0.00001	0.0005	0.000012	<0.0002	0.0005	<0.0001
0.0028	0.27	0.0022	<0.01	0.0005	0.0002	<0.002	2.23	0.0001	0.881	<0.000005	0.15	0.0196	<10	0.000006	0.00001	<0.0005	0.000014	<0.0002	0.002	<0.0001
0.0026	0.25	0.0026	<0.01	0.0003	0.0004	<0.002	2.32	0.00009	0.727	<0.000005	0.22	0.0186	<10	0.000006	0.00004	<0.0005	0.000043	<0.0002	0.0002	<0.0001
0.0022	0.2	0.0023	<0.01	0.0002	0.0005	<0.002	1.98	0.00007	0.628	<0.000005	0.16	0.0143	<10	0.000004	<0.00001	<0.0005	0.000693	<0.0002	0.0004	<0.0001
0.0022	0.19	0.002	<0.01	0.0002	0.0003	<0.002	1.92	0.00007	0.554	<0.000005	0.16	0.0134	<10	0.000004	<0.00001	<0.0005	0.000029	<0.0002	0.0003	<0.0001

Major Anions	Major Cations	Diff	Diff %
0.44	0.50	0.07	7.2%
0.48	0.61	0.13	11.9%
0.46	0.51	0.05	4.7%
0.45	0.47	0.02	1.8%
0.62	0.59	-0.03	-2.8%
0.67	0.59	-0.08	-6.3%
0.70	0.64	-0.06	-4.2%
0.60	0.55	-0.04	-3.5%
0.48	0.48	0.01	0.8%



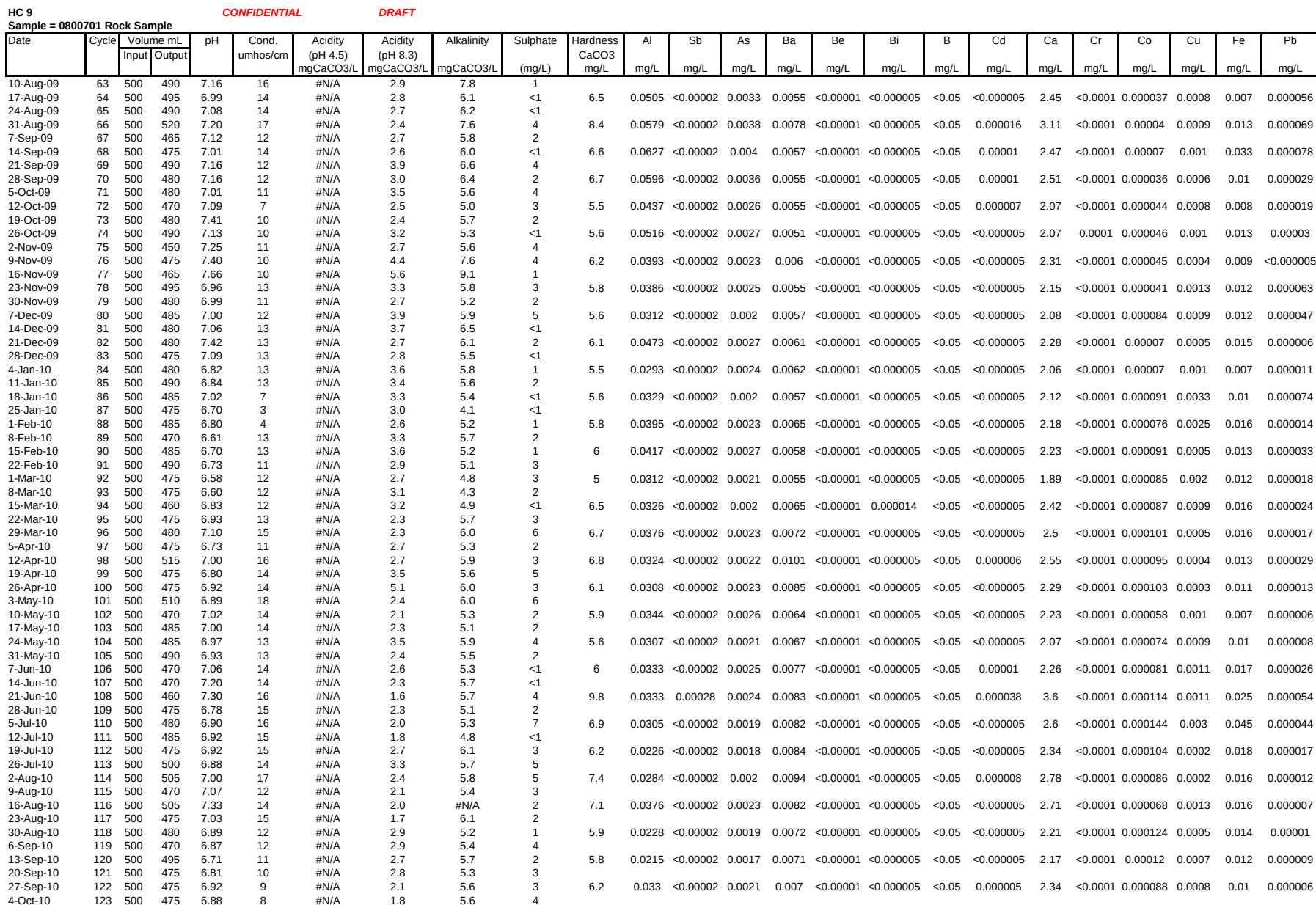
HC 9

CONFIDENTIAL

DRAFT

Sample = 0800701 Rock Sample

Date	Cycle	Volume mL		pH	Cond. umhos/cm	Acidity (pH 4.5) mgCaCO3/L	Acidity (pH 8.3) mgCaCO3/L	Alkalinity mgCaCO3/L	Sulphate (mg/L)	Hardness CaCO3 mg/L	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L
		Input	Output																					
3-Jun-08	1	500	480	6.62	240	#N/A	4.4	2.6	110	119	0.0402	0.00004	0.0037	0.0133	<0.00001	<0.000005	<0.05	0.000044	44.7	<0.0001	0.000284	0.0061	0.009	0.000657
9-Jun-08	2	500	480	#N/A	158	7.6	#N/A	#N/A	17	42.5	0.333	0.00004	0.0084	0.0166	<0.00001	<0.000005	<0.05	0.000237	15.4	0.0004	0.00105	0.013	0.696	0.00627
16-Jun-08	3	500	510	7.42	48	#N/A	2.4	8.8	10	19.9	0.071	0.00004	0.0031	0.0113	<0.00001	<0.000005	<0.05	0.000018	7.2	<0.0001	0.000375	0.001	0.012	0.000033
23-Jun-08	4	500	485	7.67	28	#N/A	2.4	12.3	5	14.3	0.116	0.00005	0.0067	0.0042	<0.00001	<0.000005	<0.05	<0.000005	5.11	<0.0001	0.000062	0.001	0.008	0.000085
30-Jun-08	5	500	475	7.75	33	#N/A	1.7	12.2	4	13.2	0.167	0.00005	0.0101	0.0045	<0.00001	<0.000005	<0.05	<0.000005	4.84	<0.0001	0.000056	0.0009	0.007	0.000057
7-Jul-08	6	500	505	7.65	42	#N/A	1.6	10.3	5	15.2	0.106	0.00005	0.0087	0.006	<0.00001	<0.000005	<0.05	<0.000005	5.57	<0.0001	0.000032	0.0002	0.005	0.000057
14-Jul-08	7	500	475	7.77	33	#N/A	1.4	12.6	4	13	0.144	0.00004	0.0093	0.0048	<0.00001	<0.000005	<0.05	<0.000005	4.78	0.0001	0.000043	0.0004	0.007	0.000088
21-Jul-08	8	500	500	7.56	28	#N/A	1.6	11.1	2	12.1	0.102	0.00004	0.0067	0.0059	<0.00001	<0.000005	<0.05	<0.000005	4.48	<0.0001	0.000037	0.0011	0.007	0.000076
28-Jul-08	9	500	490	7.48	25	#N/A	1.5	10.0	2	10.2	0.0956	0.00003	0.0061	0.0044	<0.00001	<0.000005	<0.05	<0.000005	3.78	<0.0001	0.000036	0.0009	0.004	0.00002
4-Aug-08	10	500	480	7.57	24	#N/A	1.0	14.3	4	10.8	0.113	0.00003	0.0064	0.0053	<0.00001	<0.000005	<0.05	<0.000005	3.97	0.0002	0.000042	0.0005	0.007	0.000023
11-Aug-08	11	500	495	7.39	17	#N/A	1.4	8.0	3	8.7	0.0727	0.00003	0.0043	0.0044	<0.00001	<0.000005	<0.05	<0.000005	3.21	<0.0001	0.00004	0.0007	0.004	0.000058
18-Aug-08	12	500	485	7.39	23	#N/A	1.5	10.6	2	9.5	0.0875	0.00003	0.0053	0.005	<0.00001	<0.000005	<0.05	0.000012	3.52	<0.0001	0.000054	0.0015	0.007	0.000057
25-Aug-08	13	500	480	7.42	17	#N/A	1.5	9.1	2															
1-Sep-08	14	500	465	7.32	13	#N/A	1.3	7.0	2	7.1	0.0602	0.00002	0.0038	0.0045	<0.00001	<0.000005	<0.05	<0.000005	2.63	<0.0001	0.000041	0.0008	0.004	0.000076
8-Sep-08	15	500	485	7.50	20	#N/A	1.4	14.9	2															
15-Sep-08	16	500	470	7.40	21	#N/A	1.3	8.9	2	8.7	0.0914	0.00003	0.0049	0.0049	<0.00001	<0.000005	<0.05	<0.000005	3.24	<0.0001	0.000038	0.0005	0.01	0.000021
22-Sep-08	17	500	475	7.33	15	#N/A	1.3	7.0	2															
29-Sep-08	18	500	500	7.39	27	#N/A	1.3	9.0	2	10.4	0.0678	0.00003	0.0048	0.007	<0.00001	<0.000005	<0.05	<0.000005	3.89	<0.0001	0.000041	0.0013	0.009	0.00004
6-Oct-08	19	500	480	7.39	17	#N/A	1.3	7.5	2															
13-Oct-08	20	500	480	7.37	17	#N/A	1.8	7.8	1	8.3	0.0945	0.00003	0.0055	0.0055	<0.00001	<0.000005	<0.05	<0.000005	3.1	<0.0001	0.000031	0.0044	0.009	0.000043
20-Oct-08	21	500	490	7.18	15	#N/A	1.7	6.4	3															
27-Oct-08	22	500	475	7.21	14	#N/A	1.7	7.3	3	7.9	0.0639	<0.00002	0.0036	0.0045	<0.00001	<0.000005	<0.05	<0.000005	2.92	<0.0001	0.000036	0.0009	0.007	0.000024
3-Nov-08	23	500	475	7.36	14	#N/A	1.6	9.2	4															
10-Nov-08	24	500	495	7.30	23	#N/A	2.1	9.0	3	11.3	0.0805	0.00002	0.005	0.0073	<0.00001	0.000005	<0.05	<0.000005	4.2	<0.0001	0.000026	0.0005	0.008	0.000016
17-Nov-08	25	500	500	7.45	23	#N/A	2.0	10.9	4															
24-Nov-08	26	500	470	7.30	15	#N/A	2.0	7.5	3	8.2	0.0752	<0.00002	0.0042	0.0055	<0.00001	<0.000005	<0.05	0.000053	3.05	<0.0001	0.00005	0.0009	0.007	0.000138
1-Dec-08	27	500	500	7.25	18	#N/A	1.8	8.2	3															
8-Dec-08	28	500	480	7.39	14	#N/A	2.4	8.2	1	7.3	0.0659	<0.00002	0.0035	0.0051	<0.00001	<0.000005	<0.05	<0.000005	2.71	<0.0001	0.000042	0.0007	0.006	0.000025
15-Dec-08	29	500	485	7.43	22	#N/A	3.3	9.6	5															
22-Dec-08	30	500	500	7.54	24	#N/A	4.2	11.1	5	11	0.0582	<0.00002	0.0042	0.0085	<0.00001	<0.000005	<0.05	<0.000005	4.1	<0.0001	0.000032	0.0004	0.004	0.000018
29-Dec-08	31	500	495	7.78	23	#N/A	5.7	11.7	3															
5-Jan-09	32	500	475	7.10	15	#N/A	3.0	7.9	3	7.9	0.066	0.00002	0.0046	0.0057	<0.00001	<0.000005	<0.05	<0.000005	2.94	<0.0001	0.00006	0.0017	0.007	0.000048
12-Jan-09	33	500	475	7.25	16	#N/A	3.0	8.7	4															
19-Jan-09	34	500	465	7.24	16	#N/A	2.1	7.2	3	7.6	0.0604	0.00003	0.0039	0.005	<0.00001	<0.000005	<0.05	<0.000005	2.84	<0.0001	0.000055	0.0008	0.009	0.000035
26-Jan-09	35	500	515	7.44	23	#N/A	3.1	9.4	4															
2-Feb-09	36	500	480	7.51	16	#N/A	4.9	8.8	2	8	0.0806	<0.00002	0.0041	0.006	<0.00001	<0.000005	<0.05	<0.000005	3.01	<0.0001	0.000045	0.0008	0.007	0.00004
9-Feb-09	37	500	480	7.81	19	#N/A	3.5	10.0	3															
16-Feb-09	38	500	475	7.26	16	#N/A	2.9	7.6	4	7.6	0.0584	0.00002	0.0034	0.0055	<0.00001	<0.000005	<0.05	<0.000005	2.84	<0.0001	0.000041	0.0007	0.005	0.000009
23-Feb-09	39	500	465	7.54	16	#N/A	2.8	8.4	3															
2-Mar-09	40	500	490	7.56	21	#N/A	2.3	9.0	2	9.6	0.076	<0.00002	0.004	0.0076	<0.00001	<0.000005	<0.05	<0.000005	3.59	<0.0001	0.000054	0.0006	0.008	0.000078
9-Mar-09	41	500	480	6.97	17	#N/A	2.7	7.3	4															
16-Mar-09	42	500	460	7.00	17	#N/A	2.7	7.8	3	8.1	0.0685	<0.00002	0.0043	0.0063	<0.00001	<0.000005	<0.05	<0.000005	3.02	<0.0001	0.000046	0.0005	0.007	0.000011
23-Mar-09	43	500	480	7.07	20	#N/A	2.4	7.2	2															
30-Mar-09	44	500	485	7.04	15	#N/A	2.0	7.3	3	7	0.055	<0.00002	0.0037	0.006	<0.00001	<0.000005	<0.05	<0.000005	2.62	<0.0001	0.000063	0.0007	0.009	0.000013
6-Apr-09	45	500	475	7.08	14	#N/A	2.9	6.7	3															
13-Apr-09	46	500	470	7.18	17	#N/A	2.2	7.2	2	7.3	0.0608	<0.00002	0.0034	0.0059	<0.00001	<0.000005	<0.05	<0.000005	2.74	0.0002	0.000053	0.0012	0.012	0.000022
20-Apr-09	47	500	465	7.05	12	#N/A	2.0	5.7	3															
27-Apr-09	48	500	470	7.08	17	#N/A	1.8	7.3</																





HC 9

CONFIDENTIAL

DRAFT

Sample = 0800701 Rock Sample

Date	Cycle	Volume mL		pH	Cond. umhos/cm	Acidity (pH 4.5)	Acidity (pH 8.3)	Alkalinity mgCaCO3/L	Sulphate (mg/L)	Hardness CaCO3 mg/L	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L
		Input	Output			mgCaCO3/L	mgCaCO3/L																	
11-Oct-10	124	500	470	6.88	13	#N/A	2.6	4.8	3	5.6	0.025	<0.00002	0.0018	0.0069	<0.00001	<0.000005	<0.05	0.000005	2.09	<0.0001	0.000162	0.0007	0.02	<0.000005
18-Oct-10	125	500	480	6.85	16	#N/A	2.7	5.8	4	6.7	0.0265	<0.00002	0.002	0.0079	<0.00001	<0.000005	<0.05	0.000006	2.53	0.0001	0.000158	0.0006	0.024	0.000017
1-Nov-10	127	500	495	7.13	13	#N/A	1.6	6.3	4															
8-Nov-10	128	500	490	7.16	11	#N/A	2.6	5.6	2	6.2	0.0271	<0.00002	0.0019	0.0089	<0.00001	<0.000005	<0.05	0.000006	2.35	<0.0001	0.000134	0.0003	0.029	0.000021
15-Nov-10	129	500	475	7.39	9	#N/A	2.6	6.4	2															
22-Nov-10	130	500	480	6.76	16	#N/A	2.8	5.5	3	6.9	0.0202	<0.00002	0.0016	0.0117	<0.00001	<0.000005	<0.05	0.000005	2.63	0.0001	0.000135	0.0013	0.027	0.000034
29-Nov-10	131	500	470	6.87	15	#N/A	2.6	5.4	5															
6-Dec-10	132	500	485	6.88	15	#N/A	2.5	5.5		6.6	0.0191	<0.00002	0.0014	0.0087	<0.00001	<0.000005	<0.05	0.000006	2.5	<0.0001	0.000171	0.0011	0.021	0.00031
13-Dec-10	133	500	475	7.14	15	#N/A	3.2	5.8																

June 9/08 pH 3.82 and acidity 15.8. Suspect instrument error. Not repeated.

Aug 16/10. Alkalinity 30.4. Suspect instrument error, not repeated.

Certified by:

Rik J. Vos
ARD Testing Specialist
SGS Canada Inc.



Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S	Tl	Sn	Ti	U	V	Zn	Zr	Major Anions	Major Cations	Diff	Diff %
mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L				
0.0053	1.73	0.0682	0.05	0.0004	0.0007	0.005	2.39	0.0002	0.284	<0.000005	3	0.113	39	0.000007	0.00001	<0.0005	0.000036	<0.0002	0.0039	<0.0001	2.34	2.56	0.22	4.5%
0.0054	0.98	0.0725	<0.01	0.0003	0.001	0.142	2.09	0.00012	0.405	<0.000005	2.51	0.0402	8	0.000012	0.00003	0.0017	0.000026	0.0002	0.016	<0.0001	#N/A	1.01	#N/A	#N/A
0.0034	0.47	0.0334	0.01	0.0005	0.0004	0.008	1.51	0.00006	0.464	<0.000005	1.94	0.0186	<3	0.000005	0.00002	0.0005	0.000006	<0.0002	0.0015	<0.0001	0.39	0.52	0.14	15.0%
0.0034	0.37	0.0091	<0.01	0.0005	0.0002	0.007	1.43	0.00009	0.409	<0.000005	1.2	0.0141	<3	0.000002	0.00001	0.0005	0.000028	0.0003	0.0015	<0.0001	0.35	0.37	0.02	3.4%
0.0034	0.28	0.0073	<0.01	0.0005	0.0002	0.007	1.51	0.00017	0.496	<0.000005	0.95	0.0137	<3	<0.000002	0.00001	<0.0005	0.000039	<0.0002	0.0006	<0.0001	0.33	0.34	0.02	2.6%
0.0032	0.32	0.0086	<0.01	0.0005	5E-05	0.003	1.47	0.00007	0.433	<0.000005	0.94	0.0139	<3	0.000003	<0.00001	<0.0005	0.000041	<0.0002	0.0012	<0.0001	0.31	0.38	0.07	10.4%
0.003	0.26	0.0073	<0.01	0.0003	0.0001	0.004	1.31	0.0001	0.37	<0.000005	0.62	0.0114	<3	0.000002	<0.00001	<0.0005	0.000026	<0.0002	0.0017	<0.0001	0.33	0.32	-0.01	-2.2%
0.0025	0.23	0.0073	0.02	0.0002	0.0002	<0.002	1.14	0.00011	0.403	<0.000005	0.54	0.0102	<3	0.000003	<0.00001	<0.0005	0.00003	<0.0002	0.0012	<0.0001	0.26	0.30	0.03	5.5%
0.0022	0.2	0.0059	<0.01	0.0002	0.0001	0.003	0.99	<0.00004	0.366	<0.000005	0.4	0.0085	<3	<0.000002	<0.00001	0.0007	0.000022	<0.0002	0.0008	<0.0001	0.24	0.25	0.01	1.5%
0.0023	0.2	0.0065	<0.01	0.0002	0.0001	<0.002	1.06	<0.00004	0.339	<0.000005	0.4	0.0093	<3	0.000003	0.00001	<0.0005	0.000023	<0.0002	0.0003	<0.0001	0.37	0.26	-0.11	-17.4%
0.0021	0.15	0.0055	<0.01	0.0002	0.0001	<0.002	0.88	0.00008	0.261	<0.000005	0.3	0.0072	<3	<0.000002	<0.00001	<0.0005	0.000018	<0.0002	0.0013	<0.0001	0.22	0.21	-0.01	-3.3%
0.0023	0.16	0.006	<0.01	0.0002	0.0002	0.004	0.92	0.00008	0.307	<0.000005	0.33	0.008	<3	0.000003	<0.00001	<0.0005	0.000028	<0.0002	0.0017	<0.0001	0.25	0.23	-0.03	-5.7%
0.0018	0.13	0.0053	<0.01	0.0002	9E-05	0.002	0.8	0.00009	0.228	<0.000005	0.26	0.0067	<3	<0.000002	<0.00001	<0.0005	0.000021	<0.0002	0.0013	<0.0001	0.18	0.17	-0.01	-2.4%
0.0021	0.14	0.0049	<0.01	0.0001	0.0001	0.005	0.88	0.00005	0.259	<0.000005	0.2	0.0067	<3	0.000002	0.00003	<0.0005	0.000032	<0.0002	0.0009	<0.0001	0.22	0.20	-0.02	-3.8%
0.002	0.17	0.0058	<0.01	0.0002	0.0001	0.002	0.83	<0.00004	0.331	<0.000005	0.31	0.0074	<3	0.000003	<0.00001	<0.0005	0.000022	<0.0002	0.0011	<0.0001	0.22	0.24	0.02	4.5%
0.0019	0.13	0.0041	<0.01	0.0001	0.0001	<0.002	0.74	<0.00004	0.243	<0.000005	0.2	0.0064	<3	0.000003	<0.00001	<0.0005	0.00002	<0.0002	0.0008	<0.0001	0.18	0.19	0.02	4.5%
0.0018	0.14	0.0047	<0.01	8E-05	0.0002	0.005	0.74	<0.00004	0.248	<0.000005	0.22	0.0053	<3	<0.000002	<0.00001	<0.0005	0.00002	<0.0002	0.0007	<0.0001	0.21	0.19	-0.02	-5.7%
0.0019	0.18	0.0045	0.01	8E-05	0.0002	0.004	0.86	<0.00004	0.37	<0.000005	0.25	0.0078	<3	0.000003	<0.00001	<0.0005	0.000023	<0.0002	0.0004	<0.0001	0.24	0.26	0.01	2.8%
0.0015	0.14	0.0044	<0.01	7E-05	0.0001	<0.002	0.62	<0.00004	0.228	<0.000005	0.15	0.0059	<3	0.000002	<0.00001	<0.0005	0.000021	<0.0002	0.0099	<0.0001	0.21	0.19	-0.03	-6.7%
0.0015	0.13	0.0047	<0.01	0.0001	0.0002	<0.002	0.59	0.00005	0.23	<0.000005	0.16	0.005	<3	0.000002	<0.00001	<0.0005	0.000017	<0.0002	0.0004	<0.0001	0.18	0.17	-0.02	-4.6%
0.0017	0.18	0.0054	<0.01	0.0001	0.0001	<0.002	0.71	<0.00004	0.294	<0.000005	0.17	0.007	<3	<0.000002	<0.00001	<0.0005	0.000021	<0.0002	0.0003	<0.0001	0.33	0.24	-0.08	-14.2%
0.0016	0.14	0.0041	<0.01	8E-05	0.0002	<0.002	0.63	0.00005	0.233	<0.000005	0.15	0.0056	<3	0.000002	<0.00001	0.0005	0.00002	<0.0002	0.0004	<0.0001	0.22	0.18	-0.04	-10.0%
0.0016	0.12	0.0049	<0.01	<0.00005	0.0002	0.003	0.66	0.00006	0.24	<0.000005	0.12	0.005	<3	0.000003	<0.00001	<0.0005	0.000016	<0.0002	0.001	<0.0001	0.21	0.17	-0.03	-8.7%
0.0017	0.13	0.0049	<0.01	<0.00005	0.0002	<0.002	0.66	<0.00004	0.242	<0.000005	0.13	0.0051	<3	<0.000002	<0.00001	<0.0005	0.000015	<0.0002	0.0017	<0.0001	0.22	0.18	-0.03	-8.6%
0.0015	0.12	0.0051	<0.01	<0.00005	0.0001	<0.002	0.62	0.00006	0.222	<0.000005	0.11	0.0045	<3	0.000002	<0.00001	<0.0005	0.000017	<0.0002	0.0003	<0.0001	0.24	0.17	-0.06	-15.6%
0.0016	0.15	0.006	0.01	<0.00005	0.0003	<0.002	0.7	<0.00004	0.306	<0.000005	0.15	0.0057	<3	<0.000002	<0.00001	<0.0005	0.000016	<0.0002	0.0029	<0.0001	0.22	0.22	0.00	-1.1%
0.0016	0.13	0.0044	<0.01	<0.00005	0.0001	<0.002	0.7	<0.00004	0.256	<0.000005	0.13	0.0051	<3	0.000003	<0.00001	<0.0005	0.000015	<0.0002	0.0006	<0.0001	0.22	0.18	-0.03	-8.4%
0.0016	0.12	0.005	<0.01	<0.00005	0.0002	0.003	0.6	0.00005	0.256	<0.000005	0.13	0.0046	<3	<0.000002	<0.00001	<0.0005	0.000015	<0.0002	0.0007	<0.0001	0.21	0.16	-0.05	-12.5%
0.0015	0.12	0.0058	<0.01	<0.00005	0.0004	<0.002	0.56	<0.00004	0.25	<0.000005	0.22	0.0046	<3	<0.000002	<0.00001	<0.0005	0.000012	<0.0002	0.0008	<0.0001	0.18	0.17	-0.01	-4.0%
0.0017	0.13	0.0066	<0.01	<0.00005	0.0001	0.006	0.7	0.00004	0.283	<0.000005	0.11	0.005	<3	0.000002	0.00003	<0.0005	0.000013	<0.0002	0.0007	<0.0001	0.21	0.19	-0.02	-5.5%
0.0014	0.11	0.0047	<0.01	<0.00005	0.0002	<0.002	0.61	0.00005	0.242	<0.000005	0.17	0.0041	<3	0.000002	<0.00001	<0.0005	0.000012	<0.0002	0.0003	<0.0001	0.17	0.16	-0.01	-2.6%
0.0012	0.11	0.0051	<0.01	<0.00005	0.0005	<0.002	0.47	<0.00004	0.214	<0.000005	0.13	0.0039	<3	<0.000002	<0.00001	<0.0005	0.00001	<0.0002	0.001	<0.0001	0.16	0.14	-0.02	-7.0%
0.0013	0.11	0.0052	<0.01	<0.00005	0.0002	<0.002	0.54	<0.00004	0.24	<0.000005	0.12	0.0044	<3	<0.000002	<0.00001	<0.0005	0.000011	<0.0002	0.0007	<0.0001	0.15	0.16	0.02	5.5%
0.0013	0.12	0.0047	<0.01	<0.00005	0.0002	0.003	0.54	<0.00004	0.239	<0.000005	0.18	0.0039	<3	0.000002	<0.00001	<0.0005	0.00001	<0.0002	0.0007	<0.0001	0.21	0.16	-0.05	-14.3%
0.0012	0.1	0.0044	<0.01	<0.00005	0.0001	<0.002	0.46	<0.00004	0.177	<0.000005	0.11	0.0038	<3	<0.000002	<0.00001	<0.0005	0.000009	<0.0002	0.0005	<0.0001	0.15	0.13	-0.01	-5.2%
0.0013	0.1	0.0049	<0.01	<0.00005	7E-05	0.003	0.49	<0.00004	0.214	<0.000005	0.12	0.0036	<3	<0.000002	<0.00001	<0.0005	0.000006	<0.0002	0.0005	<0.0001	0.12	0.14	0.02	7.8%
0.0014	0.15	0.0059	<0.01	<0.00005	5E-05	<0.002	0.65	<0.00004	0.286	<0.000005	0.11	0.0054	<3	0.000002	<0.00001	<0.0005	0.000012	<0.0002	0.0003	<0.0001	0.22	0.21	-0.01	-2.0%



Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S	Tl	Sn	Ti	U	V	Zn	Zr	Major Anions	Major Cations	Diff	Diff %
mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L				
0.0013	0.1	0.0046	<0.01	<0.00005	0.0001	<0.002	0.52	<0.00004	0.206	<0.000005	0.09	0.0038	<3	<0.000002	<0.00001	0.0005	0.000007	<0.0002	0.0004	<0.0001	0.12	0.15	0.03	9.4%
0.0015	0.14	0.0055	<0.01	<0.00005	0.0001	<0.002	0.58	<0.00004	0.298	<0.000005	0.12	0.0051	<3	<0.000002	<0.00001	<0.0005	0.000011	<0.0002	0.0032	<0.0001	0.24	0.19	-0.05	-11.5%
0.0013	0.11	0.0045	0.01	5E-05	0.0001	0.002	0.51	0.00005	0.315	<0.000005	0.12	0.004	<3	<0.000002	<0.00001	<0.0005	0.000011	<0.0002	0.0016	<0.0001	0.12	0.15	0.03	11.5%
0.0012	0.11	0.0045	<0.01	<0.00005	0.0002	<0.002	0.5	<0.00004	0.279	<0.000005	0.17	0.0039	<3	<0.000002	0.00013	<0.0005	0.000008	<0.0002	0.0009	<0.0001	0.13	0.15	0.03	9.5%
0.0013	0.09	0.0049	<0.01	<0.00005	0.0002	0.006	0.43	<0.00004	0.2	<0.000005	0.09	0.0034	<3	<0.000002	0.00002	<0.0005	0.000009	<0.0002	0.0006	<0.0001	0.10	0.13	0.03	11.8%
0.001	0.09	0.0053	<0.01	<0.00005	0.0005	<0.002	0.42	<0.00004	0.212	<0.000005	0.14	0.0032	<3	<0.000002	0.00006	<0.0005	0.000008	<0.0002	0.0006	<0.0001	0.11	0.13	0.02	9.7%
0.001	0.11	0.0058	<0.01	<0.00005	0.0001	<0.002	0.44	<0.00004	0.19	<0.000005	0.08	0.0037	<3	<0.000002	0.00004	<0.0005	0.000022	<0.0002	0.0003	<0.0001	0.15	0.14	-0.01	-4.4%
0.0011	0.11	0.0061	<0.01	<0.00005	0.0002	<0.002	0.4	<0.00004	0.194	<0.000005	0.18	0.0036	<3	<0.000002	0.00003	<0.0005	0.000019	<0.0002	0.0012	<0.0001	0.12	0.13	0.02	7.4%
0.0011	0.1	0.0073	0.01	<0.00005	0.0003	<0.002	0.37	<0.00004	0.149	<0.000005	0.11	0.0035	<3	<0.000002	0.00002	<0.0005	0.000046	<0.0002	0.0018	<0.0001	0.12	0.13	0.01	3.4%
0.0014	0.1	0.0065	<0.01	<0.00005	0.0002	<0.002	0.44	<0.00004	0.232	<0.000005	0.09	0.0035	<3	<0.000002	0.00003	<0.0005	0.000007	<0.0002	0.0005	<0.0001	0.12	0.14	0.02	5.9%
0.0011	0.09	0.0065	<0.01	<0.00005	0.0003	<0.002	0.41	<0.00004	0.184	<0.000005	0.1	0.0032	<3	<0.000002	0.00005	<0.0005	0.000009	<0.0002	0.0004	<0.0001	0.12	0.13	0.01	4.2%
0.001	0.08	0.0065	<0.01	<0.00005	0.0003	<0.002	0.39	<0.00004	0.176	<0.000005	0.12	0.003	<3	<0.000002	0.00013	<0.0005	0.000011	<0.0002	0.0011	<0.0001	0.11	0.13	0.02	8.6%
0.0011	0.1	0.0063	<0.01	<0.00005	0.0003	<0.002	0.4	<0.00004	0.17	<0.000005	0.13	0.0034	<3	<0.000002	0.00006	<0.0005	0.000009	<0.0002	0.0008	<0.0001	0.10	0.13	0.03	12.5%
0.0012	0.1	0.0061	<0.01	6E-05	0.0005	0.003	0.44	<0.00004	0.18	<0.000005	0.12	0.0035	<3	<0.000002	0.00008	<0.0005	0.000099	<0.0002	0.0007	<0.0001	0.10	0.14	0.03	12.9%
0.0011	0.08	0.0056	<0.01	<0.00005	0.0003	0.003	0.36	<0.00004	0.166	<0.000005	0.11	0.0029	<3	<0.000002	0.0001	<0.0005	0.000006	<0.0002	0.0008	<0.0001	0.10	0.11	0.02	8.9%
0.0011	0.1	0.0067	<0.01	<0.00005	0.0002	0.003	0.44	<0.00004	0.182	<0.000005	0.1	0.0033	<10	<0.000002	0.00005	<0.0005	0.000033	<0.0002	0.0008	<0.0001	0.10	0.14	0.05	19.2%
0.0011	0.1	0.0067	<0.01	<0.00005	0.0005	<0.002	0.44	<0.00004	0.204	<0.000005	0.11	0.0037	<10	<0.000002	0.00002	<0.0005	0.000008	<0.0002	0.002	<0.0001	0.12	0.15	0.03	11.0%
0.0012	0.11	0.0076	<0.01	0.0008	0.0003	0.004	0.39	0.00008	0.43	<0.000005	0.13	0.004	<10	0.000003	0.00007	<0.0005	0.000006	<0.0002	0.0008	<0.0001	0.12	0.15	0.03	13.0%
0.001	0.1	0.0073	<0.01	<0.00005	0.0003	<0.002	0.44	<0.00004	0.171	<0.000005	0.12	0.0035	<10	<0.000002	0.00002	<0.0005	0.000009	<0.0002	0.0005	<0.0001	0.12	0.14	0.02	7.6%
0.0011	0.09	0.0053	<0.01	<0.00005	0.0002	<0.002	0.44	<0.00004	0.22	<0.000005	0.1	0.0032	<10	<0.000002	0.00002	<0.0005	0.000006	<0.0002	0.0006	<0.0001	0.11	0.13	0.03	11.6%
0.001	0.1	0.0059	<0.01	<0.00005	0.0001	<0.002	0.39	<0.00004	0.166	<0.000005	0.08	0.0031	<10	<0.000002	0.00003	<0.0005	0.000007	<0.0002	0.0008	<0.0001	0.12	0.12	0.01	3.3%
0.0012	0.09	0.0063	<0.01	<0.00005	0.0003	0.003	0.45	<0.00004	0.192	<0.000005	0.1	0.0035	<10	<0.000002	0.00004	<0.0005	0.000005	<0.0002	0.001	<0.0001	0.11	0.14	0.03	12.2%
0.0012	0.19	0.0077	<0.01	0.0002	0.0003	0.002	0.46	0.00626	0.298	<0.000005	0.11	0.0066	<10	0.000015	0.00017	<0.0005	0.000025	<0.0002	0.0029	<0.0001	0.11	0.21	0.10	30.2%
0.0014	0.1	0.009	<0.01	<0.00005	0.0004	<0.002	0.47	<0.00004	0.215	<0.000005	0.12	0.0035	<10	<0.000002	0.00004	<0.0005	0.000049	<0.0002	0.0007	<0.0001	0.11	0.16	0.05	18.6%
0.0012	0.09	0.0088	<0.01	<0.00005	8E-05	<0.002	0.43	<0.00004	0.195	<0.000005	0.06	0.0041	<10	<0.000002	0.00012	<0.0005	0.000005	<0.0002	0.0006	<0.0001	0.12	0.14	0.02	5.8%
0.0012	0.12	0.0089	<0.01	<0.00005	0.0001	<0.002	0.48	<0.00004	0.235	<0.000005	0.08	0.004	<10	<0.000002	<0.00001	<0.0005	0.000009	<0.0002	0.0004	<0.0001	0.12	0.16	0.05	17.4%
0.0014	0.09	0.0064	<0.01	<0.00005	0.0003	<0.002	0.47	<0.00004	0.24	<0.000005	0.12	0.0037	<10	<0.000002	0.00004	<0.0005	0.000016	<0.0002	0.0004	<0.0001	#N/A	0.16	#N/A	#N/A
0.0009	0.08	0.0083	<0.01	<0.00005	0.0002	<0.002	0.39	<0.00004	0.219	<0.000005	0.11	0.0032	<10	<0.000002	0.00001	<0.0005	0.000002	<0.0002	0.0007	<0.0001	0.10	0.13	0.03	11.5%
0.0012	0.09	0.0075	<0.01	<0.00005	0.0003	0.003	0.38	<0.00004	0.158	<0.000005	0.09	0.0031	<10	<0.000002	0.00005	0.0009	0.000017	<0.0002	0.0002	<0.0001	0.11	0.13	0.01	6.1%
0.0011	0.09	0.0066	<0.01	<0.00005	0.0003	<0.002	0.42	<0.00004	0.201	<0.000005	0.12	0.0033	<10	<0.000002	0.00003	<0.0005	0.000007	<0.0002	0.0003	<0.0001	0.11	0.14	0.03	11.1%



Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S	Tl	Sn	Ti	U	V	Zn	Zr
mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
0.001	0.09	0.0083	<0.01	<0.00005	0.0004	<0.002	0.42	<0.00004	0.181	<0.000005	0.1	0.0031	<10	<0.000002	0.00024	0.0006	0.000023	<0.0002	0.0007	<0.0001
0.0015	0.09	0.0092	<0.01	<0.00005	0.0004	<0.002	0.4	<0.00004	0.21	<0.000005	0.11	0.0061	<10	<0.000002	0.00007	<0.0005	0.000013	<0.0002	0.0046	<0.0001
0.0013	0.09	0.0089	<0.01	<0.00005	0.0002	<0.002	0.46	<0.00004	0.203	<0.000005	0.07	0.0034	<10	<0.000002	0.00008	<0.0005	0.00001	<0.0002	0.0006	<0.0001
0.0014	0.09	0.0121	0.01	<0.00005	0.0003	<0.002	0.44	<0.00004	0.208	<0.000005	0.1	0.0041	<10	<0.000002	0.00003	<0.0005	0.000006	<0.0002	0.0015	<0.0001
0.0012	0.09	0.0122	<0.01	<0.00005	0.0004	<0.002	0.4	<0.00004	0.173	<0.000005	0.1	0.0036	<10	<0.000002	0.0001	0.0012	0.00001	<0.0002	0.001	<0.0001

Major Anions	Major Cations	Diff	Diff %
0.10	0.13	0.03	14.1%
0.11	0.15	0.04	14.4%
0.11	0.14	0.03	11.1%
0.11	0.15	0.04	16.6%



HC 1
Sample = 70766

CONFIDENTIAL

DRAFT

Date	Cycle	Volume mL		pH	Cond. umhos/cm	Acidity	Acidity	Alkalinity	Sulphate	Hardness	Al	Sb	As	Ba	Be	Bi	B	Cd	Ca	Cr	Co	Cu	Fe	Pb
		Input	Output			(pH 4.5) mgCaCO3/L	(pH 8.3) mgCaCO3/L	mgCaCO3/L	(mg/L)	CaCO3 mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
12-Nov-07	1	750	360	7.43	215	#N/A	2.7	17.0	67	66.3	0.0492	0.00053	0.0003	0.0072	<0.00001	<0.000005	0.01	0.000055	17.5	<0.0001	0.00093	0.0016	0.003	0.000053
19-Nov-07	2	500	515	7.32	194	#N/A	2.7	12.4	65	63.6	0.0596	0.00071	0.0016	0.0048	<0.00001	<0.000005	0.019	0.000012	18.5	<0.0001	0.00033	0.0007	0.002	0.000013
26-Nov-07	3	500	385	7.07	149	#N/A	3.4	10.5	54	46.1	0.113	0.00044	0.0015	0.003	<0.00001	<0.000005	0.009	<0.000005	13.4	<0.0001	9.8E-05	0.0009	0.011	0.000035
3-Dec-07	4	500	395	7.21	165	#N/A	2.5	11.0	73	217	0.0907	0.00056	0.0018	0.0016	<0.00001	<0.000005	0.01	<0.000005	24.4	0.0001	7.6E-05	0.0004	0.008	0.000021
10-Dec-07	5	500	505	7.22	61	#N/A	2.6	12.0	11	22.1	0.0647	0.00039	0.002	0.0016	<0.00001	<0.000005	0.008	<0.000005	6.89	<0.0001	0.00015	0.0012	0.004	0.000023
17-Dec-07	6	500	490	7.37	61	#N/A	2.3	11.3	12	21.6	0.0722	0.00032	0.0025	0.0015	<0.00001	<0.000005	0.006	0.00001	6.86	0.0002	0.00017	0.0009	0.005	0.000033
24-Dec-07	7	500	395	7.28	59	#N/A	1.9	7.6	21	19.2	0.0722	0.00024	0.0018	0.0013	<0.00001	<0.000005	<0.005	0.000006	6.02	<0.0001	7.2E-05	0.0009	0.004	0.000028
31-Dec-07	8	500	395	7.15	57	#N/A	2.0	7.2	12	20.6	0.0701	0.00026	0.0021	0.0013	<0.00001	<0.000005	<0.005	<0.000005	6.38	0.0001	0.00013	0.0007	0.005	0.000048
7-Jan-08	9	500	390	7.08	53	#N/A	2.4	#N/A	18	17.7	0.0512	0.00023	0.0018	0.0011	<0.00001	<0.000005	<0.005	<0.000005	5.48	<0.0001	0.00017	0.001	0.004	0.00005
14-Jan-08	10	500	480	7.02	61	#N/A	3.3	10.1	16	23.6	0.056	0.00021	0.0021	0.0015	<0.00001	<0.000005	<0.005	0.000012	7.83	0.0001	0.00025	0.0018	0.006	0.000047
21-Jan-08	11	500	395	7.26	62	#N/A	3.4	9.8	14	20.9	0.0634	0.0002	0.0021	0.0014	<0.00001	<0.000005	<0.005	<0.000005	6.75	<0.0001	0.0002	0.0005	0.007	0.000006
28-Jan-08	12	500	400	7.22	56	#N/A	2.9	7.4	19	20.7	0.0471	0.00021	0.002	0.0015	<0.00001	<0.000005	<0.005	0.000012	6.9	<0.0001	0.0003	0.0006	0.006	0.000049
4-Feb-08	13	500	400	7.15	61	#N/A	2.4	6.7	15															
11-Feb-08	14	500	470	7.42	60	#N/A	2.3	10.8	16	20	0.0264	0.00012	0.0016	0.0014	<0.00001	<0.000005	<0.005	0.000012	6.81	<0.0001	0.00055	0.0017	0.002	0.000009
18-Feb-08	15	500	480	7.16	54	#N/A	2.9	5.8	16															
25-Feb-08	16	500	465	7.13	59	#N/A	2.8	6.0	20	22	0.0271	0.00011	0.002	0.0018	<0.00001	<0.000005	0.01	0.00001	7.54	<0.0001	0.00056	0.0014	0.004	0.000012
3-Mar-08	17	500	475	7.03	53	#N/A	2.6	4.8	18															
10-Mar-08	18	500	460	7.15	61	#N/A	2.3	4.9	18	22.6	0.0183	0.00011	0.0016	0.0016	<0.00001	<0.000005	<0.005	0.000018	7.79	<0.0001	0.00089	0.0007	0.002	0.00037
17-Mar-08	19	500	465	6.94	52	#N/A	2.6	3.5	14															
24-Mar-08	20	500	460	6.80	54	#N/A	2.8	3.1	17	20	0.0139	0.00006	0.0011	0.0017	<0.00001	<0.000005	<0.005	0.00002	6.73	<0.0001	0.00121	0.0007	0.004	0.000043
31-Mar-08	21	500	485	7.12	49	#N/A	2.3	3.7	16															
7-Apr-08	22	500	465	6.76	55	#N/A	3.9	2.8	18	18.6	0.0061	0.00006	0.0008	0.0016	<0.00001	<0.000005	<0.005	0.000024	6.45	<0.0001	0.00241	0.0013	0.004	0.000026
14-Apr-08	23	500	505	6.83	88	#N/A	2.5	2.9	28															
21-Apr-08	24	500	450	6.65	67	#N/A	2.8	2.6	27	24.4	0.0042	0.00005	0.0006	0.0027	<0.00001	<0.000005	<0.05	0.000058	8.48	<0.0001	0.00743	0.0013	0.036	0.000006
28-Apr-08	25	500	475	6.71	65	#N/A	3.5	2.2	24															
5-May-08	26	500	470	6.40	74	#N/A	3.3	1.6	26	26.2	0.0028	0.00004	0.0004	0.0046	<0.00001	<0.000005	<0.05	0.00012	8.91	<0.0001	0.0182	0.0036	0.226	0.000041
12-May-08	27	500	490	6.45	96	#N/A	4.1	1.7	34															
19-May-08	28	500	480	5.98	92	#N/A	4.3	0.9	33	32.2	0.0083	0.00003	0.0004	0.0078	0.00002	<0.000005	<0.05	0.000515	10.8	0.0001	0.0391	0.0051	1.2	0.00638
26-May-08	29	500	500	5.77	109	#N/A	7.1	0.7	47															
2-Jun-08	30	500	465	5.79	72	#N/A	7.6	0.6	30	27.3	0.0445	0.00005	0.0004	0.0098	0.00003	0.000007	<0.05	0.000344	9.01	<0.0001	0.0508	0.0076	2.74	0.000469
9-Jun-08	31	500	465	5.76	75	#N/A	11.3	0.7	32															
16-Jun-08	32	500	465	5.51	83	#N/A	17.3	0.7	44	26.3	0.0697	<0.00002	0.0005	0.0125	0.00006	<0.000005	<0.05	0.000472	8.27	<0.0001	0.0845	0.005	6.26	0.000246
23-Jun-08	33	500	505	5.66	112	#N/A	27.5	0.9	67															
30-Jun-08	34	500	450	5.52	129	#N/A	23.7	0.8	63	31.3	0.0927	<0.00002	0.0007	0.0166	0.00009	<0.000005	<0.05	0.000639	9.37	<0.0001	0.129	0.0143	10.9	0.000425
7-Jul-08	35	500	445	5.49	171	#N/A	30.7	0.5	65															
14-Jul-08	36	500	470	5.18	185	#N/A	42.3	0.2	78	38.2	0.195	<0.00002	0.0012	0.0137	0.00014	<0.000005	<0.05	0.000727	11	<0.0001	0.183	0.0074	17	0.000488
21-Jul-08	37	500	450	5.11	185	#N/A	46.4	0.1	79															
28-Jul-08	38	500	450	4.91	198	#N/A	50.7	1.1	86	37.8	0.263	<0.00002	0.001	0.0125	0.00018	<0.000005	<0.05	0.000769	10.5	<0.0001	0.18	0.0112	21	0.000663
4-Aug-08	39	500	460	5.06	206	#N/A	55.0	2.6	92															
11-Aug-08	40	500	450	4.79	210	#N/A	64.3	<0.1	92	34	0.383	<0.00002	0.0014	0.0125	0.00024	<0.000005	<0.05	0.00051	8.47	<0.0001	0.166	0.0136	27.7	0.000601
18-Aug-08	41	500	445	4.47	238	2.42	74.9	#N/A	95															
25-Aug-08	42	500	465	4.75	197	#N/A	70.2	<0.1	95	29.3	0.357	<0.00002	0.0013	0.0088	0.00025	<0.000005	<0.05	0.000375	7.18	0.0001	0.124	0.0104	27.2	0.000507
1-Sep-08	43	500	470	4.62	198	#N/A	74.6	<0.1	93															
8-Sep-08	44	500	450	4.56	201	#N/A	74.6	<0.1	95	27.3	0.393	<0.00002	0.0013	0.008	0.0003	<0.000005	<0.05	0.000271	6.29	0.0002	0.11	0.0055	32.6	0.000514
15-Sep-08	45	500	450	4.75	237	#N/A	71.6	<0.1	103															
22-Sep-08	46	500	460	4.55	184	#N/A	61.8	<0.1	88	23.5	0.485	<0.00002	0.0012	0.0065	0.00032	<0.000005	<0.05	0.000205	5.13	0.0002	0.0725	0.0075	26.4	0.000486
29-Sep-08	47	500	460	4.68	220	#N/A	64.3	<0.1	90															
6-Oct-08	48	500	460	4.83	179	#N/A	60.2	<0.																



HC 1

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DRAFT

Sample = 70766

Date	Cycle	Volume mL		pH	Cond. umhos/cm	Acidity	Acidity	Alkalinity mgCaCO3/L	Sulphate (mg/L)	Hardness CaCO3 mg/L	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L
		Input	Output			(pH 4.5) mgCaCO3/L	(pH 8.3) mgCaCO3/L																	
19-Jan-09	63	500	435	3.91	158	10.1	41.3	#N/A	51															
26-Jan-09	64	500	440	3.89	163	11.2	40.7	#N/A	79															
2-Feb-09	65	500	440	3.98	160	11.4	42.9	#N/A	48															
9-Feb-09	66	500	435	3.87	163	10.1	38.6	#N/A	52	17.7	2.42	0.00002	0.0032	0.0083	0.00065	<0.000005	<0.05	0.000428	2.26	0.0005	0.0864	0.0211	5.35	0.000996
16-Feb-09	67	500	495	3.96	196	9.8	49.4	#N/A	71															
23-Feb-09	68	500	510	4.01	196	10.2	54.1	#N/A	71															
2-Mar-09	69	500	475	4.05	152	8.4	36.4	#N/A	47															
9-Mar-09	70	500	465	3.67	159	12.0	39.3	#N/A	51	17.6	2.17	<0.00002	0.0018	0.0074	0.00058	<0.000005	<0.05	0.000412	2.8	0.0005	0.0908	0.0272	4.98	0.00103
16-Mar-09	71	500	430	3.61	161	13.0	35.5	#N/A	55															
23-Mar-09	72	500	455	3.65	152	12.0	33.7	#N/A	47															

Cell Terminated

Dec 3/07 Mg 38 and S 75. Repeat = 38.5 for Mg and 86.3 for S. Suspect contamination.
Jan 7/08 Alkalinity 49.0. Suspect instrument error, not repeated.

Certified by: Rik J. Vos
ARD Testing Specialist
SGS Canada Inc.



Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S	Ti	Sn	Ti	U	V	Zn	Zr	Major Anions	Major Cations	Diff	Diff %
mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L				
0.0068	5.48	0.136	<0.01	0.00035	0.009	0.005	18.4	0.00036	0.387	<0.000005	5.82	0.0622	26	0.000026	0.00009	<0.0005	8.7E-05	<0.0002	0.0019	<0.0001	1.74	2.05	0.31	8.2%
0.004	4.26	0.0595	0.02	0.00054	0.0016	0.003	13.8	0.00017	1.13	0.000006	4.4	0.0543	24	0.000009	0.00005	<0.0005	0.00088	0.0003	0.0007	<0.0001	1.60	1.82	0.22	6.3%
0.0026	3.05	0.0121	0.02	0.00038	0.0006	0.005	10.1	0.00029	0.553	<0.000005	2.84	0.0386	18	0.000006	0.00005	0.0008	0.00029	<0.0002	0.001	<0.0001	1.34	1.30	-0.03	-1.3%
0.002	#N/A	0.009	<0.01	0.00038	0.0011	0.004	6.12	0.00021	0.558	<0.000005	1.42	0.0232	#N/A	0.000005	0.00003	0.0007	0.00024	0.0002	0.0005	<0.0001	1.74	#N/A	#N/A	#N/A
0.0022	1.19	0.0188	<0.01	0.00021	0.0005	<0.002	3.95	0.00015	0.742	<0.000005	0.61	0.0163	6	0.000004	0.00005	<0.0005	0.00043	0.0005	0.0005	<0.0001	0.47	0.57	0.10	9.7%
0.0018	1.1	0.0202	<0.01	0.00019	0.0005	<0.002	3.06	0.00018	0.59	<0.000005	0.49	0.0155	6	0.000004	0.00002	<0.0005	0.00047	0.0003	0.001	<0.0001	0.48	0.53	0.06	5.7%
0.0012	1.01	0.0086	0.02	0.00037	0.0003	0.002	2.91	0.00024	0.473	<0.000005	0.42	0.0141	7	0.000004	0.00001	<0.0005	0.00024	0.0002	0.0005	<0.0001	0.59	0.48	-0.11	-10.5%
0.0017	1.14	0.0147	<0.01	0.00015	0.0006	0.004	3.53	0.00016	0.615	<0.000005	0.38	0.0144	7	0.000004	<0.00001	<0.0005	0.00031	0.0003	0.0023	<0.0001	0.39	0.52	0.12	13.6%
0.0014	0.96	0.0149	<0.01	0.00015	0.0007	0.003	2.92	0.00018	0.472	<0.000005	0.32	0.0124	5	0.000003	0.00001	0.0006	0.00034	0.0003	0.0007	<0.0001	#N/A	0.44	#N/A	#N/A
0.0015	0.98	0.031	<0.01	0.00014	0.001	<0.002	2.38	0.00014	0.959	<0.000005	0.51	0.0156	7	0.000003	0.00002	<0.0005	0.00066	<0.0002	0.0009	<0.0001	0.53	0.55	0.02	1.8%
0.0016	0.97	0.02	<0.01	0.0002	0.0007	<0.002	2.69	0.00021	0.627	<0.000005	0.29	0.0159	7	0.000006	0.00006	0.0009	0.00043	<0.0002	<0.0001	<0.0001	0.49	0.50	0.01	1.1%
0.0015	0.83	0.0243	<0.01	0.0001	0.0012	0.002	2.67	0.00018	0.68	<0.000005	0.26	0.0154	7	0.000006	0.00007	<0.0005	0.00041	0.0002	0.0014	<0.0001	0.54	0.49	-0.05	-5.0%
0.0015	0.74	0.0423	<0.01	0.00006	0.0018	<0.002	1.95	0.00017	0.624	<0.000005	0.24	0.0132	7	0.000004	<0.00001	0.0005	0.00054	<0.0002	0.0013	<0.0001	0.55	0.46	-0.09	-8.8%
0.0016	0.76	0.0493	<0.01	0.00009	0.0019	<0.002	2.02	0.00008	1.17	<0.000005	0.23	0.0147	7	0.000006	<0.00001	<0.0005	0.00045	<0.0002	0.0011	<0.0001	0.54	0.50	-0.04	-3.4%
0.0015	0.77	0.0581	<0.01	0.0001	0.0026	<0.002	1.82	0.00011	0.759	<0.000005	0.23	0.0157	7	0.000006	0.00015	<0.0005	0.00042	<0.0002	0.0052	<0.0001	0.47	0.51	0.04	3.6%
0.0015	0.78	0.0624	<0.01	0.00008	0.0039	<0.002	1.69	0.00004	0.643	<0.000005	0.25	0.0151	8	0.000005	<0.00001	0.0006	0.00021	<0.0002	0.0016	<0.0001	0.42	0.45	0.04	4.3%
0.0017	0.61	0.0732	<0.01	0.00008	0.0076	<0.002	1.52	0.00008	0.534	<0.000005	0.15	0.0145	7	0.000008	<0.00001	<0.0005	0.00015	<0.0002	0.0031	<0.0001	0.43	0.42	-0.01	-1.6%
0.002	0.79	0.136	0.01	0.00012	0.0235	<0.002	1.89	0.00015	0.677	<0.000005	0.23	0.0195	10	0.000009	<0.00001	<0.0005	0.00011	<0.0002	0.0084	<0.0001	0.61	0.55	-0.06	-5.5%
0.0024	0.95	0.232	<0.01	0.00006	0.0545	<0.002	1.88	0.00015	0.731	<0.000005	0.2	0.0226	11	0.000012	<0.00001	<0.0005	0.00016	<0.0002	0.0216	<0.0001	0.57	0.60	0.02	1.9%
0.0034	1.27	0.454	<0.01	<0.00005	0.12	<0.002	2.16	0.00034	1.04	<0.000005	0.23	0.029	14	0.000016	<0.00001	0.0005	0.00027	<0.0002	0.0564	<0.0001	0.71	0.78	0.08	5.2%
0.0034	1.15	0.486	<0.01	<0.00005	0.17	<0.002	1.72	0.00045	0.785	<0.000005	0.2	0.0278	13	0.000015	0.00002	0.0006	0.00056	<0.0002	0.0713	<0.0001	0.64	0.76	0.12	8.9%
0.0042	1.37	0.714	0.02	0.00006	0.31	<0.002	1.65	0.00058	0.788	<0.000005	0.21	0.0302	14	0.000016	0.00002	0.001	0.00129	<0.0002	0.112	<0.0001	0.93	0.94	0.01	0.7%
0.0067	1.9	1.02	0.02	<0.00005	0.52	<0.002	2.07	0.00101	1.05	<0.000005	0.26	0.0364	21	0.000019	<0.00001	<0.0005	0.00212	<0.0002	0.15	<0.0001	1.33	1.32	-0.01	-0.4%
0.0079	2.59	1.19	<0.01	0.00008	0.889	<0.002	1.91	0.00117	0.819	<0.000005	0.27	0.0413	28	0.000015	<0.00001	<0.0005	0.00377	<0.0002	0.186	<0.0001	1.63	1.82	0.19	5.5%
0.008	2.81	0.941	<0.01	<0.00005	0.991	<0.002	1.81	0.00145	0.951	<0.000005	0.29	0.0387	32	0.000016	<0.00001	0.0014	0.00436	<0.0002	0.186	<0.0001	1.81	2.04	0.23	5.9%
0.01	3.12	0.786	<0.01	0.00008	1.04	<0.002	1.94	0.00146	1.16	<0.000005	0.31	0.0317	37	0.000015	<0.00001	<0.0005	0.00546	<0.0002	0.167	<0.0001	1.92	2.35	0.43	10.1%
0.0105	2.76	0.573	<0.01	0.00006	0.925	<0.002	1.71	0.0014	0.968	<0.000005	0.28	0.0262	31	0.000015	<0.00001	<0.0005	0.00578	<0.0002	0.132	<0.0001	1.98	2.21	0.23	5.6%
0.0121	2.81	0.447	0.02	0.00009	0.958	<0.002	1.79	0.00142	1.19	<0.000005	0.31	0.0232	30	0.000017	0.00001	<0.0005	0.00578	<0.0002	0.119	<0.0001	1.98	2.48	0.50	11.2%
0.0127	2.59	0.31	0.04	0.00008	0.664	<0.002	1.49	0.00113	1.04	0.00004	0.28	0.0185	26	0.000014	0.00003	0.0005	0.00565	<0.0002	0.0953	<0.0001	1.83	2.06	0.22	5.8%
0.0136	2.62	0.249	0.02	0.00007	0.547	<0.002	1.56	0.00118	1.23	<0.000005	0.27	0.019	27	0.000017	<0.00001	<0.0005	0.0059	<0.0002	0.0941	<0.0001	1.63	2.09	0.46	12.5%
0.0109	2.54	0.183	0.13	0.00009	0.452	<0.002	1.3	0.00105	1.25	<0.000005	0.24	0.0127	24	0.000015	0.00003	<0.0005	0.00501	<0.0002	0.0909	<0.0001	1.44	1.90	0.46	13.8%
0.0113	2.39	0.148	<0.01	<0.00005	0.379	<0.002	1.6	0.00086	1.85	<0.000005	0.23	0.0132	23	0.000019	0.00002	<0.0005	0.00515	<0.0002	0.1	<0.0001	1.50	1.62	0.12	3.9%
0.0094	1.99	0.108	<0.01	<0.00005	0.413	<0.002	1.13	0.00056	1.24	<0.000005	0.19	0.0095	17	0.000014	<0.00001	0.0007	0.00536	<0.0002	0.115	<0.0001	0.98	1.15	0.17	8.0%
0.0153	2.9	0.133	<0.01	<0.00005	0.476	<0.002	1.38	0.00055	1.65	0.000005	0.23	0.0098	17	0.000027	0.00001	<0.0005	0.00926	<0.0002	0.18	<0.0001	1.06	1.26	0.20	8.5%



Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S	Tl	Sn	Ti	U	V	Zn	Zr	Major Anions	Major Cations	Diff	Diff %
mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L				
0.0153	2.93	0.129	0.02	0.00007	0.496	<0.002	1.53	0.00056	1.54	<0.000005	0.22	0.0086	16	0.00003	0.00006	<0.0005	0.0102	<0.0002	0.213	<0.0001	1.08	1.13	0.04	1.9%
0.0148	2.57	0.117	<0.01	<0.00005	0.501	<0.002	1.58	0.00043	1.76	<0.000005	0.23	0.0098	15	0.000033	0.00002	<0.0005	0.00793	<0.0002	0.185	<0.0001	1.06	1.16	0.09	4.2%



HC 2
Sample = 70770

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Date	Cycle	Volume mL		pH	Cond. umhos/cm	Acidity (pH 4.5) mgCaCO3/L	Acidity (pH 8.3) mgCaCO3/L	Alkalinity mgCaCO3/L	Sulphate (mg/L)	Hardness CaCO3 mg/L	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L
		Input	Output																					
12-Nov-07	1	750	395	7.36	571	#N/A	4.4	28.0	229	260	0.0105	0.00014	0.0027	0.0168	<0.00001	<0.000005	0.026	0.000032	72.1	<0.0001	0.00641	0.0023	0.088	0.000083
19-Nov-07	2	500	500	7.35	444	#N/A	3.3	9.7	188	203	0.0238	0.0002	0.0077	0.0043	<0.00001	<0.000005	0.039	0.000114	60.1	<0.0001	0.00121	0.0006	0.006	0.000161
26-Nov-07	3	500	410	6.75	370	#N/A	3.9	5.2	179	166	0.013	0.00009	0.0065	0.0039	<0.00001	<0.000005	0.021	0.000147	51.1	<0.0001	0.00171	0.0012	0.002	0.000054
3-Dec-07	4	500	405	7.12	268	#N/A	2.9	7.2	116	111	0.0155	0.00016	0.005	0.0023	<0.00001	<0.000005	0.019	0.000069	36	<0.0001	0.00079	0.0009	0.003	0.000018
10-Dec-07	5	500	520	7.16	186	#N/A	2.5	9.6	70	73.9	0.0161	0.00008	0.0029	0.0019	<0.00001	<0.000005	0.023	0.000118	25.4	0.0001	0.00093	0.0019	0.003	0.000031
17-Dec-07	6	500	490	6.96	193	#N/A	2.5	6.9	76	83.3	0.0222	0.00008	0.0025	0.0018	<0.00001	<0.000005	0.015	0.000197	29.3	<0.0001	0.00112	0.0011	0.002	0.000065
24-Dec-07	7	500	415	7.10	156	#N/A	1.9	6.3	57	57.7	0.0189	0.00005	0.0029	0.0015	<0.00001	<0.000005	0.008	0.000164	20.2	<0.0001	0.00094	0.0011	0.001	0.000473
31-Dec-07	8	500	410	6.92	132	#N/A	2.6	4.8	45	54.5	0.0134	0.00007	0.002	0.0014	<0.00001	<0.000005	0.008	0.000132	18.7	<0.0001	0.00096	0.0009	0.003	0.000066
7-Jan-08	9	500	410	7.05	117	#N/A	#N/A	#N/A	50	43.2	0.0104	0.00006	0.0019	0.0012	<0.00001	<0.000005	0.006	0.000134	15.1	0.0001	0.00114	0.0015	0.037	0.000159
14-Jan-08	10	500	495	6.69	153	#N/A	3.5	5.3	64	66.1	0.0108	0.00006	0.0019	0.0019	<0.00001	<0.000005	0.012	0.000294	23.8	<0.0001	0.00191	0.0006	0.002	0.000016
21-Jan-08	11	500	420	6.87	118	#N/A	4.0	3.9	45	44.7	0.0049	0.00004	0.002	0.0014	<0.00001	<0.000005	0.005	0.000215	15.7	<0.0001	0.00148	0.0026	0.015	<0.000005
28-Jan-08	12	500	400	7.06	107	#N/A	3.6	3.5	40	41.6	0.0051	0.00005	0.0021	0.0016	<0.00001	<0.000005	0.006	0.000264	14.7	0.0001	0.00201	0.0012	0.049	0.000068
4-Feb-08	13	500	410	6.71	105	#N/A	2.9	3.7	38															
11-Feb-08	14	500	465	6.72	119	#N/A	3.3	3.4	44	48.2	0.0048	0.00003	0.0023	0.0015	<0.00001	<0.000005	0.007	0.000426	17.2	<0.0001	0.00323	0.0006	0.005	0.000009
18-Feb-08	15	500	480	6.71	142	#N/A	3.5	3.3	53															
25-Feb-08	16	500	480	6.52	152	#N/A	3.7	2.8	58	59	0.0035	0.00003	0.0028	0.0026	<0.00001	<0.000005	0.013	0.00108	21.1	<0.0001	0.00742	0.0044	0.035	0.000019
3-Mar-08	17	500	475	6.27	145	#N/A	3.4	2.0	58															
10-Mar-08	18	500	480	6.15	156	#N/A	4.2	1.4	60	58.1	0.0087	0.00003	0.0037	0.0035	<0.00001	<0.000005	0.007	0.00237	20.4	<0.0001	0.0141	0.0043	0.248	0.000033
17-Mar-08	19	500	455	5.97	144	#N/A	4.9	1.0	56															
24-Mar-08	20	500	450	5.75	151	#N/A	6.1	1.1	64	54.5	0.0431	<0.00002	0.0047	0.0035	0.00006	<0.000005	0.007	0.00324	18.7	0.0001	0.0205	0.0057	0.521	0.0001
31-Mar-08	21	500	460	5.73	148	#N/A	6.8	1.1	63															
7-Apr-08	22	500	460	5.56	165	#N/A	9.9	1.0	62	55.6	0.105	<0.00002	0.0061	0.004	0.00011	<0.000005	<0.005	0.00458	18.4	<0.0001	0.0308	0.0147	0.913	0.000087
14-Apr-08	23	500	490	5.48	234	#N/A	12.1	0.8	94															
21-Apr-08	24	500	460	5.32	213	#N/A	14.1	0.7	88	76.8	0.247	<0.00002	0.0081	0.0068	0.00018	<0.000005	<0.05	0.0079	24.8	<0.0001	0.0578	0.0176	1.98	0.000209
28-Apr-08	25	500	445	5.41	208	#N/A	15.8	0.9	89															
5-May-08	26	500	465	4.81	229	#N/A	20.0	<0.1	98	75.4	0.356	<0.00002	0.0081	0.0084	0.00025	<0.000005	<0.05	0.00937	23.1	0.0001	0.0709	0.0158	3.42	0.000302
12-May-08	27	500	495	5.04	253	#N/A	20.6	0.2	106															
19-May-08	28	500	480	4.67	232	#N/A	20.5	<0.1	102	75.5	0.509	<0.00002	0.0068	0.0108	0.00034	<0.000005	<0.05	0.0106	22.2	0.0001	0.0755	0.0216	3.51	0.000432
26-May-08	29	500	500	4.67	258	#N/A	25.5	<0.1	125	94.3	0.588	<0.00002	0.0067	0.0137	0.0004	<0.000005	<0.05	0.0134	28.8	<0.0001	0.0827	0.0222	4.18	0.000428
2-Jun-08	30	500	455	4.59	197	#N/A	21.3	<0.1	106	78.4	0.521	0.00003	0.0079	0.0102	0.00041	<0.000005	<0.05	0.0125	22.7	<0.0001	0.0851	0.0305	3.43	0.000396
9-Jun-08	31	500	480	4.53	195	#N/A	24.5	<0.1	96	79.1	0.536	<0.00002	0.0074	0.0121	0.00049	<0.000005	<0.05	0.0133	23.4	0.0002	0.0871	0.0225	4.04	0.000372
16-Jun-08	32	500	485	4.33	191	2.0	29.9	#N/A	109	74	0.651	<0.00002	0.0061	0.0107	0.00058	0.000024	<0.05	0.013	21.3	<0.0001	0.0838	0.0199	4.85	0.000486
23-Jun-08	33	500	510	4.38	188	1.8	34.5	#N/A	119	80.7	0.817	<0.00002	0.0048	0.0123	0.00059	<0.000005	<0.05	0.0131	23.2	<0.0001	0.0854	0.0279	6.17	0.000632
30-Jun-08	34	500	450	4.20	225	3.0	30.5	#N/A	111	65.8	0.933	<0.00002	0.0058	0.0111	0.00071	<0.000005	<0.05	0.0129	17.2	0.0003	0.0847	0.0399	5.77	0.000945
7-Jul-08	35	500	435	4.18	268	3.1	33.6	#N/A	114	67.7	1.47	<0.00002	0.0061	0.0096	0.00101	<0.000005	<0.05	0.0148	17.4	0.0003	0.0894	0.0549	4.24	0.000699
14-Jul-08	36	500	450	4.12	250	4.6	39.5	#N/A	105	64.9	1.57	<0.00002	0.0053	0.0092	0.00106	<0.000005	<0.05	0.0137	16.4	0.0002	0.0878	0.0666	6.53	0.00316
21-Jul-08	37	500	445	4.10	236	4.0	35.8	#N/A	104	66.1	1.23	<0.00002	0.005	0.01	0.00104	<0.000005	<0.05	0.0129	17.9	<0.0001	0.0768	0.0659	5.77	0.00986
28-Jul-08	38	500	450	4.02	233	5.3	39.3	#N/A	98	57.2	1.74	<0.00002	0.0036	0.0076	0.00102	<0.000005	<0.05	0.0131	14.8	0.0002	0.0745	0.0719	5.54	0.000936
4-Aug-08	39	500	445	3.98	243	6.3	43.3	#N/A	114	58.3	2.03	<0.00002	0.0037	0.0082	0.00121	<0.000005	<0.05	0.0135	14.5	0.0003	0.0816	0.0891	6.61	0.000703
11-Aug-08	40	500	470	4.04	218	5.0	35.2	#N/A	104	60.6	1.45	<0.00002	0.003	0.0091	0.00105	<0.000005	<0.05	0.0117	16.7	<0.0001	0.0621	0.0664	5.51	0.000795
18-Aug-08	41	500	440	3.98	264	5.4	36.8	#N/A	106	63.8	2.18	<0.00002	0.0032	0.0083	0.00137	<0.000005	<0.05	0.0136	16.1	0.0003	0.0776	0.111	5.93	0.000925
25-Aug-08	42	500	470	3.96	227	7.9	50.1	#N/A	109	54.6	2.38	<0.00002	0.0029	0.0072	0.00135	<0.000005	<0.05	0.0135	14.1	0.0002	0.0652	0.102	6	0.000917
1-Sep-08	43	500	440	3.88	224	8.9	50.7	#N/A	104	54.6	2.75	<0.00002	0.0028	0.007	0.0014	<0.000005	<0.05	0.0134	13.8	0.0004	0.0714	0.138	6.06	0.000872
8-Sep-08	44	500	450	3.80	239	13.5	58.9	#N/A	113	5														



HC 2

CONFIDENTIAL

DRAFT

Sample = 70770

Date	Cycle	Volume mL		pH	Cond. umhos/cm	Acidity	Acidity	Alkalinity mgCaCO3/L	Sulphate (mg/L)	Hardness CaCO3 mg/L	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L
		Input	Output			(pH 4.5) mgCaCO3/L	(pH 8.3) mgCaCO3/L																	
19-Jan-09	63	500	430	3.31	391	42.0	100.8	#N/A	149															
26-Jan-09	64	500	430	3.74	163	12.0	42.5	#N/A	130															
2-Feb-09	65	500	500	3.30	431	46.6	125.0	#N/A	175															
9-Feb-09	66	500	425	3.33	416	40.7	106.2	#N/A	170	54.4	9.94	<0.00002	0.0042	0.0082	0.00253	<0.000005	<0.05	0.0153	9.75	0.003	0.0632	0.423	3.4	0.00362
16-Feb-09	67	500	490	3.43	418	32.4	103.0	#N/A	161															
23-Feb-09	68	500	495	3.42	417	34.4	106.0	#N/A	144															
2-Mar-09	69	500	430	3.44	412	36.3	112.6	#N/A	138															
9-Mar-09	70	500	455	3.22	440	57.9	125.3	#N/A	167	54.3	10.8	<0.00002	0.0034	0.0081	0.00246	<0.000005	<0.05	0.0143	8.79	0.0038	0.0668	0.481	4.16	0.0044
16-Mar-09	71	500	430	3.18	465	60.8	121.3	#N/A	200															
23-Mar-09	72	500	435	3.17	470	64.6	126.4	#N/A	176															

Cell Terminated

Jan 7/08 Acidity 5.0, alkalinity 23.8. Suspect instrument error, not repeated.

Certified by:

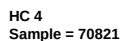
Rik J. Vos
ARD Testing Specialist
SGS Canada Inc.



Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S	Ti	Sn	Ti	U	V	Zn	Zr	Major Anions	Major Cations	Diff	Diff %
mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L				
0.0088	19.4	0.775	<0.01	0.00029	0.0923	0.006	10.3	0.001	0.591	<0.000005	19.1	0.569	96	0.000043	0.00002	<0.0005	8.3E-05	<0.0002	0.0116	<0.0001	5.33	6.29	0.96	8.2%
0.0056	12.8	0.219	<0.01	0.00047	0.0052	<0.002	6.38	0.0012	1.14	<0.000005	14.7	0.308	88	0.000023	0.00002	<0.0005	0.00029	<0.0002	0.0212	<0.0001	4.11	4.85	0.74	8.3%
0.0051	9.42	0.199	<0.01	0.00024	0.0057	<0.002	5.02	0.0009	0.863	<0.000005	9.14	0.223	62	0.000019	0.00004	<0.0005	6.5E-05	<0.0002	0.0274	<0.0001	3.83	3.85	0.02	0.2%
0.0035	5.18	0.095	<0.01	0.00041	0.0037	<0.002	4.34	0.0007	0.918	<0.000005	5.19	0.139	41	0.00001	0.00002	<0.0005	0.00021	<0.0002	0.0108	<0.0001	2.56	2.56	0.00	0.0%
0.0037	2.56	0.109	0.01	0.00035	0.0026	<0.002	2.85	0.0003	1.11	<0.000005	2.42	0.0929	26	0.000016	0.00005	<0.0005	0.00016	0.0003	0.0199	<0.0001	1.65	1.66	0.01	0.2%
0.0039	2.46	0.131	0.02	0.00046	0.0027	<0.002	3.21	0.0003	1.02	<0.000005	2.38	0.0937	30	0.000012	0.00003	<0.0005	0.00019	<0.0002	0.034	<0.0001	1.72	1.85	0.13	3.6%
0.0034	1.77	0.0726	0.01	0.00062	0.0024	<0.002	2.68	0.0002	0.84	<0.000005	1.81	0.0679	22	0.000011	<0.00001	<0.0005	8.4E-05	<0.0002	0.0448	<0.0001	1.31	1.30	-0.01	-0.4%
0.0035	1.92	0.0729	<0.01	0.00051	0.0034	0.002	3.32	0.0003	0.987	<0.000005	1.72	0.0586	19	0.000011	<0.00001	<0.0005	0.0001	<0.0002	0.0266	<0.0001	1.03	1.25	0.22	9.5%
0.0027	1.34	0.0719	<0.01	0.00036	0.0043	<0.002	2.64	0.0003	0.725	<0.000005	1.39	0.0493	16	0.00001	<0.00001	0.0008	7.7E-05	<0.0002	0.0317	<0.0001	#N/A	0.99	#N/A	#N/A
0.0028	1.65	0.149	<0.01	0.00026	0.0061	<0.002	2.77	0.0002	1.65	<0.000005	1.35	0.0684	24	0.000012	0.00001	<0.0005	0.00012	<0.0002	0.0617	<0.0001	1.44	1.45	0.01	0.5%
0.0026	1.33	0.0924	<0.01	0.00033	0.005	<0.002	2.55	0.0003	0.813	<0.000005	1.11	0.0519	17	0.000013	0.00004	0.0007	6.4E-05	<0.0002	0.0481	<0.0001	1.02	1.01	-0.01	-0.4%
0.0024	1.16	0.1	0.01	0.00024	0.0068	<0.002	2.5	0.0002	0.927	<0.000005	1.05	0.0474	16	0.000013	0.00007	<0.0005	6.3E-05	<0.0002	0.0635	<0.0001	0.90	0.94	0.04	2.0%
0.0024	1.27	0.161	<0.01	0.00015	0.0092	<0.002	2.24	0.0001	0.996	<0.000005	0.94	0.0484	18	0.000014	<0.00001	0.0006	7.3E-05	<0.0002	0.112	<0.0001	0.98	1.06	0.08	3.7%
0.0032	1.52	0.289	<0.01	0.00008	0.0188	<0.002	2.53	0.0002	2.15	<0.000005	1.01	0.0624	22	0.000021	<0.00001	<0.0005	0.00006	<0.0002	0.306	<0.0001	1.26	1.29	0.02	0.9%
0.0034	1.72	0.39	0.02	<0.00005	0.0415	<0.002	2.36	0.0003	1.52	<0.000005	0.99	0.0635	22	0.000025	0.00005	<0.0005	0.00017	<0.0002	0.754	<0.0001	1.28	1.30	0.03	1.0%
0.0037	1.88	0.509	0.01	<0.00005	0.0721	<0.002	2.3	0.0004	0.992	0.000006	0.92	0.0617	22	0.000028	<0.00001	<0.0005	0.00032	<0.0002	1.1	<0.0001	1.35	1.26	-0.10	-3.7%
0.0048	2.35	0.714	<0.01	<0.00005	0.115	<0.002	2.25	0.0007	1.26	<0.000005	0.96	0.0649	24	0.000038	<0.00001	<0.0005	0.00064	<0.0002	1.66	<0.0001	1.31	1.33	0.02	0.7%
0.0061	3.65	1.15	<0.01	<0.00005	0.246	<0.002	2.71	0.0013	1.71	<0.000005	1.31	0.0822	35	0.00005	<0.00001	<0.0005	0.0012	<0.0002	3.13	<0.0001	1.85	1.91	0.06	1.7%
0.0061	4.33	0.927	0.01	0.00006	0.325	<0.002	2.32	0.0014	1.87	<0.000005	1.17	0.0762	33	0.000053	<0.00001	<0.0005	0.00184	<0.0002	3.78	<0.0001	2.04	1.99	-0.05	-1.3%
0.0061	4.9	0.844	<0.01	<0.00005	0.376	<0.002	2.2	0.0012	2.36	<0.000005	1.13	0.0651	35	0.000049	<0.00001	<0.0005	0.00253	<0.0002	4.03	<0.0001	2.13	2.03	-0.10	-2.4%
0.007	5.45	0.896	<0.01	<0.00005	0.44	<0.002	2.56	0.0015	3.09	<0.000005	1.2	0.0855	42	0.000058	0.00001	<0.0005	0.00317	<0.0002	5.15	<0.0001	2.60	2.49	-0.11	-2.1%
0.0066	5.29	0.753	<0.01	<0.00005	0.427	<0.002	2.08	0.0012	2.02	<0.000005	1.01	0.0641	36	0.000055	<0.00001	0.0006	0.00348	<0.0002	5.22	<0.0001	2.21	2.11	-0.09	-2.2%
0.0072	4.99	0.757	<0.01	<0.00005	0.458	<0.002	2.07	0.0013	2.3	<0.000005	0.96	0.0662	36	0.000058	<0.00001	<0.0005	0.00367	<0.0002	5.57	<0.0001	2.00	2.17	0.17	4.1%
0.0072	5.03	0.721	0.05	0.00006	0.425	<0.002	1.94	0.0013	2.37	<0.000005	0.91	0.0587	33	0.000059	0.00002	0.0005	0.00433	<0.0002	5.15	<0.0001	2.27	2.13	-0.15	-3.3%
0.0082	5.53	0.721	<0.01	0.00006	0.442	<0.002	2.19	0.0013	3.46	0.000006	0.98	0.0564	39	0.000067	0.00001	<0.0005	0.0043	<0.0002	5.31	<0.0001	2.48	2.36	-0.12	-2.4%
0.0091	5.55	0.718	<0.01	<0.00005	0.436	<0.002	1.96	0.0014	2.28	0.000007	0.97	0.049	32	0.000078	<0.00001	<0.0005	0.00589	<0.0002	5.5	<0.0001	2.31	2.07	-0.24	-5.4%
0.0093	5.91	0.747	<0.01	0.00006	0.451	<0.002	1.92	0.0011	1.46	0.000005	1.05	0.0485	35	0.00007	<0.00001	<0.0005	0.00708	<0.0002	6.16	<0.0001	2.38	2.12	-0.26	-5.7%
0.009	5.8	0.7	<0.01	<0.00005	0.446	<0.002	1.89	0.0013	2.08	0.00001	0.98	0.0463	33	0.000072	<0.00001	<0.0005	0.00751	<0.0002	6.09	<0.0001	2.19	2.20	0.01	0.2%
0.0083	5.21	0.622	0.01	0.00006	0.389	<0.002	1.82	0.0012	2.09	0.00001	0.88	0.0467	33	0.000077	<0.00001	<0.0005	0.00688	<0.0002	5.68	<0.0001	2.17	2.13	-0.04	-0.9%
0.008	4.93	0.636	<0.01	0.00009	0.375	<0.002	1.63	0.0012	1.86	<0.000005	0.81	0.0379	32	0.000065	<0.00001	0.001	0.00721	<0.0002	5.69	<0.0001	2.04	2.00	-0.04	-1.0%
0.0085	5.37	0.638	<0.01	<0.00005	0.414	<0.002	1.82	0.0011	2.11	0.000009	0.87	0.0354	34	0.000075	0.00002	<0.0005	0.00772	<0.0002	6.13	<0.0001	2.38	2.14	-0.23	-5.1%
0.0072	4.61	0.536	<0.01	<0.00005	0.316	<0.002	1.76	0.001	2.29	<0.000005	0.74	0.039	34	0.000067	0.00002	0.0006	0.00662	<0.0002	4.96	<0.0001	2.17	2.01	-0.16	-3.8%
0.01	5.71	0.674	0.01	<0.00005	0.395	<0.002	1.71	0.001	2.05	0.000011	0.92	0.0403	35	0.000082	0.00003	<0.0005	0.00879	<0.0002	6.11	<0.0001	2.21	2.23	0.02	0.5%
0.0084	4.73	0.596	<0.01	<0.00005	0.33	<0.002	1.65	0.0011	2.15	0.000005	0.71	0.0347	33	0.000078	<0.00001	0.0008	0.00888	<0.0002	5.69	<0.0001	2.27	2.05	-0.22	-5.0%
0.0075	4.91	0.565	<0.01	<0.00005	0.363	<0.002	1.61	0.0011	2.8	0.000006	0.77	0.0335	33	0.000076	<0.00001	0.0006	0.00847	<0.0002	6.3	<0.0001	2.17	2.14	-0.02	-0.6%
0.0095	5.35	0.618	<0.01	<0.00005	0.37	<0.002	1.7	0.001	2.34	<0.000005	0.82	0.0336	35	0.000096	0.00003	<0.0005	0.0101	<0.0002	6.57	<0.0001	2.35	2.26	-0.09	-2.0%
0.0103	5.74	0.62	<0.01	<0.00005	0.371	0.003	1.83	0.0014	2.7	0.000019	0.84	0.0301	36	0.000112	0.00012	<0.0005	0.0109	<0.0002	6.6	<0.0001	2.40	2.33	-0.06	-1.3%
0.0085	4.55	0.509	<0.01	<0.00005	0.294	<0.002	1.64	0.0009	2.07	0.000012	0.68	0.0297	30	0.000089	0.00001	0.0007	0.00884	<0.0002	5.64	<0.0001	2.00	1.95	-0.05	-1.2%
0.0088	4.77	0.509	0.01	<0.00005	0.305	<0.002	1.72	0.0009	2.65	0.000014	0.69	0.0264	32	0.000097	0.00005	<0.0005	0.00944	<0.0002	5.73	<0.0001	2.04	2.07	0.03	0.7%
0.0105	5.71	0.582	<0.01	<0.00005	0.348	<0.002	1.85	0.001	2.59	0.000011	0.79	0.0289	38	0.000107	<0.00001	0.0006	0.0113	<0.0002	6.53	<0.0001	2.31	2.32	0.01	0.2%
0.0106	5.47	0.541	<0.01	<0.00005	0.319	<0.002	2.01	0.001	2.43	0.000014	0.77	0.0301	38	0.000132	0.00001	<0.0005	0.0115	<0.0002	6.12	<0.0001	2.44	2.30	-0.14	-3.0%
0.0096	5.95	0.544	<0.01	0.00007	0.325	<0.002	1.78	0.0009	2.04	0.000013	0.73	0.0237	37	0.000107	0.00001	<0.0005	0.0103	<0.0002	6.76	<0.0001	2.21	2.31	0.10	2.2%
0.01	5.57	0.476	<0.01	<0.00005	0.283	<0.002	2.19	0.0009	4.8	0.000013	0.69	0.0313	40	0.000149	0.00007	0.0006	0.0102	<0.0002	5.86	<0.0001	2.44	2.54	0.10	2.1%
0.0094	4.55	0.367	<0.01	<0.00005	0.25	<0.002	1.9	0.0008	3.22	0.000007	0.54	0.021	33	0.00013	<0.00001	<0.0005	0.00833	<0.0002	5.13	<0.0001	2.00	2.09	0.09	2.1%
0.0167	7.41	0.487	<0.01	<0.00005	0.312	<0.002	2.24	0.0009	3.08	0.000022	0.72	0.0245												



Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S	Tl	Sn	Ti	U	V	Zn	Zr	Major Anions	Major Cations	Diff	Diff %
mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L				
0.0164	7.29	0.45	<0.01	<0.00005	0.287	<0.002	2.34	0.0009	3.5	0.000026	0.65	0.0246	48	0.000239	0.00006	<0.0005	0.0129	<0.0002	6.35	<0.0001	3.54	3.14	-0.40	-6.0%
0.0183	7.85	0.451	<0.01	<0.00005	0.295	<0.002	2.4	0.0008	4.28	0.000016	0.67	0.021	50	0.00025	0.00004	<0.0005	0.0109	0.0003	6.01	<0.0001	3.48	3.40	-0.08	-1.1%



DRAFT

Date	Cycle	Volume mL		pH	Cond. umhos/cm	Acidity (pH 4.5) mgCaCO3/L	Acidity (pH 8.3) mgCaCO3/L	Alkalinity mgCaCO3/L	Sulphate (mg/L)	Hardness CaCO3 mg/L	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L
		Input	Output																					
12-Nov-07	1	750	400	7.53	77	#N/A	2.0	13.4	14	25	0.0373	0.00022	0.0026	0.002	<0.00001	<0.000005	0.01	<0.000005	7.19	<0.0001	0.000055	0.0038	0.006	0.000029
19-Nov-07	2	500	505	7.56	107	#N/A	2.8	12.8	25	34.7	0.0368	0.00079	0.007	0.0032	<0.00001	<0.000005	0.021	<0.000005	9.21	<0.0001	0.000056	0.0014	0.024	0.000033
26-Nov-07	3	500	425	6.97	160	#N/A	3.5	8.4	61	57.7	0.0364	0.00039	0.0036	0.0069	<0.00001	<0.000005	0.014	0.000005	16.5	<0.0001	0.000061	0.002	0.009	0.000029
3-Dec-07	4	500	415	7.20	236	#N/A	2.8	9.7	103	92.6	0.0286	0.00058	0.0032	0.0146	<0.00001	<0.000005	0.014	<0.000005	25.9	<0.0001	0.000111	0.0029	0.015	0.00002
10-Dec-07	5	500	510	7.12	158	#N/A	2.6	8.6	55	62.4	0.0254	0.00028	0.0023	0.0127	<0.00001	<0.000005	0.013	0.000006	19.6	<0.0001	0.000258	0.0019	0.003	0.000021
17-Dec-07	6	500	500	6.99	201	#N/A	2.5	9.4	74	83.9	0.0449	0.00024	0.0028	0.014	<0.00001	<0.000005	0.009	0.000019	27.1	0.0002	0.000421	0.0024	0.005	0.00009
24-Dec-07	7	500	410	6.88	195	#N/A	2.3	5.5	76	80.4	0.0375	0.00015	0.0016	0.0135	<0.00001	<0.000005	0.006	0.000033	26.6	<0.0001	0.000247	0.0026	0.002	0.000025
31-Dec-07	8	500	420	7.08	125	#N/A	2.3	6.8	46	52.3	0.0292	0.00019	0.0018	0.0085	<0.00001	<0.000005	0.006	<0.000005	17	<0.0001	0.000145	0.0028	0.019	0.000406
7-Jan-08	9	500	410	7.19	99	#N/A	2.5	7.4	38	36.4	0.0242	0.00017	0.0017	0.0064	<0.00001	<0.000005	<0.005	0.000009	11.9	<0.0001	0.000109	0.0027	0.005	0.000193
14-Jan-08	10	500	420	6.94	97	#N/A	2.7	8.2	30	38.2	0.0386	0.00025	0.0029	0.0068	<0.00001	0.000005	0.005	<0.000005	12.7	<0.0001	0.000114	0.0015	0.006	0.000031
21-Jan-08	11	500	425	7.17	78	#N/A	3.7	7.3	24	29.7	0.0282	0.00018	0.0022	0.0058	<0.00001	<0.000005	<0.005	<0.000005	9	<0.0001	0.000091	0.0015	0.002	<0.000005
28-Jan-08	12	500	425	7.40	69	#N/A	3.0	7.2	26	27.2	0.0343	0.00016	0.0024	0.0053	<0.00001	<0.000005	<0.005	0.000008	9.7	<0.0001	0.000062	0.0018	<0.001	0.000044
4-Feb-08	13	500	420	7.10	74	#N/A	2.2	7.3	24															
11-Feb-08	14	500	480	7.04	75	#N/A	2.8	5.4	25	29.8	0.0258	0.00011	0.0022	0.0064	<0.00001	<0.000005	<0.005	0.000007	10.1	<0.0001	0.000122	0.0007	0.003	0.000008
18-Feb-08	15	500	480	7.08	106	#N/A	3.0	5.3	36															
25-Feb-08	16	500	470	7.04	125	#N/A	2.8	5.4	46	48.1	0.0302	0.00009	0.0022	0.0096	<0.00001	<0.000005	0.008	0.000017	16.8	<0.0001	0.000339	0.0024	0.001	0.000019
3-Mar-08	17	500	475	6.91	110	#N/A	2.3	4.6	41															
10-Mar-08	18	500	470	6.96	107	#N/A	2.5	4.5	41	41.3	0.0271	0.00007	0.0019	0.0078	<0.00001	0.000001	<0.005	0.000012	14.6	<0.0001	0.000426	0.001	0.002	0.000085
17-Mar-08	19	500	465	6.78	93	#N/A	2.2	3.1	34															
24-Mar-08	20	500	445	6.78	95	#N/A	2.5	3.5	35	37.5	0.02	0.00005	0.0014	0.0066	<0.00001	<0.000005	<0.005	0.000015	13.3	<0.0001	0.00038	0.0005	0.002	0.000026
31-Mar-08	21	500	470	6.78	85	#N/A	2.0	4.0	32															
7-Apr-08	22	500	460	6.97	87	#N/A	4.3	3.6	30	31	0.0192	0.00004	0.0013	0.0055	<0.00001	<0.000005	<0.005	0.000012	10.9	<0.0001	0.00041	0.0009	0.004	0.000015
14-Apr-08	23	500	490	6.79	105	#N/A	2.3	3.4	28															
21-Apr-08	24	500	465	6.90	101	#N/A	3.1	4.1	40	39.3	0.02	0.00004	0.0014	0.0072	<0.00001	<0.000005	<0.05	0.000023	14	<0.0001	0.00101	0.0014	0.004	<0.000005
28-Apr-08	25	500	470	6.89	88	#N/A	2.7	3.5	27															
5-May-08	26	500	470	6.95	90	#N/A	3.4	3.2	29	33.2	0.0187	0.00004	0.0013	0.0079	<0.00001	<0.000005	<0.05	0.000029	11.7	<0.0001	0.00127	0.0013	0.004	0.000042
12-May-08	27	500	485	7.05	88	#N/A	2.6	3.2	30															
19-May-08	28	500	485	6.96	86	#N/A	2.1	2.6	30	33.6	0.0223	0.00004	0.0013	0.0054	<0.00001	<0.000005	<0.05	0.000028	11.8	<0.0001	0.00168	0.0009	0.004	0.000011
26-May-08	29	500	460	6.86	78	#N/A	2.1	2.9	32															
2-Jun-08	30	500	480	6.75	59	#N/A	2.1	2.3	25	27.3	0.0172	0.00005	0.0013	0.0102	<0.00001	0.000007	<0.05	0.000024	9.74	<0.0001	0.00103	0.0012	0.003	0.00004
9-Jun-08	31	500	460	6.66	54	#N/A	2.3	2.3	22															
16-Jun-08	32	500	475	6.88	57	#N/A	2.8	2.6	25	27.6	0.0153	0.00003	0.0012	0.0067	<0.00001	<0.000005	<0.05	0.000025	9.69	<0.0001	0.0014	0.002	0.003	0.00006
23-Jun-08	33	500	450	6.96	56	#N/A	3.1	3.2	30															
30-Jun-08	34	500	440	6.84	74	#N/A	2.2	2.7	33	29.9	0.0226	0.00003	0.0012	0.0083	<0.00001	<0.000005	<0.05	0.000034	10.5	0.0001	0.00156	0.0005	0.004	0.000013
7-Jul-08	35	500	440	6.79	87	#N/A	2.2	1.8	29															
14-Jul-08	36	500	455	6.74	76	#N/A	2.7	2.3	29	31.5	0.0127	0.00002	0.001	0.0079	<0.00001	0.000011	<0.05	0.000036	10.9	<0.0001	0.00237	0.0006	0.003	0.000009
21-Jul-08	37	500	450	6.67	69	#N/A	2.1	2.1	27															
28-Jul-08	38	500	485	6.64	60	#N/A	2.2	1.6	25	23.5	0.0101	0.00002	0.001	0.0093	<0.00001	<0.000005	<0.05	0.000038	8.21	<0.0001	0.00195	0.0008	0.003	0.000011
4-Aug-08	39	500	455	6.69	73	#N/A	1.9	4.2	29															
11-Aug-08	40	500	455	6.55	67	#N/A	2.2	1.8	27	29	0.0073	<0.00002	0.0007	0.0082	<0.00001	<0.000005	<0.05	0.00004	9.96	<0.0001	0.00279	0.0005	0.006	0.000047
18-Aug-08	41	500	525	6.58	88	#N/A	1.7	5.5	29															
25-Aug-08	42	500	520	6.60	67	#N/A	1.9	2.2	27	28.7	0.0105	0.00002	0.0009	0.0132	<0.00001	<0.000005	<0.05	0.000082	10	<0.0001	0.00363	0.0017	0.002	0.00008
1-Sep-08	43	500	505	6.55	145	#N/A	2.0	2.0	67															
8-Sep-08	44	500	500	6.58	71	#N/A	2.2	5.0	28	31	0.0093	0.00002	0.0009	0.0122	<0.00001	<0.000005	<0.05	0.000055	10.9	0.0001	0.00375	0.0007	0.003	0.000023
15-Sep-08	45	500	500	6.60	84	#N/A	1.7	2.1	29															
22-Sep-08	46	500	505	6.53	94	#N/A	2.0	2.0	39	41.5	0.0126	0.00002	0.0008	0.0164	<0.00001	<0.000005	<0.05	0.00011	14.3	<0.0001	0.00721	0.0024	0.005	0.00007
29-Sep-08	47	500	510	6.63	70	#N/A	2.0	1.8	23															
6-Oct-08	48	500	505	6.62	79	#N/A	1.8	1.6	34	34	0.0109	<0.00002	0.0007	0.014	<0.00001	<0.000005	<0.05	0.000105	11.3	<0.0001	0.00741	0.0014	0.004	0.000014
13-Oct-08	49	500	525	6.56	70	#N/A	2.4	1.5	27															
20-Oct-08	50	500	510	6.44	62	#N/A	2.3	1.6	22	24.2	0.0139	<0.00002	0.0006	0.0109	<0.00001	<0.000005	<0.05	0.000074	7.78	<0.0001	0.00582	0.0017	0.015	0.000148
27-Oct-08	51	500	510	6.64	51	#N/A	3.0	1.0	22															
3-Nov-08	52	500	495	6.42	50	#N/A	2.8	3.8	20	21.7	0.0099	<0.00002	0.0006	0.0097	<0.00001	<0.000005	<0.05	0.000071	6.83	<0.0001	0.00528	0.0021	0.016	0.000015
10-Nov-08	53	500	460	6.84	65	#N/A	3.3	1.0	24															
17-Nov-08	54	500	510	6.34	61	#N/A	3.5	1.5	29	27.4	0.0101	<0.00002	0.0006	0.0104	<0.00001	<0.000005	<0.05	0.000127	8.14	<0.0001	0.0101	0.0038	0.027	0.000115
24-Nov-08	55	500	450	6.22	50	#N/A	2.9	1.3	19															
1-Dec-08	56	500	510	6.24	56	#N/A	2.9	1.7	21	21.1	0.007	<0.00002	0.0005	0.0082	<0.00001	<0.000005	<0.05	0.000098	6.36	<0.0001	0.00828	0.0016	0.025	0.000045
8-Dec-08	57	500	505	6.67	55	#N/A	3.4	2.0	21															



HC 4

CONFIDENTIAL

DRAFT

Sample = 70821

Date	Cycle	Volume mL		pH	Cond. umhos/cm	Acidity	Acidity	Alkalinity	Sulphate	Hardness CaCO3 mg/L	Al	Sb	As	Ba	Be	Bi	B	Cd	Ca	Cr	Co	Cu	Fe	Pb
		Input	Output			(pH 4.5) mgCaCO3/L	(pH 8.3) mgCaCO3/L																	
19-Jan-09	63	500	490	5.49	82	#N/A	5.1	0.5	31															
26-Jan-09	64	500	440	6.32	92	#N/A	6.1	2.4	43	33.6	0.009	<0.00002	0.0002	0.0165	<0.00001	<0.000005	<0.05	0.000321	9.13	<0.0001	0.0303	0.0032	0.752	0.000131
2-Feb-09	65	500	500	5.49	103	#N/A	11.0	0.9	40															
9-Feb-09	66	500	510	5.66	145	#N/A	14.6	1.4	63	48.9	0.0214	<0.00002	0.0003	0.0165	<0.00001	<0.000005	<0.05	0.00068	12.1	<0.0001	0.0698	0.006	3.05	0.000085
16-Feb-09	67	500	520	5.40	124	#N/A	12.6	0.6	53															
23-Feb-09	68	500	525	5.64	121	#N/A	14.2	1.1	49	38.2	0.026	<0.00002	0.0004	0.0131	<0.00001	<0.000005	<0.05	0.000423	9.31	<0.0001	0.0504	0.0187	3.43	0.000139
2-Mar-09	69	500	520	5.37	139	#N/A	16.5	0.7	58															
9-Mar-09	70	500	515	5.04	169	#N/A	21.0	0.5	71	52.7	0.0665	<0.00002	0.0004	0.0154	0.00001	<0.000005	<0.05	0.000847	12.6	<0.0001	0.0932	0.0086	6.79	0.000161
16-Mar-09	71	500	490	4.88	208	#N/A	27.7	0.1	113															
23-Mar-09	72	500	480	4.82	200	#N/A	31.5	<0.1	88	58.4	0.149	<0.00002	0.0009	0.012	0.00003	<0.000005	<0.05	0.00115	13.4	<0.0001	0.13	0.01	11.1	0.000417
30-Mar-09	73	500	475	4.84	237	#N/A	33.2	<0.1	88															
6-Apr-09	74	500	485	4.53	290	#N/A	53.7	<0.1	131	78.5	0.419	<0.00002	0.0014	0.0135	0.00007	<0.000005	<0.05	0.00164	16.9	0.0002	0.178	0.0162	19.7	0.000512
13-Apr-09	75	500	490	4.35	338	2.1	67.7	#N/A	158															
20-Apr-09	76	500	470	4.26	237	2.4	43.9	#N/A	104	61.1	0.446	<0.00002	0.0018	0.0089	0.0001	<0.000005	<0.05	0.000968	13.9	<0.0001	0.115	0.0155	15.5	0.00105
27-Apr-09	77	500	510	4.12	348	4.0	82.6	#N/A	146															
4-May-09	78	500	485	4.23	212	2.9	39.0	#N/A	95	56.3	0.466	<0.00002	0.0021	0.0098	0.00011	<0.000005	<0.05	0.000757	12.3	<0.0001	0.0932	0.0128	14	0.000774
11-May-09	79	500	470	4.04	266	6.4	52.2	#N/A	119															
18-May-09	80	500	445	3.90	266	9.1	56.8	#N/A	102	63.1	1.38	<0.00002	0.0022	0.0067	0.00021	<0.000005	<0.05	0.0011	12.3	0.0001	0.124	0.0388	16.1	0.000968
25-May-09	81	500	465	4.15	258	5.6	52.2	#N/A	92															
1-Jun-09	82	500	510	3.83	300	12.0	72.1	#N/A	152	73.1	1.27	<0.00002	0.0031	0.0155	0.00021	<0.000005	<0.05	0.000689	16.2	<0.0001	0.0893	0.0311	22	0.00172
8-Jun-09	83	500	470	3.91	229	10.3	45.2	#N/A	81															
15-Jun-09	84	500	510	3.98	227	8.8	48.5	#N/A	101	53.2	1.18	<0.00002	0.0023	0.01	0.00018	<0.000005	<0.05	0.000487	11.5	<0.0001	0.0624	0.0207	12.7	0.0013
22-Jun-09	85	500	515	3.84	201	10.3	45.2	#N/A	94															
29-Jun-09	86	500	500	3.80	165	7.3	31.4	#N/A	77	44.2	0.897	<0.00002	0.0023	0.0091	0.00015	<0.000005	<0.05	0.000335	10.2	<0.0001	0.0454	0.0201	6.22	0.00128
6-Jul-09	87	500	485	3.84	171	7.0	26.1	#N/A	67															
13-Jul-09	88	500	485	3.68	192	10.4	32.4	#N/A	66	47.4	1.3	<0.00002	0.0023	0.0077	0.00021	<0.000005	<0.05	0.000424	10.6	<0.0001	0.0608	0.0259	4.83	0.00153
20-Jul-09	89	500	515	3.64	224	14.8	38.8	#N/A	94															
27-Jul-09	90	500	460	3.93	180	12.5	28.9	#N/A	66	42.7	1.42	0.00002	0.002	0.007	0.00017	<0.000005	<0.05	0.00044	8.86	<0.0001	0.054	0.0264	3.43	0.0013
3-Aug-09	91	500	455	3.80	176	11.4	29.7	#N/A	66															
10-Aug-09	92	500	490	3.66	153	8.6	26.3	#N/A	55	38	1	<0.00002	0.0021	0.0065	0.00015	<0.000005	<0.05	0.00042	8.28	<0.0001	0.0588	0.0181	2.81	0.00104
17-Aug-09	93	500	505	3.59	206	12.1	36.0	#N/A	84															
24-Aug-09	94	500	475	3.57	195	12.7	30.9	#N/A	58	42.8	1.83	<0.00002	0.0017	0.0061	0.00022	<0.000005	<0.05	0.000465	8.81	0.0002	0.0555	0.0211	2.67	0.00184
31-Aug-09	95	500	450	3.78	186	10.7	28.1	#N/A	66															
7-Sep-09	96	500	440	3.72	156	9.0	26.8	#N/A	54	32.2	0.88	<0.00002	0.0014	0.0082	0.00015	<0.000005	<0.05	0.00044	7.46	<0.0001	0.0787	0.0257	3.82	0.000934
14-Sep-09	97	500	435	3.82	236	15.8	44.9	#N/A	67															
21-Sep-09	98	500	465	3.84	175	9.0	43.2	#N/A	61	32	0.801	<0.00002	0.0017	0.0114	0.00015	<0.000005	<0.05	0.000604	7.02	<0.0001	0.101	0.0317	10.9	0.0162
28-Sep-09	99	500	455	3.87	182	9.0	41.6	#N/A	71															
5-Oct-09	100	500	485	3.64	189	12.1	39.6	#N/A	79	35.6	1.16	<0.00002	0.0019	0.0081	0.00019	<0.000005	<0.05	0.000555	8.05	0.0001	0.0779	0.0266	7.43	0.00143
12-Oct-09	101	500	475	3.75	139	8.9	27.2	#N/A	51															
19-Oct-09	102	500	450	4.12	173	7.6	24.7	#N/A	60	36.8	1.45	0.00003	0.0021	0.0063	0.00017	<0.000005	<0.05	0.000527	8.43	0.0001	0.0533	0.0402	2.08	0.031
26-Oct-09	103	500	510	3.80	187	10.3	29.3	#N/A	70															

Cell Terminated

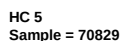
Certified by: Rik J. Vos
ARD Testing Specialist
SGS Canada Inc.



Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S	Ti	Sn	Ti	U	V	Zn	Zr	Major Anions	Major Cations	Diff	Diff %
mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L				
0.0023	1.72	0.0109	<0.01	0.0004	0.00058	0.038	0.9	0.0002	0.672	<0.000005	4.96	0.0533	7	<0.000002	0.00007	<0.0005	1.8E-05	<0.0002	0.0006	<0.0001	0.56	0.74	0.18	13.8%
0.0038	2.84	0.0165	0.02	0.0008	0.00064	0.015	1.51	0.00014	2.62	<0.000005	6.41	0.0766	11	0.000003	0.00007	<0.0005	0.00016	0.0003	0.0022	<0.0001	0.78	1.01	0.23	13.0%
0.0038	4.03	0.0176	<0.01	0.0007	0.00019	0.008	1.59	0.00018	0.679	<0.000005	5.62	0.152	19	<0.000002	0.00005	0.0007	9.9E-05	<0.0002	0.0009	<0.0001	1.44	1.44	0.00	0.0%
0.0086	6.8	0.0369	<0.01	0.0006	0.00023	0.007	4.14	0.00015	0.943	<0.000005	5.83	0.209	33	0.000003	0.00004	<0.0005	0.00017	<0.0002	0.0013	<0.0001	2.34	2.21	-0.13	-2.8%
0.0082	3.29	0.0492	<0.01	0.0002	0.00048	0.004	3.6	<0.00004	0.806	<0.000005	2.27	0.133	23	0.000007	0.00006	<0.0005	0.0001	0.0003	0.0019	<0.0001	1.32	1.44	0.12	4.4%
0.009	3.94	0.0839	<0.01	0.0003	0.00036	0.005	4.48	0.00009	0.614	<0.000005	2.22	0.158	29	0.000006	0.00003	<0.0005	7.4E-05	<0.0002	0.0034	<0.0001	1.73	1.89	0.16	4.3%
0.0067	3.41	0.0486	0.01	0.0004	0.00062	0.004	3.97	0.00012	0.52	<0.000005	1.67	0.16	30	0.000004	0.00002	<0.0005	5.4E-05	<0.0002	0.0033	<0.0001	1.69	1.78	0.09	2.5%
0.0063	2.43	0.031	<0.01	0.0003	0.00029	0.009	3.75	0.0001	0.628	<0.000005	1.24	0.0945	18	0.000003	<0.00001	<0.0005	5.1E-05	<0.0002	0.0014	<0.0001	1.09	1.20	0.10	4.5%
0.0048	1.62	0.0233	<0.01	0.0003	0.00029	0.003	2.88	0.0001	0.456	<0.000005	0.89	0.0688	12	0.000003	0.00003	0.0007	3.6E-05	<0.0002	0.0013	<0.0001	0.94	0.84	-0.10	-5.7%
0.0058	1.6	0.0261	<0.01	0.0002	0.00021	0.005	3.36	0.0001	0.803	<0.000005	0.97	0.0662	12	0.000003	0.00003	<0.0005	6.1E-05	<0.0002	0.0011	<0.0001	0.79	0.89	0.10	6.2%
0.0044	1.32	0.0205	<0.01	0.0002	0.00014	0.003	2.73	0.00009	0.539	<0.000005	0.63	0.0561	10	0.000003	0.00004	<0.0005	4.8E-05	<0.0002	0.0007	<0.0001	0.65	0.69	0.04	3.3%
0.0038	1.15	0.0165	0.02	0.0002	0.00014	0.004	2.43	0.00008	0.557	<0.000005	0.64	0.0457	9	<0.000002	0.00006	<0.0005	3.9E-05	<0.0002	0.0021	<0.0001	0.69	0.63	-0.05	-4.0%
0.0037	1.08	0.0282	<0.01	0.0001	0.00019	0.004	2.31	0.00005	0.453	<0.000005	0.56	0.0459	10	0.000003	0.00001	<0.0005	3.1E-05	<0.0002	0.0014	<0.0001	0.63	0.68	0.05	3.6%
0.0046	1.47	0.0617	<0.01	0.0001	0.0003	0.003	2.84	<0.00004	0.909	<0.000005	0.52	0.0698	17	0.000005	0.00001	<0.0005	1.8E-05	<0.0002	0.003	<0.0001	1.07	1.05	-0.01	-0.6%
0.0039	1.19	0.0668	<0.01	0.0001	0.00025	0.003	2.55	0.00006	0.563	<0.000005	0.44	0.0581	14	0.000005	0.00004	<0.0005	0.00001	<0.0002	0.0029	<0.0001	0.94	0.91	-0.03	-1.8%
0.0032	1.02	0.062	<0.01	0.0001	0.00031	<0.002	2.2	0.00006	0.394	<0.000005	0.35	0.0515	13	0.000004	<0.00001	<0.0005	5E-06	<0.0002	0.0026	<0.0001	0.80	0.82	0.02	1.2%
0.003	0.92	0.0598	<0.01	8E-05	0.00026	0.002	1.85	0.00006	0.419	<0.000005	0.33	0.0417	11	0.000004	<0.00001	0.0005	5E-06	<0.0002	0.0029	<0.0001	0.70	0.68	-0.02	-1.2%
0.003	1.07	0.115	<0.01	0.0001	0.0005	<0.002	2.09	0.00008	0.501	<0.000005	0.4	0.0488	14	0.000004	0.00001	<0.0005	7E-06	<0.0002	0.0056	<0.0001	0.91	0.86	-0.06	-3.2%
0.0029	0.99	0.124	<0.01	<0.00005	0.00056	<0.002	1.84	0.00007	0.474	<0.000005	0.33	0.0395	12	0.000007	<0.00001	<0.0005	5E-06	<0.0002	0.0062	<0.0001	0.67	0.73	0.06	4.2%
0.0028	0.97	0.134	<0.01	<0.00005	0.00053	<0.002	1.77	0.00006	0.554	<0.000005	0.32	0.0368	12	0.000006	<0.00001	0.0008	4E-06	<0.0002	0.0068	<0.0001	0.68	0.73	0.05	3.7%
0.0021	0.73	0.092	<0.01	<0.00005	0.00041	0.002	1.43	0.00007	0.548	<0.000005	0.25	0.0335	9	0.000004	<0.00001	<0.0005	<0.000002	<0.0002	0.0066	<0.0001	0.57	0.60	0.03	2.5%
0.0025	0.83	0.122	0.02	0.0001	0.00062	<0.002	1.68	0.00005	0.555	<0.000005	0.35	0.0321	9	0.000006	<0.00001	0.0017	9E-06	<0.0002	0.0066	<0.0001	0.57	0.61	0.04	3.3%
0.003	0.9	0.137	<0.01	<0.00005	0.00062	0.002	1.73	0.0001	0.651	<0.000005	0.32	0.0383	10	0.000007	<0.00001	<0.0005	7E-06	<0.0002	0.0071	<0.0001	0.74	0.66	-0.08	-5.8%
0.0027	1.02	0.184	<0.01	9E-05	0.00061	0.003	1.69	0.0001	0.527	<0.000005	0.28	0.0365	10	0.000008	<0.00001	<0.0005	0.00001	<0.0002	0.0095	<0.0001	0.65	0.69	0.03	2.6%
0.0019	0.72	0.154	<0.01	<0.00005	0.00063	<0.002	1.15	<0.00004	0.576	<0.000005	0.21	0.0283	8	0.000006	<0.00001	0.0006	3E-06	<0.0002	0.009	<0.0001	0.55	0.51	-0.04	-4.1%
0.0023	1.01	0.214	<0.01	7E-05	0.00081	<0.002	1.45	0.00009	0.629	<0.000005	0.27	0.0314	11	0.000005	<0.00001	<0.0005	<0.000002	<0.0002	0.0132	<0.0001	0.60	0.63	0.03	2.6%
0.002	0.9	0.252	<0.01	<0.00005	0.0009	<0.002	1.17	0.0001	0.689	<0.000005	0.22	0.0344	10	0.000007	<0.00001	<0.0005	<0.000002	<0.0002	0.015	<0.0001	0.61	0.61	0.01	0.7%
0.002	0.94	0.249	<0.01	<0.00005	0.00096	<0.002	1.26	0.00014	0.648	<0.000005	0.28	0.0355	11	0.000007	0.00002	<0.0005	3E-06	<0.0002	0.0144	<0.0001	0.68	0.67	-0.02	-1.2%
0.0026	1.44	0.416	<0.01	<0.00005	0.00177	<0.002	1.44	0.00017	0.952	<0.000005	0.33	0.048	14	0.000011	0.00001	0.0006	3E-06	<0.0002	0.0286	<0.0001	0.85	0.89	0.03	2.0%
0.0025	1.41	0.389	<0.01	<0.00005	0.00176	<0.002	1.41	0.00021	1.05	<0.000005	0.29	0.0378	12	0.000016	<0.00001	<0.0005	3E-06	<0.0002	0.0255	<0.0001	0.74	0.73	-0.01	-0.7%
0.0015	1.14	0.285	<0.01	6E-05	0.00145	<0.002	1.07	0.00011	0.803	<0.000005	0.24	0.0245	9	0.000009	0.00002	<0.0005	3E-06	<0.0002	0.0238	<0.0001	0.49	0.52	0.03	3.2%
0.0016	1.12	0.259	0.04	<0.00005	0.00131	<0.002	0.97	0.00015	0.729	<0.000005	0.24	0.0256	7	0.000009	<0.00001	<0.0005	4E-06	<0.0002	0.0194	<0.0001	0.49	0.47	-0.02	-2.3%
0.0021	1.72	0.392	<0.01	<0.00005	0.00259	<0.002	1.18	0.00021	1.12	<0.000005	0.3	0.0278	10	0.000013	0.00004	<0.0005	6E-06	<0.0002	0.0356	<0.0001	0.63	0.60	-0.04	-3.2%
0.0016	1.27	0.294	<0.01	<0.00005	0.00196	0.002	0.95	0.00015	0.914	<0.000005	0.22	0.0222	8	0.000009	<0.00001	<0.0005	2E-06	<0.0002	0.0281	<0.0001	0.47	0.46	-0.01	-1.3%
0.0017	1.57	0.354	<0.01	<0.00005	0.00281	<0.002	0.93	0.00019	0.898	<0.000005	0.22	0.0245	9	0.000011	<0.00001	0.0009	8E-06	<0.0002	0.042	<0.0001	0.61	0.52	-0.09	-8.0%
0.0021	1.91	0.399	<0.01	<0.00005	0.00383	<0.002	1.11	0.00031	1.32	<0.000005	0.28	0.0267	10	0.000014	<0.00001	0.0011	3E-06	<0.0002	0.0524	<0.0001	0.62	0.59	-0.03	-2.8%
0.0022	2.21	0.471	<0.01	<0.00005	0.00569	<0.002	1.1	0.0003	0.988	<0.000005	0.27	0.0302	10	0.000015	<0.00001	<0.0005	9E-06	<0.0002	0.0837	<0.0001	0.76	0.66	-0.10	-7.1%



Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S	Tl	Sn	Ti	U	V	Zn	Zr	Major Anions	Major Cations	Diff	Diff %
mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L				
0.002	2.61	0.518	<0.01	<0.00005	0.00843	<0.002	1.1	0.00034	0.83	<0.000005	0.34	0.0331	14	0.000013	0.00001	<0.0005	8E-06	<0.0002	0.112	<0.0001	0.94	0.76	-0.18	-10.8%
0.0037	4.57	0.846	<0.01	<0.00005	0.0209	<0.002	1.3	0.0007	1.43	0.000006	0.41	0.0434	19	0.000017	0.00006	<0.0005	2.3E-05	<0.0002	0.221	<0.0001	1.34	1.21	-0.13	-5.2%
0.0038	3.63	0.638	<0.01	<0.00005	0.0174	<0.002	1.41	0.00055	1.54	0.000021	0.34	0.0326	16	0.000015	0.00002	<0.0005	1.4E-05	<0.0002	0.153	<0.0001	1.04	1.01	-0.03	-1.6%
0.0048	5.14	0.779	<0.01	<0.00005	0.0353	<0.002	1.51	0.00099	1.69	<0.000005	0.4	0.0411	23	0.000015	0.00001	<0.0005	3.2E-05	<0.0002	0.234	<0.0001	1.49	1.50	0.01	0.3%
0.0059	6.07	0.827	0.01	<0.00005	0.0503	<0.002	1.27	0.00114	1.57	0.000005	0.42	0.0447	27	0.000015	<0.00001	<0.0005	0.0001	<0.0002	0.288	<0.0001	1.83	1.86	0.03	0.7%
0.0099	8.82	1.08	0.01	<0.00005	0.0755	<0.002	1.5	0.00158	2.65	<0.000005	0.6	0.0541	43	0.000019	0.00001	<0.0005	0.00027	<0.0002	0.398	<0.0001	2.73	2.78	0.06	1.0%
0.0085	6.41	0.771	0.02	<0.00005	0.0547	<0.002	1.29	0.00149	1.97	<0.000005	0.46	0.0467	31	0.000016	0.00002	<0.0005	0.00029	<0.0002	0.273	<0.0001	2.17	2.22	0.06	1.3%
0.0081	6.21	0.713	<0.01	<0.00005	0.0459	<0.002	1.22	0.00126	2.24	<0.000005	0.46	0.0383	30	0.000014	<0.00001	<0.0005	0.00022	<0.0002	0.237	<0.0001	1.98	2.05	0.07	1.7%
0.0111	7.88	0.788	<0.01	<0.00005	0.0598	<0.002	0.88	0.0014	2.26	<0.000005	0.52	0.0414	35	0.000012	<0.00001	<0.0005	0.00055	<0.0002	0.319	<0.0001	2.13	2.47	0.34	7.4%
0.0115	7.94	0.768	0.03	<0.00005	0.0452	0.003	1.26	0.00168	5.4	0.000006	0.58	0.0485	42	0.000014	<0.00001	<0.0005	0.0006	<0.0002	0.295	<0.0001	3.17	3.00	-0.16	-2.7%
0.0091	5.93	0.564	<0.01	<0.00005	0.0313	<0.002	0.9	0.00111	3.93	<0.000005	0.45	0.0367	26	0.000011	<0.00001	<0.0005	0.00048	<0.0002	0.211	<0.0001	2.10	2.03	-0.07	-1.8%
0.0076	4.56	0.428	0.01	<0.00005	0.0221	0.003	0.83	0.00073	3.27	<0.000005	0.4	0.0312	20	0.000009	<0.00001	<0.0005	0.00031	<0.0002	0.177	<0.0001	1.60	1.52	-0.08	-2.6%
0.0085	5.1	0.439	<0.01	<0.00005	0.0274	0.005	0.77	0.00074	3.02	0.000006	0.41	0.033	21	0.000016	<0.00001	<0.0005	0.00043	<0.0002	0.192	<0.0001	1.38	1.61	0.23	7.8%
0.0075	5	0.421	<0.01	5E-05	0.0238	0.003	0.63	0.0008	2.01	<0.000005	0.38	0.0279	21	0.000008	<0.00001	<0.0005	0.00038	<0.0002	0.194	<0.0001	1.38	1.35	-0.02	-0.8%
0.0066	4.2	0.343	<0.01	<0.00005	0.024	<0.002	0.63	0.00063	2.43	<0.000005	0.32	0.0237	20	0.000008	<0.00001	<0.0005	0.00033	<0.0002	0.179	<0.0001	1.15	1.28	0.13	5.4%
0.0088	5.04	0.402	<0.01	<0.00005	0.0244	0.003	0.62	0.00078	2.97	<0.000005	0.4	0.0277	21	0.00001	<0.00001	<0.0005	0.00047	<0.0002	0.226	<0.0001	1.21	1.51	0.30	11.2%
0.0044	3.3	0.281	<0.01	<0.00005	0.0299	<0.002	0.5	0.00052	1.45	0.000027	0.26	0.0237	19	0.000012	<0.00001	<0.0005	0.00039	<0.0002	0.148	<0.0001	1.13	1.17	0.04	1.9%
0.0056	3.52	0.325	<0.01	<0.00005	0.0396	<0.002	0.55	0.00075	1.96	0.000031	0.29	0.023	26	0.000021	<0.00001	<0.0005	0.00028	<0.0002	0.166	<0.0001	1.27	1.49	0.22	8.1%
0.0076	3.76	0.334	0.02	<0.00005	0.0344	0.003	0.66	0.00087	3.03	0.000012	0.34	0.0261	21	0.000012	0.00007	<0.0005	0.00042	<0.0002	0.198	<0.0001	1.65	1.51	-0.14	-4.4%
0.0076	3.82	0.314	<0.01	<0.00005	0.0236	<0.002	0.58	0.00057	2.16	<0.000005	0.37	0.0267	20	0.000014	0.00002	<0.0005	0.00049	<0.0002	0.202	<0.0001	1.25	1.12	-0.13	-5.4%



DRAFT

Date	Cycle	Volume mL		pH	Cond. umhos/cm	Acidity	Acidity	Alkalinity	Sulphate (mg/L)	Hardness	Al	Sb	As	Ba	Be	Bi	B	Cd	Ca	Cr	Co	Cu	Fe	Pb
		Input	Output			(pH 4.5) mgCaCO3/L	(pH 8.3) mgCaCO3/L	CaCO3 mg/L		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
12-Nov-07	1	750	405	7.74	76	#N/A	1.6	15.7	9	16.5	0.0773	0.00015	0.00096	0.0038	<0.00001	<0.00005	0.027	<0.000005	5.65	0.0001	0.000054	0.0034	0.012	0.000047
19-Nov-07	2	500	500	7.77	88	#N/A	2.5	20.9	12	17.7	0.0719	0.00043	0.00229	0.0046	<0.00001	<0.00005	0.061	<0.000005	5.9	<0.0001	0.000024	0.0017	0.006	0.000017
26-Nov-07	3	500	415	7.34	64	#N/A	3.0	14.9	13	11.3	0.113	0.00028	0.00257	0.0032	<0.00001	<0.00005	0.029	<0.000005	3.67	<0.0001	0.000026	0.0011	0.036	0.000026
3-Dec-07	4	500	420	7.71	44	#N/A	2.1	14.9	5	9.3	0.099	0.00029	0.00266	0.0025	<0.00001	0.000009	0.02	<0.000005	3.04	<0.0001	0.000023	0.0008	0.035	0.000025
10-Dec-07	5	500	525	7.55	49	#N/A	2.6	16.6	2	14.3	0.0895	0.0003	0.00263	0.0044	<0.00001	<0.00005	0.025	<0.000005	4.08	<0.0001	0.000026	0.0009	0.003	0.000012
17-Dec-07	6	500	490	7.56	48	#N/A	2.1	13.9	6	15.5	0.0964	0.00024	0.00256	0.0047	<0.00001	<0.00005	0.016	<0.000005	5.28	<0.0001	0.000031	0.0013	0.007	0.000027
24-Dec-07	7	500	425	7.57	40	#N/A	1.6	10.2	7	11.8	0.0705	0.00016	0.00202	0.0034	<0.00001	<0.00005	0.008	<0.000005	3.94	<0.0001	0.000018	0.0012	0.008	0.000023
31-Dec-07	8	500	430	7.57	34	#N/A	1.8	11.4	2	11.8	0.0876	0.00015	0.00217	0.0033	<0.00001	<0.00005	0.007	<0.000005	4.06	<0.0001	0.000022	0.0008	0.015	0.000037
7-Jan-08	9	500	415	7.33	31	#N/A	2.3	14.8	6	10.2	0.101	0.00014	0.00205	0.0028	<0.00001	<0.00005	0.005	<0.000005	3.54	<0.0001	0.000025	0.0011	0.03	0.000028
14-Jan-08	10	500	430	7.30	38	#N/A	2.3	13.5	5	13.8	0.105	0.0002	0.00268	0.0037	<0.00001	<0.00005	0.007	<0.000005	4.77	<0.0001	0.000017	0.0006	0.009	0.000017
21-Jan-08	11	500	420	7.45	32	#N/A	3.0	13.0	2	11.6	0.0863	0.00014	0.002	0.0034	<0.00001	<0.00005	<0.005	<0.000005	3.98	<0.0001	0.000019	0.0006	0.011	<0.000005
28-Jan-08	12	500	425	7.60	29	#N/A	2.5	12.1	4	11.3	0.0974	0.00012	0.00214	0.0034	<0.00001	<0.00005	<0.005	<0.000005	4	<0.0001	0.000018	0.0008	0.009	0.000125
4-Feb-08	13	500	425	7.54	33	#N/A	1.7	12.4	3															
11-Feb-08	14	500	485	7.41	34	#N/A	2.4	10.8	8	12.8	0.0717	0.00012	0.00191	0.0044	<0.00001	<0.00005	0.006	<0.000005	4.61	<0.0001	0.000028	0.0004	0.002	<0.000005
18-Feb-08	15	500	485	7.40	38	#N/A	2.7	10.7	8															
25-Feb-08	16	500	480	7.39	44	#N/A	2.5	10.4	14	15.7	0.0873	0.00011	0.00231	0.0054	<0.00001	<0.00005	0.01	<0.000005	5.66	<0.0001	0.000035	0.0009	0.002	<0.000005
3-Mar-08	17	500	475	7.21	43	#N/A	2.4	8.0	16															
10-Mar-08	18	500	465	7.29	56	#N/A	2.2	8.6	13	20.6	0.0817	0.0001	0.0023	0.0077	<0.00001	<0.00005	0.005	0.000005	7.49	<0.0001	0.000072	0.001	0.003	0.000019
17-Mar-08	19	500	465	7.15	46	#N/A	2.1	6.1	12															
24-Mar-08	20	500	475	7.08	50	#N/A	2.2	6.2	13	18.6	0.0647	0.00007	0.0018	0.0068	<0.00001	<0.00005	0.006	<0.000005	6.88	<0.0001	0.000075	0.0007	0.002	0.00002
31-Mar-08	21	500	470	7.21	47	#N/A	1.9	7.1	12															
7-Apr-08	22	500	455	7.16	56	#N/A	4.0	6.2	14	19.2	0.0627	0.00007	0.00177	0.0066	<0.00001	<0.00005	0.01	<0.000005	7.07	<0.0001	0.000085	0.0014	0.003	0.00003
14-Apr-08	23	500	495	7.14	85	#N/A	2.4	7.3	24															
21-Apr-08	24	500	465	7.17	63	#N/A	2.8	6.6	19	23.9	0.0717	0.00007	0.00216	0.0086	<0.00001	<0.00005	<0.05	<0.000005	8.96	0.0001	0.000141	0.001	0.002	0.000018
28-Apr-08	25	500	465	7.20	66	#N/A	2.9	7.1	20															
5-May-08	26	500	485	7.30	71	#N/A	2.4	5.7	21	25.3	0.0587	0.00006	0.00169	0.0091	<0.00001	<0.00005	<0.05	<0.000005	9.53	<0.0001	0.000205	0.0004	0.001	<0.000005
12-May-08	27	500	475	7.37	63	#N/A	2.3	6.1	17															
19-May-08	28	500	490	7.37	65	#N/A	2.0	5.4	20	24.5	0.0736	0.00006	0.0018	0.0084	<0.00001	<0.00005	<0.05	<0.000005	9.25	0.0001	0.000201	0.0005	0.003	0.000012
26-May-08	29	500	460	7.20	53	#N/A	2.0	5.2	20															
2-Jun-08	30	500	460	7.10	46	#N/A	2.0	4.8	20	21.4	0.0574	0.00007	0.00153	0.007	<0.00001	<0.00005	<0.05	<0.000005	8.12	<0.0001	0.000149	0.0009	0.005	0.000047
9-Jun-08	31	500	475	7.05	37	#N/A	2.0	4.3	12															
16-Jun-08	32	500	475	7.23	42	#N/A	2.8	5.0	15	19.6	0.0442	0.00004	0.00135	0.0079	<0.00001	<0.00005	<0.05	<0.000005	7.44	<0.0001	0.000191	0.0007	0.002	0.000009
23-Jun-08	33	500	450	7.19	40	#N/A	2.9	5.9	19															
30-Jun-08	34	500	450	7.24	59	#N/A	2.2	5.1	22	23.1	0.0714	0.00005	0.00146	0.0092	<0.00001	<0.00005	<0.05	0.000017	8.79	0.0002	0.000191	0.0007	0.003	0.000017
7-Jul-08	35	500	445	7.15	63	#N/A	2.0	4.0	19															
14-Jul-08	36	500	465	7.08	54	#N/A	2.4	5.1	19	22.6	0.0529	0.00003	0.00129	0.0082	<0.00001	<0.00005	<0.05	<0.000005	8.63	<0.0001	0.000156	0.0006	0.001	0.000016
21-Jul-08	37	500	455	7.08	51	#N/A	1.9	4.3	16															
28-Jul-08	38	500	450	7.00	50	#N/A	2.0	3.9	15	19.7	0.0416	0.00003	0.00114	0.0076	<0.00001	<0.00005	<0.05	0.000006	7.51	<0.0001	0.000146	0.0011	0.002	0.000013
4-Aug-08	39	500	460	7.09	50	#N/A	1.7	7.9	15															
11-Aug-08	40	500	460	6.94	48	#N/A	1.9	3.4	20	20.8	0.0392	0.00003	0.00094	0.0073	<0.00001	<0.00005	<0.05	<0.000005	7.94	<0.0001	0.000174	0.0005	0.005	0.00006
18-Aug-08	41	500	460	6.94	61	#N/A	1.8	6.9	17															
25-Aug-08	42	500	465	6.97	43	#N/A	1.8	4.2	13	18.1	0.0356	0.00003	0.00093	0.0064	<0.00001	<0.00005	<0.05	0.000024	6.92	<0.0001	0.000171	0.0011	0.011	0.00008
1-Sep-08	43	500	470	7.03	38	#N/A	1.7	4.6	13															
8-Sep-08	44	500	500	7.11	61	#N/A	1.8	10.9	20	26.9	0.0407	0.00004	0.00112	0.0102	<0.00001	<0.00005	<0.05	0.000005	10.3	0.0001	0.000268	0.0006	<0.001	0.00002
15-Sep-08	45	500	450	6.94	62	#N/A	1.7	4.5	18															
22-Sep-08	46	500	470	6.97	42	#N/A	1.7	3.5	14	17.8	0.0329	0.00002	0.0008	0.0071	<0.00001	<0.00005	<0.05	0.000026	6.81	0.0012	0.000213	0.0013	0.02	0.000111
29-Sep-08	47	500	470	6.96	47	#N/A	1.8	4.0	13															
6-Oct-08	48	500	475	7.01	49	#N/A	1.7	3.2	18	20.2	0.0366	0.00003	0.00092	0.0077	<0.00001	<0.00005	<0.05	<0.000005	7.72	<0.0001	0.000231	0.0014	0.004	<0.000005
13-Oct-08	49	500	455	7.00	54	#N/A	2.3	3.3	19															
20-Oct-08	50	500	450	6.72	50	#N/A	2.1	3.2	18	19.4	0.033	<0.00002	0.00069	0.0071	<0.00001	<0.00005	<0.05	<0.000005	7.41	<0.0001	0.000252	0.0033	0.003	0.000049
27-Oct-08	51	500	450	6.75	38	#N/A	1.8	3.1	13															
3-Nov-08	52	500	460	6.72	38	#N/A	2.0	4.2	16	17.9	0.0334	0.00003	0.0008	0.0071	<0.00001	0.000007	<0.05	0.000005	6.79	<0.0001	0.000234	0.0023	0.002	0.000019
10-Nov-08	53	500	460	6.75	43	#N/A	2.8	3.6	13															
17-Nov-08	54	500	500	6.96	51	#N/A	2.6	5.2	21	22.8	0.0291	0.00003	0.00075	0.0097	<0.00001	<0.00005	<0.05	0.000044	8.69	<0.0001	0.000347	0.0013	<0.001	0.000027
24-Nov-08	55	500	455	6.85	35	#N/A	1.9	3.6	13															
1-Dec-08	56	500	480	6.79	47	#N/A	2.3	3.6	15	18.3	0.0292	<0.00002	0.00072	0.0071	<0.00001	<0.00005	<0.05	0.000013	7.03	<0.0001	0.000279	0.0016	<0.001	0.000169
8-Dec-08	57	50																						



HC 5

CONFIDENTIAL

DRAFT

Sample = 70829

Date	Cycle	Volume mL		pH	Cond. umhos/cm	Acidity	Acidity	Alkalinity	Sulphate	Hardness CaCO3 mg/L	Al	Sb	As	Ba	Be	Bi	B	Cd	Ca	Cr	Co	Cu	Fe	Pb
		Input	Output			(pH 4.5) mgCaCO3/L	(pH 8.3) mgCaCO3/L																	
19-Jan-09	63	500	435	6.50	56	#N/A	2.5	2.5	20															
26-Jan-09	64	500	510	6.83	74	#N/A	5.4	3.5	30	25.6	0.0101	<0.00002	0.00049	0.0166	<0.00001	<0.000005	<0.05	0.000029	9.6	<0.0001	0.00486	0.0011	0.015	0.000014
2-Feb-09	65	500	440	7.08	67	#N/A	5.7	2.8	24															
9-Feb-09	66	500	440	7.13	71	#N/A	5.0	2.8	26	25.4	0.0059	<0.00002	0.00037	0.0187	<0.00001	<0.000005	<0.05	0.000054	9.27	<0.0001	0.0107	0.0029	0.107	0.00119
16-Feb-09	67	500	430	6.33	101	#N/A	4.1	1.7	41															
23-Feb-09	68	500	445	6.71	71	#N/A	5.0	1.8	25	25.8	0.009	<0.00002	0.00031	0.016	<0.00001	<0.000005	<0.05	0.000069	9.23	<0.0001	0.0131	0.0044	0.212	0.000036
2-Mar-09	69	500	520	6.68	83	#N/A	3.9	1.9	29															
9-Mar-09	70	500	470	5.78	84	#N/A	4.4	1.2	32	29.9	0.0056	<0.00002	0.00018	0.0188	<0.00001	<0.000005	<0.05	0.000085	10.7	<0.0001	0.0165	0.0028	0.372	0.000441
16-Mar-09	71	500	440	5.61	72	#N/A	4.8	1.0	34															
23-Mar-09	72	500	490	5.62	78	#N/A	4.8	1.1	32	27	0.0098	<0.00002	0.0002	0.0161	<0.00001	<0.000005	<0.05	0.000105	9.31	<0.0001	0.0258	0.0056	0.799	0.000014
30-Mar-09	73	500	465	5.54	71	#N/A	4.6	0.7	27															
6-Apr-09	74	500	435	5.56	107	#N/A	6.0	0.8	43	39.9	0.0172	<0.00002	0.00033	0.0181	<0.00001	0.000017	<0.05	0.000132	14.3	<0.0001	0.0288	0.0059	0.921	0.000218
13-Apr-09	75	500	435	5.52	77	#N/A	5.7	0.7	27															
20-Apr-09	76	500	435	5.12	73	#N/A	7.1	0.3	29	23.1	0.0497	<0.00002	0.00049	0.0147	<0.00001	<0.000005	<0.05	0.000148	7.53	<0.0001	0.0346	0.0145	1.3	0.000049
27-Apr-09	77	500	465	5.57	76	#N/A	5.8	1.4	23															
4-May-09	78	500	445	4.83	78	#N/A	7.7	0.2	28	24.1	0.0833	<0.00002	0.00079	0.015	0.00002	<0.000005	<0.05	0.000171	7.78	<0.0001	0.0409	0.0073	1.4	0.000042
11-May-09	79	500	470	4.76	89	#N/A	9.8	<0.1	33															
18-May-09	80	500	455	4.89	84	#N/A	10.5	0.1	32	24.7	0.14	<0.00002	0.00072	0.0118	0.00002	0.000012	<0.05	0.000238	7.83	0.0001	0.0534	0.014	2.12	0.000065
25-May-09	81	500	475	4.70	97	#N/A	12.2	<0.1	33															
1-Jun-09	82	500	455	4.51	104	#N/A	16.5	<0.1	55	33.7	0.256	<0.00002	0.0012	0.0135	0.00001	<0.000005	<0.05	0.000325	10.8	<0.0001	0.0751	0.0219	3.93	0.000107
8-Jun-09	83	500	480	5.16	107	#N/A	12.4	0.6	40															
15-Jun-09	84	500	490	4.59	129	#N/A	18.4	<0.1	56	41.6	0.311	<0.00002	0.00121	0.0174	0.00003	<0.000005	<0.05	0.000322	13.7	<0.0001	0.0857	0.0245	4.15	0.000682
22-Jun-09	85	500	480	4.64	90	#N/A	16.1	<0.1	49															
29-Jun-09	86	500	470	4.16	106	2.6	18.6	#N/A	53	33.1	0.468	<0.00002	0.00145	0.0134	0.00004	<0.000005	<0.05	0.000289	10.6	<0.0001	0.0848	0.0382	3.8	0.000191
6-Jul-09	87	500	485	4.09	124	2.9	17.7	#N/A	49															
13-Jul-09	88	500	465	3.96	105	3.6	16.5	#N/A	43	29.2	0.529	<0.00002	0.00117	0.0124	0.00005	<0.000005	<0.05	0.000266	9.17	<0.0001	0.0801	0.0333	2.74	0.000971
20-Jul-09	89	500	495	4.14	125	2.8	16.5	#N/A	53															
27-Jul-09	90	500	485	3.99	118	3.4	15.2	#N/A	45	30.1	0.269	<0.00002	0.00063	0.0141	0.00002	<0.000005	<0.05	0.000223	9.83	<0.0001	0.0715	0.0245	2.93	0.000666
3-Aug-09	91	500	500	4.23	117	2.5	15.9	#N/A	47															
10-Aug-09	92	500	515	4.01	127	3.5	17.9	#N/A	51	33.4	0.394	<0.00002	0.00083	0.0134	0.00004	<0.000005	<0.05	0.000249	10.6	<0.0001	0.0761	0.0208	2.98	0.000247
17-Aug-09	93	500	490	4.09	120	3.4	17.3	#N/A	46															
24-Aug-09	94	500	515	4.06	120	3.1	16.9	#N/A	38	31.7	0.452	<0.00002	0.00062	0.0185	0.00005	<0.000005	<0.05	0.000228	10.1	<0.0001	0.0754	0.0272	2.71	0.000258
31-Aug-09	95	500	515	4.20	122	3.1	16.3	#N/A	43															
7-Sep-09	96	500	520	4.08	102	3.0	14.4	#N/A	38	26.5	0.347	<0.00002	0.00053	0.0133	0.00004	<0.000005	<0.05	0.000211	8.45	<0.0001	0.0657	0.0316	2.11	0.000156
14-Sep-09	97	500	490	3.98	105	3.6	14.6	#N/A	35															
21-Sep-09	98	500	475	4.05	104	3.8	17.0	#N/A	37	25.2	0.472	<0.00002	0.00064	0.0108	0.00006	<0.000005	<0.05	0.000218	7.81	<0.0001	0.0681	0.0307	1.74	0.000298
28-Sep-09	99	500	505	4.10	115	3.3	16.3	#N/A	47															
5-Oct-09	100	500	505	4.04	117	3.5	17.3	#N/A	44	29.9	0.386	<0.00002	0.00057	0.0152	0.00005	<0.000005	<0.05	0.000239	9.54	<0.0001	0.0754	0.0184	2.5	0.00374
12-Oct-09	101	500	440	4.06	96	3.1	13.2	#N/A	42															
19-Oct-09	102	500	485	4.43	95	1.0	11.7	#N/A	38	25.4	0.316	<0.00002	0.00046	0.0151	0.00004	<0.000005	<0.05	0.000205	8.19	<0.0001	0.0564	0.0177	1.83	0.00029
26-Oct-09	103	500	445	4.10	125	3.2	14.1	#N/A	42															

Cell Terminated

Certified by: Rik J. Vos
ARD Testing Specialist
SGS Canada Inc.



Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S	Ti	Sn	Ti	U	V	Zn	Zr	Major Anions	Major Cations	Diff	Diff %
mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L				
0.0068	0.57	0.003	<0.01	0.00056	0.0007	0.059	3.73	0.00031	0.841	<0.000005	7.31	0.0313	5	0.000005	0.0002	<0.0005	1.2E-05	<0.0002	0.0012	<0.0001	0.50	0.74	0.24	19.3%
0.0121	0.71	0.0053	0.02	0.00105	0.0003	0.026	4.31	0.00014	1.78	<0.000005	8.2	0.0397	6	0.000005	0.00012	<0.0005	0.00013	0.0003	0.0004	<0.0001	0.67	0.82	0.15	10.2%
0.0089	0.52	0.0031	<0.01	0.00058	0.0001	0.027	3.63	0.00017	0.693	<0.000005	5.8	0.0258	4	0.000003	0.00008	0.0014	6.7E-05	<0.0002	0.0004	<0.0001	0.57	0.57	0.00	0.2%
0.0085	0.43	0.0028	<0.01	0.00043	0.0001	0.026	3.14	0.00012	0.681	<0.000005	3.26	0.0197	<3	<0.000002	0.00006	0.0019	6.8E-05	<0.0002	0.0007	<0.0001	0.40	0.41	0.01	0.8%
0.0103	0.56	0.0046	<0.01	0.00035	0.0001	0.016	3	0.00006	0.959	<0.000005	2.33	0.0316	<3	0.000004	0.00005	<0.0005	0.00011	0.0005	0.0006	<0.0001	0.37	0.46	0.09	10.9%
0.0086	0.56	0.005	<0.01	0.00027	0.0002	0.016	2.79	0.00007	0.621	<0.000005	1.59	0.0335	3	0.000003	0.00004	<0.0005	8.6E-05	<0.0002	0.0008	<0.0001	0.40	0.45	0.05	5.4%
0.0061	0.47	0.0029	0.01	0.00029	0.0001	0.013	2.4	0.00009	0.505	<0.000005	1.1	0.0266	3	0.000002	0.00003	<0.0005	5.1E-05	<0.0002	0.0005	<0.0001	0.35	0.34	-0.01	-0.9%
0.006	0.4	0.0033	<0.01	0.00013	0.0001	0.016	2.39	0.00008	0.683	<0.000005	0.87	0.023	<3	0.000004	<0.00001	0.0006	0.00006	<0.0002	0.0003	<0.0001	0.27	0.33	0.07	10.8%
0.0049	0.33	0.0034	<0.01	0.0001	0.0002	0.015	2.08	0.00011	0.457	<0.000005	0.73	0.0194	<3	0.000002	0.00002	0.0013	4.7E-05	0.0002	0.0013	<0.0001	0.42	0.29	-0.13	-18.6%
0.007	0.45	0.0034	<0.01	0.00011	0.0002	0.018	2.95	0.00008	0.885	<0.000005	0.83	0.026	<3	<0.000002	0.00008	<0.0005	0.00007	<0.0002	0.0005	<0.0001	0.37	0.39	0.01	1.7%
0.0057	0.39	0.0036	0.01	0.00011	9E-05	0.013	2.48	0.00008	0.57	<0.000005	0.58	0.0233	<3	0.000003	0.00004	0.0008	5.3E-05	<0.0002	<0.0001	<0.0001	0.30	0.32	0.02	2.9%
0.0048	0.32	0.0033	0.04	0.00007	0.0001	0.016	2.17	0.00008	0.564	<0.000005	0.58	0.0204	<3	<0.000002	0.00005	0.0007	4.8E-05	<0.0002	0.0011	<0.0001	0.32	0.31	-0.02	-2.9%
0.0055	0.32	0.0046	<0.01	0.00009	0.0001	0.01	2.24	0.00005	0.557	<0.000005	0.51	0.0223	<3	0.000003	0.00003	0.0005	5.6E-05	<0.0002	0.0006	<0.0001	0.38	0.34	-0.05	-6.5%
0.0055	0.38	0.0058	<0.01	0.00013	0.0001	0.007	2.29	<0.00004	1.01	<0.000005	0.45	0.0285	3	0.000004	<0.00001	<0.0005	4.3E-05	<0.0002	0.0004	<0.0001	0.50	0.39	-0.11	-12.0%
0.0054	0.46	0.008	<0.01	0.00025	0.0002	0.007	2.31	0.00008	0.676	<0.000005	0.45	0.0347	6	0.000005	0.00003	<0.0005	3.8E-05	<0.0002	0.0016	<0.0001	0.44	0.49	0.05	5.1%
0.0043	0.34	0.0076	<0.01	0.00031	0.0001	0.005	1.96	<0.00004	0.426	<0.000005	0.28	0.0297	5	0.000005	<0.00001	<0.0005	2.2E-05	<0.0002	0.0009	<0.0001	0.39	0.43	0.04	4.8%
0.0045	0.37	0.0085	<0.01	0.00029	0.0002	0.005	1.96	0.00004	0.459	<0.000005	0.31	0.0286	6	0.000006	<0.00001	<0.0005	2.1E-05	<0.0002	0.0015	<0.0001	0.42	0.45	0.03	3.6%
0.0044	0.37	0.0112	<0.01	0.0003	0.0003	0.003	2.15	0.00005	0.533	<0.000005	0.35	0.0318	8	0.000006	0.00001	<0.0005	2.3E-05	<0.0002	0.0018	<0.0001	0.53	0.55	0.02	1.9%
0.0044	0.38	0.0141	<0.01	0.00022	0.0002	0.003	2.09	0.00005	0.498	<0.000005	0.28	0.0314	8	0.000008	<0.00001	<0.0005	2.2E-05	<0.0002	0.0018	<0.0001	0.55	0.57	0.02	1.9%
0.0039	0.35	0.0129	0.01	0.0002	0.0002	0.003	2.01	0.00004	0.544	0.000007	0.26	0.0285	8	0.00001	0.00004	<0.0005	2.2E-05	<0.0002	0.0019	<0.0001	0.52	0.55	0.03	2.6%
0.0033	0.28	0.0103	<0.01	0.00016	0.0003	0.003	1.71	0.00004	0.482	<0.000005	0.33	0.0242	7	0.000004	<0.00001	<0.0005	1.7E-05	<0.0002	0.003	<0.0001	0.51	0.49	-0.02	-1.9%
0.0031	0.25	0.0129	0.02	0.00019	0.0002	<0.002	1.63	<0.00004	0.447	<0.000005	0.19	0.0223	6	0.000007	0.00002	0.0005	1.8E-05	<0.0002	0.0019	<0.0001	0.41	0.44	0.03	3.3%
0.0036	0.27	0.0144	<0.01	0.0001	0.0004	0.003	1.77	0.00009	0.576	<0.000005	0.26	0.0299	7	0.000009	<0.00001	<0.0005	1.6E-05	<0.0002	0.0022	<0.0001	0.56	0.52	-0.04	-3.9%
0.0031	0.26	0.0132	<0.01	0.00017	8E-05	0.003	1.73	0.00004	0.413	<0.000005	0.18	0.0235	6	0.000007	<0.00001	<0.0005	1.4E-05	<0.0002	0.0016	<0.0001	0.50	0.50	0.01	0.6%
0.0027	0.23	0.0128	<0.01	0.00011	0.0002	<0.002	1.5	<0.00004	0.448	0.000008	0.17	0.0206	6	0.000007	<0.00001	0.0007	8E-06	<0.0002	0.002	<0.0001	0.39	0.44	0.05	5.9%
0.0027	0.24	0.0129	<0.01	0.00011	0.0003	<0.002	1.56	<0.00004	0.417	<0.000005	0.18	0.02	7	0.000004	<0.00001	<0.0005	8E-06	<0.0002	0.0031	<0.0001	0.48	0.46	-0.02	-2.2%
0.0024	0.2	0.0131	<0.01	0.00008	0.0003	0.002	1.32	<0.00004	0.36	<0.000005	0.18	0.0175	5	0.000005	<0.00001	0.0005	9E-06	<0.0002	0.0017	<0.0001	0.35	0.40	0.05	6.5%
0.0031	0.29	0.0224	<0.01	0.00011	0.0003	0.002	1.68	0.00007	0.464	<0.000005	0.22	0.0255	9	0.00001	0.00002	<0.0005	1.3E-05	<0.0002	0.0021	<0.0001	0.64	0.59	-0.04	-3.7%
0.0023	0.2	0.0147	<0.01	0.00011	0.0004	0.002	1.26	<0.00004	0.336	<0.000005	0.21	0.0169	6	0.000006	0.00002	0.0008	0.00001	<0.0002	0.0022	<0.0001	0.36	0.40	0.04	4.6%
0.0025	0.23	0.0186	<0.01	0.00007	0.0002	0.004	1.34	<0.00004	0.446	<0.000005	0.17	0.0185	7	0.000008	<0.00001	<0.0005	1.1E-05	<0.0002	0.0015	<0.0001	0.44	0.45	0.01	0.8%
0.0021	0.22	0.0176	<0.01	0.00006	0.0002	<0.002	1.27	<0.00004	0.391	<0.000005	0.16	0.0162	7	0.000007	<0.00001	<0.0005	4E-06	<0.0002	0.003	<0.0001	0.44	0.43	-0.01	-1.4%
0.0026	0.22	0.0185	0.02	0.00005	0.0003	0.004	1.37	<0.00004	0.381	<0.000005	0.15	0.0166	6	0.000008	0.00001	<0.0005	5E-06	<0.0002	0.0023	<0.0001	0.42	0.40	-0.02	-2.4%
0.0026	0.27	0.0294	<0.01	0.00006	0.0004	<0.002	1.39	0.00009	0.596	<0.000005	0.18	0.0197	7	0.00001	0.00002	<0.0005	9E-06	<0.0002	0.0026	<0.0001	0.54	0.50	-0.04	-4.1%
0.0022	0.19	0.0217	<0.01	<0.00005	0.0002	0.003	1.23	0.00006	0.45	<0.000005	0.14	0.016	6	0.000008	0.00001	<0.0005	5E-06	<0.0002	0.0017	<0.0001	0.38	0.40	0.02	2.5%
0.0026	0.26	0.0395	<0.01	0.00005	0.0004	0.002	1.37	0.00007	0.501	0.000007	0.13	0.0193	7	0.00001	<0.00001	<0.0005	7E-06	<0.0002	0.004	<0.0001	0.52	0.49	-0.03	-3.0%
0.0037	0.26	0.0462	<0.01	<0.00005	0.0006	<0.002	1.63	0.00006	0.545	<0.000005	0.19	0.0372	15	0.000013	<0.00001	<0.0005	4E-06	<0.0002	0.0047	<0.0001	0.85	0.90	0.06	3.2%
0.0039	0.28	0.0774	<0.01	<0.00005	0.0011	<0.002	1.59	0.00009	0.554	<0.000005	0.16	0.0215	8	0.000017	<0.00001	<0.0005	4E-06	<0.0002	0.012	<0.0001	0.54	0.50	-0.04	-3.4%



Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S	Ti	Sn	Ti	U	V	Zn	Zr	Major Anions	Major Cations	Diff	Diff %
mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L				
0.004	0.38	0.144	<0.01	<0.00005	0.002	<0.002	1.55	0.00004	0.939	<0.000005	0.21	0.0261	10	0.000018	<0.00001	<0.0005	5E-06	<0.0002	0.0208	<0.0001	0.70	0.56	-0.14	-10.9%
0.0049	0.54	0.194	<0.01	<0.00005	0.0039	<0.002	1.69	<0.00004	0.682	<0.000005	0.22	0.0241	9	0.000023	0.00005	<0.0005	7E-06	<0.0002	0.052	<0.0001	0.60	0.56	-0.04	-3.3%
0.0046	0.67	0.225	<0.01	<0.00005	0.0052	<0.002	1.66	0.00009	0.651	<0.000005	0.21	0.0253	10	0.000033	0.00001	<0.0005	7E-06	<0.0002	0.0569	<0.0001	0.56	0.57	0.01	0.9%
0.004	0.76	0.248	<0.01	<0.00005	0.0071	<0.002	1.62	0.00016	0.803	<0.000005	0.21	0.0275	10	0.000028	0.00002	<0.0005	7E-06	<0.0002	0.0606	<0.0001	0.69	0.65	-0.04	-3.3%
0.0041	0.91	0.327	<0.01	<0.00005	0.0113	<0.002	1.49	0.00024	1.04	<0.000005	0.24	0.0254	10	0.000028	<0.00001	<0.0005	1.1E-05	<0.0002	0.0894	<0.0001	0.69	0.63	-0.06	-4.3%
0.0051	1.04	0.334	<0.01	<0.00005	0.0127	<0.002	1.55	0.00026	0.888	<0.000005	0.29	0.0382	16	0.00003	0.00001	<0.0005	4.1E-05	<0.0002	0.0928	<0.0001	0.91	0.90	-0.01	-0.6%
0.0043	1.04	0.301	0.01	<0.00005	0.0164	<0.002	1.31	0.00028	0.704	<0.000005	0.25	0.0216	10	0.000028	0.00001	<0.0005	0.00004	<0.0002	0.106	<0.0001	0.61	0.58	-0.03	-2.9%
0.0045	1.12	0.346	<0.01	<0.00005	0.0203	<0.002	1.37	0.0003	0.803	<0.000005	0.26	0.0229	10	0.000038	0.00002	<0.0005	5.3E-05	<0.0002	0.119	<0.0001	0.59	0.60	0.01	1.3%
0.0049	1.24	0.366	<0.01	<0.00005	0.0268	<0.002	1.34	0.00036	1.29	<0.000005	0.28	0.0228	11	0.000035	<0.00001	0.0007	8.1E-05	<0.0002	0.153	<0.0001	0.67	0.65	-0.02	-1.2%
0.0057	1.62	0.472	0.01	<0.00005	0.0403	<0.002	1.52	0.00054	1.73	<0.000005	0.36	0.029	16	0.000038	<0.00001	<0.0005	0.00015	<0.0002	0.188	<0.0001	1.15	0.94	-0.21	-10.0%
0.0064	1.81	0.529	<0.01	0.00007	0.0474	<0.002	1.56	0.00068	2.24	<0.000005	0.36	0.0357	19	0.000039	0.00003	<0.0005	0.00016	<0.0002	0.181	<0.0001	1.17	1.11	-0.06	-2.4%
0.0067	1.62	0.435	<0.01	<0.00005	0.0481	<0.002	1.45	0.00056	1.91	<0.000005	0.37	0.0303	15	0.000036	<0.00001	<0.0005	0.00021	<0.0002	0.181	<0.0001	1.10	0.92	-0.18	-9.1%
0.0062	1.53	0.374	0.02	<0.00005	0.0462	0.004	1.37	0.00056	1.66	<0.000005	0.34	0.0259	15	0.000034	<0.00001	<0.0005	0.00038	<0.0002	0.168	<0.0001	0.90	0.78	-0.12	-6.9%
0.0053	1.35	0.339	0.01	<0.00005	0.0413	<0.002	1.16	0.00055	1.8	<0.000005	0.26	0.0281	14	0.000034	<0.00001	<0.0005	0.00013	<0.0002	0.147	<0.0001	0.94	0.80	-0.14	-7.9%
0.0063	1.66	0.367	<0.01	<0.00005	0.0445	<0.002	1.33	0.0006	2.56	<0.000005	0.29	0.0287	18	0.000031	<0.00001	<0.0005	0.00015	<0.0002	0.161	<0.0001	1.06	0.87	-0.19	-9.8%
0.0062	1.59	0.333	<0.01	<0.00005	0.0464	<0.002	1.31	0.0006	2.48	<0.000005	0.32	0.0281	14	0.000033	0.00001	<0.0005	0.00016	<0.0002	0.151	<0.0001	0.79	0.83	0.04	2.2%
0.0051	1.32	0.269	<0.01	<0.00005	0.041	0.003	1.09	0.0005	2.14	0.000016	0.28	0.0237	12	0.000027	<0.00001	<0.0005	0.00013	<0.0002	0.13	<0.0001	0.79	0.68	-0.11	-7.3%
0.006	1.38	0.27	<0.01	<0.00005	0.0419	<0.002	1.04	0.00051	1.58	0.000006	0.31	0.0229	12	0.000029	<0.00001	<0.0005	0.00014	<0.0002	0.142	<0.0001	0.77	0.64	-0.13	-9.5%
0.0064	1.47	0.29	<0.01	<0.00005	0.0471	0.003	1.15	0.00063	2.35	<0.000005	0.28	0.0277	13	0.000028	0.00007	<0.0005	0.00014	<0.0002	0.147	<0.0001	0.92	0.77	-0.14	-8.5%
0.0051	1.19	0.233	<0.01	<0.00005	0.0344	<0.002	0.98	0.00044	1.8	<0.000005	0.28	0.024	13	0.000021	0.00001	<0.0005	0.00013	<0.0002	0.128	<0.0001	0.79	0.64	-0.15	-10.4%



HC 7

CONFIDENTIAL

DRAFT

Sample = DH273-47-07-51.31

Date	Cycle	Volume mL		pH	Cond. umhos/cm	Acidity (pH 4.5) mgCaCO3/L	Acidity (pH 8.3) mgCaCO3/L	Alkalinity mgCaCO3/L	Sulphate (mg/L)	Hardness CaCO3 mg/L	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L
		Input	Output																					
12-Nov-07	1	750	415	7.68	74	#N/A	1.6	14.4	7	22.1	0.0364	0.00009	0.0005	0.0027	<0.00001	0.000009	0.021	0.000009	7.42	<0.0001	0.000024	0.0031	0.013	0.000036
19-Nov-07	2	500	515	7.71	105	#N/A	2.6	15.7	25	32.6	0.0502	0.0002	0.0006	0.0041	<0.00001	<0.000005	0.051	0.000037	10.7	<0.0001	0.000017	0.0014	0.016	0.000012
26-Nov-07	3	500	520	7.13	125	#N/A	4.0	16.8	40	31.8	0.112	0.0003	0.0814	0.005	<0.00001	<0.000005	0.017	<0.000005	8.98	<0.0001	0.000071	0.0006	0.008	0.000014
3-Dec-07	4	500	510	7.49	141	#N/A	2.6	15.8	49	50.3	0.0701	0.00019	0.0007	0.0073	<0.00001	<0.000005	0.023	0.000021	17.8	<0.0001	0.000039	0.0006	0.025	0.000021
10-Dec-07	5	500	510	7.41	130	#N/A	2.7	15.2	37	50	0.0843	0.00018	0.0006	0.0091	<0.00001	<0.000005	0.018	0.00001	18.2	0.0003	0.000043	0.0009	0.006	0.000016
17-Dec-07	6	500	495	7.41	121	#N/A	2.2	13.3	34	46.2	0.074	0.00014	0.0005	0.0079	<0.00001	<0.000005	0.014	0.000009	17	<0.0001	0.000053	0.0008	0.004	0.000033
24-Dec-07	7	500	505	7.42	116	#N/A	2.2	13.8	35	42.8	0.0606	0.00013	0.0005	0.0093	<0.00001	<0.000005	0.01	0.000007	15.9	<0.0001	0.000085	0.0012	0.003	0.000012
31-Dec-07	8	500	510	7.38	112	#N/A	2.2	12.3	41	46.1	0.0593	0.00011	0.0003	0.0095	<0.00001	<0.000005	0.009	0.000007	17.3	<0.0001	0.000098	0.0017	0.003	0.000047
7-Jan-08	9	500	495	7.17	109	#N/A	2.5	11.9	39	39.5	0.055	0.00009	0.0003	0.0085	<0.00001	<0.000005	0.008	<0.000005	14.9	<0.0001	0.000128	0.0007	0.003	0.000007
14-Jan-08	10	500	510	7.11	114	#N/A	3.1	12.0	31	44.9	0.0717	0.0001	0.0003	0.0097	<0.00001	<0.000005	0.008	0.000005	17	<0.0001	0.000145	0.0004	0.002	0.000018
21-Jan-08	11	500	500	7.25	105	#N/A	3.6	11.3	36	40	0.0541	0.00007	0.0002	0.0086	<0.00001	<0.000005	0.006	0.000008	15.1	<0.0001	0.000171	0.0016	0.002	<0.000005
28-Jan-08	12	500	500	7.40	97	#N/A	3.4	11.8	36	39	0.0622	0.00007	0.0003	0.0084	<0.00001	<0.000005	0.006	0.000008	14.8	<0.0001	0.000173	0.001	0.003	0.00005
4-Feb-08	13	500	500	7.28	105	#N/A	2.2	11.6	33															
11-Feb-08	14	500	500	7.31	91	#N/A	2.5	10.2	32	36.6	0.0656	0.00006	0.0003	0.0077	<0.00001	<0.000005	<0.005	<0.000005	14.1	<0.0001	0.000108	0.0013	0.002	0.00008
18-Feb-08	15	500	495	7.40	106	#N/A	2.9	11.1	33															
25-Feb-08	16	500	495	7.36	111	#N/A	2.6	10.9	44	43.6	0.0896	0.00005	0.0002	0.0093	<0.00001	<0.000005	0.009	0.000006	16.8	<0.0001	0.000151	0.0006	0.002	0.000086
3-Mar-08	17	500	500	7.18	96	#N/A	2.4	9.8	38															
10-Mar-08	18	500	485	7.32	105	#N/A	2.3	10.4	36	41.4	0.0758	0.00005	0.0004	0.0081	<0.00001	0.000005	<0.005	0.000014	16	<0.0001	0.00017	0.0005	0.003	0.000008
17-Mar-08	19	500	485	7.11	87	#N/A	2.3	7.3	30															
24-Mar-08	20	500	500	7.13	109	#N/A	2.4	7.9	35	44.4	0.056	0.00003	0.0002	0.0097	<0.00001	<0.000005	0.006	0.000008	17.2	0.0003	0.000208	0.0002	0.002	0.00003
31-Mar-08	21	500	485	7.18	89	#N/A	2.1	8.2	30															
7-Apr-08	22	500	485	7.30	99	#N/A	3.6	7.5	33	37.9	0.0555	0.00003	0.0002	0.0076	<0.00001	<0.000005	<0.005	<0.000005	14.7	<0.0001	0.000253	0.0006	0.002	0.000008
14-Apr-08	23	500	500	7.12	120	#N/A	2.5	7.7	37															
21-Apr-08	24	500	465	7.22	104	#N/A	2.7	8.0	35	41.3	0.0656	0.00003	0.0002	0.0088	<0.00001	<0.000005	<0.05	<0.000005	16	<0.0001	0.000407	0.0019	0.008	0.000006
28-Apr-08	25	500	475	7.15	108	#N/A	2.9	7.3	32															
5-May-08	26	500	500	7.22	108	#N/A	2.5	6.3	34	42	0.0486	0.00002	7E-05	0.0096	<0.00001	<0.000005	<0.05	0.000007	16.2	<0.0001	0.000089	0.0007	0.031	0.000012
12-May-08	27	500	485	7.33	99	#N/A	2.4	7.4	30															
19-May-08	28	500	490	7.27	107	#N/A	1.9	6.9	37	41.5	0.0598	0.00003	0.0001	0.0099	<0.00001	<0.000005	<0.05	<0.000005	16	0.0001	0.000961	0.0018	0.034	0.000011
26-May-08	29	500	480	7.16	89	#N/A	2.1	6.6	36															
2-Jun-08	30	500	505	7.12	97	#N/A	2.0	6.6	42	48.1	0.053	0.00005	0.0001	0.0125	<0.00001	<0.000005	<0.05	0.00001	18.6	<0.0001	0.00113	0.0026	0.035	0.00007
9-Jun-08	31	500	505	7.32	86	#N/A	1.7	8.6	33															
16-Jun-08	32	500	525	7.19	74	#N/A	2.7	6.1	33	37	0.0377	0.00002	8E-05	0.0105	<0.00001	<0.000005	<0.05	<0.000005	14.3	0.0001	0.00105	0.0025	0.033	<0.000005
23-Jun-08	33	500	510	7.17	77	#N/A	3.1	6.4	35															
30-Jun-08	34	500	520	7.14	110	#N/A	2.4	5.5	49	45.8	0.0385	0.00003	0.0001	0.0179	<0.00001	<0.000005	<0.05	0.00001	17.6	0.0001	0.00229	0.0033	0.16	0.000097
7-Jul-08	35	500	505	6.99	118	#N/A	2.3	4.5	44															
14-Jul-08	36	500	500	6.97	106	#N/A	2.5	4.9	41	43.3	0.0274	<0.00002	0.0001	0.0157	<0.00001	<0.000005	<0.05	0.000014	16.6	<0.0001	0.00657	0.0055	0.221	<0.000005
21-Jul-08	37	500	505	6.90	96	#N/A	2.3	4.6	37															
28-Jul-08	38	500	480	6.90	93	#N/A	2.2	4.3	35	35.9	0.0272	<0.00002	6E-05	0.0131	<0.00001	<0.000005	<0.05	0.000019	13.8	<0.0001	0.0036	0.0013	0.164	0.00003
4-Aug-08	39	500	510	6.90	89	#N/A	1.9	5.3	41															
11-Aug-08	40	500	505	6.81	87	#N/A	2.1	3.9	32	38.8	0.0241	<0.00002	5E-05	0.0145	<0.00001	<0.000005	<0.05	0.000007	14.9	<0.0001	0.00358	0.0016	0.174	0.000059
18-Aug-08	41	500	485	6.78	101	#N/A	1.7	4.2	36															
25-Aug-08	42	500	495	6.83	80	#N/A	1.9	4.3	34	33.2	0.021	<0.00002	0.0002	0.0131	<0.00001	0.000006	<0.05	0.000046	12.7	<0.0001	0.00349	0.0031	0.124	0.000126
1-Sep-08	43	500	505	6.81	72	#N/A	1.7	3.9	28															
8-Sep-08	44	500	495	6.77	81	#N/A	1.8	4.7	34	32.7	0.0173	<0.00002	8E-05	0.0166	<0.00001	<0.000005	<0.05	0.000018	12.5	<0.0001	0.00432	0.0016	0.216	0.000008
15-Sep-08	45	500	500	6.62	103	#N/A	2.3	2.4	37															
22-Sep-08	46	500	505	6.62	83	#N/A	1.8	2.7	35	35.6	0.0159	<0.00002	0.0001	0.0184	<0.00001	<0.000005	<0.05	0.000024	13.6	0.0002	0.0068	0.0047	0.276	0.000064
29-Sep-08	47	500	500	6.65	95	#N/A	1.8	2.7	33															
6-Oct-08	48	500	510	6.50	92	#N/A	2.2	2.6	38	38.7	0.0131													



HC 7

CONFIDENTIAL

DRAFT

Sample = DH273-47.07-51.31

Date	Cycle	Volume mL		pH	Cond. umhos/cm	Acidity	Acidity	Alkalinity	Sulphate	Hardness CaCO3 mg/L	Al	Sb	As	Ba	Be	Bi	B	Cd	Ca	Cr	Co	Cu	Fe	Pb
		Input	Output			(pH 4.5) mgCaCO3/L	(pH 8.3) mgCaCO3/L																	
19-Jan-09	63	500	470	4.82	205	#N/A	15.2	<0.1	74															
26-Jan-09	64	500	510	4.65	257	#N/A	25.3	<0.1	111	82.5	0.131	<0.00002	0.0005	0.0172	0.00002	<0.000005	<0.05	0.00023	30.5	<0.0001	0.0829	0.0206	7.28	0.00223
2-Feb-09	65	500	495	4.58	277	#N/A	27.4	<0.1	107															
9-Feb-09	66	500	490	4.66	285	#N/A	26.5	<0.1	116	96.3	0.144	<0.00002	0.0008	0.0191	0.00002	<0.000005	<0.05	0.000215	35.3	<0.0001	0.107	0.0059	8	0.000081
16-Feb-09	67	500	490	4.61	266	#N/A	26.0	<0.1	110															
23-Feb-09	68	500	500	4.55	285	#N/A	30.6	<0.1	134	94.9	0.174	<0.00002	0.0009	0.0179	0.00003	<0.000005	<0.05	0.000245	34.8	<0.0001	0.108	0.0249	10.8	0.000208
2-Mar-09	69	500	515	4.37	303	1.8	35.4	#N/A	114															
9-Mar-09	70	500	495	4.03	304	5.1	34.6	#N/A	116	91.1	0.333	<0.00002	0.0012	0.0132	0.00006	<0.000005	<0.05	0.000235	33	<0.0001	0.103	0.0074	11.3	0.000184
16-Mar-09	71	500	460	4.00	290	4.4	38.9	#N/A	128															
23-Mar-09	72	500	525	3.99	270	4.8	38.9	#N/A	98	71.2	0.39	<0.00002	0.0014	0.0133	0.00005	<0.000005	<0.05	0.000144	25.5	0.0001	0.0588	0.0098	13.5	0.000171
30-Mar-09	73	500	440	3.92	205	5.8	29.2	#N/A	64															
6-Apr-09	74	500	465	4.02	232	4.7	36.3	#N/A	88	58.7	0.219	<0.00002	0.0009	0.0146	0.00004	0.000012	<0.05	0.000137	20.9	<0.0001	0.0646	0.0092	12.3	0.000106
13-Apr-09	75	500	475	4.20	233	2.5	34.2	#N/A	81															
20-Apr-09	76	500	500	4.21	209	2.2	31.0	#N/A	75	55.5	0.12	<0.00002	0.0008	0.0149	0.00003	<0.000005	<0.05	0.000111	19.8	<0.0001	0.0449	0.0047	10.9	0.00243
27-Apr-09	77	500	470	4.18	195	2.5	25.7	#N/A	63															
4-May-09	78	500	475	4.21	174	2.5	22.9	#N/A	75	46.7	0.112	<0.00002	0.001	0.0141	0.00003	<0.000005	<0.05	0.000093	16.6	<0.0001	0.0325	0.0072	7.88	0.000223
11-May-09	79	500	480	4.22	173	2.5	22.4	#N/A	59															
18-May-09	80	500	475	4.22	170	3.1	23.0	#N/A	62	44.1	0.133	<0.00002	0.0005	0.0134	0.00003	<0.000005	<0.05	0.000058	15.8	<0.0001	0.0232	0.0045	6.55	0.000115
25-May-09	81	500	485	4.17	169	3.0	21.2	#N/A	57															
1-Jun-09	82	500	455	3.95	175	5.5	25.0	#N/A	79	48.4	0.268	<0.00002	0.0009	0.0139	0.00004	<0.000005	<0.05	0.000074	17.3	<0.0001	0.0219	0.0188	6.92	0.000362
8-Jun-09	83	500	500	4.12	197	3.9	29.0	#N/A	65															
15-Jun-09	84	500	505	4.12	175	4.4	30.3	#N/A	73	42.6	0.287	<0.00002	0.0009	0.0123	0.00004	<0.000005	<0.05	0.000067	15.2	<0.0001	0.0169	0.0207	9.06	0.000256
22-Jun-09	85	500	500	4.33	162	2.4	32.6	#N/A	77															
29-Jun-09	86	500	520	3.96	183	5.3	36.5	#N/A	87	49.2	0.408	<0.00002	0.0013	0.0151	0.00006	<0.000005	<0.05	0.00009	17.8	<0.0001	0.0177	0.0186	12.6	0.000233
6-Jul-09	87	500	515	3.89	176	5.6	32.8	#N/A	62															
13-Jul-09	88	500	515	3.85	156	5.9	29.9	#N/A	59	33.4	0.223	<0.00002	0.0007	0.0129	0.00003	<0.000005	<0.05	0.000059	12.1	<0.0001	0.0148	0.0193	8.75	0.00037
20-Jul-09	89	500	485	3.83	165	6.2	29.2	#N/A	68															
27-Jul-09	90	500	480	4.01	159	7.4	29.0	#N/A	56	33	0.216	<0.00002	0.0007	0.0128	0.00003	<0.000005	<0.05	0.000055	12	<0.0001	0.0161	0.0195	8.57	0.000745
3-Aug-09	91	500	490	3.96	158	7.0	31.2	#N/A	67															
10-Aug-09	92	500	520	3.94	161	5.3	31.4	#N/A	61	33.2	0.313	<0.00002	0.0008	0.0118	0.00004	<0.000005	<0.05	0.000051	11.9	<0.0001	0.0143	0.0091	9.26	0.000572
17-Aug-09	93	500	485	3.80	154	7.5	29.3	#N/A	53															
24-Aug-09	94	500	490	3.79	163	7.1	29.8	#N/A	52	31.2	0.355	<0.00002	0.0006	0.0125	0.00004	<0.000005	<0.05	0.000078	11.2	<0.0001	0.0156	0.0089	9.18	0.00862
31-Aug-09	95	500	500	3.97	162	6.6	30.9	#N/A	61															
7-Sep-09	96	500	475	3.82	147	7.1	27.5	#N/A	51	28.1	0.261	<0.00002	0.0005	0.0132	0.00003	<0.000005	<0.05	0.000049	10.1	<0.0001	0.0152	0.0062	7.43	0.00092
14-Sep-09	97	500	490	3.76	163	7.4	29.6	#N/A	56															
21-Sep-09	98	500	495	3.89	151	6.7	29.6	#N/A	55	29.6	0.258	<0.00002	0.0005	0.012	0.00005	<0.000005	<0.05	0.000065	10.6	<0.0001	0.0148	0.019	7.68	0.000319
28-Sep-09	99	500	465	3.85	159	8.0	28.9	#N/A	62															
5-Oct-09	100	500	470	3.75	151	8.3	26.9	#N/A	54	28.4	0.302	<0.00002	0.0005	0.0121	0.00004	<0.000005	<0.05	0.000059	10.2	<0.0001	0.0163	0.0135	5.98	0.000199
12-Oct-09	101	500	490	3.79	152	8.0	30.8	#N/A	58															
19-Oct-09	102	500	475	3.91	242	9.0	54.7	#N/A	89	43.8	0.482	<0.00002	0.0012	0.0136	0.00007	<0.000005	<0.05	0.000106	15.6	<0.0001	0.0356	0.016	17.8	0.00312
26-Oct-09	103	500	470	3.80	237	10.7	56.9	#N/A	91															

Cell Terminated

Certified by: Rik J. Vos
ARD Testing Specialist
SGS Canada Inc.



Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S	Ti	Sn	Ti	U	V	Zn	Zr	Major Anions	Major Cations	Diff	Diff %
mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L				
0.0023	0.86	0.0037	<0.01	0.0004	0.0004	0.034	2.83	0.00017	0.882	<0.000005	4.47	0.0269	6	0.000002	0.00005	<0.0005	1.2E-05	<0.0002	0.0009	<0.0001	0.43	0.71	0.27	23.9%
0.0042	1.46	0.0063	0.01	0.0006	0.0003	0.013	4.09	0.0001	2.09	<0.000005	5.01	0.0427	9	0.000002	0.00003	<0.0005	0.00011	<0.0002	0.0004	<0.0001	0.83	0.98	0.14	7.9%
0.0042	2.29	0.0025	0.03	0.0004	0.0007	0.005	2.62	0.00037	0.849	<0.000005	4.99	0.092	9	<0.000002	0.00002	0.0011	2.2E-05	0.0093	0.0005	<0.0001	1.17	0.92	-0.25	-11.9%
0.0052	1.41	0.0101	<0.01	0.0005	0.0001	0.009	4.55	0.00006	1.04	<0.000005	1.91	0.0541	16	<0.000002	0.00002	0.001	0.00012	<0.0002	0.0006	<0.0001	1.34	1.20	-0.13	-5.3%
0.0058	1.1	0.0105	<0.01	0.0005	0.0003	0.009	5.16	0.00006	0.895	<0.000005	1.15	0.0545	16	0.000002	0.00001	<0.0005	0.00013	<0.0002	0.0007	<0.0001	1.08	1.18	0.11	4.7%
0.0054	0.9	0.01	<0.01	0.0004	0.0001	0.006	4.28	0.00007	0.617	<0.000005	0.78	0.0461	14	<0.000002	0.00002	<0.0005	0.0001	<0.0002	0.0008	<0.0001	0.98	1.07	0.09	4.4%
0.0054	0.73	0.011	<0.01	0.0005	0.0002	0.006	4.35	0.00006	0.741	<0.000005	0.55	0.0412	13	0.000002	<0.00001	<0.0005	0.0001	<0.0002	0.002	<0.0001	1.01	0.99	-0.02	-0.9%
0.0056	0.73	0.0127	<0.01	0.0004	0.0002	0.006	4.57	<0.00004	0.84	<0.000005	0.47	0.0393	15	0.000007	<0.00001	<0.0005	0.0001	<0.0002	0.001	<0.0001	1.10	1.06	-0.04	-1.8%
0.0046	0.58	0.0121	0.03	0.0004	0.0002	0.003	3.56	0.00005	0.515	<0.000005	0.37	0.036	12	0.000003	<0.00001	<0.0005	7.7E-05	<0.0002	0.0011	<0.0001	1.05	0.90	-0.15	-7.8%
0.0051	0.58	0.0138	<0.01	0.0004	0.0002	0.003	3.71	0.00004	0.803	<0.000005	0.37	0.0381	13	<0.000002	<0.00001	<0.0005	7.4E-05	<0.0002	0.001	<0.0001	0.89	1.01	0.12	6.4%
0.0045	0.53	0.0151	<0.01	0.0003	0.0001	0.002	3.27	0.00004	0.57	<0.000005	0.29	0.0349	12	<0.000002	0.00002	<0.0005	6.6E-05	<0.0002	0.0009	<0.0001	0.98	0.89	-0.08	-4.4%
0.0039	0.49	0.0131	0.02	0.0003	0.0001	0.003	2.98	0.00005	0.589	<0.000005	0.32	0.0304	12	<0.000002	0.00003	<0.0005	6.3E-05	<0.0002	0.0024	<0.0001	0.99	0.87	-0.12	-6.3%
0.0038	0.37	0.0118	<0.01	0.0003	0.0002	0.004	2.7	0.00004	0.492	<0.000005	0.23	0.0284	12	<0.000002	0.00005	0.0005	5.7E-05	<0.0002	0.001	<0.0001	0.87	0.81	-0.06	-3.4%
0.0041	0.4	0.013	<0.01	0.0003	0.0001	0.003	2.98	<0.00004	0.946	<0.000005	0.24	0.0329	13	0.000002	<0.00001	<0.0005	0.00004	<0.0002	0.001	<0.0001	1.14	0.96	-0.18	-8.5%
0.0036	0.37	0.0109	0.02	0.0003	0.0002	0.003	2.64	0.00006	0.602	<0.000005	0.22	0.0294	13	0.000004	0.00002	0.0006	4.3E-05	<0.0002	0.002	<0.0001	0.96	0.91	-0.05	-2.8%
0.0033	0.34	0.0133	<0.01	0.0003	0.0002	<0.002	2.5	0.00006	0.482	<0.000005	0.19	0.0311	14	<0.000002	<0.00001	<0.0005	2.8E-05	<0.0002	0.0012	<0.0001	0.89	0.96	0.07	3.9%
0.0031	0.3	0.0135	<0.01	0.0002	0.0001	0.003	2.26	0.00005	0.458	<0.000005	0.18	0.0257	12	0.000002	<0.00001	<0.0005	0.00002	<0.0002	0.0012	<0.0001	0.84	0.82	-0.01	-0.8%
0.0032	0.33	0.0185	<0.01	0.0003	0.0003	<0.002	2.44	0.00008	0.503	<0.000005	0.2	0.0266	13	<0.000002	<0.00001	<0.0005	2.2E-05	<0.0002	0.0017	<0.0001	0.89	0.90	0.01	0.4%
0.0032	0.36	0.0286	<0.01	0.0002	0.0003	<0.002	2.35	0.0001	0.499	<0.000005	0.15	0.0272	13	0.000003	<0.00001	<0.0005	2.2E-05	<0.0002	0.0021	<0.0001	0.83	0.90	0.07	4.1%
0.0031	0.37	0.0306	<0.01	0.0001	0.0003	<0.002	2.35	0.00011	0.565	<0.000005	0.18	0.0255	14	0.000003	<0.00001	0.0006	1.8E-05	<0.0002	0.0026	<0.0001	0.91	0.90	-0.01	-0.6%
0.0033	0.4	0.041	<0.01	8E-05	0.0005	<0.002	2.35	0.00024	0.662	<0.000005	0.22	0.03	16	<0.000002	<0.00001	<0.0005	2.4E-05	<0.0002	0.0033	<0.0001	1.01	1.03	0.02	1.1%
0.0028	0.29	0.0348	0.02	0.0001	0.0003	<0.002	2.01	0.0001	0.561	<0.000005	0.12	0.0228	12	0.000003	0.00001	0.0006	0.00001	<0.0002	0.0023	<0.0001	0.81	0.79	-0.02	-0.9%
0.0038	0.42	0.0812	0.01	8E-05	0.0006	<0.002	2.41	0.00025	0.758	<0.000005	0.2	0.0313	15	0.000006	0.00001	<0.0005	9E-06	<0.0002	0.0036	<0.0001	1.13	0.98	-0.15	-7.0%
0.0035	0.41	0.0764	<0.01	7E-05	0.0012	<0.002	2.38	0.00033	0.616	0.000005	0.15	0.0273	14	0.000006	<0.00001	0.0006	1.1E-05	<0.0002	0.004	<0.0001	0.95	0.93	-0.02	-1.2%
0.003	0.36	0.0624	<0.01	<0.00005	0.0008	<0.002	2.22	0.00019	0.654	<0.000005	0.15	0.0225	12	0.000006	<0.00001	0.0008	1.1E-05	<0.0002	0.0046	<0.0001	0.81	0.78	-0.03	-2.1%
0.0032	0.4	0.0724	<0.01	<0.00005	0.0007	<0.002	2.26	0.00021	0.714	<0.000005	0.15	0.0233	14	0.000005	<0.00001	<0.0005	8E-06	<0.0002	0.0047	<0.0001	0.74	0.84	0.10	6.1%
0.003	0.34	0.0747	<0.01	<0.00005	0.0006	0.003	1.94	0.00022	0.573	<0.000005	0.17	0.0219	12	0.000006	<0.00001	<0.0005	0.00001	<0.0002	0.0044	<0.0001	0.79	0.72	-0.08	-5.0%
0.0032	0.36	0.0807	0.02	8E-05	0.0008	<0.002	1.97	0.00027	0.549	<0.000005	0.14	0.0228	13	0.000008	0.00003	<0.0005	7E-06	<0.0002	0.0052	<0.0001	0.80	0.71	-0.09	-6.1%
0.0033	0.42	0.121	<0.01	<0.00005	0.0012	<0.002	2.08	0.00027	0.8	0.000009	0.19	0.0242	13	0.000009	0.00001	0.0006	0.00001	<0.0002	0.0103	<0.0001	0.78	0.77	-0.01	-0.5%
0.0037	0.49	0.153	0.01	<0.00005	0.0017	<0.002	2.12	0.00028	0.835	<0.000005	0.16	0.0264	14	0.000012	<0.00001	0.0008	0.00001	<0.0002	0.0128	<0.0001	0.84	0.84	-0.01	-0.5%
0.0033	0.44	0.107	<0.01	<0.00005	0.0015	<0.002	2.17	0.00024	0.663	<0.000005	0.14	0.0216	18	0.00001	<0.00001	0.0005	1.1E-05	<0.0002	0.0122	<0.0001	1.00	0.84	-0.17	-9.1%
0.0038	0.58	0.15	0.05	<0.00005	0.0023	0.002	2.29	0.00033	1	<0.000005	0.19	0.0268	15	0.000014	<0.00001	0.0009	1.2E-05	<0.0002	0.019	<0.0001	0.79	0.90	0.11	6.5%
0.0036	0.65	0.179	<0.01	<0.00005	0.0034	<0.002	2.13	0.00038	1.26	<0.000005	0.17	0.0266	15	0.000012	0.00002	0.0009	1.7E-05	<0.0002	0.0335	<0.0001	0.98	0.95	-0.03	-1.5%
0.0038	0.6	0.157	0.01	<0.00005	0.0034	0.003	2.04	0.00038	0.969	<0.000005	0.17	0.0281	18	0.000013	<0.00001	0.0005	2.7E-05	<0.0002	0.027	<0.0001	1.06	1.01	-0.05	-2.2%
0.005	0.77	0.287	<0.01	<0.00005	0.0051	<0.002	2.37	0.00067	1.21	<0.000005	0.19	0.0363	22	0.000011	<0.00001	0.001	2.5E-05	<0.0002	0.0308	<0.0001	1.38	1.37	0.00	-0.2%
0.0074	1.27	0.41	<0.01	<0.00005	0.0108	<0.002	3.39	0.00125	2.48	<0.000005	0.24	0.0492	36	0.000019	<0.00001	0.0015	0.0001	<0.0002	0.0468	<0.0001	2.25	2.34	0.08	1.8%
0.0076	1.1	0.338	<0.01	<0.00005	0.0098	<0.002	3.16	0.00077	1.4	0.000012	0.21	0.0433	35	0.000021	<0.00001	<0.0005	0.00014	<0.0002	0.0415	<0.0001	1.35	1.57	0.22	7.4%



Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S	Tl	Sn	Ti	U	V	Zn	Zr	Major Anions	Major Cations	Diff	Diff %
mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L				
0.0091	1.55	0.653	<0.01	<0.00005	0.0144	<0.002	3.81	0.00144	1.72	0.000013	0.27	0.0664	45	0.000023	<0.00001	0.0006	0.00012	<0.0002	0.0676	<0.0001	2.31	2.17	-0.14	-3.1%
0.0118	2	0.681	0.01	<0.00005	0.0193	<0.002	4.81	0.0017	1.67	0.000011	0.31	0.0787	54	0.000022	0.00005	<0.0005	0.00015	<0.0002	0.0586	<0.0001	2.42	2.52	0.10	2.0%
0.0125	1.99	0.627	<0.01	<0.00005	0.0205	<0.002	4.92	0.0018	1.92	0.000019	0.3	0.0798	54	0.000021	0.00002	<0.0005	0.0002	<0.0002	0.0558	<0.0001	2.79	2.64	-0.15	-2.7%
0.0127	2.12	0.546	0.01	<0.00005	0.0217	<0.002	4.55	0.00151	2.01	<0.000005	0.33	0.0781	49	0.000016	<0.00001	<0.0005	0.0006	<0.0002	0.0705	<0.0001	2.42	2.58	0.16	3.3%
0.0124	1.8	0.402	0.02	<0.00005	0.015	<0.002	4.26	0.00146	2.08	0.000008	0.3	0.0657	41	0.000014	<0.00001	<0.0005	0.00042	<0.0002	0.0527	<0.0001	2.04	2.28	0.24	5.6%
0.0115	1.61	0.308	0.03	<0.00005	0.0162	<0.002	3.96	0.00102	1.73	0.000012	0.27	0.0507	45	0.000012	<0.00001	<0.0005	0.00031	<0.0002	0.0483	<0.0001	1.83	1.96	0.13	3.4%
0.0115	1.48	0.273	0.02	<0.00005	0.0121	0.002	4.22	0.00118	1.73	0.000026	0.25	0.0482	40	0.00001	<0.00001	<0.0005	0.00016	<0.0002	0.0322	<0.0001	1.56	1.82	0.26	7.7%
0.0098	1.27	0.214	0.01	<0.00005	0.0084	<0.002	4.15	0.00084	1.35	0.000015	0.25	0.0407	31	0.000011	0.00001	<0.0005	0.00016	<0.0002	0.0314	<0.0001	1.56	1.48	-0.08	-2.7%
0.0096	1.15	0.187	<0.01	<0.00005	0.006	<0.002	4.54	0.0009	1.85	0.000007	0.27	0.0393	24	0.000009	<0.00001	0.0009	0.00019	<0.0002	0.0275	<0.0001	1.29	1.37	0.08	2.9%
0.0101	1.26	0.191	0.02	<0.00005	0.0051	0.002	4.29	0.00086	1.96	0.000007	0.29	0.0408	30	0.000012	<0.00001	<0.0005	0.00039	<0.0002	0.0373	<0.0001	1.65	1.47	-0.18	-5.7%
0.0083	1.11	0.169	<0.01	<0.00005	0.0042	0.002	3.37	0.00074	1.88	<0.000005	0.24	0.0383	23	0.000009	<0.00001	<0.0005	0.00028	<0.0002	0.0345	<0.0001	1.52	1.44	-0.08	-2.7%
0.0086	1.18	0.19	<0.01	<0.00005	0.0042	<0.002	3.97	0.0008	2.67	<0.000005	0.3	0.0413	28	0.000008	<0.00001	<0.0005	0.00027	<0.0002	0.0428	<0.0001	1.81	1.78	-0.03	-0.8%
0.0069	0.8	0.123	<0.01	<0.00005	0.0036	0.002	2.92	0.00057	1.63	<0.000005	0.24	0.0312	19	0.000008	<0.00001	<0.0005	0.00021	<0.0002	0.026	<0.0001	1.23	1.23	0.00	0.0%
0.0063	0.75	0.116	0.02	<0.00005	0.0037	<0.002	2.59	0.00054	1.49	<0.000005	0.2	0.0298	19	0.000008	<0.00001	<0.0005	0.00022	<0.0002	0.0266	<0.0001	1.17	1.20	0.03	1.4%
0.0065	0.82	0.116	<0.01	<0.00005	0.0033	<0.002	2.58	0.00054	1.97	<0.000005	0.2	0.0284	19	0.000007	<0.00001	<0.0005	0.00022	<0.0002	0.0269	<0.0001	1.27	1.24	-0.03	-1.3%
0.0062	0.79	0.109	<0.01	<0.00005	0.0036	<0.002	2.51	0.00053	1.76	<0.000005	0.21	0.0283	20	0.000008	<0.00001	<0.0005	0.00023	<0.0002	0.0274	<0.0001	1.08	1.19	0.11	4.9%
0.0057	0.7	0.0926	<0.01	<0.00005	0.0035	0.003	2.11	0.0004	1.51	0.000009	0.21	0.0254	15	0.000007	<0.00001	<0.0005	0.00023	<0.0002	0.0232	<0.0001	1.06	1.03	-0.03	-1.7%
0.0062	0.76	0.0958	<0.01	<0.00005	0.0033	<0.002	2.11	0.00044	1.66	<0.000005	0.22	0.0262	16	0.000008	<0.00001	<0.0005	0.00022	<0.0002	0.0254	<0.0001	1.15	1.07	-0.07	-3.4%
0.006	0.71	0.0898	<0.01	<0.00005	0.0034	0.003	1.86	0.00047	1.61	0.000005	0.2	0.0264	16	0.000006	0.00008	<0.0005	0.00027	<0.0002	0.025	<0.0001	1.13	0.95	-0.18	-8.5%
0.0076	1.18	0.161	<0.01	<0.00005	0.009	<0.002	2.23	0.00058	1.78	0.000013	0.29	0.0387	35	0.000008	<0.00001	<0.0005	0.00053	<0.0002	0.0464	<0.0001	1.85	1.91	0.05	1.4%



Environmental Division

PRELIMINARY RESULTS

TYHEE NW T LTD.

ATTN: DAVE WEBB

#401 -675 W HASTINGS STREET

VANCOUVER BC V6B 1N2

Reported On: 07-OCT-08 12:58 PM

Lab Work Order#: L689002

Date Received: 30-SEP-08

Project P.O.#:

Job Reference: 1740082.020

Legal Site Desc:

CofC Numbers: C048586

Other Information:

Comments:

DRAFT

ERN BEAUDIN
Account Manager

THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN AUTHORITY OF THE LABORATORY.
ALL SAMPLES WILL BE DISPOSED OF AFTER 30 DAYS FOLLOWING ANALYSIS. PLEASE CONTACT THE LAB IF YOU
REQUIRE ADDITIONAL SAMPLE STORAGE TIME.

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ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L689002-1 BT-1 ORM-FJA								
Sampled By: VP on 29-SEP-08 @ 11:00								
Matrix: GRAB								
Total Metals								
Total Major Metals								
Calcium (Ca)	477		0.5	mg/L		03-OCT-08	CLR	R 736919
Potassium (K)	73.4		0.1	mg/L		03-OCT-08	CLR	R 736919
Magnesium (Mg)	69.0		0.1	mg/L		03-OCT-08	CLR	R 736919
Sodium (Na)	75		1	mg/L		03-OCT-08	CLR	R 736919
Iron (Fe)	0.045		0.005	mg/L		03-OCT-08	CLR	R 736919
Manganese (Mn)	0.154		0.001	mg/L		03-OCT-08	CLR	R 736919
Total Trace Metals (Low Level)								
Silver (Ag)	<0.0004		0.0004	mg/L		04-OCT-08	SYF	R 737359
Aluminum (Al)	0.05		0.02	mg/L		04-OCT-08	SYF	R 737359
Arsenic (As)	0.0110		0.0004	mg/L		04-OCT-08	SYF	R 737359
Boron (B)	0.11		0.02	mg/L		04-OCT-08	SYF	R 737359
Barium (Ba)	0.0440		0.0002	mg/L		04-OCT-08	SYF	R 737359
Beryllium (Be)	<0.001		0.001	mg/L		04-OCT-08	SYF	R 737359
Bismuth (Bi)	<0.0001		0.0001	mg/L		04-OCT-08	SYF	R 737359
Cadmium (Cd)	<0.0002		0.0002	mg/L		04-OCT-08	SYF	R 737359
Cobalt (Co)	0.0085		0.0002	mg/L		04-OCT-08	SYF	R 737359
Chromium (Cr)	<0.0008		0.0008	mg/L		04-OCT-08	SYF	R 737359
Copper (Cu)	0.013		0.001	mg/L		04-OCT-08	SYF	R 737359
Molybdenum (Mo)	0.0034		0.0001	mg/L		04-OCT-08	SYF	R 737359
Nickel (Ni)	0.0174		0.0002	mg/L		04-OCT-08	SYF	R 737359
Lead (Pb)	0.0001		0.0001	mg/L		04-OCT-08	SYF	R 737359
Antimony (Sb)	<0.0004		0.0004	mg/L		04-OCT-08	SYF	R 737359
Selenium (Se)	0.0019		0.0004	mg/L		04-OCT-08	SYF	R 737359
Tin (Sn)	<0.0004		0.0004	mg/L		04-OCT-08	SYF	R 737359
Strontium (Sr)	0.850		0.0002	mg/L		04-OCT-08	SYF	R 737359
Titanium (Ti)	<0.005		0.005	mg/L		04-OCT-08	SYF	R 737359
Thallium (Tl)	<0.0001		0.0001	mg/L		04-OCT-08	SYF	R 737359
Uranium (U)	0.0006		0.0001	mg/L		04-OCT-08	SYF	R 737359
Vanadium (V)	<0.0002		0.0002	mg/L		04-OCT-08	SYF	R 737359
Zinc (Zn)	0.059		0.004	mg/L		04-OCT-08	SYF	R 737359
Mercury (Hg)-Total	<0.00010		0.00010	mg/L		03-OCT-08	HAS	R 736022
Total Dissolved Solids	2700		5	mg/L		02-OCT-08	SVG	R 735645
Total Suspended Solids	<3		3	mg/L		02-OCT-08	SVG	R 735852
Routine Water Analysis								
Chloride (Cl)								
Chloride (Cl)	6		1	mg/L		01-OCT-08	KFA	R 733410
ICP metals and SO4 for routine water								
Calcium (Ca)	462		0.5	mg/L		01-OCT-08	JW U	R 733238
Potassium (K)	62.4		0.5	mg/L		01-OCT-08	JW U	R 733238
Magnesium (Mg)	67.5		0.1	mg/L		01-OCT-08	JW U	R 733238
Sodium (Na)	61		1	mg/L		01-OCT-08	JW U	R 733238
Sulfate (SO4)	1360		0.5	mg/L		01-OCT-08	JW U	R 733238
Ion Balance Calculation								
Ion Balance	102			%		03-OCT-08		
TDS (Calculated)	2200			mg/L		03-OCT-08		
Hardness (as CaCO3)	1430			mg/L		03-OCT-08		
Nitrate+Nitrite-N	30.3		0.1	mg/L		01-OCT-08	BLI	R 733341
Nitrate-N	29.7		0.1	mg/L		01-OCT-08	BLI	R 733341
Nitrite-N	0.59		0.05	mg/L		01-OCT-08	BLI	R 733341

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L689002-1 BT-1 ORM-FUA Sampled By: VP on 29-SEP-08 @ 11:00 Matrix: GRAB Routine Water Analysis pH, Conductivity and Total Alkalinity								
pH	7.7		0.1	pH		01-OCT-08	CLTT	R 732765
Conductivity (EC)	2660		0.2	uS/cm		01-OCT-08	CLTT	R 732765
Bicarbonate (HCO3)	88		5	mg/L		01-OCT-08	CLTT	R 732765
Carbonate (CO3)	<5		5	mg/L		01-OCT-08	CLTT	R 732765
Hydroxide (OH)	<5		5	mg/L		01-OCT-08	CLTT	R 732765
Alkalinity, Total (as CaCO3)	72		5	mg/L		01-OCT-08	CLTT	R 732765
L689002-2 BT-2 ORM-FMA Sampled By: VP on 29-SEP-08 @ 11:00 Matrix: GRAB Total Metals Total Major Metals								
Calcium (Ca)	472		0.5	mg/L		03-OCT-08	CLR	R 736919
Potassium (K)	43.7		0.1	mg/L		03-OCT-08	CLR	R 736919
Magnesium (Mg)	20.0		0.1	mg/L		03-OCT-08	CLR	R 736919
Sodium (Na)	8		1	mg/L		03-OCT-08	CLR	R 736919
Iron (Fe)	0.040		0.005	mg/L		03-OCT-08	CLR	R 736919
Manganese (Mn)	0.729		0.001	mg/L		03-OCT-08	CLR	R 736919
Total Trace Metals (Low Level)								
Silver (Ag)	<0.0004		0.0004	mg/L		04-OCT-08	SYF	R 737359
Aluminum (Al)	0.07		0.02	mg/L		04-OCT-08	SYF	R 737359
Arsenic (As)	0.0066		0.0004	mg/L		04-OCT-08	SYF	R 737359
Boron (B)	0.07		0.02	mg/L		04-OCT-08	SYF	R 737359
Barium (Ba)	0.0549		0.0002	mg/L		04-OCT-08	SYF	R 737359
Beryllium (Be)	<0.001		0.001	mg/L		04-OCT-08	SYF	R 737359
Bismuth (Bi)	<0.0001		0.0001	mg/L		04-OCT-08	SYF	R 737359
Cadmium (Cd)	<0.0002		0.0002	mg/L		04-OCT-08	SYF	R 737359
Cobalt (Co)	0.0111		0.0002	mg/L		04-OCT-08	SYF	R 737359
Chromium (Cr)	<0.0008		0.0008	mg/L		04-OCT-08	SYF	R 737359
Copper (Cu)	0.010		0.001	mg/L		04-OCT-08	SYF	R 737359
Molybdenum (Mo)	0.0042		0.0001	mg/L		04-OCT-08	SYF	R 737359
Nickel (Ni)	0.0149		0.0002	mg/L		04-OCT-08	SYF	R 737359
Lead (Pb)	0.0001		0.0001	mg/L		04-OCT-08	SYF	R 737359
Antimony (Sb)	<0.0004		0.0004	mg/L		04-OCT-08	SYF	R 737359
Selenium (Se)	0.0010		0.0004	mg/L		04-OCT-08	SYF	R 737359
Tin (Sn)	<0.0004		0.0004	mg/L		04-OCT-08	SYF	R 737359
Strontium (Sr)	1.30		0.0002	mg/L		04-OCT-08	SYF	R 737359
Titanium (Ti)	<0.005		0.005	mg/L		04-OCT-08	SYF	R 737359
Thallium (Tl)	<0.0001		0.0001	mg/L		04-OCT-08	SYF	R 737359
Uranium (U)	0.0024		0.0001	mg/L		04-OCT-08	SYF	R 737359
Vanadium (V)	<0.0002		0.0002	mg/L		04-OCT-08	SYF	R 737359
Zinc (Zn)	0.023		0.004	mg/L		04-OCT-08	SYF	R 737359
Mercury (Hg)-Total	<0.00010		0.00010	mg/L		03-OCT-08	HAS	R 736022
Total Dissolved Solids	2070		5	mg/L		02-OCT-08	SVG	R 735645
Total Suspended Solids	<3		3	mg/L		02-OCT-08	SVG	R 735852
Routine Water Analysis Chloride (Cl)								
Chloride (Cl)	1		1	mg/L		01-OCT-08	KFA	R 733410
ICP Metals and SO4 for routine water Calcium (Ca)	483		0.5	mg/L		01-OCT-08	JW U	R 733238

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L689002-2 BT-2 ORM-FMA Sampled By: VP on 29-SEP-08 @ 11:00 Matrix: GRAB Routine Water Analysis ICP metals and SO4 for routine water									
Potassium (K)		34.5		0.5	mg/L		01-OCT-08	JW U	R733238
Magnesium (Mg)		19.5		0.1	mg/L		01-OCT-08	JW U	R733238
Sodium (Na)		5		1	mg/L		01-OCT-08	JW U	R733238
Sulfate (SO4)		1160		0.5	mg/L		01-OCT-08	JW U	R733238
Ion Balance Calculation									
Ion Balance		105			%		03-OCT-08		
TDS (Calculated)		1750			mg/L		03-OCT-08		
Hardness (as CaCO3)		1290			mg/L		03-OCT-08		
Nitrate+Nitrite-N		1.5		0.1	mg/L		01-OCT-08	BLI	R733341
Nitrate-N		0.9		0.1	mg/L		01-OCT-08	BLI	R733341
Nitrite-N		0.59		0.05	mg/L		01-OCT-08	BLI	R733341
pH, Conductivity and Total Alkalinity									
pH		7.6		0.1	pH		01-OCT-08	CLTT	R732765
Conductivity (EC)		2070		0.2	uS/cm		01-OCT-08	CLTT	R732765
Bicarbonate (HCO3)		78		5	mg/L		01-OCT-08	CLTT	R732765
Carbonate (CO3)		<5		5	mg/L		01-OCT-08	CLTT	R732765
Hydroxide (OH)		<5		5	mg/L		01-OCT-08	CLTT	R732765
Alkalinity, Total (as CaCO3)		64		5	mg/L		01-OCT-08	CLTT	R732765
L689002-6 BT-6 NL-F-MGD Sampled By: VP on 29-SEP-08 @ 11:00 Matrix: GRAB Total Metals Total Major Metals									
Calcium (Ca)		294		0.5	mg/L		02-OCT-08	BOC	R736002
Potassium (K)		33.6		0.1	mg/L		02-OCT-08	BOC	R736002
Magnesium (Mg)		315		0.1	mg/L		02-OCT-08	BOC	R736002
Sodium (Na)		8		1	mg/L		02-OCT-08	BOC	R736002
Iron (Fe)		73.8		0.005	mg/L		02-OCT-08	BOC	R736002
Manganese (Mn)		22.7		0.001	mg/L		02-OCT-08	BOC	R736002
Total Trace Metals (Low Level)									
Silver (Ag)		<0.0004	RAMB	0.0004	mg/L		05-OCT-08	SYF	R737359
Aluminum (Al)		120		0.02	mg/L		05-OCT-08	SYF	R737359
Arsenic (As)		5.68		0.0004	mg/L		05-OCT-08	SYF	R737359
Boron (B)		0.12		0.02	mg/L		05-OCT-08	SYF	R737359
Barium (Ba)		0.0017		0.0002	mg/L		05-OCT-08	SYF	R737359
Beryllium (Be)		0.038		0.001	mg/L		05-OCT-08	SYF	R737359
Bismuth (Bi)		<0.0001		0.0001	mg/L		05-OCT-08	SYF	R737359
Cadmium (Cd)		26.6		0.0002	mg/L		05-OCT-08	SYF	R737359
Cobalt (Co)		1.69		0.0002	mg/L		05-OCT-08	SYF	R737359
Chromium (Cr)		0.0073		0.0008	mg/L		05-OCT-08	SYF	R737359
Copper (Cu)		5.90		0.001	mg/L		05-OCT-08	SYF	R737359
Molybdenum (Mo)		0.0004		0.0001	mg/L		05-OCT-08	SYF	R737359
Nickel (Ni)		1.10		0.0002	mg/L		05-OCT-08	SYF	R737359
Lead (Pb)		1.27		0.0001	mg/L		05-OCT-08	SYF	R737359
Antimony (Sb)		0.0041		0.0004	mg/L		05-OCT-08	SYF	R737359
Selenium (Se)		0.144		0.0004	mg/L		05-OCT-08	SYF	R737359
Tin (Sn)		<0.0004		0.0004	mg/L		05-OCT-08	SYF	R737359
Strontium (Sr)		0.133		0.0002	mg/L		05-OCT-08	SYF	R737359
Titanium (Ti)		<0.005		0.005	mg/L		05-OCT-08	SYF	R737359
Thallium (Tl)		0.0003		0.0001	mg/L		05-OCT-08	SYF	R737359

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L689002-6	BT-6 NL-FMGD								
Sampled By: VP on 29-SEP-08 @ 11:00									
Matrix: GRAB									
Total Metals									
Total Trace Metals (Low Level)									
Uranium (U)		0.0151		0.0001	mg/L		05-OCT-08	SYF	R737359
Vanadium (V)		0.0031		0.0002	mg/L		05-OCT-08	SYF	R737359
Zinc (Zn)		1980		0.004	mg/L		06-OCT-08	SYF	R738009
Mercury (Hg)-Total		<0.00010		0.00010	mg/L		03-OCT-08	HAS	R736022
Total Dissolved Solids		9850		5	mg/L		02-OCT-08	SVG	R735645
Total Suspended Solids		<3		3	mg/L		02-OCT-08	SVG	R735852
Routine Water Analysis									
Chloride (Cl)									
Chloride (Cl)		13		1	mg/L		02-OCT-08	KFA	R735872
ICP metals and SO4 for routine water									
Calcium (Ca)		397		0.5	mg/L		01-OCT-08	JW U	R733238
Potassium (K)		25.0		0.5	mg/L		01-OCT-08	JW U	R733238
Magnesium (Mg)		318		0.1	mg/L		01-OCT-08	JW U	R733238
Sodium (Na)		<1		1	mg/L		01-OCT-08	JW U	R733238
Sulfate (SO4)		4920		0.5	mg/L		01-OCT-08	JW U	R733238
Ion Balance Calculation									
Ion Balance		45.4	BLNT		%		06-OCT-08		
TDS (Calculated)		5670			mg/L		06-OCT-08		
Hardness (as CaCO3)		2300			mg/L		06-OCT-08		
Nitrate+Nitrite-N		0.7		0.1	mg/L		01-OCT-08	BLI	R733341
Nitrate-N		0.7		0.1	mg/L		01-OCT-08	BLI	R733341
Nitrite-N		<0.05		0.05	mg/L		01-OCT-08	BLI	R733341
pH, Conductivity and Total Alkalinity									
pH		3.9	RRV	0.1	pH		01-OCT-08	CLTT	R732765
Conductivity (EC)		5850		0.2	uS/cm		01-OCT-08	CLTT	R732765
Bicarbonate (HCO3)		<5		5	mg/L		02-OCT-08	CLTT	R732765
Carbonate (CO3)		<5		5	mg/L		01-OCT-08	CLTT	R732765
Hydroxide (OH)		<5		5	mg/L		01-OCT-08	CLTT	R732765
Alkalinity, Total (as CaCO3)		<5		5	mg/L		02-OCT-08	CLTT	R732765
L689002-7	BT-7 NL-FUGD								
Sampled By: VP on 29-SEP-08 @ 11:00									
Matrix: GRAB									
Total Metals									
Total Major Metals									
Calcium (Ca)		442		0.5	mg/L		03-OCT-08	CLR	R736919
Potassium (K)		41.5		0.1	mg/L		03-OCT-08	CLR	R736919
Magnesium (Mg)		72.7		0.1	mg/L		03-OCT-08	CLR	R736919
Sodium (Na)		8		1	mg/L		03-OCT-08	CLR	R736919
Iron (Fe)		0.620		0.005	mg/L		03-OCT-08	CLR	R736919
Manganese (Mn)		2.44		0.001	mg/L		03-OCT-08	CLR	R736919
Total Trace Metals (Low Level)									
Silver (Ag)		<0.0004		0.0004	mg/L		04-OCT-08	SYF	R737359
Aluminum (Al)		0.87		0.02	mg/L		04-OCT-08	SYF	R737359
Arsenic (As)		3.83		0.0004	mg/L		04-OCT-08	SYF	R737359
Boron (B)		0.03		0.02	mg/L		04-OCT-08	SYF	R737359
Barium (Ba)		0.0532		0.0002	mg/L		04-OCT-08	SYF	R737359
Beryllium (Be)		<0.001		0.001	mg/L		04-OCT-08	SYF	R737359
Bismuth (Bi)		<0.0001		0.0001	mg/L		04-OCT-08	SYF	R737359
Cadmium (Cd)		0.190		0.0002	mg/L		04-OCT-08	SYF	R737359

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L689002-7 BT-7 NL-F-UGD								
Sampled By: VP on 29-SEP-08 @ 11:00								
Matrix: GRAB								
Total Metals								
Total Trace Metals (Low Level)								
Cobalt (Co)	0.0527		0.0002	mg/L		04-OCT-08	SYF	R 737359
Chromium (Cr)	<0.0008		0.0008	mg/L		04-OCT-08	SYF	R 737359
Copper (Cu)	0.101		0.001	mg/L		04-OCT-08	SYF	R 737359
Molybdenum (Mo)	0.0071		0.0001	mg/L		04-OCT-08	SYF	R 737359
Nickel (Ni)	0.0516		0.0002	mg/L		04-OCT-08	SYF	R 737359
Lead (Pb)	0.0118		0.0001	mg/L		04-OCT-08	SYF	R 737359
Antimony (Sb)	0.0033		0.0004	mg/L		04-OCT-08	SYF	R 737359
Selenium (Se)	0.0091		0.0004	mg/L		04-OCT-08	SYF	R 737359
Tin (Sn)	<0.0004		0.0004	mg/L		04-OCT-08	SYF	R 737359
Strontium (Sr)	0.342		0.0002	mg/L		04-OCT-08	SYF	R 737359
Titanium (Ti)	<0.005		0.005	mg/L		04-OCT-08	SYF	R 737359
Thallium (Tl)	<0.0001		0.0001	mg/L		04-OCT-08	SYF	R 737359
Uranium (U)	0.0013		0.0001	mg/L		04-OCT-08	SYF	R 737359
Vanadium (V)	0.0004		0.0002	mg/L		04-OCT-08	SYF	R 737359
Zinc (Zn)	12.8		0.004	mg/L		04-OCT-08	SYF	R 737359
Mercury (Hg)-Total	<0.00010		0.00010	mg/L		03-OCT-08	HAS	R 736022
Total Dissolved Solids	2320		5	mg/L		02-OCT-08	SVG	R 735645
Total Suspended Solids	6		3	mg/L		02-OCT-08	SVG	R 735852
Routine Water Analysis								
Chloride (Cl)								
Chloride (Cl)	6		1	mg/L		01-OCT-08	KFA	R 733410
ICP metals and SO4 for routine water								
Calcium (Ca)	455		0.5	mg/L		01-OCT-08	JW U	R 733238
Potassium (K)	31.8		0.5	mg/L		01-OCT-08	JW U	R 733238
Magnesium (Mg)	72.4		0.1	mg/L		01-OCT-08	JW U	R 733238
Sodium (Na)	4		1	mg/L		01-OCT-08	JW U	R 733238
Sulfate (SO4)	1270		0.5	mg/L		01-OCT-08	JW U	R 733238
Ion Balance Calculation								
Ion Balance	105			%		03-OCT-08		
TDS (Calculated)	1890			mg/L		03-OCT-08		
Hardness (as CaCO3)	1430			mg/L		03-OCT-08		
Nitrate+Nitrite-N	1.0		0.1	mg/L		01-OCT-08	BLI	R 733341
Nitrate-N	0.9		0.1	mg/L		01-OCT-08	BLI	R 733341
Nitrite-N	0.06		0.05	mg/L		01-OCT-08	BLI	R 733341
pH, Conductivity and Total Alkalinity								
pH	7.2		0.1	pH		01-OCT-08	CLTT	R 732765
Conductivity (EC)	2250		0.2	uS/cm		01-OCT-08	CLTT	R 732765
Bicarbonate (HCO3)	91		5	mg/L		01-OCT-08	CLTT	R 732765
Carbonate (CO3)	<5		5	mg/L		01-OCT-08	CLTT	R 732765
Hydroxide (OH)	<5		5	mg/L		01-OCT-08	CLTT	R 732765
Alkalinity, Total (as CaCO3)	74		5	mg/L		01-OCT-08	CLTT	R 732765
*Refer to Referenced Information for Qualifiers (if any) and Methodology.								

Reference Information

Sample Parameter Qualifier key listed:

Qualifier	Description
BL:NT	Balance Reviewed: Interference Or Non-Measured Component
RAMB	Result Adjusted For Method Blank
RRV	Reported Result Verified By Repeat Analysis

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Preparation Method Reference (Based On)	Analytical Method Reference (Based On)
CL-ED	Water	Chloride (Cl)		APHA 4500 ClE-Cobrimetry
ETL-ROUTNE-ICP-ED	Water	ICP metals and SO ₄ for routine water		APHA 3120 B-ICP-OES
HG-T-CVAA-ED	Water	Mercury (Hg) -Total		EPA 245.7 /EPA 245.1
DNBALANCE-ED	Water	On Balance Calculation		APHA 1030E
MET1-TOT-LOW-ED	Water	Total Trace Metals (Low Level)	EPA 3015	EPA 6020
MET2-TOT-LOW-ED	Water	Total Major Metals	EPA 3015	EPA 200.7
N2N3-ED	Water	Nitrate+Nitrite-N		APHA 4500 NO3H-COLORIMETRY
NO2-ED	Water	Nitrite-N		APHA 4500 NO2B-Cobrimetry
NO3-ED	Water	Nitrate-N		APHA 4500 NO3H-Cobrimetry
PH/EC/ALK-ED	Water	pH, Conductivity and Total Alkalinity		APHA 4500-H, 2510, 2320
SOLIDS-TDS-ED	Water	Total Dissolved Solids		APHA 2540 C
SOLIDS-TOTSUS-ED	Water	Total Suspended Solids		APHA 2540 D-Graimetric

** Laboratory Methods employed follow in-house procedures, which are generally based on nationally or internationally accepted methodologies.

Chain of Custody numbers:

C048586

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
ED	ALS LABORATORY GROUP - EDMONTON, ALBERTA, CANADA		

GLOSSARY OF REPORT TERMS

Surrogate - A surrogate is an organic compound that is similar to the target analyte(s) in chemical composition and behavior but not normally detected in environmental samples. Prior to sample processing, samples are fortified with one or more surrogate compounds.

The reported surrogate recovery value provides a measure of method efficiency. The Laboratory control limits are determined under column heading D.L.

mg/kg (units) - unit of concentration based on mass, parts per million.

mg/L (units) - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

UNLESS OTHERWISE STATED, SAMPLES ARE NOT CORRECTED FOR CLIENT FIELD BLANKS.

Although test results are generated under strict QA/QC protocols, any unsigned test reports, faxes, or emails are considered preliminary.

ALS Laboratory Group has an extensive QA/QC program where all analytical data reported is analyzed using approved referenced procedures followed by checks and reviews by senior managers and quality assurance personnel. However, since the results are obtained from chemical measurements and thus cannot be guaranteed, ALS Laboratory Group assumes no liability for the use or interpretation of the results.

Environmental Division

Sept 29 / 08

REFER TO BACK PAGE FOR REGIONAL LOCATIONS AND SAMPLING INFORMATION



Environmental Division

Certificate of Analysis

TYHEE NW T LTD.
ATTN: HUGH WILSON
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2

Report Date: 23-JUN-09 17:00 (MT)
Version: FINAL

Lab Work Order #: L777591

Date Received: 15-JUN-09

Project P.O. #:
Job Reference: 1740082.020
Legal Site Desc:
Conf Numbers: A038531

Other Information:

Comments:

ERIN BEAUDIN
Account Manager

THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN AUTHORITY OF THE LABORATORY.
ALL SAMPLES WILL BE DISPOSED OF AFTER 30 DAYS FOLLOWING ANALYSIS. PLEASE CONTACT THE LAB IF YOU
REQUIRE ADDITIONAL SAMPLE STORAGE TIME.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L777591-1 BT-1 ORM-FJA								
Sampled By: CLENT on 14-JUN-09 @ 10:00								
Matrix: GRAB								
Total Metals								
Total Major Metals								
Calcium (Ca)	222		0.50	mg/L		16-JUN-09	JW U	R842838
Potassium (K)	33.4		0.10	mg/L		16-JUN-09	JW U	R842838
Magnesium (Mg)	25.1		0.10	mg/L		16-JUN-09	JW U	R842838
Sodium (Na)	18.1		1.0	mg/L		16-JUN-09	JW U	R842838
Iron (Fe)	0.0097		0.0050	mg/L		16-JUN-09	JW U	R842838
Manganese (Mn)	0.330		0.0010	mg/L		16-JUN-09	JW U	R842838
Total Trace Metals (Low Level)								
Silver (Ag)	<0.00040		0.00040	mg/L		16-JUN-09	SYF	R842900
Aluminum (Al)	<0.020		0.020	mg/L		16-JUN-09	SYF	R842900
Arsenic (As)	0.00436		0.00040	mg/L		16-JUN-09	SYF	R842900
Boron (B)	0.081		0.020	mg/L		16-JUN-09	SYF	R842900
Barium (Ba)	0.0174		0.00020	mg/L		16-JUN-09	SYF	R842900
Beryllium (Be)	<0.0010		0.0010	mg/L		16-JUN-09	SYF	R842900
Bismuth (Bi)	<0.00010		0.00010	mg/L		16-JUN-09	SYF	R842900
Cadmium (Cd)	<0.00020		0.00020	mg/L		16-JUN-09	SYF	R842900
Cobalt (Co)	0.00449		0.00020	mg/L		16-JUN-09	SYF	R842900
Chromium (Cr)	<0.00080		0.00080	mg/L		16-JUN-09	SYF	R842900
Copper (Cu)	0.0025		0.0010	mg/L		16-JUN-09	SYF	R842900
Molybdenum (Mo)	0.00127		0.00010	mg/L		16-JUN-09	SYF	R842900
Nickel (Ni)	0.00850		0.00020	mg/L		16-JUN-09	SYF	R842900
Lead (Pb)	<0.00010		0.00010	mg/L		16-JUN-09	SYF	R842900
Antimony (Sb)	0.00045		0.00040	mg/L		16-JUN-09	SYF	R842900
Selenium (Se)	0.00093		0.00040	mg/L		16-JUN-09	SYF	R842900
Tin (Sn)	<0.00040		0.00040	mg/L		16-JUN-09	SYF	R842900
Strontium (Sr)	0.475		0.00020	mg/L		16-JUN-09	SYF	R842900
Titanium (Ti)	<0.0050		0.0050	mg/L		16-JUN-09	SYF	R842900
Thallium (Tl)	<0.00010		0.00010	mg/L		16-JUN-09	SYF	R842900
Uranium (U)	0.00037		0.00010	mg/L		16-JUN-09	SYF	R842900
Vanadium (V)	<0.00020		0.00020	mg/L		16-JUN-09	SYF	R842900
Zinc (Zn)	0.0134		0.0040	mg/L		16-JUN-09	SYF	R842900
Dissolved Metals								
Dissolved Trace Metals (Low Level)								
Silver (Ag)	<0.00020		0.00020	mg/L		16-JUN-09	SYF	R842899
Aluminum (Al)	<0.010		0.010	mg/L		16-JUN-09	SYF	R842899
Arsenic (As)	0.00483		0.00040	mg/L		16-JUN-09	SYF	R842899
Boron (B)	0.0730		0.0020	mg/L		16-JUN-09	SYF	R842899
Barium (Ba)	0.0156		0.00010	mg/L		16-JUN-09	SYF	R842899
Beryllium (Be)	<0.00050		0.00050	mg/L		16-JUN-09	SYF	R842899
Bismuth (Bi)	<0.000050		0.000050	mg/L		16-JUN-09	SYF	R842899
Cadmium (Cd)	<0.00010		0.00010	mg/L		16-JUN-09	SYF	R842899
Cobalt (Co)	0.00491		0.00010	mg/L		16-JUN-09	SYF	R842899
Chromium (Cr)	0.00070		0.00040	mg/L		16-JUN-09	SYF	R842899
Copper (Cu)	0.00240		0.00060	mg/L		16-JUN-09	SYF	R842899
Molybdenum (Mo)	0.00126		0.00010	mg/L		16-JUN-09	SYF	R842899
Nickel (Ni)	0.00831		0.00010	mg/L		16-JUN-09	SYF	R842899
Lead (Pb)	<0.00010		0.00010	mg/L		16-JUN-09	SYF	R842899
Antimony (Sb)	<0.00040		0.00040	mg/L		16-JUN-09	SYF	R842899
Selenium (Se)	0.00076		0.00040	mg/L		16-JUN-09	SYF	R842899
Tin (Sn)	<0.00020		0.00020	mg/L		16-JUN-09	SYF	R842899
Strontium (Sr)	0.497		0.00010	mg/L		16-JUN-09	SYF	R842899
Titanium (Ti)	0.00035		0.00030	mg/L		16-JUN-09	SYF	R842899

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L777591-1	BT-1 ORM-F-UA								
Sampled By: CLIENT on 14-JUN-09 @ 10:00									
Matrix: GRAB									
Dissolved Metals									
Dissolved Trace Metals (Low Level)									
	Thallium (Tl)	<0.000050		0.000050	mg/L		16-JUN-09	SYF	R842899
	Uranium (U)	0.00029		0.00010	mg/L		16-JUN-09	SYF	R842899
	Vanadium (V)	<0.00010		0.00010	mg/L		16-JUN-09	SYF	R842899
	Zinc (Zn)	0.0155		0.0010	mg/L		16-JUN-09	SYF	R842899
	Iron (Fe)-Dissolved	<0.0050		0.0050	mg/L		16-JUN-09	CLR	R842700
	Manganese (Mn)-Dissolved	0.315		0.0010	mg/L		16-JUN-09	CLR	R842700
Routine Water Analysis									
	Chloride by IC								
	Chloride (Cl)	1.56		0.50	mg/L		15-JUN-09	DDN	R842374
Dissolved Metals in Water by ICPOES									
	Calcium (Ca)-Dissolved	217		0.50	mg/L		16-JUN-09	CLR	R842700
	Magnesium (Mg)-Dissolved	24.2		0.10	mg/L		16-JUN-09	CLR	R842700
	Potassium (K)-Dissolved	31.6		0.50	mg/L		16-JUN-09	CLR	R842700
	Sodium (Na)-Dissolved	17.3		1.0	mg/L		16-JUN-09	CLR	R842700
Ion Balance Calculation									
	Ion Balance	101			%		17-JUN-09		
	TDS (Calculated)	960			mg/L		17-JUN-09		
	Hardness (as CaCO3)	642			mg/L		17-JUN-09		
Nitrate as N by IC									
	Nitrate (as N)	2.17		0.050	mg/L		15-JUN-09	DDN	R842374
	Nitrate and Nitrite as N	2.28		0.071	mg/L		16-JUN-09		
Nitrite as N by IC									
	Nitrite (as N)	0.105		0.050	mg/L		15-JUN-09	DDN	R842374
Sulfate by IC									
	Sulfate (SO4)	635		0.50	mg/L		15-JUN-09	DDN	R842374
pH, Conductivity and Total Alkalinity									
	pH	7.69		0.10	pH		15-JUN-09	WYA	R842244
	Conductivity (EC)	1280		0.20	uS/cm		15-JUN-09	WYA	R842244
	Bicarbonate (HCO3)	47.7		5.0	mg/L		15-JUN-09	WYA	R842244
	Carbonate (CO3)	<5.0		5.0	mg/L		15-JUN-09	WYA	R842244
	Hydroxide (OH)	<5.0		5.0	mg/L		15-JUN-09	WYA	R842244
	Alkalinity, Total (as CaCO3)	39.1		5.0	mg/L		15-JUN-09	WYA	R842244
L777591-2	BT-2 ORM-F-MA								
Sampled By: CLIENT on 14-JUN-09 @ 10:00									
Matrix: GRAB									
Total Metals									
Total Major Metals									
	Calcium (Ca)	257		0.50	mg/L		16-JUN-09	JWU	R842838
	Potassium (K)	29.4		0.10	mg/L		16-JUN-09	JWU	R842838
	Magnesium (Mg)	8.49		0.10	mg/L		16-JUN-09	JWU	R842838
	Sodium (Na)	4.0		1.0	mg/L		16-JUN-09	JWU	R842838
	Iron (Fe)	0.0155		0.0050	mg/L		16-JUN-09	JWU	R842838
	Manganese (Mn)	0.469		0.0010	mg/L		16-JUN-09	JWU	R842838
Total Trace Metals (Low Level)									
	Silver (Ag)	<0.00040		0.00040	mg/L		16-JUN-09	SYF	R842900
	Aluminum (Al)	<0.020		0.020	mg/L		16-JUN-09	SYF	R842900
	Arsenic (As)	0.00507		0.00040	mg/L		16-JUN-09	SYF	R842900
	Boron (B)	0.033		0.020	mg/L		16-JUN-09	SYF	R842900
	Barium (Ba)	0.0199		0.00020	mg/L		16-JUN-09	SYF	R842900

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L777591-2 BT-2 ORM-FMA								
Sampled By: CLENT on 14-JUN-09 @ 10:00								
Matrix: GRAB								
Total Metals								
Total Trace Metals (Low Level)								
Beryllium (Be)	<0.0010		0.0010	mg/L		16-JUN-09	SYF	R842900
Bismuth (Bi)	<0.00010		0.00010	mg/L		16-JUN-09	SYF	R842900
Cadmium (Cd)	<0.00020		0.00020	mg/L		16-JUN-09	SYF	R842900
Cobalt (Co)	0.00537		0.00020	mg/L		16-JUN-09	SYF	R842900
Chromium (Cr)	<0.00080		0.00080	mg/L		16-JUN-09	SYF	R842900
Copper (Cu)	0.0020		0.0010	mg/L		16-JUN-09	SYF	R842900
Molybdenum (Mo)	0.00233		0.00010	mg/L		16-JUN-09	SYF	R842900
Nickel (Ni)	0.00940		0.00020	mg/L		16-JUN-09	SYF	R842900
Lead (Pb)	<0.00010		0.00010	mg/L		16-JUN-09	SYF	R842900
Antimony (Sb)	<0.00040		0.00040	mg/L		16-JUN-09	SYF	R842900
Selenium (Se)	0.00084		0.00040	mg/L		16-JUN-09	SYF	R842900
Tin (Sn)	<0.00040		0.00040	mg/L		16-JUN-09	SYF	R842900
Strontium (Sr)	0.622		0.00020	mg/L		16-JUN-09	SYF	R842900
Titanium (Ti)	<0.0050		0.0050	mg/L		16-JUN-09	SYF	R842900
Thallium (Tl)	<0.00010		0.00010	mg/L		16-JUN-09	SYF	R842900
Uranium (U)	0.00111		0.00010	mg/L		16-JUN-09	SYF	R842900
Vanadium (V)	<0.00020		0.00020	mg/L		16-JUN-09	SYF	R842900
Zinc (Zn)	0.0104		0.0040	mg/L		16-JUN-09	SYF	R842900
Dissolved Metals								
Dissolved Trace Metals (Low Level)								
Silver (Ag)	<0.00020		0.00020	mg/L		16-JUN-09	SYF	R842899
Aluminum (Al)	<0.010		0.010	mg/L		16-JUN-09	SYF	R842899
Arsenic (As)	0.00539		0.00040	mg/L		16-JUN-09	SYF	R842899
Boron (B)	0.0316		0.0020	mg/L		16-JUN-09	SYF	R842899
Barium (Ba)	0.0170		0.00010	mg/L		16-JUN-09	SYF	R842899
Beryllium (Be)	<0.00050		0.00050	mg/L		16-JUN-09	SYF	R842899
Bismuth (Bi)	<0.000050		0.000050	mg/L		16-JUN-09	SYF	R842899
Cadmium (Cd)	<0.00010		0.00010	mg/L		16-JUN-09	SYF	R842899
Cobalt (Co)	0.00550		0.00010	mg/L		16-JUN-09	SYF	R842899
Chromium (Cr)	0.00068		0.00040	mg/L		16-JUN-09	SYF	R842899
Copper (Cu)	0.00154		0.00060	mg/L		16-JUN-09	SYF	R842899
Molybdenum (Mo)	0.00227		0.00010	mg/L		16-JUN-09	SYF	R842899
Nickel (Ni)	0.00858		0.00010	mg/L		16-JUN-09	SYF	R842899
Lead (Pb)	<0.00010		0.00010	mg/L		16-JUN-09	SYF	R842899
Antimony (Sb)	<0.00040		0.00040	mg/L		16-JUN-09	SYF	R842899
Selenium (Se)	0.00066		0.00040	mg/L		16-JUN-09	SYF	R842899
Tin (Sn)	<0.00020		0.00020	mg/L		16-JUN-09	SYF	R842899
Strontium (Sr)	0.617		0.00010	mg/L		16-JUN-09	SYF	R842899
Titanium (Ti)	0.00033		0.00030	mg/L		16-JUN-09	SYF	R842899
Thallium (Tl)	<0.000050		0.000050	mg/L		16-JUN-09	SYF	R842899
Uranium (U)	0.00097		0.00010	mg/L		16-JUN-09	SYF	R842899
Vanadium (V)	<0.00010		0.00010	mg/L		16-JUN-09	SYF	R842899
Zinc (Zn)	0.0097		0.0010	mg/L		16-JUN-09	SYF	R842899
Iron (Fe)-Dissolved	<0.0050		0.0050	mg/L		16-JUN-09	CLR	R842700
Manganese (Mn)-Dissolved	0.417		0.0010	mg/L		16-JUN-09	CLR	R842700
Routine Water Analysis								
Chloride by IC								
Chloride (Cl)	2.88		0.50	mg/L		15-JUN-09	DDN	R842374
Dissolved Metals in Water by ICPOES								
Calcium (Ca)-Dissolved	239		0.50	mg/L		16-JUN-09	CLR	R842700

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L777591-2 BT-2 ORM-FMA									
Sampled By: CLENT on 14-JUN-09 @ 10:00									
Matrix: GRAB									
Routine Water Analysis									
Dissolved Metals in Water by ICPOES									
Magnesium (Mg)-Dissolved		7.73		0.10	mg/L		16-JUN-09	CLR	R842700
Potassium (K)-Dissolved		28.4		0.50	mg/L		16-JUN-09	CLR	R842700
Sodium (Na)-Dissolved		3.9		1.0	mg/L		16-JUN-09	CLR	R842700
Ion Balance Calculation									
Ion Balance		102			%		17-JUN-09		
TDS (Calculated)		898			mg/L		17-JUN-09		
Hardness (as CaCO3)		629			mg/L		17-JUN-09		
Nitrate as N by IC									
Nitrate (as N)		0.892		0.050	mg/L		15-JUN-09	DDN	R842374
Nitrate and Nitrite as N		1.02		0.071	mg/L		16-JUN-09		
Nitrite as N by IC									
Nitrite (as N)		0.130		0.050	mg/L		15-JUN-09	DDN	R842374
Sulfate by IC									
Sulfate (SO4)		589		0.50	mg/L		15-JUN-09	DDN	R842374
pH, Conductivity and Total Alkalinity									
pH		7.59		0.10	pH		15-JUN-09	WYA	R842244
Conductivity (EC)		1190		0.20	uS/cm		15-JUN-09	WYA	R842244
Bicarbonate (HCO3)		45.0		5.0	mg/L		15-JUN-09	WYA	R842244
Carbonate (CO3)		<5.0		5.0	mg/L		15-JUN-09	WYA	R842244
Hydroxide (OH)		<5.0		5.0	mg/L		15-JUN-09	WYA	R842244
Alkalinity, Total (as CaCO3)		36.9		5.0	mg/L		15-JUN-09	WYA	R842244
L777591-3 BT-6 NL-F-MGD									
Sampled By: CLENT on 14-JUN-09 @ 10:00									
Matrix: GRAB									
Total Metals									
Total Major Metals									
Calcium (Ca)		163		0.50	mg/L		16-JUN-09	JWU	R842838
Potassium (K)		2.54		0.10	mg/L		16-JUN-09	JWU	R842838
Magnesium (Mg)		14.6		0.10	mg/L		16-JUN-09	JWU	R842838
Sodium (Na)		<1.0		1.0	mg/L		16-JUN-09	JWU	R842838
Iron (Fe)		5.29		0.0050	mg/L		16-JUN-09	JWU	R842838
Manganese (Mn)		1.37		0.0010	mg/L		16-JUN-09	JWU	R842838
Total Trace Metals (Low Level)									
Silver (Ag)		<0.00040		0.00040	mg/L		16-JUN-09	SYF	R842900
Aluminum (Al)		5.81		0.020	mg/L		16-JUN-09	SYF	R842900
Arsenic (As)		0.273		0.00040	mg/L		16-JUN-09	SYF	R842900
Boron (B)		<0.020		0.020	mg/L		16-JUN-09	SYF	R842900
Barium (Ba)		0.00121		0.00020	mg/L		16-JUN-09	SYF	R842900
Beryllium (Be)		0.0019		0.0010	mg/L		16-JUN-09	SYF	R842900
Bismuth (Bi)		<0.00010		0.00010	mg/L		16-JUN-09	SYF	R842900
Cadmium (Cd)		1.32		0.00020	mg/L		16-JUN-09	SYF	R842900
Cobalt (Co)		0.0677		0.00020	mg/L		16-JUN-09	SYF	R842900
Chromium (Cr)		<0.00080		0.00080	mg/L		16-JUN-09	SYF	R842900
Copper (Cu)		0.247		0.0010	mg/L		16-JUN-09	SYF	R842900
Molybdenum (Mo)		<0.00010		0.00010	mg/L		16-JUN-09	SYF	R842900
Nickel (Ni)		0.0482		0.00020	mg/L		16-JUN-09	SYF	R842900
Lead (Pb)		0.679		0.00010	mg/L		16-JUN-09	SYF	R842900
Antimony (Sb)		<0.00040		0.00040	mg/L		16-JUN-09	SYF	R842900
Selenium (Se)		0.00829		0.00040	mg/L		16-JUN-09	SYF	R842900
Tin (Sn)		<0.00040		0.00040	mg/L		16-JUN-09	SYF	R842900

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L777591-3 BT-6 NL-F-MGD								
Sampled By: CLENT on 14-JUN-09 @ 10:00								
Matrix: GRAB								
Total Metals								
Total Trace Metals (Low Level)								
Strontium (Sr)	0.0572		0.00020	mg/L		16-JUN-09	SYF	R842900
Titanium (Ti)	<0.0050		0.0050	mg/L		16-JUN-09	SYF	R842900
Thallium (Tl)	<0.00010		0.00010	mg/L		16-JUN-09	SYF	R842900
Uranium (U)	0.00059		0.00010	mg/L		16-JUN-09	SYF	R842900
Vanadium (V)	<0.00020		0.00020	mg/L		16-JUN-09	SYF	R842900
Zinc (Zn)	71.9	DLM	0.080	mg/L		18-JUN-09	SYF	R844449
Dissolved Metals								
Dissolved Trace Metals (Low Level)								
Silver (Ag)	<0.00020		0.00020	mg/L		16-JUN-09	SYF	R842899
Aluminum (Al)	5.52		0.010	mg/L		16-JUN-09	SYF	R842899
Arsenic (As)	0.262		0.00040	mg/L		16-JUN-09	SYF	R842899
Boron (B)	0.0091		0.0020	mg/L		16-JUN-09	SYF	R842899
Barium (Ba)	0.00127		0.00010	mg/L		16-JUN-09	SYF	R842899
Beryllium (Be)	0.00184		0.00050	mg/L		16-JUN-09	SYF	R842899
Bismuth (Bi)	<0.000050		0.000050	mg/L		16-JUN-09	SYF	R842899
Cadmium (Cd)	1.27		0.00010	mg/L		16-JUN-09	SYF	R842899
Cobalt (Co)	0.0689		0.00010	mg/L		16-JUN-09	SYF	R842899
Chromium (Cr)	<0.00040		0.00040	mg/L		16-JUN-09	SYF	R842899
Copper (Cu)	0.229		0.00060	mg/L		16-JUN-09	SYF	R842899
Molybdenum (Mo)	<0.00010		0.00010	mg/L		16-JUN-09	SYF	R842899
Nickel (Ni)	0.0495		0.00010	mg/L		16-JUN-09	SYF	R842899
Lead (Pb)	0.599		0.00010	mg/L		16-JUN-09	SYF	R842899
Antimony (Sb)	<0.00040		0.00040	mg/L		16-JUN-09	SYF	R842899
Selenium (Se)	0.00685		0.00040	mg/L		16-JUN-09	SYF	R842899
Tin (Sn)	<0.00020		0.00020	mg/L		16-JUN-09	SYF	R842899
Strontium (Sr)	0.0525		0.00010	mg/L		16-JUN-09	SYF	R842899
Titanium (Ti)	<0.00030		0.00030	mg/L		16-JUN-09	SYF	R842899
Thallium (Tl)	<0.000050		0.000050	mg/L		16-JUN-09	SYF	R842899
Uranium (U)	0.00044		0.00010	mg/L		16-JUN-09	SYF	R842899
Vanadium (V)	<0.00010		0.00010	mg/L		16-JUN-09	SYF	R842899
Zinc (Zn)	65.5	DLM	0.020	mg/L		18-JUN-09	SYF	R844451
Iron (Fe)-Dissolved	4.45		0.0050	mg/L		16-JUN-09	CLR	R842700
Manganese (Mn)-Dissolved	1.13		0.0010	mg/L		16-JUN-09	CLR	R842700
Routine Water Analysis								
Chloride by IC								
Chloride (Cl)	1.43		0.50	mg/L		15-JUN-09	DDN	R842374
Dissolved Metals in Water by ICPOES								
Calcium (Ca)-Dissolved	178		0.50	mg/L		17-JUN-09	BOC	R843404
Magnesium (Mg)-Dissolved	12.8		0.10	mg/L		17-JUN-09	BOC	R843404
Potassium (K)-Dissolved	2.42		0.50	mg/L		17-JUN-09	BOC	R843404
Sodium (Na)-Dissolved	<1.0		1.0	mg/L		17-JUN-09	BOC	R843404
Ion Balance Calculation								
Ion Balance	90.1			%		17-JUN-09		
TDS (Calculated)	726			mg/L		17-JUN-09		
Hardness (as CaCO3)	497			mg/L		17-JUN-09		
Nitrate as N by IC								
Nitrate (as N)	0.086		0.050	mg/L		15-JUN-09	DDN	R842374
Nitrate and Nitrite as N	0.086		0.071	mg/L		16-JUN-09		
Nitrite as N by IC								
Nitrite (as N)	<0.050		0.050	mg/L		15-JUN-09	DDN	R842374

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L777591-3	BT-6 NL-FMGD								
Sampled By: CLIENT on 14-JUN-09 @ 10:00									
Matrix: GRAB									
Routine Water Analysis									
Sulfate by IC									
Sulfate (SO4)		531		0.50	mg/L		15-JUN-09	DDN	R842374
pH, Conductivity and Total Alkalinity									
pH		4.21	RRV	0.10	pH		15-JUN-09	WYA	R842244
Conductivity (EC)		1030		0.20	uS/cm		15-JUN-09	WYA	R842244
Bicarbonate (HCO3)		<5.0		5.0	mg/L		15-JUN-09	WYA	R842244
Carbonate (CO3)		<5.0		5.0	mg/L		15-JUN-09	WYA	R842244
Hydroxide (OH)		<5.0		5.0	mg/L		15-JUN-09	WYA	R842244
Alkalinity, Total (as CaCO3)		<5.0		5.0	mg/L		15-JUN-09	WYA	R842244
L777591-4	BT-7 NL-FUGD								
Sampled By: CLIENT on 14-JUN-09 @ 10:00									
Matrix: GRAB									
Total Metals									
Total Major Metals									
Calcium (Ca)		111		0.50	mg/L		16-JUN-09	JWU	R842838
Potassium (K)		5.00		0.10	mg/L		16-JUN-09	JWU	R842838
Magnesium (Mg)		11.9		0.10	mg/L		16-JUN-09	JWU	R842838
Sodium (Na)		1.9		1.0	mg/L		16-JUN-09	JWU	R842838
Iron (Fe)		0.0104		0.0050	mg/L		16-JUN-09	JWU	R842838
Manganese (Mn)		0.411		0.0010	mg/L		16-JUN-09	JWU	R842838
Total Trace Metals (Low Level)									
Silver (Ag)		<0.00040		0.00040	mg/L		16-JUN-09	SYF	R842900
Aluminum (Al)		<0.020		0.020	mg/L		16-JUN-09	SYF	R842900
Arsenic (As)		1.66		0.00040	mg/L		16-JUN-09	SYF	R842900
Boron (B)		<0.020		0.020	mg/L		16-JUN-09	SYF	R842900
Barium (Ba)		0.00942		0.00020	mg/L		16-JUN-09	SYF	R842900
Beryllium (Be)		<0.0010		0.0010	mg/L		16-JUN-09	SYF	R842900
Bismuth (Bi)		<0.00010		0.00010	mg/L		16-JUN-09	SYF	R842900
Cadmium (Cd)		0.00133		0.00020	mg/L		18-JUN-09	SYF	R844449
Cobalt (Co)		0.00463		0.00020	mg/L		16-JUN-09	SYF	R842900
Chromium (Cr)		<0.00080		0.00080	mg/L		16-JUN-09	SYF	R842900
Copper (Cu)		0.0057		0.0010	mg/L		16-JUN-09	SYF	R842900
Molybdenum (Mo)		0.00331		0.00010	mg/L		16-JUN-09	SYF	R842900
Nickel (Ni)		0.00821		0.00020	mg/L		16-JUN-09	SYF	R842900
Lead (Pb)		0.00019		0.00010	mg/L		16-JUN-09	SYF	R842900
Antimony (Sb)		0.00162		0.00040	mg/L		16-JUN-09	SYF	R842900
Selenium (Se)		0.00159		0.00040	mg/L		16-JUN-09	SYF	R842900
Thallium (Tl)		<0.00040		0.00040	mg/L		16-JUN-09	SYF	R842900
Strontium (Sr)		0.0832		0.00020	mg/L		16-JUN-09	SYF	R842900
Titanium (Ti)		<0.0050		0.0050	mg/L		16-JUN-09	SYF	R842900
Thallium (Tl)		<0.00010		0.00010	mg/L		16-JUN-09	SYF	R842900
Uranium (U)		0.00059		0.00010	mg/L		16-JUN-09	SYF	R842900
Vanadium (V)		0.00025		0.00020	mg/L		16-JUN-09	SYF	R842900
Zinc (Zn)		0.128		0.0040	mg/L		18-JUN-09	SYF	R844449
Dissolved Metals									
Dissolved Trace Metals (Low Level)									
Silver (Ag)		<0.00020		0.00020	mg/L		16-JUN-09	SYF	R842899
Aluminum (Al)		<0.010		0.010	mg/L		16-JUN-09	SYF	R842899
Arsenic (As)		1.75		0.00040	mg/L		16-JUN-09	SYF	R842899
Boron (B)		0.0048		0.0020	mg/L		16-JUN-09	SYF	R842899
Barium (Ba)		0.00767		0.00010	mg/L		16-JUN-09	SYF	R842899

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L777591-4 BT-7 NL-F-UGD								
Sampled By: CLENT on 14-JUN-09 @ 10:00								
Matrix: GRAB								
Dissolved Metals								
Dissolved Trace Metals (Low Level)								
Beryllium (Be)	<0.00050		0.00050	mg/L		16-JUN-09	SYF	R 842899
Bismuth (Bi)	<0.000050		0.000050	mg/L		16-JUN-09	SYF	R 842899
Cadmium (Cd)	0.00130		0.00010	mg/L		18-JUN-09	SYF	R 844451
Cobalt (Co)	0.00449		0.00010	mg/L		16-JUN-09	SYF	R 842899
Chromium (Cr)	0.00071		0.00040	mg/L		16-JUN-09	SYF	R 842899
Copper (Cu)	0.00439		0.00060	mg/L		16-JUN-09	SYF	R 842899
Molybdenum (Mo)	0.00310		0.00010	mg/L		16-JUN-09	SYF	R 842899
Nickel (Ni)	0.00784		0.00010	mg/L		16-JUN-09	SYF	R 842899
Lead (Pb)	<0.00010		0.00010	mg/L		16-JUN-09	SYF	R 842899
Antimony (Sb)	0.00166		0.00040	mg/L		16-JUN-09	SYF	R 842899
Selenium (Se)	0.00149		0.00040	mg/L		16-JUN-09	SYF	R 842899
Tin (Sn)	<0.00020		0.00020	mg/L		16-JUN-09	SYF	R 842899
Strontium (Sr)	0.0776		0.00010	mg/L		16-JUN-09	SYF	R 842899
Titanium (Ti)	0.00041		0.00030	mg/L		16-JUN-09	SYF	R 842899
Thallium (Tl)	<0.000050		0.000050	mg/L		16-JUN-09	SYF	R 842899
Uranium (U)	0.00049		0.00010	mg/L		16-JUN-09	SYF	R 842899
Vanadium (V)	0.00022		0.00010	mg/L		16-JUN-09	SYF	R 842899
Zinc (Zn)	0.131		0.0010	mg/L		18-JUN-09	SYF	R 844451
Iron (Fe)-Dissolved	<0.0050		0.0050	mg/L		16-JUN-09	CLR	R 842700
Manganese (Mn)-Dissolved	0.380		0.0010	mg/L		16-JUN-09	CLR	R 842700
Routine Water Analysis								
Chloride by IC								
Chloride (Cl)	2.28		0.50	mg/L		15-JUN-09	DDN	R 842374
Dissolved Metals in Water by ICPOES								
Calcium (Ca)-Dissolved	109		0.50	mg/L		16-JUN-09	CLR	R 842700
Magnesium (Mg)-Dissolved	11.5		0.10	mg/L		16-JUN-09	CLR	R 842700
Potassium (K)-Dissolved	4.93		0.50	mg/L		16-JUN-09	CLR	R 842700
Sodium (Na)-Dissolved	1.8		1.0	mg/L		16-JUN-09	CLR	R 842700
Ion Balance Calculation								
Ion Balance	102			%		17-JUN-09		
TDS (Calculated)	426			mg/L		17-JUN-09		
Hardness (as CaCO3)	320			mg/L		17-JUN-09		
Nitrate as N by IC								
Nitrate (as N)	0.421		0.050	mg/L		15-JUN-09	DDN	R 842374
Nitrate and Nitrite as N	0.519		0.071	mg/L		16-JUN-09		
Nitrite as N by IC								
Nitrite (as N)	0.098		0.050	mg/L		15-JUN-09	DDN	R 842374
Sulfate by IC								
Sulfate (SO4)	275		0.50	mg/L		15-JUN-09	DDN	R 842374
pH, Conductivity and Total Alkalinity								
pH	7.22		0.10	pH		15-JUN-09	W YA	R 842244
Conductivity (EC)	638		0.20	uS/cm		15-JUN-09	W YA	R 842244
Bicarbonate (HCO3)	39.2		5.0	mg/L		15-JUN-09	W YA	R 842244
Carbonate (CO3)	<5.0		5.0	mg/L		15-JUN-09	W YA	R 842244
Hydroxide (OH)	<5.0		5.0	mg/L		15-JUN-09	W YA	R 842244
Alkalinity, Total (as CaCO3)	32.1		5.0	mg/L		15-JUN-09	W YA	R 842244
*Refer to Referenced Information for Qualifiers (if any) and Methodology.								

Reference Information

Qualifiers for Sample Submission Listed:

Qualifier	Description
SFPL	Dissolve metals - Sample was Filtered and Preserved at the laboratory
SRUHL	Dissolve metals - Sample Received Unpreserved. Results may be biased either high or low for indicated parameter(s)

Sample Parameter Qualifier key listed:

Qualifier	Description
DLM	Detection Limit Adjustment For Sample Matrix Effects
RRV	Reported Result Verified By Repeat Analysis

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Preparation Method Reference (Based On)	Analytical Method Reference (Based On)
CL- ~~C~~ -ED	Water	Chloride by IC		APHA 4110 B- ~~DN~~ CHROMATOGRAPHY
FE- ~~D~~ S-ED	Water	Iron (Fe)-Dissolved		EPA 200.7
DNBALANCE-ED	Water	Ion Balance Calculation		APHA 1030E
MET- ~~D~~ - ~~IC~~ P-ED	Water	Dissolved Metals in Water by ICPOES		EPA 200.7
MET1- ~~D~~ S-LOW-ED	Water	Dissolved Trace Metals (Low Level)		EPA 6020
MET1-TOT-LOW-ED	Water	Total Trace Metals (Low Level)	APHA 3030E	EPA 6020
MET2-TOT-LOW-ED	Water	Total Major Metals	APHA 3030E	EPA 200.7
MN- ~~D~~ S-ED	Water	Manganese (Mn)-Dissolved		EPA 200.7
NO2+NO3-CALC-ED	Water	Nitrate+Nitrite		CALCULATION
NO2- ~~C~~ -ED	Water	Nitrite as N by IC		APHA 4110 B- ~~DN~~ CHROMATOGRAPHY
NO3- ~~C~~ -ED	Water	Nitrate as N by IC		APHA 4110 B- ~~DN~~ CHROMATOGRAPHY
PH/EC/ALK-ED	Water	pH, Conductivity and Total Alkalinity		APHA 4500-H, 2510, 2320
SO4- ~~C~~ -ED	Water	Sulfate by IC		APHA 4110 B- ~~DN~~ CHROMATOGRAPHY

** Laboratory Methods employed follow in-house procedures, which are generally based on nationally or internationally accepted methodologies.

Chain of Custody numbers:

A038531

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
ED	ALS LABORATORY GROUP - EDMONTON, ALBERTA, CANADA		

Reference Information

GLOSSARY OF REPORT TERMS

Surrogate - A surrogate is an organic compound that is similar to the target analyte(s) in chemical composition and behavior but not normally detected in environmental samples. Prior to sample processing, samples are fortified with one or more surrogate compounds.

The reported surrogate recovery value provides a measure of method efficiency. The Laboratory control limits are determined under column heading D.L.

mg/kg (units) - unit of concentration based on mass, parts per million.

mg/L (units) - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

UNLESS OTHERWISE STATED, SAMPLES ARE NOT CORRECTED FOR CLIENT FIELD BLANKS.

Although test results are generated under strict QA/QC protocols, any unsigned test reports, faxes, or emails are considered preliminary.

ALS Laboratory Group has an extensive QA/QC program where all analytical data reported is analyzed using approved referenced procedures followed by checks and reviews by senior managers and quality assurance personnel. However, since the results are obtained from chemical measurements and thus cannot be guaranteed, ALS Laboratory Group assumes no liability for the use or interpretation of the results.

Environmental Division

June 14 / 09

REFER TO BACK PAGE FOR REGIONAL LOCATIONS AND SAMPLING INFORMATION



Environmental Division

Certificate of Analysis

TYHEE NW T LTD.
ATTN: HUGH W ILSON
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2

Report Date: 04-SEP-09 15:54 (MT)
Version: FINAL

Lab Work Order #: L811722

Date Received: 28-AUG-09

Project P.O. #:
Job Reference: 1740082.020
Legal Site Desc:
Conf Numbers: 08-064113

Other Information:

Comments:

ERIN BEAUDIN
Account Manager

THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN AUTHORITY OF THE LABORATORY.
ALL SAMPLES WILL BE DISPOSED OF AFTER 30 DAYS FOLLOWING ANALYSIS. PLEASE CONTACT THE LAB IF YOU
REQUIRE ADDITIONAL SAMPLE STORAGE TIME.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L811722-1 BT-1 ORM-FUA							
Sampled By: NOT PROVIDED on 27-AUG-09 @ 09:00							
Matrix: GRAB WATER							
Dissolved Metals							
Diss.Metals in Water by ICPMS (Low)							
Aluminum (Al)-Dissolved	<0.010		0.010	mg/L		02-SEP-09	R930364
Antimony (Sb)-Dissolved	<0.00040		0.00040	mg/L		02-SEP-09	R930364
Arsenic (As)-Dissolved	0.0493		0.00040	mg/L		02-SEP-09	R930364
Barium (Ba)-Dissolved	0.0579		0.00010	mg/L		02-SEP-09	R930364
Beryllium (Be)-Dissolved	<0.00050		0.00050	mg/L		02-SEP-09	R930364
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L		02-SEP-09	R930364
Boron (B)-Dissolved	0.190		0.0020	mg/L		02-SEP-09	R930364
Cadmium (Cd)-Dissolved	<0.00010		0.00010	mg/L		02-SEP-09	R930364
Chromium (Cr)-Dissolved	<0.00040		0.00040	mg/L		02-SEP-09	R930364
Cobalt (Co)-Dissolved	0.00242		0.00010	mg/L		02-SEP-09	R930364
Copper (Cu)-Dissolved	0.00734		0.00060	mg/L		02-SEP-09	R930364
Lead (Pb)-Dissolved	0.00013		0.00010	mg/L		02-SEP-09	R930364
Molybdenum (Mo)-Dissolved	0.00439		0.00010	mg/L		02-SEP-09	R930364
Nickel (Ni)-Dissolved	0.0148	RRV	0.00010	mg/L		04-SEP-09	R934868
Selenium (Se)-Dissolved	0.00230		0.00040	mg/L		02-SEP-09	R930364
Silver (Ag)-Dissolved	<0.00020		0.00020	mg/L		02-SEP-09	R930364
Strontium (Sr)-Dissolved	1.81		0.00010	mg/L		02-SEP-09	R930364
Thallium (Tl)-Dissolved	<0.000050		0.000050	mg/L		02-SEP-09	R930364
Tin (Sn)-Dissolved	<0.00020		0.00020	mg/L		02-SEP-09	R930364
Titanium (Ti)-Dissolved	0.00072		0.00030	mg/L		02-SEP-09	R930364
Uranium (U)-Dissolved	0.00034		0.00010	mg/L		02-SEP-09	R930364
Vanadium (V)-Dissolved	<0.00010		0.00010	mg/L		02-SEP-09	R930364
Zinc (Zn)-Dissolved	0.0086		0.0010	mg/L		02-SEP-09	R930364
Diss.Metals in Water by ICP-OES (Low)							
Calcium (Ca)-Dissolved	626		0.50	mg/L		02-SEP-09	R929864
Iron (Fe)-Dissolved	<0.010		0.010	mg/L		01-SEP-09	R925663
Magnesium (Mg)-Dissolved	53.2		0.10	mg/L		01-SEP-09	R925663
Manganese (Mn)-Dissolved	0.0045		0.0020	mg/L		01-SEP-09	R925663
Potassium (K)-Dissolved	64.1		0.10	mg/L		01-SEP-09	R925663
Sodium (Na)-Dissolved	27.5		0.50	mg/L		01-SEP-09	R925663
Total Metals							
Total Metals in Water by ICPMS (Low)							
Aluminum (Al)-Total	<0.020		0.020	mg/L		02-SEP-09	R928404
Antimony (Sb)-Total	<0.00040		0.00040	mg/L		02-SEP-09	R928404
Arsenic (As)-Total	0.0494		0.00040	mg/L		02-SEP-09	R928404
Barium (Ba)-Total	0.0619		0.00020	mg/L		02-SEP-09	R928404
Beryllium (Be)-Total	<0.0010		0.0010	mg/L		02-SEP-09	R928404
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		02-SEP-09	R928404
Boron (B)-Total	0.206		0.020	mg/L		02-SEP-09	R928404
Cadmium (Cd)-Total	<0.00020		0.00020	mg/L		02-SEP-09	R928404
Chromium (Cr)-Total	<0.00080		0.00080	mg/L		02-SEP-09	R928404
Cobalt (Co)-Total	0.00243		0.00020	mg/L		02-SEP-09	R928404
Copper (Cu)-Total	0.0082		0.0010	mg/L		02-SEP-09	R928404
Lead (Pb)-Total	0.00015		0.00010	mg/L		02-SEP-09	R928404
Molybdenum (Mo)-Total	0.00419		0.00010	mg/L		02-SEP-09	R928404
Nickel (Ni)-Total	0.0126		0.00020	mg/L		02-SEP-09	R928404
Selenium (Se)-Total	0.00205		0.00040	mg/L		02-SEP-09	R928404
Silver (Ag)-Total	<0.00040		0.00040	mg/L		02-SEP-09	R928404
Strontium (Sr)-Total	1.73		0.00020	mg/L		02-SEP-09	R928404
Thallium (Tl)-Total	<0.00010		0.00010	mg/L		02-SEP-09	R928404
Tin (Sn)-Total	<0.00040		0.00040	mg/L		02-SEP-09	R928404

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L811722-2 BT-2 ORM-FMA							
Sampled By: NOT PROVIDED on 27-AUG-09 @ 09:00							
Matrix: GRAB WATER							
Diss.Metals in Water by ICPMS (Low)							
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L		02-SEP-09	R930364
Boron (B)-Dissolved	0.0618		0.0020	mg/L		02-SEP-09	R930364
Cadmium (Cd)-Dissolved	<0.00010		0.00010	mg/L		02-SEP-09	R930364
Chromium (Cr)-Dissolved	<0.00040		0.00040	mg/L		02-SEP-09	R930364
Cobalt (Co)-Dissolved	0.0100		0.00010	mg/L		02-SEP-09	R930364
Copper (Cu)-Dissolved	0.00474		0.00060	mg/L		02-SEP-09	R930364
Lead (Pb)-Dissolved	0.00014		0.00010	mg/L		02-SEP-09	R930364
Molybdenum (Mo)-Dissolved	0.00778		0.00010	mg/L		02-SEP-09	R930364
Nickel (Ni)-Dissolved	0.0161		0.00010	mg/L		02-SEP-09	R930364
Selenium (Se)-Dissolved	0.00167		0.00040	mg/L		02-SEP-09	R930364
Silver (Ag)-Dissolved	<0.00020		0.00020	mg/L		02-SEP-09	R930364
Strontium (Sr)-Dissolved	1.50		0.00010	mg/L		02-SEP-09	R930364
Thallium (Tl)-Dissolved	<0.000050		0.000050	mg/L		02-SEP-09	R930364
Tin (Sn)-Dissolved	<0.00020		0.00020	mg/L		02-SEP-09	R930364
Titanium (Ti)-Dissolved	0.00076		0.00030	mg/L		02-SEP-09	R930364
Uranium (U)-Dissolved	0.00086		0.00010	mg/L		02-SEP-09	R930364
Vanadium (V)-Dissolved	0.00013		0.00010	mg/L		02-SEP-09	R930364
Zinc (Zn)-Dissolved	0.0154		0.0010	mg/L		02-SEP-09	R930364
Diss.Metals in Water by ICP OES (Low)							
Calcium (Ca)-Dissolved	628		0.50	mg/L		02-SEP-09	R929864
Iron (Fe)-Dissolved	<0.010		0.010	mg/L		01-SEP-09	R925663
Magnesium (Mg)-Dissolved	25.3		0.10	mg/L		01-SEP-09	R925663
Manganese (Mn)-Dissolved	0.739		0.0020	mg/L		01-SEP-09	R925663
Potassium (K)-Dissolved	51.7		0.10	mg/L		01-SEP-09	R925663
Sodium (Na)-Dissolved	12.2		0.50	mg/L		01-SEP-09	R925663
Total Metals							
Total Metals in Water by ICPMS (Low)							
Aluminum (Al)-Total	<0.020		0.020	mg/L		02-SEP-09	R928404
Antimony (Sb)-Total	<0.00040		0.00040	mg/L		02-SEP-09	R928404
Arsenic (As)-Total	0.0122		0.00040	mg/L		02-SEP-09	R928404
Barium (Ba)-Total	0.0575		0.00020	mg/L		02-SEP-09	R928404
Beryllium (Be)-Total	<0.0010		0.0010	mg/L		02-SEP-09	R928404
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		02-SEP-09	R928404
Boron (B)-Total	0.068		0.020	mg/L		02-SEP-09	R928404
Cadmium (Cd)-Total	<0.00020		0.00020	mg/L		02-SEP-09	R928404
Chromium (Cr)-Total	<0.00080		0.00080	mg/L		02-SEP-09	R928404
Cobalt (Co)-Total	0.00955		0.00020	mg/L		02-SEP-09	R928404
Copper (Cu)-Total	0.0049		0.0010	mg/L		02-SEP-09	R928404
Lead (Pb)-Total	<0.00010		0.00010	mg/L		02-SEP-09	R928404
Molybdenum (Mo)-Total	0.00726		0.00010	mg/L		02-SEP-09	R928404
Nickel (Ni)-Total	0.0133		0.00020	mg/L		02-SEP-09	R928404
Selenium (Se)-Total	0.00154		0.00040	mg/L		02-SEP-09	R928404
Silver (Ag)-Total	<0.00040		0.00040	mg/L		02-SEP-09	R928404
Strontium (Sr)-Total	1.43		0.00020	mg/L		02-SEP-09	R928404
Thallium (Tl)-Total	<0.00010		0.00010	mg/L		02-SEP-09	R928404
Tin (Sn)-Total	<0.00040		0.00040	mg/L		02-SEP-09	R928404
Titanium (Ti)-Total	<0.0050		0.0050	mg/L		02-SEP-09	R928404
Uranium (U)-Total	0.00086		0.00010	mg/L		02-SEP-09	R928404
Vanadium (V)-Total	<0.00050		0.00050	mg/L		02-SEP-09	R928404
Zinc (Zn)-Total	0.0099		0.0040	mg/L		02-SEP-09	R928404
Total Metals in Water by ICP OES (Low)							
Iron (Fe)-Total	<0.010		0.010	mg/L		31-AUG-09	R926604

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L811722-2 BT-2 ORM-FMA							
Sampled By: NOT PROVIDED on 27-AUG -09 @ 09:00							
Matrix: GRAB WATER							
Total Metals in Water by ICP-OES (Low)							
Magnesium (Mg)-Total	25.8		0.10	mg/L		31-AUG -09	R 926604
Manganese (Mn)-Total	0.757		0.0020	mg/L		31-AUG -09	R 926604
Potassium (K)-Total	55.7		0.10	mg/L		31-AUG -09	R 926604
Sodium (Na)-Total	12.7		1.0	mg/L		31-AUG -09	R 926604
Miscellaneous Parameters							
Total Dissolved Solids	2590		5.0	mg/L		01-SEP -09	R 926125
Total Suspended Solids	<3.0		3.0	mg/L		31-AUG -09	R 925533
Routine Water Analysis							
Chloride by IC							
Chloride (Cl)	5.30		0.50	mg/L		31-AUG -09	R 925468
Dissolved Metals in Water by ICP-OES							
Calcium (Ca)-Dissolved	628		0.50	mg/L		02-SEP -09	R 929864
Magnesium (Mg)-Dissolved	25.3		0.10	mg/L		01-SEP -09	R 925663
Potassium (K)-Dissolved	51.7		0.50	mg/L		01-SEP -09	R 925663
Sodium (Na)-Dissolved	12.2		1.0	mg/L		01-SEP -09	R 925663
Ion Balance Calculation							
Ion Balance	101			%		03-SEP -09	
TDS (Calculated)	2380			mg/L		03-SEP -09	
Hardness (as CaCO3)	1670			mg/L		03-SEP -09	
Nitrate as N by IC							
Nitrate (as N)	1.71		0.050	mg/L		31-AUG -09	R 925468
Nitrate+Nitrite							
Nitrate and Nitrite as N	1.71		0.071	mg/L		01-SEP -09	
Nitrite as N by IC							
Nitrite (as N)	<0.050		0.050	mg/L		31-AUG -09	R 925468
Sulfate by IC							
Sulfate (SO4)	1620	DLA	5.0	mg/L		02-SEP -09	R 929903
pH, Conductivity and Total Alkalinity							
pH	7.08		0.10	pH		29-AUG -09	R 924095
Conductivity (EC)	2560		0.20	uS/cm		29-AUG -09	R 924095
Bicarbonate (HCO3)	60.2		5.0	mg/L		29-AUG -09	R 924095
Carbonate (CO3)	<5.0		5.0	mg/L		29-AUG -09	R 924095
Hydroxide (OH)	<5.0		5.0	mg/L		29-AUG -09	R 924095
Alkalinity, Total (as CaCO3)	49.4		5.0	mg/L		29-AUG -09	R 924095
L811722-3 BT-3 ORM-FBG							
Sampled By: NOT PROVIDED on 27-AUG -09 @ 09:00							
Matrix: GRAB WATER							
Dissolved Metals							
Diss. Metals in Water by ICP-MS (Low)							
Aluminum (Al)-Dissolved	<0.010		0.010	mg/L		02-SEP -09	R 930364
Antimony (Sb)-Dissolved	<0.00040		0.00040	mg/L		02-SEP -09	R 930364
Arsenic (As)-Dissolved	0.00745		0.00040	mg/L		02-SEP -09	R 930364
Barium (Ba)-Dissolved	0.00445		0.00010	mg/L		02-SEP -09	R 930364
Beryllium (Be)-Dissolved	<0.00050		0.00050	mg/L		02-SEP -09	R 930364
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L		02-SEP -09	R 930364
Boron (B)-Dissolved	0.0106		0.0020	mg/L		02-SEP -09	R 930364
Cadmium (Cd)-Dissolved	<0.00010		0.00010	mg/L		02-SEP -09	R 930364
Chromium (Cr)-Dissolved	0.00078		0.00040	mg/L		02-SEP -09	R 930364
Cobalt (Co)-Dissolved	0.00805		0.00010	mg/L		02-SEP -09	R 930364
Copper (Cu)-Dissolved	0.00126		0.00060	mg/L		02-SEP -09	R 930364
Lead (Pb)-Dissolved	0.00014		0.00010	mg/L		02-SEP -09	R 930364

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L811722-3 BT-3 ORM-F-BG							
Sampled By: NOT PROVIDED on 27-AUG-09 @ 09:00							
Matrix: GRAB WATER							
Diss.Metals in Water by CPMS (Low)							
Molybdenum (Mo)-Dissolved	0.00076		0.00010	mg/L		02-SEP-09	R930364
Nickel (Ni)-Dissolved	0.0924		0.00010	mg/L		02-SEP-09	R930364
Selenium (Se)-Dissolved	0.00164		0.00040	mg/L		02-SEP-09	R930364
Silver (Ag)-Dissolved	<0.00020		0.00020	mg/L		02-SEP-09	R930364
Strontium (Sr)-Dissolved	0.168		0.00010	mg/L		02-SEP-09	R930364
Thallium (Tl)-Dissolved	<0.000050		0.000050	mg/L		02-SEP-09	R930364
Tin (Sn)-Dissolved	<0.00020		0.00020	mg/L		02-SEP-09	R930364
Titanium (Ti)-Dissolved	0.00107		0.00030	mg/L		02-SEP-09	R930364
Uranium (U)-Dissolved	0.00048		0.00010	mg/L		02-SEP-09	R930364
Vanadium (V)-Dissolved	0.00013		0.00010	mg/L		02-SEP-09	R930364
Zinc (Zn)-Dissolved	0.0103		0.0010	mg/L		02-SEP-09	R930364
Diss.Metals in Water by CPOES (Low)							
Calcium (Ca)-Dissolved	79.5		0.50	mg/L		01-SEP-09	R925663
Iron (Fe)-Dissolved	<0.010		0.010	mg/L		01-SEP-09	R925663
Magnesium (Mg)-Dissolved	13.8		0.10	mg/L		01-SEP-09	R925663
Manganese (Mn)-Dissolved	0.0896		0.0020	mg/L		01-SEP-09	R925663
Potassium (K)-Dissolved	4.47		0.10	mg/L		01-SEP-09	R925663
Sodium (Na)-Dissolved	2.60		0.50	mg/L		01-SEP-09	R925663
Total Metals							
Total Metals in Water by CPMS (Low)							
Aluminum (Al)-Total	0.234		0.020	mg/L		02-SEP-09	R928404
Antimony (Sb)-Total	<0.00040		0.00040	mg/L		02-SEP-09	R928404
Arsenic (As)-Total	0.0137		0.00040	mg/L		02-SEP-09	R928404
Barium (Ba)-Total	0.00665		0.00020	mg/L		02-SEP-09	R928404
Beryllium (Be)-Total	<0.0010		0.0010	mg/L		02-SEP-09	R928404
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		02-SEP-09	R928404
Boron (B)-Total	<0.020		0.020	mg/L		02-SEP-09	R928404
Cadmium (Cd)-Total	<0.00020		0.00020	mg/L		02-SEP-09	R928404
Chromium (Cr)-Total	0.00111		0.00080	mg/L		02-SEP-09	R928404
Cobalt (Co)-Total	0.00893		0.00020	mg/L		02-SEP-09	R928404
Copper (Cu)-Total	0.0033		0.0010	mg/L		02-SEP-09	R928404
Lead (Pb)-Total	0.00081		0.00010	mg/L		02-SEP-09	R928404
Molybdenum (Mo)-Total	0.00077		0.00010	mg/L		02-SEP-09	R928404
Nickel (Ni)-Total	0.0904		0.00020	mg/L		02-SEP-09	R928404
Selenium (Se)-Total	0.00153		0.00040	mg/L		02-SEP-09	R928404
Silver (Ag)-Total	<0.00040		0.00040	mg/L		02-SEP-09	R928404
Strontium (Sr)-Total	0.168		0.00020	mg/L		02-SEP-09	R928404
Thallium (Tl)-Total	<0.00010		0.00010	mg/L		02-SEP-09	R928404
Tin (Sn)-Total	<0.00040		0.00040	mg/L		02-SEP-09	R928404
Titanium (Ti)-Total	0.0063		0.0050	mg/L		02-SEP-09	R928404
Uranium (U)-Total	0.00060		0.00010	mg/L		02-SEP-09	R928404
Vanadium (V)-Total	0.00063		0.00050	mg/L		02-SEP-09	R928404
Zinc (Zn)-Total	0.0091		0.0040	mg/L		02-SEP-09	R928404
Total Metals in Water by CPOES (Low)							
Calcium (Ca)-Total	89.8		0.50	mg/L		01-SEP-09	R926604
Iron (Fe)-Total	0.382		0.010	mg/L		01-SEP-09	R926604
Magnesium (Mg)-Total	13.8		0.10	mg/L		01-SEP-09	R926604
Manganese (Mn)-Total	0.104		0.0020	mg/L		01-SEP-09	R926604
Potassium (K)-Total	4.51		0.10	mg/L		01-SEP-09	R926604
Sodium (Na)-Total	2.9		1.0	mg/L		01-SEP-09	R926604
Miscellaneous Parameters							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L811722-3 BT-3 ORM-F-BG							
Sampled By: NOT PROVIDED on 27-AUG-09 @ 09:00							
Matrix: GRAB WATER							
Total Dissolved Solids	355		5.0	mg/L		01-SEP-09	R 926125
Total Suspended Solids	<3.0		3.0	mg/L		31-AUG-09	R 925533
Routine Water Analysis							
Chloride by IC							
Chloride (Cl)	0.95		0.50	mg/L		31-AUG-09	R 925468
Dissolved Metals in Water by ICP-OES							
Calcium (Ca)-Dissolved	79.5		0.50	mg/L		01-SEP-09	R 925663
Magnesium (Mg)-Dissolved	13.8		0.10	mg/L		01-SEP-09	R 925663
Potassium (K)-Dissolved	4.47		0.50	mg/L		01-SEP-09	R 925663
Sodium (Na)-Dissolved	2.6		1.0	mg/L		01-SEP-09	R 925663
Ion Balance Calculation							
Ion Balance	107			%		01-SEP-09	
TDS (Calculated)	317			mg/L		01-SEP-09	
Hardness (as CaCO3)	255			mg/L		01-SEP-09	
Nitrate as N by IC							
Nitrate (as N)	0.590		0.050	mg/L		31-AUG-09	R 925468
Nitrate+Nitrite							
Nitrate and Nitrite as N	0.590		0.071	mg/L		01-SEP-09	
Nitrite as N by IC							
Nitrite (as N)	<0.050		0.050	mg/L		31-AUG-09	R 925468
Sulfate by IC							
Sulfate (SO4)	176		0.50	mg/L		31-AUG-09	R 925468
pH, Conductivity and Total Alkalinity							
pH	7.21		0.10	pH		29-AUG-09	R 924095
Conductivity (EC)	499		0.20	uS/cm		29-AUG-09	R 924095
Bicarbonate (HCO3)	75.9		5.0	mg/L		29-AUG-09	R 924095
Carbonate (CO3)	<5.0		5.0	mg/L		29-AUG-09	R 924095
Hydroxide (OH)	<5.0		5.0	mg/L		29-AUG-09	R 924095
Alkalinity, Total (as CaCO3)	62.2		5.0	mg/L		29-AUG-09	R 924095
L811722-4 BT-4 ORM-F-TS							
Sampled By: NOT PROVIDED on 27-AUG-09 @ 09:00							
Matrix: GRAB WATER							
Dissolved Metals							
Diss. Metals in Water by ICP-MS (Low)							
Aluminum (Al)-Dissolved	0.074		0.010	mg/L		02-SEP-09	R 930364
Antimony (Sb)-Dissolved	<0.00040		0.00040	mg/L		02-SEP-09	R 930364
Arsenic (As)-Dissolved	0.00442		0.00040	mg/L		02-SEP-09	R 930364
Barium (Ba)-Dissolved	0.0260		0.00010	mg/L		02-SEP-09	R 930364
Beryllium (Be)-Dissolved	<0.00050		0.00050	mg/L		02-SEP-09	R 930364
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L		02-SEP-09	R 930364
Boron (B)-Dissolved	0.0117		0.0020	mg/L		02-SEP-09	R 930364
Cadmium (Cd)-Dissolved	0.00173		0.00010	mg/L		02-SEP-09	R 930364
Chromium (Cr)-Dissolved	0.00070		0.00040	mg/L		02-SEP-09	R 930364
Cobalt (Co)-Dissolved	0.127		0.00010	mg/L		02-SEP-09	R 930364
Copper (Cu)-Dissolved	0.0195		0.00060	mg/L		02-SEP-09	R 930364
Lead (Pb)-Dissolved	0.00063		0.00010	mg/L		02-SEP-09	R 930364
Molybdenum (Mo)-Dissolved	0.00015		0.00010	mg/L		02-SEP-09	R 930364
Nickel (Ni)-Dissolved	0.186		0.00010	mg/L		02-SEP-09	R 930364
Selenium (Se)-Dissolved	0.00116		0.00040	mg/L		02-SEP-09	R 930364
Silver (Ag)-Dissolved	<0.00020		0.00020	mg/L		02-SEP-09	R 930364
Strontium (Sr)-Dissolved	0.129		0.00010	mg/L		02-SEP-09	R 930364
Thallium (Tl)-Dissolved	<0.000050		0.000050	mg/L		02-SEP-09	R 930364

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L811722-4 BT-4 ORM-F-TS							
Sampled By: NOT PROVIDED on 27-AUG-09 @ 09:00							
Matrix: GRAB WATER							
Diss.Metals in Water by ICPMS (Low)							
Tin (Sn)-Dissolved	<0.00020		0.00020	mg/L		02-SEP-09	R 930364
Titanium (Ti)-Dissolved	0.00169		0.00030	mg/L		02-SEP-09	R 930364
Uranium (U)-Dissolved	<0.00010		0.00010	mg/L		02-SEP-09	R 930364
Vanadium (V)-Dissolved	0.00021		0.00010	mg/L		02-SEP-09	R 930364
Zinc (Zn)-Dissolved	0.140		0.0010	mg/L		02-SEP-09	R 930364
Diss.Metals in Water by ICP OES (Low)							
Calcium (Ca)-Dissolved	28.8		0.50	mg/L		01-SEP-09	R 925663
Iron (Fe)-Dissolved	0.025		0.010	mg/L		01-SEP-09	R 925663
Magnesium (Mg)-Dissolved	8.79		0.10	mg/L		01-SEP-09	R 925663
Manganese (Mn)-Dissolved	0.668		0.0020	mg/L		01-SEP-09	R 925663
Potassium (K)-Dissolved	5.86		0.10	mg/L		01-SEP-09	R 925663
Sodium (Na)-Dissolved	2.66		0.50	mg/L		01-SEP-09	R 925663
Total Metals							
Total Metals in Water by ICPMS (Low)							
Aluminum (Al)-Total	0.337		0.020	mg/L		02-SEP-09	R 928404
Antimony (Sb)-Total	<0.00040		0.00040	mg/L		02-SEP-09	R 928404
Arsenic (As)-Total	0.00770		0.00040	mg/L		02-SEP-09	R 928404
Barium (Ba)-Total	0.0312		0.00020	mg/L		02-SEP-09	R 928404
Beryllium (Be)-Total	<0.0010		0.0010	mg/L		02-SEP-09	R 928404
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		02-SEP-09	R 928404
Boron (B)-Total	<0.020		0.020	mg/L		02-SEP-09	R 928404
Cadmium (Cd)-Total	0.00173		0.00020	mg/L		02-SEP-09	R 928404
Chromium (Cr)-Total	<0.00080		0.00080	mg/L		02-SEP-09	R 928404
Cobalt (Co)-Total	0.119		0.00020	mg/L		02-SEP-09	R 928404
Copper (Cu)-Total	0.0222		0.0010	mg/L		02-SEP-09	R 928404
Lead (Pb)-Total	0.00208		0.00010	mg/L		02-SEP-09	R 928404
Molybdenum (Mo)-Total	0.00014		0.00010	mg/L		02-SEP-09	R 928404
Nickel (Ni)-Total	0.175		0.00020	mg/L		02-SEP-09	R 928404
Selenium (Se)-Total	0.00120		0.00040	mg/L		02-SEP-09	R 928404
Silver (Ag)-Total	<0.00040		0.00040	mg/L		02-SEP-09	R 928404
Strontium (Sr)-Total	0.127		0.00020	mg/L		02-SEP-09	R 928404
Thallium (Tl)-Total	<0.00010		0.00010	mg/L		02-SEP-09	R 928404
Tin (Sn)-Total	<0.00040		0.00040	mg/L		02-SEP-09	R 928404
Titanium (Ti)-Total	0.0060		0.0050	mg/L		02-SEP-09	R 928404
Uranium (U)-Total	<0.00010		0.00010	mg/L		02-SEP-09	R 928404
Vanadium (V)-Total	<0.00050		0.00050	mg/L		02-SEP-09	R 928404
Zinc (Zn)-Total	0.139		0.0040	mg/L		02-SEP-09	R 928404
Total Metals in Water by ICP OES (Low)							
Calcium (Ca)-Total	34.2		0.50	mg/L		01-SEP-09	R 926604
Iron (Fe)-Total	0.193		0.010	mg/L		01-SEP-09	R 926604
Magnesium (Mg)-Total	9.36		0.10	mg/L		01-SEP-09	R 926604
Manganese (Mn)-Total	0.718		0.0020	mg/L		01-SEP-09	R 926604
Potassium (K)-Total	6.27		0.10	mg/L		01-SEP-09	R 926604
Sodium (Na)-Total	3.2		1.0	mg/L		01-SEP-09	R 926604
Miscellaneous Parameters							
Total Dissolved Solids	221		5.0	mg/L		01-SEP-09	R 926125
Total Suspended Solids	<3.0		3.0	mg/L		31-AUG-09	R 925533
Routine Water Analysis							
Chloride by IC							
Chloride (Cl)	0.98		0.50	mg/L		31-AUG-09	R 925468
Dissolved Metals in Water by ICP OES							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L811722-4	BT-4 ORM-F-TS							
Sampled By: NOT PROVIDED on 27-AUG -09 @ 09:00								
Matrix: GRAB WATER								
Dissolved Metals in Water by ICP-OES								
Calcium (Ca)-Dissolved		28.8		0.50	mg/L		01-SEP-09	R 925663
Magnesium (Mg)-Dissolved		8.79		0.10	mg/L		01-SEP-09	R 925663
Potassium (K)-Dissolved		5.86		0.50	mg/L		01-SEP-09	R 925663
Sodium (Na)-Dissolved		2.7		1.0	mg/L		01-SEP-09	R 925663
Ion Balance Calculation								
Ion Balance		91.4			%		01-SEP-09	
TDS (Calculated)		166			mg/L		01-SEP-09	
Hardness (as CaCO ₃)		108			mg/L		01-SEP-09	
Nitrate as N by IC								
Nitrate (as N)		0.157		0.050	mg/L		31-AUG -09	R 925468
Nitrate+Nitrite								
Nitrate and Nitrite as N		0.157		0.071	mg/L		01-SEP-09	
Nitrite as N by IC								
Nitrite (as N)		<0.050		0.050	mg/L		31-AUG -09	R 925468
Sulfate by IC								
Sulfate (SO ₄)		105		0.50	mg/L		31-AUG -09	R 925468
pH, Conductivity and Total Alkalinity								
pH		6.58		0.10	pH		29-AUG -09	R 924095
Conductivity (EC)		280		0.20	uS/cm		29-AUG -09	R 924095
Bicarbonate (HCO ₃)		26.2		5.0	mg/L		29-AUG -09	R 924095
Carbonate (CO ₃)		<5.0		5.0	mg/L		29-AUG -09	R 924095
Hydroxide (OH)		<5.0		5.0	mg/L		29-AUG -09	R 924095
Alkalinity, Total (as CaCO ₃)		21.5		5.0	mg/L		29-AUG -09	R 924095
L811722-5	BT-5 ORM-F-ARG							
Sampled By: NOT PROVIDED on 27-AUG -09 @ 09:00								
Matrix: GRAB WATER								
Dissolved Metals								
Diss.Metals in Water by ICPMS (Low)								
Aluminum (Al)-Dissolved		19.9		0.010	mg/L		02-SEP-09	R 930364
Antimony (Sb)-Dissolved		<0.00040		0.00040	mg/L		02-SEP-09	R 930364
Arsenic (As)-Dissolved		0.0294		0.00040	mg/L		02-SEP-09	R 930364
Barium (Ba)-Dissolved		0.0105		0.00010	mg/L		02-SEP-09	R 930364
Beryllium (Be)-Dissolved		0.00140		0.00050	mg/L		02-SEP-09	R 930364
Bismuth (Bi)-Dissolved		<0.000050		0.000050	mg/L		02-SEP-09	R 930364
Boron (B)-Dissolved		0.0120		0.0020	mg/L		02-SEP-09	R 930364
Cadmium (Cd)-Dissolved		0.0226		0.00010	mg/L		02-SEP-09	R 930364
Chromium (Cr)-Dissolved		0.00075		0.00040	mg/L		02-SEP-09	R 930364
Cobalt (Co)-Dissolved		0.322		0.00010	mg/L		02-SEP-09	R 930364
Copper (Cu)-Dissolved		0.381		0.00060	mg/L		02-SEP-09	R 930364
Lead (Pb)-Dissolved		0.00073		0.00010	mg/L		02-SEP-09	R 930364
Molybdenum (Mo)-Dissolved		<0.00010		0.00010	mg/L		02-SEP-09	R 930364
Nickel (Ni)-Dissolved		0.155		0.00010	mg/L		02-SEP-09	R 930364
Selenium (Se)-Dissolved		0.00280		0.00040	mg/L		02-SEP-09	R 930364
Silver (Ag)-Dissolved		<0.00020		0.00020	mg/L		02-SEP-09	R 930364
Strontium (Sr)-Dissolved		0.278		0.00010	mg/L		02-SEP-09	R 930364
Thallium (Tl)-Dissolved		0.000050		0.000050	mg/L		02-SEP-09	R 930364
Tin (Sn)-Dissolved		<0.00020		0.00020	mg/L		02-SEP-09	R 930364
Titanium (Ti)-Dissolved		0.00244		0.00030	mg/L		02-SEP-09	R 930364
Uranium (U)-Dissolved		0.00031		0.00010	mg/L		02-SEP-09	R 930364
Vanadium (V)-Dissolved		<0.00010		0.00010	mg/L		02-SEP-09	R 930364
Zinc (Zn)-Dissolved		1.49		0.0010	mg/L		02-SEP-09	R 930364

*Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L811722-5 BT-5 ORM-FARG							
Sampled By: NOT PROVIDED on 27-AUG-09 @ 09:00							
Matrix: GRAB WATER							
Diss.Metals in Water by ICP OES (Low)							
Calcium (Ca)-Dissolved	82.6		0.50	mg/L		01-SEP-09	R 925663
Iron (Fe)-Dissolved	0.452		0.010	mg/L		01-SEP-09	R 925663
Magnesium (Mg)-Dissolved	15.7		0.10	mg/L		01-SEP-09	R 925663
Manganese (Mn)-Dissolved	1.65		0.0020	mg/L		01-SEP-09	R 925663
Potassium (K)-Dissolved	1.59		0.10	mg/L		01-SEP-09	R 925663
Sodium (Na)-Dissolved	3.02		0.50	mg/L		01-SEP-09	R 925663
Total Metals							
Total Metals in Water by ICP MS (Low)							
Aluminum (Al)-Total	18.0		0.020	mg/L		02-SEP-09	R 928404
Antimony (Sb)-Total	<0.00040		0.00040	mg/L		02-SEP-09	R 928404
Arsenic (As)-Total	0.0536		0.00040	mg/L		02-SEP-09	R 928404
Barium (Ba)-Total	0.0127		0.00020	mg/L		02-SEP-09	R 928404
Beryllium (Be)-Total	0.0019		0.0010	mg/L		02-SEP-09	R 928404
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		02-SEP-09	R 928404
Boron (B)-Total	<0.020		0.020	mg/L		02-SEP-09	R 928404
Cadmium (Cd)-Total	0.0223		0.00020	mg/L		02-SEP-09	R 928404
Chromium (Cr)-Total	<0.00080		0.00080	mg/L		02-SEP-09	R 928404
Cobalt (Co)-Total	0.303		0.00020	mg/L		02-SEP-09	R 928404
Copper (Cu)-Total	0.381		0.0010	mg/L		02-SEP-09	R 928404
Lead (Pb)-Total	0.00084		0.00010	mg/L		02-SEP-09	R 928404
Molybdenum (Mo)-Total	<0.00010		0.00010	mg/L		02-SEP-09	R 928404
Nickel (Ni)-Total	0.147		0.00020	mg/L		02-SEP-09	R 928404
Selenium (Se)-Total	0.00267		0.00040	mg/L		02-SEP-09	R 928404
Silver (Ag)-Total	<0.00040		0.00040	mg/L		02-SEP-09	R 928404
Strontium (Sr)-Total	0.274		0.00020	mg/L		02-SEP-09	R 928404
Thallium (Tl)-Total	<0.00010		0.00010	mg/L		02-SEP-09	R 928404
Tin (Sn)-Total	<0.00040		0.00040	mg/L		02-SEP-09	R 928404
Titanium (Ti)-Total	<0.0050		0.0050	mg/L		02-SEP-09	R 928404
Uranium (U)-Total	0.00035		0.00010	mg/L		02-SEP-09	R 928404
Vanadium (V)-Total	0.00052		0.00050	mg/L		02-SEP-09	R 928404
Zinc (Zn)-Total	1.50		0.0040	mg/L		02-SEP-09	R 928404
Total Metals in Water by ICP OES (Low)							
Calcium (Ca)-Total	101		0.50	mg/L		01-SEP-09	R 926604
Iron (Fe)-Total	1.07		0.010	mg/L		01-SEP-09	R 926604
Magnesium (Mg)-Total	16.9		0.10	mg/L		01-SEP-09	R 926604
Manganese (Mn)-Total	1.79		0.0020	mg/L		01-SEP-09	R 926604
Potassium (K)-Total	1.69		0.10	mg/L		01-SEP-09	R 926604
Sodium (Na)-Total	3.5		1.0	mg/L		01-SEP-09	R 926604
Miscellaneous Parameters							
Total Dissolved Solids	640		5.0	mg/L		01-SEP-09	R 926125
Total Suspended Solids	4.0		3.0	mg/L		31-AUG-09	R 925533
Routine Water Analysis							
Chloride by IC							
Chloride (Cl)	0.94	RRV	0.50	mg/L		31-AUG-09	R 925468
Dissolved Metals in Water by ICP OES							
Calcium (Ca)-Dissolved	82.6	RRV	0.50	mg/L		01-SEP-09	R 925663
Magnesium (Mg)-Dissolved	15.7	RRV	0.10	mg/L		01-SEP-09	R 925663
Potassium (K)-Dissolved	1.59	RRV	0.50	mg/L		01-SEP-09	R 925663
Sodium (Na)-Dissolved	3.0	RRV	1.0	mg/L		01-SEP-09	R 925663
Ion Balance Calculation							
Ion Balance	71.3	BL:NT		%		01-SEP-09	

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

[illegible]

*Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L811722-6 BT-7 ORM-FUGD							
Sampled By: NOT PROVIDED on 27-AUG-09 @ 09:00							
Matrix: GRAB WATER							
Diss.Metals in Water by ICP-OES (Low)							
Sodium (Na)-Dissolved	4.51		0.50	mg/L		01-SEP-09	R 925663
Total Metals							
Total Metals in Water by ICP-MS (Low)							
Aluminum (Al)-Total	1.10		0.020	mg/L		02-SEP-09	R 928404
Antimony (Sb)-Total	0.00544		0.00040	mg/L		02-SEP-09	R 928404
Arsenic (As)-Total	23.2		0.00040	mg/L		02-SEP-09	R 930366
Barium (Ba)-Total	0.0233		0.00020	mg/L		02-SEP-09	R 928404
Beryllium (Be)-Total	<0.0010		0.0010	mg/L		02-SEP-09	R 928404
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		02-SEP-09	R 928404
Boron (B)-Total	<0.020		0.020	mg/L		02-SEP-09	R 928404
Cadmium (Cd)-Total	0.00349		0.00020	mg/L		02-SEP-09	R 928404
Chromium (Cr)-Total	<0.00080		0.00080	mg/L		02-SEP-09	R 928404
Cobalt (Co)-Total	0.0238		0.00020	mg/L		02-SEP-09	R 928404
Copper (Cu)-Total	0.0287		0.0010	mg/L		02-SEP-09	R 928404
Lead (Pb)-Total	0.00049		0.00010	mg/L		02-SEP-09	R 928404
Molybdenum (Mo)-Total	0.0236		0.00010	mg/L		02-SEP-09	R 928404
Nickel (Ni)-Total	0.0220		0.00020	mg/L		02-SEP-09	R 928404
Selenium (Se)-Total	0.00329		0.00040	mg/L		02-SEP-09	R 928404
Silver (Ag)-Total	<0.00040		0.00040	mg/L		02-SEP-09	R 928404
Strontium (Sr)-Total	0.217		0.00020	mg/L		02-SEP-09	R 928404
Thallium (Tl)-Total	<0.00010		0.00010	mg/L		02-SEP-09	R 928404
Tin (Sn)-Total	<0.00040		0.00040	mg/L		02-SEP-09	R 928404
Titanium (Ti)-Total	<0.0050		0.0050	mg/L		02-SEP-09	R 928404
Uranium (U)-Total	<0.00010		0.00010	mg/L		02-SEP-09	R 928404
Vanadium (V)-Total	0.00089		0.00050	mg/L		02-SEP-09	R 928404
Zinc (Zn)-Total	0.306		0.0040	mg/L		02-SEP-09	R 928404
Total Metals in Water by ICP-OES (Low)							
Calcium (Ca)-Total	319		0.50	mg/L		31-AUG-09	R 926604
Iron (Fe)-Total	0.056		0.010	mg/L		31-AUG-09	R 926604
Magnesium (Mg)-Total	33.9		0.10	mg/L		31-AUG-09	R 926604
Manganese (Mn)-Total	0.894		0.0020	mg/L		31-AUG-09	R 926604
Potassium (K)-Total	7.24		0.10	mg/L		31-AUG-09	R 926604
Sodium (Na)-Total	4.8		1.0	mg/L		31-AUG-09	R 926604
Miscellaneous Parameters							
Total Dissolved Solids	1500		5.0	mg/L		01-SEP-09	R 926125
Total Suspended Solids	4.0		3.0	mg/L		31-AUG-09	R 925533
Routine Water Analysis							
Chloride by I							
Chloride (Cl)	4.36		0.50	mg/L		31-AUG-09	R 925468
Dissolved Metals in Water by ICP-OES							
Calcium (Ca)-Dissolved	303		0.50	mg/L		01-SEP-09	R 925663
Magnesium (Mg)-Dissolved	32.2		0.10	mg/L		01-SEP-09	R 925663
Potassium (K)-Dissolved	6.71		0.50	mg/L		01-SEP-09	R 925663
Sodium (Na)-Dissolved	4.5		1.0	mg/L		01-SEP-09	R 925663
Ion Balance Calculation							
Ion Balance	98.0			%		01-SEP-09	
TDS (Calculated)	1220			mg/L		01-SEP-09	
Hardness (as CaCO3)	889			mg/L		01-SEP-09	
Nitrate as N by I							
Nitrate (as N)	1.24		0.050	mg/L		31-AUG-09	R 925468
Nitrate+Nitrite							
Nitrate and Nitrite as N	1.24		0.071	mg/L		01-SEP-09	

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L811722-6 BT-7 ORM-FUGD							
Sampled By: NOT PROVIDED on 27-AUG -09 @ 09:00							
Matrix: GRAB WATER							
Nitrite as N by IC							
Nitrite (as N)	<0.050		0.050	mg/L		31-AUG -09	R 925468
Sulfate by IC							
Sulfate (SO4)	852		0.50	mg/L		31-AUG -09	R 925468
pH, Conductivity and Total Alkalinity							
pH	6.86		0.10	pH		29-AUG -09	R 924095
Conductivity (EC)	1530		0.20	uS/cm		29-AUG -09	R 924095
Bicarbonate (HCO3)	33.7		5.0	mg/L		29-AUG -09	R 924095
Carbonate (CO3)	<5.0		5.0	mg/L		29-AUG -09	R 924095
Hydroxide (OH)	<5.0		5.0	mg/L		29-AUG -09	R 924095
Alkalinity, Total (as CaCO3)	27.6		5.0	mg/L		29-AUG -09	R 924095
L811722-7 WATER FLUSH							
Sampled By: NOT PROVIDED on 27-AUG -09 @ 09:00							
Matrix: GRAB WATER							
Dissolved Metals							
Diss.Metals in Water by IC PMS (Low)							
Aluminum (Al)-Dissolved	<0.010		0.010	mg/L		02-SEP -09	R 930364
Antimony (Sb)-Dissolved	<0.00040		0.00040	mg/L		02-SEP -09	R 930364
Arsenic (As)-Dissolved	0.00284		0.00040	mg/L		02-SEP -09	R 930364
Barium (Ba)-Dissolved	0.00771		0.00010	mg/L		02-SEP -09	R 930364
Beryllium (Be)-Dissolved	<0.00050		0.00050	mg/L		02-SEP -09	R 930364
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L		02-SEP -09	R 930364
Boron (B)-Dissolved	0.0061		0.0020	mg/L		02-SEP -09	R 930364
Cadmium (Cd)-Dissolved	<0.00010		0.00010	mg/L		02-SEP -09	R 930364
Chromium (Cr)-Dissolved	0.00126		0.00040	mg/L		02-SEP -09	R 930364
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L		02-SEP -09	R 930364
Copper (Cu)-Dissolved	<0.00060		0.00060	mg/L		02-SEP -09	R 930364
Lead (Pb)-Dissolved	<0.00010		0.00010	mg/L		02-SEP -09	R 930364
Molybdenum (Mo)-Dissolved	0.00100		0.00010	mg/L		02-SEP -09	R 930364
Nickel (Ni)-Dissolved	0.00086		0.00010	mg/L		02-SEP -09	R 930364
Selenium (Se)-Dissolved	0.00100		0.00040	mg/L		02-SEP -09	R 930364
Silver (Ag)-Dissolved	<0.00020		0.00020	mg/L		02-SEP -09	R 930364
Strontium (Sr)-Dissolved	0.260		0.00010	mg/L		02-SEP -09	R 930364
Thallium (Tl)-Dissolved	<0.000050		0.000050	mg/L		02-SEP -09	R 930364
Tin (Sn)-Dissolved	<0.00020		0.00020	mg/L		02-SEP -09	R 930364
Titanium (Ti)-Dissolved	0.00135		0.00030	mg/L		02-SEP -09	R 930364
Uranium (U)-Dissolved	0.00014		0.00010	mg/L		02-SEP -09	R 930364
Vanadium (V)-Dissolved	0.00061		0.00010	mg/L		02-SEP -09	R 930364
Zinc (Zn)-Dissolved	0.0087		0.0010	mg/L		02-SEP -09	R 930364
Diss.Metals in Water by IC POES (Low)							
Calcium (Ca)-Dissolved	27.7		0.50	mg/L		01-SEP -09	R 925663
Iron (Fe)-Dissolved	<0.010		0.010	mg/L		01-SEP -09	R 925663
Magnesium (Mg)-Dissolved	10.9		0.10	mg/L		01-SEP -09	R 925663
Manganese (Mn)-Dissolved	<0.0020		0.0020	mg/L		01-SEP -09	R 925663
Potassium (K)-Dissolved	1.19		0.10	mg/L		01-SEP -09	R 925663
Sodium (Na)-Dissolved	2.58		0.50	mg/L		01-SEP -09	R 925663
Total Metals							
Total Metals in Water by IC PMS (Low)							
Aluminum (Al)-Total	<0.020		0.020	mg/L		02-SEP -09	R 928404
Antimony (Sb)-Total	<0.00040		0.00040	mg/L		02-SEP -09	R 928404
Arsenic (As)-Total	0.00269		0.00040	mg/L		02-SEP -09	R 930366
Barium (Ba)-Total	0.00729		0.00020	mg/L		02-SEP -09	R 928404

*Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L811722-7 WATER FLUSH							
Sampled By: NOT PROVIDED on 27-AUG -09 @ 09:00							
Matrix: GRAB WATER							
Total Metals in Water by ICPMS (Low)							
Beryllium (Be)-Total	<0.0010		0.0010	mg/L		02-SEP-09	R 928404
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		02-SEP-09	R 928404
Boron (B)-Total	<0.020		0.020	mg/L		02-SEP-09	R 928404
Cadmium (Cd)-Total	<0.00020		0.00020	mg/L		02-SEP-09	R 928404
Chromium (Cr)-Total	0.00097		0.00080	mg/L		02-SEP-09	R 928404
Cobalt (Co)-Total	<0.00020		0.00020	mg/L		02-SEP-09	R 928404
Copper (Cu)-Total	<0.0010		0.0010	mg/L		02-SEP-09	R 928404
Lead (Pb)-Total	<0.00010		0.00010	mg/L		02-SEP-09	R 928404
Molybdenum (Mo)-Total	0.00097		0.00010	mg/L		02-SEP-09	R 928404
Nickel (Ni)-Total	0.00057		0.00020	mg/L		02-SEP-09	R 928404
Selenium (Se)-Total	0.00091		0.00040	mg/L		02-SEP-09	R 928404
Silver (Ag)-Total	<0.00040		0.00040	mg/L		02-SEP-09	R 928404
Strontium (Sr)-Total	0.265		0.00020	mg/L		02-SEP-09	R 928404
Thallium (Tl)-Total	<0.00010		0.00010	mg/L		02-SEP-09	R 928404
Tin (Sn)-Total	<0.00040		0.00040	mg/L		02-SEP-09	R 928404
Titanium (Ti)-Total	<0.0050		0.0050	mg/L		02-SEP-09	R 928404
Uranium (U)-Total	0.00014		0.00010	mg/L		02-SEP-09	R 928404
Vanadium (V)-Total	0.00066		0.00050	mg/L		02-SEP-09	R 928404
Zinc (Zn)-Total	<0.0040		0.0040	mg/L		02-SEP-09	R 928404
Total Metals in Water by ICPOES (Low)							
Calcium (Ca)-Total	30.1		0.50	mg/L		31-AUG-09	R 926604
Iron (Fe)-Total	<0.010		0.010	mg/L		31-AUG-09	R 926604
Magnesium (Mg)-Total	12.0		0.10	mg/L		31-AUG-09	R 926604
Manganese (Mn)-Total	<0.0020		0.0020	mg/L		31-AUG-09	R 926604
Potassium (K)-Total	1.38		0.10	mg/L		31-AUG-09	R 926604
Sodium (Na)-Total	2.9		1.0	mg/L		31-AUG-09	R 926604
Miscellaneous Parameters							
Total Dissolved Solids	145		5.0	mg/L		01-SEP-09	R 926125
Total Suspended Solids	<3.0		3.0	mg/L		31-AUG-09	R 925533
Routine Water Analysis							
Chloride by IC							
Chloride (Cl)	0.99		0.50	mg/L		31-AUG-09	R 925468
Dissolved Metals in Water by ICPOES							
Calcium (Ca)-Dissolved	27.7		0.50	mg/L		01-SEP-09	R 925663
Magnesium (Mg)-Dissolved	10.9		0.10	mg/L		01-SEP-09	R 925663
Potassium (K)-Dissolved	1.19		0.50	mg/L		01-SEP-09	R 925663
Sodium (Na)-Dissolved	2.6		1.0	mg/L		01-SEP-09	R 925663
Ion Balance Calculation							
Ion Balance	95.5			%		01-SEP-09	
TDS (Calculated)	123			mg/L		01-SEP-09	
Hardness (as CaCO3)	114			mg/L		01-SEP-09	
Nitrate as N by IC							
Nitrate (as N)	0.354		0.050	mg/L		31-AUG-09	R 925468
Nitrate+Nitrite							
Nitrate and Nitrite as N	0.354		0.071	mg/L		01-SEP-09	
Nitrite as N by IC							
Nitrite (as N)	<0.050		0.050	mg/L		31-AUG-09	R 925468
Sulfate by IC							
Sulfate (SO4)	9.01		0.50	mg/L		31-AUG-09	R 925468
pH, Conductivity and Total Alkalinity							
pH	7.55		0.10	pH		29-AUG-09	R 924095
Conductivity (EC)	234		0.20	uS/cm		29-AUG-09	R 924095

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L811722-7 W A T E R F L U S H							
Sampled By: NOT PROVIDED on 27-AUG -09 @ 09:00							
Matrix: GRAB W A T E R							
pH, Conductivity and Total Alkalinity							
Bicarbonate (HCO3)	140		5.0	mg/L		29-AUG -09	R 924095
Carbonate (CO3)	<5.0		5.0	mg/L		29-AUG -09	R 924095
Hydroxide (OH)	<5.0		5.0	mg/L		29-AUG -09	R 924095
Alkalinity, Total (as CaCO3)	115		5.0	mg/L		29-AUG -09	R 924095

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Matrix Spike	Sulfate (SO4)	MS-B	L811722-1, -2

Sample Parameter Qualifier Key:

Qualifier	Description
BL:NT	Balance Reviewed: Interference Or Non-Measured Component
DLA	Detection Limit Adjusted For required dilution
DLM	Detection Limit Adjustment For Sample Matrix Effects
E	Matrix Spike recovery outside ALS DQO due to analyte background in sample.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RRV	Reported Result Verified By Repeat Analysis

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CL- ~~C~~ -ED	Water	Chloride by ~~C~~	APHA 4110 B-DN CHROMATOGRAPHY
DNBALANCE-ED	Water	Ion Balance Calculation	APHA 1030E
MET-D- ~~C~~ P-ED	Water	Dissolved Metals in Water by ~~C~~ POES	APHA 3120 B- ~~C~~ P-OES
MET-D-L- ~~C~~ P-ED	Water	Diss. Metals in Water by ~~C~~ POES (Low)	APHA 3120 B- ~~C~~ P-OES
MET-D-L-MS-ED	Water	Diss. Metals in Water by ~~C~~ PM S (Low)	SW 846 -6020- ~~C~~ PM S
MET-T-L- ~~C~~ P-ED	Water	Total Metals in Water by ~~C~~ POES (Low)	APHA 3120 B- ~~C~~ P-OES
MET-T-L-MS-ED	Water	Total Metals in Water by ~~C~~ PM S (Low)	SW 846 -6020- ~~C~~ PM S
NO2+NO3-CALC-ED	Water	Nitrate+Nitrite	CALCULATION
NO2- ~~C~~ -ED	Water	Nitrite as N by ~~C~~	APHA 4110 B-DN CHROMATOGRAPHY
NO3- ~~C~~ -ED	Water	Nitrate as N by ~~C~~	APHA 4110 B-DN CHROMATOGRAPHY
PH/EC/ALK-ED	Water	pH, Conductivity and Total Alkalinity	APHA 4500-H, 2510, 2320
SO4- ~~C~~ -ED	Water	Sulfate by ~~C~~	APHA 4110 B-DN CHROMATOGRAPHY
SOLIDS-TDS-ED	Water	Total Dissolved Solids	APHA 2540 C
SOLIDS-TOTSUS-ED	Water	Total Suspended Solids	APHA 2540 D-G gravimetric

**ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
ED	ALS LABORATORY GROUP -EDMONTON, ALBERTA, CANADA

Chain of Custody Numbers:

08-064113

Reference Information

GLOSSARY OF REPORT TERMS

Sunogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, sunogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for sunogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lw - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Aug 27 / 09

Report to:		Report Format / Distribution			Service Requested: (rush - subject to availability)														
Company: <u>Tyhee NWT Corp</u>		Standard: _____ Other: _____			Regular (Default)														
Contact: <u>Dave Webb</u>		Select: PDF ☒ Excel ☒ Digital _____			Priority (2-3 Business Days) - 50% Surcharge														
Address: <u>401-675 W. Hastings St.</u>		Email 1: <u>webb@tyhee.com</u>			Emergency (1 Business Day) - 100% Surcharge														
<u>Vancouver BC V6B 1N2</u>		Email 2: <u>hugh@tyhee.com</u>			For Emergency < 1 Day, ASAP or Weekend - Contact ALS														
Phone: <u>604-681-2877</u>		Fax: <u>604-681-2879</u>			Analysis Request														
Invoice To: Same as Report? ☒ Yes ☐ No?		Client / Project Information:			(Indicate Filtered or Preserved, F/P)														
Company: _____		Job #: <u>1740082.020</u>			ROU-TDS-TSS MET-TOT-LOW MET-DISS-LOW														
Contact: _____		PO / AFE: _____																	
Address: _____		Legal Site Description: _____																	
Phone: _____		Quote #: <u>Q 7825</u>																	
Lab Work Order # (lab use only) <u>L8H722</u>		ALS Contact: _____		Sampler: _____															
Sample #	Sample Identification (This description will appear on the report)	Date	Time	Sample Type											Number of Containers				
	BT-1 ORM-F-UA	Aug 27/09	9 AM	GRAB	X	X	X												3
	BT-2 ORM-F-MA	✓	✓	✓	X	X	X												3
	BT-3 ORM-F-BG	✓	✓	✓	X	X	X												3
	BT-4 ORM-F-TS	✓	✓	✓	X	X	X												3
	BT-5 ORM-F-ARG	✓	✓	✓	X	X	X												3
	BT-6 NL-F-MGD	N/A			X	X	X												3
	BT-7 NL-F-UGD	✓	✓	✓	X	X	X												3
	WATER FLUSH	✓	✓	✓	X	X	X												3
Special Instructions / Regulations / Hazardous Details																			
CCME Guidelines Handle as per Quote																			
Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.																			
By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.																			
SHIPMENT RELEASE (client use)					SHIPMENT RECEPTION (lab use only)					SHIPMENT VERIFICATION (lab use only)									
Released by: <u>Valmar Rating</u>		Date & Time: <u>Aug 27/09 AM</u>		Received by: <u>R24</u>		Date: <u>28-Aug-09</u>		Time: <u>9:31</u>		Temperature: <u>COLD</u>		Verified by: _____		Date & Time: _____		Observations: Yes / No ? If Yes attach SIF			



Environmental Division

Certificate of Analysis

TYHEE NW T LTD.
ATTN: HUGH WILSON
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2

Report Date: 08-OCT-09 16:35 (MT)
Version: FINAL

Lab Work Order #: L825283

Date Received: 01-OCT-09

Project P.O. #:
Job Reference: 1740082.020
Legal Site Desc:
Conf Numbers: 08-064110

Other Information:

Comments:

Erin Beaudin
Account Manager

THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN AUTHORITY OF THE LABORATORY.
ALL SAMPLES WILL BE DISPOSED OF AFTER 30 DAYS FOLLOWING ANALYSIS. PLEASE CONTACT THE LAB IF YOU
REQUIRE ADDITIONAL SAMPLE STORAGE TIME.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L825283-1 BT-1 ORM-F-VA							
Sampled By: NOT PROVIDED on 29-SEP-09 @ 09:00							
Matrix: GRAB							
Total Metals							
Total Metals in Water by ICPMS (Low)							
Aluminum (Al)-Total	<0.020		0.020	mg/L		05-OCT-09	R974305
Antimony (Sb)-Total	<0.00040		0.00040	mg/L		05-OCT-09	R974305
Arsenic (As)-Total	0.0114		0.00040	mg/L		05-OCT-09	R974305
Barium (Ba)-Total	0.0486		0.00020	mg/L		05-OCT-09	R974305
Beryllium (Be)-Total	<0.0010		0.0010	mg/L		05-OCT-09	R974305
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		05-OCT-09	R974305
Boron (B)-Total	0.318		0.020	mg/L		05-OCT-09	R974305
Cadmium (Cd)-Total	<0.00020		0.00020	mg/L		05-OCT-09	R974305
Chromium (Cr)-Total	<0.00080		0.00080	mg/L		05-OCT-09	R974305
Cobalt (Co)-Total	0.00289		0.00020	mg/L		05-OCT-09	R974305
Copper (Cu)-Total	0.0094		0.0010	mg/L		05-OCT-09	R974305
Lead (Pb)-Total	<0.00010		0.00010	mg/L		05-OCT-09	R974305
Molybdenum (Mo)-Total	0.00394		0.00010	mg/L		05-OCT-09	R974305
Nickel (Ni)-Total	0.0191		0.00020	mg/L		05-OCT-09	R974305
Selenium (Se)-Total	0.00260		0.00040	mg/L		05-OCT-09	R974305
Silver (Ag)-Total	<0.00040		0.00040	mg/L		05-OCT-09	R974305
Strontium (Sr)-Total	1.61		0.00020	mg/L		05-OCT-09	R974305
Thallium (Tl)-Total	<0.00010		0.00010	mg/L		05-OCT-09	R974305
Tin (Sn)-Total	<0.00040		0.00040	mg/L		05-OCT-09	R974305
Titanium (Ti)-Total	<0.0050		0.0050	mg/L		05-OCT-09	R974305
Uranium (U)-Total	0.00053		0.00010	mg/L		05-OCT-09	R974305
Vanadium (V)-Total	<0.00050		0.00050	mg/L		05-OCT-09	R974305
Zinc (Zn)-Total	0.0139	RRVAP	0.0040	mg/L		05-OCT-09	R974305
Total Metals in Water by ICPOES (Low)							
Calcium (Ca)-Total	622	DLM	1.0	mg/L		03-OCT-09	R969628
Iron (Fe)-Total	0.053		0.010	mg/L		02-OCT-09	R967646
Magnesium (Mg)-Total	47.9		0.10	mg/L		02-OCT-09	R967646
Manganese (Mn)-Total	0.0718		0.0020	mg/L		02-OCT-09	R967646
Potassium (K)-Total	51.2		0.10	mg/L		02-OCT-09	R967646
Sodium (Na)-Total	25.2		1.0	mg/L		02-OCT-09	R967646
Dissolved Metals							
Diss. Fe in Water by ICPOES (Low Level)							
Iron (Fe)-Dissolved	0.011		0.010	mg/L		05-OCT-09	R971364
Diss. Metals in Water by ICPMS (Low)							
Aluminum (Al)-Dissolved	<0.010		0.010	mg/L		05-OCT-09	R970585
Antimony (Sb)-Dissolved	<0.00040		0.00040	mg/L		05-OCT-09	R970585
Arsenic (As)-Dissolved	0.0110		0.00040	mg/L		05-OCT-09	R970585
Barium (Ba)-Dissolved	0.0479		0.00010	mg/L		05-OCT-09	R970585
Beryllium (Be)-Dissolved	<0.00050		0.00050	mg/L		05-OCT-09	R970585
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L		05-OCT-09	R970585
Boron (B)-Dissolved	0.251		0.0020	mg/L		05-OCT-09	R970585
Cadmium (Cd)-Dissolved	<0.00010		0.00010	mg/L		05-OCT-09	R970585
Chromium (Cr)-Dissolved	0.00112		0.00040	mg/L		05-OCT-09	R970585
Cobalt (Co)-Dissolved	0.00299		0.00010	mg/L		05-OCT-09	R970585
Copper (Cu)-Dissolved	0.00941		0.00060	mg/L		05-OCT-09	R970585
Lead (Pb)-Dissolved	<0.00010		0.00010	mg/L		05-OCT-09	R970585
Molybdenum (Mo)-Dissolved	0.00380		0.00010	mg/L		05-OCT-09	R970585
Nickel (Ni)-Dissolved	0.0202		0.00010	mg/L		05-OCT-09	R970585
Selenium (Se)-Dissolved	0.00241		0.00040	mg/L		05-OCT-09	R970585
Silver (Ag)-Dissolved	<0.00020		0.00020	mg/L		05-OCT-09	R970585
Strontium (Sr)-Dissolved	1.63		0.00010	mg/L		05-OCT-09	R970585

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

[illegible]

*Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L825283-2 BT-2 ORM-FMA							
Sampled By: NOT PROVIDED on 29-SEP-09 @ 09:00							
Matrix: GRAB							
Total Metals in Water by ICPMS (Low)							
Chromium (Cr)-Total	<0.00080		0.00080	mg/L		02-OCT-09	R964196
Cobalt (Co)-Total	0.00939		0.00020	mg/L		02-OCT-09	R964196
Copper (Cu)-Total	0.0032		0.0010	mg/L		02-OCT-09	R964196
Lead (Pb)-Total	<0.00010		0.00010	mg/L		02-OCT-09	R964196
Molybdenum (Mo)-Total	0.00733		0.00010	mg/L		02-OCT-09	R964196
Nickel (Ni)-Total	0.0148		0.00020	mg/L		02-OCT-09	R964196
Selenium (Se)-Total	0.00147		0.00040	mg/L		02-OCT-09	R964196
Silver (Ag)-Total	<0.00040		0.00040	mg/L		02-OCT-09	R964196
Strontium (Sr)-Total	1.15		0.00020	mg/L		02-OCT-09	R964196
Thallium (Tl)-Total	<0.00010		0.00010	mg/L		02-OCT-09	R964196
Tin (Sn)-Total	<0.00040		0.00040	mg/L		02-OCT-09	R964196
Titanium (Ti)-Total	<0.0050		0.0050	mg/L		02-OCT-09	R964196
Uranium (U)-Total	0.00082		0.00010	mg/L		02-OCT-09	R964196
Vanadium (V)-Total	<0.00050		0.00050	mg/L		02-OCT-09	R964196
Zinc (Zn)-Total	0.0115		0.0040	mg/L		02-OCT-09	R964196
Total Metals in Water by ICP-OES (Low)							
Calcium (Ca)-Total	580	DLM	1.0	mg/L		03-OCT-09	R969628
Iron (Fe)-Total	<0.010		0.010	mg/L		02-OCT-09	R967646
Magnesium (Mg)-Total	29.2		0.10	mg/L		02-OCT-09	R967646
Manganese (Mn)-Total	0.625		0.0020	mg/L		02-OCT-09	R967646
Potassium (K)-Total	43.3		0.10	mg/L		02-OCT-09	R967646
Sodium (Na)-Total	11.5		1.0	mg/L		02-OCT-09	R967646
Dissolved Metals							
Diss. Fe in Water by ICP-OES (Low Level)							
Iron (Fe)-Dissolved	<0.010		0.010	mg/L		05-OCT-09	R971364
Diss. Metals in Water by ICPMS (Low)							
Aluminum (Al)-Dissolved	0.012		0.010	mg/L		07-OCT-09	R977369
Antimony (Sb)-Dissolved	<0.00040		0.00040	mg/L		07-OCT-09	R977369
Arsenic (As)-Dissolved	0.0179		0.00040	mg/L		07-OCT-09	R977369
Barium (Ba)-Dissolved	0.0417		0.00010	mg/L		07-OCT-09	R977369
Beryllium (Be)-Dissolved	<0.00050		0.00050	mg/L		07-OCT-09	R977369
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L		07-OCT-09	R977369
Boron (B)-Dissolved	0.0895		0.0020	mg/L		07-OCT-09	R977369
Cadmium (Cd)-Dissolved	0.00020		0.00010	mg/L		07-OCT-09	R977369
Chromium (Cr)-Dissolved	<0.0020	DLM	0.0020	mg/L		07-OCT-09	R977369
Cobalt (Co)-Dissolved	0.00936		0.00010	mg/L		07-OCT-09	R977369
Copper (Cu)-Dissolved	0.00254		0.00060	mg/L		07-OCT-09	R977369
Lead (Pb)-Dissolved	<0.00010		0.00010	mg/L		07-OCT-09	R977369
Molybdenum (Mo)-Dissolved	0.00734		0.00010	mg/L		07-OCT-09	R977369
Nickel (Ni)-Dissolved	0.0141		0.00010	mg/L		07-OCT-09	R977369
Selenium (Se)-Dissolved	<0.0020	DLM	0.0020	mg/L		07-OCT-09	R977369
Silver (Ag)-Dissolved	<0.00020		0.00020	mg/L		07-OCT-09	R977369
Strontium (Sr)-Dissolved	1.21		0.00010	mg/L		07-OCT-09	R977369
Thallium (Tl)-Dissolved	<0.000050		0.000050	mg/L		07-OCT-09	R977369
Tin (Sn)-Dissolved	<0.00020		0.00020	mg/L		07-OCT-09	R977369
Titanium (Ti)-Dissolved	0.00071		0.00030	mg/L		07-OCT-09	R977369
Uranium (U)-Dissolved	0.00094		0.00010	mg/L		07-OCT-09	R977369
Vanadium (V)-Dissolved	<0.00050	DLM	0.00050	mg/L		07-OCT-09	R977369
Zinc (Zn)-Dissolved	0.0283		0.0010	mg/L		07-OCT-09	R977369
Diss. Mn in Water by ICP-OES (Low Level)							
Manganese (Mn)-Dissolved	0.608		0.0020	mg/L		05-OCT-09	R971364
Miscellaneous Parameters							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L825283-2 BT-2 ORM-FMA							
Sampled By: NOT PROVIDED on 29-SEP-09 @ 09:00							
Matrix: GRAB							
Total Dissolved Solids	2450		5.0	mg/L		05-OCT-09	R 970052
Total Suspended Solids	<3.0		3.0	mg/L		02-OCT-09	R 965060
Routine Water Analysis							
Chloride by IC							
Chloride (Cl)	3.44		0.50	mg/L		01-OCT-09	R 963622
Dissolved Metals in Water by ICPOES							
Calcium (Ca)-Dissolved	609		0.50	mg/L		06-OCT-09	R 975424
Magnesium (Mg)-Dissolved	29.3		0.10	mg/L		05-OCT-09	R 971364
Potassium (K)-Dissolved	50.9		0.50	mg/L		05-OCT-09	R 971364
Sodium (Na)-Dissolved	12.4		1.0	mg/L		05-OCT-09	R 971364
Ion Balance Calculation							
Ion Balance	102			%		07-OCT-09	
TDS (Calculated)	2310			mg/L		07-OCT-09	
Hardness (as CaCO3)	1640			mg/L		07-OCT-09	
Nitrate as N by IC							
Nitrate (as N)	1.13		0.050	mg/L		01-OCT-09	R 963622
Nitrate+Nitrite							
Nitrate and Nitrite as N	1.13		0.071	mg/L		02-OCT-09	
Nitrite as N by IC							
Nitrite (as N)	<0.050		0.050	mg/L		01-OCT-09	R 963622
Sulfate by IC							
Sulfate (SO4)	1570	DLA	5.0	mg/L		07-OCT-09	R 976664
pH, Conductivity and Total Alkalinity							
pH	7.75		0.10	pH		01-OCT-09	R 963656
Conductivity (EC)	2490		0.20	uS/cm		01-OCT-09	R 963656
Bicarbonate (HCO3)	57.2		5.0	mg/L		01-OCT-09	R 963656
Carbonate (CO3)	<5.0		5.0	mg/L		01-OCT-09	R 963656
Hydroxide (OH)	<5.0		5.0	mg/L		01-OCT-09	R 963656
Alkalinity, Total (as CaCO3)	46.9		5.0	mg/L		01-OCT-09	R 963656
L825283-3 BT-3 ORM-F-BG							
Sampled By: NOT PROVIDED on 29-SEP-09 @ 09:00							
Matrix: GRAB							
Total Metals							
Total Metals in Water by ICPMS (Low)							
Aluminum (Al)-Total	<0.020		0.020	mg/L		02-OCT-09	R 964196
Antimony (Sb)-Total	<0.00040		0.00040	mg/L		02-OCT-09	R 964196
Arsenic (As)-Total	0.00845		0.00040	mg/L		02-OCT-09	R 964196
Barium (Ba)-Total	0.00574		0.00020	mg/L		02-OCT-09	R 964196
Beryllium (Be)-Total	<0.0010		0.0010	mg/L		02-OCT-09	R 964196
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		02-OCT-09	R 964196
Boron (B)-Total	<0.020		0.020	mg/L		02-OCT-09	R 964196
Cadmium (Cd)-Total	<0.00020		0.00020	mg/L		02-OCT-09	R 964196
Chromium (Cr)-Total	<0.00080		0.00080	mg/L		02-OCT-09	R 964196
Cobalt (Co)-Total	0.00308		0.00020	mg/L		02-OCT-09	R 964196
Copper (Cu)-Total	0.0019		0.0010	mg/L		02-OCT-09	R 964196
Lead (Pb)-Total	<0.00010		0.00010	mg/L		02-OCT-09	R 964196
Molybdenum (Mo)-Total	0.00083		0.00010	mg/L		02-OCT-09	R 964196
Nickel (Ni)-Total	0.0754		0.00020	mg/L		02-OCT-09	R 964196
Selenium (Se)-Total	0.00148		0.00040	mg/L		02-OCT-09	R 964196
Silver (Ag)-Total	<0.00040		0.00040	mg/L		02-OCT-09	R 964196
Strontium (Sr)-Total	0.136		0.00020	mg/L		02-OCT-09	R 964196
Thallium (Tl)-Total	<0.00010		0.00010	mg/L		02-OCT-09	R 964196

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L825283-3 BT-3 ORM-FBG							
Sampled By: NOT PROVIDED on 29-SEP-09 @ 09:00							
Matrix: GRAB							
Total Metals in Water by ICPMS (Low)							
Tin (Sn)-Total	<0.00040		0.00040	mg/L		02-OCT-09	R964196
Titanium (Ti)-Total	<0.0050		0.0050	mg/L		02-OCT-09	R964196
Uranium (U)-Total	0.00032		0.00010	mg/L		02-OCT-09	R964196
Vanadium (V)-Total	<0.00050		0.00050	mg/L		02-OCT-09	R964196
Zinc (Zn)-Total	0.0069		0.0040	mg/L		02-OCT-09	R964196
Total Metals in Water by ICP OES (Low)							
Calcium (Ca)-Total	92.6		0.50	mg/L		02-OCT-09	R967646
Iron (Fe)-Total	<0.010		0.010	mg/L		02-OCT-09	R967646
Magnesium (Mg)-Total	13.2		0.10	mg/L		02-OCT-09	R967646
Manganese (Mn)-Total	0.0478		0.0020	mg/L		02-OCT-09	R967646
Potassium (K)-Total	5.20		0.10	mg/L		02-OCT-09	R967646
Sodium (Na)-Total	2.3		1.0	mg/L		02-OCT-09	R967646
Dissolved Metals							
Diss. Fe in Water by ICP OES (Low Level)							
Iron (Fe)-Dissolved	<0.010		0.010	mg/L		05-OCT-09	R971364
Diss. Metals in Water by ICPMS (Low)							
Aluminum (Al)-Dissolved	<0.010		0.010	mg/L		07-OCT-09	R977369
Antimony (Sb)-Dissolved	<0.00040		0.00040	mg/L		07-OCT-09	R977369
Arsenic (As)-Dissolved	0.00996		0.00040	mg/L		07-OCT-09	R977369
Barium (Ba)-Dissolved	0.00577		0.00010	mg/L		07-OCT-09	R977369
Beryllium (Be)-Dissolved	<0.00050		0.00050	mg/L		07-OCT-09	R977369
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L		07-OCT-09	R977369
Boron (B)-Dissolved	0.0206		0.0020	mg/L		07-OCT-09	R977369
Cadmium (Cd)-Dissolved	<0.00010		0.00010	mg/L		07-OCT-09	R977369
Chromium (Cr)-Dissolved	<0.0020	DLM	0.0020	mg/L		07-OCT-09	R977369
Cobalt (Co)-Dissolved	0.00295		0.00010	mg/L		07-OCT-09	R977369
Copper (Cu)-Dissolved	0.00111		0.00060	mg/L		07-OCT-09	R977369
Lead (Pb)-Dissolved	<0.00010		0.00010	mg/L		07-OCT-09	R977369
Molybdenum (Mo)-Dissolved	0.00085		0.00010	mg/L		07-OCT-09	R977369
Nickel (Ni)-Dissolved	0.0784		0.00010	mg/L		07-OCT-09	R977369
Selenium (Se)-Dissolved	<0.0020	DLM	0.0020	mg/L		07-OCT-09	R977369
Silver (Ag)-Dissolved	<0.00020		0.00020	mg/L		07-OCT-09	R977369
Strontium (Sr)-Dissolved	0.143		0.00010	mg/L		07-OCT-09	R977369
Thallium (Tl)-Dissolved	0.000050		0.000050	mg/L		07-OCT-09	R977369
Tin (Sn)-Dissolved	<0.00020		0.00020	mg/L		07-OCT-09	R977369
Titanium (Ti)-Dissolved	0.00077		0.00030	mg/L		07-OCT-09	R977369
Uranium (U)-Dissolved	0.00035		0.00010	mg/L		07-OCT-09	R977369
Vanadium (V)-Dissolved	<0.00050	DLM	0.00050	mg/L		07-OCT-09	R977369
Zinc (Zn)-Dissolved	0.0085		0.0010	mg/L		07-OCT-09	R977369
Diss. Mn in Water by ICP OES (Low Level)							
Manganese (Mn)-Dissolved	0.0417		0.0020	mg/L		05-OCT-09	R971364
Miscellaneous Parameters							
Total Dissolved Solids	388		5.0	mg/L		05-OCT-09	R970052
Total Suspended Solids	<3.0		3.0	mg/L		02-OCT-09	R965060
Routine Water Analysis							
Chloride by IC							
Chloride (Cl)	<0.50		0.50	mg/L		01-OCT-09	R963622
Dissolved Metals in Water by ICP OES							
Calcium (Ca)-Dissolved	93.1		0.50	mg/L		05-OCT-09	R971364
Magnesium (Mg)-Dissolved	12.7		0.10	mg/L		05-OCT-09	R971364
Potassium (K)-Dissolved	5.19		0.50	mg/L		05-OCT-09	R971364
Sodium (Na)-Dissolved	2.2		1.0	mg/L		05-OCT-09	R971364

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L825283-3	BT-3 ORM-F-BG							
Sampled By: NOT PROVIDED on 29-SEP-09 @ 09:00								
Matrix: GRAB								
In Balance Calculation								
In Balance		96.3			%		07-OCT-09	
TDS (Calculated)		394			mg/L		07-OCT-09	
Hardness (as CaCO3)		285			mg/L		07-OCT-09	
Nitrate as N by IC								
Nitrate (as N)		<0.050		0.050	mg/L		01-OCT-09	R 963622
Nitrate+Nitrite								
Nitrate and Nitrite as N		<0.071		0.071	mg/L		02-OCT-09	
Nitrite as N by IC								
Nitrite (as N)		<0.050		0.050	mg/L		01-OCT-09	R 963622
Sulfate by IC								
Sulfate (SO4)		257		0.50	mg/L		02-OCT-09	R 966025
pH, Conductivity and Total Alkalinity								
pH		7.69		0.10	pH		01-OCT-09	R 963656
Conductivity (EC)		556		0.20	uS/cm		01-OCT-09	R 963656
Bicarbonate (HCO3)		48.6		5.0	mg/L		01-OCT-09	R 963656
Carbonate (CO3)		<5.0		5.0	mg/L		01-OCT-09	R 963656
Hydroxide (OH)		<5.0		5.0	mg/L		01-OCT-09	R 963656
Alkalinity, Total (as CaCO3)		39.8		5.0	mg/L		01-OCT-09	R 963656
L825283-4	BT-4 ORM-F-TS							
Sampled By: NOT PROVIDED on 29-SEP-09 @ 09:00								
Matrix: GRAB								
Total Metals								
Total Metals in Water by ICPMS (Low)								
Aluminum (Al)-Total		0.491		0.020	mg/L		02-OCT-09	R 964196
Antimony (Sb)-Total		<0.00040		0.00040	mg/L		02-OCT-09	R 964196
Arsenic (As)-Total		0.00142		0.00040	mg/L		02-OCT-09	R 964196
Barium (Ba)-Total		0.0340		0.00020	mg/L		02-OCT-09	R 964196
Beryllium (Be)-Total		<0.0010		0.0010	mg/L		02-OCT-09	R 964196
Bismuth (Bi)-Total		<0.00020		0.00020	mg/L		02-OCT-09	R 964196
Boron (B)-Total		<0.020		0.020	mg/L		02-OCT-09	R 964196
Cadmium (Cd)-Total		0.00104		0.00020	mg/L		02-OCT-09	R 964196
Chromium (Cr)-Total		<0.00080		0.00080	mg/L		02-OCT-09	R 964196
Cobalt (Co)-Total		0.108		0.00020	mg/L		02-OCT-09	R 964196
Copper (Cu)-Total		0.0182		0.0010	mg/L		02-OCT-09	R 964196
Lead (Pb)-Total		0.00018		0.00010	mg/L		02-OCT-09	R 964196
Molybdenum (Mo)-Total		<0.00010		0.00010	mg/L		02-OCT-09	R 964196
Nickel (Ni)-Total		0.151		0.00020	mg/L		02-OCT-09	R 964196
Selenium (Se)-Total		0.00092		0.00040	mg/L		02-OCT-09	R 964196
Silver (Ag)-Total		<0.00040		0.00040	mg/L		02-OCT-09	R 964196
Strontium (Sr)-Total		0.0942		0.00020	mg/L		02-OCT-09	R 964196
Thallium (Tl)-Total		<0.00010		0.00010	mg/L		02-OCT-09	R 964196
Tin (Sn)-Total		<0.00040		0.00040	mg/L		02-OCT-09	R 964196
Titanium (Ti)-Total		<0.0050		0.0050	mg/L		02-OCT-09	R 964196
Uranium (U)-Total		<0.00010		0.00010	mg/L		02-OCT-09	R 964196
Vanadium (V)-Total		<0.00050		0.00050	mg/L		02-OCT-09	R 964196
Zinc (Zn)-Total		0.149		0.0040	mg/L		02-OCT-09	R 964196
Total Metals in Water by ICP-OES (Low)								
Calcium (Ca)-Total		27.5		0.50	mg/L		02-OCT-09	R 967646
Iron (Fe)-Total		0.680		0.010	mg/L		02-OCT-09	R 967646
Magnesium (Mg)-Total		8.29		0.10	mg/L		02-OCT-09	R 967646
Manganese (Mn)-Total		0.611		0.0020	mg/L		02-OCT-09	R 967646

*Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L825283-4 BT-4 ORM-F-TS							
Sampled By: NOT PROVIDED on 29-SEP-09 @ 09:00							
Matrix: GRAB							
Total Metals in Water by ICP-OES (Low)							
Potassium (K)-Total	4.28		0.10	mg/L		02-OCT-09	R967646
Sodium (Na)-Total	2.5		1.0	mg/L		02-OCT-09	R967646
Dissolved Metals							
Diss. Fe in Water by ICP-OES (Low Level)							
Iron (Fe)-Dissolved	0.488		0.010	mg/L		05-OCT-09	R971364
Diss. Metals in Water by ICP-MS (Low)							
Aluminum (Al)-Dissolved	0.453		0.010	mg/L		05-OCT-09	R970585
Antimony (Sb)-Dissolved	<0.00040		0.00040	mg/L		05-OCT-09	R970585
Arsenic (As)-Dissolved	0.00108		0.00040	mg/L		05-OCT-09	R970585
Barium (Ba)-Dissolved	0.0345		0.00010	mg/L		05-OCT-09	R970585
Beryllium (Be)-Dissolved	<0.00050		0.00050	mg/L		05-OCT-09	R970585
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L		05-OCT-09	R970585
Boron (B)-Dissolved	0.0128		0.0020	mg/L		05-OCT-09	R970585
Cadmium (Cd)-Dissolved	0.00106		0.00010	mg/L		05-OCT-09	R970585
Chromium (Cr)-Dissolved	<0.00040		0.00040	mg/L		05-OCT-09	R970585
Cobalt (Co)-Dissolved	0.114		0.00010	mg/L		05-OCT-09	R970585
Copper (Cu)-Dissolved	0.0182		0.00060	mg/L		05-OCT-09	R970585
Lead (Pb)-Dissolved	<0.00010		0.00010	mg/L		05-OCT-09	R970585
Molybdenum (Mo)-Dissolved	<0.00010		0.00010	mg/L		05-OCT-09	R970585
Nickel (Ni)-Dissolved	0.156		0.00010	mg/L		05-OCT-09	R970585
Selenium (Se)-Dissolved	0.00096		0.00040	mg/L		05-OCT-09	R970585
Silver (Ag)-Dissolved	<0.00020		0.00020	mg/L		05-OCT-09	R970585
Strontium (Sr)-Dissolved	0.103		0.00010	mg/L		05-OCT-09	R970585
Thallium (Tl)-Dissolved	<0.000050		0.000050	mg/L		05-OCT-09	R970585
Tin (Sn)-Dissolved	<0.00020		0.00020	mg/L		05-OCT-09	R970585
Titanium (Ti)-Dissolved	0.00173		0.00030	mg/L		05-OCT-09	R970585
Uranium (U)-Dissolved	<0.00010		0.00010	mg/L		05-OCT-09	R970585
Vanadium (V)-Dissolved	0.00055		0.00010	mg/L		05-OCT-09	R970585
Zinc (Zn)-Dissolved	0.154	RRVAP	0.0010	mg/L		05-OCT-09	R970585
Diss. Mn in Water by ICP-OES (Low Level)							
Manganese (Mn)-Dissolved	0.555		0.0020	mg/L		05-OCT-09	R971364
Miscellaneous Parameters							
Total Dissolved Solids	183		5.0	mg/L		05-OCT-09	R970052
Total Suspended Solids	<3.0		3.0	mg/L		02-OCT-09	R965060
Routine Water Analysis							
Chloride by IC							
Chloride (Cl)	0.80		0.50	mg/L		01-OCT-09	R963622
Dissolved Metals in Water by ICP-OES							
Calcium (Ca)-Dissolved	25.1		0.50	mg/L		05-OCT-09	R971364
Magnesium (Mg)-Dissolved	7.15		0.10	mg/L		05-OCT-09	R971364
Potassium (K)-Dissolved	4.26		0.50	mg/L		05-OCT-09	R971364
Sodium (Na)-Dissolved	2.2		1.0	mg/L		05-OCT-09	R971364
Ion Balance Calculation							
Ion Balance	95.3			%		06-OCT-09	
TDS (Calculated)	142			mg/L		06-OCT-09	
Hardness (as CaCO3)	92.1			mg/L		06-OCT-09	
Nitrate as N by IC							
Nitrate (as N)	<0.050		0.050	mg/L		01-OCT-09	R963622
Nitrate+Nitrite							
Nitrate and Nitrite as N	<0.071		0.071	mg/L		02-OCT-09	
Nitrite as N by IC							
Nitrite (as N)	<0.050		0.050	mg/L		01-OCT-09	R963622

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

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ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L825283-5 BT-5 ORM-FARG							
Sampled By: NOT PROVIDED on 29-SEP-09 @ 09:00							
Matrix: GRAB							
Diss.Metals in Water by ICPMS (Low)							
Beryllium (Be)-Dissolved	0.00565		0.00050	mg/L		07-OCT-09	R977369
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L		07-OCT-09	R977369
Boron (B)-Dissolved	0.0310		0.0020	mg/L		07-OCT-09	R977369
Cadmium (Cd)-Dissolved	0.0484		0.00010	mg/L		07-OCT-09	R977369
Chromium (Cr)-Dissolved	<0.0020	DLM	0.0020	mg/L		07-OCT-09	R977369
Cobalt (Co)-Dissolved	0.621		0.00010	mg/L		07-OCT-09	R977369
Copper (Cu)-Dissolved	0.778		0.00060	mg/L		07-OCT-09	R977369
Lead (Pb)-Dissolved	0.00172		0.00010	mg/L		07-OCT-09	R977369
Molybdenum (Mo)-Dissolved	<0.00010		0.00010	mg/L		07-OCT-09	R977369
Nickel (Ni)-Dissolved	0.316		0.00010	mg/L		07-OCT-09	R977369
Selenium (Se)-Dissolved	0.0045	DLM	0.0020	mg/L		07-OCT-09	R977369
Silver (Ag)-Dissolved	<0.00020		0.00020	mg/L		07-OCT-09	R977369
Strontium (Sr)-Dissolved	0.293		0.00010	mg/L		07-OCT-09	R977369
Thallium (Tl)-Dissolved	0.000095		0.000050	mg/L		07-OCT-09	R977369
Tin (Sn)-Dissolved	<0.00020		0.00020	mg/L		07-OCT-09	R977369
Titanium (Ti)-Dissolved	0.00434		0.00030	mg/L		07-OCT-09	R977369
Uranium (U)-Dissolved	0.00077		0.00010	mg/L		07-OCT-09	R977369
Vanadium (V)-Dissolved	<0.00050	DLM	0.00050	mg/L		07-OCT-09	R977369
Zinc (Zn)-Dissolved	3.34		0.0010	mg/L		07-OCT-09	R977369
Diss.Mn in Water by ICP OES (Low Level)							
Manganese (Mn)-Dissolved	3.58		0.0020	mg/L		05-OCT-09	R971364
Miscellaneous Parameters							
Total Dissolved Solids	1130		5.0	mg/L		05-OCT-09	R970052
Total Suspended Solids	<3.0		3.0	mg/L		02-OCT-09	R965060
Routine Water Analysis							
Chloride by I							
Chloride (Cl)	0.76	RRV	0.50	mg/L		01-OCT-09	R963622
Dissolved Metals in Water by ICP OES							
Calcium (Ca)-Dissolved	137	RRV	0.50	mg/L		05-OCT-09	R971364
Magnesium (Mg)-Dissolved	21.8	RRV	0.10	mg/L		05-OCT-09	R971364
Potassium (K)-Dissolved	2.29	RRV	0.50	mg/L		05-OCT-09	R971364
Sodium (Na)-Dissolved	3.7	RRV	1.0	mg/L		05-OCT-09	R971364
Ion Balance Calculation							
Ion Balance	57.8	BL:INT		%		06-OCT-09	
TDS (Calculated)	900			mg/L		06-OCT-09	
Hardness (as CaCO3)	432			mg/L		06-OCT-09	
Nitrate as N by I							
Nitrate (as N)	0.085	RRV	0.050	mg/L		01-OCT-09	R963622
Nitrate+Nitrite							
Nitrate and Nitrite as N	0.085		0.071	mg/L		02-OCT-09	
Nitrite as N by I							
Nitrite (as N)	<0.050	RRV	0.050	mg/L		01-OCT-09	R963622
Sulfate by I							
Sulfate (SO4)	734	RRV	0.50	mg/L		01-OCT-09	R963622
pH, Conductivity and Total Alkalinity							
pH	3.64	RRV	0.10	pH		01-OCT-09	R963656
Conductivity (EC)	1220	RRV	0.20	uS/cm		01-OCT-09	R963656
Bicarbonate (HCO3)	<5.0		5.0	mg/L		01-OCT-09	R963656
Carbonate (CO3)	<5.0		5.0	mg/L		01-OCT-09	R963656
Hydroxide (OH)	<5.0		5.0	mg/L		01-OCT-09	R963656
Alkalinity, Total (as CaCO3)	<5.0		5.0	mg/L		01-OCT-09	R963656

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ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L825283-6 BT-6 NL-F-MGD							
Sampled By: NOT PROVIDED on 29-SEP-09 @ 09:00							
Matrix: GRAB							
Total Metals							
Total Metals in Water by ICPMS (Low)							
Aluminum (Al)-Total	178	DLM	0.20	mg/L		07-OCT-09	R977370
Antimony (Sb)-Total	<0.0080	DLM	0.0080	mg/L		07-OCT-09	R977370
Arsenic (As)-Total	2.14	DLM	0.0080	mg/L		07-OCT-09	R977370
Barium (Ba)-Total	<0.0040	DLM	0.0040	mg/L		07-OCT-09	R977370
Beryllium (Be)-Total	0.070	DLM	0.020	mg/L		07-OCT-09	R977370
Bismuth (Bi)-Total	<0.0040	DLM	0.0040	mg/L		07-OCT-09	R977370
Boron (B)-Total	0.265	DLM	0.080	mg/L		07-OCT-09	R977370
Cadmium (Cd)-Total	17.8	DLM	0.0010	mg/L		07-OCT-09	R977370
Chromium (Cr)-Total	<0.016	DLM	0.016	mg/L		07-OCT-09	R977370
Cobalt (Co)-Total	1.84	DLM	0.0040	mg/L		07-OCT-09	R977370
Copper (Cu)-Total	5.53	DLM	0.020	mg/L		07-OCT-09	R977370
Lead (Pb)-Total	1.79	DLM	0.0020	mg/L		07-OCT-09	R977370
Molybdenum (Mo)-Total	<0.0020	DLM	0.0020	mg/L		07-OCT-09	R977370
Nickel (Ni)-Total	1.17	DLM	0.0040	mg/L		07-OCT-09	R977370
Selenium (Se)-Total	0.117	DLM	0.0080	mg/L		07-OCT-09	R977370
Silver (Ag)-Total	<0.0020	DLM	0.0020	mg/L		07-OCT-09	R977370
Strontium (Sr)-Total	0.143	DLM	0.0040	mg/L		07-OCT-09	R977370
Thallium (Tl)-Total	0.0032	DLM	0.0020	mg/L		07-OCT-09	R977370
Tin (Sn)-Total	<0.0080	DLM	0.0080	mg/L		07-OCT-09	R977370
Titanium (Ti)-Total	<0.012	DLM	0.012	mg/L		07-OCT-09	R977370
Uranium (U)-Total	0.0153	DLM	0.0020	mg/L		07-OCT-09	R977370
Vanadium (V)-Total	<0.010	DLM	0.010	mg/L		07-OCT-09	R977370
Zinc (Zn)-Total	990	DLM	0.80	mg/L		07-OCT-09	R977370
Total Metals in Water by ICPOES (Low)							
Calcium (Ca)-Total	378		0.50	mg/L		02-OCT-09	R967646
Iron (Fe)-Total	93.4		0.010	mg/L		02-OCT-09	R967646
Magnesium (Mg)-Total	324		0.10	mg/L		02-OCT-09	R967646
Manganese (Mn)-Total	25.9		0.0020	mg/L		02-OCT-09	R967646
Potassium (K)-Total	8.57		0.10	mg/L		02-OCT-09	R967646
Sodium (Na)-Total	8.7		1.0	mg/L		02-OCT-09	R967646
Dissolved Metals							
Diss. Fe in Water by ICPOES (Low Level)							
Iron (Fe)-Dissolved	92.2		0.010	mg/L		05-OCT-09	R971364
Diss. Metals in Water by ICPMS (Low)							
Aluminum (Al)-Dissolved	179	DLM	0.10	mg/L		07-OCT-09	R977369
Antimony (Sb)-Dissolved	<0.0080	DLM	0.0080	mg/L		07-OCT-09	R977369
Arsenic (As)-Dissolved	1.26	DLM	0.0080	mg/L		07-OCT-09	R977369
Barium (Ba)-Dissolved	0.0020	DLM	0.0020	mg/L		07-OCT-09	R977369
Beryllium (Be)-Dissolved	0.078	DLM	0.010	mg/L		07-OCT-09	R977369
Bismuth (Bi)-Dissolved	<0.0010	DLM	0.0010	mg/L		07-OCT-09	R977369
Boron (B)-Dissolved	0.272	DLM	0.040	mg/L		07-OCT-09	R977369
Cadmium (Cd)-Dissolved	18.2	DLM	0.0010	mg/L		07-OCT-09	R977369
Chromium (Cr)-Dissolved	<0.040	DLM	0.040	mg/L		07-OCT-09	R977369
Cobalt (Co)-Dissolved	1.86	DLM	0.0020	mg/L		07-OCT-09	R977369
Copper (Cu)-Dissolved	5.61	DLM	0.012	mg/L		07-OCT-09	R977369
Lead (Pb)-Dissolved	1.81	DLM	0.0020	mg/L		07-OCT-09	R977369
Molybdenum (Mo)-Dissolved	<0.0020	DLM	0.0020	mg/L		07-OCT-09	R977369
Nickel (Ni)-Dissolved	1.19	DLM	0.0020	mg/L		07-OCT-09	R977369
Selenium (Se)-Dissolved	0.114	DLM	0.0080	mg/L		07-OCT-09	R977369
Silver (Ag)-Dissolved	<0.0020	DLM	0.0020	mg/L		07-OCT-09	R977369
Strontium (Sr)-Dissolved	0.140	DLM	0.0020	mg/L		07-OCT-09	R977369

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L825283-6 BT-6 NL-F-MGD								
Sampled By: NOT PROVIDED on 29-SEP-09 @ 09:00								
Matrix: GRAB								
Diss.Metals in Waterby IC PMS (Low)								
Thallium (Tl)-Dissolved		<0.0010	DLM	0.0010	mg/L		07-OCT-09	R977369
Tin (Sn)-Dissolved		<0.0040	DLM	0.0040	mg/L		07-OCT-09	R977369
Titanium (Ti)-Dissolved		<0.0060	DLM	0.0060	mg/L		07-OCT-09	R977369
Uranium (U)-Dissolved		0.0147	DLM	0.0020	mg/L		07-OCT-09	R977369
Vanadium (V)-Dissolved		<0.010	DLM	0.010	mg/L		07-OCT-09	R977369
Zinc (Zn)-Dissolved		995	DLM	0.20	mg/L		07-OCT-09	R977369
Diss.Mn in Waterby IC POES (Low Level)								
Manganese (Mn)-Dissolved		24.9		0.0020	mg/L		05-OCT-09	R971364
Miscellaneous Parameters								
TotalDissolved Solids		8190	RRV	5.0	mg/L		05-OCT-09	R970052
TotalSuspended Solids		6.0		3.0	mg/L		02-OCT-09	R965060
Routine WaterAnalysis								
Chloride by IC								
Chloride (Cl)		13.0	RRV	0.50	mg/L		01-OCT-09	R963622
Dissolved Metals in Waterby IC POES								
Calcium (Ca)-Dissolved		359	RRV	0.50	mg/L		05-OCT-09	R971364
Magnesium (Mg)-Dissolved		296	RRV	0.10	mg/L		05-OCT-09	R971364
Potassium (K)-Dissolved		9.03	RRV	0.50	mg/L		05-OCT-09	R971364
Sodium (Na)-Dissolved		7.9	RRV	1.0	mg/L		05-OCT-09	R971364
Ion Balance Calculation								
Ion Balance		36.8	BLNT		%		06-OCT-09	
TDS (Calculated)		6250			mg/L		06-OCT-09	
Hardness (as CaCO3)		2120			mg/L		06-OCT-09	
Nitrate as N by IC								
Nitrate (as N)		<0.050	RRV	0.050	mg/L		01-OCT-09	R963622
Nitrate+Nitrite								
Nitrate and Nitrite as N		<0.071		0.071	mg/L		02-OCT-09	
Nitrite as N by IC								
Nitrite (as N)		<0.050	RRV	0.050	mg/L		01-OCT-09	R963622
Sulfate by IC								
Sulfate (SO4)		5570	RRV	5.0	mg/L		02-OCT-09	R966025
pH, Conductivity and TotalAlkalinity								
pH		3.44	RRV	0.10	pH		01-OCT-09	R963656
Conductivity (EC)		5660	RRV	0.20	uS/cm		01-OCT-09	R963656
Bicarbonate (HCO3)		<5.0		5.0	mg/L		01-OCT-09	R963656
Carbonate (CO3)		<5.0		5.0	mg/L		01-OCT-09	R963656
Hydroxide (OH)		<5.0		5.0	mg/L		01-OCT-09	R963656
Alkalinity, Total (as CaCO3)		<5.0		5.0	mg/L		01-OCT-09	R963656
L825283-7 BT-7 NL-F-UGD								
Sampled By: NOT PROVIDED on 29-SEP-09 @ 09:00								
Matrix: GRAB								
TotalMetals								
TotalMetals in Waterby IC PMS (Low)								
Aluminum (Al)-Total		<0.040	DLM	0.040	mg/L		07-OCT-09	R977370
Antimony (Sb)-Total		0.0047	DLM	0.0016	mg/L		07-OCT-09	R977370
Arsenic (As)-Total		31.6	DLM	0.0016	mg/L		07-OCT-09	R977370
Barium (Ba)-Total		0.0265	DLM	0.00080	mg/L		07-OCT-09	R977370
Beryllium (Be)-Total		<0.0040	DLM	0.0040	mg/L		07-OCT-09	R977370
Bismuth (Bi)-Total		<0.00080	DLM	0.00080	mg/L		07-OCT-09	R977370
Boron (B)-Total		0.037	DLM	0.020	mg/L		07-OCT-09	R977370
Cadmium (Cd)-Total		0.00790	DLM	0.00020	mg/L		07-OCT-09	R977370

*Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L825283-7 BT-7 NL-F-UGD							
Sampled By: NOT PROVIDED on 29-SEP-09 @ 09:00							
Matrix: GRAB							
Total Metals in Water by ICPMS (Low)							
Chromium (Cr)-Total	<0.0032	DLM	0.0032	mg/L		07-OCT-09	R977370
Cobalt (Co)-Total	0.0379	DLM	0.00080	mg/L		07-OCT-09	R977370
Copper (Cu)-Total	0.0071	DLM	0.0040	mg/L		07-OCT-09	R977370
Lead (Pb)-Total	0.00146	DLM	0.00040	mg/L		07-OCT-09	R977370
Molybdenum (Mo)-Total	0.0205	DLM	0.00040	mg/L		07-OCT-09	R977370
Nickel (Ni)-Total	0.0437	DLM	0.00080	mg/L		07-OCT-09	R977370
Selenium (Se)-Total	0.0029	DLM	0.0016	mg/L		07-OCT-09	R977370
Silver (Ag)-Total	<0.00040	DLM	0.00040	mg/L		07-OCT-09	R977370
Strontium (Sr)-Total	0.266	DLM	0.00080	mg/L		07-OCT-09	R977370
Thallium (Tl)-Total	<0.00040	DLM	0.00040	mg/L		07-OCT-09	R977370
Tin (Sn)-Total	<0.0016	DLM	0.0016	mg/L		07-OCT-09	R977370
Titanium (Ti)-Total	<0.0050	DLM	0.0050	mg/L		07-OCT-09	R977370
Uranium (U)-Total	<0.00040	DLM	0.00040	mg/L		07-OCT-09	R977370
Vanadium (V)-Total	<0.0020	DLM	0.0020	mg/L		07-OCT-09	R977370
Zinc (Zn)-Total	1.05	DLM	0.016	mg/L		07-OCT-09	R977370
Total Metals in Water by ICPOES (Low)							
Calcium (Ca)-Total	479	DLM	1.0	mg/L		03-OCT-09	R969628
Iron (Fe)-Total	0.024	DLM	0.020	mg/L		03-OCT-09	R969628
Magnesium (Mg)-Total	64.1		0.10	mg/L		02-OCT-09	R967646
Manganese (Mn)-Total	2.62		0.0020	mg/L		02-OCT-09	R967646
Potassium (K)-Total	8.70		0.10	mg/L		02-OCT-09	R967646
Sodium (Na)-Total	7.0		1.0	mg/L		02-OCT-09	R967646
Dissolved Metals							
Diss. Fe in Water by ICPOES (Low Level)							
Iron (Fe)-Dissolved	0.029		0.010	mg/L		06-OCT-09	R975424
Diss. Metals in Water by ICPMS (Low)							
Aluminum (Al)-Dissolved	<0.020	DLM	0.020	mg/L		07-OCT-09	R977369
Antimony (Sb)-Dissolved	0.0046	DLM	0.0016	mg/L		07-OCT-09	R977369
Arsenic (As)-Dissolved	32.3	DLM	0.0016	mg/L		07-OCT-09	R977369
Barium (Ba)-Dissolved	0.0267	DLM	0.00040	mg/L		07-OCT-09	R977369
Beryllium (Be)-Dissolved	<0.0020	DLM	0.0020	mg/L		07-OCT-09	R977369
Bismuth (Bi)-Dissolved	<0.00020	DLM	0.00020	mg/L		07-OCT-09	R977369
Boron (B)-Dissolved	0.0365	DLM	0.0080	mg/L		07-OCT-09	R977369
Cadmium (Cd)-Dissolved	0.00800	DLM	0.00020	mg/L		07-OCT-09	R977369
Chromium (Cr)-Dissolved	<0.0080	DLM	0.0080	mg/L		07-OCT-09	R977369
Cobalt (Co)-Dissolved	0.0384	DLM	0.00040	mg/L		07-OCT-09	R977369
Copper (Cu)-Dissolved	0.0068	DLM	0.0024	mg/L		07-OCT-09	R977369
Lead (Pb)-Dissolved	0.00116	DLM	0.00040	mg/L		07-OCT-09	R977369
Molybdenum (Mo)-Dissolved	0.0216	DLM	0.00040	mg/L		07-OCT-09	R977369
Nickel (Ni)-Dissolved	0.0447	DLM	0.00040	mg/L		07-OCT-09	R977369
Selenium (Se)-Dissolved	0.0033	DLM	0.0020	mg/L		07-OCT-09	R977369
Silver (Ag)-Dissolved	<0.00040	DLM	0.00040	mg/L		07-OCT-09	R977369
Strontium (Sr)-Dissolved	0.270	DLM	0.00040	mg/L		07-OCT-09	R977369
Thallium (Tl)-Dissolved	<0.00020	DLM	0.00020	mg/L		07-OCT-09	R977369
Tin (Sn)-Dissolved	<0.00080	DLM	0.00080	mg/L		07-OCT-09	R977369
Titanium (Ti)-Dissolved	<0.0012	DLM	0.0012	mg/L		07-OCT-09	R977369
Uranium (U)-Dissolved	<0.00040	DLM	0.00040	mg/L		07-OCT-09	R977369
Vanadium (V)-Dissolved	<0.0020	DLM	0.0020	mg/L		07-OCT-09	R977369
Zinc (Zn)-Dissolved	1.08	DLM	0.0040	mg/L		07-OCT-09	R977369
Diss. Mn in Water by ICPOES (Low Level)							
Manganese (Mn)-Dissolved	2.41		0.0020	mg/L		05-OCT-09	R971364
Miscellaneous Parameters							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L825283-7 BT-7 NL-F UGD								
Sampled By: NOT PROVIDED on 29-SEP-09 @ 09:00								
Matrix: GRAB								
Total Dissolved Solids		1950		5.0	mg/L		05-OCT-09	R970052
Total Suspended Solids		<3.0		3.0	mg/L		02-OCT-09	R965060
Routine Water Analysis								
Chloride by IC								
Chloride (Cl)		3.87		0.50	mg/L		01-OCT-09	R963622
Dissolved Metals in Water by ICPOES								
Calcium (Ca) Dissolved		422		0.50	mg/L		05-OCT-09	R971364
Magnesium (Mg) Dissolved		60.7		0.10	mg/L		05-OCT-09	R971364
Potassium (K) Dissolved		9.00		0.50	mg/L		05-OCT-09	R971364
Sodium (Na) Dissolved		6.2		1.0	mg/L		05-OCT-09	R971364
Ion Balance Calculation								
Ion Balance		91.0			%		07-OCT-09	
TDS (Calculated)		1890			mg/L		07-OCT-09	
Hardness (as CaCO3)		1300			mg/L		07-OCT-09	
Nitrate as N by IC								
Nitrate (as N)		0.770		0.050	mg/L		01-OCT-09	R963622
Nitrate+Nitrite								
Nitrate and Nitrite as N		0.770		0.071	mg/L		02-OCT-09	
Nitrite as N by IC								
Nitrite (as N)		<0.050		0.050	mg/L		01-OCT-09	R963622
Sulfate by IC								
Sulfate (SO4)		1370	DLA	5.0	mg/L		02-OCT-09	R966025
pH, Conductivity and Total Alkalinity								
pH		6.78		0.10	pH		01-OCT-09	R963656
Conductivity (EC)		2000		0.20	uS/cm		01-OCT-09	R963656
Bicarbonate (HCO3)		30.4		5.0	mg/L		01-OCT-09	R963656
Carbonate (CO3)		<5.0		5.0	mg/L		01-OCT-09	R963656
Hydroxide (OH)		<5.0		5.0	mg/L		01-OCT-09	R963656
Alkalinity, Total (as CaCO3)		24.9		5.0	mg/L		01-OCT-09	R963656

*Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Matrix Spike	Calcium (Ca)-Dissolved	E	L825283-1, -2
Matrix Spike	Strontium (Sr)-Dissolved	E	L825283-2, -3, -5, -6, -7
Matrix Spike	Sulfate (SO4)	MS-B	L825283-2
Matrix Spike	Sulfate (SO4)	MS-B	L825283-2

Sample ParameterQualifier Key:

Qualifier	Description
BL:NT	Balance Reviewed: Interference Or Non-Measured Component
DLA	Detection Limit Adjusted For required dilution
DLM	Detection Limit Adjustment For Sample Matrix Effects
E	Matrix Spike recovery outside ALS DQO due to analyte background in sample.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RRV	Reported Result Verified By Repeat Analysis
RRVAP	Reported Result Verified by Alternate Process

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CL- ~~C~~ -ED	Water	Chloride by ~~C~~	APHA 4110 B-DN CHROMATOGRAPHY
FE-D-L- ~~C~~ P-ED	Water	Diss.Fe in Water by ~~C~~ POES (Low Level)	APHA 3120 B- ~~C~~ P-OES
DNBALANCE-ED	Water	Ion Balance Calculation	APHA 1030E
MET-D- ~~C~~ P-ED	Water	Dissolved Metals in Water by ~~C~~ POES	APHA 3120 B- ~~C~~ P-OES
MET-D-L-MS-ED	Water	Diss.Metals in Water by ~~C~~ PM S (Low)	SW 846 -6020- ~~C~~ PM S
MET-T-L- ~~C~~ P-ED	Water	Total Metals in Water by ~~C~~ POES (Low)	APHA 3120 B- ~~C~~ P-OES
MET-T-L-MS-ED	Water	Total Metals in Water by ~~C~~ PM S (Low)	SW 846 -6020- ~~C~~ PM S
MN-D-L- ~~C~~ P-ED	Water	Diss.Mn in Water by ~~C~~ POES (Low Level)	APHA 3120 B ~~C~~ P-OES
NO2+NO3-CALC-ED	Water	Nitrate+Nitrite	CALCULATION
NO2- ~~C~~ -ED	Water	Nitrite as N by ~~C~~	APHA 4110 B-DN CHROMATOGRAPHY
NO3- ~~C~~ -ED	Water	Nitrate as N by ~~C~~	APHA 4110 B-DN CHROMATOGRAPHY
PH/ ~~E~~ C/ ~~A~~ LK-ED	Water	pH, Conductivity and Total Alkalinity	APHA 4500-H, 2510, 2320
SO4- ~~C~~ -ED	Water	Sulfate by ~~C~~	APHA 4110 B-DN CHROMATOGRAPHY
SOLIDS-TDS-ED	Water	Total Dissolved Solids	APHA 2540 C
SOLIDS-TO TSUS-ED	Water	Total Suspended Solids	APHA 2540 D-Gravimetric

**ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code (s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
ED	ALS LABORATORY GROUP -EDMONTON, ALBERTA, CANADA

Chain of Custody Numbers:

08-064110

Reference Information

GLOSSARY OF REPORT TERMS

Sunogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, sunogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for sunogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lw - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Environmental Division

Page 1 of 1

Sept 29/09

Report to:		Report Format / Distribution		Service Requested: (rush - subject to availability)	
Company: Tyhee NWT Corp		Standard: _____ Other: _____		☒ Regular (Default)	
Contact: Dave Webb		Select: PDF ☒ Excel ☒ Digital _____		Priority (2-3 Business Days) - 50% Surcharge	
Address: 401-675 W. Hastings St.		Email 1: webb@tyhee.com		Emergency (1 Business Day) - 100% Surcharge	
Vancouver BC V6B 1N2		Email 2: hugh@tyhee.com		For Emergency < 1 Day, ASAP or Weekend - Contact ALS	
Phone: 604-681-2877 Fax: 604-681-2879				Analysis Request	
Invoice To: Same as Report? ☒ Yes ☐ No?		Client / Project Information:		(Indicate Filtered or Preserved, F/P)	
Company:		Job #: 1740082.020		ROU-TDS-TSS MET-TOT-LOW MET-DISS-LOW	
Contact:		PO / AFE:			
Address:		Legal Site Description:			
Phone: _____ Fax: _____		Quote #: Q7825			
Lab Work Order # (lab use only) L825283		ALS Contact:		Sampler:	
Sample #	Sample Identification (This description will appear on the report)	Date	Time	Sample Type	Number of Containers
BT-1	ORM-F-UA	Sept 29/09	9 AM	Grab	3
BT-2	ORM-F-MA	✓	✓	✓	3
BT-3	ORM-F-BG	✓	✓	✓	3
BT-4	ORM-F-TS	✓	✓	✓	3
BT-5	ORM-F-ARG	✓	✓	✓	3
BT-6	NL-F-MGD	✓	✓	✓	3
BT-7	NL-F-UGD	✓	✓	✓	3
Special Instructions / Regulations / Hazardous Details					
Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.					
By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.					
SHIPMENT RELEASE (client use)		SHIPMENT RECEPTION (lab use only)		SHIPMENT VERIFICATION (lab use only)	
Released by: Valmar Rustie	Date & Time: 10 AM Sept 29/09	Received by: Paul	Date: 01-Oct-09	Time: 9:23	Temperature: COLD
				Verified by:	Date & Time:
				Observations: Yes / No ? If Yes attach SIF	



Environmental Division

Certificate of Analysis

TYHEE NW T LTD.
ATTN: HUGH WILSON
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2

Report Date: 26-MAY-10 08:43 (MT)
Version: FINAL

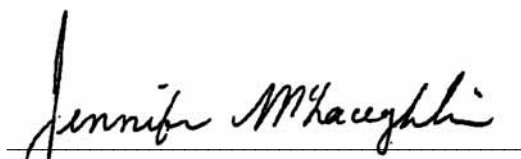
Lab Work Order #: L887028

Date Received: 17-MAY-10

Project P.O. #: NOT SUBMITTED
Job Reference: 1740082.020
Legal Site Desc:
CofC Numbers: 08-011818

Other Information:

Comments:


Jennifer McLaughlin
Account Manager

THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN AUTHORITY OF THE LABORATORY.
ALL SAMPLES WILL BE DISPOSED OF AFTER 30 DAYS FOLLOWING ANALYSIS. PLEASE CONTACT THE LAB IF YOU
REQUIRE ADDITIONAL SAMPLE STORAGE TIME.

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L887028-1 BT-1 ORM-F-VA								
Sampled By: CLENT on 12-MAY-10 @ 10:00								
Matrix: GRAB								
Total Metals								
Total Metals in Water by ICPMS (Low)								
Aluminum (Al)-Total	0.032		0.020	mg/L		19-MAY-10	SYF	R1257664
Antimony (Sb)-Total	<0.00040		0.00040	mg/L		19-MAY-10	SYF	R1257664
Arsenic (As)-Total	0.00695		0.00040	mg/L		19-MAY-10	SYF	R1257664
Barium (Ba)-Total	0.0246		0.00020	mg/L		19-MAY-10	SYF	R1257664
Beryllium (Be)-Total	<0.0010		0.0010	mg/L		19-MAY-10	SYF	R1257664
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		19-MAY-10	SYF	R1257664
Boron (B)-Total	0.109		0.020	mg/L		19-MAY-10	SYF	R1257664
Cadmium (Cd)-Total	0.00089		0.00020	mg/L		19-MAY-10	SYF	R1257664
Chromium (Cr)-Total	<0.00080		0.00080	mg/L		19-MAY-10	SYF	R1257664
Cobalt (Co)-Total	0.0144		0.00020	mg/L		19-MAY-10	SYF	R1257664
Copper (Cu)-Total	0.0051		0.0010	mg/L		19-MAY-10	SYF	R1257664
Lead (Pb)-Total	0.00061		0.00010	mg/L		19-MAY-10	SYF	R1257664
Molybdenum (Mo)-Total	0.00283		0.00010	mg/L		19-MAY-10	SYF	R1257664
Nickel (Ni)-Total	0.0112		0.00020	mg/L		19-MAY-10	SYF	R1257664
Selenium (Se)-Total	0.00125		0.00040	mg/L		19-MAY-10	SYF	R1257664
Silver (Ag)-Total	<0.00040		0.00040	mg/L		19-MAY-10	SYF	R1257664
Strontium (Sr)-Total	0.901		0.00020	mg/L		19-MAY-10	SYF	R1257664
Thallium (Tl)-Total	<0.00010		0.00010	mg/L		19-MAY-10	SYF	R1257664
Th (Sn)-Total	<0.00040		0.00040	mg/L		19-MAY-10	SYF	R1257664
Titanium (Ti)-Total	<0.0050		0.0050	mg/L		19-MAY-10	SYF	R1257664
Uranium (U)-Total	0.00080		0.00010	mg/L		19-MAY-10	SYF	R1257664
Vanadium (V)-Total	<0.00050		0.00050	mg/L		19-MAY-10	SYF	R1257664
Zinc (Zn)-Total	0.0519		0.0040	mg/L		19-MAY-10	SYF	R1257664
Total Metals in Water by ICPOES (Low)								
Calcium (Ca)-Total	272		0.50	mg/L		19-MAY-10	BOC	R1257789
Iron (Fe)-Total	0.459		0.010	mg/L		19-MAY-10	BOC	R1257789
Magnesium (Mg)-Total	39.7		0.10	mg/L		19-MAY-10	BOC	R1257789
Manganese (Mn)-Total	1.31		0.0020	mg/L		19-MAY-10	BOC	R1257789
Potassium (K)-Total	39.3		0.10	mg/L		19-MAY-10	BOC	R1257789
Sodium (Na)-Total	13.8		1.0	mg/L		19-MAY-10	BOC	R1257789
Dissolved Metals								
Iron (Fe)-Dissolved	0.025		0.010	mg/L		20-MAY-10	JW U	R1258353
Diss. Metals in Water by ICPMS (Low)								
Aluminum (Al)-Dissolved	0.071		0.010	mg/L		21-MAY-10	CVM	R1260688
Antimony (Sb)-Dissolved	<0.00040		0.00040	mg/L		20-MAY-10	SYF	R1258633
Arsenic (As)-Dissolved	0.00653		0.00040	mg/L		20-MAY-10	SYF	R1258633
Barium (Ba)-Dissolved	0.0222		0.00010	mg/L		20-MAY-10	SYF	R1258633
Beryllium (Be)-Dissolved	<0.00050		0.00050	mg/L		20-MAY-10	SYF	R1258633
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L		20-MAY-10	SYF	R1258633
Boron (B)-Dissolved	0.105		0.0020	mg/L		20-MAY-10	SYF	R1258633
Cadmium (Cd)-Dissolved	0.0612	RRV	0.00010	mg/L		21-MAY-10	CVM	R1260688
Chromium (Cr)-Dissolved	<0.00040		0.00040	mg/L		20-MAY-10	SYF	R1258633
Cobalt (Co)-Dissolved	0.0189	RRV	0.00010	mg/L		21-MAY-10	CVM	R1260688
Copper (Cu)-Dissolved	0.0159	RRV	0.00060	mg/L		21-MAY-10	CVM	R1260688
Lead (Pb)-Dissolved	0.00075		0.00010	mg/L		20-MAY-10	SYF	R1258633
Molybdenum (Mo)-Dissolved	0.00233		0.00010	mg/L		20-MAY-10	SYF	R1258633
Nickel (Ni)-Dissolved	0.0133		0.00010	mg/L		20-MAY-10	SYF	R1258633
Selenium (Se)-Dissolved	0.00184		0.00040	mg/L		20-MAY-10	SYF	R1258633
Silver (Ag)-Dissolved	<0.00020		0.00020	mg/L		20-MAY-10	SYF	R1258633
Strontium (Sr)-Dissolved	0.846		0.00010	mg/L		20-MAY-10	SYF	R1258633

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L887028-1 BT-1 ORM F-VA								
Sampled By: CLENT on 12-MAY-10 @ 10:00								
Matrix: GRAB								
Dissolved Metals								
Diss.Metals in Water by IC PMS (Low)								
Thallium (Tl)-Dissolved	<0.000050		0.000050	mg/L		20-MAY-10	SYF	R1258633
Tin (Sn)-Dissolved	<0.00020		0.00020	mg/L		20-MAY-10	SYF	R1258633
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L		20-MAY-10	SYF	R1258633
Uranium (U)-Dissolved	0.00067		0.00010	mg/L		20-MAY-10	SYF	R1258633
Vanadium (V)-Dissolved	<0.00010		0.00010	mg/L		20-MAY-10	SYF	R1258633
Zinc (Zn)-Dissolved	2.98	RRV	0.0010	mg/L		21-MAY-10	CVM	R1260688
Manganese (Mn)-Dissolved	1.23		0.0020	mg/L		20-MAY-10	JW U	R1258353
Total Dissolved Solids	1240		5.0	mg/L		19-MAY-10	SVG	R1257446
Total Suspended Solids	11.0		3.0	mg/L		18-MAY-10	SVG	R1256669
Routine Water Analysis								
Chloride by IC								
Chloride (Cl)	1.97		0.50	mg/L		18-MAY-10	SHC	R1257394
Dissolved Metals in Water by IC PDES								
Calcium (Ca)-Dissolved	237		0.50	mg/L		20-MAY-10	JW U	R1258353
Magnesium (Mg)-Dissolved	36.0		0.10	mg/L		20-MAY-10	JW U	R1258353
Potassium (K)-Dissolved	35.0		0.50	mg/L		20-MAY-10	JW U	R1258353
Sodium (Na)-Dissolved	12.8		1.0	mg/L		20-MAY-10	JW U	R1258353
Ion Balance Calculation								
Ion Balance	100			%		20-MAY-10		
TDS (Calculated)	1080			mg/L		20-MAY-10		
Hardness (as CaCO3)	740			mg/L		20-MAY-10		
Nitrate as N by IC								
Nitrate (as N)	0.190		0.050	mg/L		18-MAY-10	SHC	R1257394
Nitrate and Nitrite as N	0.190		0.071	mg/L		19-MAY-10		
Nitrite as N by IC								
Nitrite (as N)	<0.050		0.050	mg/L		18-MAY-10	SHC	R1257394
Sulfate by IC								
Sulfate (SO4)	719		0.50	mg/L		18-MAY-10	SHC	R1257394
pH, Conductivity and Total Alkalinity								
pH	7.45		0.10	pH		18-MAY-10	CLTT	R1256423
Conductivity (EC)	1410		0.20	uS/cm		18-MAY-10	CLTT	R1256423
Bicarbonate (HCO3)	70.4		5.0	mg/L		18-MAY-10	CLTT	R1256423
Carbonate (CO3)	<5.0		5.0	mg/L		18-MAY-10	CLTT	R1256423
Hydroxide (OH)	<5.0		5.0	mg/L		18-MAY-10	CLTT	R1256423
Alkalinity, Total (as CaCO3)	57.7		5.0	mg/L		18-MAY-10	CLTT	R1256423

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L887028-2 BT-2 ORM-FMA								
Sampled By: CLENT on 12-MAY-10 @ 10:00								
Matrix: GRAB								
Total Metals								
Total Metals in Water by IC-PMS (Low)								
Aluminum (Al)-Total	<0.020		0.020	mg/L		20-MAY-10	SYF	R1258634
Antimony (Sb)-Total	<0.00040		0.00040	mg/L		20-MAY-10	SYF	R1258634
Arsenic (As)-Total	0.00552		0.00040	mg/L		20-MAY-10	SYF	R1258634
Barium (Ba)-Total	0.0151		0.00020	mg/L		20-MAY-10	SYF	R1258634
Beryllium (Be)-Total	<0.0010		0.0010	mg/L		20-MAY-10	SYF	R1258634
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		20-MAY-10	SYF	R1258634
Boron (B)-Total	0.030		0.020	mg/L		20-MAY-10	SYF	R1258634
Cadmium (Cd)-Total	0.00340		0.00020	mg/L		20-MAY-10	SYF	R1258634
Chromium (Cr)-Total	<0.00080		0.00080	mg/L		20-MAY-10	SYF	R1258634
Cobalt (Co)-Total	0.00612		0.00020	mg/L		20-MAY-10	SYF	R1258634
Copper (Cu)-Total	0.0016		0.0010	mg/L		20-MAY-10	SYF	R1258634
Lead (Pb)-Total	<0.00010		0.00010	mg/L		20-MAY-10	SYF	R1258634
Molybdenum (Mo)-Total	0.00230		0.00010	mg/L		20-MAY-10	SYF	R1258634
Nickel (Ni)-Total	0.00494		0.00020	mg/L		20-MAY-10	SYF	R1258634
Selenium (Se)-Total	0.00069		0.00040	mg/L		20-MAY-10	SYF	R1258634
Silver (Ag)-Total	<0.00040		0.00040	mg/L		20-MAY-10	SYF	R1258634
Strontium (Sr)-Total	0.367		0.00020	mg/L		20-MAY-10	SYF	R1258634
Thallium (Tl)-Total	<0.00010		0.00010	mg/L		20-MAY-10	SYF	R1258634
Th (Sn)-Total	<0.00040		0.00040	mg/L		20-MAY-10	SYF	R1258634
Titanium (Ti)-Total	<0.0050		0.0050	mg/L		20-MAY-10	SYF	R1258634
Uranium (U)-Total	0.00057		0.00010	mg/L		20-MAY-10	SYF	R1258634
Vanadium (V)-Total	<0.00050		0.00050	mg/L		20-MAY-10	SYF	R1258634
Zinc (Zn)-Total	0.0195		0.0040	mg/L		20-MAY-10	SYF	R1258634
Total Metals in Water by IC-POES (Low)								
Calcium (Ca)-Total	182		0.50	mg/L		19-MAY-10	BOC	R1257789
Iron (Fe)-Total	0.015		0.010	mg/L		19-MAY-10	BOC	R1257789
Magnesium (Mg)-Total	12.7		0.10	mg/L		19-MAY-10	BOC	R1257789
Manganese (Mn)-Total	0.420		0.0020	mg/L		19-MAY-10	BOC	R1257789
Potassium (K)-Total	22.4		0.10	mg/L		19-MAY-10	BOC	R1257789
Sodium (Na)-Total	3.4		1.0	mg/L		19-MAY-10	BOC	R1257789
Dissolved Metals								
Iron (Fe)-Dissolved	<0.010		0.010	mg/L		20-MAY-10	JW U	R1258353
Diss. Metals in Water by IC-PMS (Low)								
Aluminum (Al)-Dissolved	<0.010		0.010	mg/L		21-MAY-10	SYF	R1258633
Antimony (Sb)-Dissolved	<0.00040		0.00040	mg/L		21-MAY-10	SYF	R1258633
Arsenic (As)-Dissolved	0.00485		0.00040	mg/L		21-MAY-10	SYF	R1258633
Barium (Ba)-Dissolved	0.0123		0.00010	mg/L		21-MAY-10	SYF	R1258633
Beryllium (Be)-Dissolved	<0.00050		0.00050	mg/L		21-MAY-10	SYF	R1258633
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L		21-MAY-10	SYF	R1258633
Boron (B)-Dissolved	0.0245		0.0020	mg/L		21-MAY-10	SYF	R1258633
Cadmium (Cd)-Dissolved	<0.00010		0.00010	mg/L		21-MAY-10	SYF	R1258633
Chromium (Cr)-Dissolved	<0.00040		0.00040	mg/L		21-MAY-10	SYF	R1258633
Cobalt (Co)-Dissolved	0.00459		0.00010	mg/L		21-MAY-10	SYF	R1258633
Copper (Cu)-Dissolved	0.00096		0.00060	mg/L		21-MAY-10	SYF	R1258633
Lead (Pb)-Dissolved	0.00012		0.00010	mg/L		21-MAY-10	SYF	R1258633
Molybdenum (Mo)-Dissolved	0.00212		0.00010	mg/L		21-MAY-10	SYF	R1258633
Nickel (Ni)-Dissolved	0.00419		0.00010	mg/L		21-MAY-10	SYF	R1258633
Selenium (Se)-Dissolved	0.00081		0.00040	mg/L		21-MAY-10	SYF	R1258633
Silver (Ag)-Dissolved	<0.00020		0.00020	mg/L		21-MAY-10	SYF	R1258633
Strontium (Sr)-Dissolved	0.340		0.00010	mg/L		21-MAY-10	SYF	R1258633

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L887028-2 BT-2 ORM-FMA								
Sampled By: CLENT on 12-MAY-10 @ 10:00								
Matrix: GRAB								
Dissolved Metals								
Diss.Metals in Water by IC PMS (Low)								
Thallium (Tl)-Dissolved	<0.000050		0.000050	mg/L		21-MAY-10	SYF	R1258633
Tin (Sn)-Dissolved	<0.00020		0.00020	mg/L		21-MAY-10	SYF	R1258633
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L		21-MAY-10	SYF	R1258633
Uranium (U)-Dissolved	0.00042		0.00010	mg/L		21-MAY-10	SYF	R1258633
Vanadium (V)-Dissolved	<0.00010		0.00010	mg/L		21-MAY-10	SYF	R1258633
Zinc (Zn)-Dissolved	0.0112		0.0010	mg/L		21-MAY-10	SYF	R1258633
Manganese (Mn)-Dissolved	0.353		0.0020	mg/L		20-MAY-10	JW U	R1258353
Total Dissolved Solids	711		5.0	mg/L		19-MAY-10	SVG	R1257446
Total Suspended Solids	<3.0		3.0	mg/L		18-MAY-10	SVG	R1256669
Routine Water Analysis								
Chloride by IC								
Chloride (Cl)	1.52		0.50	mg/L		18-MAY-10	SHC	R1257394
Dissolved Metals in Water by IC POES								
Calcium (Ca)-Dissolved	162		0.50	mg/L		20-MAY-10	JW U	R1258353
Magnesium (Mg)-Dissolved	11.0		0.10	mg/L		20-MAY-10	JW U	R1258353
Potassium (K)-Dissolved	19.8		0.50	mg/L		20-MAY-10	JW U	R1258353
Sodium (Na)-Dissolved	3.1		1.0	mg/L		20-MAY-10	JW U	R1258353
Ion Balance Calculation								
Ion Balance	102			%		20-MAY-10		
TDS (Calculated)	640			mg/L		20-MAY-10		
Hardness (as CaCO3)	450			mg/L		20-MAY-10		
Nitrate as N by IC								
Nitrate (as N)	0.304		0.050	mg/L		18-MAY-10	SHC	R1257394
Nitrate and Nitrite as N	0.304		0.071	mg/L		19-MAY-10		
Nitrite as N by IC								
Nitrite (as N)	<0.050		0.050	mg/L		18-MAY-10	SHC	R1257394
Sulfate by IC								
Sulfate (SO4)	424		0.50	mg/L		18-MAY-10	SHC	R1257394
pH, Conductivity and Total Alkalinity								
pH	7.52		0.10	pH		18-MAY-10	CLTT	R1256423
Conductivity (EC)	882		0.20	uS/cm		18-MAY-10	CLTT	R1256423
Bicarbonate (HCO3)	35.7		5.0	mg/L		18-MAY-10	CLTT	R1256423
Carbonate (CO3)	<5.0		5.0	mg/L		18-MAY-10	CLTT	R1256423
Hydroxide (OH)	<5.0		5.0	mg/L		18-MAY-10	CLTT	R1256423
Alkalinity, Total (as CaCO3)	29.3		5.0	mg/L		18-MAY-10	CLTT	R1256423

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L887028-3 BT-3 ORM-FBG								
Sampled By: CLENT on 12-MAY-10 @ 10:00								
Matrix: GRAB								
Total Metals								
Total Metals in Water by IC-PMS (Low)								
Aluminum (Al)-Total	1.05		0.020	mg/L		19-MAY-10	SYF	R1257664
Antimony (Sb)-Total	<0.00040		0.00040	mg/L		19-MAY-10	SYF	R1257664
Arsenic (As)-Total	0.0306		0.00040	mg/L		19-MAY-10	SYF	R1257664
Barium (Ba)-Total	0.00942		0.00020	mg/L		19-MAY-10	SYF	R1257664
Beryllium (Be)-Total	<0.0010		0.0010	mg/L		19-MAY-10	SYF	R1257664
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		19-MAY-10	SYF	R1257664
Boron (B)-Total	<0.020		0.020	mg/L		19-MAY-10	SYF	R1257664
Cadmium (Cd)-Total	0.00043		0.00020	mg/L		19-MAY-10	SYF	R1257664
Chromium (Cr)-Total	0.00304		0.00080	mg/L		19-MAY-10	SYF	R1257664
Cobalt (Co)-Total	0.0174		0.00020	mg/L		19-MAY-10	SYF	R1257664
Copper (Cu)-Total	0.0175		0.0010	mg/L		19-MAY-10	SYF	R1257664
Lead (Pb)-Total	0.00285		0.00010	mg/L		19-MAY-10	SYF	R1257664
Molybdenum (Mo)-Total	0.00088		0.00010	mg/L		19-MAY-10	SYF	R1257664
Nickel (Ni)-Total	0.111		0.00020	mg/L		19-MAY-10	SYF	R1257664
Selenium (Se)-Total	0.00115		0.00040	mg/L		19-MAY-10	SYF	R1257664
Silver (Ag)-Total	<0.00040		0.00040	mg/L		19-MAY-10	SYF	R1257664
Strontium (Sr)-Total	0.101		0.00020	mg/L		19-MAY-10	SYF	R1257664
Thallium (Tl)-Total	<0.00010		0.00010	mg/L		19-MAY-10	SYF	R1257664
Th (Sn)-Total	<0.00040		0.00040	mg/L		19-MAY-10	SYF	R1257664
Titanium (Ti)-Total	0.0172		0.0050	mg/L		19-MAY-10	SYF	R1257664
Uranium (U)-Total	0.00110		0.00010	mg/L		19-MAY-10	SYF	R1257664
Vanadium (V)-Total	0.00147		0.00050	mg/L		19-MAY-10	SYF	R1257664
Zinc (Zn)-Total	0.0596		0.0040	mg/L		19-MAY-10	SYF	R1257664
Total Metals in Water by IC-POES (Low)								
Calcium (Ca)-Total	78.3		0.50	mg/L		19-MAY-10	BOC	R1257789
Iron (Fe)-Total	1.43		0.010	mg/L		19-MAY-10	BOC	R1257789
Magnesium (Mg)-Total	10.6		0.10	mg/L		19-MAY-10	BOC	R1257789
Manganese (Mn)-Total	0.292		0.0020	mg/L		19-MAY-10	BOC	R1257789
Potassium (K)-Total	5.14		0.10	mg/L		19-MAY-10	BOC	R1257789
Sodium (Na)-Total	1.6		1.0	mg/L		19-MAY-10	BOC	R1257789
Dissolved Metals								
Iron (Fe)-Dissolved	<0.010		0.010	mg/L		20-MAY-10	JW U	R1258353
Diss. Metals in Water by IC-PMS (Low)								
Aluminum (Al)-Dissolved	0.030		0.010	mg/L		20-MAY-10	SYF	R1258633
Antimony (Sb)-Dissolved	<0.00040		0.00040	mg/L		20-MAY-10	SYF	R1258633
Arsenic (As)-Dissolved	0.0116		0.00040	mg/L		20-MAY-10	SYF	R1258633
Barium (Ba)-Dissolved	0.00626		0.00010	mg/L		20-MAY-10	SYF	R1258633
Beryllium (Be)-Dissolved	<0.00050		0.00050	mg/L		20-MAY-10	SYF	R1258633
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L		20-MAY-10	SYF	R1258633
Boron (B)-Dissolved	0.0112		0.0020	mg/L		20-MAY-10	SYF	R1258633
Cadmium (Cd)-Dissolved	0.00058		0.00010	mg/L		20-MAY-10	SYF	R1258633
Chromium (Cr)-Dissolved	<0.00040		0.00040	mg/L		20-MAY-10	SYF	R1258633
Cobalt (Co)-Dissolved	0.0153		0.00010	mg/L		20-MAY-10	SYF	R1258633
Copper (Cu)-Dissolved	0.0111		0.00060	mg/L		20-MAY-10	SYF	R1258633
Lead (Pb)-Dissolved	<0.00010		0.00010	mg/L		20-MAY-10	SYF	R1258633
Molybdenum (Mo)-Dissolved	0.00073		0.00010	mg/L		20-MAY-10	SYF	R1258633
Nickel (Ni)-Dissolved	0.0957		0.00010	mg/L		20-MAY-10	SYF	R1258633
Selenium (Se)-Dissolved	0.00125		0.00040	mg/L		20-MAY-10	SYF	R1258633
Silver (Ag)-Dissolved	<0.00020		0.00020	mg/L		20-MAY-10	SYF	R1258633
Strontium (Sr)-Dissolved	0.0981		0.00010	mg/L		20-MAY-10	SYF	R1258633

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L887028-3 BT-3 ORM-FBG								
Sampled By: CLENT on 12-MAY-10 @ 10:00								
Matrix: GRAB								
Dissolved Metals								
Diss.Metals in Water by IC PMS (Low)								
Thallium (Tl)-Dissolved	<0.000050		0.000050	mg/L		20-MAY-10	SYF	R1258633
Tin (Sn)-Dissolved	<0.00020		0.00020	mg/L		20-MAY-10	SYF	R1258633
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L		20-MAY-10	SYF	R1258633
Uranium (U)-Dissolved	0.00060		0.00010	mg/L		20-MAY-10	SYF	R1258633
Vanadium (V)-Dissolved	<0.00010		0.00010	mg/L		20-MAY-10	SYF	R1258633
Zinc (Zn)-Dissolved	0.0581		0.0010	mg/L		20-MAY-10	SYF	R1258633
Manganese (Mn)-Dissolved	0.273		0.0020	mg/L		20-MAY-10	JW U	R1258353
Total Dissolved Solids	360		5.0	mg/L		19-MAY-10	SVG	R1257446
Total Suspended Solids	28.0		3.0	mg/L		18-MAY-10	SVG	R1256669
Routine Water Analysis								
Chloride by IC								
Chloride (Cl)	0.64		0.50	mg/L		18-MAY-10	SHC	R1257394
Dissolved Metals in Water by IC POES								
Calcium (Ca)-Dissolved	84.2		0.50	mg/L		20-MAY-10	JW U	R1258353
Magnesium (Mg)-Dissolved	10.7		0.10	mg/L		20-MAY-10	JW U	R1258353
Potassium (K)-Dissolved	5.20		0.50	mg/L		20-MAY-10	JW U	R1258353
Sodium (Na)-Dissolved	1.5		1.0	mg/L		20-MAY-10	JW U	R1258353
Ion Balance Calculation								
Ion Balance	105			%		20-MAY-10		
TDS (Calculated)	336			mg/L		20-MAY-10		
Hardness (as CaCO3)	254			mg/L		20-MAY-10		
Nitrate as N by IC								
Nitrate (as N)	0.128		0.050	mg/L		18-MAY-10	SHC	R1257394
Nitrate and Nitrite as N	0.128		0.071	mg/L		19-MAY-10		
Nitrite as N by IC								
Nitrite (as N)	<0.050		0.050	mg/L		18-MAY-10	SHC	R1257394
Sulfate by IC								
Sulfate (SO4)	219		0.50	mg/L		18-MAY-10	SHC	R1257394
pH, Conductivity and Total Alkalinity								
pH	7.43		0.10	pH		18-MAY-10	CLTT	R1256423
Conductivity (EC)	505		0.20	uS/cm		18-MAY-10	CLTT	R1256423
Bicarbonate (HCO3)	28.1		5.0	mg/L		18-MAY-10	CLTT	R1256423
Carbonate (CO3)	<5.0		5.0	mg/L		18-MAY-10	CLTT	R1256423
Hydroxide (OH)	<5.0		5.0	mg/L		18-MAY-10	CLTT	R1256423
Alkalinity, Total (as CaCO3)	23.0		5.0	mg/L		18-MAY-10	CLTT	R1256423

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L887028-4 BT-4 ORM-F-TS								
Sampled By: CLENT on 12-MAY-10 @ 10:00								
Matrix: GRAB								
Total Metals								
Total Metals in Water by IC-PMS (Low)								
Aluminum (Al)-Total	0.959		0.020	mg/L		19-MAY-10	SYF	R1257664
Antimony (Sb)-Total	<0.00040		0.00040	mg/L		19-MAY-10	SYF	R1257664
Arsenic (As)-Total	0.00337		0.00040	mg/L		19-MAY-10	SYF	R1257664
Barium (Ba)-Total	0.0199		0.00020	mg/L		19-MAY-10	SYF	R1257664
Beryllium (Be)-Total	<0.0010		0.0010	mg/L		19-MAY-10	SYF	R1257664
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		19-MAY-10	SYF	R1257664
Boron (B)-Total	<0.020		0.020	mg/L		19-MAY-10	SYF	R1257664
Cadmium (Cd)-Total	0.00077		0.00020	mg/L		19-MAY-10	SYF	R1257664
Chromium (Cr)-Total	0.00102		0.00080	mg/L		19-MAY-10	SYF	R1257664
Cobalt (Co)-Total	0.0911		0.00020	mg/L		19-MAY-10	SYF	R1257664
Copper (Cu)-Total	0.0296		0.0010	mg/L		19-MAY-10	SYF	R1257664
Lead (Pb)-Total	0.00041		0.00010	mg/L		19-MAY-10	SYF	R1257664
Molybdenum (Mo)-Total	<0.00010		0.00010	mg/L		19-MAY-10	SYF	R1257664
Nickel (Ni)-Total	0.127		0.00020	mg/L		19-MAY-10	SYF	R1257664
Selenium (Se)-Total	0.00072		0.00040	mg/L		19-MAY-10	SYF	R1257664
Silver (Ag)-Total	<0.00040		0.00040	mg/L		19-MAY-10	SYF	R1257664
Strontium (Sr)-Total	0.0638		0.00020	mg/L		19-MAY-10	SYF	R1257664
Thallium (Tl)-Total	<0.00010		0.00010	mg/L		19-MAY-10	SYF	R1257664
Th (Sn)-Total	<0.00040		0.00040	mg/L		19-MAY-10	SYF	R1257664
Titanium (Ti)-Total	0.0061		0.0050	mg/L		19-MAY-10	SYF	R1257664
Uranium (U)-Total	<0.00010		0.00010	mg/L		19-MAY-10	SYF	R1257664
Vanadium (V)-Total	<0.00050		0.00050	mg/L		19-MAY-10	SYF	R1257664
Zinc (Zn)-Total	0.105		0.0040	mg/L		19-MAY-10	SYF	R1257664
Total Metals in Water by IC-POES (Low)								
Calcium (Ca)-Total	22.9		0.50	mg/L		19-MAY-10	BOC	R1257789
Iron (Fe)-Total	1.02		0.010	mg/L		19-MAY-10	BOC	R1257789
Magnesium (Mg)-Total	5.01		0.10	mg/L		19-MAY-10	BOC	R1257789
Manganese (Mn)-Total	0.529		0.0020	mg/L		19-MAY-10	BOC	R1257789
Potassium (K)-Total	3.85		0.10	mg/L		19-MAY-10	BOC	R1257789
Sodium (Na)-Total	1.5		1.0	mg/L		19-MAY-10	BOC	R1257789
Dissolved Metals								
Iron (Fe)-Dissolved	0.679		0.010	mg/L		20-MAY-10	JW U	R1258353
Diss. Metals in Water by IC-PMS (Low)								
Aluminum (Al)-Dissolved	0.711		0.010	mg/L		20-MAY-10	SYF	R1258633
Antimony (Sb)-Dissolved	<0.00040		0.00040	mg/L		20-MAY-10	SYF	R1258633
Arsenic (As)-Dissolved	0.00228		0.00040	mg/L		20-MAY-10	SYF	R1258633
Barium (Ba)-Dissolved	0.0190		0.00010	mg/L		20-MAY-10	SYF	R1258633
Beryllium (Be)-Dissolved	<0.00050		0.00050	mg/L		20-MAY-10	SYF	R1258633
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L		20-MAY-10	SYF	R1258633
Boron (B)-Dissolved	0.0048		0.0020	mg/L		20-MAY-10	SYF	R1258633
Cadmium (Cd)-Dissolved	0.00077		0.00010	mg/L		20-MAY-10	SYF	R1258633
Chromium (Cr)-Dissolved	<0.00040		0.00040	mg/L		20-MAY-10	SYF	R1258633
Cobalt (Co)-Dissolved	0.0860		0.00010	mg/L		20-MAY-10	SYF	R1258633
Copper (Cu)-Dissolved	0.0287		0.00060	mg/L		20-MAY-10	SYF	R1258633
Lead (Pb)-Dissolved	0.00020		0.00010	mg/L		20-MAY-10	SYF	R1258633
Molybdenum (Mo)-Dissolved	<0.00010		0.00010	mg/L		20-MAY-10	SYF	R1258633
Nickel (Ni)-Dissolved	0.121		0.00010	mg/L		20-MAY-10	SYF	R1258633
Selenium (Se)-Dissolved	0.00082		0.00040	mg/L		20-MAY-10	SYF	R1258633
Silver (Ag)-Dissolved	<0.00020		0.00020	mg/L		20-MAY-10	SYF	R1258633
Strontium (Sr)-Dissolved	0.0624		0.00010	mg/L		20-MAY-10	SYF	R1258633

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L887028-4 BT-4 ORM-F-TS								
Sampled By: CLENT on 12-MAY-10 @ 10:00								
Matrix: GRAB								
Dissolved Metals								
Diss.Metals in Water by IC PMS (Low)								
Thallium (Tl)-Dissolved	<0.000050		0.000050	mg/L		20-MAY-10	SYF	R1258633
Tin (Sn)-Dissolved	<0.00020		0.00020	mg/L		20-MAY-10	SYF	R1258633
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L		20-MAY-10	SYF	R1258633
Uranium (U)-Dissolved	<0.00010		0.00010	mg/L		20-MAY-10	SYF	R1258633
Vanadium (V)-Dissolved	<0.00010		0.00010	mg/L		20-MAY-10	SYF	R1258633
Zinc (Zn)-Dissolved	0.114		0.0010	mg/L		20-MAY-10	SYF	R1258633
Manganese (Mn)-Dissolved	0.458		0.0020	mg/L		20-MAY-10	JW U	R1258353
Total Dissolved Solids	124		5.0	mg/L		19-MAY-10	SVG	R1257446
Total Suspended Solids	<3.0		3.0	mg/L		18-MAY-10	SVG	R1256669
Routine Water Analysis								
Chloride by IC								
Chloride (Cl)	0.57	RRV	0.50	mg/L		18-MAY-10	SHC	R1257394
Dissolved Metals in Water by IC POES								
Calcium (Ca)-Dissolved	20.0	RRV	0.50	mg/L		20-MAY-10	JW U	R1258353
Magnesium (Mg)-Dissolved	4.40	RRV	0.10	mg/L		20-MAY-10	JW U	R1258353
Potassium (K)-Dissolved	3.23	RRV	0.50	mg/L		20-MAY-10	JW U	R1258353
Sodium (Na)-Dissolved	1.4	RRV	1.0	mg/L		20-MAY-10	JW U	R1258353
Ion Balance Calculation								
Ion Balance	89.2	BL:NT		%		20-MAY-10		
TDS (Calculated)	110			mg/L		20-MAY-10		
Hardness (as CaCO3)	68.1			mg/L		20-MAY-10		
Nitrate as N by IC								
Nitrate (as N)	0.060		0.050	mg/L		18-MAY-10	SHC	R1257394
Nitrate and Nitrite as N	<0.071		0.071	mg/L		19-MAY-10		
Nitrite as N by IC								
Nitrite (as N)	<0.050		0.050	mg/L		18-MAY-10	SHC	R1257394
Sulfate by IC								
Sulfate (SO4)	80.0	RRV	0.50	mg/L		18-MAY-10	SHC	R1257394
pH, Conductivity and Total Alkalinity								
pH	5.06		0.10	pH		18-MAY-10	CLTT	R1256423
Conductivity (EC)	198		0.20	uS/cm		18-MAY-10	CLTT	R1256423
Bicarbonate (HCO3)	<5.0		5.0	mg/L		18-MAY-10	CLTT	R1256423
Carbonate (CO3)	<5.0		5.0	mg/L		18-MAY-10	CLTT	R1256423
Hydroxide (OH)	<5.0		5.0	mg/L		18-MAY-10	CLTT	R1256423
Alkalinity, Total (as CaCO3)	<5.0		5.0	mg/L		18-MAY-10	CLTT	R1256423

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L887028-5 BT-5 ORM-FARG								
Sampled By: CLENT on 12-MAY-10 @ 10:00								
Matrix: GRAB								
Total Metals								
Total Metals in Water by IC-PMS (Low)								
Aluminum (Al)-Total	62.7		0.020	mg/L		20-MAY-10	SYF	R1258634
Antimony (Sb)-Total	<0.00040		0.00040	mg/L		19-MAY-10	SYF	R1257664
Arsenic (As)-Total	0.208		0.00040	mg/L		19-MAY-10	SYF	R1257664
Barium (Ba)-Total	0.0105		0.00020	mg/L		19-MAY-10	SYF	R1257664
Beryllium (Be)-Total	0.0039		0.0010	mg/L		19-MAY-10	SYF	R1257664
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		19-MAY-10	SYF	R1257664
Boron (B)-Total	<0.020		0.020	mg/L		19-MAY-10	SYF	R1257664
Cadmium (Cd)-Total	0.0552		0.00020	mg/L		19-MAY-10	SYF	R1257664
Chromium (Cr)-Total	0.00209		0.00080	mg/L		19-MAY-10	SYF	R1257664
Cobalt (Co)-Total	0.689		0.00020	mg/L		19-MAY-10	SYF	R1257664
Copper (Cu)-Total	0.777		0.0010	mg/L		19-MAY-10	SYF	R1257664
Lead (Pb)-Total	0.00222		0.00010	mg/L		19-MAY-10	SYF	R1257664
Molybdenum (Mo)-Total	0.00022		0.00010	mg/L		19-MAY-10	SYF	R1257664
Nickel (Ni)-Total	0.349		0.00020	mg/L		19-MAY-10	SYF	R1257664
Selenium (Se)-Total	0.00553		0.00040	mg/L		19-MAY-10	SYF	R1257664
Silver (Ag)-Total	<0.00040		0.00040	mg/L		19-MAY-10	SYF	R1257664
Strontium (Sr)-Total	0.283		0.00020	mg/L		19-MAY-10	SYF	R1257664
Thallium (Tl)-Total	<0.00010		0.00010	mg/L		19-MAY-10	SYF	R1257664
Th (Sn)-Total	<0.00040		0.00040	mg/L		19-MAY-10	SYF	R1257664
Titanium (Ti)-Total	0.0190		0.0050	mg/L		19-MAY-10	SYF	R1257664
Uranium (U)-Total	0.00059		0.00010	mg/L		19-MAY-10	SYF	R1257664
Vanadium (V)-Total	0.00072		0.00050	mg/L		19-MAY-10	SYF	R1257664
Zinc (Zn)-Total	3.55		0.0040	mg/L		20-MAY-10	SYF	R1258634
Total Metals in Water by IC-POES (Low)								
Calcium (Ca)-Total	176		0.50	mg/L		19-MAY-10	BOC	R1257789
Iron (Fe)-Total	3.82		0.010	mg/L		19-MAY-10	BOC	R1257789
Magnesium (Mg)-Total	24.3		0.10	mg/L		19-MAY-10	BOC	R1257789
Manganese (Mn)-Total	4.67		0.0020	mg/L		19-MAY-10	BOC	R1257789
Potassium (K)-Total	2.44		0.10	mg/L		19-MAY-10	BOC	R1257789
Sodium (Na)-Total	3.1		1.0	mg/L		19-MAY-10	BOC	R1257789
Dissolved Metals								
Iron (Fe)-Dissolved	2.19		0.010	mg/L		20-MAY-10	JW U	R1258353
Diss. Metals in Water by IC-PMS (Low)								
Aluminum (Al)-Dissolved	63.6		0.010	mg/L		21-MAY-10	CVM	R1260688
Antimony (Sb)-Dissolved	<0.00040		0.00040	mg/L		20-MAY-10	SYF	R1258633
Arsenic (As)-Dissolved	0.130		0.00040	mg/L		20-MAY-10	SYF	R1258633
Barium (Ba)-Dissolved	0.00693		0.00010	mg/L		20-MAY-10	SYF	R1258633
Beryllium (Be)-Dissolved	0.00485		0.00050	mg/L		20-MAY-10	SYF	R1258633
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L		20-MAY-10	SYF	R1258633
Boron (B)-Dissolved	0.0164		0.0020	mg/L		20-MAY-10	SYF	R1258633
Cadmium (Cd)-Dissolved	0.0544		0.00010	mg/L		20-MAY-10	SYF	R1258633
Chromium (Cr)-Dissolved	0.00116		0.00040	mg/L		20-MAY-10	SYF	R1258633
Cobalt (Co)-Dissolved	0.631		0.00010	mg/L		20-MAY-10	SYF	R1258633
Copper (Cu)-Dissolved	0.740		0.00060	mg/L		20-MAY-10	SYF	R1258633
Lead (Pb)-Dissolved	0.00106		0.00010	mg/L		20-MAY-10	SYF	R1258633
Molybdenum (Mo)-Dissolved	<0.00010		0.00010	mg/L		20-MAY-10	SYF	R1258633
Nickel (Ni)-Dissolved	0.332		0.00010	mg/L		20-MAY-10	SYF	R1258633
Selenium (Se)-Dissolved	0.00555		0.00040	mg/L		20-MAY-10	SYF	R1258633
Silver (Ag)-Dissolved	<0.00020		0.00020	mg/L		20-MAY-10	SYF	R1258633
Strontium (Sr)-Dissolved	0.265		0.00010	mg/L		20-MAY-10	SYF	R1258633

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L887028-5 BT-5 ORM-FARG								
Sampled By: CLENT on 12-MAY-10 @ 10:00								
Matrix: GRAB								
Dissolved Metals								
Diss.Metals in Water by IC PMS (Low)								
Thallium (Tl)-Dissolved	0.000055		0.000050	mg/L		20-MAY-10	SYF	R1258633
Tin (Sn)-Dissolved	<0.00020		0.00020	mg/L		20-MAY-10	SYF	R1258633
Titanium (Ti)-Dissolved	0.00161		0.00030	mg/L		20-MAY-10	SYF	R1258633
Uranium (U)-Dissolved	0.00058		0.00010	mg/L		20-MAY-10	SYF	R1258633
Vanadium (V)-Dissolved	0.00024		0.00010	mg/L		20-MAY-10	SYF	R1258633
Zinc (Zn)-Dissolved	3.91		0.0010	mg/L		21-MAY-10	CVM	R1260688
Manganese (Mn)-Dissolved	4.19		0.0020	mg/L		20-MAY-10	JW U	R1258353
Total Dissolved Solids	1370		5.0	mg/L		19-MAY-10	SVG	R1257446
Total Suspended Solids	34.0		3.0	mg/L		18-MAY-10	SVG	R1256669
Routine Water Analysis								
Chloride by IC								
Chloride (Cl)	0.63	RRV	0.50	mg/L		18-MAY-10	SHC	R1257394
Dissolved Metals in Water by IC POES								
Calcium (Ca)-Dissolved	159	RRV	0.50	mg/L		20-MAY-10	JW U	R1258353
Magnesium (Mg)-Dissolved	22.4	RRV	0.10	mg/L		20-MAY-10	JW U	R1258353
Potassium (K)-Dissolved	1.93	RRV	0.50	mg/L		20-MAY-10	JW U	R1258353
Sodium (Na)-Dissolved	2.7	RRV	1.0	mg/L		20-MAY-10	JW U	R1258353
Ion Balance Calculation								
Ion Balance	54.3	BL:NT		%		20-MAY-10		
TDS (Calculated)	1060			mg/L		20-MAY-10		
Hardness (as CaCO3)	489			mg/L		20-MAY-10		
Nitrate as N by IC								
Nitrate (as N)	<0.050		0.050	mg/L		18-MAY-10	SHC	R1257394
Nitrate and Nitrite as N	<0.071		0.071	mg/L		19-MAY-10		
Nitrite as N by IC								
Nitrite (as N)	<0.050		0.050	mg/L		18-MAY-10	SHC	R1257394
Sulfate by IC								
Sulfate (SO4)	878	RRV	0.50	mg/L		18-MAY-10	SHC	R1257394
pH, Conductivity and Total Alkalinity								
pH	3.59	RRV	0.10	pH		18-MAY-10	CLTT	R1256423
Conductivity (EC)	1390	RRV	0.20	uS/cm		18-MAY-10	CLTT	R1256423
Bicarbonate (HCO3)	<5.0	RRV	5.0	mg/L		18-MAY-10	CLTT	R1256423
Carbonate (CO3)	<5.0	RRV	5.0	mg/L		18-MAY-10	CLTT	R1256423
Hydroxide (OH)	<5.0	RRV	5.0	mg/L		18-MAY-10	CLTT	R1256423
Alkalinity, Total (as CaCO3)	<5.0	RRV	5.0	mg/L		18-MAY-10	CLTT	R1256423

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L887028-6 BT-6 NL-FMGD								
Sampled By: CLENT on 12-MAY-10 @ 10:00								
Matrix: GRAB								
Total Metals								
Total Metals in Water by IC-PMS (Low)								
Aluminum (Al)-Total	11.7		0.020	mg/L		20-MAY-10	SYF	R1258634
Antimony (Sb)-Total	<0.00040		0.00040	mg/L		20-MAY-10	SYF	R1258634
Arsenic (As)-Total	0.322		0.00040	mg/L		20-MAY-10	SYF	R1258634
Barium (Ba)-Total	0.00249		0.00020	mg/L		20-MAY-10	SYF	R1258634
Beryllium (Be)-Total	0.0056		0.0010	mg/L		20-MAY-10	SYF	R1258634
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		20-MAY-10	SYF	R1258634
Boron (B)-Total	0.021		0.020	mg/L		20-MAY-10	SYF	R1258634
Cadmium (Cd)-Total	1.65		0.00020	mg/L		20-MAY-10	SYF	R1258634
Chromium (Cr)-Total	<0.00080		0.00080	mg/L		20-MAY-10	SYF	R1258634
Cobalt (Co)-Total	0.165		0.00020	mg/L		20-MAY-10	SYF	R1258634
Copper (Cu)-Total	0.427		0.0010	mg/L		20-MAY-10	SYF	R1258634
Lead (Pb)-Total	0.334		0.00010	mg/L		20-MAY-10	SYF	R1258634
Molybdenum (Mo)-Total	<0.00010		0.00010	mg/L		20-MAY-10	SYF	R1258634
Nickel (Ni)-Total	0.104		0.00020	mg/L		20-MAY-10	SYF	R1258634
Selenium (Se)-Total	0.0132		0.00040	mg/L		20-MAY-10	SYF	R1258634
Silver (Ag)-Total	<0.00040		0.00040	mg/L		20-MAY-10	SYF	R1258634
Strontium (Sr)-Total	0.0351		0.00020	mg/L		20-MAY-10	SYF	R1258634
Thallium (Tl)-Total	<0.00010		0.00010	mg/L		20-MAY-10	SYF	R1258634
Th (Sn)-Total	<0.00040		0.00040	mg/L		20-MAY-10	SYF	R1258634
Titanium (Ti)-Total	<0.0050		0.0050	mg/L		20-MAY-10	SYF	R1258634
Uranium (U)-Total	0.00100		0.00010	mg/L		20-MAY-10	SYF	R1258634
Vanadium (V)-Total	0.00066		0.00050	mg/L		20-MAY-10	SYF	R1258634
Zinc (Zn)-Total	87.5		0.0040	mg/L		21-MAY-10	SYF	R1259604
Total Metals in Water by IC-POES (Low)								
Calcium (Ca)-Total	86.7		0.50	mg/L		19-MAY-10	BOC	R1257789
Iron (Fe)-Total	11.3		0.010	mg/L		19-MAY-10	BOC	R1257789
Magnesium (Mg)-Total	30.5		0.10	mg/L		19-MAY-10	BOC	R1257789
Manganese (Mn)-Total	2.74		0.0020	mg/L		19-MAY-10	BOC	R1257789
Potassium (K)-Total	3.12		0.10	mg/L		19-MAY-10	BOC	R1257789
Sodium (Na)-Total	1.4		1.0	mg/L		19-MAY-10	BOC	R1257789
Dissolved Metals								
Iron (Fe)-Dissolved	10.6		0.010	mg/L		20-MAY-10	JW U	R1258353
Diss. Metals in Water by IC-PMS (Low)								
Aluminum (Al)-Dissolved	12.7		0.010	mg/L		21-MAY-10	SYF	R1258633
Antimony (Sb)-Dissolved	<0.00040		0.00040	mg/L		21-MAY-10	SYF	R1258633
Arsenic (As)-Dissolved	0.120		0.00040	mg/L		21-MAY-10	SYF	R1258633
Barium (Ba)-Dissolved	0.00094		0.00010	mg/L		21-MAY-10	SYF	R1258633
Beryllium (Be)-Dissolved	0.00620		0.00050	mg/L		21-MAY-10	SYF	R1258633
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L		21-MAY-10	SYF	R1258633
Boron (B)-Dissolved	0.0222		0.0020	mg/L		21-MAY-10	SYF	R1258633
Cadmium (Cd)-Dissolved	1.68		0.00010	mg/L		21-MAY-10	SYF	R1258633
Chromium (Cr)-Dissolved	<0.00040		0.00040	mg/L		21-MAY-10	SYF	R1258633
Cobalt (Co)-Dissolved	0.153		0.00010	mg/L		21-MAY-10	SYF	R1258633
Copper (Cu)-Dissolved	0.400		0.00060	mg/L		21-MAY-10	SYF	R1258633
Lead (Pb)-Dissolved	0.306		0.00010	mg/L		21-MAY-10	SYF	R1258633
Molybdenum (Mo)-Dissolved	<0.00010		0.00010	mg/L		21-MAY-10	SYF	R1258633
Nickel (Ni)-Dissolved	0.0964		0.00010	mg/L		21-MAY-10	SYF	R1258633
Selenium (Se)-Dissolved	0.0135		0.00040	mg/L		21-MAY-10	SYF	R1258633
Silver (Ag)-Dissolved	<0.00020		0.00020	mg/L		21-MAY-10	SYF	R1258633
Strontium (Sr)-Dissolved	0.0349		0.00010	mg/L		21-MAY-10	SYF	R1258633

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L887028-6 BT-6 NL-FMGD								
Sampled By: CLENT on 12-MAY-10 @ 10:00								
Matrix: GRAB								
Dissolved Metals								
Diss.Metals in Water by IC PMS (Low)								
Thallium (Tl)-Dissolved	<0.000050		0.000050	mg/L		21-MAY-10	SYF	R1258633
Tin (Sn)-Dissolved	<0.00020		0.00020	mg/L		21-MAY-10	SYF	R1258633
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L		21-MAY-10	SYF	R1258633
Uranium (U)-Dissolved	0.00089		0.00010	mg/L		21-MAY-10	SYF	R1258633
Vanadium (V)-Dissolved	0.00050		0.00010	mg/L		21-MAY-10	SYF	R1258633
Zinc (Zn)-Dissolved	86.8		0.0010	mg/L		21-MAY-10	CVM	R1260688
Manganese (Mn)-Dissolved	2.63		0.0020	mg/L		20-MAY-10	JW U	R1258353
Total Dissolved Solids	936		5.0	mg/L		19-MAY-10	SVG	R1257446
Total Suspended Solids	<3.0		3.0	mg/L		18-MAY-10	SVG	R1256669
Routine Water Analysis								
Chloride by IC								
Chloride (Cl)	1.89	RRV	0.50	mg/L		18-MAY-10	SHC	R1257394
Dissolved Metals in Water by IC POES								
Calcium (Ca)-Dissolved	80.6	RRV	0.50	mg/L		20-MAY-10	JW U	R1258353
Magnesium (Mg)-Dissolved	29.3	RRV	0.10	mg/L		20-MAY-10	JW U	R1258353
Potassium (K)-Dissolved	2.84	RRV	0.50	mg/L		20-MAY-10	JW U	R1258353
Sodium (Na)-Dissolved	1.3	RRV	1.0	mg/L		20-MAY-10	JW U	R1258353
Ion Balance Calculation								
Ion Balance	57.7	BL:NT		%		20-MAY-10		
TDS (Calculated)	660			mg/L		20-MAY-10		
Hardness (as CaCO3)	322			mg/L		20-MAY-10		
Nitrate as N by IC								
Nitrate (as N)	<0.050		0.050	mg/L		18-MAY-10	SHC	R1257394
Nitrate and Nitrite as N	<0.071		0.071	mg/L		19-MAY-10		
Nitrite as N by IC								
Nitrite (as N)	<0.050		0.050	mg/L		18-MAY-10	SHC	R1257394
Sulfate by IC								
Sulfate (SO4)	544	RRV	0.50	mg/L		18-MAY-10	SHC	R1257394
pH, Conductivity and Total Alkalinity								
pH	3.80	RRV	0.10	pH		18-MAY-10	CLTT	R1256423
Conductivity (EC)	1030	RRV	0.20	uS/cm		18-MAY-10	CLTT	R1256423
Bicarbonate (HCO3)	<5.0	RRV	5.0	mg/L		18-MAY-10	CLTT	R1256423
Carbonate (CO3)	<5.0	RRV	5.0	mg/L		18-MAY-10	CLTT	R1256423
Hydroxide (OH)	<5.0	RRV	5.0	mg/L		18-MAY-10	CLTT	R1256423
Alkalinity, Total (as CaCO3)	<5.0	RRV	5.0	mg/L		18-MAY-10	CLTT	R1256423

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L887028-7 BT-7 NL-F-VGD								
Sampled By: CLENT on 12-MAY-10 @ 10:00								
Matrix: GRAB								
Total Metals								
Total Metals in Water by IC-PMS (Low)								
Aluminum (Al)-Total	<0.020		0.020	mg/L		22-MAY-10	SYF	R1259604
Antimony (Sb)-Total	0.00097		0.00040	mg/L		20-MAY-10	SYF	R1258634
Arsenic (As)-Total	8.00		0.00040	mg/L		21-MAY-10	SYF	R1259604
Barium (Ba)-Total	0.00606		0.00020	mg/L		20-MAY-10	SYF	R1258634
Beryllium (Be)-Total	<0.0010		0.0010	mg/L		20-MAY-10	SYF	R1258634
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		20-MAY-10	SYF	R1258634
Boron (B)-Total	<0.020		0.020	mg/L		20-MAY-10	SYF	R1258634
Cadmium (Cd)-Total	0.00167		0.00020	mg/L		22-MAY-10	SYF	R1259604
Chromium (Cr)-Total	<0.00080		0.00080	mg/L		20-MAY-10	SYF	R1258634
Cobalt (Co)-Total	0.0139		0.00020	mg/L		20-MAY-10	SYF	R1258634
Copper (Cu)-Total	0.0028		0.0010	mg/L		20-MAY-10	SYF	R1258634
Lead (Pb)-Total	0.00046		0.00010	mg/L		20-MAY-10	SYF	R1258634
Molybdenum (Mo)-Total	0.00421		0.00010	mg/L		20-MAY-10	SYF	R1258634
Nickel (Ni)-Total	0.0154		0.00020	mg/L		20-MAY-10	SYF	R1258634
Selenium (Se)-Total	0.00086		0.00040	mg/L		20-MAY-10	SYF	R1258634
Silver (Ag)-Total	<0.00040		0.00040	mg/L		20-MAY-10	SYF	R1258634
Strontium (Sr)-Total	0.0587		0.00020	mg/L		20-MAY-10	SYF	R1258634
Thallium (Tl)-Total	<0.00010		0.00010	mg/L		20-MAY-10	SYF	R1258634
Th (Sn)-Total	<0.00040		0.00040	mg/L		20-MAY-10	SYF	R1258634
Titanium (Ti)-Total	<0.0050		0.0050	mg/L		20-MAY-10	SYF	R1258634
Uranium (U)-Total	<0.00010		0.00010	mg/L		20-MAY-10	SYF	R1258634
Vanadium (V)-Total	<0.00050		0.00050	mg/L		20-MAY-10	SYF	R1258634
Zinc (Zn)-Total	0.258		0.0040	mg/L		22-MAY-10	SYF	R1259604
Total Metals in Water by IC-POES (Low)								
Calcium (Ca)-Total	89.4		0.50	mg/L		19-MAY-10	BOC	R1257789
Iron (Fe)-Total	<0.010		0.010	mg/L		20-MAY-10	JW U	R1258603
Magnesium (Mg)-Total	16.6		0.10	mg/L		19-MAY-10	BOC	R1257789
Manganese (Mn)-Total	0.797		0.0020	mg/L		19-MAY-10	BOC	R1257789
Potassium (K)-Total	3.23		0.10	mg/L		19-MAY-10	BOC	R1257789
Sodium (Na)-Total	1.9		1.0	mg/L		19-MAY-10	BOC	R1257789
Dissolved Metals								
Iron (Fe)-Dissolved	0.018		0.010	mg/L		20-MAY-10	JW U	R1258353
Diss. Metals in Water by IC-PMS (Low)								
Aluminum (Al)-Dissolved	<0.010		0.010	mg/L		21-MAY-10	SYF	R1258633
Antimony (Sb)-Dissolved	0.00096		0.00040	mg/L		21-MAY-10	SYF	R1258633
Arsenic (As)-Dissolved	8.15		0.00040	mg/L		21-MAY-10	CVM	R1260688
Barium (Ba)-Dissolved	0.00627		0.00010	mg/L		21-MAY-10	SYF	R1258633
Beryllium (Be)-Dissolved	<0.00050		0.00050	mg/L		21-MAY-10	SYF	R1258633
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L		21-MAY-10	SYF	R1258633
Boron (B)-Dissolved	0.0081		0.0020	mg/L		21-MAY-10	SYF	R1258633
Cadmium (Cd)-Dissolved	0.00169		0.00010	mg/L		21-MAY-10	CVM	R1260688
Chromium (Cr)-Dissolved	<0.00040		0.00040	mg/L		21-MAY-10	SYF	R1258633
Cobalt (Co)-Dissolved	0.0131		0.00010	mg/L		21-MAY-10	SYF	R1258633
Copper (Cu)-Dissolved	0.00254		0.00060	mg/L		21-MAY-10	SYF	R1258633
Lead (Pb)-Dissolved	0.00019		0.00010	mg/L		21-MAY-10	SYF	R1258633
Molybdenum (Mo)-Dissolved	0.00443		0.00010	mg/L		21-MAY-10	SYF	R1258633
Nickel (Ni)-Dissolved	0.0145		0.00010	mg/L		21-MAY-10	SYF	R1258633
Selenium (Se)-Dissolved	0.00092		0.00040	mg/L		21-MAY-10	SYF	R1258633
Silver (Ag)-Dissolved	<0.00020		0.00020	mg/L		21-MAY-10	SYF	R1258633
Strontium (Sr)-Dissolved	0.0623		0.00010	mg/L		21-MAY-10	SYF	R1258633

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L887028-7 BT-7 NL-F-VGD								
Sampled By: CLENT on 12-MAY-10 @ 10:00								
Matrix: GRAB								
Dissolved Metals								
Diss.Metals in Water by IC PMS (Low)								
Thallium (Tl)-Dissolved	<0.000050		0.000050	mg/L		21-MAY-10	SYF	R1258633
Tin (Sn)-Dissolved	<0.00020		0.00020	mg/L		21-MAY-10	SYF	R1258633
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L		21-MAY-10	SYF	R1258633
Uranium (U)-Dissolved	<0.00010		0.00010	mg/L		21-MAY-10	SYF	R1258633
Vanadium (V)-Dissolved	0.00028		0.00010	mg/L		21-MAY-10	SYF	R1258633
Zinc (Zn)-Dissolved	0.264		0.0010	mg/L		21-MAY-10	CVM	R1260688
Manganese (Mn)-Dissolved	0.805		0.0020	mg/L		20-MAY-10	JW U	R1258353
Total Dissolved Solids	477		5.0	mg/L		19-MAY-10	SVG	R1257446
Total Suspended Solids	<3.0		3.0	mg/L		18-MAY-10	SVG	R1256669
Routine Water Analysis								
Chloride by IC								
Chloride (Cl)	1.79		0.50	mg/L		18-MAY-10	SHC	R1257394
Dissolved Metals in Water by IC PDES								
Calcium (Ca)-Dissolved	92.4		0.50	mg/L		20-MAY-10	JW U	R1258353
Magnesium (Mg)-Dissolved	17.4		0.10	mg/L		20-MAY-10	JW U	R1258353
Potassium (K)-Dissolved	3.32		0.50	mg/L		20-MAY-10	JW U	R1258353
Sodium (Na)-Dissolved	2.0		1.0	mg/L		20-MAY-10	JW U	R1258353
Ion Balance Calculation								
Ion Balance	102			%		21-MAY-10		
TDS (Calculated)	405			mg/L		21-MAY-10		
Hardness (as CaCO3)	302			mg/L		21-MAY-10		
Nitrate as N by IC								
Nitrate (as N)	0.253		0.050	mg/L		18-MAY-10	SHC	R1257394
Nitrate and Nitrite as N	0.253		0.071	mg/L		19-MAY-10		
Nitrite as N by IC								
Nitrite (as N)	<0.050		0.050	mg/L		18-MAY-10	SHC	R1257394
Sulfate by IC								
Sulfate (SO4)	283		0.50	mg/L		18-MAY-10	SHC	R1257394
pH, Conductivity and Total Alkalinity								
pH	6.59		0.10	pH		18-MAY-10	CLTT	R1256423
Conductivity (EC)	611		0.20	uS/cm		18-MAY-10	CLTT	R1256423
Bicarbonate (HCO3)	7.6		5.0	mg/L		18-MAY-10	CLTT	R1256423
Carbonate (CO3)	<5.0		5.0	mg/L		18-MAY-10	CLTT	R1256423
Hydroxide (OH)	<5.0		5.0	mg/L		18-MAY-10	CLTT	R1256423
Alkalinity, Total (as CaCO3)	6.2		5.0	mg/L		18-MAY-10	CLTT	R1256423
*Refer to Referenced Information for Qualifiers (if any) and Methodology.								

Reference Information

Qualifiers for Sample Submission Listed:

Qualifier	Description
SRUHL	For Dissolve Metals - Sample Received Unpreserved. Results may be biased either high or low for indicated parameter(s)
SPL	For Dissolve Metals - Sample was Preserved at the laboratory

Sample Parameter Qualifier key listed:

Qualifier	Description
RRV	Reported Result Verified By Repeat Analysis
BL:NT	Balance Reviewed: Interference Or Non-Measured Component

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Preparation Method Reference (Based On)	Analytical Method Reference (Based On)
CL- ~~C~~ -ED	Water	Chloride by IC		APHA 4110 B- ~~DN~~ CHROMATOGRAPHY
FE-D-L- ~~ICP~~ -ED	Water	Diss. Fe in Water by ~~ICP~~ OES (Low Level)		APHA 3120 B- ~~ICP~~ -OES
DNBALANCE-ED	Water	Dn Balance Calculation		APHA 1030E
MET-D- ~~ICP~~ -ED	Water	Dissolved Metals in Water by ~~ICP~~ OES		APHA 3120 B- ~~ICP~~ -OES
MET-D-L-MS-ED	Water	Diss. Metals in Water by ~~ICP~~ MS (Low)		SW 846 -6020- ~~ICP~~ MS
MET-T-L- ~~ICP~~ -ED	Water	Total Metals in Water by ~~ICP~~ OES (Low)	EPA 3015 APHA 3030E	APHA 3120 B- ~~ICP~~ -OES
MET-T-L-MS-ED	Water	Total Metals in Water by ~~ICP~~ MS (Low)	EPA 3015 APHA 3030E	SW 846 -6020- ~~ICP~~ MS
MN-D-L- ~~ICP~~ -ED	Water	Diss. Mn in Water by ~~ICP~~ OES (Low Level)		APHA 3120 B ~~ICP~~ -OES
NO2+NO3-CALC-ED	Water	Nitrate+N ~~itrite~~		CALCULATION
NO2- ~~IC~~ -ED	Water	N ~~itrite~~ as N by IC		APHA 4110 B- ~~DN~~ CHROMATOGRAPHY
NO3- ~~IC~~ -ED	Water	N ~~itrate~~ as N by IC		APHA 4110 B- ~~DN~~ CHROMATOGRAPHY
PH/EC/ALK-ED	Water	pH, Conductivity and Total Alkalinity		APHA 4500-H, 2510, 2320
SO4- ~~IC~~ -ED	Water	Sulfate by IC		APHA 4110 B- ~~DN~~ CHROMATOGRAPHY
SOLIDS-TDS-ED	Water	Total Dissolved Solids		APHA 2540 C
SOLIDS-TOTSUS-ED	Water	Total Suspended Solids		APHA 2540 D-Gra ~~vin~~ etric

** Laboratory Methods employed follow in-house procedures, which are generally based on nationally or internationally accepted methodologies.

Chain of Custody numbers:

08-011818

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
ED	ALS LABORATORY GROUP - EDMONTON, ALBERTA, CANADA		

Reference Information

GLOSSARY OF REPORT TERMS

Surrogate - A surrogate is an organic compound that is similar to the target analyte(s) in chemical composition and behavior but not normally detected in environmental samples. Prior to sample processing, samples are fortified with one or more surrogate compounds.

The reported surrogate recovery value provides a measure of method efficiency. The Laboratory control limits are determined under column heading D.L.

mg/kg (units) - unit of concentration based on mass, parts per million.

mg/L (units) - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

UNLESS OTHERWISE STATED, SAMPLES ARE NOT CORRECTED FOR CLIENT FIELD BLANKS.

Although test results are generated under strict QA/QC protocols, any unsigned test reports, faxes, or emails are considered preliminary.

ALS Laboratory Group has an extensive QA/QC program where all analytical data reported is analyzed using approved referenced procedures followed by checks and reviews by senior managers and quality assurance personnel. However, since the results are obtained from chemical measurements and thus cannot be guaranteed, ALS Laboratory Group assumes no liability for the use or interpretation of the results.



Environmental Division

ALS Laboratory Group Quality Control Report

Workorder: L887028

ReportDate: 26-MAY-10

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Client: TYHEENW T LTD.
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CL-IC-ED Water								
Batch	R1257394							
WG1105774-3	DUP	L886959-15						
Chloride (Cl)		3.73	3.67		mg/L	1.8	20	18-MAY-10
WG1105774-5	DUP	L886970-4						
Chloride (Cl)		3.74	3.75		mg/L	0.30	20	18-MAY-10
WG1105774-7	DUP	L887028-7						
Chloride (Cl)		1.79	1.75		mg/L	2.1	20	18-MAY-10
WG1105774-9	DUP	L887109-24						
Chloride (Cl)		3.57	3.58		mg/L	0.30	20	18-MAY-10
WG1105774-2	LCS		109		%		85-115	18-MAY-10
WG1105774-1	MB		<0.50		mg/L		0.5	18-MAY-10
WG1105774-10	MS	L887109-24	105		%		75-125	18-MAY-10
WG1105774-4	MS	L886959-15	103		%		75-125	18-MAY-10
WG1105774-6	MS	L886970-4	96		%		75-125	18-MAY-10
WG1105774-8	MS	L887028-7	103		%		75-125	18-MAY-10
FE-D-L-ICP-ED Water								
Batch	R1258353							
WG1107071-2	CRM	EU-H-3 OPTWATER						
Iron (Fe)-Dissolved			101		%		80-120	20-MAY-10
WG1107071-3	DUP	L887028-7						
WG1107071-1	MB		<0.010		mg/L		0.01	20-MAY-10
WG1107071-4	MS	L887028-7	94		%		70-130	20-MAY-10
MET-D-ICP-ED Water								
Batch	R1258353							
WG1107071-2	CRM	EU-H-3 OPTWATER						
Calcium (Ca)-Dissolved			103		%		80-120	20-MAY-10
Magnesium (Mg)-Dissolved			107		%		80-120	20-MAY-10
Potassium (K)-Dissolved			100		%		80-120	20-MAY-10
Sodium (Na)-Dissolved			101		%		80-120	20-MAY-10
WG1107071-3	DUP	L887028-7						

ALS Laboratory Group Quality Control Report

Workorder: L887028

ReportDate: 26-MAY-10

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Client: TYHEE NW T LTD.
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CP-ED Water								
Batch	R1258353							
W G 1107071-3 DUP		L887028-7						
Calcium (Ca)-Dissolved		92.4	98.6		mg/L	6.6	20	20-MAY-10
Magnesium (Mg)-Dissolved		17.4	18.2		mg/L	4.4	20	20-MAY-10
Potassium (K)-Dissolved		3.32	3.55		mg/L	6.9	20	20-MAY-10
Sodium (Na)-Dissolved		2.0	2.2		mg/L	7.7	20	20-MAY-10
W G 1107071-1 MB								
Calcium (Ca)-Dissolved			<0.50		mg/L		0.5	20-MAY-10
Magnesium (Mg)-Dissolved			<0.10		mg/L		0.1	20-MAY-10
Potassium (K)-Dissolved			<0.50		mg/L		0.5	20-MAY-10
Sodium (Na)-Dissolved			<1.0		mg/L		1	20-MAY-10
W G 1107071-4 MS		L887028-7						
Calcium (Ca)-Dissolved			95		%		70-130	20-MAY-10
Magnesium (Mg)-Dissolved			99		%		70-130	20-MAY-10
Potassium (K)-Dissolved			98		%		70-130	20-MAY-10
Sodium (Na)-Dissolved			98		%		70-130	20-MAY-10
MET-D-LMS-ED Water								
Batch	R1258633							
W G 1107030-2 CRM		1643E WATER						
Aluminum (Al)-Dissolved			103		%		80-120	20-MAY-10
Antimony (Sb)-Dissolved			97		%		80-120	20-MAY-10
Arsenic (As)-Dissolved			95		%		80-120	20-MAY-10
Barium (Ba)-Dissolved			91		%		80-120	20-MAY-10
Beryllium (Be)-Dissolved			92		%		80-120	20-MAY-10
Bismuth (Bi)-Dissolved			92		%		80-120	20-MAY-10
Boron (B)-Dissolved			95		%		80-120	20-MAY-10
Cadmium (Cd)-Dissolved			97		%		80-120	20-MAY-10
Chromium (Cr)-Dissolved			103		%		80-120	20-MAY-10
Cobalt (Co)-Dissolved			97		%		80-120	20-MAY-10
Copper (Cu)-Dissolved			103		%		80-120	20-MAY-10
Lead (Pb)-Dissolved			94		%		80-120	20-MAY-10
Molybdenum (Mo)-Dissolved			99		%		80-120	20-MAY-10
Nickel (Ni)-Dissolved			98		%		80-120	20-MAY-10
Selenium (Se)-Dissolved			93		%		80-120	20-MAY-10
Strontium (Sr)-Dissolved			97		%		80-120	20-MAY-10
Thallium (Tl)-Dissolved			94		%		80-120	20-MAY-10

ALS Laboratory Group Quality Control Report

Workorder: L887028

ReportDate: 26-MAY-10

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Client: TYHEENW T LTD.
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH WILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-LMS-ED Water								
Batch	R1258633							
WG1107030-2 CRM	1643E WATER							
Vanadium (V)-Dissolved			96		%		80-120	20-MAY-10
Zinc (Zn)-Dissolved			96		%		80-120	20-MAY-10
WG1107030-1 MB								
Aluminum (Al)-Dissolved			<0.0050		mg/L		0.005	20-MAY-10
Antimony (Sb)-Dissolved			<0.00040		mg/L		0.0004	20-MAY-10
Arsenic (As)-Dissolved			<0.00040		mg/L		0.0004	20-MAY-10
Barium (Ba)-Dissolved			<0.00010		mg/L		0.0001	20-MAY-10
Beryllium (Be)-Dissolved			<0.00050		mg/L		0.0005	20-MAY-10
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	20-MAY-10
Boron (B)-Dissolved			<0.0020		mg/L		0.002	20-MAY-10
Cadmium (Cd)-Dissolved			<0.000050		mg/L		0.00005	20-MAY-10
Chromium (Cr)-Dissolved			<0.00040		mg/L		0.0004	20-MAY-10
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	20-MAY-10
Copper (Cu)-Dissolved			<0.00060		mg/L		0.0006	20-MAY-10
Lead (Pb)-Dissolved			<0.00010		mg/L		0.0001	20-MAY-10
Molybdenum (Mo)-Dissolved			<0.00010		mg/L		0.0001	20-MAY-10
Nickel (Ni)-Dissolved			<0.00010		mg/L		0.0001	20-MAY-10
Selenium (Se)-Dissolved			<0.00040		mg/L		0.0004	20-MAY-10
Silver (Ag)-Dissolved			<0.00010		mg/L		0.0001	20-MAY-10
Strontium (Sr)-Dissolved			<0.00010		mg/L		0.0001	20-MAY-10
Thallium (Tl)-Dissolved			<0.000050		mg/L		0.00005	20-MAY-10
Tin (Sn)-Dissolved			<0.00020		mg/L		0.0002	20-MAY-10
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	20-MAY-10
Uranium (U)-Dissolved			<0.00010		mg/L		0.0001	20-MAY-10
Vanadium (V)-Dissolved			<0.00010		mg/L		0.0001	20-MAY-10
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	20-MAY-10
WG1107030-4 MS	L887028-7							
Aluminum (Al)-Dissolved			101		%		70-130	21-MAY-10
Antimony (Sb)-Dissolved			101		%		70-130	21-MAY-10
Arsenic (As)-Dissolved			117		%		70-130	21-MAY-10
Barium (Ba)-Dissolved			100		%		70-130	21-MAY-10
Beryllium (Be)-Dissolved			102		%		70-130	21-MAY-10
Bismuth (Bi)-Dissolved			92		%		70-130	21-MAY-10
Boron (B)-Dissolved			99		%		70-130	21-MAY-10

ALS Laboratory Group Quality Control Report

Workorder: L887028

ReportDate: 26-MAY-10

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Client: TYHEE NW T LTD.
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-LMS-ED Water								
Batch	R1258633							
WG1107030-4 MS		L887028-7						
Cadmium (Cd)-Dissolved			97		%		70-130	21-MAY-10
Chromium (Cr)-Dissolved			95		%		70-130	21-MAY-10
Cobalt (Co)-Dissolved			93		%		70-130	21-MAY-10
Copper (Cu)-Dissolved			93		%		70-130	21-MAY-10
Lead (Pb)-Dissolved			93		%		70-130	21-MAY-10
Molybdenum (Mo)-Dissolved			100		%		70-130	21-MAY-10
Nickel (Ni)-Dissolved			92		%		70-130	21-MAY-10
Selenium (Se)-Dissolved			99		%		70-130	21-MAY-10
Silver (Ag)-Dissolved			97		%		70-130	21-MAY-10
Strontium (Sr)-Dissolved			101		%		70-130	21-MAY-10
Thallium (Tl)-Dissolved			93		%		70-130	21-MAY-10
Tin (Sn)-Dissolved			101		%		70-130	21-MAY-10
Titanium (Ti)-Dissolved			97		%		70-130	21-MAY-10
Uranium (U)-Dissolved			95		%		70-130	21-MAY-10
Vanadium (V)-Dissolved			96		%		70-130	21-MAY-10
Zinc (Zn)-Dissolved			90		%		70-130	21-MAY-10
Batch	R1260688							
WG1107879-2 CRM		1643E WATER						
Aluminum (Al)-Dissolved			102		%		80-120	21-MAY-10
Arsenic (As)-Dissolved			92		%		80-120	21-MAY-10
Cadmium (Cd)-Dissolved			94		%		80-120	21-MAY-10
Cobalt (Co)-Dissolved			92		%		80-120	21-MAY-10
Copper (Cu)-Dissolved			91		%		80-120	21-MAY-10
Zinc (Zn)-Dissolved			93		%		80-120	21-MAY-10
WG1107879-3 DUP		L883915-3						
Aluminum (Al)-Dissolved		0.0122	0.0123		mg/L	0.51	20	22-MAY-10
Arsenic (As)-Dissolved		<0.00040	<0.00040	RPD-NA	mg/L	NA	20	22-MAY-10
Cadmium (Cd)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	NA	20	22-MAY-10
Cobalt (Co)-Dissolved		<0.0020	<0.00010	RPD-NA	mg/L	NA	20	22-MAY-10
Copper (Cu)-Dissolved		<0.0010	<0.00060	RPD-NA	mg/L	NA	20	22-MAY-10
Zinc (Zn)-Dissolved		<0.0040	0.0013		mg/L	3.9	20	22-MAY-10
WG1107879-7 DUP		L888018-7						
Aluminum (Al)-Dissolved		<0.010	<0.0050	RPD-NA	mg/L	NA	20	22-MAY-10
Arsenic (As)-Dissolved		0.00219	0.00217		mg/L	1.1	20	22-MAY-10

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Client: TYHEE NW T LTD.
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed	
MET-D-LMS-ED		Water							
Batch	R1260688								
W G 1107879-7 DUP		L888018-7							
Cadm ium (Cd)-Dissolved			<0.00010	<0.000050	RPD-NA	mg/L	NA	20	22-MAY-10
Cobalt (Co)-Dissolved			0.00031	0.00031		mg/L	2.3	20	22-MAY-10
Copper (Cu)-Dissolved			<0.00060	<0.00060	RPD-NA	mg/L	NA	20	22-MAY-10
Zinc (Zn)-Dissolved			<0.0010	<0.0010	RPD-NA	mg/L	NA	20	22-MAY-10
W G 1107879-9 DUP		L888450-10							
Alum inum (Al)-Dissolved			NA	0.0052		mg/L	11	20	22-MAY-10
Arsenic (As)-Dissolved			NA	0.00181		mg/L	0.83	20	22-MAY-10
Cadm ium (Cd)-Dissolved			NA	0.000190		mg/L	11	20	22-MAY-10
Cobalt (Co)-Dissolved			NA	0.0138		mg/L	0.62	20	22-MAY-10
Copper (Cu)-Dissolved			NA	0.00594		mg/L	0.47	20	22-MAY-10
Zinc (Zn)-Dissolved			NA	0.0419		mg/L	2.2	20	22-MAY-10
W G 1107879-1 MB									
Alum inum (Al)-Dissolved				<0.0050		mg/L		0.005	21-MAY-10
Arsenic (As)-Dissolved				<0.00040		mg/L		0.0004	21-MAY-10
Cadm ium (Cd)-Dissolved				<0.000050		mg/L		0.00005	21-MAY-10
Cobalt (Co)-Dissolved				<0.00010		mg/L		0.0001	21-MAY-10
Copper (Cu)-Dissolved				<0.00060		mg/L		0.0006	21-MAY-10
Zinc (Zn)-Dissolved				<0.0010		mg/L		0.001	21-MAY-10
W G 1107879-4 MS		L883915-3							
Alum inum (Al)-Dissolved				108		%		70-130	22-MAY-10
Arsenic (As)-Dissolved				96		%		70-130	22-MAY-10
Cadm ium (Cd)-Dissolved				97		%		70-130	22-MAY-10
Cobalt (Co)-Dissolved				100		%		70-130	22-MAY-10
Copper (Cu)-Dissolved				100		%		70-130	22-MAY-10
Zinc (Zn)-Dissolved				94		%		70-130	22-MAY-10
W G 1107879-8 MS		L888018-7							
Alum inum (Al)-Dissolved				107		%		70-130	22-MAY-10
Arsenic (As)-Dissolved				100		%		70-130	22-MAY-10
Cadm ium (Cd)-Dissolved				96		%		70-130	22-MAY-10
Cobalt (Co)-Dissolved				100		%		70-130	22-MAY-10
Copper (Cu)-Dissolved				98		%		70-130	22-MAY-10
Zinc (Zn)-Dissolved				101		%		70-130	22-MAY-10
MET-T-L-CP-ED		Water							

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Client: TYHEENW T LTD.
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-TL-EXP-ED Water								
Batch	R1257789							
WG1106264-2	DUP	L886959-14						
Calcium (Ca)-Total		14.7	14.5		mg/L	1.1	20	19-MAY-10
Iron (Fe)-Total		0.015	0.014		mg/L	6.5	20	19-MAY-10
Magnesium (Mg)-Total		4.16	3.92		mg/L	5.9	20	19-MAY-10
Manganese (Mn)-Total		0.0023	0.0021		mg/L	11	20	19-MAY-10
Potassium (K)-Total		0.82	0.81		mg/L	0.50	20	19-MAY-10
Sodium (Na)-Total		4.7	4.7		mg/L	0.65	20	19-MAY-10
WG1106258-2	LCS							
Calcium (Ca)-Total			105		%		80-120	19-MAY-10
Iron (Fe)-Total			106		%		80-120	19-MAY-10
Magnesium (Mg)-Total			109		%		80-120	19-MAY-10
Manganese (Mn)-Total			106		%		80-120	19-MAY-10
Potassium (K)-Total			108		%		80-120	19-MAY-10
Sodium (Na)-Total			106		%		80-120	19-MAY-10
WG1106258-7	LCS							
Calcium (Ca)-Total			105		%		70-130	19-MAY-10
Iron (Fe)-Total			104		%		70-130	19-MAY-10
Magnesium (Mg)-Total			106		%		70-130	19-MAY-10
Manganese (Mn)-Total			105		%		70-130	19-MAY-10
Potassium (K)-Total			102		%		70-130	19-MAY-10
Sodium (Na)-Total			100		%		70-130	19-MAY-10
WG1106258-1	MB							
Calcium (Ca)-Total			<0.50		mg/L		0.5	19-MAY-10
Iron (Fe)-Total			<0.010		mg/L		0.01	19-MAY-10
Magnesium (Mg)-Total			<0.10		mg/L		0.1	19-MAY-10
Manganese (Mn)-Total			<0.0020		mg/L		0.002	19-MAY-10
Potassium (K)-Total			0.19	B	mg/L		0.1	19-MAY-10
Sodium (Na)-Total			<1.0		mg/L		1	19-MAY-10
WG1106264-1	MB							
Calcium (Ca)-Total			<0.50		mg/L		0.5	19-MAY-10
Iron (Fe)-Total			<0.010		mg/L		0.01	19-MAY-10
Magnesium (Mg)-Total			<0.10		mg/L		0.1	19-MAY-10
Manganese (Mn)-Total			<0.0020		mg/L		0.002	19-MAY-10
Potassium (K)-Total			0.12	B	mg/L		0.1	19-MAY-10
Sodium (Na)-Total			<1.0		mg/L		1	19-MAY-10

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Client: TYHEENW T LTD.
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-TL-EXP-ED Water								
Batch	R1257789							
WG1106264-3 MS		L886959-14						
Calcium (Ca)-Total			89		%		70-130	19-MAY-10
Iron (Fe)-Total			89		%		70-130	19-MAY-10
Magnesium (Mg)-Total			94		%		70-130	19-MAY-10
Manganese (Mn)-Total			92		%		70-130	19-MAY-10
Potassium (K)-Total			95		%		70-130	19-MAY-10
Sodium (Na)-Total			94		%		70-130	19-MAY-10
Batch	R1258603							
WG1106264-1 MB								
Iron (Fe)-Total			<0.010		mg/L		0.01	20-MAY-10
MET-TL-MS-ED Water								
Batch	R1257664							
WG1106258-5 DUP		L886969-4						
Aluminum (Al)-Total		0.100	0.108		mg/L	8.3	20	19-MAY-10
Antimony (Sb)-Total		<0.00050	<0.00040	RPD-NA	mg/L	NA	20	19-MAY-10
Arsenic (As)-Total		<0.00050	<0.00040	RPD-NA	mg/L	NA	20	19-MAY-10
Barium (Ba)-Total		0.0509	0.0497		mg/L	2.3	20	19-MAY-10
Beryllium (Be)-Total		<0.0010	<0.0010	RPD-NA	mg/L	NA	20	19-MAY-10
Bismuth (Bi)-Total		<0.00020	<0.00020	RPD-NA	mg/L	NA	20	19-MAY-10
Boron (B)-Total		<0.050	0.0064		mg/L	2.1	20	19-MAY-10
Cadmium (Cd)-Total		<0.00020	<0.000050	RPD-NA	mg/L	NA	20	19-MAY-10
Chromium (Cr)-Total		<0.0050	0.00082	RPD-NA	mg/L	NA	20	19-MAY-10
Cobalt (Co)-Total		<0.00020	<0.00020	RPD-NA	mg/L	NA	20	19-MAY-10
Copper (Cu)-Total		0.0026	0.0026		mg/L	0.85	20	19-MAY-10
Lead (Pb)-Total		0.00026	0.00027		mg/L	4.5	20	19-MAY-10
Molybdenum (Mo)-Total		0.00088	0.00086		mg/L	2.4	20	19-MAY-10
Nickel (Ni)-Total		0.00149	0.00143		mg/L	4.0	20	19-MAY-10
Selenium (Se)-Total		<0.0010	<0.00040	RPD-NA	mg/L	NA	20	19-MAY-10
Silver (Ag)-Total		<0.0050	<0.00010	RPD-NA	mg/L	NA	20	19-MAY-10
Strontium (Sr)-Total		0.101	0.0990		mg/L	1.9	20	19-MAY-10
Thallium (Tl)-Total		<0.00010	<0.00010	RPD-NA	mg/L	NA	20	19-MAY-10
Tin (Sn)-Total		<0.00040	<0.00040	RPD-NA	mg/L	NA	20	19-MAY-10
Titanium (Ti)-Total		0.00321	0.00314		mg/L	2.3	20	19-MAY-10

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Client: TYHEE NW T LTD.
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-ED Water								
Batch	R1257664							
W G 1106258-5 DUP		L886969-4						
Uranium (U)-Total		<0.00050	0.00048		mg/L	0.42	20	19-MAY-10
Vanadium (V)-Total		0.00051	0.00053		mg/L	3.9	20	19-MAY-10
Zinc (Zn)-Total		<0.050	0.0041		mg/L	10	20	19-MAY-10
W G 1106258-2 LCS								
Aluminum (Al)-Total			89		%		80-120	19-MAY-10
Antimony (Sb)-Total			100		%		80-120	19-MAY-10
Arsenic (As)-Total			97		%		80-120	19-MAY-10
Barium (Ba)-Total			89		%		80-120	19-MAY-10
Beryllium (Be)-Total			93		%		80-120	19-MAY-10
Bismuth (Bi)-Total			90		%		80-120	19-MAY-10
Boron (B)-Total			92		%		80-120	19-MAY-10
Cadmium (Cd)-Total			93		%		80-120	19-MAY-10
Chromium (Cr)-Total			101		%		80-120	19-MAY-10
Cobalt (Co)-Total			92		%		80-120	19-MAY-10
Copper (Cu)-Total			99		%		80-120	19-MAY-10
Lead (Pb)-Total			88		%		80-120	19-MAY-10
Molybdenum (Mo)-Total			102		%		80-120	19-MAY-10
Nickel (Ni)-Total			91		%		80-120	19-MAY-10
Selenium (Se)-Total			95		%		80-120	19-MAY-10
Silver (Ag)-Total			98		%		80-120	19-MAY-10
Strontium (Sr)-Total			93		%		80-120	19-MAY-10
Thallium (Tl)-Total			88		%		80-120	19-MAY-10
Tin (Sn)-Total			99		%		80-120	19-MAY-10
Titanium (Ti)-Total			102		%		80-120	19-MAY-10
Uranium (U)-Total			97		%		80-120	19-MAY-10
Vanadium (V)-Total			99		%		80-120	19-MAY-10
Zinc (Zn)-Total			98		%		80-120	19-MAY-10
W G 1106258-7 LCS								
Aluminum (Al)-Total			90		%		70-130	19-MAY-10
Antimony (Sb)-Total			101		%		70-130	19-MAY-10
Arsenic (As)-Total			98		%		70-130	19-MAY-10
Barium (Ba)-Total			90		%		70-130	19-MAY-10
Beryllium (Be)-Total			93		%		70-130	19-MAY-10
Bismuth (Bi)-Total			91		%		70-130	19-MAY-10

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Client: TYHEE NW T LTD.
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-TL-MS-ED		Water						
Batch	R1257664							
WG1106258-7	LCS							
Boron (B)-Total			93		%		70-130	19-MAY-10
Cadmium (Cd)-Total			94		%		70-130	19-MAY-10
Chromium (Cr)-Total			101		%		70-130	19-MAY-10
Cobalt (Co)-Total			93		%		70-130	19-MAY-10
Copper (Cu)-Total			99		%		70-130	19-MAY-10
Lead (Pb)-Total			89		%		70-130	19-MAY-10
Molybdenum (Mo)-Total			103		%		70-130	19-MAY-10
Nickel (Ni)-Total			92		%		70-130	19-MAY-10
Selenium (Se)-Total			96		%		70-130	19-MAY-10
Silver (Ag)-Total			99		%		70-130	19-MAY-10
Strontium (Sr)-Total			94		%		70-130	19-MAY-10
Thallium (Tl)-Total			89		%		70-130	19-MAY-10
Tin (Sn)-Total			100		%		70-130	19-MAY-10
Titanium (Ti)-Total			102		%		70-130	19-MAY-10
Uranium (U)-Total			96		%		70-130	19-MAY-10
Vanadium (V)-Total			100		%		70-130	19-MAY-10
Zinc (Zn)-Total			98		%		70-130	19-MAY-10
WG1106258-1	MB							
Aluminum (Al)-Total			<0.010		mg/L		0.01	19-MAY-10
Antimony (Sb)-Total			<0.00040		mg/L		0.0004	19-MAY-10
Arsenic (As)-Total			<0.00040		mg/L		0.0004	19-MAY-10
Barium (Ba)-Total			<0.00020		mg/L		0.0002	19-MAY-10
Beryllium (Be)-Total			<0.0010		mg/L		0.001	19-MAY-10
Bismuth (Bi)-Total			<0.00020		mg/L		0.0002	19-MAY-10
Boron (B)-Total			<0.0040		mg/L		0.004	19-MAY-10
Cadmium (Cd)-Total			<0.000050		mg/L		0.00005	19-MAY-10
Chromium (Cr)-Total			<0.00080		mg/L		0.0008	19-MAY-10
Cobalt (Co)-Total			<0.00020		mg/L		0.0002	19-MAY-10
Copper (Cu)-Total			<0.0010		mg/L		0.001	19-MAY-10
Lead (Pb)-Total			<0.00010		mg/L		0.0001	19-MAY-10
Molybdenum (Mo)-Total			<0.00010		mg/L		0.0001	19-MAY-10
Nickel (Ni)-Total			<0.00020		mg/L		0.0002	19-MAY-10
Selenium (Se)-Total			<0.00040		mg/L		0.0004	19-MAY-10
Silver (Ag)-Total			<0.0001		mg/L		0.0001	19-MAY-10

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Client: TYHEE NW T LTD.
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-TL-MS-ED Water								
Batch	R1257664							
WG1106258-1 MB								
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	19-MAY-10
Thallium (Tl)-Total			<0.00010		mg/L		0.0001	19-MAY-10
Tin (Sn)-Total			<0.00040		mg/L		0.0004	19-MAY-10
Titanium (Ti)-Total			<0.00060		mg/L		0.0006	19-MAY-10
Uranium (U)-Total			<0.00010		mg/L		0.0001	19-MAY-10
Vanadium (V)-Total			<0.00050		mg/L		0.0005	19-MAY-10
Zinc (Zn)-Total			<0.0040		mg/L		0.004	19-MAY-10
Batch	R1258634							
WG1106264-1 MB								
Aluminum (Al)-Total			<0.010		mg/L		0.01	20-MAY-10
Antimony (Sb)-Total			<0.00040		mg/L		0.0004	20-MAY-10
Arsenic (As)-Total			<0.00040		mg/L		0.0004	20-MAY-10
Barium (Ba)-Total			<0.00020		mg/L		0.0002	20-MAY-10
Beryllium (Be)-Total			<0.0010		mg/L		0.001	20-MAY-10
Bismuth (Bi)-Total			<0.00020		mg/L		0.0002	20-MAY-10
Boron (B)-Total			<0.0040		mg/L		0.004	20-MAY-10
Cadmium (Cd)-Total			<0.000050		mg/L		0.00005	20-MAY-10
Chromium (Cr)-Total			<0.00080		mg/L		0.0008	20-MAY-10
Cobalt (Co)-Total			<0.00020		mg/L		0.0002	20-MAY-10
Copper (Cu)-Total			<0.0010		mg/L		0.001	20-MAY-10
Lead (Pb)-Total			<0.00010		mg/L		0.0001	20-MAY-10
Molybdenum (Mo)-Total			<0.00010		mg/L		0.0001	20-MAY-10
Nickel (Ni)-Total			<0.00020		mg/L		0.0002	20-MAY-10
Selenium (Se)-Total			<0.00040		mg/L		0.0004	20-MAY-10
Silver (Ag)-Total			<0.00010		mg/L		0.0001	20-MAY-10
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	20-MAY-10
Thallium (Tl)-Total			<0.00010		mg/L		0.0001	20-MAY-10
Tin (Sn)-Total			<0.00040		mg/L		0.0004	20-MAY-10
Titanium (Ti)-Total			<0.00060		mg/L		0.0006	20-MAY-10
Uranium (U)-Total			<0.00010		mg/L		0.0001	20-MAY-10
Vanadium (V)-Total			<0.00050		mg/L		0.0005	20-MAY-10
Zinc (Zn)-Total			<0.0040		mg/L		0.004	20-MAY-10

MN-D-L-ICP-ED Water

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Client: TYHEENW T LTD.
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH WILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MN-D-L-CP-ED Water								
Batch	R1258353							
W G 1107071-2 CRM	EU-H-3 OPTWATER							
Manganese (Mn)-Dissolved			106		%		80-120	20-MAY-10
W G 1107071-3 DUP	L887028-7							
Manganese (Mn)-Dissolved		0.805	0.855		mg/L	6.0	20	20-MAY-10
W G 1107071-1 MB								
Manganese (Mn)-Dissolved			<0.0020		mg/L		0.002	20-MAY-10
W G 1107071-4 MS	L887028-7							
Manganese (Mn)-Dissolved			96		%		70-130	20-MAY-10
NO2-C-ED Water								
Batch	R1257394							
W G 1105774-3 DUP	L886959-15							
Nitrite (as N)		<0.050	<0.050	RPD-NA	mg/L	NA	20	18-MAY-10
W G 1105774-5 DUP	L886970-4							
Nitrite (as N)		<0.050	<0.050	RPD-NA	mg/L	NA	20	18-MAY-10
W G 1105774-7 DUP	L887028-7							
Nitrite (as N)		<0.050	<0.050	RPD-NA	mg/L	NA	20	18-MAY-10
W G 1105774-9 DUP	L887109-24							
Nitrite (as N)		<0.050	<0.050	RPD-NA	mg/L	NA	20	18-MAY-10
W G 1105774-2 LCS								
Nitrite (as N)			105		%		85-115	18-MAY-10
W G 1105774-1 MB								
Nitrite (as N)			<0.050		mg/L		0.05	18-MAY-10
W G 1105774-10 MS	L887109-24							
Nitrite (as N)			89		%		75-125	18-MAY-10
W G 1105774-4 MS	L886959-15							
Nitrite (as N)			100		%		75-125	18-MAY-10
W G 1105774-6 MS	L886970-4							
Nitrite (as N)			90		%		75-125	18-MAY-10
W G 1105774-8 MS	L887028-7							
Nitrite (as N)			101		%		75-125	18-MAY-10
NO3-C-ED Water								
Batch	R1257394							
W G 1105774-3 DUP	L886959-15							
Nitrate (as N)		<0.050	<0.050	RPD-NA	mg/L	NA	20	18-MAY-10
W G 1105774-5 DUP	L886970-4							
Nitrate (as N)		<0.050	<0.050	RPD-NA	mg/L	NA	20	18-MAY-10
W G 1105774-7 DUP	L887028-7							
Nitrate (as N)		0.253	0.259		mg/L	2.2	20	18-MAY-10

ALS Laboratory Group Quality Control Report

Workorder: L887028

ReportDate: 26-MAY-10

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Client: TYHEE NW T LTD.
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NO3-RED Water								
Batch	R1257394							
W G 1105774-9	DUP	L887109-24						
Nitrate (as N)		<0.050	<0.050	RPD-NA	mg/L	NA	20	18-MAY-10
W G 1105774-2	LCS							
Nitrate (as N)			107		%		85-115	18-MAY-10
W G 1105774-1	MB							
Nitrate (as N)			<0.050		mg/L		0.05	18-MAY-10
W G 1105774-10	MS	L887109-24						
Nitrate (as N)			89		%		75-125	18-MAY-10
W G 1105774-4	MS	L886959-15						
Nitrate (as N)			100		%		75-125	18-MAY-10
W G 1105774-6	MS	L886970-4						
Nitrate (as N)			90		%		75-125	18-MAY-10
W G 1105774-8	MS	L887028-7						
Nitrate (as N)			102		%		75-125	18-MAY-10
PH/EC/ALK-ED Water								
Batch	R1256423							
W G 1105519-5	DUP	L887109-8						
pH		6.89	6.97	J	pH	0.08	0.2	18-MAY-10
Conductivity (EC)		494	494		uS/cm	0.0	10	18-MAY-10
Bicarbonate (HCO3)		161	157		mg/L	2.5	25	18-MAY-10
Carbonate (CO3)		<5.0	<5.0	RPD-NA	mg/L	NA	25	18-MAY-10
Hydroxide (OH)		<5.0	<5.0	RPD-NA	mg/L	NA	25	18-MAY-10
Alkalinity, Total (as CaCO3)		132	129		mg/L	2.5	6.5	18-MAY-10
W G 1105519-6	DUP	L887109-13						
pH		7.13	7.12	J	pH	0.01	0.2	18-MAY-10
Conductivity (EC)		835	825		uS/cm	1.2	10	18-MAY-10
Bicarbonate (HCO3)		535	531		mg/L	0.72	25	18-MAY-10
Carbonate (CO3)		<5.0	<5.0	RPD-NA	mg/L	NA	25	18-MAY-10
Hydroxide (OH)		<5.0	<5.0	RPD-NA	mg/L	NA	25	18-MAY-10
Alkalinity, Total (as CaCO3)		439	435		mg/L	0.72	6.5	18-MAY-10
W G 1105519-7	DUP	L887437-2						
pH		7.65	7.65	J	pH	0.00	0.2	18-MAY-10
Conductivity (EC)		1050	1060		uS/cm	0.66	10	18-MAY-10
Bicarbonate (HCO3)		45.0	44.8		mg/L	0.45	25	18-MAY-10
Carbonate (CO3)		<5.0	<5.0	RPD-NA	mg/L	NA	25	18-MAY-10
Hydroxide (OH)		<5.0	<5.0	RPD-NA	mg/L	NA	25	18-MAY-10

ALS Laboratory Group Quality Control Report

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Client: TYHEE NW T LTD.
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PH/EC/ALK-ED Water								
Batch	R1256423							
W G 1105519-7	DUP	L887437-2						
Alkalinity, Total (as CaCO3)		36.9	36.8		mg/L	0.45	6.5	18-MAY-10
W G 1105519-2	LCS							
Conductivity (EC)			97		%		90-110	18-MAY-10
W G 1105519-3	LCS							
pH			7.00		pH		6.9-7.1	18-MAY-10
W G 1105519-4	LCS							
Alkalinity, Total (as CaCO3)			100		%		85-115	18-MAY-10
W G 1105519-1	MB							
Bicarbonate (HCO3)			<5.0		mg/L		5	18-MAY-10
Carbonate (CO3)			<5.0		mg/L		5	18-MAY-10
Hydroxide (OH)			<5.0		mg/L		5	18-MAY-10
Alkalinity, Total (as CaCO3)			<5.0		mg/L		5	18-MAY-10
SO4-T-ED Water								
Batch	R1257394							
W G 1105774-3	DUP	L886959-15						
Sulfate (SO4)		5.32	5.23		mg/L	1.8	20	18-MAY-10
W G 1105774-5	DUP	L886970-4						
Sulfate (SO4)		36.0	36.1		mg/L	0.47	20	18-MAY-10
W G 1105774-7	DUP	L887028-7						
Sulfate (SO4)		283	281		mg/L	0.68	20	18-MAY-10
W G 1105774-9	DUP	L887109-24						
Sulfate (SO4)		56.4	56.3		mg/L	0.21	20	18-MAY-10
W G 1105774-2	LCS							
Sulfate (SO4)			109		%		85-115	18-MAY-10
W G 1105774-1	MB							
Sulfate (SO4)			<0.50		mg/L		0.5	18-MAY-10
W G 1105774-10	MS	L887109-24						
Sulfate (SO4)			103		%		75-125	18-MAY-10
W G 1105774-4	MS	L886959-15						
Sulfate (SO4)			103		%		75-125	18-MAY-10
W G 1105774-6	MS	L886970-4						
Sulfate (SO4)			91		%		75-125	18-MAY-10
W G 1105774-8	MS	L887028-7						
Sulfate (SO4)			N/A	MS-B	%		-	18-MAY-10
SOLIDS-TDS-ED Water								

ALS Laboratory Group Quality Control Report

Workorder: L887028

ReportDate: 26-MAY-10

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Client: TYHEENW T LTD.
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2

Contact: HUGH WILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
SOLIDS-TDS-ED		Water						
Batch	R1257446							
W G 1105695-3	DUP	L886959-15						
Total Dissolved Solids		102	97.0		mg/L	5.0	20	19-MAY-10
W G 1105695-4	DUP	L887028-3						
Total Dissolved Solids		360	370		mg/L	2.7	20	19-MAY-10
W G 1105695-2	LCS							
Total Dissolved Solids			96		%		85-115	19-MAY-10
W G 1105695-1	MB							
Total Dissolved Solids			<5.0		mg/L		5	19-MAY-10
SOLIDS-TOTALSUS-ED		Water						
Batch	R1256669							
W G 1105533-3	DUP	L886959-15						
Total Suspended Solids		<3.0	<3.0	RPD-NA	mg/L	NA	20	18-MAY-10
W G 1105533-4	DUP	L887028-3						
Total Suspended Solids		28.0	30.0		mg/L	6.9	20	18-MAY-10
W G 1105533-2	LCS							
Total Suspended Solids			110		%		85-115	18-MAY-10
W G 1105533-1	MB							
Total Suspended Solids			<3.0		mg/L		3	18-MAY-10

ALS Laboratory Group Quality Control Report

Workorder: L887028

ReportDate: 26-MAY-10

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Legend:

Limit	99% Confidence Interval (Laboratory Control Limits)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
B	Method Blank exceeds ALS DQO. All associated sample results are at least 5 times greater than blank levels and are considered reliable.
J	Duplicate results and limits are expressed in terms of absolute difference.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

May 12, 2010

[illegible]



Environmental Division

Certificate of Analysis

TYHEE NW T LTD.
ATTN: HUGH W ILSON
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2

Report Date: 13-AUG -10 16:38 (MT)
Version: FINAL

Lab Work Order #: L917272

Date Received: 06-AUG -10

Project P.O. #: NOT SUBMITTED
Job Reference: 1740082.020
Legal Site Desc:
Co/C Numbers: 08-011820, 08-011821

Other Information:

Comments:

Susan Clark
Account Manager

THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN AUTHORITY OF THE LABORATORY.
ALL SAMPLES WILL BE DISPOSED OF AFTER 30 DAYS FOLLOWING ANALYSIS. PLEASE CONTACT THE LAB IF YOU
REQUIRE ADDITIONAL SAMPLE STORAGE TIME.

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L917272-1	17-1 ROUND LK								
Sampled By: CLIENT									
Matrix: WATER									
	Ammonia-N	<0.050		0.050	mg/L		10-AUG-10	LMK	R1425103
	Biochemical Oxygen Demand	<2.0		2.0	mg/L		07-AUG-10	JTAN	R1435943
	MF -FecalColiforms	See Attached					10-AUG-10	PB	R1424883
	Total Dissolved Solids	425		5.0	mg/L		10-AUG-10	SVG	R1424783
	Total Suspended Solids	<3.0		3.0	mg/L		09-AUG-10	SVG	R1421397
Routine Water Analysis									
	Chloride by IC								
	Chloride (Cl)	1.86		0.50	mg/L		07-AUG-10	WYA	R1420614
Dissolved Metals in Water by ICPOES									
	Calcium (Ca)-Dissolved	58.8		0.50	mg/L		11-AUG-10	JWU	R1434203
	Magnesium (Mg)-Dissolved	28.3		0.10	mg/L		11-AUG-10	JWU	R1434203
	Potassium (K)-Dissolved	6.05		0.50	mg/L		11-AUG-10	JWU	R1434203
	Sodium (Na)-Dissolved	13.7		1.0	mg/L		11-AUG-10	JWU	R1434203
Ion Balance Calculation									
	Ion Balance	96.2			%		12-AUG-10		
	TDS (Calculated)	383			mg/L		12-AUG-10		
	Hardness (as CaCO3)	263			mg/L		12-AUG-10		
Nitrate as N by IC									
	Nitrate (as N)	<0.050		0.050	mg/L		07-AUG-10	WYA	R1420614
	Nitrate and Nitrite as N	<0.071		0.071	mg/L		09-AUG-10		
Nitrite as N by IC									
	Nitrite (as N)	<0.050		0.050	mg/L		07-AUG-10	WYA	R1420614
Sulfate by IC									
	Sulfate (SO4)	235		0.50	mg/L		07-AUG-10	WYA	R1420614
pH, Conductivity and Total Alkalinity									
	pH	7.84		0.10	pH		06-AUG-10	WYA	R1419027
	Conductivity (EC)	587		0.20	uS/cm		06-AUG-10	WYA	R1419027
	Bicarbonate (HCO3)	79.6		5.0	mg/L		06-AUG-10	WYA	R1419027
	Carbonate (CO3)	<5.0		5.0	mg/L		06-AUG-10	WYA	R1419027
	Hydroxide (OH)	<5.0		5.0	mg/L		06-AUG-10	WYA	R1419027
	Alkalinity, Total (as CaCO3)	65.2		5.0	mg/L		06-AUG-10	WYA	R1419027

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L917272-2 17-5 W INTER LK								
Sampled By: CLENT								
Matrix: WATER								
Total Metals								
Total Metals in Water by IC PMS (Low)								
Aluminum (Al)-Total	0.036		0.020	mg/L		11-AUG-10	SYF	R1433524
Antimony (Sb)-Total	<0.00040		0.00040	mg/L		11-AUG-10	SYF	R1433524
Arsenic (As)-Total	0.00162		0.00040	mg/L		11-AUG-10	SYF	R1433524
Barium (Ba)-Total	0.0165		0.00020	mg/L		11-AUG-10	SYF	R1433524
Beryllium (Be)-Total	<0.0010		0.0010	mg/L		11-AUG-10	SYF	R1433524
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		11-AUG-10	SYF	R1433524
Boron (B)-Total	0.020		0.020	mg/L		11-AUG-10	SYF	R1433524
Cadmium (Cd)-Total	<0.00020		0.00020	mg/L		11-AUG-10	SYF	R1433524
Chromium (Cr)-Total	<0.00080		0.00080	mg/L		11-AUG-10	SYF	R1433524
Cobalt (Co)-Total	0.00021		0.00020	mg/L		11-AUG-10	SYF	R1433524
Copper (Cu)-Total	0.0039		0.0010	mg/L		11-AUG-10	SYF	R1433524
Lead (Pb)-Total	<0.00010		0.00010	mg/L		11-AUG-10	SYF	R1433524
Molybdenum (Mo)-Total	0.00013		0.00010	mg/L		11-AUG-10	SYF	R1433524
Nickel (Ni)-Total	0.00397		0.00020	mg/L		11-AUG-10	SYF	R1433524
Selenium (Se)-Total	<0.00040		0.00040	mg/L		11-AUG-10	SYF	R1433524
Silver (Ag)-Total	<0.00040		0.00040	mg/L		11-AUG-10	SYF	R1433524
Strontium (Sr)-Total	0.0804		0.00020	mg/L		11-AUG-10	SYF	R1433524
Thallium (Tl)-Total	<0.00010		0.00010	mg/L		11-AUG-10	SYF	R1433524
Th (Sn)-Total	<0.00040		0.00040	mg/L		11-AUG-10	SYF	R1433524
Titanium (Ti)-Total	<0.0050		0.0050	mg/L		11-AUG-10	SYF	R1433524
Uranium (U)-Total	0.00011		0.00010	mg/L		11-AUG-10	SYF	R1433524
Vanadium (V)-Total	<0.00050		0.00050	mg/L		11-AUG-10	SYF	R1433524
Zinc (Zn)-Total	0.0115		0.0040	mg/L		11-AUG-10	SYF	R1433524
Total Metals in Water by IC POES (Low)								
Calcium (Ca)-Total	26.5		0.50	mg/L		11-AUG-10	JW U	R1434205
Iron (Fe)-Total	0.067		0.010	mg/L		11-AUG-10	JW U	R1434205
Magnesium (Mg)-Total	10.0		0.10	mg/L		11-AUG-10	JW U	R1434205
Manganese (Mn)-Total	0.133		0.0020	mg/L		11-AUG-10	JW U	R1434205
Potassium (K)-Total	3.35		0.10	mg/L		11-AUG-10	JW U	R1434205
Sodium (Na)-Total	6.7		1.0	mg/L		11-AUG-10	JW U	R1434205
Ammonia-N	<0.050		0.050	mg/L		10-AUG-10	LMK	R1425103
Oil and Grease	<1.0		1.0	mg/L		11-AUG-10	HPOD	R1429023
Total Dissolved Solids	184		5.0	mg/L		10-AUG-10	SVG	R1424783
Total Suspended Solids	<3.0		3.0	mg/L		09-AUG-10	SVG	R1421397
Routine Water Analysis								
Chloride by IC								
Chloride (Cl)	1.56		0.50	mg/L		07-AUG-10	W YA	R1420614
Dissolved Metals in Water by IC POES								
Calcium (Ca)-Dissolved	26.2		0.50	mg/L		11-AUG-10	JW U	R1434203
Magnesium (Mg)-Dissolved	9.78		0.10	mg/L		11-AUG-10	JW U	R1434203
Potassium (K)-Dissolved	3.09		0.50	mg/L		11-AUG-10	JW U	R1434203
Sodium (Na)-Dissolved	6.3		1.0	mg/L		11-AUG-10	JW U	R1434203
Ion Balance Calculation								
Ion Balance	90.2			%		12-AUG-10		
TDS (Calculated)	164			mg/L		12-AUG-10		
Hardness (as CaCO3)	106			mg/L		12-AUG-10		
Nitrate as N by IC								
Nitrate (as N)	4.97		0.050	mg/L		07-AUG-10	W YA	R1420614
Nitrate and Nitrite as N	4.97		0.071	mg/L		09-AUG-10		

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L917272-2	17-5 W INTER LK								
Sampled By: CLIENT									
Matrix: WATER									
Routine Water Analysis									
Nitrite as N by IC									
Nitrite (as N)		<0.050		0.050	mg/L		07-AUG-10	W YA	R1420614
Sulfate by IC									
Sulfate (SO4)		67.4		0.50	mg/L		07-AUG-10	W YA	R1420614
pH, Conductivity and Total Alkalinity									
pH		7.90		0.10	pH		06-AUG-10	W YA	R1419027
Conductivity (EC)		245		0.20	uS/cm		06-AUG-10	W YA	R1419027
Bicarbonate (HCO3)		56.8		5.0	mg/L		06-AUG-10	W YA	R1419027
Carbonate (CO3)		<5.0		5.0	mg/L		06-AUG-10	W YA	R1419027
Hydroxide (OH)		<5.0		5.0	mg/L		06-AUG-10	W YA	R1419027
Alkalinity, Total (as CaCO3)		46.6		5.0	mg/L		06-AUG-10	W YA	R1419027

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L917272-3 17-6 GMD SUMP								
Sampled By: CLENT								
Matrix: WATER								
Dissolved Metals								
Diss.Metals in Waterby IC-PMS (Low)								
Aluminum (Al)-Dissolved	0.036		0.010	mg/L		10-AUG-10	SYF	R1422005
Antimony (Sb)-Dissolved	<0.00040		0.00040	mg/L		10-AUG-10	SYF	R1422005
Arsenic (As)-Dissolved	0.00162		0.00040	mg/L		12-AUG-10	SYF	R1433523
Barium (Ba)-Dissolved	0.0382		0.00010	mg/L		10-AUG-10	SYF	R1422005
Beryllium (Be)-Dissolved	<0.00050		0.00050	mg/L		10-AUG-10	SYF	R1422005
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L		10-AUG-10	SYF	R1422005
Boron (B)-Dissolved	0.0752		0.0020	mg/L		10-AUG-10	SYF	R1422005
Cadmium (Cd)-Dissolved	0.00017		0.00010	mg/L		10-AUG-10	SYF	R1422005
Chromium (Cr)-Dissolved	<0.00040		0.00040	mg/L		10-AUG-10	SYF	R1422005
Cobalt (Co)-Dissolved	0.00234		0.00010	mg/L		10-AUG-10	SYF	R1422005
Copper (Cu)-Dissolved	0.00127		0.00060	mg/L		10-AUG-10	SYF	R1422005
Lead (Pb)-Dissolved	<0.00010		0.00010	mg/L		10-AUG-10	SYF	R1422005
Molybdenum (Mo)-Dissolved	0.00010		0.00010	mg/L		10-AUG-10	SYF	R1422005
Nickel (Ni)-Dissolved	0.00740		0.00010	mg/L		10-AUG-10	SYF	R1422005
Selenium (Se)-Dissolved	0.00053		0.00040	mg/L		10-AUG-10	SYF	R1422005
Silver (Ag)-Dissolved	<0.00020		0.00020	mg/L		10-AUG-10	SYF	R1422005
Strontium (Sr)-Dissolved	0.323		0.00010	mg/L		10-AUG-10	SYF	R1422005
Thallium (Tl)-Dissolved	<0.000050		0.000050	mg/L		10-AUG-10	SYF	R1422005
Tin (Sn)-Dissolved	<0.00020		0.00020	mg/L		10-AUG-10	SYF	R1422005
Titanium (Ti)-Dissolved	0.00080		0.00030	mg/L		10-AUG-10	SYF	R1422005
Uranium (U)-Dissolved	<0.00010		0.00010	mg/L		10-AUG-10	SYF	R1422005
Vanadium (V)-Dissolved	0.00013		0.00010	mg/L		10-AUG-10	SYF	R1422005
Zinc (Zn)-Dissolved	0.0414		0.0010	mg/L		10-AUG-10	SYF	R1422005
Diss.Metals in Waterby IC-POES (Low)								
Calcium (Ca)-Dissolved	201		0.50	mg/L		11-AUG-10	JW U	R1434203
Iron (Fe)-Dissolved	0.178		0.010	mg/L		11-AUG-10	JW U	R1434203
Magnesium (Mg)-Dissolved	28.1		0.10	mg/L		11-AUG-10	JW U	R1434203
Manganese (Mn)-Dissolved	0.288		0.0020	mg/L		11-AUG-10	JW U	R1434203
Potassium (K)-Dissolved	14.0		0.10	mg/L		11-AUG-10	JW U	R1434203
Sodium (Na)-Dissolved	20.1		0.50	mg/L		11-AUG-10	JW U	R1434203
Total Metals								
Total Metals in Waterby IC-PMS (Low)								
Aluminum (Al)-Total	0.049		0.020	mg/L		11-AUG-10	SYF	R1433524
Antimony (Sb)-Total	<0.00040		0.00040	mg/L		11-AUG-10	SYF	R1433524
Arsenic (As)-Total	0.00169		0.00040	mg/L		11-AUG-10	SYF	R1433524
Barium (Ba)-Total	0.0457		0.00020	mg/L		11-AUG-10	SYF	R1433524
Beryllium (Be)-Total	<0.0010		0.0010	mg/L		11-AUG-10	SYF	R1433524
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		11-AUG-10	SYF	R1433524
Boron (B)-Total	0.083		0.020	mg/L		11-AUG-10	SYF	R1433524
Cadmium (Cd)-Total	0.00289		0.00020	mg/L		11-AUG-10	SYF	R1433524
Chromium (Cr)-Total	<0.00080		0.00080	mg/L		11-AUG-10	SYF	R1433524
Cobalt (Co)-Total	0.00247		0.00020	mg/L		11-AUG-10	SYF	R1433524
Copper (Cu)-Total	0.0015		0.0010	mg/L		11-AUG-10	SYF	R1433524
Lead (Pb)-Total	0.00011		0.00010	mg/L		11-AUG-10	SYF	R1433524
Molybdenum (Mo)-Total	<0.00010		0.00010	mg/L		11-AUG-10	SYF	R1433524
Nickel (Ni)-Total	0.00866		0.00020	mg/L		11-AUG-10	SYF	R1433524
Selenium (Se)-Total	0.00063		0.00040	mg/L		11-AUG-10	SYF	R1433524
Silver (Ag)-Total	<0.00040		0.00040	mg/L		11-AUG-10	SYF	R1433524
Strontium (Sr)-Total	0.357		0.00020	mg/L		11-AUG-10	SYF	R1433524
Thallium (Tl)-Total	<0.00010		0.00010	mg/L		11-AUG-10	SYF	R1433524
Tin (Sn)-Total	<0.00040		0.00040	mg/L		11-AUG-10	SYF	R1433524

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L917272-3 17-6 GMD SUMP									
Sampled By: CLIENT									
Matrix: WATER									
TotalMetals									
TotalMetals in Waterby ICPMS (Low)									
Titanium (Ti)-Total		<0.0050		0.0050	mg/L		11-AUG -10	SYF	R1433524
Uranium (U)-Total		<0.00010		0.00010	mg/L		11-AUG -10	SYF	R1433524
Vanadium (V)-Total		<0.00050		0.00050	mg/L		11-AUG -10	SYF	R1433524
Zinc (Zn)-Total		0.0444		0.0040	mg/L		11-AUG -10	SYF	R1433524
TotalMetals in Waterby ICP OES (Low)									
Calcium (Ca)-Total		206		0.50	mg/L		11-AUG -10	JW U	R1434205
Iron (Fe)-Total		0.261		0.010	mg/L		11-AUG -10	JW U	R1434205
Magnesium (Mg)-Total		28.4		0.10	mg/L		11-AUG -10	JW U	R1434205
Manganese (Mn)-Total		0.289		0.0020	mg/L		11-AUG -10	JW U	R1434205
Potassium (K)-Total		14.0		0.10	mg/L		11-AUG -10	JW U	R1434205
Sodium (Na)-Total		20.2		1.0	mg/L		11-AUG -10	JW U	R1434205
Ammonia-N		<0.050		0.050	mg/L		10-AUG -10	LM K	R1425103
TotalDissolved Solids		960		5.0	mg/L		10-AUG -10	SVG	R1424783
TotalSuspended Solids		<3.0		3.0	mg/L		09-AUG -10	SVG	R1421397
Routine WaterAnalysis									
Chloride by I									
Chloride (Cl)		4.01		0.50	mg/L		07-AUG -10	W YA	R1420614
Dissolved Metals in Waterby ICP OES									
Calcium (Ca)-Dissolved		201		0.50	mg/L		11-AUG -10	JW U	R1434203
Magnesium (Mg)-Dissolved		28.1		0.10	mg/L		11-AUG -10	JW U	R1434203
Potassium (K)-Dissolved		14.0		0.50	mg/L		11-AUG -10	JW U	R1434203
Sodium (Na)-Dissolved		20.1		1.0	mg/L		11-AUG -10	JW U	R1434203
Ion Balance Calculation									
Ion Balance		105			%		12-AUG -10		
TDS (Calculated)		874			mg/L		12-AUG -10		
Hardness (as CaCO3)		618			mg/L		12-AUG -10		
Nitrate as N by I									
Nitrate (as N)		1.72		0.050	mg/L		07-AUG -10	W YA	R1420614
Nitrate and Nitrite as N		1.72		0.071	mg/L		09-AUG -10		
Nitrite as N by I									
Nitrite (as N)		<0.050		0.050	mg/L		07-AUG -10	W YA	R1420614
Sulfate by I									
Sulfate (SO4)		584		0.50	mg/L		07-AUG -10	W YA	R1420614
pH ,Conductivity and TotalAlkalinity									
pH		6.96		0.10	pH		06-AUG -10	W YA	R1419027
Conductivity (EC)		1130		0.20	uS /cm		06-AUG -10	W YA	R1419027
Bicarbonate (HCO3)		31.5		5.0	mg/L		06-AUG -10	W YA	R1419027
Carbonate (CO3)		<5.0		5.0	mg/L		06-AUG -10	W YA	R1419027
Hydroxide (OH)		<5.0		5.0	mg/L		06-AUG -10	W YA	R1419027
Alkalinity, Total (as CaCO3)		25.8		5.0	mg/L		06-AUG -10	W YA	R1419027

Sample Details/Parameters		Result	Qualifier*	D L.	Units	Extracted	Analyzed	By	Batch
L917272-4	17-7 SEW AGE								
Sampled By: CLENT									
Matrix: WATER									
Ammonia-N		89.1		0.050	mg/L		10-AUG-10	LMK	R1425103
Biochemical Oxygen Demand		386		2.0	mg/L		07-AUG-10	JAN	R1435943
MF -Fecal Coliforms		See Attached					10-AUG-10	PB	R1424883
Total Dissolved Solids		483	RRV	5.0	mg/L		10-AUG-10	SVG	R1424783
Total Suspended Solids		122		3.0	mg/L		09-AUG-10	SVG	R1421397
Routine Water Analysis									
Chloride by IC									
Chloride (Cl)		74.2		0.50	mg/L		07-AUG-10	WYA	R1420614
Dissolved Metals in Water by ICP-OES									
Calcium (Ca)-Dissolved		8.41		0.50	mg/L		11-AUG-10	JWU	R1434203
Magnesium (Mg)-Dissolved		5.72		0.10	mg/L		11-AUG-10	JWU	R1434203
Potassium (K)-Dissolved		30.4		0.50	mg/L		11-AUG-10	JWU	R1434203
Sodium (Na)-Dissolved		81.2		1.0	mg/L		11-AUG-10	JWU	R1434203
Ion Balance Calculation									
Ion Balance		104			%		12-AUG-10		
TDS (Calculated)		472			mg/L		12-AUG-10		
Hardness (as CaCO3)		44.6			mg/L		12-AUG-10		
Nitrate as N by IC									
Nitrate (as N)		<0.050		0.050	mg/L		07-AUG-10	WYA	R1420614
Nitrate and Nitrite as N		<0.071		0.071	mg/L		09-AUG-10		
Nitrite as N by IC									
Nitrite (as N)		<0.050		0.050	mg/L		07-AUG-10	WYA	R1420614
Sulfate by IC									
Sulfate (SO4)		6.99		0.50	mg/L		07-AUG-10	WYA	R1420614
pH, Conductivity and Total Alkalinity									
pH		7.62		0.10	pH		06-AUG-10	WYA	R1419027
Conductivity (EC)		1310		0.20	uS/cm		06-AUG-10	WYA	R1419027
Bicarbonate (HCO3)		540		5.0	mg/L		06-AUG-10	WYA	R1419027
Carbonate (CO3)		<5.0		5.0	mg/L		06-AUG-10	WYA	R1419027
Hydroxide (OH)		<5.0		5.0	mg/L		06-AUG-10	WYA	R1419027
Alkalinity, Total (as CaCO3)		442		5.0	mg/L		06-AUG-10	WYA	R1419027

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Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L917272-5 17-8 GAUQUE LK								
Sampled By: CLENT								
Matrix: WATER								
Total Metals								
Total Metals in Water by IC PMS (Low)								
Aluminum (Al)-Total	0.032		0.020	mg/L		10-AUG-10	SYF	R1426586
Antimony (Sb)-Total	<0.00040		0.00040	mg/L		10-AUG-10	SYF	R1426586
Arsenic (As)-Total	0.00041		0.00040	mg/L		10-AUG-10	SYF	R1426586
Barium (Ba)-Total	0.00437		0.00020	mg/L		10-AUG-10	SYF	R1426586
Beryllium (Be)-Total	<0.0010		0.0010	mg/L		10-AUG-10	SYF	R1426586
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		10-AUG-10	SYF	R1426586
Boron (B)-Total	<0.020		0.020	mg/L		10-AUG-10	SYF	R1426586
Cadmium (Cd)-Total	<0.00020		0.00020	mg/L		10-AUG-10	SYF	R1426586
Chromium (Cr)-Total	<0.00080		0.00080	mg/L		10-AUG-10	SYF	R1426586
Cobalt (Co)-Total	0.00022		0.00020	mg/L		10-AUG-10	SYF	R1426586
Copper (Cu)-Total	0.0017		0.0010	mg/L		10-AUG-10	SYF	R1426586
Lead (Pb)-Total	<0.00010		0.00010	mg/L		10-AUG-10	SYF	R1426586
Molybdenum (Mo)-Total	<0.00010		0.00010	mg/L		10-AUG-10	SYF	R1426586
Nickel (Ni)-Total	0.00109		0.00020	mg/L		10-AUG-10	SYF	R1426586
Selenium (Se)-Total	<0.00040		0.00040	mg/L		10-AUG-10	SYF	R1426586
Silver (Ag)-Total	<0.00040		0.00040	mg/L		10-AUG-10	SYF	R1426586
Strontium (Sr)-Total	0.0233		0.00020	mg/L		10-AUG-10	SYF	R1426586
Thallium (Tl)-Total	<0.00010		0.00010	mg/L		10-AUG-10	SYF	R1426586
Th (Sn)-Total	<0.00040		0.00040	mg/L		10-AUG-10	SYF	R1426586
Titanium (Ti)-Total	<0.0050		0.0050	mg/L		10-AUG-10	SYF	R1426586
Uranium (U)-Total	0.00012		0.00010	mg/L		10-AUG-10	SYF	R1426586
Vanadium (V)-Total	<0.00050		0.00050	mg/L		10-AUG-10	SYF	R1426586
Zinc (Zn)-Total	0.0148		0.0040	mg/L		10-AUG-10	SYF	R1426586
Total Metals in Water by IC POES (Low)								
Calcium (Ca)-Total	5.53		0.50	mg/L		10-AUG-10	JW U	R1427264
Iron (Fe)-Total	0.011		0.010	mg/L		10-AUG-10	JW U	R1427264
Magnesium (Mg)-Total	2.44		0.10	mg/L		10-AUG-10	JW U	R1427264
Manganese (Mn)-Total	<0.0020		0.0020	mg/L		10-AUG-10	JW U	R1427264
Potassium (K)-Total	1.04		0.10	mg/L		10-AUG-10	JW U	R1427264
Sodium (Na)-Total	2.2		1.0	mg/L		10-AUG-10	JW U	R1427264
Ammonia-N	<0.050		0.050	mg/L		10-AUG-10	LMK	R1425103
MF - Fecal Coliforms	See Attached					10-AUG-10	PB	R1424883
Total Dissolved Solids	43.0		5.0	mg/L		10-AUG-10	SVG	R1424783
Total Suspended Solids	<3.0		3.0	mg/L		09-AUG-10	SVG	R1421397
Routine Water Analysis								
Chloride by IC								
Chloride (Cl)	1.68		0.50	mg/L		07-AUG-10	W YA	R1420614
Dissolved Metals in Water by IC POES								
Calcium (Ca)-Dissolved	5.30		0.50	mg/L		11-AUG-10	JW U	R1434203
Magnesium (Mg)-Dissolved	2.43		0.10	mg/L		11-AUG-10	JW U	R1434203
Potassium (K)-Dissolved	1.11		0.50	mg/L		11-AUG-10	JW U	R1434203
Sodium (Na)-Dissolved	2.2		1.0	mg/L		11-AUG-10	JW U	R1434203
Ion Balance Calculation								
Ion Balance	Low EC			%		12-AUG-10		
TDS (Calculated)	30.1			mg/L		12-AUG-10		
Hardness (as CaCO3)	23.2			mg/L		12-AUG-10		
Nitrate as N by IC								
Nitrate (as N)	0.117		0.050	mg/L		07-AUG-10	W YA	R1420614
Nitrate and Nitrite as N	0.117		0.071	mg/L		09-AUG-10		

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L917272-5	17-8 GAUQUE LK								
Sampled By: CLIENT									
Matrix: WATER									
Routine Water Analysis									
Nitrite as N by IC									
Nitrite (as N)		<0.050		0.050	mg/L		07-AUG-10	W YA	R1420614
Sulfate by IC									
Sulfate (SO4)		6.87		0.50	mg/L		07-AUG-10	W YA	R1420614
pH, Conductivity and Total Alkalinity									
pH		7.56		0.10	pH		06-AUG-10	W YA	R1419027
Conductivity (EC)		59.2		0.20	uS/cm		06-AUG-10	W YA	R1419027
Bicarbonate (HCO3)		20.4		5.0	mg/L		06-AUG-10	W YA	R1419027
Carbonate (CO3)		<5.0		5.0	mg/L		06-AUG-10	W YA	R1419027
Hydroxide (OH)		<5.0		5.0	mg/L		06-AUG-10	W YA	R1419027
Alkalinity, Total (as CaCO3)		16.7		5.0	mg/L		06-AUG-10	W YA	R1419027

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Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L917272-6 DECLINE								
Sampled By: CLENT								
Matrix: WATER								
Total Metals								
Total Metals in Water by IC PMS (Low)								
Aluminum (Al)-Total	0.152		0.020	mg/L		11-AUG-10	SYF	R1433524
Antimony (Sb)-Total	0.00251		0.00040	mg/L		11-AUG-10	SYF	R1433524
Arsenic (As)-Total	0.00235		0.00040	mg/L		11-AUG-10	SYF	R1433524
Barium (Ba)-Total	0.0312		0.00020	mg/L		11-AUG-10	SYF	R1433524
Beryllium (Be)-Total	<0.0010		0.0010	mg/L		11-AUG-10	SYF	R1433524
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		11-AUG-10	SYF	R1433524
Boron (B)-Total	0.049		0.020	mg/L		11-AUG-10	SYF	R1433524
Cadmium (Cd)-Total	0.00461		0.00020	mg/L		11-AUG-10	SYF	R1433524
Chromium (Cr)-Total	<0.00080		0.00080	mg/L		11-AUG-10	SYF	R1433524
Cobalt (Co)-Total	0.00173		0.00020	mg/L		11-AUG-10	SYF	R1433524
Copper (Cu)-Total	0.0039		0.0010	mg/L		11-AUG-10	SYF	R1433524
Lead (Pb)-Total	0.00155		0.00010	mg/L		11-AUG-10	SYF	R1433524
Molybdenum (Mo)-Total	0.00198		0.00010	mg/L		11-AUG-10	SYF	R1433524
Nickel (Ni)-Total	0.00358		0.00020	mg/L		11-AUG-10	SYF	R1433524
Selenium (Se)-Total	<0.00040		0.00040	mg/L		11-AUG-10	SYF	R1433524
Silver (Ag)-Total	<0.00040		0.00040	mg/L		11-AUG-10	SYF	R1433524
Strontium (Sr)-Total	0.289		0.00020	mg/L		11-AUG-10	SYF	R1433524
Thallium (Tl)-Total	<0.00010		0.00010	mg/L		11-AUG-10	SYF	R1433524
Tin (Sn)-Total	<0.00040		0.00040	mg/L		11-AUG-10	SYF	R1433524
Titanium (Ti)-Total	0.0112		0.0050	mg/L		11-AUG-10	SYF	R1433524
Uranium (U)-Total	0.00348		0.00010	mg/L		11-AUG-10	SYF	R1433524
Vanadium (V)-Total	<0.00050		0.00050	mg/L		11-AUG-10	SYF	R1433524
Zinc (Zn)-Total	0.0428		0.0040	mg/L		11-AUG-10	SYF	R1433524
Total Metals in Water by IC POES (Low)								
Calcium (Ca)-Total	56.4		0.50	mg/L		11-AUG-10	JW U	R1434205
Iron (Fe)-Total	0.766		0.010	mg/L		11-AUG-10	JW U	R1434205
Magnesium (Mg)-Total	11.1		0.10	mg/L		11-AUG-10	JW U	R1434205
Manganese (Mn)-Total	0.167		0.0020	mg/L		11-AUG-10	JW U	R1434205
Potassium (K)-Total	3.98		0.10	mg/L		11-AUG-10	JW U	R1434205
Sodium (Na)-Total	10.4		1.0	mg/L		11-AUG-10	JW U	R1434205
Ammonia-N	0.167		0.050	mg/L		10-AUG-10	LMK	R1425103
Oil and Grease	<1.0		1.0	mg/L		11-AUG-10	HPOD	R1429023
Total Dissolved Solids	295		5.0	mg/L		10-AUG-10	SVG	R1424783
Total Suspended Solids	7.0		3.0	mg/L		09-AUG-10	SVG	R1421397
Routine Water Analysis								
Chloride by IC								
Chloride (Cl)	3.07		0.50	mg/L		07-AUG-10	W YA	R1420614
Dissolved Metals in Water by IC POES								
Calcium (Ca)-Dissolved	52.5		0.50	mg/L		11-AUG-10	JW U	R1434203
Magnesium (Mg)-Dissolved	10.6		0.10	mg/L		11-AUG-10	JW U	R1434203
Potassium (K)-Dissolved	3.84		0.50	mg/L		11-AUG-10	JW U	R1434203
Sodium (Na)-Dissolved	9.7		1.0	mg/L		11-AUG-10	JW U	R1434203
Ion Balance Calculation								
Ion Balance	95.9			%		12-AUG-10		
TDS (Calculated)	257			mg/L		12-AUG-10		
Hardness (as CaCO3)	175			mg/L		12-AUG-10		
Nitrate as N by IC								
Nitrate (as N)	2.21		0.050	mg/L		07-AUG-10	W YA	R1420614
Nitrate and Nitrite as N	2.21		0.071	mg/L		09-AUG-10		

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L917272-6	DECLINE								
Sampled By: CLIENT									
Matrix: WATER									
Routine Water Analysis									
Nitrite as N by IC									
Nitrite (as N)		<0.050		0.050	mg/L		07-AUG-10	W YA	R1420614
Sulfate by IC									
Sulfate (SO4)		131		0.50	mg/L		07-AUG-10	W YA	R1420614
pH, Conductivity and Total Alkalinity									
pH		7.86		0.10	pH		06-AUG-10	W YA	R1419027
Conductivity (EC)		416		0.20	uS/cm		06-AUG-10	W YA	R1419027
Bicarbonate (HCO3)		74.6		5.0	mg/L		06-AUG-10	W YA	R1419027
Carbonate (CO3)		<5.0		5.0	mg/L		06-AUG-10	W YA	R1419027
Hydroxide (OH)		<5.0		5.0	mg/L		06-AUG-10	W YA	R1419027
Alkalinity, Total (as CaCO3)		61.1		5.0	mg/L		06-AUG-10	W YA	R1419027

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Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L917272-7 BT-1 ORM -VA								
Sampled By: 05-AUG -100800								
Matrix: WATER								
Dissolved Metals								
Diss.Metals in Waterby ICPMS (Low)								
Aluminum (Al)-Dissolved	<0.010		0.010	mg/L		10-AUG -10	SYF	R1422005
Antimony (Sb)-Dissolved	<0.00040		0.00040	mg/L		10-AUG -10	SYF	R1422005
Arsenic (As)-Dissolved	0.00582		0.00040	mg/L		10-AUG -10	SYF	R1422005
Barium (Ba)-Dissolved	0.0467		0.00010	mg/L		10-AUG -10	SYF	R1422005
Beryllium (Be)-Dissolved	<0.00050		0.00050	mg/L		10-AUG -10	SYF	R1422005
Bismuth (Bi)-Dissolved	0.000095		0.000050	mg/L		10-AUG -10	SYF	R1422005
Boron (B)-Dissolved	0.196		0.0020	mg/L		10-AUG -10	SYF	R1422005
Cadmium (Cd)-Dissolved	<0.00010		0.00010	mg/L		10-AUG -10	SYF	R1422005
Chromium (Cr)-Dissolved	<0.0020	DLM	0.0020	mg/L		10-AUG -10	SYF	R1422005
Cobalt (Co)-Dissolved	0.00943		0.00010	mg/L		10-AUG -10	SYF	R1422005
Copper (Cu)-Dissolved	0.00516		0.00060	mg/L		10-AUG -10	SYF	R1422005
Lead (Pb)-Dissolved	<0.00010		0.00010	mg/L		10-AUG -10	SYF	R1422005
Molybdenum (Mo)-Dissolved	0.00584		0.00010	mg/L		10-AUG -10	SYF	R1422005
Nickel (Ni)-Dissolved	0.0168		0.00010	mg/L		10-AUG -10	SYF	R1422005
Selenium (Se)-Dissolved	<0.0020	DLM	0.0020	mg/L		10-AUG -10	SYF	R1422005
Silver (Ag)-Dissolved	<0.00020		0.00020	mg/L		10-AUG -10	SYF	R1422005
Strontium (Sr)-Dissolved	1.56		0.00010	mg/L		10-AUG -10	SYF	R1422005
Thallium (Tl)-Dissolved	<0.000050		0.000050	mg/L		13-AUG -10	SYF	R1433523
Tin (Sn)-Dissolved	<0.00020		0.00020	mg/L		10-AUG -10	SYF	R1422005
Titanium (Ti)-Dissolved	0.00052		0.00030	mg/L		10-AUG -10	SYF	R1422005
Uranium (U)-Dissolved	0.00039		0.00010	mg/L		10-AUG -10	SYF	R1422005
Vanadium (V)-Dissolved	<0.00050	DLM	0.00050	mg/L		10-AUG -10	SYF	R1422005
Zinc (Zn)-Dissolved	0.0067		0.0010	mg/L		10-AUG -10	SYF	R1422005
Diss.Metals in Waterby ICPOES (Low)								
Calcium (Ca)-Dissolved	605		0.50	mg/L		12-AUG -10	JW U	R1438652
Iron (Fe)-Dissolved	0.013		0.010	mg/L		11-AUG -10	JW U	R1434203
Magnesium (Mg)-Dissolved	37.2		0.10	mg/L		11-AUG -10	JW U	R1434203
Manganese (Mn)-Dissolved	0.734		0.0020	mg/L		11-AUG -10	JW U	R1434203
Potassium (K)-Dissolved	58.0		0.10	mg/L		11-AUG -10	JW U	R1434203
Sodium (Na)-Dissolved	18.8		0.50	mg/L		11-AUG -10	JW U	R1434203
Total Metals								
Total Metals in Waterby ICPMS (Low)								
Aluminum (Al)-Total	0.047		0.020	mg/L		11-AUG -10	SYF	R1433524
Antimony (Sb)-Total	<0.00040		0.00040	mg/L		11-AUG -10	SYF	R1433524
Arsenic (As)-Total	0.00835		0.00040	mg/L		11-AUG -10	SYF	R1433524
Barium (Ba)-Total	0.0799		0.00020	mg/L		11-AUG -10	SYF	R1433524
Beryllium (Be)-Total	<0.0010		0.0010	mg/L		11-AUG -10	SYF	R1433524
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		11-AUG -10	SYF	R1433524
Boron (B)-Total	0.210		0.020	mg/L		11-AUG -10	SYF	R1433524
Cadmium (Cd)-Total	0.0376		0.00020	mg/L		11-AUG -10	SYF	R1433524
Chromium (Cr)-Total	<0.00080		0.00080	mg/L		11-AUG -10	SYF	R1433524
Cobalt (Co)-Total	0.0100		0.00020	mg/L		11-AUG -10	SYF	R1433524
Copper (Cu)-Total	0.0060		0.0010	mg/L		11-AUG -10	SYF	R1433524
Lead (Pb)-Total	0.00017		0.00010	mg/L		11-AUG -10	SYF	R1433524
Molybdenum (Mo)-Total	0.00571		0.00010	mg/L		11-AUG -10	SYF	R1433524
Nickel (Ni)-Total	0.0200		0.00020	mg/L		11-AUG -10	SYF	R1433524
Selenium (Se)-Total	0.0021	DLM	0.0020	mg/L		11-AUG -10	SYF	R1433524
Silver (Ag)-Total	<0.00040		0.00040	mg/L		11-AUG -10	SYF	R1433524
Strontium (Sr)-Total	1.71		0.00020	mg/L		11-AUG -10	SYF	R1433524
Thallium (Tl)-Total	<0.00010		0.00010	mg/L		11-AUG -10	SYF	R1433524
Tin (Sn)-Total	<0.00040		0.00040	mg/L		11-AUG -10	SYF	R1433524

Sample Details/Parameters		Result	Qualifier*	D L.	Units	Extracted	Analyzed	By	Batch
L917272-7 BT-1 ORM -VA									
Sampled By: 05-AUG -100800									
Matrix: WATER									
Total Metals									
Total Metals in Water by IC PMS (Low)									
Titanium (Ti)-Total		<0.0050		0.0050	mg/L		11-AUG -10	SYF	R1433524
Uranium (U)-Total		0.00044		0.00010	mg/L		11-AUG -10	SYF	R1433524
Vanadium (V)-Total		<0.00050		0.00050	mg/L		11-AUG -10	SYF	R1433524
Zinc (Zn)-Total		0.0622		0.0040	mg/L		11-AUG -10	SYF	R1433524
Total Metals in Water by IC POES (Low)									
Calcium (Ca)-Total		683		0.50	mg/L		11-AUG -10	JW U	R1434205
Iron (Fe)-Total		0.248		0.010	mg/L		11-AUG -10	JW U	R1434205
Magnesium (Mg)-Total		44.1		0.10	mg/L		11-AUG -10	JW U	R1434205
Manganese (Mn)-Total		0.875		0.0020	mg/L		11-AUG -10	JW U	R1434205
Potassium (K)-Total		65.0		0.10	mg/L		11-AUG -10	JW U	R1434205
Sodium (Na)-Total		21.6		1.0	mg/L		11-AUG -10	JW U	R1434205
Total Dissolved Solids		2710		5.0	mg/L		10-AUG -10	SVG	R1424783
Total Suspended Solids		6.0		3.0	mg/L		09-AUG -10	SVG	R1421397
Routine Water Analysis									
Chloride by IC									
Chloride (Cl)		2.47		0.50	mg/L		07-AUG -10	W YA	R1420614
Dissolved Metals in Water by IC POES									
Calcium (Ca)-Dissolved		605		0.50	mg/L		12-AUG -10	JW U	R1438652
Magnesium (Mg)-Dissolved		37.2		0.10	mg/L		11-AUG -10	JW U	R1434203
Potassium (K)-Dissolved		58.0		0.50	mg/L		11-AUG -10	JW U	R1434203
Sodium (Na)-Dissolved		18.8		1.0	mg/L		11-AUG -10	JW U	R1434203
Ion Balance Calculation									
Ion Balance		93.0			%		12-AUG -10		
TDS (Calculated)		2530			mg/L		12-AUG -10		
Hardness (as CaCO3)		1660			mg/L		12-AUG -10		
Nitrate as N by IC									
Nitrate (as N)		0.430		0.050	mg/L		07-AUG -10	W YA	R1420614
Nitrate and Nitrite as N		0.430		0.071	mg/L		09-AUG -10		
Nitrite as N by IC									
Nitrite (as N)		<0.050		0.050	mg/L		07-AUG -10	W YA	R1420614
Sulfate by IC									
Sulfate (SO4)		1770	DLM	5.0	mg/L		09-AUG -10	DDN	R1422131
pH, Conductivity and Total Alkalinity									
pH		7.87		0.10	pH		06-AUG -10	W YA	R1419027
Conductivity (EC)		2660		0.20	uS/cm		06-AUG -10	W YA	R1419027
Bicarbonate (HCO3)		77.6		5.0	mg/L		06-AUG -10	W YA	R1419027
Carbonate (CO3)		<5.0		5.0	mg/L		06-AUG -10	W YA	R1419027
Hydroxide (OH)		<5.0		5.0	mg/L		06-AUG -10	W YA	R1419027
Alkalinity, Total (as CaCO3)		63.6		5.0	mg/L		06-AUG -10	W YA	R1419027

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Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L917272-8 BT-2 ORM-MA								
Sampled By: 05-AUG -100800								
Matrix: WATER								
Dissolved Metals								
Diss.Metals in Water by ICPMS (Low)								
Aluminum (Al)-Dissolved	0.018		0.010	mg/L		10-AUG -10	SYF	R1422005
Antimony (Sb)-Dissolved	<0.00040		0.00040	mg/L		10-AUG -10	SYF	R1422005
Arsenic (As)-Dissolved	0.0118		0.00040	mg/L		10-AUG -10	SYF	R1422005
Barium (Ba)-Dissolved	0.0476		0.00010	mg/L		10-AUG -10	SYF	R1422005
Beryllium (Be)-Dissolved	<0.00050		0.00050	mg/L		10-AUG -10	SYF	R1422005
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L		10-AUG -10	SYF	R1422005
Boron (B)-Dissolved	0.0744		0.0020	mg/L		10-AUG -10	SYF	R1422005
Cadmium (Cd)-Dissolved	<0.00010		0.00010	mg/L		10-AUG -10	SYF	R1422005
Chromium (Cr)-Dissolved	<0.0020	DLM	0.0020	mg/L		10-AUG -10	SYF	R1422005
Cobalt (Co)-Dissolved	0.00615		0.00010	mg/L		10-AUG -10	SYF	R1422005
Copper (Cu)-Dissolved	0.00298		0.00060	mg/L		10-AUG -10	SYF	R1422005
Lead (Pb)-Dissolved	<0.00010		0.00010	mg/L		10-AUG -10	SYF	R1422005
Molybdenum (Mo)-Dissolved	0.00886		0.00010	mg/L		10-AUG -10	SYF	R1422005
Nickel (Ni)-Dissolved	0.0135		0.00010	mg/L		10-AUG -10	SYF	R1422005
Selenium (Se)-Dissolved	0.0020	DLM	0.0020	mg/L		10-AUG -10	SYF	R1422005
Silver (Ag)-Dissolved	<0.00020		0.00020	mg/L		10-AUG -10	SYF	R1422005
Strontium (Sr)-Dissolved	0.937		0.00010	mg/L		10-AUG -10	SYF	R1422005
Thallium (Tl)-Dissolved	<0.000050		0.000050	mg/L		10-AUG -10	SYF	R1422005
Tin (Sn)-Dissolved	<0.00020		0.00020	mg/L		10-AUG -10	SYF	R1422005
Titanium (Ti)-Dissolved	0.00031		0.00030	mg/L		10-AUG -10	SYF	R1422005
Uranium (U)-Dissolved	0.00052		0.00010	mg/L		10-AUG -10	SYF	R1422005
Vanadium (V)-Dissolved	<0.00050	DLM	0.00050	mg/L		10-AUG -10	SYF	R1422005
Zinc (Zn)-Dissolved	0.0099		0.0010	mg/L		10-AUG -10	SYF	R1422005
Diss.Metals in Water by ICP-OES (Low)								
Calcium (Ca)-Dissolved	509		0.50	mg/L		12-AUG -10	JW U	R1438652
Iron (Fe)-Dissolved	<0.010		0.010	mg/L		11-AUG -10	JW U	R1434203
Magnesium (Mg)-Dissolved	24.9		0.10	mg/L		11-AUG -10	JW U	R1434203
Manganese (Mn)-Dissolved	0.219		0.0020	mg/L		11-AUG -10	JW U	R1434203
Potassium (K)-Dissolved	48.5		0.10	mg/L		11-AUG -10	JW U	R1434203
Sodium (Na)-Dissolved	10.6		0.50	mg/L		11-AUG -10	JW U	R1434203
Total Metals								
Total Metals in Water by ICPMS (Low)								
Aluminum (Al)-Total	0.026		0.020	mg/L		11-AUG -10	SYF	R1433524
Antimony (Sb)-Total	<0.00040		0.00040	mg/L		11-AUG -10	SYF	R1433524
Arsenic (As)-Total	0.0125		0.00040	mg/L		11-AUG -10	SYF	R1433524
Barium (Ba)-Total	0.0477		0.00020	mg/L		11-AUG -10	SYF	R1433524
Beryllium (Be)-Total	<0.0010		0.0010	mg/L		11-AUG -10	SYF	R1433524
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		11-AUG -10	SYF	R1433524
Boron (B)-Total	0.077		0.020	mg/L		11-AUG -10	SYF	R1433524
Cadmium (Cd)-Total	<0.00020		0.00020	mg/L		11-AUG -10	SYF	R1433524
Chromium (Cr)-Total	<0.00080		0.00080	mg/L		11-AUG -10	SYF	R1433524
Cobalt (Co)-Total	0.00690		0.00020	mg/L		11-AUG -10	SYF	R1433524
Copper (Cu)-Total	0.0037		0.0010	mg/L		11-AUG -10	SYF	R1433524
Lead (Pb)-Total	<0.00010		0.00010	mg/L		11-AUG -10	SYF	R1433524
Molybdenum (Mo)-Total	0.00891		0.00010	mg/L		11-AUG -10	SYF	R1433524
Nickel (Ni)-Total	0.0156		0.00020	mg/L		11-AUG -10	SYF	R1433524
Selenium (Se)-Total	<0.0020	DLM	0.0020	mg/L		11-AUG -10	SYF	R1433524
Silver (Ag)-Total	<0.00040		0.00040	mg/L		11-AUG -10	SYF	R1433524
Strontium (Sr)-Total	1.06		0.00020	mg/L		11-AUG -10	SYF	R1433524
Thallium (Tl)-Total	<0.00010		0.00010	mg/L		11-AUG -10	SYF	R1433524
Tin (Sn)-Total	<0.00040		0.00040	mg/L		11-AUG -10	SYF	R1433524

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L917272-8 BT-2 ORM-MA									
Sampled By: 05-AUG -100800									
Matrix: WATER									
TotalMetals									
TotalMetals in Waterby ICPMS (Low)									
Titanium (Ti)-Total		<0.0050		0.0050	mg/L		11-AUG -10	SYF	R1433524
Uranium (U)-Total		0.00055		0.00010	mg/L		11-AUG -10	SYF	R1433524
Vanadium (V)-Total		<0.00050		0.00050	mg/L		11-AUG -10	SYF	R1433524
Zinc (Zn)-Total		0.0120		0.0040	mg/L		11-AUG -10	SYF	R1433524
TotalMetals in Waterby ICP OES (Low)									
Calcium (Ca)-Total		620		0.50	mg/L		11-AUG -10	JW U	R1434205
Iron (Fe)-Total		0.027		0.010	mg/L		11-AUG -10	JW U	R1434205
Magnesium (Mg)-Total		30.7		0.10	mg/L		11-AUG -10	JW U	R1434205
Manganese (Mn)-Total		0.298		0.0020	mg/L		11-AUG -10	JW U	R1434205
Potassium (K)-Total		57.6		0.10	mg/L		11-AUG -10	JW U	R1434205
Sodium (Na)-Total		12.6		1.0	mg/L		11-AUG -10	JW U	R1434205
TotalDissolved Solids		2280		5.0	mg/L		10-AUG -10	SVG	R1424783
TotalSuspended Solids		<3.0		3.0	mg/L		09-AUG -10	SVG	R1421397
Routine WaterAnalysis									
Chloride by IC									
Chlbide (Cl)		3.33		0.50	mg/L		07-AUG -10	W YA	R1420614
Dissolved Metals in Waterby ICP OES									
Calcium (Ca)-Dissolved		509		0.50	mg/L		12-AUG -10	JW U	R1438652
Magnesium (Mg)-Dissolved		24.9		0.10	mg/L		11-AUG -10	JW U	R1434203
Potassium (K)-Dissolved		48.5		0.50	mg/L		11-AUG -10	JW U	R1434203
Sodium (Na)-Dissolved		10.6		1.0	mg/L		11-AUG -10	JW U	R1434203
Ion Balance Calculation									
Ion Balance		92.6			%		12-AUG -10		
TDS (Calculated)		2090			mg/L		12-AUG -10		
Hardness (as CaCO3)		1370			mg/L		12-AUG -10		
Nitrate as N by IC									
Nitrate (as N)		0.782		0.050	mg/L		07-AUG -10	W YA	R1420614
Nitrate and Nitrite as N		0.782		0.071	mg/L		09-AUG -10		
Nitrite as N by IC									
Nitrite (as N)		<0.050		0.050	mg/L		07-AUG -10	W YA	R1420614
Sulfate by IC									
Sulfate (SO4)		1460	DLM	5.0	mg/L		09-AUG -10	DDN	R1422131
pH ,Conductivity and TotalAlkalinity									
pH		7.93		0.10	pH		06-AUG -10	W YA	R1419027
Conductivity (EC)		2310		0.20	uS /cm		06-AUG -10	W YA	R1419027
Bicarbonate (HCO3)		57.5		5.0	mg/L		06-AUG -10	W YA	R1419027
Carbonate (CO3)		<5.0		5.0	mg/L		06-AUG -10	W YA	R1419027
Hydroxide (OH)		<5.0		5.0	mg/L		06-AUG -10	W YA	R1419027
Alkalinity, Total (as CaCO3)		47.1		5.0	mg/L		06-AUG -10	W YA	R1419027

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Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L917272-9 BT-3 ORM-BG								
Sampled By: 05-AUG-100800								
Matrix: WATER								
Dissolved Metals								
Diss.Metals in Water by ICPMS (Low)								
Aluminum (Al)-Dissolved	<0.010		0.010	mg/L		10-AUG-10	SYF	R1422005
Antimony (Sb)-Dissolved	<0.00040		0.00040	mg/L		10-AUG-10	SYF	R1422005
Arsenic (As)-Dissolved	0.00686		0.00040	mg/L		10-AUG-10	SYF	R1422005
Barium (Ba)-Dissolved	0.0140		0.00010	mg/L		10-AUG-10	SYF	R1422005
Beryllium (Be)-Dissolved	<0.00050		0.00050	mg/L		10-AUG-10	SYF	R1422005
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L		10-AUG-10	SYF	R1422005
Boron (B)-Dissolved	0.0274		0.0020	mg/L		10-AUG-10	SYF	R1422005
Cadmium (Cd)-Dissolved	0.00051		0.00010	mg/L		10-AUG-10	SYF	R1422005
Chromium (Cr)-Dissolved	<0.00040		0.00040	mg/L		10-AUG-10	SYF	R1422005
Cobalt (Co)-Dissolved	0.0280		0.00010	mg/L		10-AUG-10	SYF	R1422005
Copper (Cu)-Dissolved	0.00235		0.00060	mg/L		10-AUG-10	SYF	R1422005
Lead (Pb)-Dissolved	<0.00010		0.00010	mg/L		10-AUG-10	SYF	R1422005
Molybdenum (Mo)-Dissolved	0.00046		0.00010	mg/L		10-AUG-10	SYF	R1422005
Nickel (Ni)-Dissolved	0.330		0.00010	mg/L		10-AUG-10	SYF	R1422005
Selenium (Se)-Dissolved	0.00170		0.00040	mg/L		10-AUG-10	SYF	R1422005
Silver (Ag)-Dissolved	<0.00020		0.00020	mg/L		10-AUG-10	SYF	R1422005
Strontium (Sr)-Dissolved	0.173		0.00010	mg/L		10-AUG-10	SYF	R1422005
Thallium (Tl)-Dissolved	0.000095		0.000050	mg/L		10-AUG-10	SYF	R1422005
Tin (Sn)-Dissolved	<0.00020		0.00020	mg/L		10-AUG-10	SYF	R1422005
Titanium (Ti)-Dissolved	0.00091		0.00030	mg/L		10-AUG-10	SYF	R1422005
Uranium (U)-Dissolved	<0.00010		0.00010	mg/L		10-AUG-10	SYF	R1422005
Vanadium (V)-Dissolved	<0.00010		0.00010	mg/L		10-AUG-10	SYF	R1422005
Zinc (Zn)-Dissolved	0.0481		0.0010	mg/L		10-AUG-10	SYF	R1422005
Diss.Metals in Water by ICPOES (Low)								
Calcium (Ca)-Dissolved	143		0.50	mg/L		11-AUG-10	JW U	R1434203
Iron (Fe)-Dissolved	<0.010		0.010	mg/L		11-AUG-10	JW U	R1434203
Magnesium (Mg)-Dissolved	20.3		0.10	mg/L		11-AUG-10	JW U	R1434203
Manganese (Mn)-Dissolved	0.442		0.0020	mg/L		11-AUG-10	JW U	R1434203
Potassium (K)-Dissolved	10.2		0.10	mg/L		11-AUG-10	JW U	R1434203
Sodium (Na)-Dissolved	2.37		0.50	mg/L		11-AUG-10	JW U	R1434203
Total Metals								
Total Metals in Water by ICPMS (Low)								
Aluminum (Al)-Total	<0.020		0.020	mg/L		10-AUG-10	SYF	R1426586
Antimony (Sb)-Total	<0.00040		0.00040	mg/L		10-AUG-10	SYF	R1426586
Arsenic (As)-Total	0.00711		0.00040	mg/L		10-AUG-10	SYF	R1426586
Barium (Ba)-Total	0.0158		0.00020	mg/L		10-AUG-10	SYF	R1426586
Beryllium (Be)-Total	<0.0010		0.0010	mg/L		10-AUG-10	SYF	R1426586
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		10-AUG-10	SYF	R1426586
Boron (B)-Total	0.028		0.020	mg/L		10-AUG-10	SYF	R1426586
Cadmium (Cd)-Total	0.00053		0.00020	mg/L		10-AUG-10	SYF	R1426586
Chromium (Cr)-Total	<0.00080		0.00080	mg/L		10-AUG-10	SYF	R1426586
Cobalt (Co)-Total	0.0275		0.00020	mg/L		10-AUG-10	SYF	R1426586
Copper (Cu)-Total	0.0026		0.0010	mg/L		10-AUG-10	SYF	R1426586
Lead (Pb)-Total	<0.00010		0.00010	mg/L		10-AUG-10	SYF	R1426586
Molybdenum (Mo)-Total	0.00050		0.00010	mg/L		10-AUG-10	SYF	R1426586
Nickel (Ni)-Total	0.325		0.00020	mg/L		10-AUG-10	SYF	R1426586
Selenium (Se)-Total	0.00187		0.00040	mg/L		10-AUG-10	SYF	R1426586
Silver (Ag)-Total	<0.00040		0.00040	mg/L		10-AUG-10	SYF	R1426586
Strontium (Sr)-Total	0.184		0.00020	mg/L		10-AUG-10	SYF	R1426586
Thallium (Tl)-Total	0.00010		0.00010	mg/L		10-AUG-10	SYF	R1426586
Tin (Sn)-Total	<0.00040		0.00040	mg/L		10-AUG-10	SYF	R1426586

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L917272-9 BT-3 ORM-BG									
Sampled By: 05-AUG-100800									
Matrix: WATER									
TotalMetals									
TotalMetals in Waterby IC PMS (Low)									
Titanium (Ti)-Total		<0.0050		0.0050	mg/L		10-AUG-10	SYF	R1426586
Uranium (U)-Total		<0.00010		0.00010	mg/L		10-AUG-10	SYF	R1426586
Vanadium (V)-Total		<0.00050		0.00050	mg/L		10-AUG-10	SYF	R1426586
Zinc (Zn)-Total		0.0531		0.0040	mg/L		10-AUG-10	SYF	R1426586
TotalMetals in Waterby IC POES (Low)									
Calcium (Ca)-Total		148		0.50	mg/L		10-AUG-10	JW U	R1427264
Iron (Fe)-Total		<0.010		0.010	mg/L		10-AUG-10	JW U	R1427264
Magnesium (Mg)-Total		21.1		0.10	mg/L		10-AUG-10	JW U	R1427264
Manganese (Mn)-Total		0.460		0.0020	mg/L		10-AUG-10	JW U	R1427264
Potassium (K)-Total		8.59		0.10	mg/L		10-AUG-10	JW U	R1427264
Sodium (Na)-Total		2.5		1.0	mg/L		10-AUG-10	JW U	R1427264
TotalDissolved Solids		712		5.0	mg/L		10-AUG-10	SVG	R1424783
TotalSuspended Solids		<3.0		3.0	mg/L		09-AUG-10	SVG	R1421397
Routine Water Analysis									
Chloride by IC									
Chloride (Cl)		0.73		0.50	mg/L		07-AUG-10	W YA	R1420614
Dissolved Metals in Waterby IC POES									
Calcium (Ca)-Dissolved		143		0.50	mg/L		11-AUG-10	JW U	R1434203
Magnesium (Mg)-Dissolved		20.3		0.10	mg/L		11-AUG-10	JW U	R1434203
Potassium (K)-Dissolved		10.2		0.50	mg/L		11-AUG-10	JW U	R1434203
Sodium (Na)-Dissolved		2.4		1.0	mg/L		11-AUG-10	JW U	R1434203
Ion Balance Calculation									
Ion Balance		97.5			%		12-AUG-10		
TDS (Calculated)		625			mg/L		12-AUG-10		
Hardness (as CaCO3)		441			mg/L		12-AUG-10		
Nitrate as N by IC									
Nitrate (as N)		0.291		0.050	mg/L		07-AUG-10	W YA	R1420614
Nitrate and Nitrite as N		0.291		0.071	mg/L		09-AUG-10		
Nitrite as N by IC									
Nitrite (as N)		<0.050		0.050	mg/L		07-AUG-10	W YA	R1420614
Sulfate by IC									
Sulfate (SO4)		444		0.50	mg/L		07-AUG-10	W YA	R1420614
pH, Conductivity and TotalAlkalinity									
pH		7.06		0.10	pH		06-AUG-10	W YA	R1419027
Conductivity (EC)		857		0.20	uS/cm		06-AUG-10	W YA	R1419027
Bicarbonate (HCO3)		7.2		5.0	mg/L		06-AUG-10	W YA	R1419027
Carbonate (CO3)		<5.0		5.0	mg/L		06-AUG-10	W YA	R1419027
Hydroxide (OH)		<5.0		5.0	mg/L		06-AUG-10	W YA	R1419027
Alkalinity, Total (as CaCO3)		5.9		5.0	mg/L		06-AUG-10	W YA	R1419027

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Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L917272-10 BT-4 ORM-TS								
Sampled By: 05-AUG-100800								
Matrix: WATER								
Dissolved Metals								
Diss.Metals in Water by ICPMS (Low)								
Aluminum (Al)-Dissolved	1.18		0.010	mg/L		12-AUG-10	SYF	R1433523
Antimony (Sb)-Dissolved	<0.00040		0.00040	mg/L		10-AUG-10	SYF	R1422005
Arsenic (As)-Dissolved	0.00196		0.00040	mg/L		10-AUG-10	SYF	R1422005
Barium (Ba)-Dissolved	0.0383		0.00010	mg/L		10-AUG-10	SYF	R1422005
Beryllium (Be)-Dissolved	<0.00050		0.00050	mg/L		10-AUG-10	SYF	R1422005
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L		10-AUG-10	SYF	R1422005
Boron (B)-Dissolved	0.0094		0.0020	mg/L		10-AUG-10	SYF	R1422005
Cadmium (Cd)-Dissolved	0.00108		0.00010	mg/L		10-AUG-10	SYF	R1422005
Chromium (Cr)-Dissolved	<0.00040		0.00040	mg/L		10-AUG-10	SYF	R1422005
Cobalt (Co)-Dissolved	0.119		0.00010	mg/L		10-AUG-10	SYF	R1422005
Copper (Cu)-Dissolved	0.0511		0.00060	mg/L		10-AUG-10	SYF	R1422005
Lead (Pb)-Dissolved	0.00034		0.00010	mg/L		10-AUG-10	SYF	R1422005
Molybdenum (Mo)-Dissolved	<0.00010		0.00010	mg/L		10-AUG-10	SYF	R1422005
Nickel (Ni)-Dissolved	0.176		0.00010	mg/L		10-AUG-10	SYF	R1422005
Selenium (Se)-Dissolved	0.00052		0.00040	mg/L		10-AUG-10	SYF	R1422005
Silver (Ag)-Dissolved	<0.00020		0.00020	mg/L		10-AUG-10	SYF	R1422005
Strontium (Sr)-Dissolved	0.0489		0.00010	mg/L		10-AUG-10	SYF	R1422005
Thallium (Tl)-Dissolved	<0.000050		0.000050	mg/L		10-AUG-10	SYF	R1422005
Tin (Sn)-Dissolved	<0.00020		0.00020	mg/L		10-AUG-10	SYF	R1422005
Titanium (Ti)-Dissolved	0.00151		0.00030	mg/L		10-AUG-10	SYF	R1422005
Uranium (U)-Dissolved	<0.00010		0.00010	mg/L		10-AUG-10	SYF	R1422005
Vanadium (V)-Dissolved	<0.00010		0.00010	mg/L		10-AUG-10	SYF	R1422005
Zinc (Zn)-Dissolved	0.143		0.0010	mg/L		10-AUG-10	SYF	R1422005
Diss.Metals in Water by ICP-OES (Low)								
Calcium (Ca)-Dissolved	18.1		0.50	mg/L		11-AUG-10	JW U	R1434203
Iron (Fe)-Dissolved	0.117		0.010	mg/L		11-AUG-10	JW U	R1434203
Magnesium (Mg)-Dissolved	3.83		0.10	mg/L		11-AUG-10	JW U	R1434203
Manganese (Mn)-Dissolved	0.499		0.0020	mg/L		11-AUG-10	JW U	R1434203
Potassium (K)-Dissolved	5.20		0.10	mg/L		11-AUG-10	JW U	R1434203
Sodium (Na)-Dissolved	1.39		0.50	mg/L		11-AUG-10	JW U	R1434203
Total Metals								
Total Metals in Water by ICPMS (Low)								
Aluminum (Al)-Total	1.14	RRV	0.020	mg/L		10-AUG-10	SYF	R1426586
Antimony (Sb)-Total	<0.00040		0.00040	mg/L		10-AUG-10	SYF	R1426586
Arsenic (As)-Total	0.00203		0.00040	mg/L		10-AUG-10	SYF	R1426586
Barium (Ba)-Total	0.0440		0.00020	mg/L		10-AUG-10	SYF	R1426586
Beryllium (Be)-Total	<0.0010		0.0010	mg/L		10-AUG-10	SYF	R1426586
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		10-AUG-10	SYF	R1426586
Boron (B)-Total	<0.020		0.020	mg/L		10-AUG-10	SYF	R1426586
Cadmium (Cd)-Total	0.00118		0.00020	mg/L		10-AUG-10	SYF	R1426586
Chromium (Cr)-Total	<0.00080		0.00080	mg/L		10-AUG-10	SYF	R1426586
Cobalt (Co)-Total	0.116		0.00020	mg/L		10-AUG-10	SYF	R1426586
Copper (Cu)-Total	0.0503		0.0010	mg/L		10-AUG-10	SYF	R1426586
Lead (Pb)-Total	0.00036		0.00010	mg/L		10-AUG-10	SYF	R1426586
Molybdenum (Mo)-Total	0.00019		0.00010	mg/L		10-AUG-10	SYF	R1426586
Nickel (Ni)-Total	0.168		0.00020	mg/L		10-AUG-10	SYF	R1426586
Selenium (Se)-Total	0.00062		0.00040	mg/L		10-AUG-10	SYF	R1426586
Silver (Ag)-Total	<0.00040		0.00040	mg/L		10-AUG-10	SYF	R1426586
Strontium (Sr)-Total	0.0546		0.00020	mg/L		10-AUG-10	SYF	R1426586
Thallium (Tl)-Total	<0.00010		0.00010	mg/L		10-AUG-10	SYF	R1426586
Tin (Sn)-Total	<0.00040		0.00040	mg/L		10-AUG-10	SYF	R1426586

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L917272-10 BT-4 ORM-TS									
Sampled By: 05-AUG -100800									
Matrix: WATER									
TotalMetals									
TotalMetals in Waterby IC PMS (Low)									
Titanium (Ti)-Total		<0.0050		0.0050	mg/L		10-AUG -10	SYF	R1426586
Uranium (U)-Total		<0.00010		0.00010	mg/L		10-AUG -10	SYF	R1426586
Vanadium (V)-Total		<0.00050		0.00050	mg/L		10-AUG -10	SYF	R1426586
Zinc (Zn)-Total		0.169		0.0040	mg/L		10-AUG -10	SYF	R1426586
TotalMetals in Waterby IC POES (Low)									
Calcium (Ca)-Total		18.7		0.50	mg/L		10-AUG -10	JW U	R1427264
Iron (Fe)-Total		0.225		0.010	mg/L		10-AUG -10	JW U	R1427264
Magnesium (Mg)-Total		3.90		0.10	mg/L		10-AUG -10	JW U	R1427264
Manganese (Mn)-Total		0.511		0.0020	mg/L		10-AUG -10	JW U	R1427264
Potassium (K)-Total		4.54		0.10	mg/L		10-AUG -10	JW U	R1427264
Sodium (Na)-Total		1.6		1.0	mg/L		10-AUG -10	JW U	R1427264
TotalDissolved Solids		159		5.0	mg/L		10-AUG -10	SVG	R1424783
TotalSuspended Solids		4.0		3.0	mg/L		09-AUG -10	SVG	R1421397
Routine WaterAnalysis									
Chloride by IC									
Chloride (Cl)		<0.50		0.50	mg/L		07-AUG -10	W YA	R1420614
Dissolved Metals in Waterby IC POES									
Calcium (Ca)-Dissolved		18.1	RRV	0.50	mg/L		11-AUG -10	JW U	R1434203
Magnesium (Mg)-Dissolved		3.83	RRV	0.10	mg/L		11-AUG -10	JW U	R1434203
Potassium (K)-Dissolved		5.20	RRV	0.50	mg/L		11-AUG -10	JW U	R1434203
Sodium (Na)-Dissolved		1.4	RRV	1.0	mg/L		11-AUG -10	JW U	R1434203
Ion Balance Calculation									
Ion Balance		86.9	BL:NT		%		12-AUG -10		
TDS (Calculated)		107			mg/L		12-AUG -10		
Hardness (as CaCO3)		61.0			mg/L		12-AUG -10		
Nitrate as N by IC									
Nitrate (as N)		0.060		0.050	mg/L		07-AUG -10	W YA	R1420614
Nitrate and Nitrite as N		<0.071		0.071	mg/L		09-AUG -10		
Nitrite as N by IC									
Nitrite (as N)		<0.050		0.050	mg/L		07-AUG -10	W YA	R1420614
Sulfate by IC									
Sulfate (SO4)		77.8		0.50	mg/L		07-AUG -10	W YA	R1420614
pH, Conductivity and TotalAlkalinity									
pH		4.61	RRV	0.10	pH		06-AUG -10	W YA	R1419027
Conductivity (EC)		196	RRV	0.20	uS/cm		06-AUG -10	W YA	R1419027
Bicarbonate (HCO3)		<5.0		5.0	mg/L		06-AUG -10	W YA	R1419027
Carbonate (CO3)		<5.0		5.0	mg/L		06-AUG -10	W YA	R1419027
Hydroxide (OH)		<5.0		5.0	mg/L		06-AUG -10	W YA	R1419027
Alkalinity, Total (as CaCO3)		<5.0		5.0	mg/L		06-AUG -10	W YA	R1419027

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Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L917272-11 BT-5 ORM-ARG								
Sampled By: 05-AUG -100800								
Matrix: WATER								
Dissolved Metals								
Diss.Metals in Water by ICPMS (Low)								
Aluminum (Al)-Dissolved	92.2		0.010	mg/L		10-AUG -10	SYF	R1422005
Antimony (Sb)-Dissolved	<0.00040		0.00040	mg/L		10-AUG -10	SYF	R1422005
Arsenic (As)-Dissolved	0.0729		0.00040	mg/L		10-AUG -10	SYF	R1422005
Barium (Ba)-Dissolved	0.0120		0.00010	mg/L		10-AUG -10	SYF	R1422005
Beryllium (Be)-Dissolved	0.00811		0.00050	mg/L		10-AUG -10	SYF	R1422005
Bismuth (Bi)-Dissolved	0.000110		0.000050	mg/L		10-AUG -10	SYF	R1422005
Boron (B)-Dissolved	0.0440		0.0020	mg/L		10-AUG -10	SYF	R1422005
Cadmium (Cd)-Dissolved	0.0762		0.00010	mg/L		10-AUG -10	SYF	R1422005
Chromium (Cr)-Dissolved	<0.0020	DLM	0.0020	mg/L		10-AUG -10	SYF	R1422005
Cobalt (Co)-Dissolved	1.04		0.00010	mg/L		10-AUG -10	SYF	R1422005
Copper (Cu)-Dissolved	1.52		0.00060	mg/L		10-AUG -10	SYF	R1422005
Lead (Pb)-Dissolved	0.00141		0.00010	mg/L		10-AUG -10	SYF	R1422005
Molybdenum (Mo)-Dissolved	0.00015		0.00010	mg/L		10-AUG -10	SYF	R1422005
Nickel (Ni)-Dissolved	0.588		0.00010	mg/L		10-AUG -10	SYF	R1422005
Selenium (Se)-Dissolved	0.0072	DLM	0.0020	mg/L		10-AUG -10	SYF	R1422005
Silver (Ag)-Dissolved	<0.00020		0.00020	mg/L		10-AUG -10	SYF	R1422005
Strontium (Sr)-Dissolved	0.282		0.00010	mg/L		10-AUG -10	SYF	R1422005
Thallium (Tl)-Dissolved	0.000150		0.000050	mg/L		12-AUG -10	SYF	R1433523
Tin (Sn)-Dissolved	0.00022		0.00020	mg/L		10-AUG -10	SYF	R1422005
Titanium (Ti)-Dissolved	0.00830		0.00030	mg/L		10-AUG -10	SYF	R1422005
Uranium (U)-Dissolved	0.00183		0.00010	mg/L		10-AUG -10	SYF	R1422005
Vanadium (V)-Dissolved	<0.00050	DLM	0.00050	mg/L		10-AUG -10	SYF	R1422005
Zinc (Zn)-Dissolved	4.95		0.0010	mg/L		10-AUG -10	SYF	R1422005
Diss.Metals in Water by ICPOES (Low)								
Calcium (Ca)-Dissolved	177		0.50	mg/L		11-AUG -10	JW U	R1434203
Iron (Fe)-Dissolved	3.37		0.010	mg/L		11-AUG -10	JW U	R1434203
Magnesium (Mg)-Dissolved	26.3		0.10	mg/L		11-AUG -10	JW U	R1434203
Manganese (Mn)-Dissolved	4.89		0.0020	mg/L		11-AUG -10	JW U	R1434203
Potassium (K)-Dissolved	2.32		0.10	mg/L		11-AUG -10	JW U	R1434203
Sodium (Na)-Dissolved	4.26		0.50	mg/L		11-AUG -10	JW U	R1434203
Total Metals								
Total Metals in Water by ICPMS (Low)								
Aluminum (Al)-Total	87.7		0.020	mg/L		10-AUG -10	SYF	R1426586
Antimony (Sb)-Total	<0.00040		0.00040	mg/L		10-AUG -10	SYF	R1426586
Arsenic (As)-Total	0.0777		0.00040	mg/L		10-AUG -10	SYF	R1426586
Barium (Ba)-Total	0.0125		0.00020	mg/L		10-AUG -10	SYF	R1426586
Beryllium (Be)-Total	0.0103		0.0010	mg/L		10-AUG -10	SYF	R1426586
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		10-AUG -10	SYF	R1426586
Boron (B)-Total	0.047		0.020	mg/L		10-AUG -10	SYF	R1426586
Cadmium (Cd)-Total	0.0798		0.00020	mg/L		10-AUG -10	SYF	R1426586
Chromium (Cr)-Total	0.00182		0.00080	mg/L		10-AUG -10	SYF	R1426586
Cobalt (Co)-Total	1.03		0.00020	mg/L		10-AUG -10	SYF	R1426586
Copper (Cu)-Total	1.60		0.0010	mg/L		10-AUG -10	SYF	R1426586
Lead (Pb)-Total	0.00172		0.00010	mg/L		10-AUG -10	SYF	R1426586
Molybdenum (Mo)-Total	0.00012		0.00010	mg/L		10-AUG -10	SYF	R1426586
Nickel (Ni)-Total	0.592		0.00020	mg/L		10-AUG -10	SYF	R1426586
Selenium (Se)-Total	0.0075	DLM	0.0020	mg/L		10-AUG -10	SYF	R1426586
Silver (Ag)-Total	<0.00040		0.00040	mg/L		10-AUG -10	SYF	R1426586
Strontium (Sr)-Total	0.282		0.00020	mg/L		10-AUG -10	SYF	R1426586
Thallium (Tl)-Total	0.00014	RRV	0.00010	mg/L		10-AUG -10	SYF	R1426586
Tin (Sn)-Total	<0.00040		0.00040	mg/L		10-AUG -10	SYF	R1426586

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L917272-11 BT-5 ORM-ARG									
Sampled By: 05-AUG -100800									
Matrix: WATER									
TotalMetals									
TotalMetals in Waterby ICPMS (Low)									
Titanium (Ti)-Total		0.0098		0.0050	mg/L		10-AUG -10	SYF	R1426586
Uranium (U)-Total		0.00200		0.00010	mg/L		10-AUG -10	SYF	R1426586
Vanadium (V)-Total		<0.00050		0.00050	mg/L		10-AUG -10	SYF	R1426586
Zinc (Zn)-Total		5.54		0.0040	mg/L		10-AUG -10	SYF	R1426586
TotalMetals in Waterby ICP OES (Low)									
Calcium (Ca)-Total		180		0.50	mg/L		10-AUG -10	JW U	R1427264
Iron (Fe)-Total		3.49		0.010	mg/L		10-AUG -10	JW U	R1427264
Magnesium (Mg)-Total		27.5		0.10	mg/L		10-AUG -10	JW U	R1427264
Manganese (Mn)-Total		5.12		0.0020	mg/L		10-AUG -10	JW U	R1427264
Potassium (K)-Total		2.18		0.10	mg/L		10-AUG -10	JW U	R1427264
Sodium (Na)-Total		4.6		1.0	mg/L		10-AUG -10	JW U	R1427264
TotalDissolved Solids		1830		5.0	mg/L		10-AUG -10	SVG	R1424783
TotalSuspended Solids		<3.0		3.0	mg/L		09-AUG -10	SVG	R1421397
Routine WaterAnalysis									
Chloride by IC									
Chloride (Cl)		0.90	RRV	0.50	mg/L		07-AUG -10	W YA	R1420614
Dissolved Metals in Waterby ICP OES									
Calcium (Ca)-Dissolved		177	RRV	0.50	mg/L		11-AUG -10	JW U	R1434203
Magnesium (Mg)-Dissolved		26.3	RRV	0.10	mg/L		11-AUG -10	JW U	R1434203
Potassium (K)-Dissolved		2.32	RRV	0.50	mg/L		11-AUG -10	JW U	R1434203
Sodium (Na)-Dissolved		4.3	RRV	1.0	mg/L		11-AUG -10	JW U	R1434203
Ion Balance Calculation									
Ion Balance		46.1	BL:INT		%		12-AUG -10		
TDS (Calculated)		1380			mg/L		12-AUG -10		
Hardness (as CaCO3)		550			mg/L		12-AUG -10		
Nitrate as N by IC									
Nitrate (as N)		<0.050		0.050	mg/L		07-AUG -10	W YA	R1420614
Nitrate and Nitrite as N		<0.071		0.071	mg/L		09-AUG -10		
Nitrite as N by IC									
Nitrite (as N)		<0.050		0.050	mg/L		07-AUG -10	W YA	R1420614
Sulfate by IC									
Sulfate (SO4)		1170	RRV	5.0	mg/L		09-AUG -10	DDN	R1422131
pH, Conductivity and TotalAlkalinity									
pH		3.24	RRV	0.10	pH		06-AUG -10	W YA	R1419027
Conductivity (EC)		1730	RRV	0.20	uS/cm		06-AUG -10	W YA	R1419027
Bicarbonate (HCO3)		<5.0		5.0	mg/L		06-AUG -10	W YA	R1419027
Carbonate (CO3)		<5.0		5.0	mg/L		06-AUG -10	W YA	R1419027
Hydroxide (OH)		<5.0		5.0	mg/L		06-AUG -10	W YA	R1419027
Alkalinity, Total (as CaCO3)		<5.0		5.0	mg/L		06-AUG -10	W YA	R1419027

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L917272-12 BT-6 NL-MGD								
Sampled By: 05-AUG -100800								
Matrix: WATER								
Dissolved Metals								
Diss.Metals in Water by ICPMS (Low)								
Aluminum (Al)-Dissolved	118		0.010	mg/L		12-AUG -10	SYF	R1433523
Antimony (Sb)-Dissolved	0.00408		0.00040	mg/L		12-AUG -10	SYF	R1433523
Arsenic (As)-Dissolved	0.562		0.00040	mg/L		12-AUG -10	SYF	R1433523
Barium (Ba)-Dissolved	0.00354		0.00010	mg/L		12-AUG -10	SYF	R1433523
Beryllium (Be)-Dissolved	0.0613		0.00050	mg/L		12-AUG -10	SYF	R1433523
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L		12-AUG -10	SYF	R1433523
Boron (B)-Dissolved	0.319		0.0020	mg/L		12-AUG -10	SYF	R1433523
Cadmium (Cd)-Dissolved	11.5		0.00010	mg/L		12-AUG -10	SYF	R1433523
Chromium (Cr)-Dissolved	<0.0020	DLM	0.0020	mg/L		12-AUG -10	SYF	R1433523
Cobalt (Co)-Dissolved	1.22		0.00010	mg/L		12-AUG -10	SYF	R1433523
Copper (Cu)-Dissolved	3.46		0.00060	mg/L		12-AUG -10	SYF	R1433523
Lead (Pb)-Dissolved	1.92		0.00010	mg/L		12-AUG -10	SYF	R1433523
Molybdenum (Mo)-Dissolved	0.00023		0.00010	mg/L		12-AUG -10	SYF	R1433523
Nickel (Ni)-Dissolved	0.676		0.00010	mg/L		12-AUG -10	SYF	R1433523
Selenium (Se)-Dissolved	0.0886	DLM	0.0020	mg/L		12-AUG -10	SYF	R1433523
Silver (Ag)-Dissolved	0.00053	RRV	0.00020	mg/L		12-AUG -10	SYF	R1433523
Strontium (Sr)-Dissolved	0.159		0.00010	mg/L		12-AUG -10	SYF	R1433523
Thallium (Tl)-Dissolved	0.000300		0.000050	mg/L		12-AUG -10	SYF	R1433523
Tin (Sn)-Dissolved	<0.00020		0.00020	mg/L		12-AUG -10	SYF	R1433523
Titanium (Ti)-Dissolved	0.00913		0.00030	mg/L		12-AUG -10	SYF	R1433523
Uranium (U)-Dissolved	0.0141		0.00010	mg/L		12-AUG -10	SYF	R1433523
Vanadium (V)-Dissolved	0.00779	DLM	0.00050	mg/L		12-AUG -10	SYF	R1433523
Zinc (Zn)-Dissolved	518		0.0010	mg/L		12-AUG -10	SYF	R1433523
Diss.Metals in Water by ICPOES (Low)								
Calcium (Ca)-Dissolved	360		0.50	mg/L		11-AUG -10	JW U	R1434203
Iron (Fe)-Dissolved	130		0.010	mg/L		11-AUG -10	JW U	R1434203
Magnesium (Mg)-Dissolved	273		0.10	mg/L		11-AUG -10	JW U	R1434203
Manganese (Mn)-Dissolved	21.7		0.0020	mg/L		11-AUG -10	JW U	R1434203
Potassium (K)-Dissolved	8.86		0.10	mg/L		11-AUG -10	JW U	R1434203
Sodium (Na)-Dissolved	6.66		0.50	mg/L		11-AUG -10	JW U	R1434203
Total Metals								
Total Metals in Water by ICPMS (Low)								
Aluminum (Al)-Total	116		0.020	mg/L		10-AUG -10	SYF	R1426586
Antimony (Sb)-Total	0.00426		0.00040	mg/L		10-AUG -10	SYF	R1426586
Arsenic (As)-Total	2.01		0.00040	mg/L		10-AUG -10	SYF	R1426586
Barium (Ba)-Total	0.00346		0.00020	mg/L		10-AUG -10	SYF	R1426586
Beryllium (Be)-Total	0.0650		0.0010	mg/L		10-AUG -10	SYF	R1426586
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		10-AUG -10	SYF	R1426586
Boron (B)-Total	0.294		0.020	mg/L		10-AUG -10	SYF	R1426586
Cadmium (Cd)-Total	10.7		0.00020	mg/L		10-AUG -10	SYF	R1426586
Chromium (Cr)-Total	<0.00080		0.00080	mg/L		10-AUG -10	SYF	R1426586
Cobalt (Co)-Total	1.17		0.00020	mg/L		10-AUG -10	SYF	R1426586
Copper (Cu)-Total	3.50		0.0010	mg/L		10-AUG -10	SYF	R1426586
Lead (Pb)-Total	2.03		0.00010	mg/L		10-AUG -10	SYF	R1426586
Molybdenum (Mo)-Total	0.00032		0.00010	mg/L		10-AUG -10	SYF	R1426586
Nickel (Ni)-Total	0.662		0.00020	mg/L		10-AUG -10	SYF	R1426586
Selenium (Se)-Total	0.0909	DLM	0.0020	mg/L		10-AUG -10	SYF	R1426586
Silver (Ag)-Total	0.00095		0.00040	mg/L		10-AUG -10	SYF	R1426586
Strontium (Sr)-Total	0.148		0.00020	mg/L		10-AUG -10	SYF	R1426586
Thallium (Tl)-Total	0.00032		0.00010	mg/L		10-AUG -10	SYF	R1426586
Tin (Sn)-Total	<0.00040		0.00040	mg/L		10-AUG -10	SYF	R1426586

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L917272-12 BT-6 NL-MGD									
Sampled By: 05-AUG -100800									
Matrix: WATER									
TotalMetals									
TotalMetals in Waterby ICPMS (Low)									
Titanium (Ti)-Total		0.0088		0.0050	mg/L		10-AUG -10	SYF	R1426586
Uranium (U)-Total		0.0149		0.00010	mg/L		10-AUG -10	SYF	R1426586
Vanadium (V)-Total		0.00818		0.00050	mg/L		10-AUG -10	SYF	R1426586
Zinc (Zn)-Total		523		0.0040	mg/L		12-AUG -10	SYF	R1433524
TotalMetals in Waterby ICP OES (Low)									
Calcium (Ca)-Total		350		0.50	mg/L		10-AUG -10	JW U	R1427264
Iron (Fe)-Total		127		0.010	mg/L		11-AUG -10	JW U	R1434205
Magnesium (Mg)-Total		267		0.10	mg/L		10-AUG -10	JW U	R1427264
Manganese (Mn)-Total		20.8		0.0020	mg/L		10-AUG -10	JW U	R1427264
Potassium (K)-Total		7.63		0.10	mg/L		10-AUG -10	JW U	R1427264
Sodium (Na)-Total		6.7		1.0	mg/L		10-AUG -10	JW U	R1427264
TotalDissolved Solids		6300		5.0	mg/L		10-AUG -10	SVG	R1424783
TotalSuspended Solids		10.0		3.0	mg/L		09-AUG -10	SVG	R1421397
Routine WaterAnalysis									
Chloride by I									
Chloride (Cl)		10.7	RRV	0.50	mg/L		07-AUG -10	W YA	R1420614
Dissolved Metals in Waterby ICP OES									
Calcium (Ca)-Dissolved		360	RRV	0.50	mg/L		11-AUG -10	JW U	R1434203
Magnesium (Mg)-Dissolved		273	RRV	0.10	mg/L		11-AUG -10	JW U	R1434203
Potassium (K)-Dissolved		8.86	RRV	0.50	mg/L		11-AUG -10	JW U	R1434203
Sodium (Na)-Dissolved		6.7	RRV	1.0	mg/L		11-AUG -10	JW U	R1434203
Ion Balance Calculation									
Ion Balance		48.6	BL:NT		%		12-AUG -10		
TDS (Calculated)		4690			mg/L		12-AUG -10		
Hardness (as CaCO3)		2020			mg/L		12-AUG -10		
Nitrate as N by I									
Nitrate (as N)		<0.050		0.050	mg/L		07-AUG -10	W YA	R1420614
Nitrate and Nitrite as N		<0.071		0.071	mg/L		09-AUG -10		
Nitrite as N by I									
Nitrite (as N)		<0.050		0.050	mg/L		07-AUG -10	W YA	R1420614
Sulfate by I									
Sulfate (SO4)		4030	RRV	5.0	mg/L		09-AUG -10	DDN	R1422131
pH ,Conductivity and TotalAlkalinity									
pH		3.20	RRV	0.10	pH		06-AUG -10	W YA	R1419027
Conductivity (EC)		4580	RRV	0.20	uS /cm		06-AUG -10	W YA	R1419027
Bicarbonate (HCO3)		<5.0		5.0	mg/L		06-AUG -10	W YA	R1419027
Carbonate (CO3)		<5.0		5.0	mg/L		06-AUG -10	W YA	R1419027
Hydroxide (OH)		<5.0		5.0	mg/L		06-AUG -10	W YA	R1419027
Alkalinity, Total (as CaCO3)		<5.0		5.0	mg/L		06-AUG -10	W YA	R1419027

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L917272-13 BT-7 NL-UGD								
Sampled By: 05-AUG -100800								
Matrix: WATER								
Dissolved Metals								
Diss.Metals in Water by ICPMS (Low)								
Aluminum (Al)-Dissolved	<0.010		0.010	mg/L		12-AUG -10	SYF	R1433523
Antimony (Sb)-Dissolved	0.00518		0.00040	mg/L		12-AUG -10	SYF	R1433523
Arsenic (As)-Dissolved	23.2		0.00040	mg/L		12-AUG -10	SYF	R1433523
Barium (Ba)-Dissolved	0.0285		0.00010	mg/L		12-AUG -10	SYF	R1433523
Beryllium (Be)-Dissolved	<0.00050		0.00050	mg/L		12-AUG -10	SYF	R1433523
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L		12-AUG -10	SYF	R1433523
Boron (B)-Dissolved	0.0291		0.0020	mg/L		12-AUG -10	SYF	R1433523
Cadmium (Cd)-Dissolved	0.0145		0.00010	mg/L		12-AUG -10	SYF	R1433523
Chromium (Cr)-Dissolved	<0.0020	DLM	0.0020	mg/L		12-AUG -10	SYF	R1433523
Cobalt (Co)-Dissolved	0.123		0.00010	mg/L		12-AUG -10	SYF	R1433523
Copper (Cu)-Dissolved	0.0133		0.00060	mg/L		12-AUG -10	SYF	R1433523
Lead (Pb)-Dissolved	0.00137		0.00010	mg/L		12-AUG -10	SYF	R1433523
Molybdenum (Mo)-Dissolved	0.0115		0.00010	mg/L		12-AUG -10	SYF	R1433523
Nickel (Ni)-Dissolved	0.103		0.00010	mg/L		12-AUG -10	SYF	R1433523
Selenium (Se)-Dissolved	0.0042	DLM	0.0020	mg/L		12-AUG -10	SYF	R1433523
Silver (Ag)-Dissolved	<0.00020		0.00020	mg/L		12-AUG -10	SYF	R1433523
Strontium (Sr)-Dissolved	0.301		0.00010	mg/L		12-AUG -10	SYF	R1433523
Thallium (Tl)-Dissolved	0.000080		0.000050	mg/L		12-AUG -10	SYF	R1433523
Tin (Sn)-Dissolved	<0.00020		0.00020	mg/L		12-AUG -10	SYF	R1433523
Titanium (Ti)-Dissolved	0.00264		0.00030	mg/L		12-AUG -10	SYF	R1433523
Uranium (U)-Dissolved	<0.00010		0.00010	mg/L		12-AUG -10	SYF	R1433523
Vanadium (V)-Dissolved	0.00122	DLM	0.00050	mg/L		12-AUG -10	SYF	R1433523
Zinc (Zn)-Dissolved	2.52		0.0010	mg/L		12-AUG -10	SYF	R1433523
Diss.Metals in Water by ICP-OES (Low)								
Calcium (Ca)-Dissolved	323		0.50	mg/L		11-AUG -10	JW U	R1434203
Iron (Fe)-Dissolved	<0.010		0.010	mg/L		12-AUG -10	JW U	R1438652
Magnesium (Mg)-Dissolved	74.5		0.10	mg/L		11-AUG -10	JW U	R1434203
Manganese (Mn)-Dissolved	4.68		0.0020	mg/L		11-AUG -10	JW U	R1434203
Potassium (K)-Dissolved	10.9		0.10	mg/L		11-AUG -10	JW U	R1434203
Sodium (Na)-Dissolved	7.57		0.50	mg/L		11-AUG -10	JW U	R1434203
Total Metals								
Total Metals in Water by ICPMS (Low)								
Aluminum (Al)-Total	<0.020		0.020	mg/L		12-AUG -10	SYF	R1433524
Antimony (Sb)-Total	0.00511		0.00040	mg/L		10-AUG -10	SYF	R1426586
Arsenic (As)-Total	23.2		0.00040	mg/L		12-AUG -10	SYF	R1433524
Barium (Ba)-Total	0.0273		0.00020	mg/L		10-AUG -10	SYF	R1426586
Beryllium (Be)-Total	<0.0010		0.0010	mg/L		10-AUG -10	SYF	R1426586
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L		10-AUG -10	SYF	R1426586
Boron (B)-Total	0.033		0.020	mg/L		10-AUG -10	SYF	R1426586
Cadmium (Cd)-Total	0.0143		0.00020	mg/L		12-AUG -10	SYF	R1433524
Chromium (Cr)-Total	<0.00080		0.00080	mg/L		10-AUG -10	SYF	R1426586
Cobalt (Co)-Total	0.119		0.00020	mg/L		10-AUG -10	SYF	R1426586
Copper (Cu)-Total	0.0141		0.0010	mg/L		10-AUG -10	SYF	R1426586
Lead (Pb)-Total	0.00178		0.00010	mg/L		10-AUG -10	SYF	R1426586
Molybdenum (Mo)-Total	0.0100		0.00010	mg/L		10-AUG -10	SYF	R1426586
Nickel (Ni)-Total	0.100		0.00020	mg/L		10-AUG -10	SYF	R1426586
Selenium (Se)-Total	0.0038	DLM	0.0020	mg/L		10-AUG -10	SYF	R1426586
Silver (Ag)-Total	<0.00040		0.00040	mg/L		10-AUG -10	SYF	R1426586
Strontium (Sr)-Total	0.269		0.00020	mg/L		10-AUG -10	SYF	R1426586
Thallium (Tl)-Total	<0.00010		0.00010	mg/L		10-AUG -10	SYF	R1426586
Tin (Sn)-Total	<0.00040		0.00040	mg/L		10-AUG -10	SYF	R1426586

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L917272-13 BT-7 NL-UGD								
Sampled By: 05-AUG -100800								
Matrix: WATER								
Total Metals								
Total Metals in Water by ICPMS (Low)								
Titanium (Ti)-Total	<0.0050		0.0050	mg/L		10-AUG -10	SYF	R1426586
Uranium (U)-Total	<0.00010		0.00010	mg/L		10-AUG -10	SYF	R1426586
Vanadium (V)-Total	0.00117		0.00050	mg/L		10-AUG -10	SYF	R1426586
Zinc (Zn)-Total	2.55		0.0040	mg/L		12-AUG -10	SYF	R1433524
Total Metals in Water by ICP-OES (Low)								
Calcium (Ca)-Total	330		0.50	mg/L		10-AUG -10	JW U	R1427264
Iron (Fe)-Total	0.012		0.010	mg/L		12-AUG -10	JW U	R1438653
Magnesium (Mg)-Total	75.7		0.10	mg/L		10-AUG -10	JW U	R1427264
Manganese (Mn)-Total	4.78		0.0020	mg/L		10-AUG -10	JW U	R1427264
Potassium (K)-Total	9.17		0.10	mg/L		10-AUG -10	JW U	R1427264
Sodium (Na)-Total	7.7		1.0	mg/L		10-AUG -10	JW U	R1427264
Total Dissolved Solids	1830		5.0	mg/L		10-AUG -10	SVG	R1424783
Total Suspended Solids	<3.0		3.0	mg/L		09-AUG -10	SVG	R1421397
Routine Water Analysis								
Chloride by IC								
Chloride (Cl)	5.40		0.50	mg/L		07-AUG -10	W YA	R1420614
Dissolved Metals in Water by ICP-OES								
Calcium (Ca)-Dissolved	323		0.50	mg/L		11-AUG -10	JW U	R1434203
Magnesium (Mg)-Dissolved	74.5		0.10	mg/L		11-AUG -10	JW U	R1434203
Potassium (K)-Dissolved	10.9		0.50	mg/L		11-AUG -10	JW U	R1434203
Sodium (Na)-Dissolved	7.6		1.0	mg/L		11-AUG -10	JW U	R1434203
Ion Balance Calculation								
Ion Balance	94.0			%		12-AUG -10		
TDS (Calculated)	1580			mg/L		12-AUG -10		
Hardness (as CaCO3)	1110			mg/L		12-AUG -10		
Nitrate as N by IC								
Nitrate (as N)	0.271		0.050	mg/L		07-AUG -10	W YA	R1420614
Nitrate and Nitrite as N	0.271		0.071	mg/L		09-AUG -10		
Nitrite as N by IC								
Nitrite (as N)	<0.050		0.050	mg/L		07-AUG -10	W YA	R1420614
Sulfate by IC								
Sulfate (SO4)	1150	DLM	5.0	mg/L		09-AUG -10	DDN	R1422131
pH, Conductivity and Total Alkalinity								
pH	6.68		0.10	pH		06-AUG -10	W YA	R1419027
Conductivity (EC)	1830		0.20	uS/cm		06-AUG -10	W YA	R1419027
Bicarbonate (HCO3)	12.6		5.0	mg/L		06-AUG -10	W YA	R1419027
Carbonate (CO3)	<5.0		5.0	mg/L		06-AUG -10	W YA	R1419027
Hydroxide (OH)	<5.0		5.0	mg/L		06-AUG -10	W YA	R1419027
Alkalinity, Total (as CaCO3)	10.3		5.0	mg/L		06-AUG -10	W YA	R1419027
*Refer to Referenced Information for Qualifiers (if any) and Methodology.								

Reference Information

Qualifiers for Individual Samples Listed:

Sample Number	Client ID	Qualifier	Description
L917272-10	BT-4 ORM-TS	SPL SRUHL	For Dissolve Metals - Sample was Preserved at the laboratory For Dissolve Metals - Sample Received Unpreserved. Results may be biased either high or low for indicated parameter(s)
L917272-11	BT-5 ORM-ARG	SPL SRUHL	For Dissolve Metals - Sample was Preserved at the laboratory For Dissolve Metals - Sample Received Unpreserved. Results may be biased either high or low for indicated parameter(s)
L917272-12	BT-6 NL-MGD	SRUHL SPL	For Dissolve Metals - Sample Received Unpreserved. Results may be biased either high or low for indicated parameter(s) For Dissolve Metals - Sample was Preserved at the laboratory
L917272-13	BT-7 NL-UGD	SPL SRUHL	For Dissolve Metals - Sample was Preserved at the laboratory For Dissolve Metals - Sample Received Unpreserved. Results may be biased either high or low for indicated parameter(s)
L917272-3	17-6 GMD-SUMP	SRUHL SPL	For Dissolve Metals - Sample Received Unpreserved. Results may be biased either high or low for indicated parameter(s) For Dissolve Metals - Sample was Preserved at the laboratory
L917272-7	BT-1 ORM-VA	SPL SRUHL	For Dissolve Metals - Sample was Preserved at the laboratory For Dissolve Metals - Sample Received Unpreserved. Results may be biased either high or low for indicated parameter(s)
L917272-8	BT-2 ORM-MA	SRUHL SPL	For Dissolve Metals - Sample Received Unpreserved. Results may be biased either high or low for indicated parameter(s) For Dissolve Metals - Sample was Preserved at the laboratory
L917272-9	BT-3 ORM-BG	SPL SRUHL	For Dissolve Metals - Sample was Preserved at the laboratory For Dissolve Metals - Sample Received Unpreserved. Results may be biased either high or low for indicated parameter(s)

Sample Parameter Qualifier Key Listed:

Qualifier	Description
RRV	Reported Result Verified By Repeat Analysis
BL:NT	Balance Reviewed: Interference Or Non-Measured Component
DLM	Detection Limit Adjusted For Sample Matrix Effects

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Preparation Method Reference (Based On)	Analytical Method Reference (Based On)
BOD-ED	Water	Biochemical Oxygen Demand (BOD)		APHA 5210 B-5 day Incub. O ₂ electrode
CL-ED	Water	Chloride by IC		APHA 4110 B-DN CHROMATOGRAPHY
FCC-MFPB	Water	Fecal Coliform Count-MF		APHA 9222D MF
DNBALANCE-ED	Water	Dry Balance Calculation		APHA 1030E
MET-D-ICP-ED	Water	Dissolved Metals in Water by ICPOES		APHA 3120 B-ICP-OES
MET-D-L-ICP-ED	Water	Diss. Metals in Water by ICPOES (Low)		APHA 3120 B-ICP-OES
MET-D-LMS-ED	Water	Diss. Metals in Water by ICPLMS (Low)		SW 846 -6020-ICPLMS
MET-T-L-ICP-ED	Water	Total Metals in Water by ICPOES (Low)	EPA 3015 APHA 3030E	APHA 3120 B-ICP-OES
MET-T-LMS-ED	Water	Total Metals in Water by ICPLMS (Low)	EPA 3015 APHA 3030E	SW 846 -6020-ICPLMS
NH4-ED	Water	Ammonia-N		APHA 4500NH ₃ F Cobrimetry
NO2+NO3-CALC-ED	Water	Nitrate+Nitrite		CALCULATION
NO2-ED	Water	Nitrite as N by IC		APHA 4110 B-DN CHROMATOGRAPHY
NO3-ED	Water	Nitrate as N by IC		APHA 4110 B-DN CHROMATOGRAPHY
OGG-ED	Water	Oil and Grease-Gravimetric		APHA 5520 G HEXANE MTBE EXT. GRAVIMETRIC

Reference Information

PH/EC/ALK-ED	Water	pH, Conductivity and Total Alkalinity	APHA 4500-H, 2510, 2320
SO4-C-ED	Water	Sulfate by C	APHA 4110 B-ION CHROMATOGRAPHY
SOLIDS-TDS-ED	Water	Total Dissolved Solids	APHA 2540 C
SOLIDS-TOTSUS-ED	Water	Total Suspended Solids	APHA 2540 D-Gravimetric

**Laboratory Methods employed follow in-house procedures, which are generally based on nationally or internationally accepted methodologies.

Chain of Custody numbers:

08-011820

08-011821

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
ED	ALS LABORATORY GROUP - EDMONTON, ALBERTA, CANADA	PB	PBR LABORATORIES

GLOSSARY OF REPORT TERMS

Surrogate - A surrogate is an organic compound that is similar to the target analyte(s) in chemical composition and behavior but not normally detected in environmental samples. Prior to sample processing, samples are fortified with one or more surrogate compounds.

The reported surrogate recovery value provides a measure of method efficiency. The Laboratory control limits are determined under column heading D.L.

mg/kg (units) - unit of concentration based on mass, parts per million.

mg/L (units) - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

NA - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

UNLESS OTHERWISE STATED, SAMPLES ARE NOT CORRECTED FOR CLIENT FIELD BLANKS.

Although test results are generated under strict QA/QC protocols, any unsigned test reports, faxes, or emails are considered preliminary.

ALS Laboratory Group has an extensive QA/QC program where all analytical data reported is analyzed using approved referenced procedures followed by checks and reviews by senior managers and quality assurance personnel. However, since the results are obtained from chemical measurements and thus cannot be guaranteed, ALS Laboratory Group assumes no liability for the use or interpretation of the results.



Quality Control Report

Workorder: L917272

ReportDate: 13-AUG -10

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Client: TYHEE NW T LTD .
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BOD-ED Water								
Batch	R1435943							
W G 1146398-4	DUP	L917380-8						
Biochem iCalOxygen Dem and		13.9	14.0		mg/L	0.43	19	07-AUG -10
W G 1146398-3	RM	BOD SEED						
Biochem iCalOxygen Dem and			1.03		mg/L		0.2-1.7	07-AUG -10
W G 1146398-2	LCS							
Biochem iCalOxygen Dem and			100		%		85-115	07-AUG -10
W G 1146398-1	MB							
Biochem iCalOxygen Dem and			<0.20		mg/L		0.2	07-AUG -10
CL-C-ED Water								
Batch	R1420614							
W G 1146482-3	DUP	L917086-1						
Chbride (Cl)		11.7	11.7		mg/L	0.30	20	07-AUG -10
W G 1146482-5	DUP	L917074-1						
Chbride (Cl)		72.1	71.6		mg/L	0.71	20	07-AUG -10
W G 1146482-7	DUP	L917399-2						
Chbride (Cl)		0.81	0.80		mg/L	1.1	20	07-AUG -10
W G 1146482-2	LCS							
Chbride (Cl)			104		%		85-115	07-AUG -10
W G 1146482-1	MB							
Chbride (Cl)			<0.50		mg/L		0.5	07-AUG -10
W G 1146482-4	MS	L917086-1						
Chbride (Cl)			102		%		75-125	07-AUG -10
W G 1146482-6	MS	L917074-1						
Chbride (Cl)			N/A	MS-B	%		-	07-AUG -10
W G 1146482-8	MS	L917399-2						
Chbride (Cl)			103		%		75-125	07-AUG -10
MET-D-CP-ED Water								
Batch	R1434203							
W G 1148174-2	CRM	EU H-3 OPTWATER						
Calcium (Ca)-Dissolved			111		%		80-120	11-AUG -10
Magnesium (Mg)-Dissolved			115		%		80-120	11-AUG -10
Potassium (K)-Dissolved			112		%		80-120	11-AUG -10
Sodium (Na)-Dissolved			113		%		80-120	11-AUG -10
W G 1148174-11	DUP	L912298-16						
Calcium (Ca)-Dissolved		<0.50	<0.50	RPD-NA	mg/L	N/A	20	11-AUG -10
Magnesium (Mg)-Dissolved		<0.10	<0.10	RPD-NA	mg/L	N/A	20	11-AUG -10
Potassium (K)-Dissolved		<0.50	<0.50	RPD-NA	mg/L	N/A	20	11-AUG -10



Quality Control Report

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Client: TYHEE NW T LTD .
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D -CP-ED Water								
Batch	R1434203							
WG1148174-11 DUP		L912298-16						
Sodium (Na)-Dissolved		<1.0	<1.0	RPD-NA	mg/L	NA	20	11-AUG -10
WG1148174-3 DUP		L917868-1						
Calcium (Ca)-Dissolved		166	167		mg/L	0.61	20	11-AUG -10
Magnesium (Mg)-Dissolved		56.3	57.1		mg/L	1.3	20	11-AUG -10
Potassium (K)-Dissolved		5.41	6.16		mg/L	13	20	11-AUG -10
Sodium (Na)-Dissolved		82.8	83.6		mg/L	1.1	20	11-AUG -10
WG1148174-5 DUP		L917571-15						
Calcium (Ca)-Dissolved		26.1	26.0		mg/L	0.21	20	11-AUG -10
Magnesium (Mg)-Dissolved		8.55	8.51		mg/L	0.47	20	11-AUG -10
Potassium (K)-Dissolved		<0.50	<0.50	RPD-NA	mg/L	NA	20	11-AUG -10
Sodium (Na)-Dissolved		3.8	3.8		mg/L	1.4	20	11-AUG -10
WG1148174-7 DUP		L915201-22						
Magnesium (Mg)-Dissolved		0.24	0.16	J	mg/L	0.08	0.2	12-AUG -10
Potassium (K)-Dissolved		<0.50	<0.50	RPD-NA	mg/L	NA	20	12-AUG -10
Sodium (Na)-Dissolved		1.4	<1.0	RPD-NA	mg/L	NA	20	12-AUG -10
WG1148174-9 DUP		L917272-10						
Calcium (Ca)-Dissolved		18.1	17.8		mg/L	1.2	20	11-AUG -10
Magnesium (Mg)-Dissolved		3.83	3.84		mg/L	0.25	20	11-AUG -10
Potassium (K)-Dissolved		5.20	5.29		mg/L	1.7	20	11-AUG -10
Sodium (Na)-Dissolved		1.4	1.4		mg/L	1.1	20	11-AUG -10
WG1148174-1 MB								
Calcium (Ca)-Dissolved			<0.50		mg/L		0.5	11-AUG -10
Magnesium (Mg)-Dissolved			<0.10		mg/L		0.1	11-AUG -10
Potassium (K)-Dissolved			<0.50		mg/L		0.5	11-AUG -10
Sodium (Na)-Dissolved			<1.0		mg/L		1	11-AUG -10
WG1148174-10 MS		L917272-10						
Calcium (Ca)-Dissolved			95		%		70-130	11-AUG -10
Magnesium (Mg)-Dissolved			100		%		70-130	11-AUG -10
Potassium (K)-Dissolved			91		%		70-130	11-AUG -10
Sodium (Na)-Dissolved			96		%		70-130	11-AUG -10
WG1148174-12 MS		L912298-16						
Calcium (Ca)-Dissolved			98		%		70-130	11-AUG -10
Magnesium (Mg)-Dissolved			102		%		70-130	11-AUG -10
Potassium (K)-Dissolved			98		%		70-130	11-AUG -10
Sodium (Na)-Dissolved			99				70-130	



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Client: TYHEE NW T LTD.
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CP-ED Water								
Batch	R1434203							
WG1148174-12 MS		L912298-16						
Sodium (Na)-Dissolved			99		%		70-130	11-AUG-10
WG1148174-4 MS		L917868-1						
Magnesium (Mg)-Dissolved			100		%		70-130	11-AUG-10
Potassium (K)-Dissolved			98		%		70-130	11-AUG-10
Sodium (Na)-Dissolved			90		%		70-130	11-AUG-10
WG1148174-6 MS		L917571-15						
Calcium (Ca)-Dissolved			73		%		70-130	11-AUG-10
Magnesium (Mg)-Dissolved			85		%		70-130	11-AUG-10
Potassium (K)-Dissolved			78		%		70-130	11-AUG-10
Sodium (Na)-Dissolved			85		%		70-130	11-AUG-10
WG1148174-8 MS		L915201-22						
Calcium (Ca)-Dissolved			94		%		70-130	12-AUG-10
Magnesium (Mg)-Dissolved			99		%		70-130	12-AUG-10
Potassium (K)-Dissolved			94		%		70-130	12-AUG-10
Sodium (Na)-Dissolved			97		%		70-130	12-AUG-10
Batch	R1438652							
WG1148898-2 CRM		EU-H-3 OPTWATER						
Calcium (Ca)-Dissolved			117		%		80-120	12-AUG-10
WG1148174-7 DUP		L915201-22						
Calcium (Ca)-Dissolved		<0.50	0.51	RPD-NA	mg/L	NA	20	12-AUG-10
WG1148898-3 DUP		L918137-4						
Calcium (Ca)-Dissolved		65.9	64.3		mg/L	2.5	20	12-AUG-10
WG1148898-1 MB								
Calcium (Ca)-Dissolved			<0.50		mg/L		0.5	12-AUG-10
WG1148898-4 MS		L918137-4						
Calcium (Ca)-Dissolved			90		%		70-130	12-AUG-10
MET-D-L-CP-ED Water								
Batch	R1434203							
WG1148174-2 CRM		EU-H-3 OPTWATER						
Calcium (Ca)-Dissolved			111		%		80-120	11-AUG-10
Iron (Fe)-Dissolved			110		%		80-120	11-AUG-10
Magnesium (Mg)-Dissolved			115		%		80-120	11-AUG-10
Manganese (Mn)-Dissolved			112		%		80-120	11-AUG-10
Potassium (K)-Dissolved			112		%		80-120	11-AUG-10
Sodium (Na)-Dissolved			113		%		80-120	11-AUG-10



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Client: TYHEE NW T LTD.
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2

Contact: HUGH WILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-L-CP-ED Water								
Batch	R1434203							
WG1148174-9	DUP	L917272-10						
Calcium (Ca)-Dissolved		18.1	17.8		mg/L	1.2	20	11-AUG -10
Iron (Fe)-Dissolved		0.117	0.119		mg/L	2.0	20	11-AUG -10
Magnesium (Mg)-Dissolved		3.83	3.84		mg/L	0.25	20	11-AUG -10
Manganese (Mn)-Dissolved		0.499	0.502		mg/L	0.50	20	11-AUG -10
Potassium (K)-Dissolved		5.20	5.29		mg/L	1.7	20	11-AUG -10
Sodium (Na)-Dissolved		1.39	1.38		mg/L	1.1	20	11-AUG -10
WG1148174-1	MB							
Calcium (Ca)-Dissolved			<0.20		mg/L		0.2	11-AUG -10
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	11-AUG -10
Magnesium (Mg)-Dissolved			<0.10		mg/L		0.1	11-AUG -10
Manganese (Mn)-Dissolved			<0.0020		mg/L		0.002	11-AUG -10
Potassium (K)-Dissolved			<0.10		mg/L		0.1	11-AUG -10
Sodium (Na)-Dissolved			<0.50		mg/L		0.5	11-AUG -10
WG1148174-10	MS	L917272-10						
Calcium (Ca)-Dissolved			95		%		70-130	11-AUG -10
Iron (Fe)-Dissolved			96		%		70-130	11-AUG -10
Magnesium (Mg)-Dissolved			100		%		70-130	11-AUG -10
Manganese (Mn)-Dissolved			94		%		70-130	11-AUG -10
Potassium (K)-Dissolved			91		%		70-130	11-AUG -10
Sodium (Na)-Dissolved			96		%		70-130	11-AUG -10
Batch	R1438652							
WG1148898-2	CRM	EU-H-3 OPTWATER						
Calcium (Ca)-Dissolved			117		%		80-120	12-AUG -10
Iron (Fe)-Dissolved			112		%		80-120	12-AUG -10
WG1148898-1	MB							
Calcium (Ca)-Dissolved			<0.20		mg/L		0.2	12-AUG -10
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	12-AUG -10
MET-D-L-MS-ED Water								
Batch	R1422005							
WG1146933-3	DUP	L913532-13						
Aluminum (Al)-Dissolved		<0.0050	<0.0050	RPD-NA	mg/L	NA	20	09-AUG -10
Antimony (Sb)-Dissolved		<0.00040	<0.00040	RPD-NA	mg/L	NA	20	09-AUG -10
Arsenic (As)-Dissolved		<0.00040	<0.00040	RPD-NA	mg/L	NA	20	09-AUG -10
Barium (Ba)-Dissolved		<0.0030	<0.00010	RPD-NA	mg/L	NA	20	09-AUG -10



Quality Control Report

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Client: TYHEE NW T LTD.
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-LMS-ED Water								
Batch	R1422005							
W G1146933-3 DUP		L913532-13						
Beryllium (Be)-Dissolved		<0.0010	<0.00050	RPD-NA	mg/L	NA	20	09-AUG -10
Bismuth (Bi)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	NA	20	09-AUG -10
Boron (B)-Dissolved		<0.050	<0.0020	RPD-NA	mg/L	NA	20	09-AUG -10
Cadmium (Cd)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	NA	20	09-AUG -10
Chromium (Cr)-Dissolved		<0.0010	<0.00040	RPD-NA	mg/L	NA	20	09-AUG -10
Cobalt (Co)-Dissolved		<0.0020	<0.00010	RPD-NA	mg/L	NA	20	09-AUG -10
Copper (Cu)-Dissolved		<0.0010	<0.00060	RPD-NA	mg/L	NA	20	09-AUG -10
Lead (Pb)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	NA	20	09-AUG -10
Molybdenum (Mo)-Dissolved		<0.0050	<0.00010	RPD-NA	mg/L	NA	20	09-AUG -10
Nickel (Ni)-Dissolved		<0.0020	<0.00010	RPD-NA	mg/L	NA	20	09-AUG -10
Selenium (Se)-Dissolved		<0.00040	<0.00040	RPD-NA	mg/L	NA	20	09-AUG -10
Silver (Ag)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	NA	20	09-AUG -10
Strontium (Sr)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	NA	20	09-AUG -10
Thallium (Tl)-Dissolved		<0.00010	<0.000050	RPD-NA	mg/L	NA	20	09-AUG -10
Th (Sn)-Dissolved		<0.050	<0.00020	RPD-NA	mg/L	NA	20	09-AUG -10
Titanium (Ti)-Dissolved		<0.0010	<0.00030	RPD-NA	mg/L	NA	20	09-AUG -10
Uranium (U)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	NA	20	09-AUG -10
Vanadium (V)-Dissolved		<0.0010	<0.00010	RPD-NA	mg/L	NA	20	09-AUG -10
Zinc (Zn)-Dissolved		<0.0040	<0.0010	RPD-NA	mg/L	NA	20	09-AUG -10
W G1146933-9 DUP		L912298-16						
Aluminum (Al)-Dissolved		<0.0050	<0.0050	RPD-NA	mg/L	NA	20	10-AUG -10
Antimony (Sb)-Dissolved		<0.00040	<0.00040	RPD-NA	mg/L	NA	20	10-AUG -10
Arsenic (As)-Dissolved		<0.00040	<0.00040	RPD-NA	mg/L	NA	20	10-AUG -10
Barium (Ba)-Dissolved		<0.0030	0.00045		mg/L	2.0	20	10-AUG -10
Beryllium (Be)-Dissolved		<0.0010	<0.00050	RPD-NA	mg/L	NA	20	10-AUG -10
Bismuth (Bi)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	NA	20	10-AUG -10
Boron (B)-Dissolved		<0.050	0.0039		mg/L	1.0	20	10-AUG -10
Cadmium (Cd)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	NA	20	10-AUG -10
Chromium (Cr)-Dissolved		<0.0010	<0.00040	RPD-NA	mg/L	NA	20	10-AUG -10
Cobalt (Co)-Dissolved		<0.0020	<0.00010	RPD-NA	mg/L	NA	20	10-AUG -10
Copper (Cu)-Dissolved		<0.0010	<0.00060	RPD-NA	mg/L	NA	20	10-AUG -10
Lead (Pb)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	NA	20	10-AUG -10
Molybdenum (Mo)-Dissolved		<0.0050	<0.00010	RPD-NA	mg/L	NA	20	10-AUG -10



Quality Control Report

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ReportDate: 13-AUG -10

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Client: TYHEE NW T LTD .
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-LMS-ED Water								
Batch	R1422005							
WG1146933-9 DUP		L912298-16						
Nickel (Ni)-Dissolved		<0.0020	<0.00010	RPD-NA	mg/L	NA	20	10-AUG -10
Selenium (Se)-Dissolved		<0.00040	<0.00040	RPD-NA	mg/L	NA	20	10-AUG -10
Silver (Ag)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	NA	20	10-AUG -10
Strontium (Sr)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	NA	20	10-AUG -10
Thallium (Tl)-Dissolved		<0.00010	<0.000050	RPD-NA	mg/L	NA	20	10-AUG -10
Tin (Sn)-Dissolved		<0.050	<0.00020	RPD-NA	mg/L	NA	20	10-AUG -10
Titanium (Ti)-Dissolved		<0.0010	<0.00030	RPD-NA	mg/L	NA	20	10-AUG -10
Uranium (U)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	NA	20	10-AUG -10
Vanadium (V)-Dissolved		<0.0010	<0.00010	RPD-NA	mg/L	NA	20	10-AUG -10
Zinc (Zn)-Dissolved		<0.0040	0.0022		mg/L	0.42	20	10-AUG -10
WG1146933-10 MS		L912298-16						
Aluminum (Al)-Dissolved			112		%		70-130	10-AUG -10
Antimony (Sb)-Dissolved			93		%		70-130	10-AUG -10
Arsenic (As)-Dissolved			100		%		70-130	10-AUG -10
Barium (Ba)-Dissolved			103		%		70-130	10-AUG -10
Beryllium (Be)-Dissolved			97		%		70-130	10-AUG -10
Bismuth (Bi)-Dissolved			103		%		70-130	10-AUG -10
Boron (B)-Dissolved			101		%		70-130	10-AUG -10
Cadmium (Cd)-Dissolved			101		%		70-130	10-AUG -10
Chromium (Cr)-Dissolved			100		%		70-130	10-AUG -10
Cobalt (Co)-Dissolved			105		%		70-130	10-AUG -10
Copper (Cu)-Dissolved			103		%		70-130	10-AUG -10
Lead (Pb)-Dissolved			103		%		70-130	10-AUG -10
Molybdenum (Mo)-Dissolved			91		%		70-130	10-AUG -10
Nickel (Ni)-Dissolved			104		%		70-130	10-AUG -10
Selenium (Se)-Dissolved			100		%		70-130	10-AUG -10
Silver (Ag)-Dissolved			95		%		70-130	10-AUG -10
Strontium (Sr)-Dissolved			104		%		70-130	10-AUG -10
Thallium (Tl)-Dissolved			104		%		70-130	10-AUG -10
Tin (Sn)-Dissolved			96		%		70-130	10-AUG -10
Titanium (Ti)-Dissolved			95		%		70-130	10-AUG -10
Uranium (U)-Dissolved			102		%		70-130	10-AUG -10
Vanadium (V)-Dissolved			102		%		70-130	10-AUG -10



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Client: TYHEE NW T LTD .
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-LMS-ED Water								
Batch	R1422005							
WG1146933-10 MS		L912298-16						
Zinc (Zn)-Dissolved			98		%		70-130	10-AUG -10
WG1146933-4 MS		L913532-13						
Aluminum (Al)-Dissolved			110		%		70-130	09-AUG -10
Antimony (Sb)-Dissolved			105		%		70-130	09-AUG -10
Arsenic (As)-Dissolved			110		%		70-130	09-AUG -10
Barium (Ba)-Dissolved			108		%		70-130	09-AUG -10
Beryllium (Be)-Dissolved			106		%		70-130	09-AUG -10
Bismuth (Bi)-Dissolved			113		%		70-130	09-AUG -10
Boron (B)-Dissolved			105		%		70-130	09-AUG -10
Cadmium (Cd)-Dissolved			108		%		70-130	09-AUG -10
Chromium (Cr)-Dissolved			112		%		70-130	09-AUG -10
Cobalt (Co)-Dissolved			109		%		70-130	09-AUG -10
Copper (Cu)-Dissolved			110		%		70-130	09-AUG -10
Lead (Pb)-Dissolved			112		%		70-130	09-AUG -10
Molybdenum (Mo)-Dissolved			102		%		70-130	09-AUG -10
Nickel (Ni)-Dissolved			108		%		70-130	09-AUG -10
Selenium (Se)-Dissolved			102		%		70-130	09-AUG -10
Silver (Ag)-Dissolved			103		%		70-130	09-AUG -10
Strontium (Sr)-Dissolved			108		%		70-130	09-AUG -10
Thallium (Tl)-Dissolved			112		%		70-130	09-AUG -10
Tin (Sn)-Dissolved			103		%		70-130	09-AUG -10
Titanium (Ti)-Dissolved			102		%		70-130	09-AUG -10
Uranium (U)-Dissolved			114		%		70-130	09-AUG -10
Vanadium (V)-Dissolved			112		%		70-130	09-AUG -10
Zinc (Zn)-Dissolved			109		%		70-130	09-AUG -10
Batch	R1433523							
WG1148241-2 CRM		1643E WATER						
Aluminum (Al)-Dissolved			109		%		80-120	11-AUG -10
Antimony (Sb)-Dissolved			101		%		80-120	11-AUG -10
Arsenic (As)-Dissolved			99		%		80-120	11-AUG -10
Barium (Ba)-Dissolved			96		%		80-120	11-AUG -10
Beryllium (Be)-Dissolved			96		%		80-120	11-AUG -10
Bismuth (Bi)-Dissolved			101		%		80-120	11-AUG -10
Boron (B)-Dissolved			99		%		80-120	11-AUG -10



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Client: TYHEE NW T LTD .
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-LMS-ED Water								
Batch	R1433523							
WG1148241-2	CRM	1643E WATER						
Cadmium (Cd)-Dissolved			103		%		80-120	11-AUG -10
Chromium (Cr)-Dissolved			105		%		80-120	11-AUG -10
Cobalt (Co)-Dissolved			103		%		80-120	11-AUG -10
Copper (Cu)-Dissolved			99		%		80-120	11-AUG -10
Lead (Pb)-Dissolved			99		%		80-120	11-AUG -10
Molybdenum (Mo)-Dissolved			101		%		80-120	11-AUG -10
Nickel (Ni)-Dissolved			102		%		80-120	11-AUG -10
Selenium (Se)-Dissolved			101		%		80-120	11-AUG -10
Strontium (Sr)-Dissolved			99		%		80-120	11-AUG -10
Thallium (Tl)-Dissolved			104		%		80-120	11-AUG -10
Vanadium (V)-Dissolved			102		%		80-120	11-AUG -10
Zinc (Zn)-Dissolved			98		%		80-120	11-AUG -10
WG1148241-3	DUP	L915201-8						
Aluminum (Al)-Dissolved		<0.010	<0.0050	RPD-NA	mg/L	NA	20	11-AUG -10
Antimony (Sb)-Dissolved		<0.00040	<0.00040	RPD-NA	mg/L	NA	20	11-AUG -10
Arsenic (As)-Dissolved		<0.00040	<0.00040	RPD-NA	mg/L	NA	20	11-AUG -10
Barium (Ba)-Dissolved		<0.0030	0.00033		mg/L	3.1	20	11-AUG -10
Beryllium (Be)-Dissolved		<0.0010	<0.00050	RPD-NA	mg/L	NA	20	11-AUG -10
Bismuth (Bi)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	NA	20	11-AUG -10
Boron (B)-Dissolved		<0.050	0.0121		mg/L	0.058	20	11-AUG -10
Cadmium (Cd)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	NA	20	11-AUG -10
Chromium (Cr)-Dissolved		<0.0050	<0.00040	RPD-NA	mg/L	NA	20	11-AUG -10
Cobalt (Co)-Dissolved		<0.0020	<0.00010	RPD-NA	mg/L	NA	20	11-AUG -10
Copper (Cu)-Dissolved		0.0031	0.00305		mg/L	1.3	20	11-AUG -10
Lead (Pb)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	NA	20	11-AUG -10
Molybdenum (Mo)-Dissolved		<0.0050	<0.00010	RPD-NA	mg/L	NA	20	11-AUG -10
Nickel (Ni)-Dissolved		<0.0020	<0.00010	RPD-NA	mg/L	NA	20	11-AUG -10
Selenium (Se)-Dissolved		<0.00040	<0.00040	RPD-NA	mg/L	NA	20	11-AUG -10
Silver (Ag)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	NA	20	11-AUG -10
Strontium (Sr)-Dissolved		0.00155	0.00159		mg/L	3.0	20	11-AUG -10
Thallium (Tl)-Dissolved		<0.00010	<0.000050	RPD-NA	mg/L	NA	20	11-AUG -10
Tin (Sn)-Dissolved		<0.050	<0.00020	RPD-NA	mg/L	NA	20	11-AUG -10
Titanium (Ti)-Dissolved		<0.0010	<0.00030	RPD-NA	mg/L	NA	20	11-AUG -10



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Client: TYHEE NW T LTD .
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-LMS-ED Water								
Batch	R1433523							
W G 1148241-3 DUP		L915201-8						
Uranium (U)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	NA	20	11-AUG -10
Vanadium (V)-Dissolved		<0.0010	<0.00010	RPD-NA	mg/L	NA	20	11-AUG -10
Zinc (Zn)-Dissolved		0.0030	0.0030		mg/L	0.50	20	11-AUG -10
W G 1148241-5 DUP		L912298-14						
Aluminum (Al)-Dissolved		<0.0050	<0.0050	RPD-NA	mg/L	NA	20	12-AUG -10
Antimony (Sb)-Dissolved		<0.00040	<0.00040	RPD-NA	mg/L	NA	20	12-AUG -10
Arsenic (As)-Dissolved		0.00059	0.00063		mg/L	7.2	20	12-AUG -10
Barium (Ba)-Dissolved		0.0354	0.0346		mg/L	2.3	20	12-AUG -10
Beryllium (Be)-Dissolved		<0.0010	<0.00050	RPD-NA	mg/L	NA	20	12-AUG -10
Bismuth (Bi)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	NA	20	12-AUG -10
Boron (B)-Dissolved		<0.050	0.0218		mg/L	2.2	20	12-AUG -10
Cadmium (Cd)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	NA	20	12-AUG -10
Chromium (Cr)-Dissolved		<0.0010	<0.00040	RPD-NA	mg/L	NA	20	12-AUG -10
Cobalt (Co)-Dissolved		<0.0020	0.00017		mg/L	1.2	20	12-AUG -10
Copper (Cu)-Dissolved		<0.0010	<0.00060	RPD-NA	mg/L	NA	20	12-AUG -10
Lead (Pb)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	NA	20	12-AUG -10
Molybdenum (Mo)-Dissolved		<0.0050	<0.00010	RPD-NA	mg/L	NA	20	12-AUG -10
Nickel (Ni)-Dissolved		<0.0020	0.00140		mg/L	2.2	20	12-AUG -10
Selenium (Se)-Dissolved		<0.00040	<0.00040	RPD-NA	mg/L	NA	20	12-AUG -10
Silver (Ag)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	NA	20	12-AUG -10
Strontium (Sr)-Dissolved		0.0888	0.0899		mg/L	1.2	20	12-AUG -10
Thallium (Tl)-Dissolved		<0.00010	<0.000050	RPD-NA	mg/L	NA	20	12-AUG -10
Tin (Sn)-Dissolved		<0.050	<0.00020	RPD-NA	mg/L	NA	20	12-AUG -10
Titanium (Ti)-Dissolved		<0.0010	0.00066		mg/L	3.1	20	12-AUG -10
Uranium (U)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	NA	20	12-AUG -10
Vanadium (V)-Dissolved		<0.0010	0.00017	J	mg/L	0.00005	0.002	12-AUG -10
Zinc (Zn)-Dissolved		<0.0040	<0.0010	RPD-NA	mg/L	NA	20	12-AUG -10
W G 1148241-1 MB								
Aluminum (Al)-Dissolved			<0.0050		mg/L		0.005	11-AUG -10
Antimony (Sb)-Dissolved			<0.00040		mg/L		0.0004	11-AUG -10
Arsenic (As)-Dissolved			<0.00040		mg/L		0.0004	11-AUG -10
Barium (Ba)-Dissolved			<0.00010		mg/L		0.0001	11-AUG -10
Beryllium (Be)-Dissolved			<0.00050		mg/L		0.0005	11-AUG -10



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#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D LMS-ED	Water							
Batch	R1433523							
WG1148241-1 MB								
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	11-AUG -10
Boron (B)-Dissolved			<0.0020		mg/L		0.002	11-AUG -10
Cadmium (Cd)-Dissolved			<0.000050		mg/L		0.00005	11-AUG -10
Chromium (Cr)-Dissolved			<0.00040		mg/L		0.0004	11-AUG -10
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	11-AUG -10
Copper (Cu)-Dissolved			<0.00060		mg/L		0.0006	11-AUG -10
Lead (Pb)-Dissolved			<0.00010		mg/L		0.0001	11-AUG -10
Molybdenum (Mo)-Dissolved			<0.00010		mg/L		0.0001	11-AUG -10
Nickel (Ni)-Dissolved			<0.00010		mg/L		0.0001	11-AUG -10
Selenium (Se)-Dissolved			<0.00040		mg/L		0.0004	11-AUG -10
Silver (Ag)-Dissolved			<0.00010		mg/L		0.0001	11-AUG -10
Strontium (Sr)-Dissolved			<0.00010		mg/L		0.0001	11-AUG -10
Thallium (Tl)-Dissolved			<0.000050		mg/L		0.00005	11-AUG -10
Tin (Sn)-Dissolved			<0.00020		mg/L		0.0002	11-AUG -10
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	11-AUG -10
Uranium (U)-Dissolved			<0.00010		mg/L		0.0001	11-AUG -10
Vanadium (V)-Dissolved			<0.00010		mg/L		0.0001	11-AUG -10
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	11-AUG -10
WG1148241-4 MS		L915201-8						
Aluminum (Al)-Dissolved			112		%		70-130	11-AUG -10
Antimony (Sb)-Dissolved			101		%		70-130	11-AUG -10
Arsenic (As)-Dissolved			110		%		70-130	11-AUG -10
Barium (Ba)-Dissolved			107		%		70-130	11-AUG -10
Beryllium (Be)-Dissolved			102		%		70-130	11-AUG -10
Bismuth (Bi)-Dissolved			110		%		70-130	11-AUG -10
Boron (B)-Dissolved			99		%		70-130	11-AUG -10
Cadmium (Cd)-Dissolved			112		%		70-130	11-AUG -10
Chromium (Cr)-Dissolved			109		%		70-130	11-AUG -10
Cobalt (Co)-Dissolved			112		%		70-130	11-AUG -10
Copper (Cu)-Dissolved			108		%		70-130	11-AUG -10
Lead (Pb)-Dissolved			109		%		70-130	11-AUG -10
Molybdenum (Mo)-Dissolved			106		%		70-130	11-AUG -10
Nickel (Ni)-Dissolved			110		%		70-130	11-AUG -10
Selenium (Se)-Dissolved			115		%		70-130	11-AUG -10



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Client: TYHEE NW T LTD.
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-LMS-ED	Water							
Batch	R1433523							
WG1148241-4 MS		L915201-8						
Silver (Ag)-Dissolved			104		%		70-130	11-AUG -10
Strontium (Sr)-Dissolved			116		%		70-130	11-AUG -10
Thallium (Tl)-Dissolved			114		%		70-130	11-AUG -10
Tin (Sn)-Dissolved			102		%		70-130	11-AUG -10
Titanium (Ti)-Dissolved			102		%		70-130	11-AUG -10
Uranium (U)-Dissolved			112		%		70-130	11-AUG -10
Vanadium (V)-Dissolved			109		%		70-130	11-AUG -10
Zinc (Zn)-Dissolved			110		%		70-130	11-AUG -10
WG1148241-6 MS		L912298-14						
Aluminum (Al)-Dissolved			110		%		70-130	12-AUG -10
Antimony (Sb)-Dissolved			99		%		70-130	12-AUG -10
Arsenic (As)-Dissolved			115		%		70-130	12-AUG -10
Barium (Ba)-Dissolved			96		%		70-130	12-AUG -10
Beryllium (Be)-Dissolved			111		%		70-130	12-AUG -10
Bismuth (Bi)-Dissolved			103		%		70-130	12-AUG -10
Boron (B)-Dissolved			108		%		70-130	12-AUG -10
Cadmium (Cd)-Dissolved			111		%		70-130	12-AUG -10
Chromium (Cr)-Dissolved			114		%		70-130	12-AUG -10
Cobalt (Co)-Dissolved			116		%		70-130	12-AUG -10
Copper (Cu)-Dissolved			113		%		70-130	12-AUG -10
Lead (Pb)-Dissolved			104		%		70-130	12-AUG -10
Molybdenum (Mo)-Dissolved			104		%		70-130	12-AUG -10
Nickel (Ni)-Dissolved			114		%		70-130	12-AUG -10
Selenium (Se)-Dissolved			110		%		70-130	12-AUG -10
Silver (Ag)-Dissolved			106		%		70-130	12-AUG -10
Strontium (Sr)-Dissolved			105		%		70-130	12-AUG -10
Thallium (Tl)-Dissolved			109		%		70-130	12-AUG -10
Tin (Sn)-Dissolved			101		%		70-130	12-AUG -10
Titanium (Ti)-Dissolved			103		%		70-130	12-AUG -10
Uranium (U)-Dissolved			98		%		70-130	12-AUG -10
Vanadium (V)-Dissolved			115		%		70-130	12-AUG -10
Zinc (Zn)-Dissolved			105		%		70-130	12-AUG -10

MET-T-L-CP-ED Water



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Client: TYHEE NW T LTD.
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-EXP-ED Water								
Batch	R1427264							
WG1147541-2 DUP		L917348-2						
Calcium (Ca)-Total		23.4	24.1		mg/L	2.9	20	10-AUG -10
Iron (Fe)-Total		0.027	0.023		mg/L	14	20	10-AUG -10
Magnesium (Mg)-Total		17.9	18.4		mg/L	2.4	20	10-AUG -10
Manganese (Mn)-Total		0.0034	<0.0020	RPD-NA	mg/L	NA	20	10-AUG -10
Potassium (K)-Total		2.58	2.62		mg/L	1.7	20	10-AUG -10
Sodium (Na)-Total		25.2	25.2		mg/L	0.26	20	10-AUG -10
WG1147541-1 MB								
Calcium (Ca)-Total			<0.50		mg/L		0.5	10-AUG -10
Iron (Fe)-Total			<0.010		mg/L		0.01	10-AUG -10
Magnesium (Mg)-Total			<0.10		mg/L		0.1	10-AUG -10
Manganese (Mn)-Total			<0.0020		mg/L		0.002	10-AUG -10
Potassium (K)-Total			<0.10		mg/L		0.1	10-AUG -10
Sodium (Na)-Total			<1.0		mg/L		1	10-AUG -10
WG1147541-3 MS		L917348-2						
Calcium (Ca)-Total			101		%		70-130	10-AUG -10
Iron (Fe)-Total			107		%		70-130	10-AUG -10
Magnesium (Mg)-Total			108		%		70-130	10-AUG -10
Manganese (Mn)-Total			108		%		70-130	10-AUG -10
Potassium (K)-Total			94		%		70-130	10-AUG -10
Sodium (Na)-Total			113		%		70-130	10-AUG -10
Batch	R1434205							
WG1148059-3 DUP		L915201-12						
Calcium (Ca)-Total		<10	2.89		mg/L	3.8	20	11-AUG -10
Iron (Fe)-Total		0.22	0.211		mg/L	5.9	20	11-AUG -10
Magnesium (Mg)-Total		<2.0	1.73		mg/L	2.2	20	11-AUG -10
Manganese (Mn)-Total		<0.040	0.0068	J	mg/L	0.0029	0.08	11-AUG -10
Potassium (K)-Total		<2.0	<0.10	RPD-NA	mg/L	NA	20	11-AUG -10
Sodium (Na)-Total		<20	5.2	J	mg/L	1.8	40	11-AUG -10
WG1148059-2 LCS								
Calcium (Ca)-Total			100		%		80-120	11-AUG -10
Iron (Fe)-Total			101		%		80-120	11-AUG -10
Magnesium (Mg)-Total			104		%		80-120	11-AUG -10
Manganese (Mn)-Total			98		%		80-120	11-AUG -10
Potassium (K)-Total			100		%		80-120	11-AUG -10



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Client: TYHEE NW T LTD .
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-CP-ED Water								
Batch	R1434205							
WG1148059-2	LCS							
Sodium (Na)-Total			101		%		80-120	11-AUG -10
WG1147541-1	MB							
Calcium (Ca)-Total			<0.50		mg/L		0.5	11-AUG -10
Iron (Fe)-Total			<0.010		mg/L		0.01	11-AUG -10
Magnesium (Mg)-Total			<0.10		mg/L		0.1	11-AUG -10
Manganese (Mn)-Total			<0.0020		mg/L		0.002	11-AUG -10
Potassium (K)-Total			<0.10		mg/L		0.1	11-AUG -10
Sodium (Na)-Total			<1.0		mg/L		1	11-AUG -10
WG1148059-1	MB							
Calcium (Ca)-Total			<0.50		mg/L		0.5	11-AUG -10
Iron (Fe)-Total			<0.01		mg/L		0.01	11-AUG -10
Magnesium (Mg)-Total			<0.10		mg/L		0.1	11-AUG -10
Manganese (Mn)-Total			<0.0020		mg/L		0.002	11-AUG -10
Potassium (K)-Total			<0.10		mg/L		0.1	11-AUG -10
Sodium (Na)-Total			<1.0		mg/L		1	11-AUG -10
WG1148059-4	MS	L915201-12						
Calcium (Ca)-Total			95		%		70-130	11-AUG -10
Iron (Fe)-Total			95		%		70-130	11-AUG -10
Magnesium (Mg)-Total			99		%		70-130	11-AUG -10
Manganese (Mn)-Total			94		%		70-130	11-AUG -10
Potassium (K)-Total			94		%		70-130	11-AUG -10
Sodium (Na)-Total			95		%		70-130	11-AUG -10
Batch	R1438653							
WG1147541-1	MB							
Iron (Fe)-Total			<0.010		mg/L		0.01	12-AUG -10
WG1148059-1	MB							
Iron (Fe)-Total			<0.010		mg/L		0.01	12-AUG -10
MET-T-L-MS-ED Water								
Batch	R1426586							
WG1147541-2	DUP	L917348-2						
Aluminum (Al)-Total		0.060	0.060		mg/L	0.46	20	10-AUG -10
Antimony (Sb)-Total		<0.00040	<0.00040	RPD-NA	mg/L	NA	20	10-AUG -10
Arsenic (As)-Total		<0.00040	<0.00040	RPD-NA	mg/L	NA	20	10-AUG -10
Barium (Ba)-Total		0.0328	0.0331		mg/L	1.2	20	10-AUG -10
Beryllium (Be)-Total		<0.0010	<0.0010					



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Client: TYHEE NW T LTD.
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-M S-ED		Water						
Batch	R1426586							
W G 1147541-2	DUP	L917348-2						
Beryllium (Be)-Total		<0.0010	<0.0010	RPD-NA	mg/L	NA	20	10-AUG -10
Bismuth (Bi)-Total		<0.00020	<0.00020	RPD-NA	mg/L	NA	20	10-AUG -10
Boron (B)-Total		0.027	0.0270		mg/L	1.6	20	10-AUG -10
Cadmium (Cd)-Total		<0.00020	<0.000050	RPD-NA	mg/L	NA	20	10-AUG -10
Chromium (Cr)-Total		0.00093	0.00097		mg/L	4.4	20	10-AUG -10
Cobalt (Co)-Total		<0.00020	<0.00020	RPD-NA	mg/L	NA	20	10-AUG -10
Copper (Cu)-Total		0.0025	0.0025		mg/L	1.8	20	10-AUG -10
Lead (Pb)-Total		<0.00010	<0.00010	RPD-NA	mg/L	NA	20	10-AUG -10
Molybdenum (Mo)-Total		0.00152	0.00154		mg/L	1.2	20	10-AUG -10
Nickel (Ni)-Total		0.00161	0.00162		mg/L	0.50	20	10-AUG -10
Selenium (Se)-Total		0.00066	0.00068		mg/L	2.2	20	10-AUG -10
Silver (Ag)-Total		<0.00040	<0.00010	RPD-NA	mg/L	NA	20	10-AUG -10
Strontium (Sr)-Total		0.181	0.190		mg/L	4.8	20	10-AUG -10
Thallium (Tl)-Total		<0.00010	<0.00010	RPD-NA	mg/L	NA	20	10-AUG -10
Th (Sn)-Total		<0.00040	<0.00040	RPD-NA	mg/L	NA	20	10-AUG -10
Titanium (Ti)-Total		<0.0050	<0.00060	RPD-NA	mg/L	NA	20	10-AUG -10
Uranium (U)-Total		0.00103	0.00103		mg/L	0.39	20	10-AUG -10
Vanadium (V)-Total		<0.00050	<0.00050	RPD-NA	mg/L	NA	20	10-AUG -10
Zinc (Zn)-Total		0.0833	0.0829		mg/L	0.48	20	10-AUG -10
W G 1147541-1	MB							
Aluminum (Al)-Total			<0.010		mg/L		0.01	10-AUG -10
Antimony (Sb)-Total			<0.00040		mg/L		0.0004	10-AUG -10
Arsenic (As)-Total			<0.00040		mg/L		0.0004	10-AUG -10
Barium (Ba)-Total			<0.00020		mg/L		0.0002	10-AUG -10
Beryllium (Be)-Total			<0.0010		mg/L		0.001	10-AUG -10
Bismuth (Bi)-Total			<0.00020		mg/L		0.0002	10-AUG -10
Boron (B)-Total			<0.0040		mg/L		0.004	10-AUG -10
Cadmium (Cd)-Total			<0.000050		mg/L		0.00005	10-AUG -10
Chromium (Cr)-Total			<0.00080		mg/L		0.0008	10-AUG -10
Cobalt (Co)-Total			<0.00020		mg/L		0.0002	10-AUG -10
Copper (Cu)-Total			<0.0010		mg/L		0.001	10-AUG -10
Lead (Pb)-Total			<0.00010		mg/L		0.0001	10-AUG -10
Molybdenum (Mo)-Total			<0.00010		mg/L		0.0001	10-AUG -10



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#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-TL-MS-ED	Water							
Batch	R1426586							
W G1147541-1 MB								
Nickel (Ni)-Total			<0.00020		mg/L		0.0002	10-AUG -10
Selenium (Se)-Total			<0.00040		mg/L		0.0004	10-AUG -10
Silver (Ag)-Total			<0.00010		mg/L		0.0001	10-AUG -10
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	10-AUG -10
Thallium (Tl)-Total			<0.00010		mg/L		0.0001	10-AUG -10
Tin (Sn)-Total			<0.00040		mg/L		0.0004	10-AUG -10
Titanium (Ti)-Total			<0.00060		mg/L		0.0006	10-AUG -10
Uranium (U)-Total			<0.00010		mg/L		0.0001	10-AUG -10
Vanadium (V)-Total			<0.00050		mg/L		0.0005	10-AUG -10
Zinc (Zn)-Total			<0.0040		mg/L		0.004	10-AUG -10
W G1147541-3 MS		L917348-2						
Aluminum (Al)-Total			113		%		70-130	10-AUG -10
Antimony (Sb)-Total			104		%		70-130	10-AUG -10
Arsenic (As)-Total			110		%		70-130	10-AUG -10
Barium (Ba)-Total			108		%		70-130	10-AUG -10
Beryllium (Be)-Total			108		%		70-130	10-AUG -10
Bismuth (Bi)-Total			115		%		70-130	10-AUG -10
Boron (B)-Total			104		%		70-130	10-AUG -10
Cadmium (Cd)-Total			111		%		70-130	10-AUG -10
Chromium (Cr)-Total			115		%		70-130	10-AUG -10
Cobalt (Co)-Total			109		%		70-130	10-AUG -10
Copper (Cu)-Total			104		%		70-130	10-AUG -10
Lead (Pb)-Total			113		%		70-130	10-AUG -10
Molybdenum (Mo)-Total			102		%		70-130	10-AUG -10
Nickel (Ni)-Total			106		%		70-130	10-AUG -10
Selenium (Se)-Total			118		%		70-130	10-AUG -10
Silver (Ag)-Total			102		%		70-130	10-AUG -10
Strontium (Sr)-Total			113		%		70-130	10-AUG -10
Thallium (Tl)-Total			117		%		70-130	10-AUG -10
Tin (Sn)-Total			103		%		70-130	10-AUG -10
Titanium (Ti)-Total			102		%		70-130	10-AUG -10
Uranium (U)-Total			118		%		70-130	10-AUG -10
Vanadium (V)-Total			115		%		70-130	10-AUG -10
Zinc (Zn)-Total			109		%		70-130	10-AUG -10



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Client: TYHEE NW T LTD.
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-M S-ED		Water						
Batch	R1433524							
WG1148059-3	DUP	L915201-12						
Aluminum (Al)-Total		0.061	0.063		mg/L	4.4	20	11-AUG -10
Antimony (Sb)-Total		<0.00040	<0.00040	RPD-NA	mg/L	NA	20	11-AUG -10
Arsenic (As)-Total		<0.00040	<0.00040	RPD-NA	mg/L	NA	20	11-AUG -10
Barium (Ba)-Total		<0.0030	0.00227		mg/L	4.1	20	11-AUG -10
Beryllium (Be)-Total		<0.0010	<0.0010	RPD-NA	mg/L	NA	20	11-AUG -10
Bismuth (Bi)-Total		<0.00020	<0.00020	RPD-NA	mg/L	NA	20	11-AUG -10
Boron (B)-Total		<0.050	<0.0040	RPD-NA	mg/L	NA	20	11-AUG -10
Cadmium (Cd)-Total		<0.000050	<0.000050	RPD-NA	mg/L	NA	20	11-AUG -10
Chromium (Cr)-Total		<0.0050	<0.00080	RPD-NA	mg/L	NA	20	11-AUG -10
Cobalt (Co)-Total		<0.0020	<0.00020	RPD-NA	mg/L	NA	20	11-AUG -10
Copper (Cu)-Total		0.0013	0.0013		mg/L	2.2	20	11-AUG -10
Lead (Pb)-Total		<0.00010	<0.00010	RPD-NA	mg/L	NA	20	11-AUG -10
Molybdenum (Mo)-Total		<0.0050	<0.00010	RPD-NA	mg/L	NA	20	11-AUG -10
Nickel (Ni)-Total		<0.0020	0.00060		mg/L	1.3	20	11-AUG -10
Selenium (Se)-Total		<0.00040	<0.00040	RPD-NA	mg/L	NA	20	11-AUG -10
Silver (Ag)-Total		<0.00010	<0.00010	RPD-NA	mg/L	NA	20	11-AUG -10
Strontium (Sr)-Total		0.0120	0.0119		mg/L	0.49	20	11-AUG -10
Thallium (Tl)-Total		<0.00010	<0.00010	RPD-NA	mg/L	NA	20	11-AUG -10
Th (Sn)-Total		<0.050	<0.00040	RPD-NA	mg/L	NA	20	11-AUG -10
Titanium (Ti)-Total		0.0017	0.00173		mg/L	3.3	20	11-AUG -10
Uranium (U)-Total		<0.00010	<0.00010	RPD-NA	mg/L	NA	20	11-AUG -10
Vanadium (V)-Total		<0.0010	<0.00050	RPD-NA	mg/L	NA	20	11-AUG -10
Zinc (Zn)-Total		<0.0040	<0.0040	RPD-NA	mg/L	NA	20	11-AUG -10
WG1148059-2	LCS							
Aluminum (Al)-Total			104		%		80-120	11-AUG -10
Antimony (Sb)-Total			98		%		80-120	11-AUG -10
Arsenic (As)-Total			101		%		80-120	11-AUG -10
Barium (Ba)-Total			96		%		80-120	11-AUG -10
Beryllium (Be)-Total			93		%		80-120	11-AUG -10
Bismuth (Bi)-Total			95		%		80-120	11-AUG -10
Boron (B)-Total			96		%		80-120	11-AUG -10
Cadmium (Cd)-Total			98		%		80-120	11-AUG -10
Chromium (Cr)-Total			100		%		80-120	11-AUG -10



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#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-ED Water								
Batch	R1433524							
WG1148059-2	LCS							
Cobalt (Co)-Total			104		%		80-120	11-AUG -10
Copper (Cu)-Total			100		%		80-120	11-AUG -10
Lead (Pb)-Total			91		%		80-120	11-AUG -10
Molybdenum (Mo)-Total			105		%		80-120	11-AUG -10
Nickel (Ni)-Total			101		%		80-120	11-AUG -10
Selenium (Se)-Total			98		%		80-120	11-AUG -10
Silver (Ag)-Total			98		%		80-120	11-AUG -10
Strontium (Sr)-Total			103		%		80-120	11-AUG -10
Thallium (Tl)-Total			97		%		80-120	11-AUG -10
Th (Sn)-Total			100		%		80-120	11-AUG -10
Titanium (Ti)-Total			104		%		80-120	11-AUG -10
Uranium (U)-Total			103		%		80-120	11-AUG -10
Vanadium (V)-Total			98		%		80-120	11-AUG -10
Zinc (Zn)-Total			89		%		80-120	11-AUG -10
WG1147541-1	MB							
Aluminum (Al)-Total			<0.010		mg/L		0.01	11-AUG -10
Antimony (Sb)-Total			<0.00040		mg/L		0.0004	11-AUG -10
Arsenic (As)-Total			<0.00040		mg/L		0.0004	11-AUG -10
Barium (Ba)-Total			<0.00020		mg/L		0.0002	11-AUG -10
Beryllium (Be)-Total			<0.0010		mg/L		0.001	11-AUG -10
Bismuth (Bi)-Total			<0.00020		mg/L		0.0002	11-AUG -10
Boron (B)-Total			<0.0040		mg/L		0.004	11-AUG -10
Cadmium (Cd)-Total			<0.000050		mg/L		0.00005	11-AUG -10
Chromium (Cr)-Total			<0.00080		mg/L		0.0008	11-AUG -10
Cobalt (Co)-Total			<0.00020		mg/L		0.0002	11-AUG -10
Copper (Cu)-Total			<0.0010		mg/L		0.001	11-AUG -10
Lead (Pb)-Total			<0.00010		mg/L		0.0001	11-AUG -10
Molybdenum (Mo)-Total			<0.00010		mg/L		0.0001	11-AUG -10
Nickel (Ni)-Total			<0.00020		mg/L		0.0002	11-AUG -10
Selenium (Se)-Total			<0.00040		mg/L		0.0004	11-AUG -10
Silver (Ag)-Total			<0.00010		mg/L		0.0001	11-AUG -10
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	11-AUG -10
Thallium (Tl)-Total			<0.00010		mg/L		0.0001	11-AUG -10
Th (Sn)-Total			<0.00040		mg/L		0.0004	11-AUG -10



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#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-ED Water								
Batch	R1433524							
WG1147541-1 MB								
Titanium (Ti)-Total			<0.00060		mg/L		0.0006	11-AUG -10
Uranium (U)-Total			<0.00010		mg/L		0.0001	11-AUG -10
Vanadium (V)-Total			<0.00050		mg/L		0.0005	11-AUG -10
Zinc (Zn)-Total			<0.0040		mg/L		0.004	11-AUG -10
WG1148059-1 MB								
Aluminum (Al)-Total			<0.010		mg/L		0.01	11-AUG -10
Antimony (Sb)-Total			<0.00040		mg/L		0.0004	11-AUG -10
Arsenic (As)-Total			<0.00040		mg/L		0.0004	11-AUG -10
Barium (Ba)-Total			<0.00020		mg/L		0.0002	11-AUG -10
Beryllium (Be)-Total			<0.0010		mg/L		0.001	11-AUG -10
Bismuth (Bi)-Total			<0.00020		mg/L		0.0002	11-AUG -10
Boron (B)-Total			<0.0040		mg/L		0.004	11-AUG -10
Cadmium (Cd)-Total			<0.000050		mg/L		0.00005	11-AUG -10
Chromium (Cr)-Total			<0.00080		mg/L		0.0008	11-AUG -10
Cobalt (Co)-Total			<0.00020		mg/L		0.0002	11-AUG -10
Copper (Cu)-Total			<0.0010		mg/L		0.001	11-AUG -10
Lead (Pb)-Total			<0.00010		mg/L		0.0001	11-AUG -10
Molybdenum (Mo)-Total			<0.00010		mg/L		0.0001	11-AUG -10
Nickel (Ni)-Total			<0.00020		mg/L		0.0002	11-AUG -10
Selenium (Se)-Total			<0.00040		mg/L		0.0004	11-AUG -10
Silver (Ag)-Total			<0.00010		mg/L		0.0001	11-AUG -10
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	11-AUG -10
Thallium (Tl)-Total			<0.00010		mg/L		0.0001	11-AUG -10
Tin (Sn)-Total			<0.00040		mg/L		0.0004	11-AUG -10
Titanium (Ti)-Total			<0.00060		mg/L		0.0006	11-AUG -10
Uranium (U)-Total			<0.00010		mg/L		0.0001	11-AUG -10
Vanadium (V)-Total			<0.00050		mg/L		0.0005	11-AUG -10
Zinc (Zn)-Total			<0.0040		mg/L		0.004	11-AUG -10
WG1148059-4 MS		L915201-12						
Aluminum (Al)-Total			107		%		70-130	11-AUG -10
Antimony (Sb)-Total			101		%		70-130	11-AUG -10
Arsenic (As)-Total			108		%		70-130	11-AUG -10
Barium (Ba)-Total			109		%		70-130	11-AUG -10
Beryllium (Be)-Total			98		%		70-130	11-AUG -10



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Client: TYHEE NW T LTD.
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-TL-MS-ED Water								
Batch	R1433524							
W G 1148059-4 MS		L915201-12						
Bismuth (Bi)-Total			110		%		70-130	11-AUG -10
Boron (B)-Total			97		%		70-130	11-AUG -10
Cadmium (Cd)-Total			110		%		70-130	11-AUG -10
Chromium (Cr)-Total			106		%		70-130	11-AUG -10
Cobalt (Co)-Total			110		%		70-130	11-AUG -10
Copper (Cu)-Total			105		%		70-130	11-AUG -10
Lead (Pb)-Total			108		%		70-130	11-AUG -10
Molybdenum (Mo)-Total			105		%		70-130	11-AUG -10
Nickel (Ni)-Total			108		%		70-130	11-AUG -10
Selenium (Se)-Total			109		%		70-130	11-AUG -10
Silver (Ag)-Total			102		%		70-130	11-AUG -10
Strontium (Sr)-Total			114		%		70-130	11-AUG -10
Thallium (Tl)-Total			114		%		70-130	11-AUG -10
Tin (Sn)-Total			100		%		70-130	11-AUG -10
Titanium (Ti)-Total			98		%		70-130	11-AUG -10
Uranium (U)-Total			112		%		70-130	11-AUG -10
Vanadium (V)-Total			109		%		70-130	11-AUG -10
Zinc (Zn)-Total			103		%		70-130	11-AUG -10
NH4-ED Water								
Batch	R1425103							
W G 1147328-3 DUP		L918003-1						
Ammonia-N		0.105	0.123	J	mg/L	0.019	0.1	10-AUG -10
W G 1147328-5 DUP		L917694-1						
Ammonia-N		0.432	0.434		mg/L	0.65	10	10-AUG -10
W G 1147328-2 LCS			97		%		85-115	10-AUG -10
W G 1147328-1 MB			<0.050		mg/L		0.05	10-AUG -10
Ammonia-N								
W G 1147328-4 MS		L917019-2						
Ammonia-N			80		%		75-122	10-AUG -10
NO2-C-ED Water								
Batch	R1420614							
W G 1146482-3 DUP		L917086-1						
Nitrite (as N)		<0.050	<0.050	RPD-NA	mg/L	NA	20	07-AUG -10
W G 1146482-7 DUP		L917399-2						



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Client: TYHEE NW T LTD .
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NO2-ED Water								
Batch	R1420614							
W G 1146482-7	DUP	L917399-2						
Nitrate (as N)		<0.050	<0.050	RPD-NA	mg/L	NA	20	07-AUG -10
W G 1146482-2	LCS							
Nitrate (as N)			100		%		85-115	07-AUG -10
W G 1146482-1	MB							
Nitrate (as N)			<0.050		mg/L		0.05	07-AUG -10
W G 1146482-4	MS	L917086-1						
Nitrate (as N)			89		%		75-125	07-AUG -10
W G 1146482-8	MS	L917399-2						
Nitrate (as N)			94		%		75-125	07-AUG -10
NO3-ED Water								
Batch	R1420614							
W G 1146482-3	DUP	L917086-1						
Nitrate (as N)		<0.050	<0.050	RPD-NA	mg/L	NA	20	07-AUG -10
W G 1146482-7	DUP	L917399-2						
Nitrate (as N)		<0.050	<0.050	RPD-NA	mg/L	NA	20	07-AUG -10
W G 1146482-2	LCS							
Nitrate (as N)			103		%		85-115	07-AUG -10
W G 1146482-1	MB							
Nitrate (as N)			<0.050		mg/L		0.05	07-AUG -10
W G 1146482-4	MS	L917086-1						
Nitrate (as N)			93		%		75-125	07-AUG -10
W G 1146482-8	MS	L917399-2						
Nitrate (as N)			97		%		75-125	07-AUG -10
OGG-ED Water								
Batch	R1429023							
W G 1148063-2	LCS							
Oil and Grease			99		%		70-130	11-AUG -10
W G 1148063-1	MB							
Oil and Grease			<1.0		mg/L		1	11-AUG -10
PH/EC/ALK-ED Water								
Batch	R1419027							
W G 1146004-5	DUP	L916607-1						
pH		7.14	7.15	J	pH	0.01	0.2	06-AUG -10
Conductivity (EC)		306	306		uS/cm	0.0	10	06-AUG -10
Bicarbonate (HCO3)		187	188		mg/L	0.79	25	06-AUG -10
Carbonate (CO3)		<5.0	<5.0	RPD-NA	mg/L	NA	25	06-AUG -10



Quality Control Report

Workorder: L917272

ReportDate: 13-AUG -10

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Client: TYHEE NW T LTD .
 #401 -675 W HASTINGS STREET
 VANCOUVER BC V6B 1N2
 Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PH/EC/ALK-ED Water								
Batch	R1419027							
W G 1146004-5 DUP		L916607-1						
Hydroxide (OH)		<5.0	<5.0	RPD-NA	mg/L	N/A	25	06-AUG -10
Alkalinity, Total (as CaCO3)		153	154		mg/L	0.79	6.5	06-AUG -10
W G 1146004-7 DUP		L917272-4						
pH		7.62	7.61	J	pH	0.01	0.2	06-AUG -10
Conductivity (EC)		1310	1300		uS/cm	0.23	10	06-AUG -10
Bicarbonate (HCO3)		540	540		mg/L	0.15	25	06-AUG -10
Carbonate (CO3)		<5.0	<5.0	RPD-NA	mg/L	N/A	25	06-AUG -10
Hydroxide (OH)		<5.0	<5.0	RPD-NA	mg/L	N/A	25	06-AUG -10
Alkalinity, Total (as CaCO3)		442	443		mg/L	0.15	6.5	06-AUG -10
W G 1146004-2 LCS								
Conductivity (EC)			100		%		90-110	06-AUG -10
W G 1146004-3 LCS								
pH			6.97		pH		6.9-7.1	06-AUG -10
W G 1146004-4 LCS								
Alkalinity, Total (as CaCO3)			97		%		85-115	06-AUG -10
W G 1146004-1 MB								
Bicarbonate (HCO3)			<5.0		mg/L		5	06-AUG -10
Carbonate (CO3)			<5.0		mg/L		5	06-AUG -10
Hydroxide (OH)			<5.0		mg/L		5	06-AUG -10
Alkalinity, Total (as CaCO3)			<5.0		mg/L		5	06-AUG -10
SO4-ED Water								
Batch	R1420614							
W G 1146482-3 DUP		L917086-1						
Sulfate (SO4)		114	113		mg/L	0.55	20	07-AUG -10
W G 1146482-7 DUP		L917399-2						
Sulfate (SO4)		<0.50	<0.50	RPD-NA	mg/L	N/A	20	07-AUG -10
W G 1146482-2 LCS								
Sulfate (SO4)			105		%		85-115	07-AUG -10
W G 1146482-1 MB								
Sulfate (SO4)			<0.50		mg/L		0.5	07-AUG -10
W G 1146482-4 MS		L917086-1						
Sulfate (SO4)			N/A	MS-B	%		-	07-AUG -10
W G 1146482-8 MS		L917399-2						
Sulfate (SO4)			103		%		75-125	07-AUG -10



Quality Control Report

Workorder: L917272

ReportDate: 13-AUG -10

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Client: TYHEE NW T LTD .
#401 -675 W HASTINGS STREET
VANCOUVER BC V6B 1N2
Contact: HUGH W ILSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
SO4-ED Water								
Batch	R1422131							
W G 1147083-3 DUP		L917569-3						
Sulfate (SO4)		0.66	0.65		mg/L	1.0	20	09-AUG -10
W G 1147083-5 DUP		L917571-15						
Sulfate (SO4)		<0.50	<0.50	RPD-NA	mg/L	NA	20	09-AUG -10
W G 1147083-2 LCS			105		%		85-115	09-AUG -10
Sulfate (SO4)								
W G 1147083-1 MB			<0.50		mg/L		0.5	09-AUG -10
Sulfate (SO4)								
W G 1147083-4 MS		L917569-3	108		%		75-125	09-AUG -10
Sulfate (SO4)								
W G 1147083-6 MS		L917571-15	106		%		75-125	09-AUG -10
Sulfate (SO4)								
SOLIDS-TDS-ED Water								
Batch	R1424783							
W G 1146901-3 DUP		L917272-4						
Total Dissolved Solids		483	513		mg/L	6.0	20	10-AUG -10
W G 1146901-2 LCS			101		%		85-115	10-AUG -10
Total Dissolved Solids								
W G 1146901-1 MB			<5.0		mg/L		5	10-AUG -10
Total Dissolved Solids								
SOLIDS-TOTSUS-ED Water								
Batch	R1421397							
W G 1146697-4 DUP		L912809-3						
Total Suspended Solids		4.0	6.0	J	mg/L	2.0	6	09-AUG -10
W G 1146697-5 DUP		L917272-4						
Total Suspended Solids		122	109		mg/L	11	20	09-AUG -10
W G 1146697-2 LCS			90		%		85-115	09-AUG -10
Total Suspended Solids								
W G 1146697-3 LCS			86		%		85-115	09-AUG -10
Total Suspended Solids								
W G 1146697-1 MB			<3.0		mg/L		3	09-AUG -10
Total Suspended Solids								

Quality Control Report

Workorder: L917272

ReportDate: 13-AUG -10

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Legend:

Limit	99% Confidence Interval (Laboratory Control Limits)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Description Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
J	Duplicate results and limits are expressed in terms of absolute difference.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



ALS 100809-10 (10-BTF)

CONFIDENTIAL ANALYSIS REPORT

REPORT #: 100809-10

WO #: 10-BTF

PO #: L917272

CLIENT: ALS Laboratory Group - Edmonton
9936-67 Avenue
Edmonton, AB
T6E 0P5

ATTENTION: ALSED Reporting
Tel: (780) 413-5227
Fax: (780) 437-2311

SAMPLE DESCRIPTION: Water Samples

DATE AND TIME OF SAMPLE COLLECTION: August 06, 2010

DATE AND TIME OF SAMPLE RECEIPT: August 06, 2010/14:59

SAMPLE TEMPERATURE WHEN RECEIVED: 12.4° Celsius

TEST PERFORMED: Fecal Coliform by MF

TEST START DATE: August 06, 2010

DATE COMPLETED: August 07, 2010

CERTIFICATE OF ANALYSIS: See Page 2

QUALITY CONTROL DATA: See Attached Appendix 1

The report shall not be reproduced, except in full, without the written authority of PBR Laboratories Inc.

Certificate of Analysis

PBR ID	Sample #	Client ID	Lot #	Test	Protocol	Quantity Analyzed	Result	Units	Comments
10-BTF-01	L917272-1	17-1 ROUND LK		Fecal Coliform by MF	APHA-9222D	100 ml	1	CFU/100ml	1
10-BTF-02	L917272-4	17-7 SEWAGE		Fecal Coliform by MF	APHA-9222D	.000001 ml	2.4 X 10 ⁶	CFU/100ml	1
10-BTF-03	L917272-5	17-8 GIAUGUE LK		Fecal Coliform by MF	APHA-9222D	100 ml	1	CFU/100ml	1

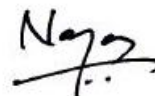
Comments

1 CFU = Colony Forming Unit.

The reported results apply only to the items tested.



Mukesh Patel (Analyst)
Date: Aug 09 2010



Approved By: Narayan Pokharel, Ph.D.
Date: Aug 09 2010



PIBR
Laboratories Inc.

ALS 100809-10 (10-BTF)

APPENDIX 1

Quality Control Data for Fecal Coliform by MF (APHA-9222D)

Controls	Organism/Medium	Result
Sterility (media)	m-FC	Pass
Negative	Staphylococcus aureus	Pass
Positive	Escherichia coli	Pass



Report to:		Report Format / Distribution		Service Requested: (rush - subject to availability)	
Company: Tyhee NWT Corp		Standard: _____ Other: _____		☒ Regular (Default)	
Contact: Dave Webb		Select: PDF ☒ Excel ☒ Digital		Priority (2-3 Business Days) - 50% Surcharge	
Address: 401-675 W. Hastings St. Vancouver BC V6B 1A2		Email 1: webbb@tyhee.com		Emergency (1 Business Day) - 100% Surcharge	
Phone: 604-681-2877 Fax: 604-681-2877		Email 2: hugh@tyhee.com		For Emergency < 1 Day, ASAP or Weekend - Contact ALS	
Invoice To: Same as Report? ☒ Yes/ No? ☐		Client / Project Information:		Analysis Request	
Company:		Job #: 1740082.020		(Indicate Filtered or Preserved, F/P)	
Contact:		PO / AFE:			
Address:		Legal Site Description:			
Phone:		Quote #: Q 7825			
Lab Work Order # (Lab Use Only): L9151270		ALS Contact:		Sampler:	
Sample #	Sample Identification (This description will appear on the report)	Date	Time	Sample Type	Number of Containers
1	17-1 Round Lk				4
2	17-5 Winter Lk				4
3	17-6 GTID Swamp				4
4	17-7 Sewage				4
5	17-8 Griseque Lk				4
6	Decline	NA			4
7	Decline				4
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SHIPMENT RELEASE (Client Use)		SHIPMENT RECEPTION (Lab Use Only)		SHIPMENT VERIFICATION (Lab Use Only)	
Released by: Val Pradico	Date & Time: Aug 5 11:00 am	Received by: Joe R	Date: 06 Aug 10	Time: 12:45	Temperature: COLD
Verified by:		Date & Time:		Observations: Yes/No? If Yes attach SIF	

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GENF 16.00 Franc



FACSIMILE TRANSMITTAL

DATE: Aug 6/2010

TO: ALS - ATT: Susan Clarke

FAX NUMBER: 780-437-2311

FROM: Doug Lavesque

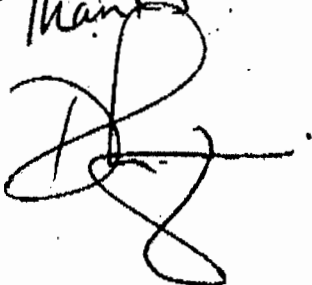
NUMBER OF PAGE(S): 3 INCLUDING THIS COVER LETTER

Hi Susan,

Our samples were sent out to your lab yesterday afternoon via Canadian North.

Unfortunately the paper work was not put in the cooler with the samples.

Here are those submittal forms.

Thanks.


At Golder Associates we strive to be the most respected global company providing consulting, design, and construction services in earth, environment, and related areas of energy. Employee owned since our formation in 1960, our focus, unique culture and operating environment offer opportunities and the freedom to excel, which attracts the leading specialists in our fields. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees who operate from offices located throughout Africa, Asia, Australasia, Europe, North America, and South America.

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