An Investigation into

THE ACID ROCK DRAINAGE POTENTIAL FROM THE CANADIAN MALARTIC PROJECT

prepared for

OSISKO EXPLORATION LTD.

Project 11623-002 – Interim Report
February 24, 2009

NOTE:
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Executive Summary

SGS was contracted by Osisko Exploration Ltd. (Osisko) to complete environmental characterisation of ore, waste rock and tailings from the Canadian Malartic project located in northern Quebec. Environmental tests were conducted on low grade, average grade and high sulphide ores, and average grade and high sulphide waste rocks from the deposit. Tailings generated from a metallurgical test program completed at SGS facilities in Lakefield (SGS Project Reference No. 11623-001) were also subjected to environmental testing. The purpose of the environmental test program, designed in consultation with Mr. Jean Chateauneuf of Osisko, was to assess the acid rock drainage (ARD) and contaminant release potential associated with the ore, waste rock and tailings materials. The scope of testwork completed on the ore, waste rock and tailings samples included: modified acid base accounting (ABA), net acid generation (NAG) and humidity cell testing.

Determination of the carbonate (CO_3) contents of the *LG (Low Grade) Ore -¼", HS (High Sulphide) Ore -¼", AG (Average) Waste -¼", HS (High Sulphide) Waste -¼", OA Comp Tailings* and *OA CND2 Tailings* during ABA testing indicated that much of the total neutralisation potential (NP) of these samples is from less reactive sources. Since carbonate minerals are typically the only minerals that can react at fast enough rates to counteract acidities released by sulphide mineral oxidation before the acids migrate; the sulphide concentrations; coupled with the low carbonate contents, indicate that these samples are potentially acid generating (PAG). Similarly, although the *AG (Average Grade) Ore -¼"* and *GT Residue Tailings* samples reported increased carbonate mineralisation in comparison to the previously noted samples, the sulphide concentrations again indicated PAG designations.

Test results for the -200 mesh fraction of the ore samples (*LG Ore -200m, AG Ore -200m* and *HS Ore -200m*) samples clearly illustrated how the relative proportions of critical minerals can vary between the coarser particle sizes and the fine particle sizes. Analysis of the carbonate contents indicated that much of the total NP contained within the fines fraction (-200 mesh) is comprised of fast reacting carbonate mineralization. Although ABA testing of the *LG Ore -200m, AG Ore -200m* and *HS Ore -200m* samples reported significantly increased carbonate NP values in comparison to their -¼" counterparts; the significant sulphide contents and carbonate NP/AP ratios again suggest uncertainty with regards to acid generation potential.

With the exception of the *HS Waste -¼"* sample, NAG testing completed on the Osisiko samples reported no net acidity generated suggesting that the sulphide contents of these samples are not readily available.

The humidity cell leachates have typically maintained near neutral to slightly alkaline pH values throughout the initial forty-three (-¼" ore and waste rock samples), forty-one (-200 mesh ore and *GT Residue* tailings samples) and fifty-six (*OA Comp* and *OA CND2* tailings samples) week test periods.

Low levels of sulphate are being released into the weekly leachates and, with the exception of isolated incidents, free acidity has remained below the analytical detection limit. Inductively coupled optical emission spectroscopy/mass spectroscopy (ICP-OES/MS) analysis of the leachates reported all Quebec Directive No. 019 controlled parameters well within their respective limits.

Results of the humidity cell tests are generally indicating very low levels of acid generation, as evidenced by the low sulphate concentrations in the weekly solutions. In contrast, the carbonate NP is decreasing a higher rate than necessary to neutralise the acidity being produced.

Nonetheless, after forty-three weeks of leaching, calculation of the carbonate NP depletion shows that the carbonate in the *HS Ore -¼", AG Waste -¼"* and *HS Waste -¼"* samples is depleting at a faster rate than the sulphide, while the carbonate in the *LG Ore -¼"* and *AG Ore -¼"* samples is depleting at rates almost parallel to the sulphide. Similarly, after fifty-six (*OA Comp* and *OA CND2*) and forty-one (*GT Residue*) weeks of humidity cell testing, the tailings test cells are also reporting that the carbonate minerals are depleting at rates faster than the sulphides. These results indicate that, if the current depletion rates continue, the carbonate of these samples (with the possible exception of the *AG Ore -¼"* sample) will be exhausted prior to depletion of the sulphide contents and that these samples may be expected to generate acidic drainage in the future.

The increasing carbonate molar ratio (CMR) values determined for the -¼" samples also indicate that, in addition to the carbonate depletion noted above, the dissolution of carbonate and the consumption of NP in these test cells may be occurring as a direct response to the addition of rinse water to the humidity cells. This suggests that the NP consumption of these samples will be more dependent on site conditions (precipitation and flow rates of surface and ground water) rather than geochemical kinetics. To account for this "wash off" of carbonates, carbonate depletions were also calculated using the open-system carbonate depletion (which accounts for acidity and alkalinity production occurring within the test cells). These depletion rates indicate significantly increased carbonate depletion is occurring within the test cells over and above that which is required for neutralization.

Similarly, although forty-one weeks of leaching the *LG Ore -200m, AG Ore -200m* and *HS Ore -200m* samples suggest that the sulphide in the -200 mesh samples is depleting at rates faster than the CNP, the open-system CNP depletion rates (which correct for acidity and alkalinity production rates) again indicate that, if the current rates of carbonate dissolution and consumption are maintained, sulphide will remain available within the -200 mesh test cells upon depletion of the fast reacting carbonate contents.

It should be noted that the humidity cell test is a laboratory test, conducted at a specified particle size under accelerated weathering conditions, designed to promote oxidation and maximize the loadings of weathering reaction products contained in the resulting liquid effluents. As such, the atmospheric conditions that humidity cell tests are subjected to are considerably harsher than the in-situ atmospheric

conditions to which most North American mine products are typically exposed. Humidity cell testing is purported to determine if a given sample will generate acidic drainage; it cannot determine when the material from which the sample was taken will become acidic. The degree to which the stored ore is crushed (particle size), location, rainfall, freeze/thaw conditions, temperature and humidity are all factors which will influence the onset of acid generation.

Although test results to date indicate that the -¼" ore and waste rock and -200 mesh ore humidity cell test samples have long term potential for acid generation, neutral pH values, significant levels of alkalinity and very low concentrations of metals (well below the Dir. No. 019 limits) have been maintained in the leachates. Assuming that the samples tested are representative of the ore and waste rock produced on-site, and taking into account the accelerated weathering that occurs in the humidity cell test and the major differences in the particle size distributions of the samples versus in-situ conditions, it is highly unlikely that these materials would generate acidity during the first couple of years of storage. Similarly, after more than 40 weeks of humidity cell testing showing very favourable leachate quality, it is highly unlikely that unfavourable field leachate quality will be an issue during short term surface storage of these materials.

Similarly, test results to date also indicate that if the current rates of sulphide and CNP depletion are maintained, the tailings samples have potential to generate acid in the long-term.

It is recommended that the mineralogy of the Canadian Malartic tailings products be evaluated to determine the reason for the apparent low reactivity of the sulphide content.

It is also suggested that column testing specifically tailored to the Canadian Malartic site conditions may be a more appropriate kinetic test method to assess the risk of developing acid rock drainage. By conducting column testing in parallel with humidity cell testing the impact of the carbonate wash off effect could be isolated.

Introduction

SGS was contracted by Osisko Exploration Ltd. (Osisko) to complete environmental characterisation of ore, waste rock and tailings from the Canadian Malartic project located in northern Quebec. Environmental tests were conducted on high sulphide, average grade and low grade ores, and high sulphide and average grade waste rocks from the deposit. Tailings generated from a metallurgical test program completed at SGS facilities in Lakefield (SGS Project Reference No. 11623-001) were also subjected to environmental testing. The environmental test program was designed in consultation with Mr. Jean Chateauneuf of Osisko. The purpose of the environmental test program, entitled "Acid Rock Drainage Potential from the Canadian Malartic Project", was to assess the acid rock drainage (ARD) and contaminant release potential associated with the ore, waste rock and tailings materials.

The following report provides a summary of the environmental testwork completed and the results thereof.

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Scope of Work

The scope of test work completed on the overall ore and waste rock composite samples included:

- Modified acid base accounting (ABA).
- Net acid generation (NAG) testing.
- Humidity cell testing (ASTM D 5744-96 (2001)).

Sample Descriptions and Test Methods

The following sections provide brief overviews of the samples received and the test methods included in the environmental characterisation program.

1. Sample Descriptions

Descriptions of the various ore, waste rock and tailings samples received are provided in Tables 1 through 3.

Table 1 Ore Core Samples Received from Osisko

Sample	BH ID	ALS ID	Sec Tag ID	from (m)	to (m)	Au (g/ t)	Alteration	Mass (kg)
Low Grade Ore	CM06-721X	41789	36471	187.00	188.00	0.196	SGR	7.2
	CM07-1067X	334264	66342	35.00	36.50	0.515	SGR	
	CM07-1067X	334271	66349	45.50	47.00	0.574	SGR	
	CM07-1071X	376951	81184	28.50	30.00	0.153	CGR	6.0
	CM07-1071X	376962	81195	43.50	45.00	0.557	CGR	
	CM06-721X	41751	36433	28.00	29.50	0.033	SPO	9.2
	CM06-721X	41752	36434	29.50	31.00	0.051	SPO	
	CM07-1173X	329999	124262	30.00	31.50	0.218	SPO	
	CM06-721X	41797	36479	195.50	196.40	0.029	CPO	3.2
	CM06-721X	41799	36481	197.30	198.00	0.06	CPO	
Average Grade Ore	CM06-721X	41796	36478	194.30	195.50	0.979	CPO	4.2
	CM05-664	101664	2013	45.60	46.60	1.205	CPO	
	CM07-1173X	329985	124248	10.50	12.00	0.924	SGR	15.4
	CM05-664	101732	2081	133.60	135.10	0.997	SGR	
	CM05-664	101746	2095	150.10	151.60	0.922	SGR	
	CM05-664	101782	2128	197.60	198.60	0.833	SGR	
	CM07-1038	333649	64598	155.00	156.50	0.787	SGR	
	CM07-1071X	376954	81187	33.00	34.50	1.065	CGR	8.6
	CM06-742	276094	17418	52.50	54.00	0.906	CGR	
	CM06-744	276641	18035	75.60	77.10	0.829	CGR	
	CM05-664	101814	2163	241.60	243.10	0.817	SPO	9.2
	CM05-664	101816	2165	244.10	245.10	1.165	SPO	
	CM05-664	101817	2166	245.10	246.60	0.934	SPO	
High Sulphide Ore	CM06-721X	41801	36483	199.00	200.00	0.405	SGR	8.2
	CM07-1067X	334279	66357	56.00	57.50	0.617	SGR	
	CM07-1067X	334277	66355	54.50	56.00	0.721	SGR	
	CM07-1067X	334265	66343	36.50	38.00	0.411	CGR	6.0
	CM07-1067X	334281	66359	59.00	60.50	0.447	CGR	
	CM07-1173X	329994	124257	22.50	24.00	0.451	SPO	8.6
	CM05-664	101812	2161	239.60	240.60	0.532	SPO	
	CM07-1052	336044	64914	19.50	21.00	0.525	SPO	
	CM05-664	101659	2008	40.30	41.60	0.576	CPO	5.8
	CM05-664	101660	2009	41.60	43.10	0.535	CPO	

Table 2 Waste Rock Core Samples Received from Osisko

Sample	BH ID	ALS ID	Sec Tag ID	from (m)	to (m)	Au (g/t)	Alteration	Mass (kg)
Average Waste	CMO6-721X	41775	36457	167.00	168.50	0.412	CGR	5.6
	CM07-1067X	334258	66336	27.50	29.00	0.405	CGR	
	CM06-721X	41790	36472	188.00	189.00	0.085	SGR	7.6
	CM07-1067X	334272	66350	47.00	48.50	0.104	SGR	
	CM07-1067X	334273	66351	48.50	50.00	0.178	SGR	
	CM07-1173X	329995	124258	24.00	25.50	0.212	SPO	9.8
	CM07-1173X	329996	124259	25.50	27.00	0.072	SPO	
	CM07-1173X	329997	124260	27.00	28.50	0.043	SPO	
	CM05-689	138395	7443	243.6	245.1	0.321	CPO	3.2
High Sulphide Waste	CM07-1067X	334257	66335	26.00	27.50	0.384	CGR	6.4
	CM07-1067X	334280	66358	57.50	59.00	0.369	CGR	
	CM07-1067X	334274	66352	50.00	51.50	0.174	SGR	8.8
	CM07-1067X	334275	66353	51.50	53.00	0.306	SGR	
	CM07-1067X	334276	66354	53.00	54.50	0.301	SGR	
	CM07-1071X	376984	81217	79.43	80.50	0.011	CPO	4.6
	CM07-1071X	376985	81218	80.50	81.50	0.014	CPO	
	CM07-1173X	329986	124249	12.00	13.50	0.226	SPO	6.4
	CM07-1173X	329992	124255	19.50	21.00	0.343	SPO	

Table 3 Tailings Samples Received from Metallurgical Operations

Sample Identifier	Description
GT Residue	Composite sample generated from the CN testwork completed on the Overall Comp 3 sample

2. Sample Preparation

Upon receipt, each of the individual alterations of each of the ore and waste rock cores were crushed to --¼" prior to the riffling out the requisite representative portions required to generate the custom blended ore and waste rock samples required. In addition to the -¼" ore and waste rock blends generated, representative portions of the blended ore and waste rock samples were subjected to roll crushing and sieving to further divide the blended ore and waste rock samples into two fractions (-200 and +200 mesh). The -200 mesh fraction is typically considered representative of the softer mineral fraction that will break down easily, while the +200 mesh fraction is typically considered representative of the harder mineral fraction. The blending proportions for the ore and waste rock composites, which are expected to be representative of the make-up of the overall ore and waste rock onsite, are presented in Table 4.

Table 4 Blending Proportions – Overall Composites

Material Type	CPO (%)	SPO (%)	SGR (%)	CGR (%)
Overall Comp	10	20	42	28

The ore and waste rock samples generated were subsequently riffled to split each of the samples into representative charges (Samples A and B). For each sample, one test charge (A) was retained for in-house testing, while the duplicate test charge (B) was shipped to URSTM.

The *GT Residue* sample, received from metallurgical operations as a series of eight filter cakes, was manually blended to ensure a homogeneous mixture prior to submission for analysis. Detailed blending proportions for the *GT Residue* sample are presented in Table 5.

Table 5 Blending Proportions – GT Residue

Composite Component	Filter Cake mass (g)
GT 211	690.71
GT 212	565.29
GT 213	624.73
GT 215	553.92
GT 216	513.34
GT 217	565.12
GT 218	534.44
GT 220	570.63

Representative portions of the individual composite samples were prepared for the proposed test work and analyses according to SGS Standard Operating Procedures.

3. Project Status

At the time of report preparation, the humidity cell tests currently in progress on the -¼" ore and waste rock composites were in the 46th week of testing, while the humidity cell tests in progress on the -200 mesh composites and the GT Residue tailings were in the 44th week of testing. This report includes all results available to January 29, 2009.

4. Test Methods

The following sections provide a brief overview of the test methods included in the environmental characterisation program.

4.1. Modified Acid Base Accounting

The modified ABA test provided quantification of the total sulphur, sulphide sulphur, and sulphate concentrations present and the potential acid generation (AP) related to the oxidation of the sulphide sulphur concentration. The test method determined the neutralization potential (NP) of the samples by initiating a reaction with excess acid and then identified the quantity of acid neutralized by the samples NP by back-titrating to pH 8.3 with NaOH. The balance between the AP and NP assists in defining the potential of the sample to generate acid drainage. In addition, quantification of the extent of carbonate mineral content permitted calculation of the theoretical carbonate NP.

4.2. Net Acid Generation Testing

NAG tests were conducted to determine the balance between the acid consuming and acid producing components of the ore and waste products. The NAG test initiated a reaction between the sample and concentrated hydrogen peroxide in order to force complete oxidation and reaction of the acidity produced with the neutralizing minerals present within the sample. After the reaction ceased, the pH of the solution was measured (NAG pH). The acid remaining after the reaction was titrated with standardized NaOH to pH 4.5 and the net acid generated by the reaction was calculated and expressed in units of kg H_2SO_4 equivalent per tonne. The $NAG_{4.5}$ value is indicative of the contribution from free acid, Al and Fe. Titration from pH 4.5 to pH 7.0 can provide additional information for sample characterisation as, under certain conditions, the $NAG_{7.0}$ is indicative of the presence of metallic ions that consume alkalinity over this pH range, such as Cu and Zn.

4.3. Humidity Cell Testing – ASTM D 544-96 (2001)

The humidity cell test is used to predict the potential for acidic leachate generation and the primary rates of reaction under aerobic weathering conditions. According to the standard ASTM D5744-96 (2001) method, humidity cell testing was initiated on the -¼" inch ore and waste rock samples in cells with dimensions of 10.2 cm (4") ID by 20.3 cm (8") height. Humidity cell tests were initiated on the -200 mesh ore samples in standard tailings test cells with dimensions of 20.3 cm (8") ID by 10.2 cm (4") height. A perforated disk was located approximately 12.5 mm (1/2") above the cell bottom to support the solid samples. A filter media was placed on the perforated disk to transmit air and to allow leachate to drain and collect in the cell bottom. A valve located at the bottom of the cell allowed leachate to pass into the collection vessel.

A 1000 g dry equivalent weight of sample was loaded into the cell. The first leach, designated as the Week 0 leach, initiated the humidity cell test and established the initial characteristics of the leachate. The first leach was performed by flooding the sample with 1000 mL of deionised water for one hour, followed by the collection of leachate for analyses.

Subsequent steps of the humidity cell test involved three stages over a 7-day cycle: (1) dry air (which entered the bottom of the cell and flowed upward through the sample for waste rock cells, or from the side and across the sample for tailings cells) continued for 3 days; (2) humid air was passed through the cell in the same manner as the dry air for 3 days; and (3) on the last day of the cycle, deionised water was added through the top of the cell and allowed to flood the cell for one hour prior to the leachate being collected. Weekly leachate samples from the humidity cell tests were submitted for general analyses including: pH, acidity, alkalinity, conductivity and sulphate. ICP-OES/MS trace metal scans were initially performed on a weekly basis (Weeks 0 through 5) with subsequent metal scans to be completed every five weeks thereafter.

Test Results

Results of the testwork completed on the Osisko samples are summarised in the following sections. Detailed test results are appended to this report.

5. Modified Acid Base Accounting and Net Acid Generation Testing

Modified ABA tests results are summarised in Tables 6 through 9. Complete results are shown in Appendix A.

Table 6 Modified Acid Base Accounting and Net Acid Generation Test Results – Ores -¼"

Parameter	Unit	LG Ore	LG Ore Dup 1	LG Ore Dup 2	AG Ore	AG Ore Dup 1	AG Ore Dup 2	HS Ore	HS Ore Dup 1	HS Ore Dup 2
Paste pH	units	10.1	10.0	10.0	9.83	9.81	9.58	10.0	10.0	9.97
NP[1]	t $CaCO_3$/1000 t	37.9	37.2	38.1	49.5	50.5	50.2	55.0	55.4	54.5
AP	t $CaCO_3$/1000 t	22.3	21.5	20.7	35.5	32.2	34.2	50.3	55.6	53.1
Net NP	t $CaCO_3$/1000 t	15.6	15.7	17.4	14.0	18.3	16.0	4.70	-0.20	1.37
NP/AP	ratio	1.70	1.73	1.84	1.40	1.57	1.47	1.09	1.00	1.03
S	%	0.900	0.959	0.911	1.40	1.33	1.34	2.09	2.10	2.11
SO_4	%	0.19	0.27	0.25	0.27	0.30	0.24	0.48	0.32	0.41
Sulphide	%	0.71	0.69	0.66	1.14	1.03	1.09	1.61	1.78	1.70
C	%	0.372	0.370	0.370	0.552	0.558	0.562	0.627	0.613	0.626
Carbonate	%	1.29	1.27	1.27	2.33	2.33	2.31	2.16	2.23	2.27
CO_3 NP[2]	t $CaCO_3$/1000 t	21.4	21.1	21.1	38.7	38.7	38.3	35.9	37.0	37.7
CO_3 Net NP	t $CaCO_3$/1000 t	-0.9	-0.4	0.4	3.2	6.5	4.1	-14.4	-18.6	-15.4
CO_3 NP/AP	ratio	0.96	0.98	1.02	1.09	1.20	1.12	0.71	0.67	0.71
Classification	based on ABA NP[1]	uncertain	uncertain	uncertain	uncertain	uncertain	uncertain	uncertain	uncertain	uncertain
Classification	based on CO_3 NP[2]	PAG	PAG	uncertain	uncertain	uncertain	uncertain	PAG	PAG	PAG
Final NAG pH	units	9.68	10.28	10.29	10.39	10.5	10.55	7.85	8.26	8.7
NAG @pH4.5	kg H_2SO_4/tonne	0	0	0	0	0	0	0	0	0
NAG @pH7.0	kg H_2SO_4/tonne	0	0	0	0	0	0	0	0	0

[1] measured in ABA test
[2] theoretical, based on CO_3 content alone.
Green highlighting indicates Net NP values less than 20.
Orange highlighting indicates NP/AP ratios less than 3.
PAG - Potentially Acid Generating based on interpretation of ABA test data alone.
PAN - Potentially Acid Neutralizing based on interpretation of ABA test data alone.
uncertain - acid generation potential is uncertain based on interpretation of ABA test data alone.

Table 7 Modified Acid Base Accounting and Net Acid Generation Test Results – Waste Rock -¼"

Parameter	Unit	AG Waste	AG Waste Dup 1	AG Waste Dup 2	HS Waste	HS Waste Dup 1	HS Waste Dup 2
Paste pH	units	10.1	10.2	10.2	10.3	10.3	10.3
NP[1]	t $CaCO_3$/1000 t	34.2	34.8	34.3	53.3	52.7	52.2
AP	t $CaCO_3$/1000 t	37.0	33.2	34.4	60.1	53.3	63.0
Net NP	t $CaCO_3$/1000 t	-2.85	1.61	-0.07	-6.78	-0.62	-10.79
NP/AP	ratio	0.92	1.05	1.00	0.89	0.99	0.83
S	%	1.38	1.4	1.36	2.22	2.04	2.13
SO_4	%	0.20	0.34	0.26	0.30	0.34	0.11
Sulphide	%	1.19	1.06	1.10	1.92	1.71	2.02
C	%	0.376	0.358	0.374	0.57	0.571	0.575
Carbonate	%	1.23	1.31	1.30	2.06	1.83	2.03
CO_3 NP[2]	t $CaCO_3$/1000 t	20.4	21.7	21.6	34.2	30.4	33.7
CO_3 Net NP	t $CaCO_3$/1000 t	-16.6	-11.5	-12.8	-25.9	-22.9	-29.3
CO_3 NP/AP	ratio	0.55	0.66	0.63	0.57	0.57	0.53
Classification	based on ABA NP[1]	PAG	uncertain	uncertain	**PAG**	**PAG**	**PAG**
Classification	based on CO_3 NP[2]	PAG	PAG	PAG	PAG	PAG	PAG
Final NAG pH	units	9.49	9.71	9.51	2.91	2.91	2.91
NAG @pH4.5	kg H_2SO_4/tonne	0	0	0	7	9	9
NAG @pH7.0	kg H_2SO_4/tonne	0	0	0	16	16	15

[1] *measured in ABA test*
[2] *theoretical, based on CO_3 content alone.*
Green highlighting indicates Net NP values less than 20.
Orange highlighting indicates NP/AP ratios less than 3.
PAG - Potentially Acid Generating based on interpretation of ABA test data alone.
PAN - Potentially Acid Neutralizing based on interpretation of ABA test data alone.
uncertain - acid generation potential is uncertain based on interpretation of ABA test data alone.

Table 8 Modified Acid Base Accounting and Net Acid Generation Test Results – Ores -200 Mesh

Parameter	Unit	LG Ore -200m	LG Ore -200m Dup 1	LG Ore -200m Dup 2	AG Ore -200m	AG Ore -200m Dup 1	AG Ore -200m Dup 2	HS Ore -200m	HS Ore -200m Dup 1	HS Ore -200m Dup 2
Paste pH	units	9.89	9.80	9.81	9.62	9.53	9.61	9.78	9.76	9.77
NP[1]	t $CaCO_3$/1000 t	53.2	53.1	52.5	67.7	67.4	67.2	77.2	76.2	75.9
AP	t $CaCO_3$/1000 t	17.4	15.7	18.2	31.5	35.6	27.7	44.6	40.6	43.7
Net NP	t $CaCO_3$/1000 t	35.8	37.4	34.3	36.2	31.8	39.5	32.6	35.6	32.2
NP/AP	ratio	3.06	3.38	2.89	2.15	1.89	2.42	1.73	1.88	1.74
S	%	0.881	0.851	0.866	1.24	1.19	1.25	1.65	1.68	1.61
SO_4	%	0.32	0.35	0.28	0.23	0.05	0.36	0.22	0.38	0.21
Sulphide	%	0.56	0.50	0.58	1.01	1.14	0.89	1.43	1.30	1.40
C	%	0.588	0.587	0.578	0.778	0.769	0.764	0.919	0.904	0.91
Carbonate	%	2.49	2.52	2.51	3.49	3.49	3.23	3.95	3.95	3.77
CO_3 NP[2]	t $CaCO_3$/1000 t	41.3	41.8	41.7	57.9	57.9	53.6	65.6	65.6	62.6
CO_3 Net NP	t $CaCO_3$/1000 t	23.9	26.1	23.5	26.4	22.3	25.9	21.0	25.0	18.9
CO_3 NP/AP	ratio	2.38	2.66	2.29	1.84	1.63	1.94	1.47	1.62	1.43
Classification	based on ABA NP[1]	PAN	PAN	uncertain	uncertain	uncertain	uncertain	uncertain	uncertain	uncertain
Classification	based on CO_3 NP[2]	uncertain	uncertain	uncertain	uncertain	uncertain	uncertain	uncertain	uncertain	uncertain
Final NAG pH	units	10.65	10.55	10.47	10.95	10.84	10.85	10.25	10.34	10.69
NAG @pH4.5	kg H_2SO_4/tonne	0	0	0	0	0	0	0	0	0
NAG @pH7.0	kg H_2SO_4/tonne	0	0	0	0	0	0	0	0	0

[1] *measured in ABA test*
[2] *theoretical, based on CO_3 content alone.*
Green highlighting indicates Net NP values less than 20.
Orange highlighting indicates NP/AP ratios less than 3.
PAG - Potentially Acid Generating based on interpretation of ABA test data alone.

Table 9 Modified Acid Base Accounting and Net Acid Generation Test Results – GT Residue

Parameter	Unit	GT Residue	GT Residue Dup 1	GT Residue Dup 2
Paste pH	units	9.06	9.05	9.02
NP[1]	t $CaCO_3$/1000 t	43.7	42.6	43.9
AP	t $CaCO_3$/1000 t	41.4	39.4	41.2
Net NP	t $CaCO_3$/1000 t	2.31	3.20	2.72
NP/AP	ratio	1.06	1.08	1.07
S	%	1.39	1.42	1.38
SO_4	%	0.07	0.16	0.06
Sulphide	%	1.32	1.26	1.32
C	%	0.566	0.484	0.484
Carbonate	%	2.03	2.06	2.06
CO_3 NP[2]	t $CaCO_3$/1000 t	33.7	34.2	34.2
CO_3 Net NP	t $CaCO_3$/1000 t	-7.7	-5.2	-7.0
CO_3 NP/AP	ratio	0.81	0.87	0.83
Classification	based on ABA NP[1]	uncertain	uncertain	uncertain
Classification	based on CO_3 NP[2]	PAG	PAG	PAG
Final NAG pH	units	10.84	10.89	10.86
NAG @pH4.5	kg H_2SO_4/tonne	0	0	0
NAG @pH7.0	kg H_2SO_4/tonne	0	0	0

[1] measured in ABA test
[2] theoretical, based on CO_3 content alone.
Green highlighting indicates Net NP values less than 20.
Orange highlighting indicates NP/AP ratios less than 3.
PAG - Potentially Acid Generating based on interpretation of ABA test data alone.
PAN - Potentially Acid Neutralizing based on interpretation of ABA test data alone.
uncertain - acid generation potential is uncertain based on interpretation of ABA test data alone.

6. Humidity Cell Testing

Results of pH, conductivity, acidity, alkalinity and sulphate analyses and calculated cumulative depletion rates for the *LG Ore -¼", AG Ore -¼", LG Ore -¼", AG Waste -¼", HS Waste -¼", LG Ore -200m, AG Ore -200m*, *HS Ore -200m* and GT Residue humidity cell test leachates are summarised in Tables 10, 12, 14, 16, 18, 20, 22, 24 and 26, respectively. Summary results of the dissolved metal concentrations in the *LG Ore -¼", AG Ore -¼", LG Ore -¼", AG Waste -¼", HS Waste -¼", LG Ore -200m, AG Ore -200m*, *HS Ore -200m* and GT Residue leachates, as compared to the Quebec Directive No. 019 limits, are presented in Tables 11, 13, 15, 17, 19, 21, 23, 25 and 27, respectively. Parameters reporting at concentrations outside the limits specified by Quebec Directive No. 019 are shown in bold type. Complete test reports are provided in Appendix B. Humidity cell certificates of analysis are included in Appendix C. A summary report is scheduled to be provided upon completion of the test program.

Table 10 Weekly Leachate Results and Cumulative Depletion Rates – LG Ore -¼"

Week	Volume	pH	Acidity	Alkalinity	Conductivity	SO_4	SO_4 Prod Rate	Cum $S^=$ Depl	NP Cons	Cum CNP Depl	Acidity Prod Rate	Alkalinity Prod Rate	Open-System NP Cons	Cum Open-System CNP Depl
	mL	units	$CaCO_3$ eq.mg/L	$CaCO_3$ eq.mg/L	µS/cm	mg/L	g/t/wk	%	$CaCO_3$, g/t/wk	%	$CaCO_3$, g/t/wk	$CaCO_3$, g/t/wk	$CaCO_3$, g/t/wk	%
0	828	8.27	<2	13	75	6.1	5.1	0.02	5.26	0.02	1.66	10.76	14.37	0.07
1	978	7.57	<2	24	90	11	10.8	0.08	11.21	0.08	1.96	23.47	32.72	0.22
2	902	7.32	<2	15	50	6.7	6.0	0.11	6.30	0.11	1.80	13.53	18.02	0.31
3	952	7.14	<2	13	51	5.5	5.2	0.13	5.45	0.13	1.90	12.38	15.93	0.38
4	941	7.36	<2	13	43	4.3	4.0	0.15	4.21	0.15	1.88	12.23	14.57	0.45
5	857	7.19	<2	9	33	3.9	3.3	0.17	3.48	0.17	1.71	7.71	9.48	0.50
6	945	7.40	<2	12	33	2.4	2.3	0.18	2.36	0.18	1.89	11.34	11.81	0.55
7	931	6.93	<2	2	36	2.7	2.5	0.19	2.62	0.19	1.86	1.86	2.62	0.56
8	929	7.20	<2	2	39	3.2	3.0	0.20	3.10	0.21	1.86	1.86	3.10	0.58
9	979	6.91	<2	7	39	1.9	1.9	0.21	1.94	0.22	1.96	6.85	6.83	0.61
10	849	7.57	<2	10	33	2.1	1.8	0.22	1.86	0.23	1.70	8.49	8.65	0.65
11	872	7.26	<2	10	28	1.5	1.3	0.23	1.36	0.23	1.74	8.72	8.34	0.69
12	984	7.39	<2	15	35	1.6	1.6	0.24	1.64	0.24	1.97	14.76	14.43	0.76
13	946	7.53	<2	11	30	1.7	1.6	0.24	1.68	0.25	1.89	10.41	10.19	0.81
14	969	7.26	<2	12	29	1.6	1.6	0.25	1.62	0.26	1.94	11.63	11.31	0.86
15	940	7.22	<2	12	28	1.5	1.4	0.26	1.47	0.26	1.88	11.28	10.87	0.91
16	984	7.24	<2	15	36	1.6	1.6	0.27	1.64	0.27	1.97	14.76	14.43	0.98
17	959	7.06	<2	11	28	1.5	1.4	0.27	1.50	0.28	1.92	10.55	10.13	1.03
18	901	6.96	<2	9	22	1.3	1.2	0.28	1.22	0.28	1.80	8.11	7.53	1.06
19	910	7.23	<2	9	23	1.3	1.2	0.28	1.23	0.29	1.82	8.19	7.60	1.10
20	910	7.16	<2	9	22	1.2	1.1	0.29	1.14	0.29	1.82	8.19	7.51	1.13
21	894	7.38	<2	38	19	1.1	1.0	0.29	1.02	0.30	1.79	33.97	33.21	1.29
22	855	7.36	<2	8	32	1.3	1.1	0.30	1.16	0.30	1.71	6.84	6.29	1.32
23	919	7.13	<2	9	23	1.2	1.1	0.30	1.15	0.31	1.84	8.27	7.58	1.36
24	907	7.31	<2	10	25	1.2	1.1	0.31	1.13	0.31	1.81	9.07	8.39	1.40
25	970	7.32	<2	11	28	1.3	1.3	0.32	1.31	0.32	1.94	10.67	10.04	1.44
26	965	7.30	<2	12	29	1.2	1.2	0.32	1.21	0.33	1.93	11.58	10.86	1.49
27	928	7.34	<2	10	23	1.1	1.0	0.33	1.06	0.33	1.86	9.28	8.49	1.53
28	924	7.31	<2	9	22	1.2	1.1	0.33	1.16	0.34	1.85	8.32	7.62	1.57
29	945	7.27	<2	13	23	1.0	0.9	0.34	0.98	0.34	1.89	12.29	11.38	1.62
30	946	7.28	<2	10	26	1.0	0.9	0.34	0.99	0.35	1.89	9.46	8.55	1.66
31	966	7.44	<2	11	23	1.1	1.1	0.35	1.11	0.35	1.93	10.63	9.80	1.71
32	894	7.34	<2	9	24	1.0	0.9	0.35	0.93	0.36	1.79	8.05	7.19	1.74
33	909	7.37	<2	10	32	1.2	1.1	0.36	1.14	0.36	1.82	9.09	8.41	1.78
34	930	7.25	<2	10	21	1.1	1.0	0.36	1.07	0.37	1.86	9.30	8.51	1.82
35	936	7.47	<2	14	20	1.1	1.0	0.37	1.07	0.37	1.87	13.10	12.30	1.88

Week	Volume	pH	Acidity	Alkalinity	Conductivity	SO_4	SO_4 Prod Rate	Cum $S^=$ Depl	NP Cons	Cum CNP Depl	Acidity Prod Rate	Alkalinity Prod Rate	Open-System NP Cons	Cum Open-System CNP Depl
36	972	7.27	<2	11	24	1.1	1.1	0.37	1.11	0.38	1.94	10.69	9.86	1.93
37	923	7.27	<2	10	22	1.0	0.9	0.37	0.96	0.38	1.85	9.23	8.35	1.97
38	919	7.13	<2	10	22	1.0	0.9	0.38	0.96	0.39	1.84	9.19	8.31	2.01
39	941	7.35	<2	10	22	0.9	0.8	0.38	0.88	0.39	1.88	9.41	8.41	2.05
40	969	7.42	<2	10	25	0.8	0.8	0.39	0.81	0.39	1.94	9.69	8.56	2.09
41	953	7.34	<2	10	23	1.0	1.0	0.39	0.99	0.40	1.91	9.53	8.62	2.13
42	930	7.45	<2	9	21	1.1	1.0	0.40	1.07	0.40	1.86	8.37	7.58	2.16
43	948	7.36	<2	10	22	1.0	0.9	0.40	0.99	0.41	1.90	9.48	8.57	2.20

Table 11 Dissolved Metals Concentrations – LG Ore -¼"

Parameter	Units	Dir. No. 019	0	1	2	3	4	5	10
pH	units	6-9.5	8.27	7.57	7.32	7.14	7.36	7.19	7.57
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
As	mg/L	0.20	< 0.0002	0.0005	0.0006	< 0.0002	0.0003	0.0002	< 0.0002
Cu	mg/L	0.30	0.0006	0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Fe	mg/L	3.00	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Ni	mg/L	0.50	0.0006	0.0004	0.0002	0.0002	0.0002	< 0.0001	0.0001
Pb	mg/L	0.20	0.00009	0.00012	0.00004	< 0.00002	< 0.00002	0.00006	0.00008
Zn	mg/L	0.50	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Table 11 Dissolved Metals Concentrations (Continued) – LG Ore -¼"

Parameter	Units	Dir. No. 019	15	20	25	30	35	40
pH	units	6-9.5	7.22	7.16	7.32	7.28	7.47	7.42
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
As	mg/L	0.20	< 0.0002	0.0004	< 0.0002	< 0.0002	< 0.0002	0.0003
Cu	mg/L	0.30	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Fe	mg/L	3.00	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Ni	mg/L	0.50	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.0002
Pb	mg/L	0.20	< 0.00002	< 0.00002	0.00005	< 0.00002	0.00003	< 0.00002
Zn	mg/L	0.50	< 0.001	< 0.001	0.001	< 0.001	0.003	< 0.001

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Table 12 Weekly Leachate Results and Cumulative Depletion Rates – AG Ore -¼"

Week	Volume	pH	Acidity	Alkalinity	Conductivity	SO_4	SO_4 Prod Rate	Cum $S^=$ Depl	NP Cons	Cum CNP Depl	Acidity Prod Rate	Alkalinity Prod Rate	Open-System NP Cons	Cum Open-System CNP Depl
	mL	units	$CaCO_3$ eq.mg/L	$CaCO_3$ eq.mg/L	µS/cm	mg/L	g/t/wk	%	$CaCO_3$, g/t/wk	%	$CaCO_3$, g/t/wk	$CaCO_3$, g/t/wk	$CaCO_3$, g/t/wk	%
0	783	8.49	<2	15	131	18	14.1	0.04	14.68	0.04	1.57	11.75	24.86	0.06
1	995	7.53	<2	24	135	24	23.9	0.12	24.88	0.10	1.99	23.88	46.77	0.19
2	970	7.25	<2	22	83	14	13.6	0.16	14.15	0.14	1.94	21.34	33.55	0.27
3	982	7.33	<2	22	77	12	11.8	0.19	12.28	0.17	1.96	21.60	31.92	0.36
4	993	7.49	<2	20	66	8.8	8.7	0.22	9.10	0.19	1.99	19.86	26.98	0.43
5	988	7.34	30	63	54	8.5	8.4	0.25	8.75	0.22	29.64	62.24	41.35	0.53
6	994	7.45	<2	14	42	4.8	4.8	0.26	4.97	0.23	1.99	13.92	16.90	0.58
7	982	7.25	<2	15	56	5.6	5.5	0.28	5.73	0.24	1.96	14.73	18.49	0.62
8	976	7.17	<2	16	51	4.5	4.4	0.29	4.58	0.26	1.95	15.62	18.24	0.67
9	979	7.05	<2	12	58	4.3	4.2	0.30	4.39	0.27	1.96	11.75	14.18	0.71
10	824	7.42	<2	13	48	3.8	3.1	0.31	3.26	0.28	1.65	10.71	12.33	0.74
11	1002	7.66	<2	17	53	4.1	4.1	0.33	4.28	0.29	2.00	17.03	19.31	0.79
12	978	7.30	<2	17	52	3.6	3.5	0.34	3.67	0.30	1.96	16.63	18.34	0.84
13	906	7.61	<2	16	42	3.3	3.0	0.35	3.11	0.31	1.81	14.50	15.80	0.88
14	977	7.43	<2	21	45	4.7	4.6	0.36	4.78	0.32	1.95	20.52	23.35	0.94
15	952	7.43	<2	15	41	3.6	3.4	0.37	3.57	0.33	1.90	14.28	15.95	0.98
16	982	7.22	<2	16	44	3.7	3.6	0.38	3.78	0.34	1.96	15.71	17.53	1.03
17	925	7.11	<2	17	37	3.2	3.0	0.39	3.08	0.34	1.85	15.73	16.96	1.07
18	916	7.09	<2	14	36	2.7	2.5	0.40	2.58	0.35	1.83	12.82	13.57	1.10
19	914	7.34	<2	13	33	2.4	2.2	0.40	2.29	0.36	1.83	11.88	12.34	1.14
20	905	7.33	<2	12	32	2.1	1.9	0.41	1.98	0.36	1.81	10.86	11.03	1.17
21	907	7.33	<2	13	28	2.0	1.8	0.42	1.89	0.37	1.81	11.79	11.87	1.20
22	850	7.64	<2	10	40	2.0	1.7	0.42	1.77	0.37	1.70	8.50	8.57	1.22
23	904	7.30	<2	12	29	1.8	1.6	0.43	1.70	0.38	1.81	10.85	10.74	1.25
24	898	7.41	<2	11	29	1.7	1.5	0.43	1.59	0.38	1.80	9.88	9.67	1.27
25	950	7.43	<2	13	33	2.1	2.0	0.44	2.08	0.39	1.90	12.35	12.53	1.30
26	962	7.45	<2	14	36	2.1	2.0	0.44	2.10	0.39	1.92	13.47	13.65	1.34
27	911	7.54	<2	12	30	1.8	1.6	0.45	1.71	0.40	1.82	10.93	10.82	1.37
28	941	7.48	<2	12	29	2.1	2.0	0.45	2.06	0.40	1.88	11.29	11.47	1.40
29	957	7.43	<2	14	35	1.9	1.8	0.46	1.89	0.41	1.91	13.40	13.38	1.43
30	896	7.22	<2	11	29	1.4	1.3	0.46	1.31	0.41	1.79	9.86	9.37	1.46
31	949	7.61	<2	12	28	1.9	1.8	0.47	1.88	0.41	1.90	11.39	11.37	1.48
32	897	7.41	<2	10	34	1.5	1.3	0.47	1.40	0.42	1.79	8.97	8.58	1.51
33	892	7.50	<2	32	36	1.6	1.4	0.48	1.49	0.42	1.78	28.54	28.25	1.58
34	868	7.40	<2	10	22	1.4	1.2	0.48	1.27	0.42	1.74	8.68	8.21	1.60
35	940	7.55	<2	11	26	1.8	1.7	0.49	1.76	0.43	1.88	10.34	10.22	1.63

Week	Volume	pH	Acidity	Alkalinity	Conductivity	SO_4	SO_4 Prod Rate	Cum $S^=$ Depl	NP Cons	Cum CNP Depl	Acidity Prod Rate	Alkalinity Prod Rate	Open-System NP Cons	Cum Open-System CNP Depl
36	948	7.31	<2	12	26	1.5	1.4	0.49	1.48	0.43	1.90	11.38	10.96	1.66
37	909	7.34	<2	10	25	1.3	1.2	0.49	1.23	0.44	1.82	9.09	8.50	1.68
38	898	7.24	<2	11	25	1.2	1.1	0.50	1.12	0.44	1.80	9.88	9.20	1.70
39	922	7.54	<2	11	26	1.2	1.1	0.50	1.15	0.44	1.84	10.14	9.45	1.73
40	982	7.71	<2	14	30	1.1	1.1	0.50	1.13	0.45	1.96	13.75	12.91	1.76
41	900	7.33	<2	10	23	1.2	1.1	0.51	1.13	0.45	1.80	9.00	8.33	1.78
42	887	7.59	<2	9	24	1.4	1.2	0.51	1.29	0.45	1.77	7.98	7.50	1.80
43	971	7.50	<2	13	29	1.5	1.5	0.52	1.52	0.46	1.94	12.62	12.20	1.83

Table 13 Dissolved Metals Concentrations – AG Ore -¼"

Parameter	Units	Dir. No. 019	0	1	2	3	4	5	10	15
pH	units	6-9.5	8.49	7.53	7.25	7.33	7.49	7.34	7.42	7.43
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
As	mg/L	0.20	< 0.0002	0.0004	0.0008	0.0004	< 0.0002	0.0004	0.0003	< 0.0002
Cu	mg/L	0.30	0.0022	0.0016	0.0007	0.0007	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Fe	mg/L	3.00	< 0.01	< 0.01	< 0.01	0.04	< 0.01	< 0.01	< 0.01	< 0.01
Ni	mg/L	0.50	0.0024	0.0030	0.0015	0.0012	0.0008	0.0006	0.0004	< 0.0001
Pb	mg/L	0.20	0.00008	0.00007	0.00003	0.00003	0.00006	< 0.00002	0.00002	0.00003
Zn	mg/L	0.50	< 0.001	< 0.001	< 0.001	0.002	0.003	< 0.001	< 0.001	< 0.001

Table 13 Dissolved Metals Concentrations (Continued) – AG Ore -¼"

Parameter	Units	Dir. No. 019	10	15	20	25	30	35	40
pH	units	6-9.5	7.42	7.43	7.33	7.43	7.22	7.55	7.71
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
As	mg/L	0.20	0.0003	< 0.0002	0.0003	0.0002	0.0005	< 0.0002	0.0003
Cu	mg/L	0.30	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Fe	mg/L	3.00	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Ni	mg/L	0.50	0.0004	< 0.0001	0.0001	< 0.0001	0.0001	< 0.0001	0.0002
Pb	mg/L	0.20	0.00002	0.00003	< 0.00002	0.00002	< 0.00002	0.00004	< 0.00002
Zn	mg/L	0.50	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Government du Quebec, Ministére de L'Environnement. 2005. Directive no. 019.

Table 14 Weekly Leachate Results and Cumulative Depletion Rates – HS Ore -¼"

Week	Volume	pH	Acidity	Alkalinity	Conductivity	SO_4	SO_4 Prod Rate	Cum $S^=$ Depl	NP Cons	Cum CNP Depl	Acidity Prod Rate	Alkalinity Prod Rate	Open-System NP Cons	Cum Open-System CNP Depl
	mL	units	$CaCO_3$ eq.mg/L	$CaCO_3$ eq.mg/L	µS/cm	mg/L	g/t/wk	%	$CaCO_3$, g/t/wk	%	$CaCO_3$, g/t/wk	$CaCO_3$, g/t/wk	$CaCO_3$, g/t/wk	%
0	832	8.07	<2	11	107	16	13.3	0.03	13.87	0.04	1.66	9.15	21.35	0.06
1	949	7.47	<2	18	110	23	21.8	0.07	22.74	0.10	1.90	17.08	37.92	0.16
2	904	7.25	<2	12	55	10	9.0	0.09	9.42	0.12	1.81	10.85	18.46	0.21
3	932	7.04	<2	11	55	9.2	8.6	0.10	8.93	0.15	1.86	10.25	17.32	0.26
4	933	7.19	<2	12	49	7.5	7.0	0.12	7.29	0.17	1.87	11.20	16.62	0.30
5	850	5.88	<2	8	64	5.5	4.7	0.13	4.87	0.18	1.70	6.80	9.97	0.33
6	938	7.46	<2	11	34	3.6	3.4	0.13	3.52	0.19	1.88	10.32	11.96	0.36
7	932	6.96	<2	10.8	51.4	3.2	3.0	0.14	3.11	0.20	1.86	10.07	11.31	0.39
8	935	7.05	<2	9	35	2.7	2.5	0.14	2.63	0.21	1.87	8.42	9.17	0.42
9	976	7.31	<2	10	40	2.6	2.5	0.15	2.64	0.21	1.95	9.76	10.45	0.45
10	845	7.54	<2	9	28	2.4	2.0	0.15	2.11	0.22	1.69	7.61	8.03	0.47
11	903	7.41	<2	12	35	2.1	1.9	0.16	1.98	0.23	1.81	10.84	11.01	0.50
12	982	7.54	<2	16	42	2.3	2.3	0.16	2.35	0.23	1.96	15.71	16.10	0.54
13	979	7.54	<2	12	36	2.5	2.4	0.17	2.55	0.24	1.96	11.75	12.34	0.57
14	958	7.27	<2	12	28	2.0	1.9	0.17	2.00	0.24	1.92	11.50	11.58	0.61
15	892	7.23	<2	10	27	1.8	1.6	0.17	1.67	0.25	1.78	8.92	8.81	0.63
16	981	7.18	<2	13	36	2.1	2.1	0.18	2.15	0.25	1.96	12.75	12.94	0.66
17	943	7.02	<2	14	28	1.9	1.8	0.18	1.87	0.26	1.89	13.20	13.18	0.70
18	892	6.93	<2	8	22	1.5	1.3	0.18	1.39	0.26	1.78	7.14	6.75	0.72
19	906	7.18	<2	9	24	1.6	1.4	0.19	1.51	0.27	1.81	8.15	7.85	0.74
20	912	7.21	<2	9	23	1.5	1.4	0.19	1.43	0.27	1.82	8.21	7.81	0.76
21	895	7.33	<2	8	19	1.4	1.3	0.19	1.31	0.27	1.79	7.16	6.68	0.78
22	838	7.41	<2	10	36	1.3	1.1	0.19	1.13	0.28	1.68	8.38	7.84	0.80
23	947	7.35	<2	18	42	2.9	2.7	0.20	2.86	0.29	1.89	17.05	18.01	0.85
24	891	7.22	<2	8	22	1.5	1.3	0.20	1.39	0.29	1.78	7.13	6.74	0.87
25	953	7.24	<2	11	27	1.7	1.6	0.20	1.69	0.29	1.91	10.48	10.26	0.90
26	967	7.21	<2	11	27	1.5	1.5	0.21	1.51	0.30	1.93	10.64	10.21	0.92
27	920	7.26	<2	9	22	1.4	1.3	0.21	1.34	0.30	1.84	8.28	7.78	0.94
28	930	7.29	<2	11	21	1.5	1.4	0.21	1.45	0.31	1.86	10.23	9.82	0.97
29	968	7.24	<2	9	23	1.3	1.3	0.21	1.31	0.31	1.94	8.71	8.09	0.99
30	923	7.27	<2	9	25	1.2	1.1	0.22	1.15	0.31	1.85	8.31	7.61	1.01
31	963	7.40	<2	10	22	1.4	1.3	0.22	1.40	0.32	1.93	9.63	9.11	1.04
32	892	7.28	<2	8	23	1.2	1.1	0.22	1.12	0.32	1.78	7.14	6.47	1.06
33	850	7.33	<2	8	29	1.4	1.2	0.22	1.24	0.32	1.70	6.80	6.34	1.07
34	907	7.20	<2	10	18	1.3	1.2	0.23	1.23	0.33	1.81	9.07	8.48	1.10
35	912	7.34	<2	8	18	1.4	1.3	0.23	1.33	0.33	1.82	7.30	6.80	1.11

Week	Volume	pH	Acidity	Alkalinity	Conductivity	SO_4	SO_4 Prod Rate	Cum $S^=$ Depl	NP Cons	Cum CNP Depl	Acidity Prod Rate	Alkalinity Prod Rate	Open-System NP Cons	Cum Open-System CNP Depl
36	970	7.12	<2	10	23	1.4	1.4	0.23	1.41	0.33	1.94	9.70	9.17	1.14
37	937	7.18	<2	8	22	1.9	1.8	0.23	1.85	0.34	1.87	7.50	7.48	1.16
38	876	7.09	<2	7	17	1.1	1.0	0.24	1.00	0.34	1.75	6.13	5.38	1.17
39	920	7.30	<2	8	20	1.1	1.0	0.24	1.05	0.34	1.84	7.36	6.57	1.19
40	949	7.39	<2	9	24	1.0	0.9	0.24	0.99	0.35	1.90	8.54	7.63	1.21
41	985	7.19	<2	8	20	1.2	1.2	0.24	1.23	0.35	1.97	7.88	7.14	1.23
42	899	7.46	<2	7	19	1.2	1.1	0.24	1.12	0.35	1.80	6.29	5.62	1.25
43	871	7.22	<2	7	17	1.1	1.0	0.25	1.00	0.36	1.74	6.10	5.35	1.26

Table 15 Dissolved Metals Concentrations – HS Ore -¼"

Parameter	Units	Dir. No. 019	0	1	2	3	4	5	10
pH	units	6-9.5	8.07	7.47	7.25	7.04	7.19	**5.88**	7.54
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
As	mg/L	0.20	< 0.0002	0.0004	0.0006	0.0002	0.0002	0.0003	< 0.0002
Cu	mg/L	0.30	0.0013	0.0009	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Fe	mg/L	3.00	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Ni	mg/L	0.50	0.0008	0.0007	0.0002	0.0002	0.0002	0.0001	0.0002
Pb	mg/L	0.20	0.00007	0.00009	0.00005	< 0.00002	< 0.00002	< 0.00002	0.00011
Zn	mg/L	0.50	< 0.001	< 0.001	< 0.001	0.001	< 0.001	< 0.001	0.001

Table 15 Dissolved Metals Concentrations (Continued) – HS Ore -¼"

Parameter	Units	Dir. No. 019	15	20	25	30	35	40
pH	units	6-9.5	7.23	7.21	7.24	7.27	7.34	7.39
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
As	mg/L	0.20	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.0003
Cu	mg/L	0.30	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Fe	mg/L	3.00	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Ni	mg/L	0.50	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Pb	mg/L	0.20	0.00005	0.00003	0.00002	< 0.00002	< 0.00002	< 0.00002
Zn	mg/L	0.50	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Government du Quebec, Ministére de L'Environnement. 2005. Directive no. 019.

Table 16 Weekly Leachate Results and Cumulative Depletion Rates – AG Waste -¼"

Week	Volume	pH	Acidity	Alkalinity	Conductivity	SO_4	SO_4 Prod Rate	Cum $S^=$ Depl	NP Cons	Cum CNP Depl	Acidity Prod Rate	Alkalinity Prod Rate	Open-System NP Cons	Cum Open-System CNP Depl
	mL	units	$CaCO_3$ eq.mg/L	$CaCO_3$ eq.mg/L	µS/cm	mg/L	g/t/wk	%	$CaCO_3$, g/t/wk	%	$CaCO_3$, g/t/wk	$CaCO_3$, g/t/wk	$CaCO_3$, g/t/wk	%
0	783	8.42	<2	14	114	11	8.6	0.03	8.97	0.04	1.57	10.96	18.37	0.09
1	964	7.63	<2	24	106	16	15.4	0.07	16.07	0.12	1.93	23.14	37.27	0.26
2	887	7.57	<2	15	59	11	9.8	0.10	10.16	0.17	1.77	13.31	21.69	0.36
3	925	7.20	<2	15	62	9.8	9.1	0.13	9.44	0.21	1.85	13.88	21.47	0.46
4	925	7.13	<2	11	54	7.7	7.1	0.15	7.42	0.24	1.85	10.18	15.74	0.54
5	920	7.18	<2	9	39	5.9	5.4	0.16	5.65	0.27	1.84	8.28	12.09	0.59
6	933	7.49	<2	22	54	6.2	5.8	0.18	6.03	0.30	1.87	20.53	24.69	0.71
7	932	7.26	<2	11	42	4.5	4.2	0.19	4.37	0.32	1.86	10.25	12.76	0.77
8	924	7.07	<2	8	34	3.3	3.0	0.20	3.18	0.33	1.85	7.39	8.72	0.81
9	964	7.68	<2	15	41	3.1	3.0	0.21	3.11	0.35	1.93	14.46	15.64	0.88
10	880	7.61	<2	10	33	2.8	2.5	0.22	2.57	0.36	1.76	8.80	9.61	0.93
11	907	7.66	<2	12	36	2.6	2.4	0.23	2.46	0.37	1.81	10.88	11.53	0.98
12	966	7.55	<2	25	46	3	2.9	0.24	3.02	0.39	1.93	24.15	25.24	1.10
13	884	7.52	<2	12	32	2.1	1.9	0.24	1.93	0.40	1.77	10.61	10.77	1.15
14	897	7.32	<2	14	34	2.8	2.5	0.25	2.62	0.41	1.79	12.56	13.38	1.22
15	903	7.36	<2	13	38	2.7	2.4	0.26	2.54	0.42	1.81	11.74	12.47	1.27
16	915	7.22	<2	14	47	5.8	5.3	0.27	5.53	0.45	1.83	12.81	16.51	1.35
17	934	7.04	<2	12	32	2.2	2.1	0.28	2.14	0.46	1.87	11.21	11.48	1.41
18	898	7.05	<2	11	27	1.8	1.6	0.28	1.68	0.46	1.80	9.88	9.77	1.45
19	913	7.30	<2	12	29	2	1.8	0.29	1.90	0.47	1.83	10.96	11.03	1.50
20	900	7.24	<2	10	27	1.7	1.5	0.29	1.59	0.48	1.80	9.00	8.79	1.54
21	891	7.48	<2	10	22	1.5	1.3	0.30	1.39	0.49	1.78	8.91	8.52	1.58
22	829	7.39	<2	9	47	1.7	1.4	0.30	1.47	0.49	1.66	7.46	7.27	1.62
23	893	7.16	<2	11	26	1.6	1.4	0.30	1.49	0.50	1.79	9.82	9.53	1.66
24	901	7.28	<2	11	28	1.9	1.7	0.31	1.78	0.51	1.80	9.91	9.89	1.71
25	958	7.37	<2	12	31	1.7	1.6	0.31	1.70	0.52	1.92	11.50	11.28	1.76
26	945	7.16	<2	12	33	1.7	1.6	0.32	1.67	0.53	1.89	11.34	11.12	1.82
27	905	7.39	<2	12	28	1.5	1.4	0.32	1.41	0.53	1.81	10.86	10.46	1.86
28	927	7.35	<2	11	26	1.6	1.5	0.33	1.55	0.54	1.85	10.20	9.89	1.91
29	931	7.29	<2	11	27	1.4	1.3	0.33	1.36	0.55	1.86	10.24	9.74	1.96
30	933	7.31	<2	12	30	1.3	1.2	0.34	1.26	0.55	1.87	11.20	10.59	2.01
31	952	7.53	<2	12	26	1.5	1.4	0.34	1.49	0.56	1.90	11.42	11.01	2.06
32	888	7.36	<2	10	58	1.4	1.2	0.34	1.30	0.56	1.78	8.88	8.40	2.10
33	909	7.38	<2	10	34	1.5	1.4	0.35	1.42	0.57	1.82	9.09	8.69	2.14
34	894	7.29	<2	10	22	1.4	1.3	0.35	1.30	0.58	1.79	8.94	8.46	2.18
35	921	7.60	<2	11	25	1.5	1.4	0.36	1.44	0.58	1.84	10.13	9.73	2.22

Week	Volume	pH	Acidity	Alkalinity	Conductivity	SO_4	SO_4 Prod Rate	Cum $S^=$ Depl	NP Cons	Cum CNP Depl	Acidity Prod Rate	Alkalinity Prod Rate	Open-System NP Cons	Cum Open-System CNP Depl
36	962	7.23	<2	12	26	1.4	1.3	0.36	1.40	0.59	1.92	11.54	11.02	2.28
37	904	7.21	<2	10	24	1.3	1.2	0.36	1.22	0.60	1.81	9.04	8.46	2.31
38	895	7.20	<2	9	23	1.1	1.0	0.37	1.03	0.60	1.79	8.06	7.29	2.35
39	932	7.43	<2	10	24	1.2	1.1	0.37	1.17	0.61	1.86	9.32	8.62	2.39
40	924	7.46	<2	14	28	1.1	1.0	0.37	1.06	0.61	1.85	12.94	12.15	2.45
41	939	7.28	<2	11	27	1.4	1.3	0.38	1.37	0.62	1.88	10.33	9.82	2.49
42	886	7.48	<2	9	24	1.5	1.3	0.38	1.38	0.62	1.77	7.97	7.59	2.53
43	899	7.34	<2	9	22	1.3	1.2	0.38	1.22	0.63	1.80	8.09	7.51	2.56

Table 17 Weekly Dissolved Metals Concentrations – AG Waste -¼"

Parameter	Units	Dir. No. 019	0	1	2	3	4	5	10	15
pH	units	6-9.5	8.42	7.63	7.57	7.20	7.13	7.18	7.61	7.36
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
As	mg/L	0.20	< 0.0002	0.0004	0.0008	< 0.0002	0.0002	0.0004	< 0.0002	0.0003
Cu	mg/L	0.30	0.0011	0.0008	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.0008
Fe	mg/L	3.00	< 0.01	< 0.01	< 0.01	0.02	< 0.01	< 0.01	< 0.01	< 0.01
Ni	mg/L	0.50	0.0010	0.0009	0.0004	0.0003	0.0003	0.0001	0.0002	0.0025
Pb	mg/L	0.20	0.00014	0.00017	0.00007	< 0.00002	0.00004	0.00007	0.00010	0.00013
Zn	mg/L	0.50	< 0.001	< 0.001	< 0.001	0.002	0.001	< 0.001	< 0.001	0.002

Table 17 Dissolved Metals Concentrations (Continued) – AG Waste -¼"

Parameter	Units	Dir. No. 019	15	20	25	30	35	40
pH	units	6-9.5	7.36	7.24	7.37	7.31	7.60	7.46
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
As	mg/L	0.20	0.0003	0.0004	< 0.0002	0.0002	< 0.0002	0.0004
Cu	mg/L	0.30	0.0008	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Fe	mg/L	3.00	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Ni	mg/L	0.50	0.0025	0.0001	< 0.0001	0.0002	< 0.0001	< 0.0001
Pb	mg/L	0.20	0.00013	0.00006	0.00003	< 0.00002	0.00044	< 0.00002
Zn	mg/L	0.50	0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Government du Quebec, Ministére de L'Environnement. 2005. Directive no. 019.

Table 18 Weekly Leachate Results and Cumulative Depletion Rates – HS Waste -¼"

Week	Volume	pH	Acidity	Alkalinity	Conductivity	SO_4	SO_4 Prod Rate	Cum $S^=$ Depl	NP Cons	Cum CNP Depl	Acidity Prod Rate	Alkalinity Prod Rate	Open-System NP Cons	Cum Open-System CNP Depl
	mL	units	$CaCO_3$ eq.mg/L	$CaCO_3$ eq.mg/L	µS/cm	mg/L	g/t/wk	%	$CaCO_3$, g/t/wk	%	$CaCO_3$, g/t/wk	$CaCO_3$, g/t/wk	$CaCO_3$, g/t/wk	%
0	746	8.20	<2	13	95	11	8.2	0.01	8.55	0.03	1.49	9.70	16.75	0.05
1	979	7.46	<2	22	107	18	17.6	0.05	18.36	0.08	1.96	21.54	37.94	0.17
2	936	7.34	<2	17	59	9.3	8.7	0.06	9.07	0.11	1.87	15.91	23.11	0.24
3	968	7.27	<2	15	62	7.3	7.1	0.07	7.36	0.13	1.94	14.52	19.94	0.30
4	963	7.39	<2	15	54	6.4	6.2	0.08	6.42	0.15	1.93	14.45	18.94	0.36
5	914	7.29	<2	12	41	5.2	4.8	0.09	4.95	0.17	1.83	10.97	14.09	0.40
6	968	7.50	<2	14	46	5.2	5.0	0.10	5.24	0.18	1.94	13.55	16.86	0.45
7	936	7.17	<2	13	59	6.1	5.7	0.11	5.95	0.20	1.87	12.17	16.24	0.50
8	948	7.28	<2	12	49	4.2	4.0	0.12	4.15	0.21	1.90	11.38	13.63	0.54
9	975	7.40	<2	12	46	3.8	3.7	0.13	3.86	0.23	1.95	11.70	13.61	0.58
10	902	7.33	<2	13	48	5.9	5.3	0.14	5.54	0.24	1.80	11.37	15.10	0.63
11	948	7.43	<2	15	51	3.9	3.7	0.14	3.85	0.25	1.90	14.22	16.18	0.68
12	980	7.48	<2	17	49	4.3	4.2	0.15	4.39	0.27	1.96	16.66	19.09	0.74
13	938	7.73	<2	17	50	4.2	3.9	0.16	4.10	0.28	1.88	15.95	18.17	0.79
14	949	7.89	<2	22	48	4.4	4.2	0.16	4.35	0.29	1.90	20.87	23.32	0.86
15	913	7.42	<2	16	44	3.3	3.0	0.17	3.14	0.30	1.83	14.61	15.92	0.91
16	977	7.55	<2	23	56	3.9	3.8	0.18	3.97	0.31	1.95	22.47	24.49	0.99
17	983	7.10	<2	16	45	3.3	3.2	0.18	3.38	0.33	1.97	15.73	17.14	1.04
18	942	7.17	<2	14	37	2.8	2.6	0.19	2.75	0.33	1.88	13.19	14.05	1.08
19	930	7.45	<2	14	36	2.8	2.6	0.19	2.71	0.34	1.86	13.02	13.87	1.12
20	901	7.39	<2	14	38	2.8	2.5	0.20	2.63	0.35	1.80	12.61	13.44	1.16
21	957	7.73	<2	18	44	3.5	3.3	0.20	3.49	0.36	1.91	17.23	18.80	1.22
22	975	7.62	<2	15	58	2.9	2.8	0.21	2.95	0.37	1.95	14.63	15.62	1.27
23	935	7.17	<2	9	24	1.7	1.6	0.21	1.66	0.37	1.87	8.42	8.20	1.29
24	963	7.36	<2	14	36	2.6	2.5	0.21	2.61	0.38	1.93	13.48	14.16	1.34
25	988	7.40	<2	15	40	3.0	3.0	0.22	3.09	0.39	1.98	14.82	15.93	1.39
26	963	7.53	<2	18	48	3.1	3.0	0.22	3.11	0.40	1.93	17.33	18.52	1.44
27	971	7.52	<2	15	37	2.5	2.4	0.23	2.53	0.41	1.94	14.57	15.15	1.49
28	968	7.50	<2	15	36	2.8	2.7	0.23	2.82	0.42	1.94	14.52	15.41	1.54
29	936	7.50	<2	14	36	2.4	2.2	0.24	2.34	0.42	1.87	13.10	13.57	1.58
30	917	7.49	<2	15	39	2.0	1.8	0.24	1.91	0.43	1.83	13.76	13.83	1.62
31	940	7.55	<2	14	34	2.5	2.4	0.24	2.45	0.44	1.88	13.16	13.73	1.66
32	940	7.49	<2	13	39	2.5	2.4	0.25	2.45	0.45	1.88	12.22	12.79	1.70
33	955	7.49	<2	15	47	2.8	2.7	0.25	2.79	0.45	1.91	14.33	15.20	1.75
34	960	7.48	<2	14	32	2.6	2.5	0.26	2.60	0.46	1.92	13.44	14.12	1.79
35	966	7.66	<2	14	34	2.7	2.6	0.26	2.72	0.47	1.93	13.52	14.31	1.83

Week	Volume	pH	Acidity	Alkalinity	Conductivity	SO_4	SO_4 Prod Rate	Cum $S^=$ Depl	NP Cons	Cum CNP Depl	Acidity Prod Rate	Alkalinity Prod Rate	Open-System NP Cons	Cum Open-System CNP Depl
36	1001	7.39	<2	14	33	2.5	2.5	0.27	2.61	0.48	2.00	14.01	14.62	1.88
37	949	7.37	<2	13	34	2.3	2.2	0.27	2.27	0.49	1.90	12.34	12.71	1.92
38	949	7.41	<2	13	36	2.1	2.0	0.27	2.08	0.49	1.90	12.34	12.51	1.95
39	968	7.64	<2	14	34	2.1	2.0	0.28	2.12	0.50	1.94	13.55	13.73	2.00
40	918	7.59	<2	14	36	2.0	1.8	0.28	1.91	0.50	1.84	12.85	12.93	2.04
41	935	7.58	<2	15	33	2.4	2.2	0.29	2.34	0.51	1.87	14.03	14.49	2.08
42	961	7.67	<2	13	34	2.7	2.6	0.29	2.70	0.52	1.92	12.49	13.27	2.12
43	905	7.51	<2	11	26	1.9	1.7	0.29	1.79	0.52	1.81	9.96	9.94	2.15

Table 19 Dissolved Metals Concentrations – HS Waste -¼

Parameter	Units	Dir. No. 019	0	1	2	3	4	5	10
pH	units	6-9.5	8.20	7.46	7.34	7.27	7.39	7.29	*7.29
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
As	mg/L	0.20	< 0.0002	0.0004	0.0006	0.0002	0.0003	< 0.0002	< 0.0002
Cu	mg/L	0.30	0.0006	0.0006	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Fe	mg/L	3.00	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Ni	mg/L	0.50	0.0006	0.0006	0.0003	0.0003	0.0003	0.0001	0.0002
Pb	mg/L	0.20	0.00005	0.00014	0.00005	0.00006	0.00002	0.00003	0.00006
Zn	mg/L	0.50	< 0.001	0.001	< 0.001	< 0.001	0.001	0.001	0.002

Table 19 Dissolved Metals Concentrations (Continued) – HS Waste -¼"

Parameter	Units	Dir. No. 019	15	20	25	30	35	40
pH	units	6-9.5	7.42	7.39	7.40	7.49	7.66	7.59
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
As	mg/L	0.20	< 0.0002	0.0003	< 0.0002	< 0.0002	< 0.0002	0.0003
Cu	mg/L	0.30	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Fe	mg/L	3.00	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Ni	mg/L	0.50	< 0.0001	0.0001	< 0.0001	0.0002	< 0.0001	< 0.0001
Pb	mg/L	0.20	0.00002	0.00002	0.000100	0.00003	0.00003	< 0.00002
Zn	mg/L	0.50	< 0.001	< 0.001	0.001	< 0.001	< 0.001	< 0.001

Government du Quebec, Ministére de L'Environnement. 2005. Directive no. 019.

Table 20 Weekly Leachate Results and Cumulative Depletion Rates – LG Ore -200m

Week	Volume	pH	Acidity	Alkalinity	Conductivity	SO_4	SO_4 Prod Rate	Cum $S^=$ Depl	NP Cons	Cum CNP Depl	Acidity Prod Rate	Alkalinity Prod Rate	Open-System NP Cons	Cum Open-System CNP Depl
	mL	units	$CaCO_3$ eq.mg/L	$CaCO_3$ eq.mg/L	µS/cm	mg/L	g/t/wk	%	$CaCO_3$, g/t/wk	%	$CaCO_3$, g/t/wk	$CaCO_3$, g/t/wk	$CaCO_3$, g/t/wk	%
0	132	6.75	<2	9	60	1.4	0.2	0.00	0.19	0.00	0.26	1.19	1.12	0.00
1	995	8.17	<2	91	478	58	57.7	0.35	60.11	0.14	1.99	90.55	148.67	0.36
2	985	8.37	<2	79	292	32	31.5	0.54	32.83	0.22	1.97	77.82	108.68	0.62
3	985	7.86	<2	57	208	23	22.7	0.68	23.60	0.28	1.97	56.15	77.77	0.81
4	955	8.30	<2	60	196	27	25.8	0.84	26.86	0.35	1.91	57.30	82.25	1.01
5	988	7.24	<2	42	196	27	26.7	1.00	27.79	0.41	1.98	41.50	67.31	1.17
6	986	7.16	<2	27	78	7.1	7.0	1.04	7.29	0.43	1.97	26.62	31.94	1.24
7	986	8.64	<2	18	60	6.3	6.2	1.08	6.47	0.45	1.97	17.75	22.25	1.30
8	979	7.53	<2	14	74	10	9.8	1.14	10.20	0.47	1.96	13.71	21.95	1.35
9	985	7.50	<2	16	64	10	9.9	1.20	10.26	0.49	1.97	15.76	24.05	1.41
10	960	7.72	<2	22	86	16	15.4	1.29	16.00	0.53	1.92	21.12	35.20	1.49
11	987	7.66	<2	18	71	12	11.8	1.36	12.34	0.56	1.97	17.77	28.13	1.56
12	978	7.64	<2	16	52	9.1	8.9	1.42	9.27	0.58	1.96	15.65	22.96	1.62
13	987	7.66	<2	15	66	12	11.8	1.49	12.34	0.61	1.97	14.81	25.17	1.68
14	987	7.61	<2	16	68	12	11.8	1.56	12.34	0.64	1.97	15.79	26.16	1.74
15	984	6.99	<2	17	63	11	10.8	1.62	11.28	0.67	1.97	16.73	26.04	1.80
16	985	7.14	<2	16	63	11	10.8	1.69	11.29	0.70	1.97	15.76	25.08	1.86
17	975	7.66	<2	16	57	10	9.8	1.75	10.16	0.72	1.95	15.60	23.81	1.92
18	978	7.54	<2	14	55	10	9.8	1.81	10.19	0.75	1.96	13.69	21.92	1.97
19	977	8.64	<2	18	97	16	15.6	1.90	16.28	0.79	1.95	17.59	31.92	2.05
20	978	7.45	<2	14	72	9.1	8.9	1.96	9.27	0.81	1.96	13.69	21.01	2.10
21	983	7.40	<2	21	62	12	11.8	2.03	12.29	0.84	1.97	20.64	30.96	2.17
22	971	7.55	<2	14	46	6.3	6.1	2.07	6.37	0.85	1.94	13.59	18.02	2.22
23	979	7.76	<2	14	55	9.2	9.0	2.12	9.38	0.88	1.96	13.71	21.13	2.27
24	968	7.35	<2	14	48	6.5	6.3	2.16	6.55	0.89	1.94	13.55	18.17	2.31
25	984	7.56	<2	16	59	10	9.8	2.22	10.25	0.92	1.97	15.74	24.03	2.37
26	978	7.66	<2	14	39	6.0	5.9	2.25	6.11	0.93	1.96	13.69	17.85	2.41
27	977	7.48	<2	13	44	6.0	5.9	2.29	6.11	0.95	1.95	12.70	16.85	2.45
28	981	7.58	<2	13	43	5.6	5.5	2.32	5.72	0.96	1.96	12.75	16.51	2.49
29	986	7.59	<2	13	36	5.2	5.1	2.35	5.34	0.97	1.97	12.82	16.19	2.53
30	987	7.57	<2	17	67	9.1	9.0	2.41	9.36	0.99	1.97	16.78	24.16	2.59
31	974	7.64	<2	16	58	6.4	6.2	2.45	6.49	1.01	1.95	15.58	20.13	2.64
32	983	7.03	<2	13	44	5.8	5.7	2.48	5.94	1.02	1.97	12.78	16.75	2.68
33	990	7.87	<2	14	42	4.4	4.4	2.51	4.54	1.04	1.98	13.86	16.42	2.72
34	990	7.57	<2	13	37	4.5	4.5	2.53	4.64	1.05	1.98	12.87	15.53	2.75
35	980	7.77	<2	15	45	5.3	5.2	2.56	5.41	1.06	1.96	14.70	18.15	2.80

Week	Volume	pH	Acidity	Alkalinity	Conductivity	SO_4	SO_4 Prod Rate	Cum $S^=$ Depl	NP Cons	Cum CNP Depl	Acidity Prod Rate	Alkalinity Prod Rate	Open-System NP Cons	Cum Open-System CNP Depl
36	981	7.61	<2	15	46	5.0	4.9	2.59	5.11	1.07	1.96	14.72	17.86	2.84
37	980	7.63	<2	13	39	4.2	4.1	2.62	4.29	1.08	1.96	12.74	15.07	2.88
38	984	7.94	<2	17	35	3.4	3.3	2.64	3.49	1.09	1.97	16.73	18.25	2.92
39	988	7.49	<2	15	40	4.1	4.1	2.66	4.22	1.10	1.98	14.82	17.06	2.96
40	989	7.56	<2	11	34	3.8	3.8	2.69	3.91	1.11	1.98	10.88	12.82	2.99
41	990	7.73	<2	17	53	7.2	7.1	2.73	7.43	1.13	1.98	16.83	22.28	3.05

Table 21 Dissolved Metals Concentrations – LG Ore -200m

Parameter	Units	Dir. No. 019	0	1	2	3	4	5	10
pH	units	6-9.5	6.75	8.17	8.37	7.86	8.30	7.24	7.72
Hg	mg/L		#N/A	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	#N/A
As	mg/L	0.20	< 0.0002	0.0018	0.0020	0.0013	0.0009	0.0009	#N/A
Cu	mg/L	0.30	0.0016	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	#N/A
Fe	mg/L	3.00	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	#N/A
Ni	mg/L	0.50	0.0008	0.0012	0.0005	0.0003	0.0001	0.0002	#N/A
Pb	mg/L	0.20	0.00027	0.00021	0.00007	0.00004	0.00003	< 0.00002	#N/A
Zn	mg/L	0.50	0.002	0.003	0.002	0.002	0.002	0.003	#N/A

Table 21 Dissolved Metals Concentrations (Continued) – LG Ore -200m

Parameter	Units	Dir. No. 019	15	20	25	30	35	40
pH	units	6-9.5	6.99	7.45	7.56	7.57	7.77	7.56
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
As	mg/L	0.20	0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Cu	mg/L	0.30	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Fe	mg/L	3.00	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Ni	mg/L	0.50	< 0.0001	0.0002	0.0001	< 0.0001	0.0017	< 0.0001
Pb	mg/L	0.20	0.00004	0.00007	0.00003	0.00013	0.00003	< 0.00002
Zn	mg/L	0.50	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

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Table 22 Weekly Leachate Results and Cumulative Depletion Rates – AG Ore -200m

Week	Volume	pH	Acidity	Alkalinity	Conductivity	SO_4	SO_4 Prod Rate	Cum $S^=$ Depl	NP Cons	Cum CNP Depl	Acidity Prod Rate	Alkalinity Prod Rate	Open-System NP Cons	Cum Open-System CNP Depl
	mL	units	$CaCO_3$ eq.mg/L	$CaCO_3$ eq.mg/L	µS/cm	mg/L	g/t/wk	%	$CaCO_3$, g/t/wk	%	$CaCO_3$, g/t/wk	$CaCO_3$, g/t/wk	$CaCO_3$, g/t/wk	%
0	152	7.22	<2	23	68	7.9	1.2	0.00	1.25	0.00	0.30	3.50	4.44	0.01
1	945	7.33	<2	90	714	150	141.8	0.47	147.66	0.26	1.89	85.05	230.82	0.42
2	986	8.27	<2	75	378	77	75.9	0.72	79.09	0.40	1.97	73.95	151.06	0.68
3	985	7.70	<2	29	97	12	11.8	0.76	12.31	0.43	1.97	28.57	38.91	0.75
4	981	7.71	<2	17	58	8.8	8.6	0.79	8.99	0.44	1.96	16.68	23.71	0.79
5	988	7.42	<2	14	57	9.7	9.6	0.82	9.98	0.46	1.98	13.83	21.84	0.83
6	966	7.69	<2	45	71	24	23.2	0.90	24.15	0.50	1.93	43.47	65.69	0.95
7	986	7.26	<2	15	99	19	18.7	0.96	19.51	0.54	1.97	14.79	32.33	1.01
8	978	7.06	<2	7	78	13	12.7	1.00	13.24	0.56	1.96	6.85	18.13	1.04
9	980	7.57	<2	16	74	13	12.7	1.04	13.27	0.58	1.96	15.68	26.99	1.09
10	984	7.41	<2	21	92	19	18.7	1.11	19.48	0.62	1.97	20.66	38.17	1.15
11	988	7.75	<2	24	106	23	22.7	1.18	23.67	0.66	1.98	23.71	45.41	1.23
12	960	7.63	<2	26	109	29	27.8	1.27	29.00	0.71	1.92	24.96	52.04	1.33
13	983	7.57	<2	16	75	16	15.7	1.32	16.38	0.74	1.97	15.73	30.15	1.38
14	975	7.63	<2	18	84	17	16.6	1.38	17.27	0.77	1.95	17.55	32.87	1.44
15	980	7.18	<2	17	78	17	16.7	1.43	17.35	0.80	1.96	16.66	32.05	1.49
16	980	7.09	2	17	80	17	16.7	1.49	17.35	0.83	1.96	16.66	32.05	1.55
17	978	7.79	<2	17	75	16	15.6	1.54	16.30	0.86	1.96	16.63	30.97	1.61
18	981	7.67	<2	16	73	16	15.7	1.59	16.35	0.89	1.96	15.70	30.08	1.66
19	977	8.52	<2	16	97	16	15.6	1.64	16.28	0.92	1.95	15.63	29.96	1.71
20	977	7.42	<2	16	112	18	17.6	1.70	18.32	0.95	1.95	15.63	32.00	1.77
21	985	7.39	<2	17	87	22	21.7	1.77	22.57	0.99	1.97	16.75	37.35	1.84
22	979	7.55	<2	16	75	17	16.6	1.83	17.34	1.02	1.96	15.66	31.04	1.89
23	978	7.84	<2	14	66	14	13.7	1.87	14.26	1.05	1.96	13.69	26.00	1.94
24	982	7.41	<2	15	82	18	17.7	1.93	18.41	1.08	1.96	14.73	31.18	1.99
25	202	7.78	<2	47	81	12	2.4	1.94	2.53	1.08	0.40	9.49	11.62	2.01
26	980	7.62	<2	15	72	18	17.6	2.00	18.38	1.12	1.96	14.70	31.12	2.07
27	983	7.53	<2	14	68	14	13.8	2.04	14.34	1.14	1.97	13.76	26.13	2.11
28	966	7.60	<2	15	70	14	13.5	2.09	14.09	1.17	1.93	14.49	26.65	2.16
29	987	7.62	<2	15	62	14	13.8	2.13	14.39	1.19	1.97	14.81	27.22	2.21
30	989	7.50	<2	16	89	19	18.8	2.20	19.57	1.23	1.98	15.82	33.42	2.27
31	982	7.54	<2	26	70	11	10.8	2.23	11.25	1.25	1.96	25.53	34.82	2.33
32	982	7.73	<2	27	60	13	12.8	2.27	13.30	1.27	1.96	26.51	37.85	2.40
33	984	7.80	<2	13	54	11	10.8	2.31	11.28	1.29	1.97	12.79	22.10	2.44
34	986	7.60	<2	12	46	8.7	8.6	2.34	8.94	1.31	1.97	11.83	18.80	2.47
35	980	7.61	<2	15	57	10	9.8	2.37	10.21	1.32	1.96	14.70	22.95	2.51

Week	Volume	pH	Acidity	Alkalinity	Conductivity	SO_4	SO_4 Prod Rate	Cum $S^=$ Depl	NP Cons	Cum CNP Depl	Acidity Prod Rate	Alkalinity Prod Rate	Open-System NP Cons	Cum Open-System CNP Depl
36	983	7.54	<2	14	57	9.6	9.4	2.40	9.83	1.34	1.97	13.76	21.63	2.55
37	982	7.78	<2	17	66	13	12.8	2.44	13.30	1.36	1.96	16.69	28.03	2.60
38	925	7.61	<2	12	44	7	6.5	2.46	6.74	1.38	1.85	11.10	15.99	2.63
39	983	7.94	<2	12	47	7.8	7.7	2.49	7.99	1.39	1.97	11.80	17.82	2.66
40	987	7.83	<2	13	47	8.1	8.0	2.52	8.33	1.41	1.97	12.83	19.18	2.69
41	990	7.73	<2	14	56	9.9	9.8	2.55	10.21	1.42	1.98	13.86	22.09	2.73

Table 23 Dissolved Metals Concentrations – AG Ore -200m

Parameter	Units	Dir. No. 019	0	1	2	3	4	5	10
pH	units	6-9.5	7.22	7.33	8.27	7.70	7.71	7.42	7.41
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
As	mg/L	0.20	< 0.0002	0.0018	0.0017	0.0004	< 0.0002	< 0.0002	< 0.0002
Cu	mg/L	0.30	0.0018	0.0025	0.0010	< 0.0005	< 0.0005	< 0.0005	0.0005
Fe	mg/L	3.00	< 0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Ni	mg/L	0.50	0.0017	0.0049	0.0015	0.0003	0.0001	0.0009	0.0007
Pb	mg/L	0.20	0.00012	0.00019	0.00008	< 0.00002	< 0.00002	< 0.00002	0.00007
Zn	mg/L	0.50	< 0.001	0.004	0.004	< 0.001	< 0.001	< 0.001	0.001

Table 23 Dissolved Metals Concentrations (Continued) – AG Ore -200m

Parameter	Units	Dir. No. 019	15	20	25	30	35	40
pH	units	6-9.5	7.18	7.42	7.78	7.50	7.61	7.83
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
As	mg/L	0.20	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Cu	mg/L	0.30	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.0009	< 0.0005
Fe	mg/L	3.00	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Ni	mg/L	0.50	0.0003	0.0003	0.0002	0.0002	0.0102	0.0002
Pb	mg/L	0.20	< 0.00002	0.00005	0.00003	0.00007	< 0.00002	0.00002
Zn	mg/L	0.50	< 0.001	< 0.001	0.002	< 0.001	0.002	< 0.001

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Table 24 Weekly Leachate Results and Cumulative Depletion Rates – HS Ore -200m

Week	Volume	pH	Acidity	Alkalinity	Conductivity	SO_4	SO_4 Prod Rate	Cum $S^=$ Depl	NP Cons	Cum CNP Depl	Acidity Prod Rate	Alkalinity Prod Rate	Open-System NP Cons	Cum Open-System CNP Depl
	mL	units	$CaCO_3$ eq.mg/L	$CaCO_3$ eq.mg/L	µS/cm	mg/L	g/t/wk	%	$CaCO_3$, g/t/wk	%	$CaCO_3$, g/t/wk	$CaCO_3$, g/t/wk	$CaCO_3$, g/t/wk	%
0	242	7.58	<2	26	84	12	2.9	0.01	3.03	0.00	0.48	6.29	8.83	0.01
1	976	7.47	<2	36	230	38	37.1	0.10	38.63	0.06	1.95	35.14	71.82	0.12
2	985	7.37	<2	21	120	20	19.7	0.14	20.52	0.10	1.97	20.69	39.24	0.19
3	961	7.48	<2	17	87	12	11.5	0.17	12.01	0.11	1.92	16.34	26.43	0.23
4	994	7.62	<2	26	188	42	41.7	0.27	43.49	0.18	1.99	25.84	67.34	0.33
5	991	7.81	<2	17	95	19	18.8	0.32	19.61	0.21	1.98	16.85	34.48	0.38
6	979	7.56	6	2	81	25	24.5	0.38	25.49	0.25	5.87	1.96	21.58	0.42
7	985	7.42	<2	13	89	15	14.8	0.41	15.39	0.28	1.97	12.81	26.23	0.46
8	850	7.73	<2	15	84	16	13.6	0.45	14.17	0.30	1.70	12.75	25.22	0.50
9	946	7.52	<2	14	93	19	18.0	0.49	18.72	0.33	1.89	13.24	30.07	0.54
10	994	7.68	<2	22	121	28	27.8	0.56	28.99	0.37	1.99	21.87	48.87	0.62
11	985	7.57	<2	17	114	28	27.6	0.62	28.73	0.42	1.97	16.75	43.50	0.69
12	952	7.42	<2	16	83	20	19.0	0.67	19.83	0.45	1.90	15.23	33.16	0.74
13	982	7.65	<2	14	77	17	16.7	0.71	17.39	0.47	1.96	13.75	29.17	0.78
14	986	7.40	<2	13	98	25	24.7	0.77	25.68	0.51	1.97	12.82	36.52	0.84
15	987	7.06	<2	17	105	26	25.7	0.83	26.73	0.55	1.97	16.78	41.54	0.90
16	986	6.94	2	14	106	28	27.6	0.90	28.76	0.60	1.97	13.80	40.59	0.97
17	990	7.65	<2	14	77	18	17.8	0.94	18.56	0.63	1.98	13.86	30.44	1.01
18	989	7.61	<2	16	91	24	23.7	1.00	24.73	0.67	1.98	15.82	38.57	1.07
19	979	8.15	<2	12	103	20	19.6	1.05	20.40	0.70	1.96	11.75	30.19	1.12
20	986	7.29	<2	13	102	17	16.8	1.09	17.46	0.72	1.97	12.82	28.31	1.16
21	991	7.30	<2	11	70	19	18.8	1.13	19.61	0.76	1.98	10.90	28.53	1.21
22	981	7.34	<2	13	106	31	30.4	1.20	31.68	0.80	1.96	12.75	42.47	1.27
23	970	7.40	<2	12	89	25	24.3	1.26	25.26	0.84	1.94	11.64	34.96	1.33
24	1014	7.34	<2	16	132	39	39.5	1.36	41.19	0.91	2.03	16.22	55.39	1.41
25	992	7.40	<2	15	88	26	25.8	1.42	26.87	0.95	1.98	14.88	39.76	1.48
26	986	7.51	<2	14	107	34	33.5	1.50	34.92	1.00	1.97	13.80	46.75	1.55
27	984	7.42	<2	14	84	22	21.6	1.55	22.55	1.04	1.97	13.78	34.36	1.60
28	986	7.42	<2	14	87	23	22.7	1.61	23.62	1.07	1.97	13.80	35.45	1.66
29	992	7.51	<2	13	76	21	20.8	1.66	21.70	1.11	1.98	12.90	32.61	1.71
30	986	7.47	<2	15	103	25	24.7	1.72	25.68	1.15	1.97	14.79	38.50	1.77
31	957	7.47	<2	11	61	11	10.5	1.74	10.97	1.16	1.91	10.53	19.58	1.80
32	960	7.27	<2	9	56	15	14.4	1.78	15.00	1.19	1.92	8.64	21.72	1.83
33	945	7.67	<2	9	43	9.8	9.3	1.80	9.65	1.20	1.89	8.51	16.26	1.86
34	913	7.36	<2	10	46	11	10.0	1.83	10.46	1.22	1.83	9.13	17.77	1.88
35	937	7.24	<2	11	63	15	14.1	1.86	14.64	1.24	1.87	10.31	23.07	1.92

Week	Volume	pH	Acidity	Alkalinity	Conductivity	SO_4	SO_4 Prod Rate	Cum $S^=$ Depl	NP Cons	Cum CNP Depl	Acidity Prod Rate	Alkalinity Prod Rate	Open-System NP Cons	Cum Open-System CNP Depl
36	952	7.39	<2	10	57	11	10.5	1.89	10.91	1.26	1.90	9.52	18.52	1.95
37	951	7.51	<2	10	49	10	9.5	1.91	9.91	1.27	1.90	9.51	17.51	1.97
38	955	7.84	<2	9	42	7.8	7.4	1.93	7.76	1.29	1.91	8.60	14.44	2.00
39	896	7.85	<2	10	52	11	9.9	1.95	10.27	1.30	1.79	8.96	17.43	2.02
40	940	7.72	<2	11	52	12	11.3	1.98	11.75	1.32	1.88	10.34	20.21	2.05
41	923	7.58	<2	11	53	12	11.1	2.00	11.54	1.34	1.85	10.15	19.84	2.09

Table 25 Dissolved Metals Concentrations – HS Ore -200m

Parameter	Units	Dir. No. 019	0	1	2	3	4	5	10
pH	units	6-9.5	7.58	7.47	7.37	7.48	7.62	7.81	7.68
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	#N/A
As	mg/L	0.20	< 0.0002	0.0006	0.0002	< 0.0002	< 0.0002	< 0.0002	#N/A
Cu	mg/L	0.30	0.0013	0.0007	< 0.0005	< 0.0005	0.0006	< 0.0005	#N/A
Fe	mg/L	3.00	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	#N/A
Ni	mg/L	0.50	0.0002	0.0007	0.0002	< 0.0001	0.0003	0.0001	#N/A
Pb	mg/L	0.20	0.00012	0.00010	< 0.00002	< 0.00002	< 0.00002	< 0.00002	#N/A
Zn	mg/L	0.50	0.001	0.001	< 0.001	< 0.001	< 0.001	< 0.001	#N/A

Table 25 Dissolved Metals Concentrations (Continued) – HS Ore -200m

Parameter	Units	Dir. No. 019	15	20	25	30	35	40
pH	units	6-9.5	7.06	7.29	7.40	7.47	7.24	7.72
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
As	mg/L	0.20	0.0003	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Cu	mg/L	0.30	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Fe	mg/L	3.00	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Ni	mg/L	0.50	< 0.0001	0.0002	0.0002	< 0.0001	0.0009	< 0.0001
Pb	mg/L	0.20	< 0.00002	0.00003	< 0.00002	< 0.00002	0.00004	< 0.00002
Zn	mg/L	0.50	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

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Table 26 Weekly Leachate Results and Cumulative Depletion Rates – GT Residue

Week	Volume	pH	Acidity	Alkalinity	Conductivity	SO_4	SO_4 Prod Rate	Cum $S^=$ Depl	NP Cons	Cum CNP Depl	Acidity Prod Rate	Alkalinity Prod Rate	Open-System NP Cons	Cum Open-System CNP Depl
	mL	units	$CaCO_3$ eq.mg/L	$CaCO_3$ eq.mg/L	µS/cm	mg/L	g/t/wk	%	$CaCO_3$, g/t/wk	%	$CaCO_3$, g/t/wk	$CaCO_3$, g/t/wk	$CaCO_3$, g/t/wk	%
0	753	6.88	<2	22	378	160	120.5	0.31	125.50	0.37	1.51	16.57	140.56	0.41
1	993	7.80	<2	88	823	340	337.6	1.17	351.69	1.40	1.99	87.38	437.09	1.70
2	994	8.05	<2	80	346	84	83.5	1.39	86.98	1.66	1.99	79.52	164.51	2.18
3	989	7.53	<2	31	152	35	34.6	1.48	36.06	1.77	1.98	30.66	64.74	2.37
4	990	6.81	<2	17	91	16	15.8	1.52	16.50	1.81	1.98	16.83	31.35	2.47
5	982	7.01	<2	11	64	13	12.8	1.55	13.30	1.85	1.96	10.80	22.14	2.53
6	974	7.17	<2	7	76	16	15.6	1.59	16.23	1.90	1.95	6.82	21.10	2.59
7	895	7.39	<2	22	134	38	34.0	1.68	35.43	2.00	1.79	19.69	53.33	2.75
8	980	6.83	<2	4	74	17	16.7	1.72	17.35	2.06	1.96	3.92	19.31	2.81
9	982	7.16	<2	8	65	15	14.7	1.76	15.34	2.10	1.96	7.86	21.24	2.87
10	976	7.14	<2	11	83	23	22.4	1.82	23.38	2.17	1.95	10.74	32.17	2.96
11	985	7.31	<2	10	82	23	22.7	1.87	23.60	2.24	1.97	9.85	31.48	3.06
12	994	6.95	<2	8	56	17	16.9	1.92	17.60	2.29	1.99	7.95	23.57	3.13
13	981	7.09	<2	9	69	20	19.6	1.97	20.44	2.35	1.96	8.83	27.30	3.21
14	990	6.85	<2	8	71	19	18.8	2.02	19.59	2.41	1.98	7.92	25.53	3.28
15	976	6.75	<2	7	62	17	16.6	2.06	17.28	2.46	1.95	6.83	22.16	3.35
16	990	6.77	<2	15	73	20	19.8	2.11	20.63	2.52	1.98	14.85	33.50	3.44
17	979	6.96	<2	8	65	19	18.6	2.16	19.38	2.58	1.96	7.83	25.25	3.52
18	984	7.04	<2	7	66	19	18.7	2.20	19.48	2.63	1.97	6.89	24.40	3.59
19	980	7.01	<2	8	90	21	20.6	2.26	21.44	2.70	1.96	7.84	27.32	3.67
20	990	6.97	<2	8	98	21	20.8	2.31	21.66	2.76	1.98	7.92	27.60	3.75
21	989	6.99	<2	9	83	27	26.7	2.38	27.82	2.84	1.98	8.90	34.74	3.85
22	981	7.04	<2	8	58	16	15.7	2.42	16.35	2.89	1.96	7.85	22.24	3.92
23	982	7.05	<2	7	56	15	14.7	2.46	15.34	2.94	1.96	6.87	20.25	3.98
24	981	6.90	<2	7	60	16	15.7	2.50	16.35	2.98	1.96	6.87	21.26	4.04
25	989	7.12	<2	9	73	23	22.7	2.56	23.69	3.05	1.98	8.90	30.62	4.13
26	988	7.14	<2	10	65	19	18.8	2.60	19.55	3.11	1.98	9.88	27.46	4.21
27	990	7.26	<2	12	65	17	16.8	2.65	17.53	3.16	1.98	11.88	27.43	4.29
28	992	7.14	<2	11	61	16	15.9	2.69	16.53	3.21	1.98	10.91	25.46	4.37
29	983	7.18	<2	9	51	14	13.8	2.72	14.34	3.25	1.97	8.85	21.22	4.43
30	986	7.29	<2	12	201	19	18.7	2.77	19.51	3.31	1.97	11.83	29.37	4.52
31	988	7.43	<2	15	101	23	22.7	2.83	23.67	3.38	1.98	14.82	36.51	4.62
32	989	7.21	<2	10	62	18	17.8	2.88	18.54	3.44	1.98	9.89	26.46	4.70
33	986	7.34	<2	11	64	17	16.8	2.92	17.46	3.49	1.97	10.85	26.33	4.78
34	989	7.00	<2	9	52	14	13.8	2.95	14.42	3.53	1.98	8.90	21.35	4.84
35	989	7.07	<2	10	58	14	13.8	2.99	14.42	3.57	1.98	9.89	22.33	4.91

Week	Volume	pH	Acidity	Alkalinity	Conductivity	SO_4	SO_4 Prod Rate	Cum $S^=$ Depl	NP Cons	Cum CNP Depl	Acidity Prod Rate	Alkalinity Prod Rate	Open-System NP Cons	Cum Open-System CNP Depl
36	974	7.19	<2	8	58	12	11.7	3.02	12.18	3.61	1.95	7.79	18.02	4.96
37	989	7.26	<2	8	53	13	12.9	3.05	13.39	3.65	1.98	7.91	19.33	5.02
38	989	7.33	<2	10	56	13	12.9	3.09	13.39	3.69	1.98	9.89	21.30	5.08
39	985	7.14	<2	8	44	12	11.8	3.12	12.31	3.72	1.97	7.88	18.22	5.13
40	921	7.11	<2	8	43	10	9.2	3.14	9.59	3.75	1.84	7.37	15.12	5.18
41	957	7.34	<2	9	48	11	10.5	3.17	10.97	3.78	1.91	8.61	17.66	5.23

Table 27 Dissolved Metals Concentrations – GT Residue

Parameter	Units	Dir. No. 019	0	1	2	3	4	5	10
pH	units	6-9.5	6.88	7.80	8.05	7.53	6.81	7.01	7.14
CN(T)	mg/L	1.00	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
CN_{WAD}	mg/L		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
As	mg/L	0.20	< 0.0002	0.0006	0.0003	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Cu	mg/L	0.30	0.0012	0.0006	< 0.0005	< 0.0005	< 0.0005	0.0031	< 0.0005
Fe	mg/L	3.00	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Ni	mg/L	0.50	0.0014	0.0034	0.0013	0.0003	< 0.0001	0.0002	0.0021
Pb	mg/L	0.20	0.00015	< 0.00002	< 0.00002	< 0.00002	< 0.00002	0.00004	0.00005
Zn	mg/L	0.50	0.004	0.004	0.005	0.004	< 0.001	0.004	0.002

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Table 27 Dissolved Metals Concentrations (Continued) – GT Residue

Parameter	Units	Dir. No. 019	15	20	25	30	35	40
pH	units	6-9.5	6.75	6.97	7.12	7.29	7.07	7.11
CN(T)	mg/L	1.00	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
CN_{WAD}	mg/L		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
As	mg/L	0.20	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Cu	mg/L	0.30	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Fe	mg/L	3.00	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Ni	mg/L	0.50	< 0.0001	0.0003	0.0002	< 0.0001	0.0009	0.0001
Pb	mg/L	0.20	< 0.00002	0.00006	< 0.00002	< 0.00002	0.00006	< 0.00002
Zn	mg/L	0.50	0.002	0.001	0.001	< 0.001	< 0.001	0.001

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Discussion

Although ABA testing of the *LG Ore -¼"* and *HS Ore ¼* samples suggested uncertain acid generation potential based on the total Net NP (TNNP) values and total NP/AP (TNP/AP) ratios, determination of the carbonate (CO_3) contents of the samples indicated that considerable amounts of this total NP (TNP) is from less reactive sources (44 and 33%, respectively). Since carbonate minerals are typically the only minerals that can react at fast enough rates to counteract acidities released by sulphide mineral oxidation before the acids migrate; the sulphide concentrations (0.69 and 1.70%, respectively), coupled with the negative CO_3 Net NP (CNNP) values and CO_3 NP/AP (CNP/AP) ratios less than 1 (0.99 and 0.70) indicate that these samples are potentially acid generating (PAG).

The significant sulphide concentrations (1.12 and 1.88 %), negative Net NP values and TNP/AP ratios less than 1 (0.90 and 0.99) reported for the *AG Waste -¼"* and *HS Waste -¼"* samples indicate that, even based on TNP, these samples are potentially acid generating. Carbonate assays again indicated that much of this TNP (~38%) was related to less reactive sources, further corroborating the PAG designation.

Although the *AG Ore -¼"* sample maintained its uncertain acid generation designation based on the small positive CNNP (4.6 t $CaCO_3$/1000 t) and the CNP/AP ratio slightly greater than 1 (1.14); the potential for acid generation under oxidizing conditions is still evident.

With the exception of the *HS Waste -¼"* sample, NAG testing of the -¼" samples reported no net acidity generated. The *HS Waste -¼"* sample was the only -¼" sample to report an acidic final pH (2.91). Titration of this sample to pH 4.5 indicated that, not only does the *HS Waste -¼"* sample have the propensity to generate acidity related to free acidity, Al and Fe (8 kg H_2SO_4/t at pH 4.5), but that metal acidities from metallic ions such as Cu and Zn, which consume alkalinity over the 4.5 to 7.0 pH range (16 kg kg H_2SO_4/t at pH 7.0), may be a factor. The alkaline pH values (≥7.85) resulting from aggressive oxidation of the *LG Ore -¼", AG Ore -¼", HS Ore -¼* and *AG Waste -¼"* samples during NAG testing suggests that the sulphide contents of these samples are not readily available.

Comparisons of the TNP and CNP as compared to the AP and of the TNP/AP and CNP/AP ratios versus sulphide for the -¼" samples are provided in Figure 1.

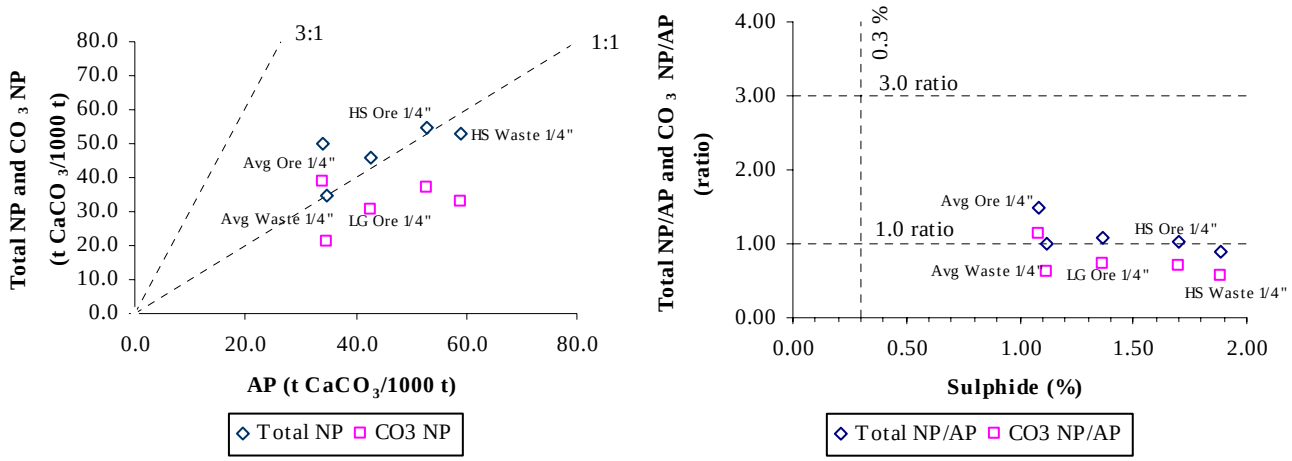

Figure 1: Modified ABA Test Results –
LG Ore -¼", Avg. Ore -¼", HS Ore -¼", Avg. Waste -¼" and HS Waste -¼" Samples

ABA testing showed a clear division in the acid generation potential related to the fine fraction (-200 mesh) of the Osisko ore samples.

Test results for the -200 mesh fraction of the ore samples (*LG Ore -200m, AG Ore -200m* and *HS Ore -200m*) samples clearly illustrate how the relative proportions of critical minerals can vary between the coarser particle sizes and the fine particle sizes. Analysis of the carbonate contents (2.51 to 3.89%) indicated that much of the total NP contained within the fines fraction (-200 mesh) is comprised of fast reacting carbonate mineralization (≥79%). This is not unexpected as the larger particle sizes typically contain higher percentages of hard minerals (eg., quartz and k-feldspar), while the softer minerals (eg. calcite and phyllosilicates) are concentrated in the fine size fractions. Table 28 below shows the differing ABA and NAG test results determined for the *AG Ore -¼"* and *AG Ore -200m* in comparison to the *AG Ore +200m* (not covered in this report). Significantly higher levels of carbonates are associated with the -200 mesh fraction in comparison to the +200 mesh fraction from which the fines were removed by sieving. Since similar results are evident in the *LG Ore (-200m and -¼"*) and *HS Ore (-200m and -¼"*) samples, clearly significant proportions of the available neutralising minerals contained within the Osisko samples are associated with the fine fractions of the samples.

Table 28: Comparison of Modified ABA and NAG Test Results - LG Ore (-¼", -200 Mesh and +200 Mesh)

Parameter	Unit	AG Ore	AG Ore Dup 1	AG Ore Dup 2	AG Ore -200m	AG Ore -200m Dup 1	AG Ore -200m Dup 2	AG Ore +200m	AG Ore +200m Dup 1	AG Ore +200m Dup 2
Paste pH	units	9.83	9.81	9.58	9.62	9.53	9.61	9.90	9.88	9.98
NP[1]	t $CaCO_3$/1000 t	49.5	50.5	50.2	67.7	67.4	67.2	39.4	39.90	39.8
AP	t $CaCO_3$/1000 t	35.5	32.2	34.2	31.5	35.6	27.7	32.9	29.0	34.1
Net NP	t $CaCO_3$/1000 t	14.0	18.3	16.0	36.2	31.8	39.5	6.47	10.8	5.68
NP/AP	ratio	1.40	1.57	1.47	2.15	1.89	2.42	1.20	1.37	1.17
S	%	1.40	1.33	1.34	1.24	1.19	1.25	1.50	1.47	1.44
SO_4	%	0.27	0.30	0.24	0.23	0.05	0.36	0.45	0.54	0.35
Sulphide	%	1.14	1.03	1.09	1.01	1.14	0.89	1.05	0.93	1.09
C	%	0.552	0.558	0.562	0.778	0.769	0.764	0.409	0.420	0.392
Carbonate	%	2.33	2.33	2.31	3.49	3.49	3.23	1.50	1.48	1.44
CO_3 NP[2]	t $CaCO_3$/1000 t	38.7	38.7	38.3	57.9	57.9	53.6	24.9	24.6	23.9
CO_3 Net NP	t $CaCO_3$/1000 t	3.2	6.5	4.1	26.4	22.3	25.9	-8.0	-4.4	-10.2
CO_3 NP/AP	Ratio	1.09	1.20	1.12	1.84	1.63	1.94	0.76	0.85	0.70
Final pH	units	10.39	10.50	10.55	10.95	10.84	10.85	3.30	3.22	3.41
NAG @pH4.5	kg H_2SO_4/tonne	0	0	0	0	0	0	3	3	2
NAG @pH7.0	kg H_2SO_4/tonne	0	0	0	0	0	0	7	6	6

Although ABA testing of the *AG Ore -200m* and *HS Ore -200m* samples reported significantly increased CNP values in comparison to their -¼" counterparts; the significant sulphide contents (1.01 to 1.38%, respectively) and CNP/AP ratios greater than 1 but less than 2 again suggest uncertainty with regards to acid generation potential. These results indicate that the *AG Ore -200m* and *HS Ore -200m* may produce acidity if the NP of the samples is insufficiently reactive, or is depleted at a faster rate than the sulphide. The *LG Ore -200m* sample was the only -200 mesh sample to report a TNP/AP ratio slightly above 3 (3.10); however, calculation of the NP directly attributable to carbonate mineralisation resulted in this sample also being classified in the uncertain range. Based on the average CNP/AP ratio (2.44), this sample has a low potential for acid generation and may not generate acidity unless there is significant preferential exposure of sulphides, or extremely reactive sulphide coupled with insufficient reactive NP. It should be noted that, since neither the ore nor the waste rock will be separated into this type of a particle size distribution, these results will not be representative of the behaviour of the material on site. NAG testing of these samples; however, reported no net acidity generated and alkaline final pH values (>10). Comparisons of the TNP and CNP as compared to the AP and of the TNP/AP and CNP/AP ratios versus sulphide for the *LG Ore -200m, AG Ore -200m* and *HS Ore -200m* are provided in Figure 2 below.

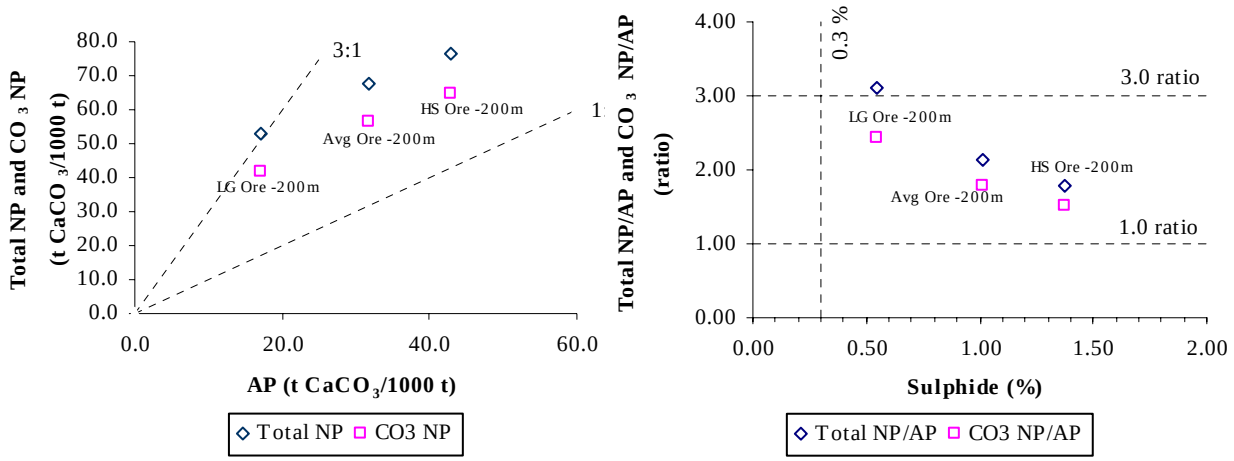

Figure 2: Modified ABA Test Results – LG Ore -200m, Avg. Ore -200m and HS Ore -200m Samples

ABA testing of the tailings samples (*OA Comp, OA CND2* and *GT Residue*) indicated that, with the exception of the *GT Residue* sample, much of the TNP reported (≥45%) is from less reactive sources. The resultant negative CNNP values and CNP/AP ratios (0.60, 0.98 and 0.84, respectively), coupled with the significant sulphide concentrations (1.43, 1.16 and 1.30%), clearly indicate the potential for acid generation. NAG testing of these samples; however, again reported no net acidity generated and alkaline final pH values (≥8.93). Comparisons of the TNP and CNP as compared to the AP and of the TNP/AP and CNP/AP ratios versus sulphide are provided in Figure 3.

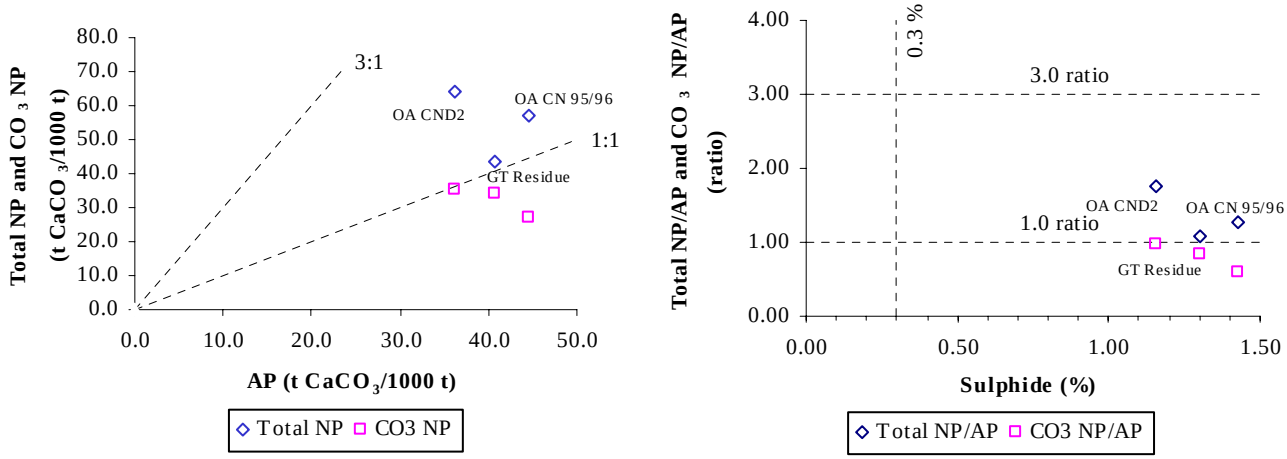

Figure 3: Modified ABA Test Results – OA Comp, OA CND2 and GT Residue Tailings Samples

ABA test results classified the -¼" ore and waste rock samples as PAG; however, with the exception of the *HS Waste -¼"* sample, NAG testing of the -¼" samples reported no net acidity generated.

The humidity cell leachates from the -¼" samples typically maintained near neutral to slightly alkaline pH values throughout the initial forty-three weeks of testing. Very low levels of sulphate are being released into the weekly leachates and, with the exception of an anomalous report of acidity in the Week 5 *AG Ore -¼"* leachate, free acidity has remained below the analytical detection limit. ICP-OES/MS analysis of the -¼" sample leachates reported all Directive No. 019 controlled parameters well within their respective limits. Comparisons of the weekly pH values and SO_4 concentrations reported in the -¼" sample leachates are illustrated in Figure 4.

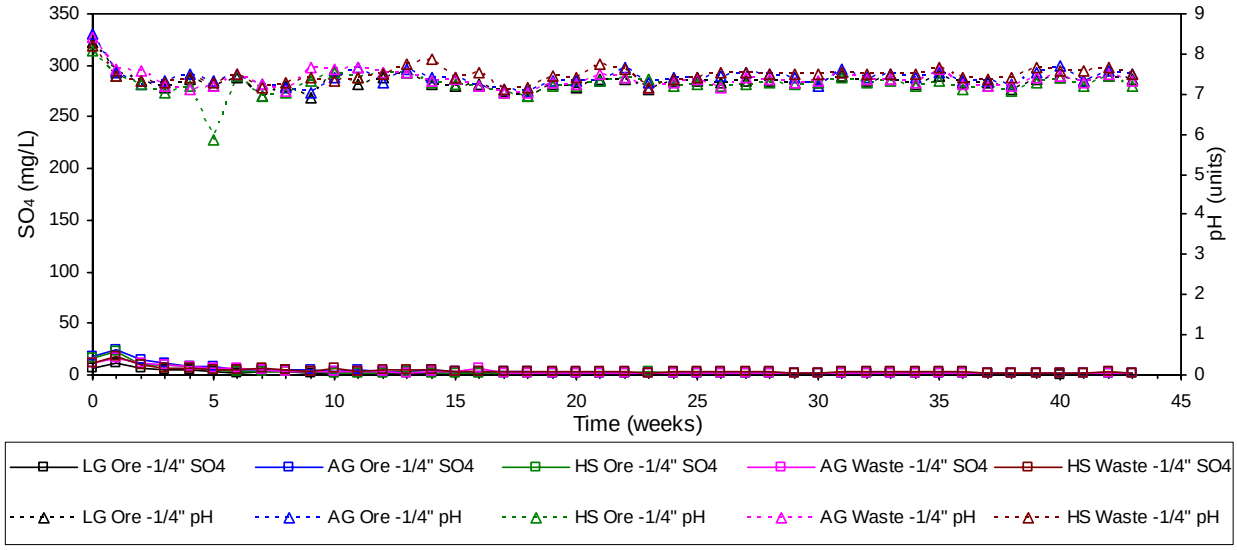

Figure 4: Humidity Cell Test – pH Values and Sulphate Concentrations – LG Ore -¼", AG Ore -¼", HS Ore -¼", AG Waste -¼" and HS Waste -¼" Samples

The alkalinity production rates of all five -¼" samples have significantly exceeded the sulphate production rates and acid production rates determined over the initial forty-three weeks of leaching.

Carbonate Molar Ratios (CMR's), which are defined as the molar ratio of NP consumption (based on Ca and Mg concentrations) to the rate of total acid generation (as delineated by sulphate production), showed that significant concentrations of Ca and Mg, well in excess of those concentrations required to counteract the very minimal sulphate concentrations reported, were being released into the weekly leachates after the first few weeks of testing. This behaviour is typical of humidity cell tests in which the rate of sulphide oxidation is negligible and indicates that the theoretical TNP depletion (based on total NP and sulphate production rates) and CNP depletion (based on carbonate NP and sulphate production rates) rates initially calculated (based on sulphate production) substantially underestimate the actual rate of NP consumption occurring within the test cells.

CMR values should fall between 1.0 and 2.0 in carbonate bearing rocks that are actively neutralizing acidity generated by sulphide oxidation. The increasing CMR values determined for these samples

indicates that the dissolution of carbonate and the consumption of NP may be occurring as a direct response to the addition of rinse water to the humidity cells. This suggests that the NP consumption of these samples will be more dependent on site conditions (precipitation and flow rates of surface and ground water) rather than geochemical kinetics. It should be noted that, the concentrations of Ca and Mg released into all of the -¼" weekly leachates have remained relatively stable throughout the forty-three weeks of testing, showing no reaction to the decreasing levels of sulphate released into solution. This further corroborates "wash off" of carbonate and indicates that acid neutralisation is not responsible for the elevated Ca and Mg in solution. Nonetheless, since the CMR values being reported (≥7.4 in Week 40) are significantly higher than the CNP/AP ratios determined during ABA testing, if the current rates of carbonate dissolution and consumption are maintained, excess sulphide may be expected to remain in the test cells upon exhaustion of the fast reacting carbonate content of these samples. CMR values for the -¼" samples are shown in Figure 5.

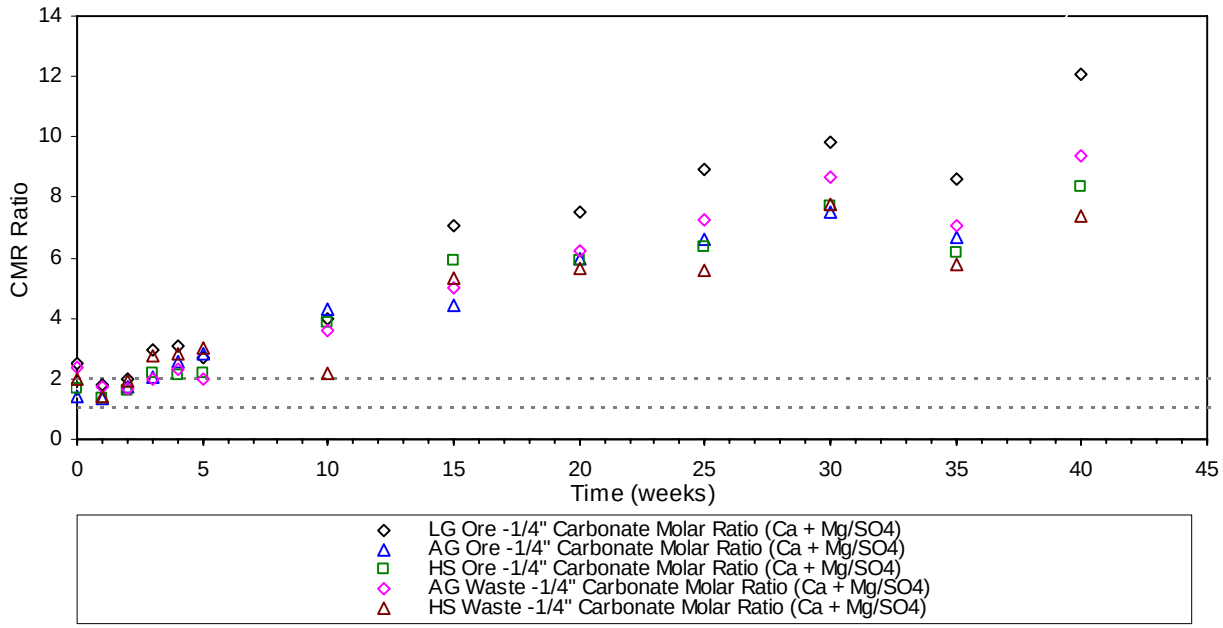

Figure 5: Humidity Cell Test – Carbonate Molar Ratios – LG Ore -¼", AG Ore -¼", HS Ore -¼", AG Waste -¼" and HS Waste -¼" Samples

Typically depletion rates for test cells such as these would be calculated using the CMR values; however, since Ca and Mg analyses were not included in the weekly suite of analyses, NP depletion rates were calculated using the "Empirical Open-System NP Consumption at Neutral pH" (open-system depletion) method (based on the theoretical NP consumption, and the alkalinity and acidity production rates). While the open-system depletion rates calculated are representative of the conditions within the test cells, it is likely that the CNP depletion rates calculated will be more representative of the samples in an arid climate as the "wash-off" of the fast reacting carbonate mineralisation is unlikely to occur in this type of climate.

After forty-three weeks of leaching cumulative sulphide depletion rates of 0.29 to 0.38% were calculated for the *HS Ore -¼", AG Waste -¼"* and *HS Waste -¼"* samples. Although the CNP depletion rates that would typically be applied indicate that the CNP of these samples is already depleting at rates ≥3.4 faster than the sulphide, the open-system CNP depletion rates (1.26 to 2.56%), calculated based on NP consumption corrected for acidity and alkalinity production rates, show significant underestimation of rate at which the carbonate is depleting from the test cells (washing off). It should be noted that, for the calculation of the acidity and alkalinity production rates; all concentrations reporting at less than the analytical detection limit were calculated using the detection limit as the concentration, thus providing a very conservative estimate of the depletion occurring within the test cells. These results indicate that, if the current depletion rates continue, the CNP of the *HS Ore -¼", AG Waste -¼"* and *HS Waste -¼"* samples will be exhausted prior to depletion of the sulphide contents and that these samples are likely to generate acidic drainage in the future.

The almost parallel CNP (0.41 and 0.46%, respectively) and sulphide depletion (0.40 and 0.52%) rates calculated for the *LG Ore -¼"* and *AG Ore -¼"* samples indicate the potential for these samples to generate acidity in the future. Correction for the alkalinity and acidity again showed significant underestimation of rate at which both the TNP and the CNP are depleting from the test cells (open-system TNP depletions of 1.24 and 1.41 % and open-system CNP depletions of 2.20 and 1.83%, respectively). For ease of comparison, cumulative sulphide, CNP and open-system CNP depletion rates are illustrated in Figures 6 and 7.

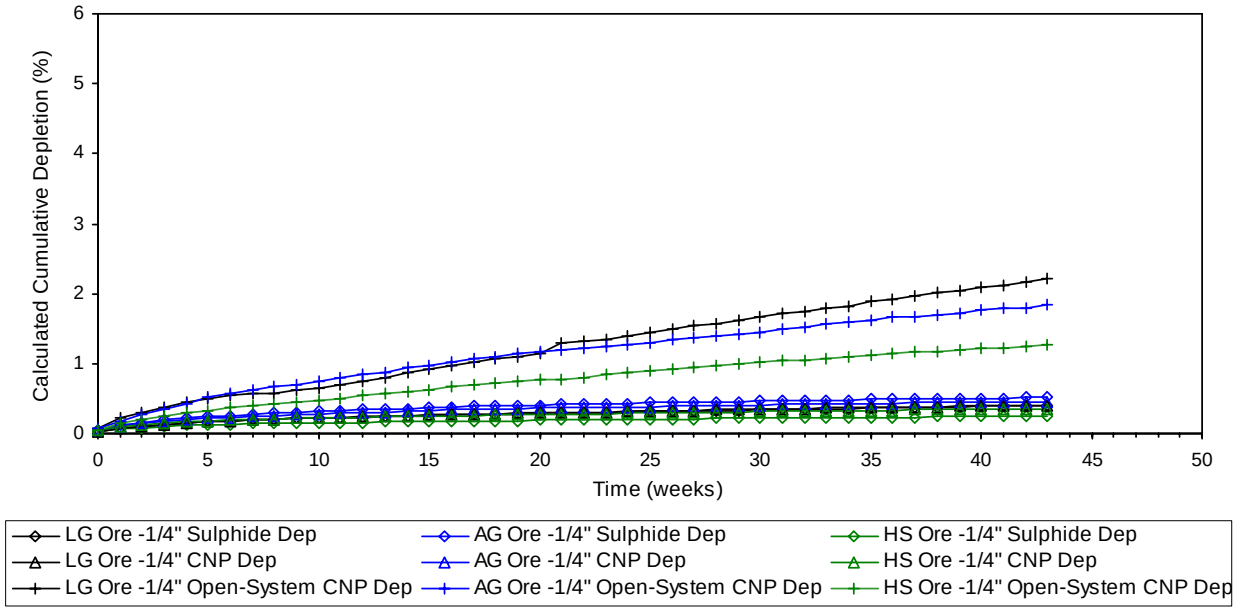

Figure 6: Humidity Cell Test – Depletion Rates – LG Ore -¼", AG Ore -¼" and HS Ore -¼" Samples

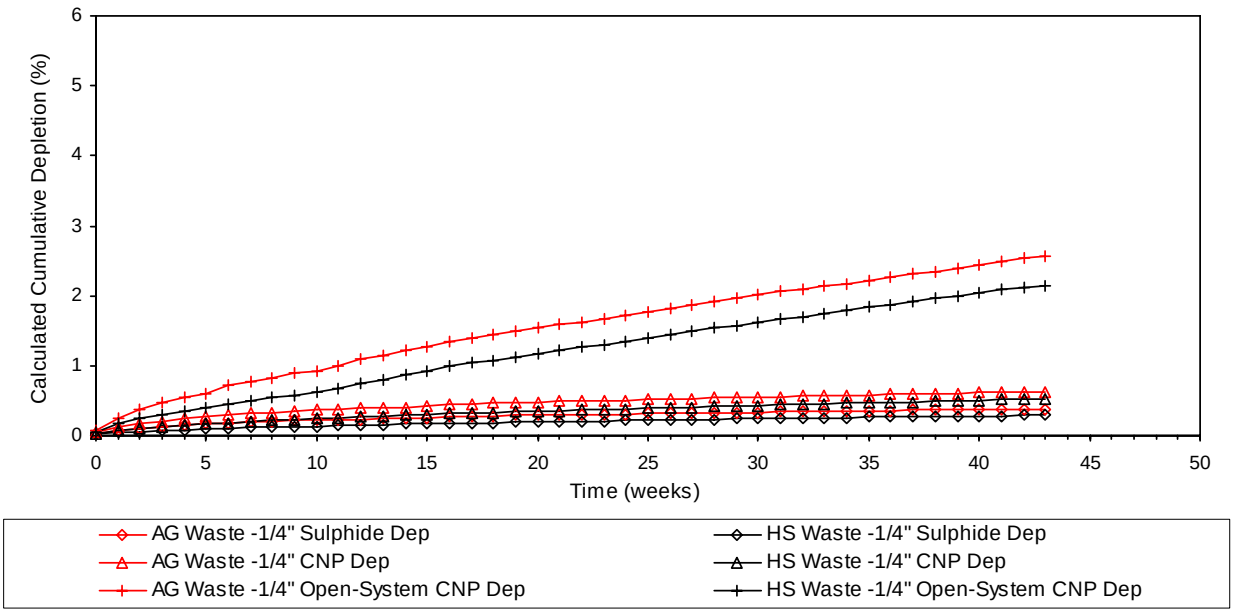

Figure 7: Humidity Cell Test – Depletion Rates –AG Waste -¼" and HS Waste -¼" Samples

Table 29 forecasts the estimated time till total exhaustion of the sulphide and CNP contents of the samples inside the test cells. Depletion times are based on the sulphur and CNP depletions of the last 5 cycles of testing and are intended only to provide an estimate of the length of time till total exhaustion will occur inside the cells. The lag time to the onset of acid generation on-site cannot be predicted from a humidity cell test.

Table 29: Depletion Projections – LG Ore -¼", AG Ore -¼", HS Ore -¼", AG Waste -¼" and HS Waste -¼" Samples

Parameter	Unit	LG Ore - ¼"	AG Ore - ¼"	HS Ore - ¼"	AG Waste - ¼"	HS Waste - ¼"
Acid Base Accounting						
TNP	t $CaCO_3$/1000 t	37.7	50.1	55.0	34.4	52.7
CNP	t $CaCO_3$/1000 t	21.2	38.6	36.9	21.2	32.8
AP	t $CaCO_3$/1000 t	21.5	34.0	53.0	34.9	58.8
TNNP	t $CaCO_3$/1000 t	16.2	16.1	1.96	-0.44	-6.06
TNP/AP	ratio	1.76	1.48	1.04	0.99	0.90
CNNP	t $CaCO_3$/1000 t	-0.31	4.60	-16.1	-13.6	-26.0
CNP/AP	ratio	0.99	1.14	0.70	0.61	0.56
Production Rates (avg. of last 5 weeks of testing)						
SO_4 Production Rate	g/t/wk	0.91	1.19	1.04	1.19	2.09
NP Consumption Rate	g/t/wk	0.95	1.24	1.08	1.24	2.17
Open-system NP Consumption Rate	g/t/wk	8.35	10.08	6.46	9.14	12.87
Molar Ratios						
Carbonate Molar Ratio = (Ca + Mg)/SO_4	ratio	12.10	14.96	8.38	9.36	7.39
Anorthoclase Molar Ratio = (Ca)/SO_4	ratio	11.38	12.94	8.03	8.98	7.15
Depletion Projections						
AP Exhaustion**	years	437.8	527.1	946.7	543.3	520.1
CNP Exhaustion (based on Sulphate Production)**	years	430.5	597.3	657.6	330.6	290.4
Years of Acid Generation (based on Sulphate Production)	years	7.4	-70.2	289.1	212.6	229.7
Open-system CNP Exhaustion (based on Sulphate Production corrected for Alkalinity and Acidity)**	years	48.8	73.7	109.8	44.8	49.0
Years of Acid Generation (Open-system CNP)	years	389.0	453.5	836.9	498.4	471.1

***Caution is needed in evaluating depletion calculations. Depletions are based on leaching rates of sulphur and NP from the last five cycles of testing (which may or may not have reached steady state). Long-term rates will decrease over time and differing rates of change will be observed. Furthermore, the amount of NP removed due to dissolution of carbonates in the cells will greatly exceed field rates.*

ABA testing of the *LG Ore -200m, AG Ore -200m* and *HS Ore -200m* samples indicated that these samples may produce acidity if the NP of the samples is insufficiently reactive, or is depleted at a faster rate than the sulphide. NAG testing of these samples; however, reported no net acidity generated and alkaline final pH values (>10).

The humidity cell leachates from the -200 mesh samples have also maintained near neutral to slightly alkaline pH values throughout the initial forty-one weeks of humidity cell testing. With the exception of an anomalous report of acidity in the Week 6 *HS Ore -200m* leachate, free acidity has remained below the analytical detection limit. Over the initial 20 weeks of leaching the -200 mesh samples reported sulphate concentrations which were approximately one order of magnitude higher than those reported in the -¼' test cells. This was; however, expected, as particle size is directly related to grain exposure and exposed surface area; hence, there is typically an exponential increase in mineral exposure (surface area) associated with a decrease in particle size. ICP-OES/MS analysis of the -200 mesh sample leachates reported all Directive No. 019 controlled parameters well within the designated limits. Figure 7 graphically illustrates the results of the weekly pH values and SO_4 analyses reported in the -200 mesh sample leachates. Comparisons of the weekly pH values and SO_4 concentrations reported in the -200 mesh sample leachates are provided in Figure 8.

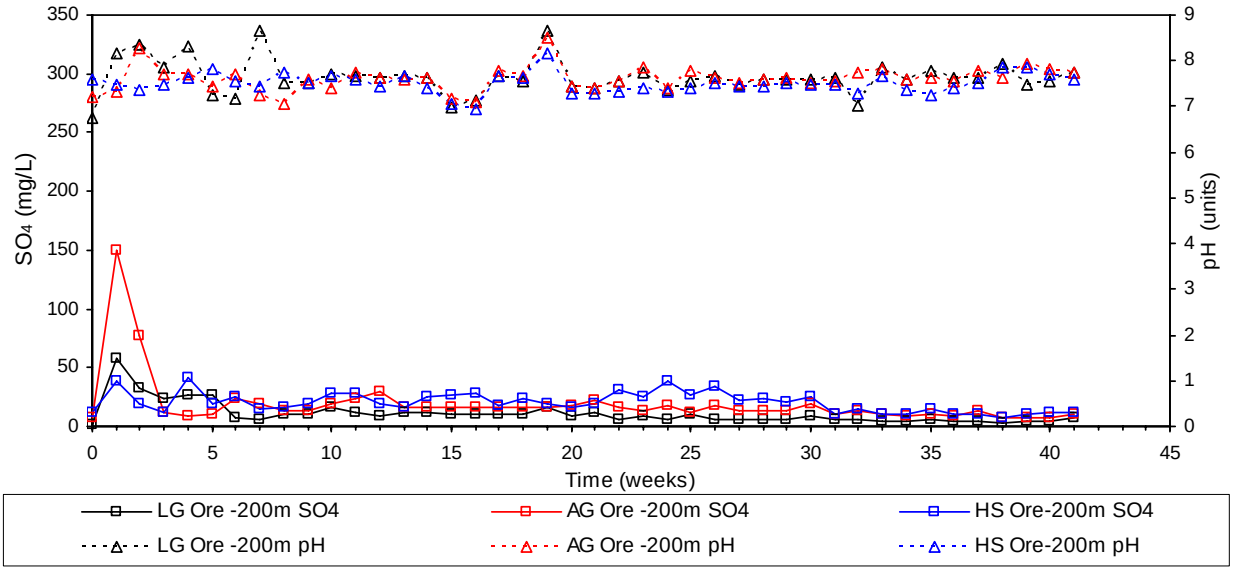

Figure 8: Humidity Cell Test – pH Values and Sulphate Concentrations – LG Ore -200m, AG Ore -200m and HS Ore -200m Samples

The alkalinity production rate reported for the *LG Ore -200m* sample has significantly exceeded the sulphate and acid production rates throughout much of the forty-one week test period. The very high CMR value reported for the *LG Ore -200m* Week 0 leachate (11.56) dropped to less than 1 (Weeks 1 and 2) before recovering in Week 3. Decreasing sulphate concentration released into the weekly leachates

after the Week 20 leach; however, resulted in increasing CMR values. Similarly to the -¼" samples, the Ca and Mg concentrations released into the weekly leachates from the *LG Ore -200m* sample has remained relatively stable showing no reaction to the decreasing sulphate levels in solution. This indicates a similar "wash off" of carbonates and suggests that acid neutralisation is not responsible for the elevated Ca and Mg in solution. The increasing CMR values reported in the *LG Ore -200m* leachates (3.66 in Week 40) are considerably higher than the CNP/AP ratio (2.44) determined during ABA testing, suggesting that, if the current rates of carbonate dissolution and consumption are maintained, excess sulphide may remain available in the *LG Ore -200m* test cell upon exhaustion of the samples fast reacting carbonate content.

Fluctuating alkalinity and sulphate production rates were observed in the *AG Ore -200m* sample leachates over the initial 10 weeks of testing. However, after ten weeks of leaching, these rates generally stabilized to report near parallel alkalinity and sulphate production rates to date. Similarly to the *LG Ore -200m* sample, the *AG Ore -200m* leachates also showed a decrease in the CMR values reported for the Weeks 1 and 2 leachates before also recovering in Week 3. Near parallel alkalinity and sulphate production rates, and fluctuating CMR values (between 1 and slightly more than 2), suggest that active neutralization is occurring within the test cell. Similarly to the previously noted samples, the CMR (avg. 2.06 for Weeks 30, 35 and 40) is higher than the CNP/AP ratio (1.51) reported during ABA testing, again suggesting that, if the current carbonate dissolution and consumption levels are maintained, sulphide may be available in the test cell upon exhaustion of the carbonate.

The *HS Ore -200m* sample was the only sample to report sulphate production rates significantly higher than the alkalinity production rates over the initial 30 weeks of leaching. However, decreasing levels of sulphate in solution following the Week 30 leach have resulted in near parallel alkalinity and sulphate production rates over the remainder of the forty-one week test period. With the exception of the Week 1 leachate, CMR values for the *HS Ore -200m* sample typically hovered between 1 and 2, suggesting that active neutralization is occurring. However, since the CMR (avg. 1.56 for Weeks 30, 35 and 40) is equivalent to the CNP/AP ratio (1.51) reported during ABA testing, it is possible that sulphide and the carbonate in the test cells may deplete at parallel rates, generating uncertainty with regards to acid generation. Figure 9 illustrates the CMR values determined for the -200 mesh samples.

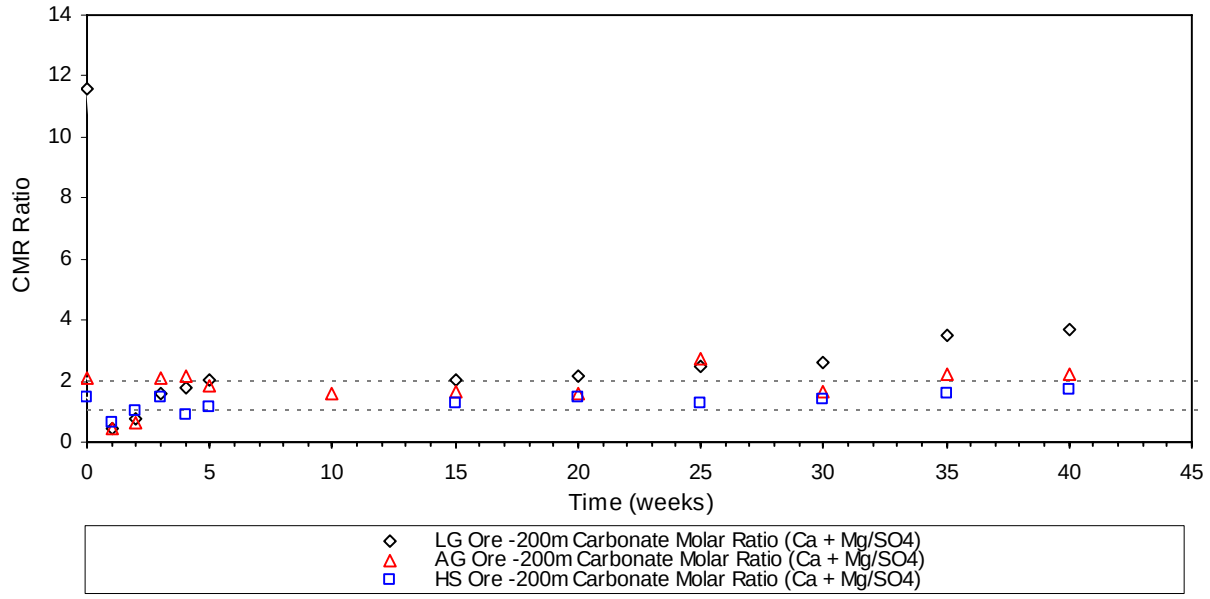

Figure 9: Humidity Cell Test – Carbonate Molar Ratios –
LG Ore -200m, AG Ore -200m and HS Ore -200m Samples

Forty-one weeks of leaching the *LG Ore -200m, AG Ore -200m* and *HS Ore -200m* samples resulted in calculated cumulative sulphide depletion rates of 2.73, 2.55 and 2.00%, respectively. Although the CNP depletion rates suggest that the sulphide in the -200 mesh samples is depleting at rates faster than the CNP, the open-system CNP depletion rates (calculated on the NP consumption corrected for acidity and alkalinity production rates) imply considerable underestimation of the rate at which the carbonate is depleting from the test cells. The open-system NP depletion rates (3.05, 2.73 and 2.09) again suggest that, if the current rates of carbonate dissolution and consumption are maintained, sulphide may remain available within the -200 mesh test cells upon depletion of the fast reacting carbonate contents. For ease of comparison, cumulative sulphide, CNP and open-system CNP depletion rates calculated for the -200 mesh samples are illustrated in Figure 10.

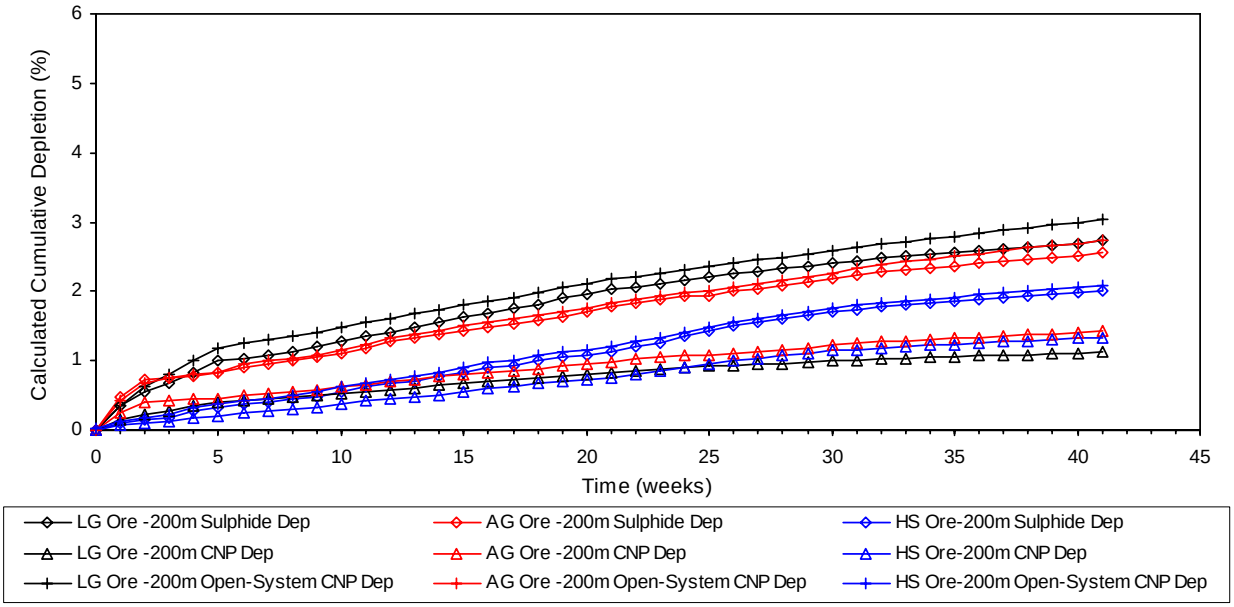

Figure 10: Humidity Cell Test – Depletion Rates –
LG Ore -200m, AG Ore -200m and HS Ore -200m Samples

Table 30 provides the estimated lengths of time till total exhaustion of the sulphide and CNP contents (based on the sulphur and CNP depletions of the last 5 cycles of testing) of the samples inside the test cells.

Table 30: Depletion Projections – LG Ore -200m, AG Ore -200m and HS Ore -200m Samples

Parameter	Unit	LG Ore - 200m	AG Ore - 200m	HS Ore - 200m
Acid Base Accounting				
TNP	t $CaCO_3$/1000 t	52.9	67.4	76.4
CNP	t $CaCO_3$/1000 t	41.6	56.5	64.6
AP	t $CaCO_3$/1000 t	17.1	31.6	43.0
TNNP	t $CaCO_3$/1000 t	35.8	35.8	33.5
TNP/AP	ratio	3.11	2.15	1.78
CNNP	t $CaCO_3$/1000 t	24.5	24.9	21.6
CNP/AP	ratio	2.44	1.80	1.51
Production Rates (avg. of last 5 weeks of testing)				
SO_4 Production Rate	g/t/wk	4.48	8.94	9.83
NP Consumption Rate	g/t/wk	4.67	9.31	10.24
Open-system NP Consumption Rate	g/t/wk	17.09	20.62	17.89
Molar Ratios				
Carbonate Molar Ratio = (Ca + Mg)/SO_4	ratio	3.66	2.26	1.73
Anorthoclase Molar Ratio = (Ca)/SO_4	ratio	3.09	1.94	1.49
Depletion Projections				
AP Exhaustion**	years	70.8	65.2	81.0
CNP Exhaustion (based on Sulphate Production)**	years	171.4	116.7	121.3
Years of Acid Generation (based on Sulphate Production)	years	-100.6	-51.5	-40.3
Open-system CNP Exhaustion (based on Sulphate Production corrected for Alkalinity and Acidity)**	years	46.8	52.7	69.4
Years of Acid Generation (Open-system CNP)	years	24.0	12.5	11.5

***Caution is needed in evaluating depletion calculations. Depletions are based on leaching rates of sulphur and NP from the last five cycles of testing (which may or may not have reached steady state). Long-term rates will decrease over time and differing rates of change will be observed. Furthermore, the amount of NP removed due to dissolution of carbonates in the cells will greatly exceed field rates.*

Although ABA testing of the *OA Comp, OA CND2* and *GT Residue* tailings samples clearly indicated the PAG nature of the samples, NAG testing again reported no net acidity generated and alkaline final pH values (≥8.93).

The humidity cell leachates from the tailings samples have maintained near neutral pH values and moderate levels of SO_4 over their fifty-six (*OA Comp* and *OA CND2*) and forty-one (*GT Residue*) week test periods. With the exception of isolated incidents (*OA Comp-Week 1, OA CND2-Week 16* and *GT Residue-Week 0*), acidity has remained below the analytical detection limit and moderate to low levels of alkalinity have generally been maintained. ICP-OES/MS analyses of the tailings leachates reported all Directive No. 019 controlled parameter well within the specified limits. Comparisons of the pH values and SO_4 concentrations reported in the *GT Residue* weekly leachates are shown in Figure 11.

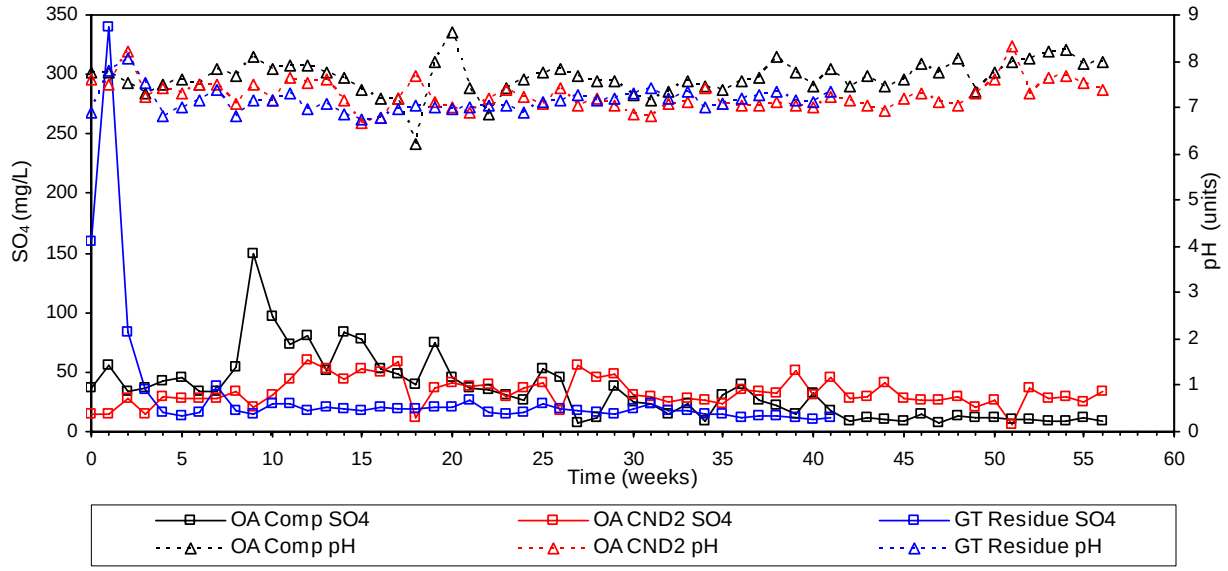

Figure 11: Humidity Cell Test – pH Values and Sulphate Concentrations – OA Comp, OA CND2 and GT Residue Samples

The sulphate production rate reported for the *OA CND2* tailings sample has significantly exceeded the alkalinity production rate throughout fifty-six weeks of humidity cell leaching. Similarly, over the initial forty-one weeks of leaching, the *GT Residue* sample has typically reported increased sulphate production rates in comparison to alkalinity production. CMR values for these samples are typically hovering between 1 and 2, suggesting that active neutralization is occurring.

Although the sulphate production rate of the *OA Comp* leachates also exceeded the alkalinity production rate over the initial twenty weeks of leaching; after the Week 20 leach decreasing levels of sulphate in solution resulted in the sulphate and alkalinity production rates generally intertwining with each other over the next twenty weeks (Weeks 20 through 40). A further decrease observed in the sulphate concentrations released following the Week 40 leach; however, resulted in the alkalinity production rate surpassing the sulphate production rate. Similarly to the -¼" samples, the Ca and Mg concentrations released into the weekly leachates from the *OA Comp* sample have shown no reaction to the decreasing sulphate levels in solution and are therefore resulting in increasing CMR values, again suggesting the

"wash off" of carbonates. Results of the CMR values determined for the *GT Residue* tailings sample are shown in Figure 12.

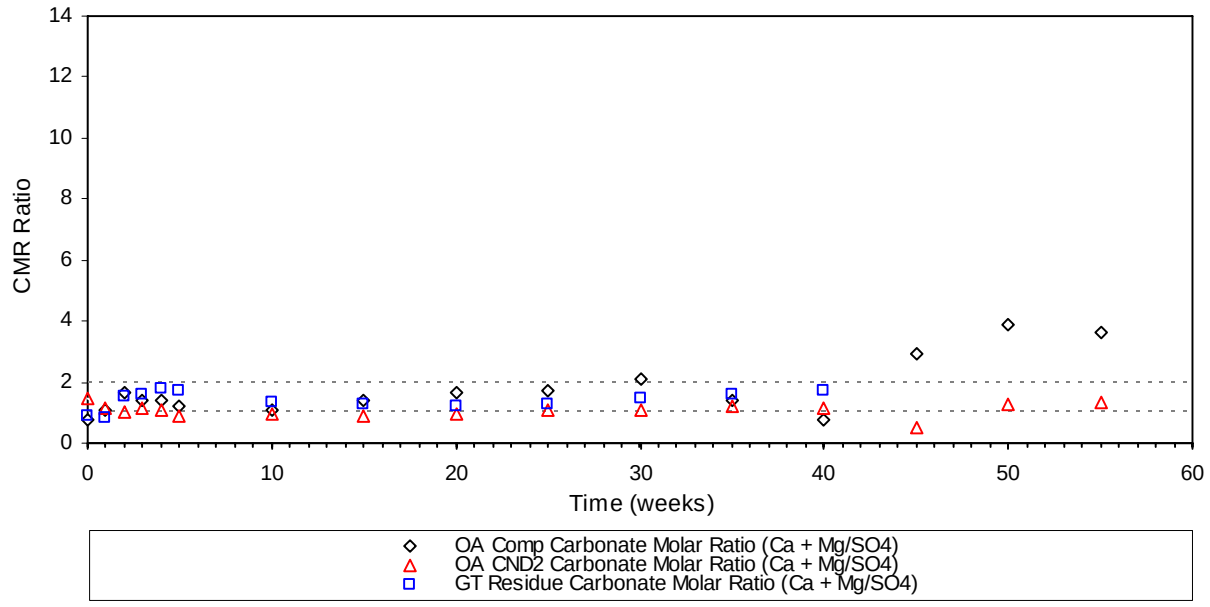

Figure 12: Humidity Cell Test – Carbonate Molar Ratios – OA Comp, OA CND2 and GT Residue Samples

After fifty-six (*OA Comp* and *OA CND2*) and forty-one (*GT Residue*) weeks of humidity cell testing, calculated cumulative sulphide depletion rates of 4.15, 4.92 and 3.17% were determined for the *OA Comp, OA CND2* and *GT Residue* samples, respectively. The resultant CNP depletion rates (6.90, 5.03 and 3.78%, respectively) indicate that the carbonate minerals in these samples are depleting at rates faster than the sulphides. These results indicate that the CNP of the *OA Comp*, *OA CND2* and *GT Residue* samples will be exhausted prior to depletion of the sulphide content. If the current depletion rates continue, it is expected that the all three tailings samples will generate acidic drainage in the future. Cumulative sulphide, CNP and open-system CNP depletion rates for these samples are shown in Figure 12.

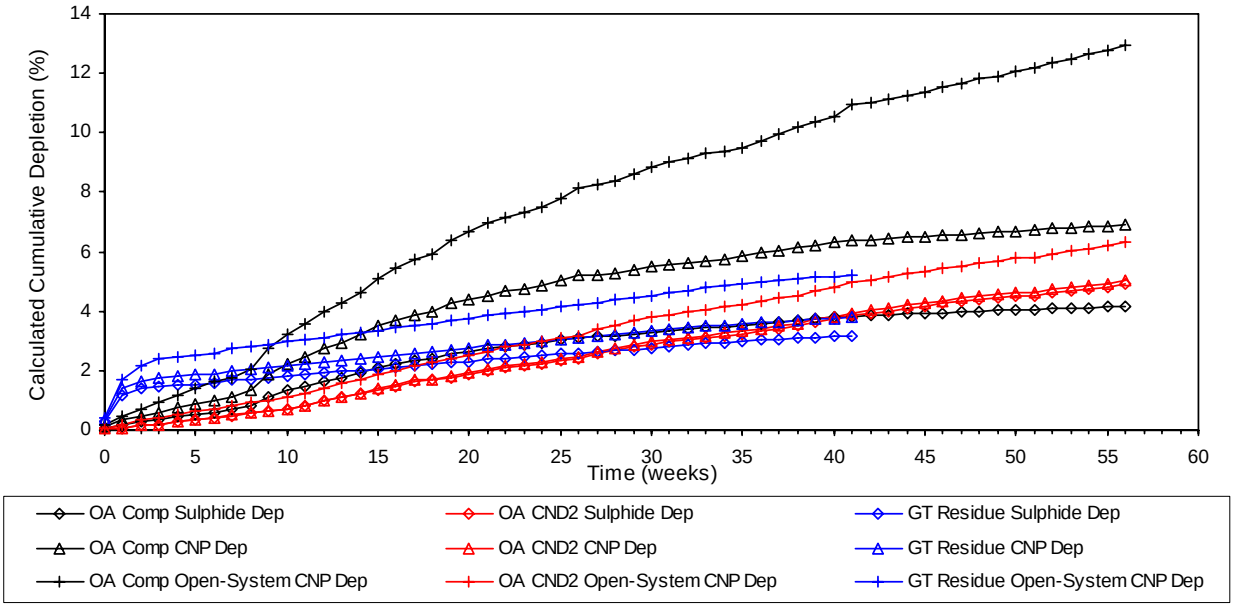

Figure 13: Humidity Cell Test – Depletion Rates – OA Comp, OA CND2 and GT Residue Samples

Table 31 shows the estimated length of time until total exhaustion of the sulphide and CNP contents (based on the sulphur and CNP depletions of the last 5 cycles of testing) of the *OA Comp*, *OA CND2* and *GT Residue* tailings samples inside the test cells.

Table 31: Depletion Projections – OA Comp, OA CND2 and GT Residue Samples

Parameter	Unit	OA Comp	OA CND2	GT Residue
Acid Base Accounting				
TNP	t $CaCO_3$/1000 t	56.8	63.9	43.4
CNP	t $CaCO_3$/1000 t	26.9	35.4	34.0
AP	t $CaCO_3$/1000 t	44.6	36.1	40.7
TNNP	t $CaCO_3$/1000 t	12.1	27.8	2.74
TNP/AP	ratio	1.29	1.77	1.07
CNNP	t $CaCO_3$/1000 t	-17.7	-0.72	-6.64
CNP/AP	ratio	0.60	0.98	0.84
Production Rates (avg. of last 5 weeks of testing)				
SO_4 Production Rate	g/t/wk	8.29	26.98	11.45
NP Consumption Rate	g/t/wk	8.63	28.10	11.93
Open-system NP Consumption Rate	g/t/wk	39.23	34.60	18.33
Molar Ratios				
Carbonate Molar Ratio = (Ca + Mg)/SO_4	ratio	3.66	1.34	1.73
Anorthoclase Molar Ratio = (Ca)/SO_4	ratio	3.16	1.10	1.44
Depletion Projections				
AP Exhaustion**	years	99.6	24.8	65.5
CNP Exhaustion (based on Sulphate Production)**	years	59.9	24.2	54.8
Years of Acid Generation (based on Sulphate Production)	years	39.6	0.6	10.7
Open-system CNP Exhaustion (based on Sulphate Production corrected for Alkalinity and Acidity)**	years	13.2	19.7	35.7
Years of Acid Generation (Open-system CNP)	years	86.4	5.1	29.8

***Caution is needed in evaluating depletion calculations. Depletions are based on leaching rates of sulphur and NP from the last five cycles of testing (which may or may not have reached steady state). Long-term rates will decrease over time and differing rates of change will be observed. Furthermore, the amount of NP removed due to dissolution of carbonates in the cells will greatly exceed field rates.*

It should be noted that the humidity cell test is a laboratory test conducted at a specified particle size under accelerated weathering conditions. As such, the humidity cell test is a laboratory test designed to promote oxidation of solid material constituents at a greater rate than can be accomplished in nature and to maximize the loadings of weathering reaction products contained in the resulting liquid effluents. The test procedure calls for weekly cycles comprised of three days of dry air (less than 10% relative humidity) and three days of water-saturated air (approximately 95% relative humidity) pumped through the samples, followed by a leach with water on Day 7. As such, the atmospheric conditions that humidity cell tests are subjected to are considerably harsher than the in-situ atmospheric conditions to which most North American mine products are typically exposed (see Table 32). Humidity cell testing is purported to determine if a given sample will generate acidic drainage; it cannot determine when the material from which the sample was taken will become acidic. The degree to which the stored ore is crushed (particle

size), location, rainfall, freeze/thaw conditions, temperature and humidity are all factors which will influence the onset of acid generation.

Table 32: Humidity Cell Test Conditions vs. Site Conditions

Humidity Cell Test	Field Conditions
Testwork is conducted in at laboratory room temperature, which is normally greater than the atmospheric temperature to which mining material is, or will be, exposed to.	Lower temperatures slow both the chemical and biological reactions involved in acid generation.
Ensures a rigorous dry air/moist air/water cycle to accelerate sulphide oxidation and maximize oxidation product flushing.	Most sites will not experience the regularity of the dry air/moist air cycle, or the regularity and intensity of precipitation of the water cycle of the humidity cell test.
The water flush cycle is conducted to ensure the wetting and flushing of the entire sample as completely as possible.	Precipitation influx through stockpiles is non-uniform due to channeling. Complete wetting and flushing and the conditions of full oxygen and water supply to liberated sulphide minerals will not be achieved.
Size reduction to meet the requirements of the humidity cell procedure produces sample material with a substantially greater specific surface area (m^2/kg) resulting in a substantially higher degree of both sulphide (acid generating) and neutralizing minerals liberation. Therefore, on a sample mass basis, a humidity cell test will potentially produce more acid (mass) and more soluble metals (mass) in a given time than the corresponding massive (uncrushed) waste rock or ore.	Waste rock or ore stockpiles typically contain a much larger fraction of massive (large gravel, cobble and boulder size) material resulting in a significantly lesser degree of both sulphide (acid generating) and neutralizing minerals liberation. Therefore, on a sample mass basis, a waste rock or ore stockpile will potentially produce less acid (mass) and less soluble metals (mass) in a given time than the corresponding humidity cell test.

Although test results to date indicate that the -¼" ore and waste rock and -200 mesh ore humidity cell test samples have long term potential for acid generation, neutral pH values, significant levels of alkalinity and very low concentrations of metals (well below the Dir. No. 019 limits) have been maintained in the leachates. Assuming that the samples tested are representative of the ore and waste rock produced on-site, and taking into account the previous discussions regarding the accelerated weathering that occurs in the humidity cell test and the major differences in the particle size distributions of the samples versus in-situ conditions, it is highly unlikely that these materials would generate acidity during the first couple of years of storage. Similarly, after more than 40 weeks of humidity cell testing showing very favourable leachate quality, it is highly unlikely that unfavourable field leachate quality will be an issue during short term surface storage of these materials.

Similarly, test results to date also indicate that the tailings (*OA Comp, OA CND2* and *GT Residue*) samples have long term acid generation potential. If the current rates of sulphide and CNP depletion are maintained, these tailing samples also have potential to generate acidy in the long-term.

Interim Recommendations

As noted in the discussion, the results of the humidity cell tests are generally indicating very low levels of acid generation, as evidenced by the low sulphate concentrations in the weekly solutions, while the carbonate NP is decreasing at a higher rate than necessary to neutralise the acidity being produced. This indicates that the dissolution of carbonate and consumption of NP in these test cells is, in part, a direct response to the addition of rinse water to the humidity cells and that NP consumption of these samples will be more dependent on site conditions (precipitation and flow rates of surface and ground water) rather than geochemical kinetics.

This suggests two recommendations to improve the understanding of the materials that are to be stored on the Canadian Malartic site:

1) A mineralogical investigation into the apparent low reactivity of the Canadian Malartic sulphides – as evidenced by NAG results and humidity cell sulphate concentrations.

2) Column tests specifically designed to the Canadian Malartic site conditions may be a more appropriate kinetic test method to assess the risk of developing acid rock drainage. By conducting column testing in parallel with humidity cell testing the impact of the carbonate wash off effect could be isolated.

Appendix A – Analytical Data Tables

Modified Acid Base Accounting

Parameter	Unit	Overall Comp CN95/96	Overall Comp CN95/96	Overall Comp CN95/96 Dup.	Overall Comp CND2 (-200 Mesh)	Overall Comp CND2 (-200 Mesh)	Overall Comp CND2 (-200 Mesh) Dup.	GT Residue	GT Residue dup1	GT Residue dup2
LIMS		10401-DEC07	10429-MAY08	10429-MAY08	10401-DEC07	10429-MAY08	10429-MAY08	10518-MAR08	10518-MAR08	10518-MAR08
Paste pH	units	10.00	8.60	8.77	9.72	8.68	8.64	9.06	9.05	9.02
Fizz Rate	---	2	3	3	2	3	3	3	3	3
Sample	weight(g)	2.02	1.99	1.98	2.00	1.98	2.00	1.99	2.02	1.97
HCl added	mL	49.10	33.70	34.35	50.00	35.10	34.30	28.60	29.50	28.60
HCl	Normality	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
NaOH	Normality	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
NaOH to	pH=8.3 mL	23.20	12.30	13.60	21.10	11.05	10.80	11.20	12.30	11.30
Final pH	units	2.17	1.30	1.80	2.00	1.92	2.00	1.75	1.69	1.70
NP[1]	t $CaCO_3$/1000 t	64.1	53.8	52.4	72.2	60.7	58.8	43.7	42.6	43.9
AP	t $CaCO_3$/1000 t	39.4	49.1	45.4	37.0	33.7	37.7	41.4	39.4	41.2
Net NP	t $CaCO_3$/1000 t	24.7	4.71	6.96	35.2	27.0	21.1	2.31	3.20	2.72
NP/AP	ratio	1.63	1.10	1.15	1.95	1.80	1.56	1.06	1.08	1.07
S	%	1.60	1.92	1.79	1.32	1.55	1.60	1.39	1.42	1.38
SO_4	%	0.35	0.35	0.34	0.13	0.47	0.40	0.07	0.16	0.06
Sulphide	%	1.26	1.57	1.45	1.18	1.08	1.21	1.32	1.26	1.32
C	%	0.631	0.586	0.596	0.728	0.734	0.723	0.566	0.484	0.484
Carbonate	%	1.30	1.82	1.74	1.89	2.28	2.23	2.03	2.06	2.06
CO_3 NP[2]	t $CaCO_3$/1000 t	21.6	30.2	28.9	31.4	37.8	37.0	33.7	34.2	34.2
CO_3 Net NP	t $CaCO_3$/1000 t	-17.8	-18.9	-16.5	-5.6	4.1	-0.7	-7.7	-5.2	-7.0
CO_3 NP/AP	Ratio	0.55	0.62	0.64	0.85	1.12	0.98	0.81	0.87	0.83
Classification	based on ABA NP[1]	uncertain	uncertain	uncertain	uncertain	uncertain	uncertain	uncertain	uncertain	uncertain
Classification	based on CO_3 NP[2]	PAG	PAG	PAG	PAG	uncertain	PAG	PAG	PAG	PAG

[1] *measured in ABA test*

[2] *theoretical, based on CO_3 content alone.*

Green highlighting indicates Net NP values less than 20.

Orange highlighting indicates NP/AP ratios less than 3.

PAG - Potentially Acid Generating based on interpretation of ABA test data alone.

PAN - Potentially Acid Neutralizing based on interpretation of ABA test data alone.

uncertain - acid generation potential is uncertain based on interpretation of ABA test data alone.

Net Acid Generation

Parameter	Unit	Overall Comp CN95/96	Overall Comp CN95/96 Dup. 1	Overall Comp CN95/96 Dup. 2	Overall Comp CND2 (-200 Mesh)	Overall Comp CND2 (-200 Mesh) Dup. 1	Overall Comp CND2 (-200 Mesh) Dup. 2	GT Residue	GT Residue dup1	GT Residue dup2
LIMS		10430-MAY08	10430-MAY08	10430-MAY08	10430-MAY08	10430-MAY08	10430-MAY08	10519-APR08	10519-APR08	10519-APR08
Sample weight	g	1.49	1.51	1.54	1.54	1.54	1.52	2.52	2.49	2.48
Volume H_2O_2	mL	150	150	150	150	150	150	250	250	250
Final pH	units	10.13	10.14	10.12	8.93	9.61	9.73	10.84	10.89	10.86
NaOH	Normality	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Vol NaOH to pH 4.5	mL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vol NaOH to pH 7.0	mL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NAG @pH4.5	kg H_2SO_4/tonne	0	0	0	0	0	0	0	0	0
NAG @pH7.0	kg H_2SO_4/tonne	0	0	0	0	0	0	0	0	0

Modified Acid Base Accounting

Parameter	Unit	Low Grade Ore Overall Comp	Low Grade Ore Overall Comp dup1	Low Grade Ore Overall Comp dup2	Average Grade Ore Overall Comp	Average Grade Ore Overall Comp dup1	Average Grade Ore Overall Comp dup2	High Sulphide Ore Overall Comp	High Sulphide Ore Overall Comp dup1	High Sulphide Ore Overall Comp dup2
LIMS		10485-MAR08	10485-MAR08	10485-MAR08	10485-MAR08	10485-MAR08	10485-MAR08	10485-MAR08	10485-MAR08	10485-MAR08
Paste pH	units	10.1	10.0	10.0	9.83	9.81	9.58	10.0	10.0	9.97
Fizz Rate	---	3	3	3	3	3	3	3	3	3
Sample	weight(g)	1.95	1.96	1.98	2.01	2.04	2.00	2.03	1.96	2.02
HCl added	mL	27.60	27.50	28.40	30.80	30.90	30.90	34.15	33.60	33.70
HCl	Normality	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
NaOH	Normality	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
NaOH to	pH=8.3 mL	12.80	12.90	13.30	10.90	10.30	10.80	11.80	11.90	11.70
Final pH	units	1.64	1.63	1.65	1.82	1.83	1.76	1.76	1.71	1.78
NP[1]	t $CaCO_3$/1000 t	37.9	37.2	38.1	49.5	50.5	50.2	55.0	55.4	54.5
AP	t $CaCO_3$/1000 t	22.3	21.5	20.7	35.5	32.2	34.2	50.3	55.6	53.1
Net NP	t $CaCO_3$/1000 t	15.6	15.7	17.4	14.0	18.3	16.0	4.70	-0.20	1.37
NP/AP	ratio	1.70	1.73	1.84	1.40	1.57	1.47	1.09	1.00	1.03
S	%	0.900	0.959	0.911	1.40	1.33	1.34	2.09	2.10	2.11
SO_4	%	0.19	0.27	0.25	0.27	0.30	0.24	0.48	0.32	0.41
Sulphide	%	0.71	0.69	0.66	1.14	1.03	1.09	1.61	1.78	1.70
C	%	0.372	0.370	0.370	0.552	0.558	0.562	0.627	0.613	0.626
Carbonate	%	1.29	1.27	1.27	2.33	2.33	2.31	2.16	2.23	2.27
CO_3 NP[2]	t $CaCO_3$/1000 t	21.4	21.1	21.1	38.7	38.7	38.3	35.9	37.0	37.7
CO_3 Net NP	t $CaCO_3$/1000 t	-0.9	-0.4	0.4	3.2	6.5	4.1	-14.4	-18.6	-15.4
CO_3 NP/AP	Ratio	0.96	0.98	1.02	1.09	1.20	1.12	0.71	0.67	0.71
Classification	based on ABA NP[1]	uncertain	uncertain	uncertain	uncertain	uncertain	uncertain	uncertain	uncertain	uncertain
Classification	based on CO_3 NP[2]	PAG	PAG	uncertain	uncertain	uncertain	uncertain	PAG	PAG	PAG

[1] *measured in ABA test*

[2] *theoretical, based on CO_3 content alone.*

Green highlighting indicates Net NP values less than 20.

Orange highlighting indicates NP/AP ratios less than 3.

PAG - Potentially Acid Generating based on interpretation of ABA test data alone.

PAN - Potentially Acid Neutralizing based on interpretation of ABA test data alone.

uncertain - acid generation potential is uncertain based on interpretation of ABA test data alone.

Net Acid Generation

Parameter	Unit	Low Grade Ore Overall Comp	Low Grade Ore Overall Comp dup1	Low Grade Ore Overall Comp dup2	Average Grade Ore Overall Comp	Average Grade Ore Overall Comp dup1	Average Grade Ore Overall Comp dup2	High Sulphide Ore Overall Comp	High Sulphide Ore Overall Comp dup1	High Sulphide Ore Overall Comp dup2
LIMS		10884-MAY08	10884-MAY08	10884-MAY08	10884-MAY08	10884-MAY08	10884-MAY08	10884-MAY08	10884-MAY08	10884-MAY08
Sample weight	g	1.49	1.5	1.49	1.48	1.49	1.49	1.53	1.45	1.52
Volume H_2O_2	mL	150	150	150	150	150	150	150	150	150
Final pH	units	9.68	10.28	10.29	10.39	10.5	10.55	7.85	8.26	8.7
NaOH	Normality	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Vol NaOH to pH 4.5	mL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vol NaOH to pH 7.0	mL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NAG @pH4.5	kg H_2SO_4/tonne	0	0	0	0	0	0	0	0	0
NAG @pH7.0	kg H_2SO_4/tonne	0	0	0	0	0	0	0	0	0

Modified Acid Base Accounting

Parameter	Unit	Average Waste Overall Comp	Average Waste Overall Comp dup1	Average Waste Overall Comp dup2	High Sulphide Waste Overall Comp	High Sulphide Waste Overall Comp dup1	High Sulphide Waste Overall Comp dup2
LIMS		10485-MAR08	10485-MAR08	10485-MAR08	10485-MAR08	10485-MAR08	10485-MAR08
Paste pH	units	10.1	10.2	10.2	10.3	10.3	10.3
Fizz Rate	---	3	3	3	3	3	3
Sample	weight(g)	2.00	2.01	1.98	1.96	2.02	2.01
HCl added	mL	20.00	20.00	20.00	32.20	31.80	31.80
HCl	Normality	0.10	0.10	0.10	0.10	0.10	0.10
NaOH	Normality	0.10	0.10	0.10	0.10	0.10	0.10
NaOH to	pH=8.3 mL	6.30	6.00	6.40	11.30	10.5	10.80
Final pH	units	1.98	1.99	1.99	1.64	1.71	1.70
NP[1]	t $CaCO_3$/1000 t	34.2	34.8	34.3	53.3	52.7	52.2
AP	t $CaCO_3$/1000 t	37.0	33.2	34.4	60.1	53.3	63.0
Net NP	t $CaCO_3$/1000 t	-2.85	1.61	-0.07	-6.78	-0.62	-10.79
NP/AP	ratio	0.92	1.05	1.00	0.89	0.99	0.83
S	%	1.38	1.4	1.36	2.22	2.04	2.13
SO_4	%	0.20	0.34	0.26	0.30	0.34	0.11
Sulphide	%	1.19	1.06	1.10	1.92	1.71	2.02
C	%	0.376	0.358	0.374	0.57	0.571	0.575
Carbonate	%	1.23	1.31	1.30	2.06	1.83	2.03
CO_3 NP[2]	t $CaCO_3$/1000 t	20.4	21.7	21.6	34.2	30.4	33.7
CO_3 Net NP	t $CaCO_3$/1000 t	-16.6	-11.5	-12.8	-25.9	-22.9	-29.3
CO_3 NP/AP	Ratio	0.55	0.66	0.63	0.57	0.57	0.53
Classification	based on ABA NP[1]	PAG	uncertain	uncertain	PAG	PAG	PAG
Classification	based on CO_3 NP[2]	PAG	PAG	PAG	PAG	PAG	PAG

[1] *measured in ABA test*

[2] *theoretical, based on CO_3 content alone.*

Green highlighting indicates Net NP values less than 20.

Orange highlighting indicates NP/AP ratios less than 3.

PAG - Potentially Acid Generating based on interpretation of ABA test data alone.

PAN - Potentially Acid Neutralizing based on interpretation of ABA test data alone.

uncertain - acid generation potential is uncertain based on interpretation of ABA test data alone.

Net Acid Generation

Parameter	Unit	Average Waste Overall Comp	Average Waste Overall Comp dup1	Average Waste Overall Comp dup2	High Sulphide Waste Overall Comp	High Sulphide Waste Overall Comp dup1	High Sulphide Waste Overall Comp dup2
LIMS		10884-MAY08	10884-MAY08	10884-MAY08	10884-MAY08	10884-MAY08	10884-MAY08
Sample weight	g	1.55	1.5	1.46	1.48	1.48	1.50
Volume H_2O_2	mL	150	150	150	150	150	150
Final pH	units	9.49	9.71	9.51	2.91	2.91	2.91
NaOH	Normality	0.10	0.10	0.10	0.10	0.10	0.10
Vol NaOH to pH 4.5	mL	0.00	0.00	0.00	2.20	2.70	2.90
Vol NaOH to pH 7.0	mL	0.00	0.00	0.00	4.70	4.90	4.60
NAG @pH4.5	kg H_2SO_4/tonne	0	0	0	7	9	9
NAG @pH7.0	kg H_2SO_4/tonne	0	0	0	16	16	15

Modified Acid Base Accounting

Parameter	Unit	Low Grade Ore Overall Comp -200m	Low Grade Ore Overall Comp -200m dup1	Low Grade Ore Overall Comp -200m dup2	Average Grade Ore Overall Comp -200m	Average Grade Ore Overall Comp -200m dup1	Average Grade Ore Overall Comp -200m dup2	High Sulphide Ore Overall Comp -200m	High Sulphide Ore Overall Comp -200m dup1	High Sulphide Ore Overall Comp -200m dup2
LIMS		10485-MAR08	10485-MAR08	10485-MAR08	10485-MAR08	10485-MAR08	10485-MAR08	10485-MAR08	10485-MAR08	10485-MAR08
Paste pH	units	9.89	9.80	9.81	9.62	9.53	9.61	9.78	9.76	9.77
Fizz Rate	---	3	3	3	3	3	3	3	3	3
Sample	weight(g)	2.01	1.95	1.97	2.01	2.04	2.01	1.96	2.02	1.97
HCl added	mL	31.80	31.50	31.60	37.80	39.00	37.20	49.85	50.70	49.80
HCl	Normality	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
NaOH	Normality	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
NaOH to	pH=8.3 mL	10.40	10.80	10.90	10.60	11.50	10.20	19.60	19.90	19.90
Final pH	units	1.76	1.74	1.72	1.81	1.84	1.90	1.61	1.60	1.61
NP[1]	t $CaCO_3$/1000 t	53.2	53.1	52.5	67.7	67.4	67.2	77.2	76.2	75.9
AP	t $CaCO_3$/1000 t	17.4	15.7	18.2	31.5	35.6	27.7	44.6	40.6	43.7
Net NP	t $CaCO_3$/1000 t	35.8	37.4	34.3	36.2	31.8	39.5	32.6	35.6	32.2
NP/AP	ratio	3.06	3.38	2.89	2.15	1.89	2.42	1.73	1.88	1.74
S	%	0.881	0.851	0.866	1.24	1.19	1.25	1.65	1.68	1.61
SO_4	%	0.32	0.35	0.28	0.23	0.05	0.36	0.22	0.38	0.21
Sulphide	%	0.56	0.50	0.58	1.01	1.14	0.89	1.43	1.30	1.40
C	%	0.588	0.587	0.578	0.778	0.769	0.764	0.919	0.904	0.91
Carbonate	%	2.49	2.52	2.51	3.49	3.49	3.23	3.95	3.95	3.77
CO_3 NP[2]	t $CaCO_3$/1000 t	41.3	41.8	41.7	57.9	57.9	53.6	65.6	65.6	62.6
CO_3 Net NP	t $CaCO_3$/1000 t	23.9	26.1	23.5	26.4	22.3	25.9	21.0	25.0	18.9
CO_3 NP/AP	Ratio	2.38	2.66	2.29	1.84	1.63	1.94	1.47	1.62	1.43
Classification	based on ABA NP[1]	PAN	PAN	uncertain	uncertain	uncertain	uncertain	uncertain	uncertain	uncertain
Classification	based on CO_3 NP[2]	uncertain	uncertain	uncertain	uncertain	uncertain	uncertain	uncertain	uncertain	uncertain

[1] *measured in ABA test*

[2] *theoretical, based on CO_3 content alone.*

Green highlighting indicates Net NP values less than 20.

Orange highlighting indicates NP/AP ratios less than 3.

PAG - Potentially Acid Generating based on interpretation of ABA test data alone.

PAN - Potentially Acid Neutralizing based on interpretation of ABA test data alone.

uncertain - acid generation potential is uncertain based on interpretation of ABA test data alone.

Net Acid Generation

Parameter	Unit	Low Grade Ore Overall Comp -200m	Low Grade Ore Overall Comp -200m dup1	Low Grade Ore Overall Comp -200m dup2	Average Grade Ore Overall Comp -200m	Average Grade Ore Overall Comp -200m dup1	Average Grade Ore Overall Comp -200m dup2	High Sulphide Ore Overall Comp -200m	High Sulphide Ore Overall Comp -200m dup1	High Sulphide Ore Overall Comp -200m dup2
LIMS		10884-MAY08	10884-MAY08	10884-MAY08	10884-MAY08	10884-MAY08	10884-MAY08	10884-MAY08	10884-MAY08	10884-MAY08
Sample weight	g	1.54	1.47	1.47	1.47	1.49	1.51	1.53	1.49	1.52
Volume H_2O_2	mL	150	150	150	150	150	150	150	150	150
Final pH	units	10.65	10.55	10.47	10.95	10.84	10.85	10.25	10.34	10.69
NaOH	Normality	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Vol NaOH to pH 4.5	mL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vol NaOH to pH 7.0	mL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NAG @pH4.5	kg H_2SO_4/tonne	0	0	0	0	0	0	0	0	0
NAG @pH7.0	kg H_2SO_4/tonne	0	0	0	0	0	0	0	0	0

Appendix B – Humidity Cell Test Reports

Test Specimen

Sample	Weight (g)
Low Grade Ore Overall Comp 1/4 inch	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	0	1	2	3	4	5	6	7	8	9	10	11
			10359-MAR08	10361-MAR08	10000-APR08	10170-APR08	10315-APR08	10518-APR08	10632-APR08	10064-MAY08	10126-MAY08	10152-MAY08	10703-MAY08	10017-JUN08
Hum Cell Leachate Vol	mLs		828	978	902	952	941	857	945	931	929	979	849	872
pH	units	6-9.5	8.27	7.57	7.32	7.14	7.36	7.19	7.40	6.93	*7.20	6.91	7.57	7.26
Conductivity	µS/cm		75	90	50	51	43	33	33	36	*39	39	33	28
Alkalinity	mg/L as $CaCO_3$		13	24	15	13	13	9	12	<2	<2	7	10	10
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		6.1	11	6.7	5.5	4.3	3.9	2.4	2.7	3.2	1.9	2.1	1.5
Cl	mg/L		4.7	4.3	0.8	0.3	< 0.2	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A
F	mg/L		< 0.06	0.10	0.06	< 0.06	< 0.06	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A
NO_2	as N mg/L		< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A
NO_3	as N mg/L		0.10	< 0.05	0.21	0.55	0.31	0.43	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A
NH_3+NH_4	as N mg/L		< 0.1	< 0.1	< 0.1	0.3	< 0.1	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Ag	mg/L		< 0.00001	< 0.00001	0.00003	< 0.00001	0.00002	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00001	#N/A
Al	mg/L		0.0381	0.0581	0.0414	0.0427	0.0553	0.0560	#N/A	#N/A	#N/A	#N/A	0.0618	#N/A
As	mg/L	0.20	< 0.0002	0.0005	0.0006	< 0.0002	0.0003	0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A
Ba	mg/L		0.0050	0.0104	0.0061	0.0081	0.0065	0.0051	#N/A	#N/A	#N/A	#N/A	0.0039	#N/A
Be	mg/L		< 0.00002	< 0.00002	0.00002	< 0.00002	< 0.00002	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A
B	mg/L		0.0019	0.0044	0.0020	0.0016	0.0014	0.0008	#N/A	#N/A	#N/A	#N/A	0.0003	#N/A
Bi	mg/L		0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00002	#N/A
Ca	mg/L		5.50	6.74	4.61	5.61	4.67	3.62	#N/A	#N/A	#N/A	#N/A	3.00	#N/A
Cd	mg/L		< 0.000003	0.000003	< 0.000003	0.000007	< 0.000003	0.000004	#N/A	#N/A	#N/A	#N/A	0.000006	#N/A
Co	mg/L		0.000041	0.000050	0.000077	0.000024	0.000012	0.000109	#N/A	#N/A	#N/A	#N/A	0.000045	#N/A
Cr	mg/L		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Cu	mg/L	0.30	0.0006	0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Fe	mg/L	3.00	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A
K	mg/L		5.43	5.49	3.08	2.91	2.34	2.29	#N/A	#N/A	#N/A	#N/A	1.33	#N/A
Li	mg/L		0.003	0.003	0.001	0.001	0.003	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Mg	mg/L		0.537	0.944	0.578	0.685	0.532	0.492	#N/A	#N/A	#N/A	#N/A	0.306	#N/A
Mn	mg/L		0.0102	0.0168	0.0142	0.0110	0.0101	0.00772	#N/A	#N/A	#N/A	#N/A	0.00694	#N/A
Mo	mg/L		0.00407	0.0183	0.0113	0.00745	0.00499	0.00339	#N/A	#N/A	#N/A	#N/A	0.00119	#N/A
Na	mg/L		3.57	3.94	1.53	1.11	0.61	0.51	#N/A	#N/A	#N/A	#N/A	0.17	#N/A
Ni	mg/L	0.50	0.0006	0.0004	0.0002	0.0002	0.0002	< 0.0001	#N/A	#N/A	#N/A	#N/A	0.0001	#N/A
Pb	mg/L	0.20	0.00009	0.00012	0.00004	< 0.00002	< 0.00002	0.00006	#N/A	#N/A	#N/A	#N/A	0.00008	#N/A
Sb	mg/L		0.00171	0.00255	0.00092	0.00091	0.00084	0.00067	#N/A	#N/A	#N/A	#N/A	0.00063	#N/A
Se	mg/L		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Si	mg/L		0.39	0.60	0.38	0.48	0.49	0.33	#N/A	#N/A	#N/A	#N/A	0.30	#N/A
Sn	mg/L		0.00275	0.00186	0.00035	0.00047	0.00052	0.00071	#N/A	#N/A	#N/A	#N/A	0.00038	#N/A
Sr	mg/L		0.294	0.602	0.353	0.414	0.328	0.258	#N/A	#N/A	#N/A	#N/A	0.154	#N/A
Ti	mg/L		0.0002	0.0002	< 0.0001	< 0.0001	< 0.0001	0.0004	#N/A	#N/A	#N/A	#N/A	0.0002	#N/A
Tl	mg/L		0.000003	< 0.000002	< 0.000002	< 0.000002	< 0.000002	0.000094	#N/A	#N/A	#N/A	#N/A	0.000003	#N/A
U	mg/L		0.000251	0.00158	0.00149	0.00148	0.00143	0.000976	#N/A	#N/A	#N/A	#N/A	0.00174	#N/A
V	mg/L		0.00046	0.00047	0.00036	0.00034	0.00050	0.00037	#N/A	#N/A	#N/A	#N/A	0.00046	#N/A
W	mg/L		0.00151	0.00202	0.00228	0.00189	0.00150	0.00098	#N/A	#N/A	#N/A	#N/A	0.00033	#N/A
Y	mg/L		0.000015	0.000020	0.00001	0.000011	0.000008	0.000004	#N/A	#N/A	#N/A	#N/A	0.000009	#N/A
Zn	mg/L	0.50	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A

Government du Quebec, Ministére de L'Environnement. 2005. Directive no. 019.

Transposed by	BB Apr 9/08	BB Apr 9/08	BB Apr 22/08	BB May 5/08	BB May 5/08	BB May 5/08	BB Jun 2/08	BB Jun 2/08	BB Jun 2/08	BB july 16/08	BB july 16/08	BB july 16/08
Checked by	PW Apr 14/08	PW Apr 14/08	PW May 23/08	PW May 23/08	PW May 23/08	PW May 23/08	PW Jun 5/08	PW Jun 5/08	PW Jun 5/08	PW Aug 05/08	PW Aug 05/08	PW Aug 05/08
Checked by	PW Apr 14/08	PW Apr 14/08	PW May 23/08	PW May 23/08	PW May 23/08	PW May 23/08	PW Jun 5/08	PW Jun 5/08	PW Jun 5/08	PW Aug 05/08	PW Aug 05/08	PW Aug 05/08

**Due to accidental acidification of the Week 23 sample in the laboratory, data for the Week 6 sample is reported as an average of the previous 5 weeks data (conductivity previous 3 weeks data).*

Test Specimen

Sample	Weight (g)
Low Grade Ore Overall Comp 1/4 inch	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	12	13	14	15	16	17	18	19	20	21	22	23
			10050-JUN08	10100-JUN08	10379-JUN08	10019-JUL08	10046-JUL08	10123-JUL08	10149-JUL08	10457-JUL08	10015-AUG08	10046-AUG08	10428-AUG08	10502-AUG08
Hum Cell Leachate Vol	mLs		984	946	969	940	984	959	901	910	910	894	855	919
pH	units	6-9.5	7.39	7.53	7.26	7.22	7.24	7.06	6.96	7.23	7.16	7.38	7.36	7.13
Conductivity	µS/cm		35	30	29	28	36	28	22	23	22	19	32	23
Alkalinity	mg/L as $CaCO_3$		15	11	12	12	15	11	9	9	9	38	8	9
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		1.6	1.7	1.6	1.5	1.6	1.5	1.3	1.3	1.2	1.1	1.3	1.2
Cl	mg/L		#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A
F	mg/L		#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_2	as N mg/L		#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_3	as N mg/L		#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A
NH_3+NH_4	as N mg/L		#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A
Hg	mg/L		#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Ag	mg/L		#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Al	mg/L		#N/A	#N/A	#N/A	0.0466	#N/A	#N/A	#N/A	#N/A	0.0514	#N/A	#N/A	#N/A
As	mg/L	0.20	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	0.0004	#N/A	#N/A	#N/A
Ba	mg/L		#N/A	#N/A	#N/A	0.0050	#N/A	#N/A	#N/A	#N/A	0.0043	#N/A	#N/A	#N/A
Be	mg/L		#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A
B	mg/L		#N/A	#N/A	#N/A	0.0004	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A
Bi	mg/L		#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Ca	mg/L		#N/A	#N/A	#N/A	3.93	#N/A	#N/A	#N/A	#N/A	3.41	#N/A	#N/A	#N/A
Cd	mg/L		#N/A	#N/A	#N/A	0.000004	#N/A	#N/A	#N/A	#N/A	< 0.000003	#N/A	#N/A	#N/A
Co	mg/L		#N/A	#N/A	#N/A	0.000006	#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A	#N/A	#N/A
Cr	mg/L		#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Cu	mg/L	0.30	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Fe	mg/L	3.00	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A
K	mg/L		#N/A	#N/A	#N/A	1.05	#N/A	#N/A	#N/A	#N/A	0.89	#N/A	#N/A	#N/A
Li	mg/L		#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Mg	mg/L		#N/A	#N/A	#N/A	0.291	#N/A	#N/A	#N/A	#N/A	0.211	#N/A	#N/A	#N/A
Mn	mg/L		#N/A	#N/A	#N/A	0.00859	#N/A	#N/A	#N/A	#N/A	0.00908	#N/A	#N/A	#N/A
Mo	mg/L		#N/A	#N/A	#N/A	0.00082	#N/A	#N/A	#N/A	#N/A	0.00057	#N/A	#N/A	#N/A
Na	mg/L		#N/A	#N/A	#N/A	0.13	#N/A	#N/A	#N/A	#N/A	0.1	#N/A	#N/A	#N/A
Ni	mg/L	0.50	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Pb	mg/L	0.20	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A
Sb	mg/L		#N/A	#N/A	#N/A	0.00038	#N/A	#N/A	#N/A	#N/A	0.00015	#N/A	#N/A	#N/A
Se	mg/L		#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Si	mg/L		#N/A	#N/A	#N/A	0.40	#N/A	#N/A	#N/A	#N/A	0.31	#N/A	#N/A	#N/A
Sn	mg/L		#N/A	#N/A	#N/A	0.00037	#N/A	#N/A	#N/A	#N/A	0.00011	#N/A	#N/A	#N/A
Sr	mg/L		#N/A	#N/A	#N/A	0.160	#N/A	#N/A	#N/A	#N/A	0.115	#N/A	#N/A	#N/A
Ti	mg/L		#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Tl	mg/L		#N/A	#N/A	#N/A	< 0.000002	#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A	#N/A	#N/A
U	mg/L		#N/A	#N/A	#N/A	0.00212	#N/A	#N/A	#N/A	#N/A	0.00173	#N/A	#N/A	#N/A
V	mg/L		#N/A	#N/A	#N/A	0.00039	#N/A	#N/A	#N/A	#N/A	0.00032	#N/A	#N/A	#N/A
W	mg/L		#N/A	#N/A	#N/A	0.00024	#N/A	#N/A	#N/A	#N/A	0.00017	#N/A	#N/A	#N/A
Y	mg/L		#N/A	#N/A	#N/A	0.000006	#N/A	#N/A	#N/A	#N/A	< 0.000001	#N/A	#N/A	#N/A
Zn	mg/L	0.50	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A

Government du Quebec, Ministére de L'Environnement. 2005. Directive

Transposed by	BB july 16/08	BB july 16/08	BB july 21/08	RJC Aug 7/08	RJC Aug 7/08	RJC Aug 7/08	RJC Aug 7/08	RJC Aug 7/08	BB Aug 19/08	BB Aug 27/08	BB Aug 27/08	BB Sept 19/08	
Checked by	PW Aug 05/08	PW Aug 05/08	PW Aug 05/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 28/08	PW Aug 28/08	PW Sep 19/08	
Checked by	PW Aug 05/08	PW Aug 05/08	PW Aug 05/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 28/08	PW Aug 28/08	PW Sep 19/08	

**Due to accidenta*

Test Specimen

Sample	Weight (g)
Low Grade Ore Overall Comp 1/4 inch	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	24	25	26	27	28	29	30	31	32	33	34	35
			10019-SEP08	10047-SEP08	10211-SEP08	10438-SEP08	10059-OCT08	10105-OCT08	10271-OCT08	10475-OCT08	10684-OCT08	10019-NOV08	10056-NOV08	10241-NOV08
Hum Cell Leachate Vol	mLs		907	970	965	928	924	945	946	966	894	909	930	936
pH	units	6-9.5	7.31	7.32	7.30	7.34	7.31	7.27	7.28	7.44	7.34	7.37	7.25	7.47
Conductivity	µS/cm		25	28	29	23	22	23	26	23	24	32	21	20
Alkalinity	mg/L as $CaCO_3$		10	11	12	10	9	13	10	11	9	10	10	14
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		1.2	1.3	1.2	1.1	1.2	1.0	1.0	1.1	1.0	1.2	1.1	1.1
Cl	mg/L		#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2
F	mg/L		#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06
NO_2	as N mg/L		#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06
NO_3	as N mg/L		#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05
NH_3+NH_4	as N mg/L		#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	0.2	#N/A	#N/A	#N/A	#N/A	< 0.1
Hg	mg/L		#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001
Ag	mg/L		#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001
Al	mg/L		#N/A	0.0446	#N/A	#N/A	#N/A	#N/A	0.0522	#N/A	#N/A	#N/A	#N/A	0.0463
As	mg/L	0.20	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002
Ba	mg/L		#N/A	0.0039	#N/A	#N/A	#N/A	#N/A	0.0053	#N/A	#N/A	#N/A	#N/A	0.0036
Be	mg/L		#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002
B	mg/L		#N/A	0.0004	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	0.0004
Bi	mg/L		#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00001
Ca	mg/L		#N/A	4.42	#N/A	#N/A	#N/A	#N/A	3.80	#N/A	#N/A	#N/A	#N/A	3.67
Cd	mg/L		#N/A	< 0.000003	#N/A	#N/A	#N/A	#N/A	0.000004	#N/A	#N/A	#N/A	#N/A	0.000008
Co	mg/L		#N/A	0.000018	#N/A	#N/A	#N/A	#N/A	0.000024	#N/A	#N/A	#N/A	#N/A	0.000019
Cr	mg/L		#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005
Cu	mg/L	0.30	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005
Fe	mg/L	3.00	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01
K	mg/L		#N/A	0.95	#N/A	#N/A	#N/A	#N/A	0.79	#N/A	#N/A	#N/A	#N/A	0.75
Li	mg/L		#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	0.001
Mg	mg/L		#N/A	0.254	#N/A	#N/A	#N/A	#N/A	0.187	#N/A	#N/A	#N/A	#N/A	0.170
Mn	mg/L		#N/A	0.0106	#N/A	#N/A	#N/A	#N/A	0.0118	#N/A	#N/A	#N/A	#N/A	0.0108
Mo	mg/L		#N/A	0.00052	#N/A	#N/A	#N/A	#N/A	0.00026	#N/A	#N/A	#N/A	#N/A	0.00034
Na	mg/L		#N/A	0.08	#N/A	#N/A	#N/A	#N/A	0.07	#N/A	#N/A	#N/A	#N/A	0.07
Ni	mg/L	0.50	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001
Pb	mg/L	0.20	#N/A	0.00005	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	0.00003
Sb	mg/L		#N/A	0.00055	#N/A	#N/A	#N/A	#N/A	0.00021	#N/A	#N/A	#N/A	#N/A	< 0.0002
Se	mg/L		#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001
Si	mg/L		#N/A	0.47	#N/A	#N/A	#N/A	#N/A	0.39	#N/A	#N/A	#N/A	#N/A	0.32
Sn	mg/L		#N/A	0.00023	#N/A	#N/A	#N/A	#N/A	0.00008	#N/A	#N/A	#N/A	#N/A	0.00011
Sr	mg/L		#N/A	0.133	#N/A	#N/A	#N/A	#N/A	0.0949	#N/A	#N/A	#N/A	#N/A	0.0796
Ti	mg/L		#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001
Tl	mg/L		#N/A	0.000006	#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A	#N/A	#N/A	#N/A	0.000003
U	mg/L		#N/A	0.00184	#N/A	#N/A	#N/A	#N/A	0.00139	#N/A	#N/A	#N/A	#N/A	0.00114
V	mg/L		#N/A	0.00031	#N/A	#N/A	#N/A	#N/A	0.00028	#N/A	#N/A	#N/A	#N/A	0.00024
W	mg/L		#N/A	0.00021	#N/A	#N/A	#N/A	#N/A	0.00012	#N/A	#N/A	#N/A	#N/A	0.00007
Y	mg/L		#N/A	0.000004	#N/A	#N/A	#N/A	#N/A	0.000004	#N/A	#N/A	#N/A	#N/A	0.000011
Zn	mg/L	0.50	#N/A	0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	0.003

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Transposed by	BB Sept 19/08	BB Sept 19/08	BB Oct6/08	BB Oct6/08	BB Oct15/08	BB Oct15/08	BB Oct30/08	BB Dec 1/08	BB Dec 1/08	BB Dec 1/08	BB Dec 1/08	BB Dec 1/08		
Checked by	PW Sep 19/08	PW Sep 19/08	PW Oct.21/08	PW Oct.21/08	PW Oct.21/08	PW Oct.21/08	PW Oct.30/08	PW Dec.01/08	PW Dec.01/08	PW Dec.01/08	PW Dec.01/08	PW Dec.01/08		
Checked by	PW Sep 19/08	PW Sep 19/08	PW Oct.21/08	PW Oct.21/08	PW Oct.21/08	PW Oct.21/08	PW Oct.30/08	PW Dec.01/08	PW Dec.01/08	PW Dec.01/08	PW Dec.01/08	PW Dec.01/08		

**Due to accidenta* *Not sufficient sample to reassay alkalinity*

Test Specimen

Sample	Weight (g)
Low Grade Ore Overall Comp 1/4 inch	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	36	37	38	39	40	41	42	43
			10418-NOV08	10021-DEC08	10051-DEC08	10137-DEC08	10278-DEC08	10513-DEC08	10021-JAN09	10051-JAN09
Hum Cell Leachate Vol	mLs		972	923	919	941	969	953	930	948
pH	units	6-9.5	7.27	7.27	7.13	7.35	7.42	7.34	7.45	7.36
Conductivity	µS/cm		24	22	22	22	25	23	21	22
Alkalinity	mg/L as $CaCO_3$		11	10	*10	10	10	10	9	10
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		1.1	1.0	1.0	0.9	0.8	1.0	1.1	1.0
Cl	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A
F	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_2	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_3	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A
NH_3+NH_4	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A
Hg	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Ag	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Al	mg/L		#N/A	#N/A	#N/A	#N/A	0.0471	#N/A	#N/A	#N/A
As	mg/L	0.20	#N/A	#N/A	#N/A	#N/A	0.0003	#N/A	#N/A	#N/A
Ba	mg/L		#N/A	#N/A	#N/A	#N/A	0.0042	#N/A	#N/A	#N/A
Be	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A
B	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A
Bi	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Ca	mg/L		#N/A	#N/A	#N/A	#N/A	3.80	#N/A	#N/A	#N/A
Cd	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000003	#N/A	#N/A	#N/A
Co	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A	#N/A	#N/A
Cr	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Cu	mg/L	0.30	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Fe	mg/L	3.00	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A
K	mg/L		#N/A	#N/A	#N/A	#N/A	0.68	#N/A	#N/A	#N/A
Li	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Mg	mg/L		#N/A	#N/A	#N/A	#N/A	0.144	#N/A	#N/A	#N/A
Mn	mg/L		#N/A	#N/A	#N/A	#N/A	0.0138	#N/A	#N/A	#N/A
Mo	mg/L		#N/A	#N/A	#N/A	#N/A	0.00030	#N/A	#N/A	#N/A
Na	mg/L		#N/A	#N/A	#N/A	#N/A	0.04	#N/A	#N/A	#N/A
Ni	mg/L	0.50	#N/A	#N/A	#N/A	#N/A	0.0002	#N/A	#N/A	#N/A
Pb	mg/L	0.20	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A
Sb	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A
Se	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Si	mg/L		#N/A	#N/A	#N/A	#N/A	0.31	#N/A	#N/A	#N/A
Sn	mg/L		#N/A	#N/A	#N/A	#N/A	0.00023	#N/A	#N/A	#N/A
Sr	mg/L		#N/A	#N/A	#N/A	#N/A	0.0733	#N/A	#N/A	#N/A
Ti	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Tl	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A	#N/A	#N/A
U	mg/L		#N/A	#N/A	#N/A	#N/A	0.00108	#N/A	#N/A	#N/A
V	mg/L		#N/A	#N/A	#N/A	#N/A	0.00013	#N/A	#N/A	#N/A
W	mg/L		#N/A	#N/A	#N/A	#N/A	0.00022	#N/A	#N/A	#N/A
Y	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000001	#N/A	#N/A	#N/A
Zn	mg/L	0.50	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A

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**Reassay LIMS 10239-JAN09*

Transposed by	BB Dec 16/08	BB Dec 16/08	BB Dec 16/08	BB Jan 12/09	BB Jan 12/09	BB Jan 12/09	BB Jan 21/09	BB Jan 29/09
Checked by	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09		
Checked by	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09		

**Due to accidenta*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Low Grade Ore Overall Comp 1/4 inch	1000

Weekly Leach	No.	0	1	2	3	4	5	6	7	8	9
Summary of ABA Test Data											
Sulphur (S)	%	0.92	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	<0.69	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	37.7	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t	21.2									
Leachate Paremeters Measured											
Leachate Volume Collected	mL	828	978	902	952	941	857	945	931	929	979
pH	units	8.27	7.57	7.32	7.14	7.36	7.19	7.40	6.93	7.20	6.91
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	13	24	15	13	13	9	12	2	2	7
Conductivity	µS/cm	75	90	50	51	43	33	33	36	39.2	39
SO_4	mg/L	6.1	11	6.7	5.5	4.3	3.9	2.4	2.7	3.2	1.9
Ca	mg/L	5.5	6.74	4.61	5.61	4.67	3.62	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	0.537	0.944	0.578	0.685	0.532	0.492	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	5.1	10.8	6.0	5.2	4.0	3.3	2.3	2.5	3.0	1.9
Cumulative SO4 Production	g/t	5.1	15.8	21.9	27.1	31.1	34.5	36.7	39.3	42.2	44.1
Weekly S= Depletion	%	0.02	0.05	0.03	0.03	0.02	0.02	0.01	0.01	0.01	0.01
Cumulative S= Depletion	%	0.02	0.08	0.11	0.13	0.15	0.17	0.18	0.19	0.20	0.21
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	5.26	11.21	6.30	5.45	4.21	3.48	2.36	2.62	3.10	1.94
Cumulative Total NP Depletion	%	0.01	0.04	0.06	0.07	0.09	0.10	0.10	0.11	0.12	0.12
Cumulative CO_3 NP Depletion	%	0.02	0.08	0.11	0.13	0.15	0.17	0.18	0.19	0.21	0.22
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.66	1.96	1.80	1.90	1.88	1.71	1.89	1.86	1.86	1.96
Alkalinity Production Rate	$CaCO_3$, g/t/wk	10.76	23.47	13.53	12.38	12.23	7.71	11.34	1.86	1.86	6.85
Open-System NP Consumption	$CaCO_3$, g/t/wk	14.37	32.72	18.02	15.93	14.57	9.48	11.81	2.62	3.10	6.83
Open-System Cumulative NP Depletion (Total NP)	%	0.04	0.12	0.17	0.21	0.25	0.28	0.31	0.32	0.33	0.34
Open-System Cumulative NP Depletion (CO_3 NP)	%	0.07	0.22	0.31	0.38	0.45	0.50	0.55	0.56	0.58	0.61
Anorthoclase Molar Ratio	Ca: SO_4	2.16	1.47	1.65	2.44	2.60	2.22	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	11.37	16.46	10.38	13.33	10.97	7.75	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	2.51	1.81	1.99	2.94	3.09	2.72	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	13.20	20.26	12.53	16.02	13.03	9.48	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Low Grade Ore Overall Comp 1/4 inch	1000

Weekly Leach	No.	10	11	12	13	14	15	16	17	18	19
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	849	872	984	946	969	940	984	959	901	910
pH	units	7.57	7.26	7.39	7.53	7.26	7.22	7.24	7.06	6.96	7.23
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	10	10	15	11	12	12	15	11	9	9
Conductivity	µS/cm	33	28	35	30	29	28	36	28	22	23
SO_4	mg/L	2.1	1.5	1.6	1.7	1.6	1.5	1.6	1.5	1.3	1.3
Ca	mg/L	3	#N/A	#N/A	#N/A	#N/A	3.93	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	0.306	#N/A	#N/A	#N/A	#N/A	0.291	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	1.8	1.3	1.6	1.6	1.6	1.4	1.6	1.4	1.2	1.2
Cumulative SO4 Production	g/t	45.9	47.2	48.8	50.4	51.9	53.3	54.9	56.3	57.5	58.7
Weekly S= Depletion	%	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Cumulative S= Depletion	%	0.22	0.23	0.24	0.24	0.25	0.26	0.27	0.27	0.28	0.28
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	1.86	1.36	1.64	1.68	1.62	1.47	1.64	1.50	1.22	1.23
Cumulative Total NP Depletion	%	0.13	0.13	0.13	0.14	0.14	0.15	0.15	0.16	0.16	0.16
Cumulative CO_3 NP Depletion	%	0.23	0.23	0.24	0.25	0.26	0.26	0.27	0.28	0.28	0.29
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.70	1.74	1.97	1.89	1.94	1.88	1.97	1.92	1.80	1.82
Alkalinity Production Rate	$CaCO_3$, g/t/wk	8.49	8.72	14.76	10.41	11.63	11.28	14.76	10.55	8.11	8.19
Open-System NP Consumption	$CaCO_3$, g/t/wk	8.65	8.34	14.43	10.19	11.31	10.87	14.43	10.13	7.53	7.60
Open-System Cumulative NP Depletion (Total NP)	**%**	0.37	0.39	0.43	0.45	0.48	0.51	0.55	0.58	0.60	0.62
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	0.65	0.69	0.76	0.81	0.86	0.91	0.98	1.03	1.06	1.10
Anorthoclase Molar Ratio	Ca: SO_4	3.42	#N/A	#N/A	#N/A	#N/A	6.28	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	6.36	#N/A	#N/A	#N/A	#N/A	9.22	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	4.00	#N/A	#N/A	#N/A	#N/A	7.05	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	7.43	#N/A	#N/A	#N/A	#N/A	10.35	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Low Grade Ore Overall Comp 1/4 inch	1000

Weekly Leach	No.	20	21	22	23	24	25	26	27	28	29
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	910	894	855	919	907	970	965	928	924	945
pH	units	7.16	7.38	7.36	7.13	7.31	7.32	7.30	7.34	7.31	7.27
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	9	38	8	9	10	11	12	10	9	13
Conductivity	µS/cm	22	19	32	23	25	28	29	23	22	23
SO_4	mg/L	1.2	1.1	1.3	1.2	1.2	1.3	1.2	1.1	1.2	1
Ca	mg/L	3.41	#N/A	#N/A	#N/A	#N/A	4.42	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	0.211	#N/A	#N/A	#N/A	#N/A	0.254	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	1.1	1.0	1.1	1.1	1.1	1.3	1.2	1.0	1.1	0.9
Cumulative SO4 Production	g/t	59.8	60.8	61.9	63.0	64.1	65.3	66.5	67.5	68.6	69.6
Weekly S= Depletion	%	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.00
Cumulative S= Depletion	%	0.29	0.29	0.30	0.30	0.31	0.32	0.32	0.33	0.33	0.34
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	1.14	1.02	1.16	1.15	1.13	1.31	1.21	1.06	1.16	0.98
Cumulative Total NP Depletion	%	0.17	0.17	0.17	0.17	0.18	0.18	0.18	0.19	0.19	0.19
Cumulative CO_3 NP Depletion	%	0.29	0.30	0.30	0.31	0.31	0.32	0.33	0.33	0.34	0.34
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.82	1.79	1.71	1.84	1.81	1.94	1.93	1.86	1.85	1.89
Alkalinity Production Rate	$CaCO_3$, g/t/wk	8.19	33.97	6.84	8.27	9.07	10.67	11.58	9.28	8.32	12.29
Open-System NP Consumption	$CaCO_3$, g/t/wk	7.51	33.21	6.29	7.58	8.39	10.04	10.86	8.49	7.62	11.38
Open-System Cumulative NP Depletion (Total NP)	**%**	0.64	0.73	0.74	0.76	0.78	0.81	0.84	0.86	0.88	0.91
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	1.13	1.29	1.32	1.36	1.40	1.44	1.49	1.53	1.57	1.62
Anorthoclase Molar Ratio	Ca: SO_4	6.81	#N/A	#N/A	#N/A	#N/A	8.15	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	7.75	#N/A	#N/A	#N/A	#N/A	10.70	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	7.51	#N/A	#N/A	#N/A	#N/A	8.92	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	8.54	#N/A	#N/A	#N/A	#N/A	11.72	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Low Grade Ore Overall Comp 1/4 inch	1000

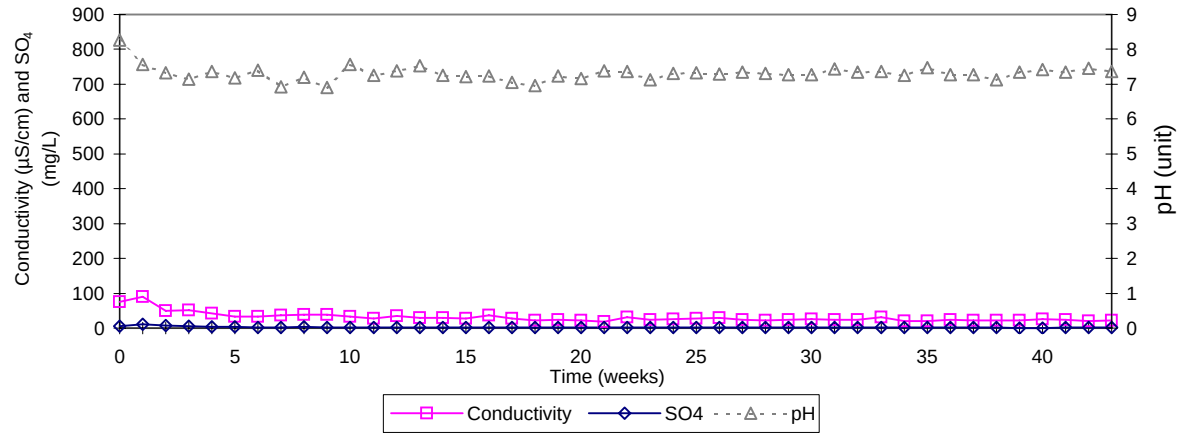
Weekly Leach	No.	30	31	32	33	34	35	36	37	38	39
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	946	966	894	909	930	936	972	923	919	941
pH	units	7.28	7.44	7.34	7.37	7.25	7.47	7.27	7.27	7.13	7.35
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	10	11	9	10	10	14	11	10	10	10
Conductivity	µS/cm	26	23	24	32	21	20	24	22	22	22
SO_4	mg/L	1	1.1	1	1.2	1.1	1.1	1.1	1	1	0.9
Ca	mg/L	3.8	#N/A	#N/A	#N/A	#N/A	3.67	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	0.187	#N/A	#N/A	#N/A	#N/A	0.17	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	0.9	1.1	0.9	1.1	1.0	1.0	1.1	0.9	0.9	0.8
Cumulative SO4 Production	g/t	70.5	71.6	72.5	73.6	74.6	75.6	76.7	77.6	78.5	79.4
Weekly S= Depletion	%	0.00	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00
Cumulative S= Depletion	%	0.34	0.35	0.35	0.36	0.36	0.37	0.37	0.37	0.38	0.38
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	0.99	1.11	0.93	1.14	1.07	1.07	1.11	0.96	0.96	0.88
Cumulative Total NP Depletion	%	0.19	0.20	0.20	0.20	0.21	0.21	0.21	0.21	0.22	0.22
Cumulative CO_3 NP Depletion	%	0.35	0.35	0.36	0.36	0.37	0.37	0.38	0.38	0.39	0.39
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.89	1.93	1.79	1.82	1.86	1.87	1.94	1.85	1.84	1.88
Alkalinity Production Rate	$CaCO_3$, g/t/wk	9.46	10.63	8.05	9.09	9.30	13.10	10.69	9.23	9.19	9.41
Open-System NP Consumption	$CaCO_3$, g/t/wk	8.55	9.80	7.19	8.41	8.51	12.30	9.86	8.35	8.31	8.41
Open-System Cumulative NP Depletion (Total NP)	**%**	0.94	0.96	0.98	1.00	1.03	1.06	1.08	1.11	1.13	1.15
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	1.66	1.71	1.74	1.78	1.82	1.88	1.93	1.97	2.01	2.05
Anorthoclase Molar Ratio	Ca: SO_4	9.11	#N/A	#N/A	#N/A	#N/A	8.00	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	8.97	#N/A	#N/A	#N/A	#N/A	8.58	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	9.85	#N/A	#N/A	#N/A	#N/A	8.61	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	9.70	#N/A	#N/A	#N/A	#N/A	9.23	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

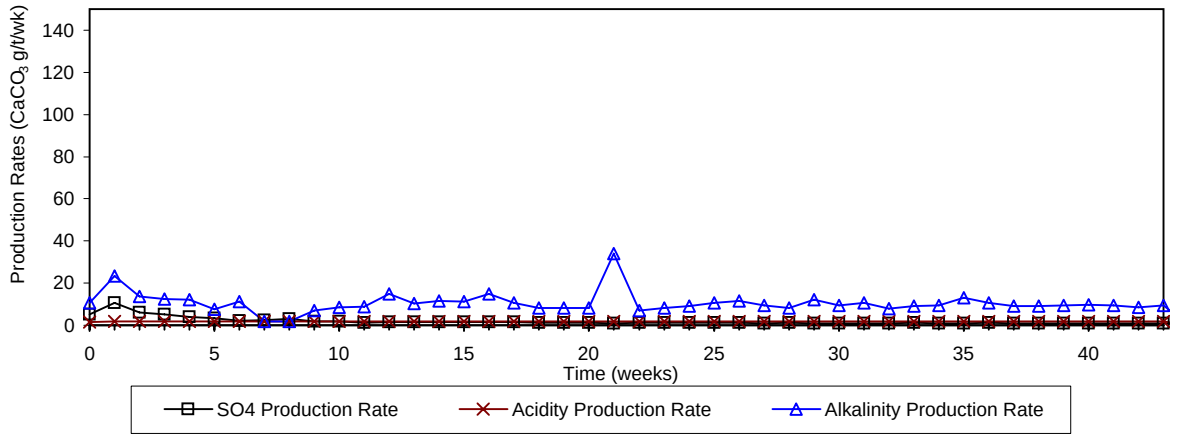
TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

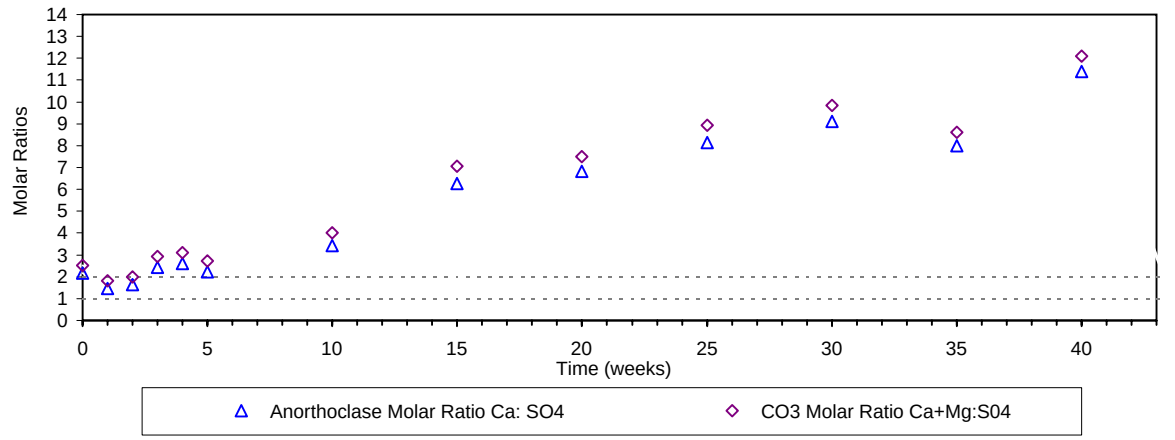
Conductivity, Sulphate, and pH in Weekly Humidity Cell Leachate - Low Grade Ore Overall Comp 1/4 inch



Acidity, Alkalinity and SO_4 Production Rates - Low Grade Ore Overall Comp 1/4 inch



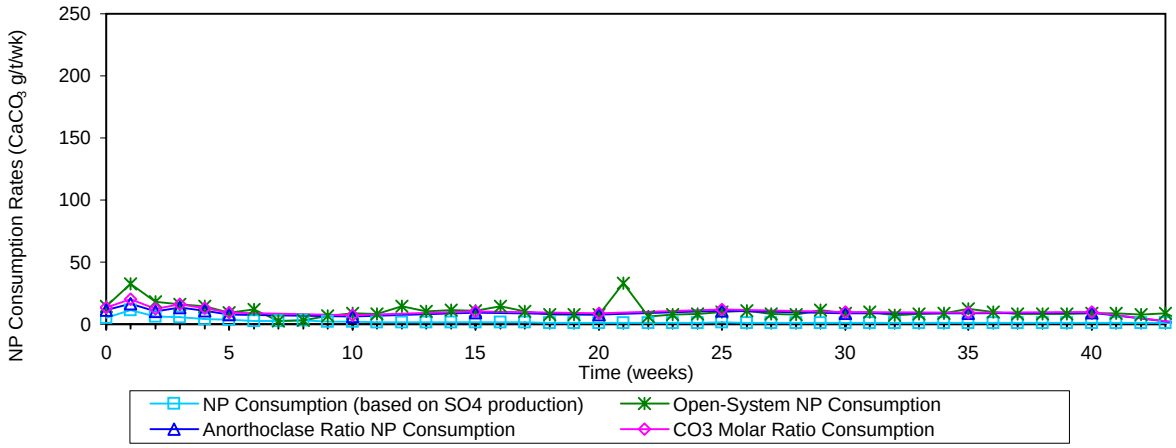
Carbonate (Ca + Mg/SO_4) and Anorthoclase (Ca/SO_4) Molar Ratios - Low Grade Ore Overall Comp 1/4 inch



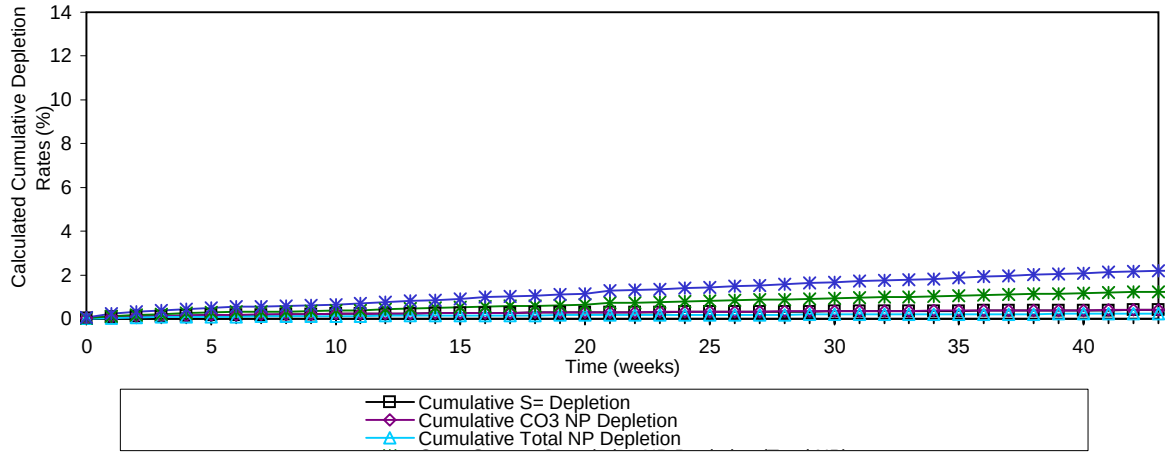
TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

NP Consumption Rates - Low Grade Ore Overall Comp 1/4 inch



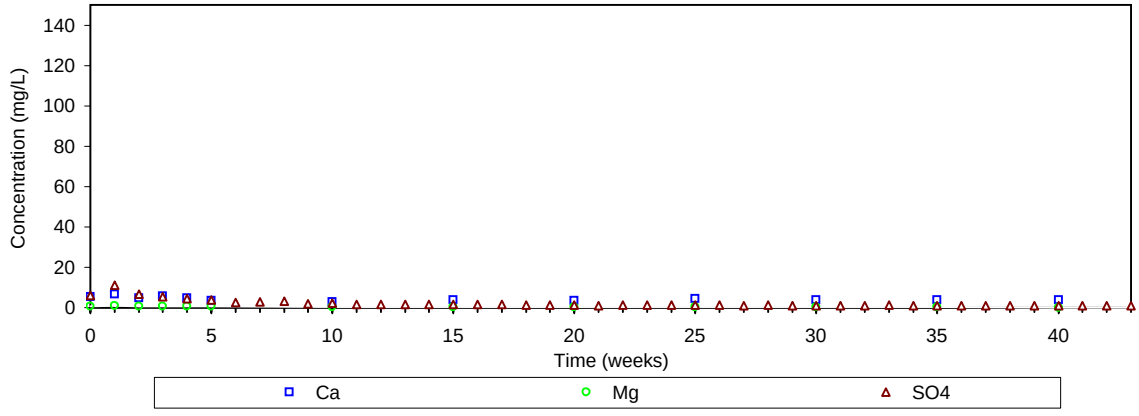
Cumulative Sulphide and NP Depletion Rates - Low Grade Ore Overall Comp 1/4 inch



Note: Cumulative Total and CO_3 NP depletions calculated based on sulphate assay.

Note: Open-System NP depletion calculated based on cumulative NP depletion and alkalinity and acidty production rates.

Selected Parameters in Weekly Humidity Cell Leachate - Low Grade Ore Overall Comp 1/4 inch



Test Specimen

Sample	Weight (g)
Average Grade Ore Overall Comp 1/4 inch	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	0	1	2	3	4	5	6	7	8	9	10	11
LIMS			10359-MAR08	10361-MAR08	10000-APR08	10170-APR08	10315-APR08	10518-APR08	10632-APR08	10064-MAY08	10126-MAY08	10152-MAY08	10703-MAY08	10017-JUN08
Hum Cell Leachate Vol	mLs		783	995	970	982	993	988	994	982	976	979	824	1002
pH	units	6-9.5	8.49	7.53	7.25	7.33	7.49	7.34	7.45	7.25	7.17	7.05	7.42	7.66
Conductivity	µS/cm		131	135	83	77	66	54	42	56	51	58	48	53
Alkalinity	mg/L as $CaCO_3$		15	24	22	22	20	63	14	15	16	12	13	17
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	30	<2	<2	<2	<2	<2	<2
SO_4	mg/L		18	24	14	12	8.8	8.5	4.8	5.6	4.5	4.3	3.8	4.1
Cl	mg/L		9.8	7.9	1.7	0.4	< 0.2	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A
F	mg/L		0.07	0.12	0.09	0.06	0.06	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A
NO_2	as N mg/L		< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A
NO_3	as N mg/L		0.22	0.06	0.16	< 0.05	0.40	0.33	#N/A	#N/A	#N/A	#N/A	0.70	#N/A
NH_3+NH_4	as N mg/L		< 0.1	< 0.1	< 0.1	0.4	< 0.1	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Ag	mg/L		0.00003	0.00005	0.00004	< 0.00001	< 0.00001	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00002	#N/A
Al	mg/L		0.0469	0.0457	0.0464	0.0490	0.0527	0.0473	#N/A	#N/A	#N/A	#N/A	0.0698	#N/A
As	mg/L	0.20	< 0.0002	0.0004	0.0008	0.0004	< 0.0002	0.0004	#N/A	#N/A	#N/A	#N/A	0.0003	#N/A
Ba	mg/L		0.0173	0.0303	0.0357	0.0474	0.0545	0.0623	#N/A	#N/A	#N/A	#N/A	0.0654	#N/A
Be	mg/L		< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	#N/A	#N/A	#N/A	#N/A	0.00002	#N/A
B	mg/L		0.0061	0.0116	0.0056	0.0032	0.0022	0.0018	#N/A	#N/A	#N/A	#N/A	0.0003	#N/A
Bi	mg/L		0.00002	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00002	#N/A
Ca	mg/L		8.40	10.1	8.07	8.24	8.02	8.42	#N/A	#N/A	#N/A	#N/A	6.04	#N/A
Cd	mg/L		< 0.000003	0.000005	0.000007	0.0000130	0.000006	0.000006	#N/A	#N/A	#N/A	#N/A	0.000006	#N/A
Co	mg/L		0.000131	0.000291	0.000230	0.0001890	0.000148	0.000180	#N/A	#N/A	#N/A	#N/A	0.000122	#N/A
Cr	mg/L		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Cu	mg/L	0.30	0.0022	0.0016	0.0007	0.0007	< 0.0005	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Fe	mg/L	3.00	< 0.01	< 0.01	< 0.01	0.04	< 0.01	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A
K	mg/L		6.61	6.37	4.16	3.01	2.46	2.42	#N/A	#N/A	#N/A	#N/A	1.43	#N/A
Li	mg/L		0.007	0.008	0.006	0.003	0.004	0.002	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Mg	mg/L		1.30	1.89	1.33	1.22	0.917	0.928	#N/A	#N/A	#N/A	#N/A	0.486	#N/A
Mn	mg/L		0.015	0.0333	0.0223	0.0298	0.0259	0.0250	#N/A	#N/A	#N/A	#N/A	0.0165	#N/A
Mo	mg/L		0.00207	0.0132	0.0105	0.00761	0.00565	0.00416	#N/A	#N/A	#N/A	#N/A	0.00155	#N/A
Na	mg/L		6.61	6.97	2.76	1.43	0.76	0.60	#N/A	#N/A	#N/A	#N/A	0.20	#N/A
Ni	mg/L	0.50	0.0024	0.0030	0.0015	0.0012	0.0008	0.0006	#N/A	#N/A	#N/A	#N/A	0.0004	#N/A
Pb	mg/L	0.20	0.00008	0.00007	0.00003	0.00003	0.00006	< 0.00002	#N/A	#N/A	#N/A	#N/A	0.00002	#N/A
Sb	mg/L		0.00235	0.00471	0.00198	0.00180	0.00144	0.00138	#N/A	#N/A	#N/A	#N/A	0.00129	#N/A
Se	mg/L		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Si	mg/L		0.46	0.73	0.70	0.68	0.69	0.68	#N/A	#N/A	#N/A	#N/A	0.62	#N/A
Sn	mg/L		0.00224	0.00131	0.00049	0.00059	0.00089	0.00094	#N/A	#N/A	#N/A	#N/A	0.00030	#N/A
Sr	mg/L		0.464	0.841	0.802	0.901	0.811	0.918	#N/A	#N/A	#N/A	#N/A	0.704	#N/A
Ti	mg/L		0.0002	0.0001	< 0.0001	< 0.0001	< 0.0001	0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Tl	mg/L		0.000010	0.000003	0.000012	< 0.000002	< 0.000002	0.000098	#N/A	#N/A	#N/A	#N/A	0.000011	#N/A
U	mg/L		0.000512	0.00243	0.00248	0.00243	0.00190	0.00204	#N/A	#N/A	#N/A	#N/A	0.00174	#N/A
V	mg/L		0.00061	0.00052	0.00049	0.00046	0.00055	0.00043	#N/A	#N/A	#N/A	#N/A	0.00067	#N/A
W	mg/L		0.00075	0.00040	0.00047	0.00055	0.00042	0.00084	#N/A	#N/A	#N/A	#N/A	0.00031	#N/A
Y	mg/L		0.000025	0.000020	0.000013	0.0000160	0.000010	0.000012	#N/A	#N/A	#N/A	#N/A	0.000011	#N/A
Zn	mg/L	0.50	< 0.001	< 0.001	< 0.001	0.002	0.003	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A

Government du Quebec, Ministére de L'Environnement. 2005. Directive no. 019.

Transposed by	BB Apr 9/08	BB Apr 9/08	BB Apr 22/08	BB May 5/08	BB May 5/08	BB May 5/08	BB Jun 2/08	BB Jun 2/08	BB Jun 2/08	BB july 16/08	BB july 16/08	BB july 16/08
Checked by	PW Apr 14/08	PW Apr 14/08	PW May 23/08	PW May 23/08	PW May 23/08	PW May 23/08	PW Jun 5/08	PW Jun 5/08	PW Jun 5/08	PW Aug 05/08	PW Aug 05/08	PW Aug 05/08
Checked by	PW Apr 14/08	PW Apr 14/08	PW May 23/08	PW May 23/08	PW May 23/08	PW May 23/08	PW Jun 5/08	PW Jun 5/08	PW Jun 5/08	PW Aug 05/08	PW Aug 05/08	PW Aug 05/08

**Due to accidental acidification of the Week 23 sample in the laboratory, data for the Week 6 sample is reported as an average of the previous 5 weeks data (conductivity previous 3 weeks data).*

Test Specimen

Sample	Weight (g)
Average Grade Ore Overall Comp 1/4 inch	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	12	13	14	15	16	17	18	19	20	21	22	23
LIMS			10050-JUN08	10100-JUN08	10379-JUN08	10019-JUL08	10046-JUL08	10123-JUL08	10149-JUL08	10457-JUL08	10015-AUG08	10046-AUG08	10428-AUG08	10502-AUG08
Hum Cell Leachate Vol	mLs		978	906	977	952	982	925	916	914	905	907	850	904
pH	units	6-9.5	7.30	7.61	7.43	7.43	7.22	7.11	7.09	7.34	7.33	7.33	7.64	7.30
Conductivity	µS/cm		52	42	45	41	44	37	36	33	32	28	40	29
Alkalinity	mg/L as $CaCO_3$		17	16	21	15	16	17	14	13	12	13	10	12
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		3.6	3.3	4.7	3.6	3.7	3.2	2.7	2.4	2.1	2.0	2.0	1.8
Cl	mg/L		#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A
F	mg/L		#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_2	as N mg/L		#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_3	as N mg/L		#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A
NH_3+NH_4	as N mg/L		#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A
Hg	mg/L		#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Ag	mg/L		#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Al	mg/L		#N/A	#N/A	#N/A	0.0515	#N/A	#N/A	#N/A	#N/A	0.0540	#N/A	#N/A	#N/A
As	mg/L	0.20	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	0.0003	#N/A	#N/A	#N/A
Ba	mg/L		#N/A	#N/A	#N/A	0.0744	#N/A	#N/A	#N/A	#N/A	0.0592	#N/A	#N/A	#N/A
Be	mg/L		#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A
B	mg/L		#N/A	#N/A	#N/A	0.0004	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A
Bi	mg/L		#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Ca	mg/L		#N/A	#N/A	#N/A	6.03	#N/A	#N/A	#N/A	#N/A	4.86	#N/A	#N/A	#N/A
Cd	mg/L		#N/A	#N/A	#N/A	0.000004	#N/A	#N/A	#N/A	#N/A	< 0.000003	#N/A	#N/A	#N/A
Co	mg/L		#N/A	#N/A	#N/A	0.000073	#N/A	#N/A	#N/A	#N/A	0.000042	#N/A	#N/A	#N/A
Cr	mg/L		#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Cu	mg/L	0.30	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Fe	mg/L	3.00	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A
K	mg/L		#N/A	#N/A	#N/A	1.17	#N/A	#N/A	#N/A	#N/A	1.00	#N/A	#N/A	#N/A
Li	mg/L		#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Mg	mg/L		#N/A	#N/A	#N/A	0.374	#N/A	#N/A	#N/A	#N/A	0.234	#N/A	#N/A	#N/A
Mn	mg/L		#N/A	#N/A	#N/A	0.0161	#N/A	#N/A	#N/A	#N/A	0.0137	#N/A	#N/A	#N/A
Mo	mg/L		#N/A	#N/A	#N/A	0.00198	#N/A	#N/A	#N/A	#N/A	0.00119	#N/A	#N/A	#N/A
Na	mg/L		#N/A	#N/A	#N/A	0.15	#N/A	#N/A	#N/A	#N/A	0.11	#N/A	#N/A	#N/A
Ni	mg/L	0.50	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	0.0001	#N/A	#N/A	#N/A
Pb	mg/L	0.20	#N/A	#N/A	#N/A	0.00003	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A
Sb	mg/L		#N/A	#N/A	#N/A	0.00073	#N/A	#N/A	#N/A	#N/A	0.00032	#N/A	#N/A	#N/A
Se	mg/L		#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Si	mg/L		#N/A	#N/A	#N/A	0.53	#N/A	#N/A	#N/A	#N/A	0.40	#N/A	#N/A	#N/A
Sn	mg/L		#N/A	#N/A	#N/A	0.00005	#N/A	#N/A	#N/A	#N/A	0.00004	#N/A	#N/A	#N/A
Sr	mg/L		#N/A	#N/A	#N/A	0.662	#N/A	#N/A	#N/A	#N/A	0.461	#N/A	#N/A	#N/A
Ti	mg/L		#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Tl	mg/L		#N/A	#N/A	#N/A	< 0.000002	#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A	#N/A	#N/A
U	mg/L		#N/A	#N/A	#N/A	0.00185	#N/A	#N/A	#N/A	#N/A	0.00154	#N/A	#N/A	#N/A
V	mg/L		#N/A	#N/A	#N/A	0.00054	#N/A	#N/A	#N/A	#N/A	0.00049	#N/A	#N/A	#N/A
W	mg/L		#N/A	#N/A	#N/A	0.00013	#N/A	#N/A	#N/A	#N/A	0.00012	#N/A	#N/A	#N/A
Y	mg/L		#N/A	#N/A	#N/A	0.000010	#N/A	#N/A	#N/A	#N/A	< 0.000001	#N/A	#N/A	#N/A
Zn	mg/L	0.50	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A

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Transposed by	BB july 16/08	BB july 16/08	BB july 21/08	RJC Aug 7/08	RJC Aug 7/08	RJC Aug 7/08	RJC Aug 7/08	RJC Aug 7/08	BB Aug 19/08	BB Aug 27/08	BB Aug 27/08	BB Sept 19/08	
Checked by	PW Aug 05/08	PW Aug 05/08	PW Aug 05/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 28/08	PW Aug 28/08	PW Sep 19/08	
Checked by	PW Aug 05/08	PW Aug 05/08	PW Aug 05/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 28/08	PW Aug 28/08	PW Sep 19/08	

**Due to accidenta*

Test Specimen

Sample	Weight (g)
Average Grade Ore Overall Comp 1/4 inch	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	24	25	26	27	28	29	30	31	32	33	34	35
LIMS			10019-SEP08	10047-SEP08	10211-SEP08	10438-SEP08	10059-OCT08	10105-OCT08	10271-OCT08	10475-OCT08	10684-OCT08	10019-NOV08	10056-NOV08	10241-NOV08
Hum Cell Leachate Vol	mLs		898	950	962	911	941	957	896	949	897	892	868	940
pH	units	6-9.5	7.41	7.43	7.45	7.54	7.48	7.43	7.22	7.61	7.41	7.50	7.40	7.55
Conductivity	µS/cm		29	33	36	30	29	35	29	28	34	36	22	26
Alkalinity	mg/L as $CaCO_3$		11	13	14	12	12	14	11	12	10	32	10	11
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		1.7	2.1	2.1	1.8	2.1	1.9	1.4	1.9	1.5	1.6	1.4	1.8
Cl	mg/L		#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2
F	mg/L		#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06
NO_2	as N mg/L		#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06
NO_3	as N mg/L		#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05
NH_3+NH_4	as N mg/L		#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	0.2	#N/A	#N/A	#N/A	#N/A	0.1
Hg	mg/L		#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001
Ag	mg/L		#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00001
Al	mg/L		#N/A	0.0437	#N/A	#N/A	#N/A	#N/A	0.0527	#N/A	#N/A	#N/A	#N/A	0.0535
As	mg/L	0.20	#N/A	0.0002	#N/A	#N/A	#N/A	#N/A	0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0002
Ba	mg/L		#N/A	0.0692	#N/A	#N/A	#N/A	#N/A	0.0521	#N/A	#N/A	#N/A	#N/A	0.0599
Be	mg/L		#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002
B	mg/L		#N/A	0.0004	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	0.0010
Bi	mg/L		#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00002
Ca	mg/L		#N/A	5.39	#N/A	#N/A	#N/A	#N/A	4.12	#N/A	#N/A	#N/A	#N/A	4.73
Cd	mg/L		#N/A	< 0.000003	#N/A	#N/A	#N/A	#N/A	0.000003	#N/A	#N/A	#N/A	#N/A	0.000019
Co	mg/L		#N/A	0.000059	#N/A	#N/A	#N/A	#N/A	0.000057	#N/A	#N/A	#N/A	#N/A	0.000054
Cr	mg/L		#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005
Cu	mg/L	0.30	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005
Fe	mg/L	3.00	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01
K	mg/L		#N/A	0.93	#N/A	#N/A	#N/A	#N/A	0.81	#N/A	#N/A	#N/A	#N/A	0.86
Li	mg/L		#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	0.001
Mg	mg/L		#N/A	0.236	#N/A	#N/A	#N/A	#N/A	0.152	#N/A	#N/A	#N/A	#N/A	0.171
Mn	mg/L		#N/A	0.0121	#N/A	#N/A	#N/A	#N/A	0.0108	#N/A	#N/A	#N/A	#N/A	0.0106
Mo	mg/L		#N/A	0.00063	#N/A	#N/A	#N/A	#N/A	0.00064	#N/A	#N/A	#N/A	#N/A	0.00045
Na	mg/L		#N/A	0.08	#N/A	#N/A	#N/A	#N/A	0.07	#N/A	#N/A	#N/A	#N/A	0.08
Ni	mg/L	0.50	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001
Pb	mg/L	0.20	#N/A	0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	0.00004
Sb	mg/L		#N/A	0.00065	#N/A	#N/A	#N/A	#N/A	0.00029	#N/A	#N/A	#N/A	#N/A	0.0003
Se	mg/L		#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001
Si	mg/L		#N/A	0.50	#N/A	#N/A	#N/A	#N/A	0.36	#N/A	#N/A	#N/A	#N/A	0.43
Sn	mg/L		#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00002	#N/A	#N/A	#N/A	#N/A	0.00011
Sr	mg/L		#N/A	0.466	#N/A	#N/A	#N/A	#N/A	0.304	#N/A	#N/A	#N/A	#N/A	0.326
Ti	mg/L		#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001
Tl	mg/L		#N/A	0.000005	#N/A	#N/A	#N/A	#N/A	0.000004	#N/A	#N/A	#N/A	#N/A	0.000016
U	mg/L		#N/A	0.00157	#N/A	#N/A	#N/A	#N/A	0.00112	#N/A	#N/A	#N/A	#N/A	0.00125
V	mg/L		#N/A	0.00044	#N/A	#N/A	#N/A	#N/A	0.00043	#N/A	#N/A	#N/A	#N/A	0.00045
W	mg/L		#N/A	0.00012	#N/A	#N/A	#N/A	#N/A	0.00012	#N/A	#N/A	#N/A	#N/A	0.00004
Y	mg/L		#N/A	0.000007	#N/A	#N/A	#N/A	#N/A	0.000005	#N/A	#N/A	#N/A	#N/A	0.000019
Zn	mg/L	0.50	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001

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Transposed by	BB Sept 19/08	BB Sept 19/08	BB Oct6/08	BB Oct6/08	BB Oct15/08	BB Oct15/08	BB Oct30/08	BB Dec 1/08	BB Dec 1/08	BB Dec 1/08	BB Dec 1/08	BB Dec 1/08	
Checked by	PW Sep 19/08	PW Sep 19/08	PW Oct.21/08	PW Oct.21/08	PW Oct.21/08	PW Oct.21/08	PW Oct.30/08	PW Dec.01/08	PW Dec.01/08	PW Dec.01/08	PW Dec.01/08	PW Dec.01/08	
Checked by	PW Sep 19/08	PW Sep 19/08	PW Oct.21/08	PW Oct.21/08	PW Oct.21/08	PW Oct.21/08	PW Oct.30/08	PW Dec.01/08	PW Dec.01/08	PW Dec.01/08	PW Dec.01/08	PW Dec.01/08	

**Due to accidenta* *Not sufficient sample to reassay alkalinity*

Test Specimen

Sample	Weight (g)
Average Grade Ore Overall Comp 1/4 inch	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	36	37	38	39	40	41	42	43
LIMS			10418-NOV08	10021-DEC08	10051-DEC08	10137-DEC08	10278-DEC08	10513-DEC08	10021-JAN09	10051-JAN09
Hum Cell Leachate Vol	mLs		948	909	898	922	982	900	887	971
pH	units	6-9.5	7.31	7.34	7.24	7.54	7.71	7.33	7.59	7.50
Conductivity	µS/cm		26	25	25	26	30	23	24	29
Alkalinity	mg/L as $CaCO_3$		12	10	*11	11	14	10	9	13
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		1.5	1.3	1.2	1.2	**1.1	1.2	1.4	1.5
Cl	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A
F	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_2	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_3	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A
NH_3+NH_4	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A
Hg	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Ag	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Al	mg/L		#N/A	#N/A	#N/A	#N/A	0.0193	#N/A	#N/A	#N/A
As	mg/L	0.20	#N/A	#N/A	#N/A	#N/A	0.0003	#N/A	#N/A	#N/A
Ba	mg/L		#N/A	#N/A	#N/A	#N/A	0.0080	#N/A	#N/A	#N/A
Be	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A
B	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A
Bi	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Ca	mg/L		#N/A	#N/A	#N/A	#N/A	5.94	#N/A	#N/A	#N/A
Cd	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000003	#N/A	#N/A	#N/A
Co	mg/L		#N/A	#N/A	#N/A	#N/A	0.000051	#N/A	#N/A	#N/A
Cr	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Cu	mg/L	0.30	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Fe	mg/L	3.00	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A
K	mg/L		#N/A	#N/A	#N/A	#N/A	1.21	#N/A	#N/A	#N/A
Li	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Mg	mg/L		#N/A	#N/A	#N/A	#N/A	0.561	#N/A	#N/A	#N/A
Mn	mg/L		#N/A	#N/A	#N/A	#N/A	0.0394	#N/A	#N/A	#N/A
Mo	mg/L		#N/A	#N/A	#N/A	#N/A	0.00179	#N/A	#N/A	#N/A
Na	mg/L		#N/A	#N/A	#N/A	#N/A	0.32	#N/A	#N/A	#N/A
Ni	mg/L	0.50	#N/A	#N/A	#N/A	#N/A	0.0002	#N/A	#N/A	#N/A
Pb	mg/L	0.20	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A
Sb	mg/L		#N/A	#N/A	#N/A	#N/A	0.0004	#N/A	#N/A	#N/A
Se	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Si	mg/L		#N/A	#N/A	#N/A	#N/A	0.32	#N/A	#N/A	#N/A
Sn	mg/L		#N/A	#N/A	#N/A	#N/A	0.00206	#N/A	#N/A	#N/A
Sr	mg/L		#N/A	#N/A	#N/A	#N/A	0.377	#N/A	#N/A	#N/A
Ti	mg/L		#N/A	#N/A	#N/A	#N/A	0.0001	#N/A	#N/A	#N/A
Tl	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A	#N/A	#N/A
U	mg/L		#N/A	#N/A	#N/A	#N/A	0.00100	#N/A	#N/A	#N/A
V	mg/L		#N/A	#N/A	#N/A	#N/A	0.00021	#N/A	#N/A	#N/A
W	mg/L		#N/A	#N/A	#N/A	#N/A	0.00032	#N/A	#N/A	#N/A
Y	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000001	#N/A	#N/A	#N/A
Zn	mg/L	0.50	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A

Government du Quebec, Ministére de L'Environnement. 2005. Directive

**Reassay LIMS 10239-JAN09*

***Reassay LIMS 10242-JAN09*

Transposed by	BB Dec 16/08	BB Dec 16/08	BB Dec 16/08	BB Jan 12/09	BB Jan 12/09	BB Jan 12/09	BB Jan 21/09	BB Jan 29/09
Checked by	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09	Pw Jan.12/09	PW Jan.12/09		
Checked by	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09		

**Due to accidenta*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Average Grade Ore Overall Comp 1/4 inch	1000

Weekly Leach	No.	0	1	2	3	4	5	6	7	8	9
Summary of ABA Test Data											
Sulphur (S)	%	1.36	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	1.09	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	50.1	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t	38.6									
Leachate Paremeters Measured											
Leachate Volume Collected	mL	783	995	970	982	993	988	994	982	976	979
pH	units	8.49	7.53	7.25	7.33	7.49	7.34	7.45	7.25	7.17	7.05
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	30	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	15	24	22	22	20	63	14	15	16	12
Conductivity	µS/cm	131	135	83	77	66	54	42	56	51	58
SO_4	mg/L	18	24	14	12	8.8	8.5	4.8	5.6	4.5	4.3
Ca	mg/L	8.4	10.1	8.07	8.24	8.02	8.42	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	1.3	1.89	1.33	1.22	0.917	0.928	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	14.1	23.9	13.6	11.8	8.7	8.4	4.8	5.5	4.4	4.2
Cumulative SO4 Production	g/t	14.1	38.0	51.6	63.3	72.1	80.5	85.2	90.7	95.1	99.3
Weekly S= Depletion	%	0.04	0.07	0.04	0.04	0.03	0.03	0.01	0.02	0.01	0.01
Cumulative S= Depletion	%	0.04	0.12	0.16	0.19	0.22	0.25	0.26	0.28	0.29	0.30
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	14.68	24.88	14.15	12.28	9.10	8.75	4.97	5.73	4.58	4.39
Cumulative Total NP Depletion	%	0.03	0.08	0.11	0.13	0.15	0.17	0.18	0.19	0.20	0.21
Cumulative CO_3 NP Depletion	%	0.04	0.10	0.14	0.17	0.19	0.22	0.23	0.24	0.26	0.27
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.57	1.99	1.94	1.96	1.99	29.64	1.99	1.96	1.95	1.96
Alkalinity Production Rate	$CaCO_3$, g/t/wk	11.75	23.88	21.34	21.60	19.86	62.24	13.92	14.73	15.62	11.75
Open-System NP Consumption	$CaCO_3$, g/t/wk	24.86	46.77	33.55	31.92	26.98	41.35	16.90	18.49	18.24	14.18
Open-System Cumulative NP Depletion (Total NP)	%	0.05	0.14	0.21	0.27	0.33	0.41	0.44	0.48	0.52	0.55
Open-System Cumulative NP Depletion (CO_3 NP)	%	0.06	0.19	0.27	0.36	0.43	0.53	0.58	0.62	0.67	0.71
Anorthoclase Molar Ratio	Ca: SO_4	1.12	1.01	1.38	1.65	2.18	2.37	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	16.42	25.09	19.54	20.20	19.88	20.77	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	1.40	1.32	1.76	2.05	2.60	2.81	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	20.61	32.83	24.85	25.13	23.63	24.54	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Average Grade Ore Overall Comp 1/4 inch	1000

Weekly Leach	No.	10	11	12	13	14	15	16	17	18	19
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	824	1002	978	906	977	952	982	925	916	914
pH	units	7.42	7.66	7.30	7.61	7.43	7.43	7.22	7.11	7.09	7.34
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	13	17	17	16	21	15	16	17	14	13
Conductivity	µS/cm	48	53	52	42	45	41	44	37	36	33
SO_4	mg/L	3.8	4.1	3.6	3.3	4.7	3.6	3.7	3.2	2.7	2.4
Ca	mg/L	6.04	#N/A	#N/A	#N/A	#N/A	6.03	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	0.486	#N/A	#N/A	#N/A	#N/A	0.374	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	3.1	4.1	3.5	3.0	4.6	3.4	3.6	3.0	2.5	2.2
Cumulative SO4 Production	g/t	102.5	106.6	110.1	113.1	117.7	121.1	124.7	127.7	130.2	132.4
Weekly S= Depletion	%	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Cumulative S= Depletion	%	0.31	0.33	0.34	0.35	0.36	0.37	0.38	0.39	0.40	0.40
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	3.26	4.28	3.67	3.11	4.78	3.57	3.78	3.08	2.58	2.29
Cumulative Total NP Depletion	%	0.21	0.22	0.23	0.24	0.24	0.25	0.26	0.27	0.27	0.28
Cumulative CO_3 NP Depletion	%	0.28	0.29	0.30	0.31	0.32	0.33	0.34	0.34	0.35	0.36
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.65	2.00	1.96	1.81	1.95	1.90	1.96	1.85	1.83	1.83
Alkalinity Production Rate	$CaCO_3$, g/t/wk	10.71	17.03	16.63	14.50	20.52	14.28	15.71	15.73	12.82	11.88
Open-System NP Consumption	$CaCO_3$, g/t/wk	12.33	19.31	18.34	15.80	23.35	15.95	17.53	16.96	13.57	12.34
Open-System Cumulative NP Depletion (Total NP)	**%**	0.57	0.61	0.65	0.68	0.72	0.76	0.79	0.82	0.85	0.88
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	0.74	0.79	0.84	0.88	0.94	0.98	1.03	1.07	1.10	1.14
Anorthoclase Molar Ratio	Ca: SO_4	3.81	#N/A	#N/A	#N/A	#N/A	4.01	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	12.43	#N/A	#N/A	#N/A	#N/A	14.33	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	4.31	#N/A	#N/A	#N/A	#N/A	4.42	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	14.07	#N/A	#N/A	#N/A	#N/A	15.80	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Average Grade Ore Overall Comp 1/4 inch	1000

Weekly Leach	No.	20	21	22	23	24	25	26	27	28	29
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	905	907	850	904	898	950	962	911	941	957
pH	units	7.33	7.33	7.64	7.30	7.41	7.43	7.45	7.54	7.48	7.43
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	12	13	10	12	11	13	14	12	12	14
Conductivity	µS/cm	32	28	40	29	29	33	36	30	29	35
SO_4	mg/L	2.1	2	2	1.8	1.7	2.1	2.1	1.8	2.1	1.9
Ca	mg/L	4.86	#N/A	#N/A	#N/A	#N/A	5.39	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	0.234	#N/A	#N/A	#N/A	#N/A	0.236	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	1.9	1.8	1.7	1.6	1.5	2.0	2.0	1.6	2.0	1.8
Cumulative SO4 Production	g/t	134.3	136.1	137.8	139.4	140.9	142.9	145.0	146.6	148.6	150.4
Weekly S= Depletion	%	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.01
Cumulative S= Depletion	%	0.41	0.42	0.42	0.43	0.43	0.44	0.44	0.45	0.45	0.46
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	1.98	1.89	1.77	1.70	1.59	2.08	2.10	1.71	2.06	1.89
Cumulative Total NP Depletion	%	0.28	0.28	0.29	0.29	0.29	0.30	0.30	0.30	0.31	0.31
Cumulative CO_3 NP Depletion	%	0.36	0.37	0.37	0.38	0.38	0.39	0.39	0.40	0.40	0.41
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.81	1.81	1.70	1.81	1.80	1.90	1.92	1.82	1.88	1.91
Alkalinity Production Rate	$CaCO_3$, g/t/wk	10.86	11.79	8.50	10.85	9.88	12.35	13.47	10.93	11.29	13.40
Open-System NP Consumption	$CaCO_3$, g/t/wk	11.03	11.87	8.57	10.74	9.67	12.53	13.65	10.82	11.47	13.38
Open-System Cumulative NP Depletion (Total NP)	**%**	0.90	0.92	0.94	0.96	0.98	1.00	1.03	1.05	1.08	1.10
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	1.17	1.20	1.22	1.25	1.27	1.30	1.34	1.37	1.40	1.43
Anorthoclase Molar Ratio	Ca: SO_4	5.55	#N/A	#N/A	#N/A	#N/A	6.15	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	10.98	#N/A	#N/A	#N/A	#N/A	12.78	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	5.99	#N/A	#N/A	#N/A	#N/A	6.60	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	11.85	#N/A	#N/A	#N/A	#N/A	13.71	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Average Grade Ore Overall Comp 1/4 inch	1000

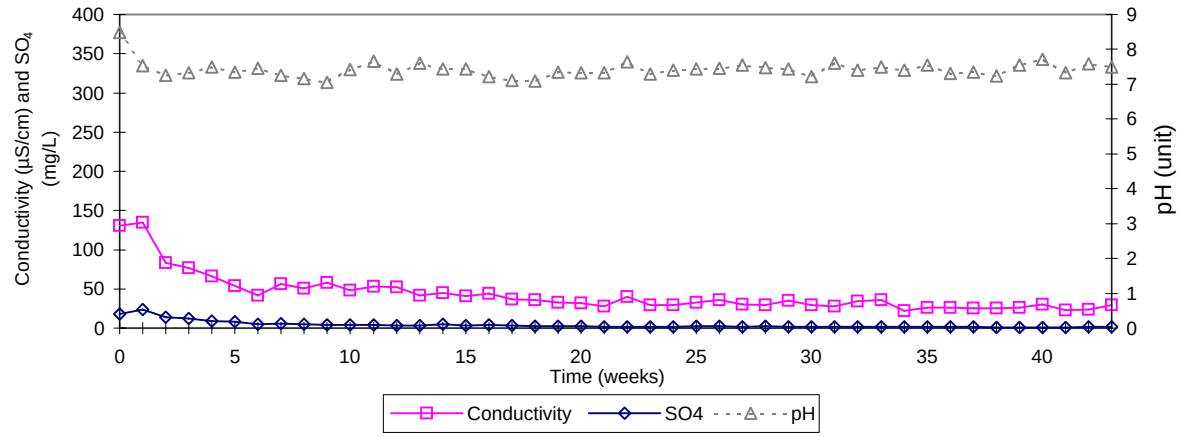
Weekly Leach	No.	30	31	32	33	34	35	36	37	38	39
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	896	949	897	892	868	940	948	909	898	922
pH	units	7.22	7.61	7.41	7.50	7.40	7.55	7.31	7.34	7.24	7.54
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	11	12	10	32	10	11	12	10	11	11
Conductivity	µS/cm	29	28	34	36	22	26	26	25	25	26
SO_4	mg/L	1.4	1.9	1.5	1.6	1.4	1.8	1.5	1.3	1.2	1.2
Ca	mg/L	4.12	#N/A	#N/A	#N/A	#N/A	4.73	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	0.152	#N/A	#N/A	#N/A	#N/A	0.171	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	1.3	1.8	1.3	1.4	1.2	1.7	1.4	1.2	1.1	1.1
Cumulative SO4 Production	g/t	151.6	153.5	154.8	156.2	157.4	159.1	160.6	161.7	162.8	163.9
Weekly S= Depletion	%	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Cumulative S= Depletion	%	0.46	0.47	0.47	0.48	0.48	0.49	0.49	0.49	0.50	0.50
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	1.31	1.88	1.40	1.49	1.27	1.76	1.48	1.23	1.12	1.15
Cumulative Total NP Depletion	%	0.32	0.32	0.32	0.32	0.33	0.33	0.33	0.34	0.34	0.34
Cumulative CO_3 NP Depletion	%	0.41	0.41	0.42	0.42	0.42	0.43	0.43	0.44	0.44	0.44
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.79	1.90	1.79	1.78	1.74	1.88	1.90	1.82	1.80	1.84
Alkalinity Production Rate	$CaCO_3$, g/t/wk	9.86	11.39	8.97	28.54	8.68	10.34	11.38	9.09	9.88	10.14
Open-System NP Consumption	$CaCO_3$, g/t/wk	9.37	11.37	8.58	28.25	8.21	10.22	10.96	8.50	9.20	9.45
Open-System Cumulative NP Depletion (Total NP)	**%**	1.12	1.14	1.16	1.22	1.23	1.25	1.28	1.29	1.31	1.33
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	1.46	1.48	1.51	1.58	1.60	1.63	1.66	1.68	1.70	1.73
Anorthoclase Molar Ratio	Ca: SO_4	7.05	#N/A	#N/A	#N/A	#N/A	6.30	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	9.22	#N/A	#N/A	#N/A	#N/A	11.10	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	7.48	#N/A	#N/A	#N/A	#N/A	6.67	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	9.78	#N/A	#N/A	#N/A	#N/A	11.76	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

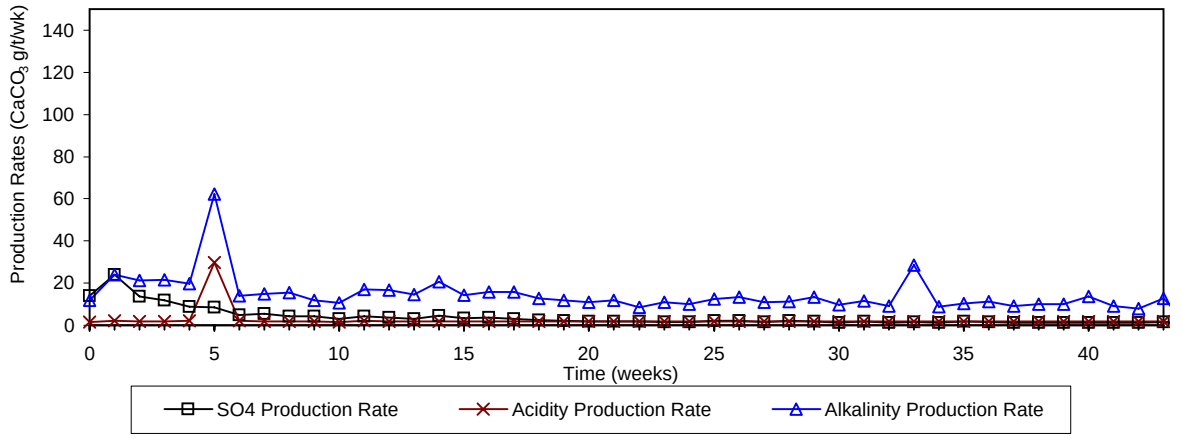
TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

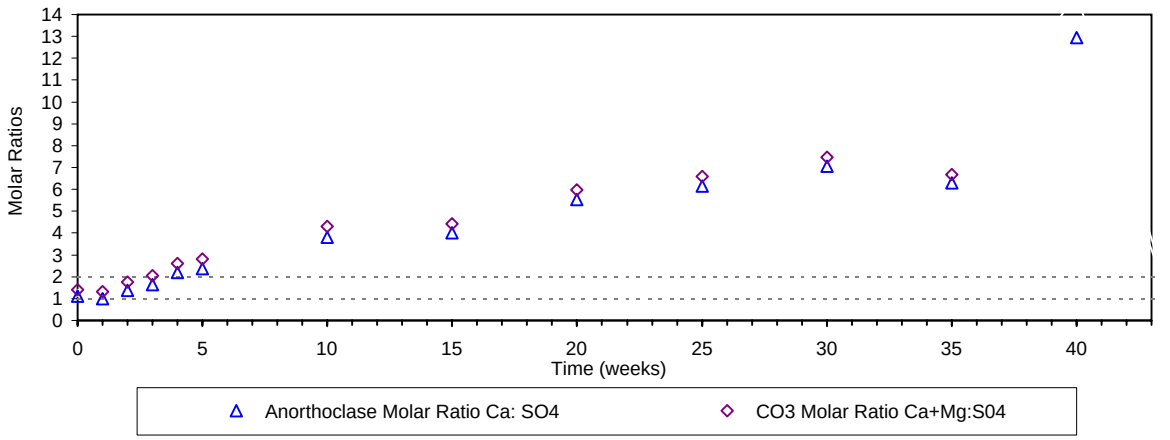
Conductivity, Sulphate, and pH in Weekly Humidity Cell Leachate - Average Grade Ore Overall Comp 1/4 inch



Acidity, Alkalinity and SO_4 Production Rates - Average Grade Ore Overall Comp 1/4 inch



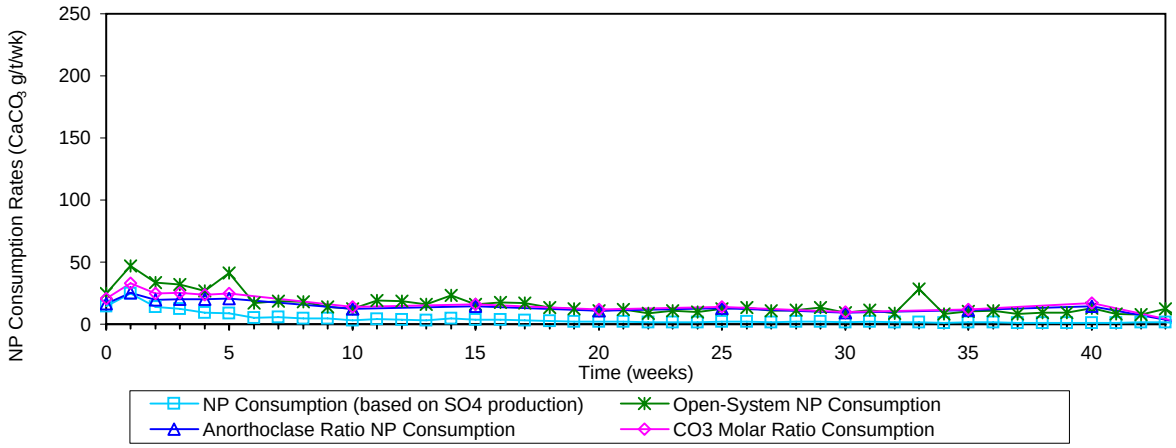
Carbonate (Ca + Mg/SO_4) and Anorthoclase (Ca/SO_4) Molar Ratios - Average Grade Ore Overall Comp 1/4 inch



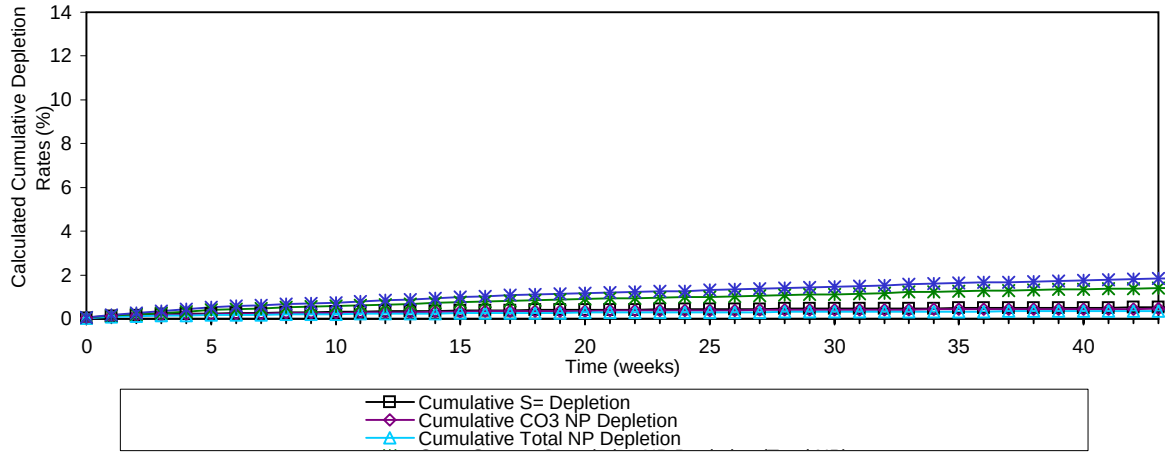
TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

NP Consumption Rates - Average Grade Ore Overall Comp 1/4 inch



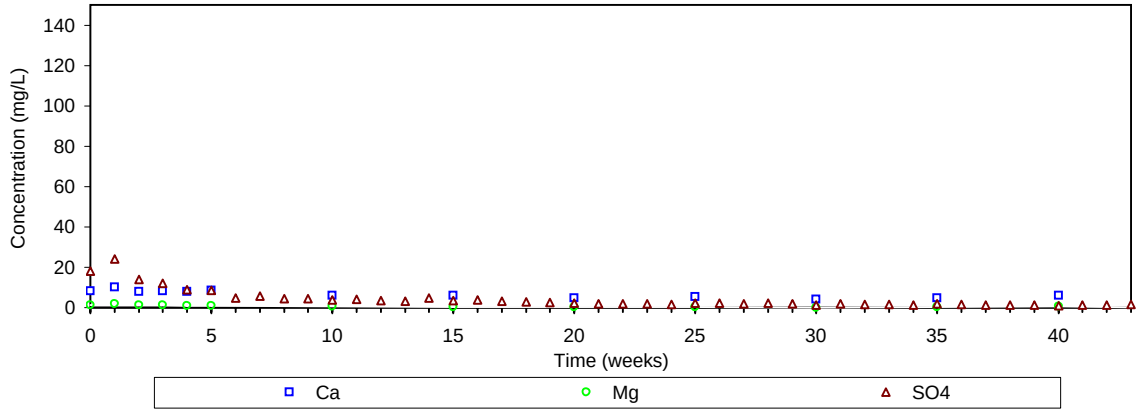
Cumulative Sulphide and NP Depletion Rates - Average Grade Ore Overall Comp 1/4 inch



Note: Cumulative Total and CO_3 NP depletions calculated based on sulphate assay.

Note: Open-System NP depletion calculated based on cumulative NP depletion and alkalinity and acidty production rates.

Selected Parameters in Weekly Humidity Cell Leachate - Average Grade Ore Overall Comp 1/4 inch



Test Specimen

Sample	Weight (g)
High Sulphide Ore Overall Comp 1/4 inch	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	0	1	2	3	4	5	6	7	8	9	10	11
LIMS			10359-MAR08	10361-MAR08	10000-APR08	10170-APR08	10315-APR08	10518-APR08	10632-APR08	10064-MAY08	10126-MAY08	10152-MAY08	10703-MAY08	10017-JUN08
Hum Cell Leachate Vol	mLs		832	949	904	932	933	850	938	932	935	976	845	903
pH	units	6-9.5	8.07	7.47	7.25	7.04	7.19	**5.88**	7.46	*6.96	7.05	7.31	7.54	7.41
Conductivity	µS/cm		107	110	55	55	49	64	34	*51	35	40	28	35
Alkalinity	mg/L as $CaCO_3$		11	18	12	11	12	8	11	*11	9	10	9	12
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	*<2	<2	<2	<2	<2
SO_4	mg/L		16	23	10	9.2	7.5	5.5	3.6	3.2	2.7	2.6	2.4	2.1
Cl	mg/L		4.9	3.3	0.6	< 0.2	< 0.2	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A
F	mg/L		0.06	0.10	0.06	< 0.06	< 0.06	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A
NO_2	as N mg/L		< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A
NO_3	as N mg/L		0.79	0.28	0.11	0.53	0.68	0.25	#N/A	#N/A	#N/A	#N/A	0.07	#N/A
NH_3+NH_4	as N mg/L		< 0.1	0.1	< 0.1	0.3	< 0.1	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Ag	mg/L		0.00001	0.00004	0.00002	< 0.00001	< 0.00001	0.00001	#N/A	#N/A	#N/A	#N/A	0.00003	#N/A
Al	mg/L		0.0402	0.0396	0.0311	0.0320	0.0418	0.0435	#N/A	#N/A	#N/A	#N/A	0.0350	#N/A
As	mg/L	0.20	< 0.0002	0.0004	0.0006	0.0002	0.0002	0.0003	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A
Ba	mg/L		0.0124	0.0177	0.0093	0.0147	0.0147	0.0139	#N/A	#N/A	#N/A	#N/A	0.0168	#N/A
Be	mg/L		< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A
B	mg/L		0.0027	0.0048	0.0019	0.0013	0.0013	0.0008	#N/A	#N/A	#N/A	#N/A	0.0003	#N/A
Bi	mg/L		0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00001	#N/A
Ca	mg/L		9.48	10.2	5.32	7.02	5.62	4.14	#N/A	#N/A	#N/A	#N/A	3.47	#N/A
Cd	mg/L		< 0.000003	0.000006	0.000005	0.000007	0.000005	< 0.000003	#N/A	#N/A	#N/A	#N/A	0.000009	#N/A
Co	mg/L		0.000196	0.000104	0.000090	0.000040	0.000026	0.000054	#N/A	#N/A	#N/A	#N/A	0.000052	#N/A
Cr	mg/L		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Cu	mg/L	0.30	0.0013	0.0009	< 0.0005	< 0.0005	< 0.0005	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Fe	mg/L	3.00	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A
K	mg/L		5.09	5.24	2.43	2.40	2.01	2.01	#N/A	#N/A	#N/A	#N/A	1.19	#N/A
Li	mg/L		0.004	0.004	0.002	0.002	0.003	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Mg	mg/L		1.14	1.79	0.782	0.876	0.615	0.486	#N/A	#N/A	#N/A	#N/A	0.244	#N/A
Mn	mg/L		0.0185	0.0375	0.0228	0.0203	0.0175	0.0111	#N/A	#N/A	#N/A	#N/A	0.0129	#N/A
Mo	mg/L		0.00197	0.00937	0.00574	0.00476	0.00407	0.00278	#N/A	#N/A	#N/A	#N/A	0.00077	#N/A
Na	mg/L		3.58	3.79	1.25	0.92	0.51	0.40	#N/A	#N/A	#N/A	#N/A	0.15	#N/A
Ni	mg/L	0.50	0.0008	0.0007	0.0002	0.0002	0.0002	0.0001	#N/A	#N/A	#N/A	#N/A	0.0002	#N/A
Pb	mg/L	0.20	0.00007	0.00009	0.00005	< 0.00002	< 0.00002	< 0.00002	#N/A	#N/A	#N/A	#N/A	0.00011	#N/A
Sb	mg/L		0.00164	0.00251	0.00082	0.00084	0.00079	0.00058	#N/A	#N/A	#N/A	#N/A	0.00049	#N/A
Se	mg/L		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Si	mg/L		0.41	0.61	0.31	0.45	0.47	0.30	#N/A	#N/A	#N/A	#N/A	0.19	#N/A
Sn	mg/L		0.00583	0.00283	0.00059	0.00057	0.00066	0.00101	#N/A	#N/A	#N/A	#N/A	0.00065	#N/A
Sr	mg/L		0.345	0.550	0.266	0.340	0.268	0.207	#N/A	#N/A	#N/A	#N/A	0.125	#N/A
Ti	mg/L		0.0002	0.0001	< 0.0001	< 0.0001	< 0.0001	0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Tl	mg/L		0.000007	< 0.000002	0.000005	< 0.000002	< 0.000002	0.000092	#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A
U	mg/L		0.000417	0.00195	0.000997	0.00129	0.00119	0.000668	#N/A	#N/A	#N/A	#N/A	0.000886	#N/A
V	mg/L		0.00043	0.00027	0.00022	0.00020	0.00029	0.00026	#N/A	#N/A	#N/A	#N/A	0.00020	#N/A
W	mg/L		0.00133	0.00066	0.00051	0.00052	0.00049	0.00050	#N/A	#N/A	#N/A	#N/A	0.00017	#N/A
Y	mg/L		0.000008	0.000009	0.000004	0.000006	0.000003	0.000003	#N/A	#N/A	#N/A	#N/A	0.000004	#N/A
Zn	mg/L	0.50	< 0.001	< 0.001	< 0.001	0.001	< 0.001	< 0.001	#N/A	#N/A	#N/A	#N/A	0.001	#N/A

Government du Quebec, Ministére de L'Environnement. 2005. Directive no. 019.

Wks 0, 1, 2, 3 and 4 NH_3 + NH_4 analyses reported on LIMS 10444-MAY08

Due to laboratory technician error metals analyses are not available for Week 10

Transposed by	BB Apr 9/08	BB Apr 9/08	BB Apr 22/08	BB May 5/08	BB May 5/08	BB May 5/08	BB Jun 2/08	BB Jun 2/08	BB Jun 2/08	BB july 16/08	BB july 16/08	BB july 16/08
Checked by	PW Apr 14/08	PW Apr 14/08	PW May 23/08	PW May 23/08	PW May 23/08	PW May 23/08	PW Jun 5/08	PW Jun 5/08	PW Jun 5/08	PW Aug 05/08	PW Aug 05/08	PW Aug 05/08

**Due to accidental acidification of the Week 23 sample in the laboratory, data for the Week 6 sample is reported as an average of the previous 5 weeks data (conductivity previous 3 weeks data).*

Test Specimen

Sample	Weight (g)
High Sulphide Ore Overall Comp 1/4 inch	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	12	13	14	15	16	17	18	19	20	21	22	23
LIMS			10050-JUN08	10100-JUN08	10379-JUN08	10019-JUL08	10046-JUL08	10123-JUL08	10149-JUL08	10457-JUL08	10015-AUG08	10046-AUG08	10428-AUG08	10502-AUG08
Hum Cell Leachate Vol	mLs		982	979	958	892	981	943	892	906	912	895	838	947
pH	units	6-9.5	7.54	7.54	7.27	7.23	7.18	7.02	6.93	7.18	7.21	7.33	7.41	7.35
Conductivity	µS/cm		42	36	28	27	36	28	22	24	23	19	36	42
Alkalinity	mg/L as $CaCO_3$		16	12	12	10	13	14	8	9	9	8	10	18
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		2.3	2.5	2	1.8	2.1	1.9	1.5	1.6	1.5	1.4	1.3	2.9
Cl	mg/L		#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A
F	mg/L		#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_2	as N mg/L		#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_3	as N mg/L		#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A
NH_3+NH_4	as N mg/L		#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	0.2	#N/A	#N/A	#N/A
Hg	mg/L		#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Ag	mg/L		#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Al	mg/L		#N/A	#N/A	#N/A	0.0367	#N/A	#N/A	#N/A	#N/A	0.0382	#N/A	#N/A	#N/A
As	mg/L	0.20	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A
Ba	mg/L		#N/A	#N/A	#N/A	0.0257	#N/A	#N/A	#N/A	#N/A	0.0215	#N/A	#N/A	#N/A
Be	mg/L		#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A
B	mg/L		#N/A	#N/A	#N/A	0.0003	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A
Bi	mg/L		#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Ca	mg/L		#N/A	#N/A	#N/A	4.10	#N/A	#N/A	#N/A	#N/A	3.48	#N/A	#N/A	#N/A
Cd	mg/L		#N/A	#N/A	#N/A	0.000003	#N/A	#N/A	#N/A	#N/A	< 0.000003	#N/A	#N/A	#N/A
Co	mg/L		#N/A	#N/A	#N/A	0.00001	#N/A	#N/A	#N/A	#N/A	0.000004	#N/A	#N/A	#N/A
Cr	mg/L		#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Cu	mg/L	0.30	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Fe	mg/L	3.00	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A
K	mg/L		#N/A	#N/A	#N/A	1.01	#N/A	#N/A	#N/A	#N/A	0.84	#N/A	#N/A	#N/A
Li	mg/L		#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Mg	mg/L		#N/A	#N/A	#N/A	0.202	#N/A	#N/A	#N/A	#N/A	0.136	#N/A	#N/A	#N/A
Mn	mg/L		#N/A	#N/A	#N/A	0.0136	#N/A	#N/A	#N/A	#N/A	0.0133	#N/A	#N/A	#N/A
Mo	mg/L		#N/A	#N/A	#N/A	0.00051	#N/A	#N/A	#N/A	#N/A	0.00031	#N/A	#N/A	#N/A
Na	mg/L		#N/A	#N/A	#N/A	0.11	#N/A	#N/A	#N/A	#N/A	0.08	#N/A	#N/A	#N/A
Ni	mg/L	0.50	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Pb	mg/L	0.20	#N/A	#N/A	#N/A	0.00005	#N/A	#N/A	#N/A	#N/A	0.00003	#N/A	#N/A	#N/A
Sb	mg/L		#N/A	#N/A	#N/A	0.00030	#N/A	#N/A	#N/A	#N/A	0.00015	#N/A	#N/A	#N/A
Se	mg/L		#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Si	mg/L		#N/A	#N/A	#N/A	0.35	#N/A	#N/A	#N/A	#N/A	0.25	#N/A	#N/A	#N/A
Sn	mg/L		#N/A	#N/A	#N/A	0.00010	#N/A	#N/A	#N/A	#N/A	0.00013	#N/A	#N/A	#N/A
Sr	mg/L		#N/A	#N/A	#N/A	0.124	#N/A	#N/A	#N/A	#N/A	0.0848	#N/A	#N/A	#N/A
Ti	mg/L		#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Tl	mg/L		#N/A	#N/A	#N/A	< 0.000002	#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A	#N/A	#N/A
U	mg/L		#N/A	#N/A	#N/A	0.00112	#N/A	#N/A	#N/A	#N/A	0.000883	#N/A	#N/A	#N/A
V	mg/L		#N/A	#N/A	#N/A	0.00023	#N/A	#N/A	#N/A	#N/A	0.00019	#N/A	#N/A	#N/A
W	mg/L		#N/A	#N/A	#N/A	0.00014	#N/A	#N/A	#N/A	#N/A	0.00011	#N/A	#N/A	#N/A
Y	mg/L		#N/A	#N/A	#N/A	0.000003	#N/A	#N/A	#N/A	#N/A	< 0.000001	#N/A	#N/A	#N/A
Zn	mg/L	0.50	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A

*Government du Quebec, Ministére de L'Environnement. 2005. Directiv*Week 12 leachate volume not available therefore volume shown is an average of the previous 5 weeks.*

Transposed by	BB july 16/08	BB july 16/08	BB july 21/08	RJC Aug 7/08	RJC Aug 7/08	RJC Aug 7/08	RJC Aug 7/08	RJC Aug 7/08	BB Aug 19/08	BB Aug 27/08	BB Aug 27/08	BB Sept 19/08	
Checked by	PW Aug 05/08	PW Aug 05/08	PW Aug 05/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 28/08	PW Aug 28/08	PW Sep 19/08	

**Due to accidenta*

Test Specimen

Sample	Weight (g)
High Sulphide Ore Overall Comp 1/4 inch	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	24	25	26	27	28	29	30	31	32	33	34	35
LIMS			10019-SEP08	10047-SEP08	10211-SEP08	10438-SEP08	10059-OCT08	10105-OCT08	10271-OCT08	10475-OCT08	10684-OCT08	10019-NOV08	10056-NOV08	10241-NOV08
Hum Cell Leachate Vol	mLs		891	953	967	920	930	968	923	963	892	850	907	912
pH	units	6-9.5	7.22	7.24	7.21	7.26	7.29	7.24	7.27	7.40	7.28	7.33	7.20	7.34
Conductivity	µS/cm		22	27	27	22	21	23	25	22	23	29	18	18
Alkalinity	mg/L as $CaCO_3$		8	11	11	9	11	9	9	10	8	8	10	8
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		1.5	1.7	1.5	1.4	1.5	1.3	1.2	1.4	1.2	1.4	1.3	1.4
Cl	mg/L		#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2
F	mg/L		#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06
NO_2	as N mg/L		#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06
NO_3	as N mg/L		#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05
NH_3+NH_4	as N mg/L		#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	0.3	#N/A	#N/A	#N/A	#N/A	< 0.1
Hg	mg/L		#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001
Ag	mg/L		#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001
Al	mg/L		#N/A	0.0330	#N/A	#N/A	#N/A	#N/A	0.0428	#N/A	#N/A	#N/A	#N/A	0.0368
As	mg/L	0.20	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002
Ba	mg/L		#N/A	0.0275	#N/A	#N/A	#N/A	#N/A	0.0253	#N/A	#N/A	#N/A	#N/A	0.0218
Be	mg/L		#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002
B	mg/L		#N/A	0.0003	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	0.0003
Bi	mg/L		#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001
Ca	mg/L		#N/A	4.26	#N/A	#N/A	#N/A	#N/A	3.66	#N/A	#N/A	#N/A	#N/A	3.42
Cd	mg/L		#N/A	0.000004	#N/A	#N/A	#N/A	#N/A	0.000004	#N/A	#N/A	#N/A	#N/A	0.000006
Co	mg/L		#N/A	0.000020	#N/A	#N/A	#N/A	#N/A	0.000027	#N/A	#N/A	#N/A	#N/A	0.000024
Cr	mg/L		#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005
Cu	mg/L	0.30	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005
Fe	mg/L	3.00	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01
K	mg/L		#N/A	0.91	#N/A	#N/A	#N/A	#N/A	0.80	#N/A	#N/A	#N/A	#N/A	0.77
Li	mg/L		#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001
Mg	mg/L		#N/A	0.159	#N/A	#N/A	#N/A	#N/A	0.115	#N/A	#N/A	#N/A	#N/A	0.107
Mn	mg/L		#N/A	0.0148	#N/A	#N/A	#N/A	#N/A	0.0170	#N/A	#N/A	#N/A	#N/A	0.0140
Mo	mg/L		#N/A	0.00030	#N/A	#N/A	#N/A	#N/A	0.00011	#N/A	#N/A	#N/A	#N/A	0.00019
Na	mg/L		#N/A	0.05	#N/A	#N/A	#N/A	#N/A	0.06	#N/A	#N/A	#N/A	#N/A	0.06
Ni	mg/L	0.50	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001
Pb	mg/L	0.20	#N/A	0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002
Sb	mg/L		#N/A	0.00051	#N/A	#N/A	#N/A	#N/A	0.00017	#N/A	#N/A	#N/A	#N/A	< 0.0002
Se	mg/L		#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001
Si	mg/L		#N/A	0.37	#N/A	#N/A	#N/A	#N/A	0.28	#N/A	#N/A	#N/A	#N/A	0.24
Sn	mg/L		#N/A	0.00004	#N/A	#N/A	#N/A	#N/A	0.00005	#N/A	#N/A	#N/A	#N/A	0.00004
Sr	mg/L		#N/A	0.0955	#N/A	#N/A	#N/A	#N/A	0.0666	#N/A	#N/A	#N/A	#N/A	0.0572
Ti	mg/L		#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001
Tl	mg/L		#N/A	< 0.000002	#N/A	#N/A	#N/A	#N/A	0.000002	#N/A	#N/A	#N/A	#N/A	< 0.000002
U	mg/L		#N/A	0.00111	#N/A	#N/A	#N/A	#N/A	0.000789	#N/A	#N/A	#N/A	#N/A	0.000629
V	mg/L		#N/A	0.00018	#N/A	#N/A	#N/A	#N/A	0.00016	#N/A	#N/A	#N/A	#N/A	0.00015
W	mg/L		#N/A	0.00015	#N/A	#N/A	#N/A	#N/A	0.00008	#N/A	#N/A	#N/A	#N/A	< 0.00003
Y	mg/L		#N/A	0.000003	#N/A	#N/A	#N/A	#N/A	0.000003	#N/A	#N/A	#N/A	#N/A	0.000008
Zn	mg/L	0.50	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001

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Transposed by		BB Sept 19/08	BB Sept 19/08	BB Oct6/08	BB Oct6/08	BB Oct15/08	BB Oct15/08	BB Oct30/08	BB Dec 1/08	BB Dec 1/08	BB Dec 1/08	BB Dec 1/08	BB Dec 1/08	
Checked by		PW Sep 19/08	PW Sep 19/08	PW Oct.21/08	PW Oct.21/08	PW Oct.21/08	PW Oct.21/08	PW Oct.30/08	PW Dec.01/08	PW Dec.01/08	PW Dec.01/08	PW Dec.01/08	PW Dec.01/08	

**Due to accidenta* *Not sufficient sample to reassay alkalinity*

Test Specimen

Sample	Weight (g)
High Sulphide Ore Overall Comp 1/4 inch	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	36	37	38	39	40	41	42	43
LIMS			10418-NOV08	10021-DEC08	10051-DEC08	10137-DEC08	10278-DEC08	10513-DEC08	10021-JAN09	10051-JAN09
Hum Cell Leachate Vol	mLs		970	937	876	920	949	985	899	871
pH	units	6-9.5	7.12	7.18	7.09	7.30	7.39	7.19	7.46	7.22
Conductivity	µS/cm		23	22	17	20	24	20	19	17
Alkalinity	mg/L as $CaCO_3$		10	8	7	8	9	8	7	7
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		1.4	1.9	1.1	1.1	1.0	1.2	1.2	1.1
Cl	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A
F	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_2	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_3	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A
NH_3+NH_4	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A
Hg	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Ag	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Al	mg/L		#N/A	#N/A	#N/A	#N/A	0.0350	#N/A	#N/A	#N/A
As	mg/L	0.20	#N/A	#N/A	#N/A	#N/A	0.0003	#N/A	#N/A	#N/A
Ba	mg/L		#N/A	#N/A	#N/A	#N/A	0.0233	#N/A	#N/A	#N/A
Be	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A
B	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A
Bi	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Ca	mg/L		#N/A	#N/A	#N/A	#N/A	3.35	#N/A	#N/A	#N/A
Cd	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000003	#N/A	#N/A	#N/A
Co	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A	#N/A	#N/A
Cr	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Cu	mg/L	0.30	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Fe	mg/L	3.00	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A
K	mg/L		#N/A	#N/A	#N/A	#N/A	0.68	#N/A	#N/A	#N/A
Li	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Mg	mg/L		#N/A	#N/A	#N/A	#N/A	0.088	#N/A	#N/A	#N/A
Mn	mg/L		#N/A	#N/A	#N/A	#N/A	0.0166	#N/A	#N/A	#N/A
Mo	mg/L		#N/A	#N/A	#N/A	#N/A	0.00017	#N/A	#N/A	#N/A
Na	mg/L		#N/A	#N/A	#N/A	#N/A	0.04	#N/A	#N/A	#N/A
Ni	mg/L	0.50	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Pb	mg/L	0.20	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A
Sb	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A
Se	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Si	mg/L		#N/A	#N/A	#N/A	#N/A	0.22	#N/A	#N/A	#N/A
Sn	mg/L		#N/A	#N/A	#N/A	#N/A	0.00064	#N/A	#N/A	#N/A
Sr	mg/L		#N/A	#N/A	#N/A	#N/A	0.0524	#N/A	#N/A	#N/A
Ti	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Tl	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A	#N/A	#N/A
U	mg/L		#N/A	#N/A	#N/A	#N/A	0.000634	#N/A	#N/A	#N/A
V	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00003	#N/A	#N/A	#N/A
W	mg/L		#N/A	#N/A	#N/A	#N/A	0.00018	#N/A	#N/A	#N/A
Y	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000001	#N/A	#N/A	#N/A
Zn	mg/L	0.50	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A

Government du Quebec, Ministére de L'Environnement. 2005. Directive

Transposed by	BB Dec 16/08	BB Dec 16/08	BB Dec 16/08	BB Jan 12/09	BB Jan 12/09	BB Jan 12/09	BB Jan 21/09	BB Jan 29/09
Checked by	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09		

**Due to accidenta*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
High Sulphide Ore Overall Comp 1/4 inch	1000

Weekly Leach	No.	0	1	2	3	4	5	6	7	8	9
Summary of ABA Test Data											
Sulphur (S)	%	2.10	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	1.70	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	55.0	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t	36.9									
Leachate Paremeters Measured											
Leachate Volume Collected	mL	832	949	904	932	933	850	938	932	935	976
pH	units	8.07	7.47	7.25	7.04	7.19	5.88	7.46	6.96	7.05	7.31
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	11	18	12	11	12	8	11	10.8	9	10
Conductivity	µS/cm	107	110	55	55	49	64	34	51.4	35	40
SO_4	mg/L	16	23	10	9.2	7.5	5.5	3.6	3.2	2.7	2.6
Ca	mg/L	9.48	10.2	5.32	7.02	5.62	4.14	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	1.14	1.79	0.782	0.876	0.615	0.486	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	13.3	21.8	9.0	8.6	7.0	4.7	3.4	3.0	2.5	2.5
Cumulative SO4 Production	g/t	13.3	35.1	44.2	52.8	59.8	64.4	67.8	70.8	73.3	75.8
Weekly S= Depletion	%	0.03	0.04	0.02	0.02	0.01	0.01	0.01	0.01	0.00	0.00
Cumulative S= Depletion	%	0.03	0.07	0.09	0.10	0.12	0.13	0.13	0.14	0.14	0.15
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	13.87	22.74	9.42	8.93	7.29	4.87	3.52	3.11	2.63	2.64
Cumulative Total NP Depletion	%	0.03	0.07	0.08	0.10	0.11	0.12	0.13	0.13	0.14	0.14
Cumulative CO_3 NP Depletion	%	0.04	0.10	0.12	0.15	0.17	0.18	0.19	0.20	0.21	0.21
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.66	1.90	1.81	1.86	1.87	1.70	1.88	1.86	1.87	1.95
Alkalinity Production Rate	$CaCO_3$, g/t/wk	9.15	17.08	10.85	10.25	11.20	6.80	10.32	10.07	8.42	9.76
Open-System NP Consumption	$CaCO_3$, g/t/wk	21.35	37.92	18.46	17.32	16.62	9.97	11.96	11.31	9.17	10.45
Open-System Cumulative NP Depletion (Total NP)	**%**	0.04	0.11	0.14	0.17	0.20	0.22	0.24	0.26	0.28	0.30
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	0.06	0.16	0.21	0.26	0.30	0.33	0.36	0.39	0.42	0.45
Anorthoclase Molar Ratio	Ca: SO_4	1.42	1.06	1.28	1.83	1.80	1.80	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	19.69	24.17	12.01	16.33	13.09	8.79	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	1.70	1.37	1.58	2.21	2.12	2.15	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	23.60	31.16	14.92	19.69	15.45	10.49	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
High Sulphide Ore Overall Comp 1/4 inch	1000

Weekly Leach	No.	10	11	12	13	14	15	16	17	18	19
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	845	903	982	979	958	892	981	943	892	906
pH	units	7.54	7.41	7.54	7.54	7.27	7.23	7.18	7.02	6.93	7.18
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	9	12	16	12	12	10	13	14	8	9
Conductivity	µS/cm	28	35	42	36	28	27	36	28	22	24
SO_4	mg/L	2.4	2.1	2.3	2.5	2	1.8	2.1	1.9	1.5	1.6
Ca	mg/L	3.47	#N/A	#N/A	#N/A	#N/A	4.1	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	0.244	#N/A	#N/A	#N/A	#N/A	0.202	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	2.0	1.9	2.3	2.4	1.9	1.6	2.1	1.8	1.3	1.4
Cumulative SO4 Production	g/t	77.9	79.8	82.0	84.5	86.4	88.0	90.1	91.9	93.2	94.6
Weekly S= Depletion	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cumulative S= Depletion	%	0.15	0.16	0.16	0.17	0.17	0.17	0.18	0.18	0.18	0.19
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	2.11	1.98	2.35	2.55	2.00	1.67	2.15	1.87	1.39	1.51
Cumulative Total NP Depletion	%	0.15	0.15	0.16	0.16	0.16	0.17	0.17	0.17	0.18	0.18
Cumulative CO_3 NP Depletion	%	0.22	0.23	0.23	0.24	0.24	0.25	0.25	0.26	0.26	0.27
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.69	1.81	1.96	1.96	1.92	1.78	1.96	1.89	1.78	1.81
Alkalinity Production Rate	$CaCO_3$, g/t/wk	7.61	10.84	15.71	11.75	11.50	8.92	12.75	13.20	7.14	8.15
Open-System NP Consumption	$CaCO_3$, g/t/wk	8.03	11.01	16.10	12.34	11.58	8.81	12.94	13.18	6.75	7.85
Open-System Cumulative NP Depletion (Total NP)	**%**	0.31	0.33	0.36	0.39	0.41	0.42	0.45	0.47	0.48	0.50
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	0.47	0.50	0.54	0.57	0.61	0.63	0.66	0.70	0.72	0.74
Anorthoclase Molar Ratio	Ca: SO_4	3.47	#N/A	#N/A	#N/A	#N/A	5.46	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	7.32	#N/A	#N/A	#N/A	#N/A	9.13	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	3.87	#N/A	#N/A	#N/A	#N/A	5.90	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	8.17	#N/A	#N/A	#N/A	#N/A	9.87	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
High Sulphide Ore Overall Comp 1/4 inch	1000

Weekly Leach	No.	20	21	22	23	24	25	26	27	28	29
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	912	895	838	947	891	953	967	920	930	968
pH	units	7.21	7.33	7.41	7.35	7.22	7.24	7.21	7.26	7.29	7.24
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	9	8	10	18	8	11	11	9	11	9
Conductivity	µS/cm	23	19	36	42	22	27	27	22	21	23
SO_4	mg/L	1.5	1.4	1.3	2.9	1.5	1.7	1.5	1.4	1.5	1.3
Ca	mg/L	3.48	#N/A	#N/A	#N/A	#N/A	4.26	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	0.136	#N/A	#N/A	#N/A	#N/A	0.159	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	1.4	1.3	1.1	2.7	1.3	1.6	1.5	1.3	1.4	1.3
Cumulative SO4 Production	g/t	96.0	97.3	98.3	101.1	102.4	104.1	105.5	106.8	108.2	109.4
Weekly S= Depletion	%	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Cumulative S= Depletion	%	0.19	0.19	0.19	0.20	0.20	0.20	0.21	0.21	0.21	0.21
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	1.43	1.31	1.13	2.86	1.39	1.69	1.51	1.34	1.45	1.31
Cumulative Total NP Depletion	%	0.18	0.18	0.19	0.19	0.19	0.20	0.20	0.20	0.20	0.21
Cumulative CO_3 NP Depletion	%	0.27	0.27	0.28	0.29	0.29	0.29	0.30	0.30	0.31	0.31
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.82	1.79	1.68	1.89	1.78	1.91	1.93	1.84	1.86	1.94
Alkalinity Production Rate	$CaCO_3$, g/t/wk	8.21	7.16	8.38	17.05	7.13	10.48	10.64	8.28	10.23	8.71
Open-System NP Consumption	$CaCO_3$, g/t/wk	7.81	6.68	7.84	18.01	6.74	10.26	10.21	7.78	9.82	8.09
Open-System Cumulative NP Depletion (Total NP)	**%**	0.51	0.52	0.54	0.57	0.58	0.60	0.62	0.63	0.65	0.67
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	0.76	0.78	0.80	0.85	0.87	0.90	0.92	0.94	0.97	0.99
Anorthoclase Molar Ratio	Ca: SO_4	5.56	#N/A	#N/A	#N/A	#N/A	6.01	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	7.92	#N/A	#N/A	#N/A	#N/A	10.14	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	5.92	#N/A	#N/A	#N/A	#N/A	6.38	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	8.43	#N/A	#N/A	#N/A	#N/A	10.76	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
High Sulphide Ore Overall Comp 1/4 inch	1000

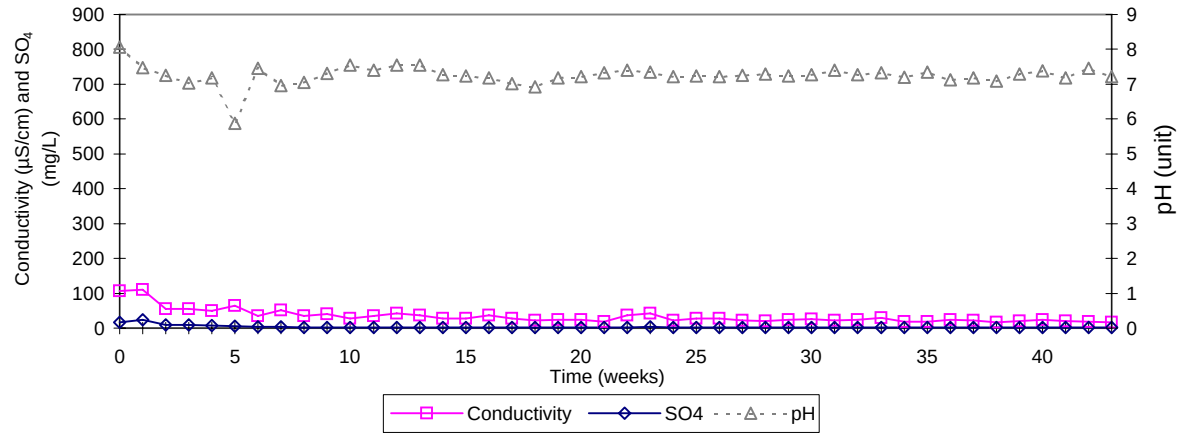
Weekly Leach	No.	30	31	32	33	34	35	36	37	38	39
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	923	963	892	850	907	912	970	937	876	920
pH	units	7.27	7.40	7.28	7.33	7.20	7.34	7.12	7.18	7.09	7.30
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	9	10	8	8	10	8	10	8	7	8
Conductivity	µS/cm	25	22	23	29	18	18	23	22	17	20
SO_4	mg/L	1.2	1.4	1.2	1.4	1.3	1.4	1.4	1.9	1.1	1.1
Ca	mg/L	3.66	#N/A	#N/A	#N/A	#N/A	3.42	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	0.115	#N/A	#N/A	#N/A	#N/A	0.107	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	1.1	1.3	1.1	1.2	1.2	1.3	1.4	1.8	1.0	1.0
Cumulative SO4 Production	g/t	110.6	111.9	113.0	114.2	115.3	116.6	118.0	119.8	120.7	121.7
Weekly S= Depletion	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cumulative S= Depletion	%	0.22	0.22	0.22	0.22	0.23	0.23	0.23	0.23	0.24	0.24
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	1.15	1.40	1.12	1.24	1.23	1.33	1.41	1.85	1.00	1.05
Cumulative Total NP Depletion	%	0.21	0.21	0.21	0.22	0.22	0.22	0.22	0.23	0.23	0.23
Cumulative CO_3 NP Depletion	%	0.31	0.32	0.32	0.32	0.33	0.33	0.33	0.34	0.34	0.34
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.85	1.93	1.78	1.70	1.81	1.82	1.94	1.87	1.75	1.84
Alkalinity Production Rate	$CaCO_3$, g/t/wk	8.31	9.63	7.14	6.80	9.07	7.30	9.70	7.50	6.13	7.36
Open-System NP Consumption	$CaCO_3$, g/t/wk	7.61	9.11	6.47	6.34	8.48	6.80	9.17	7.48	5.38	6.57
Open-System Cumulative NP Depletion (Total NP)	%	0.68	0.70	0.71	0.72	0.74	0.75	0.76	0.78	0.79	0.80
Open-System Cumulative NP Depletion (CO_3 NP)	%	1.01	1.04	1.06	1.07	1.10	1.11	1.14	1.16	1.17	1.19
Anorthoclase Molar Ratio	Ca: SO_4	7.31	#N/A	#N/A	#N/A	#N/A	5.85	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	8.43	#N/A	#N/A	#N/A	#N/A	7.79	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	7.69	#N/A	#N/A	#N/A	#N/A	6.16	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	8.87	#N/A	#N/A	#N/A	#N/A	8.19	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

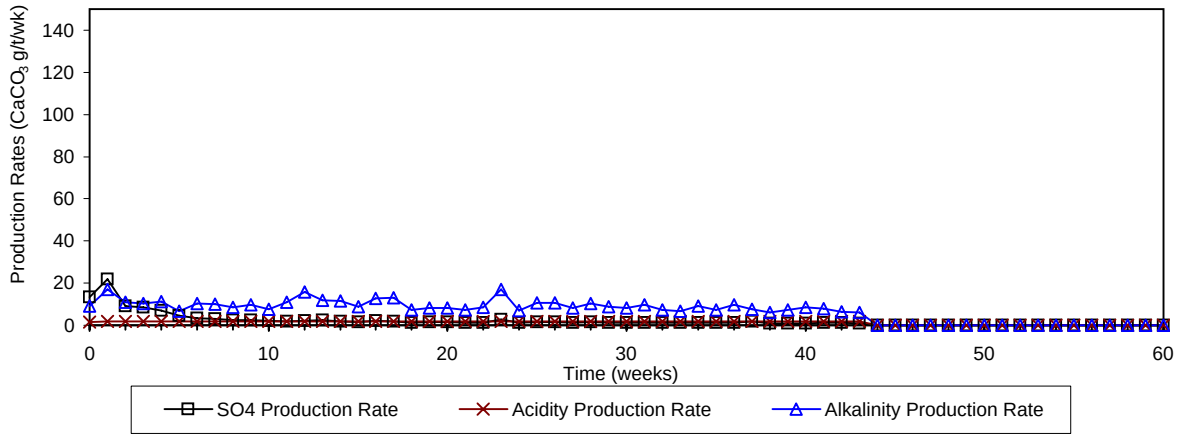
TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

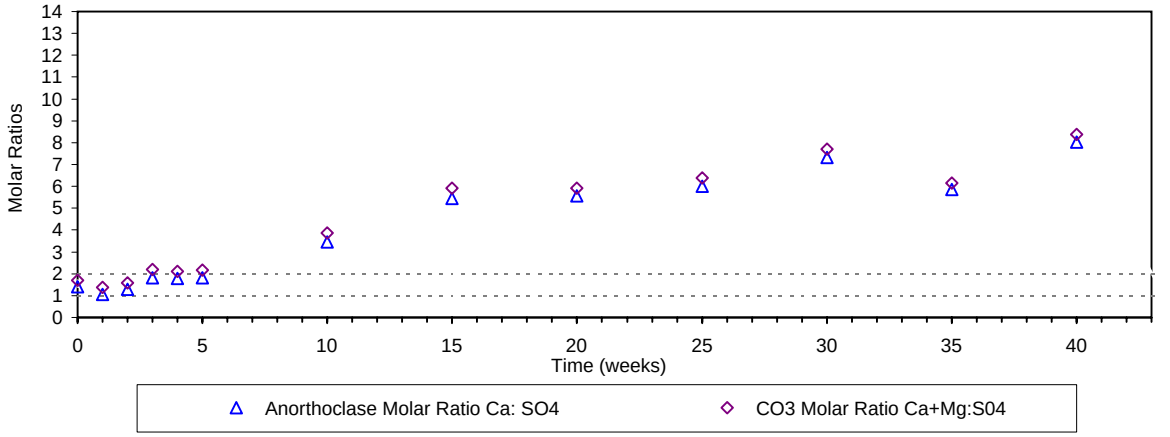
Conductivity, Sulphate, and pH in Weekly Humidity Cell Leachate - High Sulphide Ore Overall Comp 1/4 inch



Acidity, Alkalinity and SO_4 Production Rates - High Sulphide Ore Overall Comp 1/4 inch



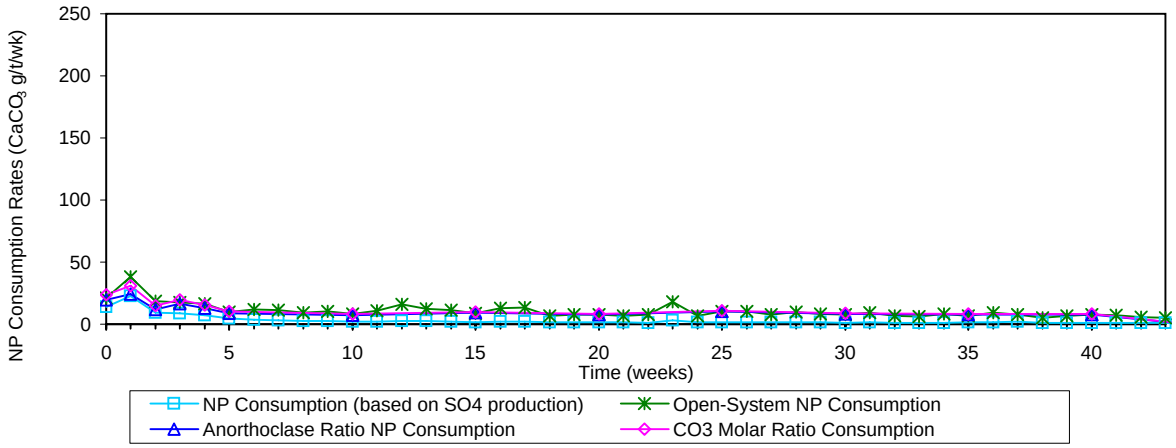
Carbonate (Ca + Mg/SO_4) and Anorthoclase (Ca/SO_4) Molar Ratios - High Sulphide Ore Overall Comp 1/4 inch



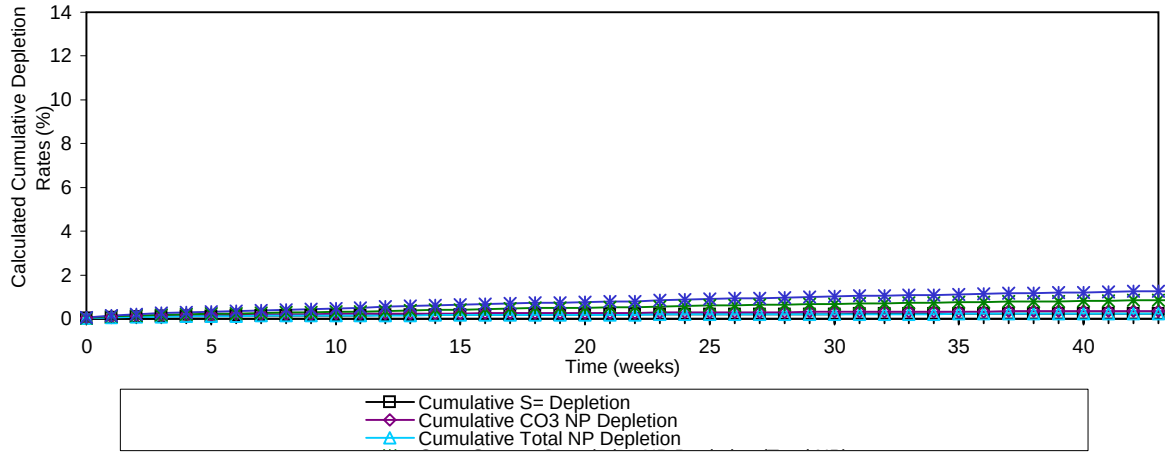
TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

NP Consumption Rates - High Sulphide Ore Overall Comp 1/4 inch



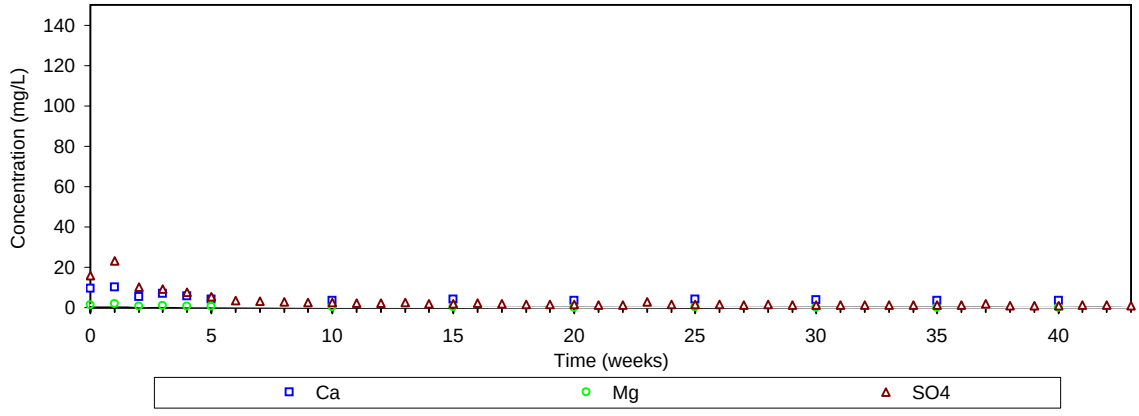
Cumulative Sulphide and NP Depletion Rates - High Sulphide Ore Overall Comp 1/4 inch



Note: Cumulative Total and CO_3 NP depletions calculated based on sulphate assay.

Note: Open-System NP depletion calculated based on cumulative NP depletion and alkalinity and acidty production rates.

Selected Parameters in Weekly Humidity Cell Leachate - High Sulphide Ore Overall Comp 1/4 inch



Test Specimen

Sample	Weight (g)
Average Waste Overall Comp 1/4 inch	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	0	1	2	3	4	5	6	7	8	9	10	11
LIMS			10359-MAR08	10361-MAR08	10000-APR08	10170-APR08	10315-APR08	10518-APR08	10632-APR08	10064-MAY08	10126-MAY08	10152-MAY08	10703-MAY08	10017-JUN08
Hum Cell Leachate Vol	mLs		783	964	887	925	925	920	933	932	924	964	880	907
pH	units	6-9.5	8.42	7.63	7.57	7.20	7.13	7.18	7.49	7.26	7.07	7.68	7.61	7.66
Conductivity	µS/cm		114	106	59	62	54	39	54	42	34	41	33	36
Alkalinity	mg/L as $CaCO_3$		14	24	15	15	11	9	22	11	*8	15	10	12
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		11	16	11	9.8	7.7	5.9	6.2	4.5	3.3	3.1	2.8	2.6
Cl	mg/L		8.8	3.3	0.4	< 0.2	< 0.2	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A
F	mg/L		0.09	0.13	0.08	< 0.06	0.06	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A
NO_2	as N mg/L		< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A
NO_3	as N mg/L		0.21	0.19	< 0.05	0.27	0.88	0.61	#N/A	#N/A	#N/A	#N/A	0.16	#N/A
NH_3+NH_4	as N mg/L		< 0.1	< 0.1	< 0.1	0.4	< 0.1	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Ag	mg/L		0.00002	0.00001	0.00003	< 0.00001	< 0.00001	0.00001	#N/A	#N/A	#N/A	#N/A	0.00002	#N/A
Al	mg/L		0.0510	0.0524	0.0380	0.0403	0.0486	0.0609	#N/A	#N/A	#N/A	#N/A	0.0629	#N/A
As	mg/L	0.20	< 0.0002	0.0004	0.0008	< 0.0002	0.0002	0.0004	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A
Ba	mg/L		0.0139	0.0252	0.0207	0.0286	0.0301	0.0243	#N/A	#N/A	#N/A	#N/A	0.0296	#N/A
Be	mg/L		< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	#N/A	#N/A	#N/A	#N/A	0.00003	#N/A
B	mg/L		0.0033	0.0049	0.0019	0.0014	0.0016	0.0008	#N/A	#N/A	#N/A	#N/A	0.0002	#N/A
Bi	mg/L		0.00002	0.00002	< 0.00001	< 0.00001	< 0.00001	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00002	#N/A
Ca	mg/L		9.13	9.24	6.37	6.82	6.21	4.10	#N/A	#N/A	#N/A	#N/A	3.71	#N/A
Cd	mg/L		< 0.000003	0.000014	0.000018	0.000016	0.000015	0.000009	#N/A	#N/A	#N/A	#N/A	0.000010	#N/A
Co	mg/L		0.000167	0.000085	0.000091	0.000040	0.000019	0.000069	#N/A	#N/A	#N/A	#N/A	0.000050	#N/A
Cr	mg/L		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Cu	mg/L	0.30	0.0011	0.0008	< 0.0005	< 0.0005	< 0.0005	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Fe	mg/L	3.00	< 0.01	< 0.01	< 0.01	0.02	< 0.01	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A
K	mg/L		6.78	4.14	2.63	2.29	2.17	1.85	#N/A	#N/A	#N/A	#N/A	1.26	#N/A
Li	mg/L		0.005	0.004	0.003	0.001	0.003	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Mg	mg/L		1.06	1.36	0.851	0.849	0.687	0.495	#N/A	#N/A	#N/A	#N/A	0.307	#N/A
Mn	mg/L		0.0106	0.0227	0.0147	0.0108	0.0107	0.00715	#N/A	#N/A	#N/A	#N/A	0.00784	#N/A
Mo	mg/L		0.00551	0.0206	0.0122	0.00861	0.00567	0.00326	#N/A	#N/A	#N/A	#N/A	0.00129	#N/A
Na	mg/L		5.58	3.48	1.51	1.00	0.64	0.42	#N/A	#N/A	#N/A	#N/A	0.17	#N/A
Ni	mg/L	0.50	0.0010	0.0009	0.0004	0.0003	0.0003	0.0001	#N/A	#N/A	#N/A	#N/A	0.0002	#N/A
Pb	mg/L	0.20	0.00014	0.00017	0.00007	< 0.00002	0.00004	0.00007	#N/A	#N/A	#N/A	#N/A	0.00010	#N/A
Sb	mg/L		0.00188	0.00263	0.00081	0.00099	0.00083	0.00073	#N/A	#N/A	#N/A	#N/A	0.00062	#N/A
Se	mg/L		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Si	mg/L		0.49	0.68	0.45	0.54	0.55	0.37	#N/A	#N/A	#N/A	#N/A	0.35	#N/A
Sn	mg/L		0.00223	0.00175	0.00039	0.00059	0.00059	0.00077	#N/A	#N/A	#N/A	#N/A	0.00027	#N/A
Sr	mg/L		0.386	0.644	0.518	0.630	0.609	0.462	#N/A	#N/A	#N/A	#N/A	0.450	#N/A
Ti	mg/L		0.0003	0.0002	< 0.0001	< 0.0001	0.0006	0.0005	#N/A	#N/A	#N/A	#N/A	0.0003	#N/A
Tl	mg/L		0.000010	< 0.000002	< 0.000002	< 0.000002	< 0.000002	0.000095	#N/A	#N/A	#N/A	#N/A	0.000005	#N/A
U	mg/L		0.000755	0.00400	0.00257	0.00301	0.00218	0.00142	#N/A	#N/A	#N/A	#N/A	0.00152	#N/A
V	mg/L		0.00074	0.00050	0.00038	0.00038	0.00047	0.00046	#N/A	#N/A	#N/A	#N/A	0.00051	#N/A
W	mg/L		0.00143	0.00136	0.00117	0.00123	0.00111	0.00094	#N/A	#N/A	#N/A	#N/A	0.00034	#N/A
Y	mg/L		0.000075	0.000026	0.000013	0.000023	0.000008	0.000011	#N/A	#N/A	#N/A	#N/A	0.000008	#N/A
Zn	mg/L	0.50	< 0.001	< 0.001	< 0.001	0.002	0.001	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A

Government du Quebec, Ministére de L'Environnement. 2005. Directive no. 019.

Wks 0, 1, 2, 3 and 4 NH_3 + NH_4 analyses reported on LIMS 10444-MAY08

Due to laboratory technician error metals analyses are not available for Week 10

Transposed by	BB Apr 9/08	BB Apr 9/08	BB Apr 22/08	BB May 5/08	BB May 5/08	BB May 5/08	BB Jun 2/08	BB Jun 2/08	BB Jun 2/08	BB july 16/08	BB july 16/08	BB july 16/08
Checked by	PW Apr 14/08	PW Apr 14/08	PW May 23/08	PW May 23/08	PW May 23/08	PW May 23/08	PW Jun 5/08	PW Jun 5/08	PW Jun 5/08	PW Aug 05/08	PW Aug 05/08	PW Aug 05/08

**Due to accidental acidification of the Week 23 sample in the laboratory, data for the Week 6 sample is reported as an average of the previous 5 weeks data (conductivity previous 3 weeks data).*

Test Specimen

Sample	Weight (g)
Average Waste Overall Comp 1/4 inch	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	12	13	14	15	16	17	18	19	20	21	22	23
LIMS			10050-JUN08	10100-JUN08	10379-JUN08	10019-JUL08	10046-JUL08	10123-JUL08	10149-JUL08	10457-JUL08	10015-AUG08	10046-AUG08	10428-AUG08	10502-AUG08
Hum Cell Leachate Vol	mLs		966	884	897	903	915	934	898	913	900	891	829	893
pH	units	6-9.5	7.55	7.52	7.32	7.36	7.22	7.04	7.05	7.30	7.24	7.48	7.39	7.16
Conductivity	µS/cm		46	32	34	38	47	32	27	29	27	22	47	26
Alkalinity	mg/L as $CaCO_3$		25	12	14	13	14	12	11	12	10	10	9	11
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		3.0	2.1	2.8	2.7	5.8	2.2	1.8	2.0	1.7	1.5	1.7	1.6
Cl	mg/L		#N/A	#N/A	#N/A	0.5	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A
F	mg/L		#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_2	as N mg/L		#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_3	as N mg/L		#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A
NH_3+NH_4	as N mg/L		#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A
Hg	mg/L		#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Ag	mg/L		#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Al	mg/L		#N/A	#N/A	#N/A	0.0536	#N/A	#N/A	#N/A	#N/A	0.0457	#N/A	#N/A	#N/A
As	mg/L	0.20	#N/A	#N/A	#N/A	0.0003	#N/A	#N/A	#N/A	#N/A	0.0004	#N/A	#N/A	#N/A
Ba	mg/L		#N/A	#N/A	#N/A	0.0441	#N/A	#N/A	#N/A	#N/A	0.0407	#N/A	#N/A	#N/A
Be	mg/L		#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A
B	mg/L		#N/A	#N/A	#N/A	0.0010	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A
Bi	mg/L		#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Ca	mg/L		#N/A	#N/A	#N/A	5.09	#N/A	#N/A	#N/A	#N/A	4.08	#N/A	#N/A	#N/A
Cd	mg/L		#N/A	#N/A	#N/A	0.000008	#N/A	#N/A	#N/A	#N/A	< 0.000003	#N/A	#N/A	#N/A
Co	mg/L		#N/A	#N/A	#N/A	0.000134	#N/A	#N/A	#N/A	#N/A	0.000007	#N/A	#N/A	#N/A
Cr	mg/L		#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Cu	mg/L	0.30	#N/A	#N/A	#N/A	0.0008	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Fe	mg/L	3.00	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A
K	mg/L		#N/A	#N/A	#N/A	1.17	#N/A	#N/A	#N/A	#N/A	0.95	#N/A	#N/A	#N/A
Li	mg/L		#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Mg	mg/L		#N/A	#N/A	#N/A	0.322	#N/A	#N/A	#N/A	#N/A	0.192	#N/A	#N/A	#N/A
Mn	mg/L		#N/A	#N/A	#N/A	0.00972	#N/A	#N/A	#N/A	#N/A	0.00900	#N/A	#N/A	#N/A
Mo	mg/L		#N/A	#N/A	#N/A	0.00121	#N/A	#N/A	#N/A	#N/A	0.00074	#N/A	#N/A	#N/A
Na	mg/L		#N/A	#N/A	#N/A	0.45	#N/A	#N/A	#N/A	#N/A	0.11	#N/A	#N/A	#N/A
Ni	mg/L	0.50	#N/A	#N/A	#N/A	0.0025	#N/A	#N/A	#N/A	#N/A	0.0001	#N/A	#N/A	#N/A
Pb	mg/L	0.20	#N/A	#N/A	#N/A	0.00013	#N/A	#N/A	#N/A	#N/A	0.00006	#N/A	#N/A	#N/A
Sb	mg/L		#N/A	#N/A	#N/A	0.00040	#N/A	#N/A	#N/A	#N/A	0.00018	#N/A	#N/A	#N/A
Se	mg/L		#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Si	mg/L		#N/A	#N/A	#N/A	0.49	#N/A	#N/A	#N/A	#N/A	0.38	#N/A	#N/A	#N/A
Sn	mg/L		#N/A	#N/A	#N/A	0.00056	#N/A	#N/A	#N/A	#N/A	0.00024	#N/A	#N/A	#N/A
Sr	mg/L		#N/A	#N/A	#N/A	0.560	#N/A	#N/A	#N/A	#N/A	0.454	#N/A	#N/A	#N/A
Ti	mg/L		#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Tl	mg/L		#N/A	#N/A	#N/A	< 0.000002	#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A	#N/A	#N/A
U	mg/L		#N/A	#N/A	#N/A	0.00186	#N/A	#N/A	#N/A	#N/A	0.00156	#N/A	#N/A	#N/A
V	mg/L		#N/A	#N/A	#N/A	0.00050	#N/A	#N/A	#N/A	#N/A	0.00036	#N/A	#N/A	#N/A
W	mg/L		#N/A	#N/A	#N/A	0.00025	#N/A	#N/A	#N/A	#N/A	0.00013	#N/A	#N/A	#N/A
Y	mg/L		#N/A	#N/A	#N/A	0.000008	#N/A	#N/A	#N/A	#N/A	< 0.000001	#N/A	#N/A	#N/A
Zn	mg/L	0.50	#N/A	#N/A	#N/A	0.002	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A

*Government du Quebec, Ministére de L'Environnement. 2005. Directiv*Week 12 leachate volume not available therefore volume shown is an average of the previous 5 weeks.*

Transposed by	BB july 16/08	BB july 16/08	BB july 21/08	RJC Aug 7/08	RJC Aug 7/08	RJC Aug 7/08	RJC Aug 7/08	RJC Aug 7/08	BB Aug 19/08	BB Aug 27/08	BB Aug 27/08	BB Sept 19/08	
Checked by	PW Aug 05/08	PW Aug 05/08	PW Aug 05/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 28/08	PW Aug 28/08	PW Sep 19/08	

**Due to accidenta*

Test Specimen

Sample	Weight (g)
Average Waste Overall Comp 1/4 inch	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	24	25	26	27	28	29	30	31	32	33	34	35
LIMS			10019-SEP08	10047-SEP08	10211-SEP08	10438-SEP08	10059-OCT08	10105-OCT08	10271-OCT08	10475-OCT08	10684-OCT08	10019-NOV08	10056-NOV08	10241-NOV08
Hum Cell Leachate Vol	mLs		901	958	945	905	927	931	933	952	888	909	894	921
pH	units	6-9.5	7.28	7.37	7.16	7.39	7.35	7.29	7.31	7.53	7.36	7.38	7.29	7.60
Conductivity	µS/cm		28	31	33	28	26	27	30	26	58	34	22	25
Alkalinity	mg/L as $CaCO_3$		11	12	12	12	11	11	12	12	10	10	10	11
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		1.9	1.7	1.7	1.5	1.6	1.4	1.3	1.5	1.4	1.5	1.4	1.5
Cl	mg/L		#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2
F	mg/L		#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06
NO_2	as N mg/L		#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06
NO_3	as N mg/L		#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05
NH_3+NH_4	as N mg/L		#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	0.2	#N/A	#N/A	#N/A	#N/A	0.1
Hg	mg/L		#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001
Ag	mg/L		#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00001
Al	mg/L		#N/A	0.0374	#N/A	#N/A	#N/A	#N/A	0.0494	#N/A	#N/A	#N/A	#N/A	0.0415
As	mg/L	0.20	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002
Ba	mg/L		#N/A	0.0494	#N/A	#N/A	#N/A	#N/A	0.0468	#N/A	#N/A	#N/A	#N/A	0.0423
Be	mg/L		#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002
B	mg/L		#N/A	0.0003	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	0.0006
Bi	mg/L		#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00001
Ca	mg/L		#N/A	4.81	#N/A	#N/A	#N/A	#N/A	4.43	#N/A	#N/A	#N/A	#N/A	4.19
Cd	mg/L		#N/A	0.000004	#N/A	#N/A	#N/A	#N/A	0.000005	#N/A	#N/A	#N/A	#N/A	0.000014
Co	mg/L		#N/A	0.000022	#N/A	#N/A	#N/A	#N/A	0.000029	#N/A	#N/A	#N/A	#N/A	0.000024
Cr	mg/L		#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005
Cu	mg/L	0.30	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005
Fe	mg/L	3.00	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01
K	mg/L		#N/A	1.06	#N/A	#N/A	#N/A	#N/A	0.93	#N/A	#N/A	#N/A	#N/A	0.83
Li	mg/L		#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	0.001
Mg	mg/L		#N/A	0.204	#N/A	#N/A	#N/A	#N/A	0.156	#N/A	#N/A	#N/A	#N/A	0.135
Mn	mg/L		#N/A	0.00983	#N/A	#N/A	#N/A	#N/A	0.0110	#N/A	#N/A	#N/A	#N/A	0.00971
Mo	mg/L		#N/A	0.00061	#N/A	#N/A	#N/A	#N/A	0.00045	#N/A	#N/A	#N/A	#N/A	0.00049
Na	mg/L		#N/A	0.08	#N/A	#N/A	#N/A	#N/A	0.08	#N/A	#N/A	#N/A	#N/A	0.07
Ni	mg/L	0.50	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0001
Pb	mg/L	0.20	#N/A	0.00003	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	0.00044
Sb	mg/L		#N/A	0.00056	#N/A	#N/A	#N/A	#N/A	0.00022	#N/A	#N/A	#N/A	#N/A	< 0.0002
Se	mg/L		#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001
Si	mg/L		#N/A	0.53	#N/A	#N/A	#N/A	#N/A	0.46	#N/A	#N/A	#N/A	#N/A	0.37
Sn	mg/L		#N/A	0.00066	#N/A	#N/A	#N/A	#N/A	0.00023	#N/A	#N/A	#N/A	#N/A	0.00022
Sr	mg/L		#N/A	0.511	#N/A	#N/A	#N/A	#N/A	0.424	#N/A	#N/A	#N/A	#N/A	0.380
Ti	mg/L		#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001
Tl	mg/L		#N/A	0.000002	#N/A	#N/A	#N/A	#N/A	0.000003	#N/A	#N/A	#N/A	#N/A	0.000009
U	mg/L		#N/A	0.00153	#N/A	#N/A	#N/A	#N/A	0.00111	#N/A	#N/A	#N/A	#N/A	0.000981
V	mg/L		#N/A	0.00037	#N/A	#N/A	#N/A	#N/A	0.00035	#N/A	#N/A	#N/A	#N/A	0.00031
W	mg/L		#N/A	0.00016	#N/A	#N/A	#N/A	#N/A	0.00015	#N/A	#N/A	#N/A	#N/A	0.00004
Y	mg/L		#N/A	0.000005	#N/A	#N/A	#N/A	#N/A	0.000006	#N/A	#N/A	#N/A	#N/A	0.000015
Zn	mg/L	0.50	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001

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Transposed by	BB Sept 19/08	BB Sept 19/08	BB Oct6/08	BB Oct6/08	BB Oct15/08	BB Oct15/08	BB Oct30/08	BB Dec 1/08	BB Dec 1/08	BB Dec 1/08	BB Dec 1/08	BB Dec 1/08	
Checked by	PW Sep 19/08	PW Sep 19/08	PW Oct.21/08	PW Oct.21/08	PW Oct.21/08	PW Oct.21/08	PW Oct.30/08	PW Dec.01/08	PW Dec.01/08	PW Dec.01/08	PW Dec.01/08	PW Dec.01/08	

**Due to accidenta* *Not sufficient sample to reassay alkalinity*

Test Specimen

Sample	Weight (g)
Average Waste Overall Comp 1/4 inch	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	36	37	38	39	40	41	42	43
LIMS			10418-NOV08	10021-DEC08	10051-DEC08	10137-DEC08	10278-DEC08	10513-DEC08	10021-JAN09	10051-JAN09
Hum Cell Leachate Vol	mLs		962	904	895	932	924	939	886	899
pH	units	6-9.5	7.23	7.21	7.20	7.43	7.46	7.28	7.48	7.34
Conductivity	µS/cm		26	24	23	24	28	27	24	22
Alkalinity	mg/L as $CaCO_3$		12	10	*9	10	14	11	9	9
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		1.4	1.3	1.1	1.2	1.1	1.4	1.5	1.3
Cl	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A
F	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_2	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_3	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A
NH_3+NH_4	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A
Hg	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Ag	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Al	mg/L		#N/A	#N/A	#N/A	#N/A	0.0429	#N/A	#N/A	#N/A
As	mg/L	0.20	#N/A	#N/A	#N/A	#N/A	0.0004	#N/A	#N/A	#N/A
Ba	mg/L		#N/A	#N/A	#N/A	#N/A	0.0408	#N/A	#N/A	#N/A
Be	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A
B	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A
Bi	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Ca	mg/L		#N/A	#N/A	#N/A	#N/A	4.12	#N/A	#N/A	#N/A
Cd	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000003	#N/A	#N/A	#N/A
Co	mg/L		#N/A	#N/A	#N/A	#N/A	0.000004	#N/A	#N/A	#N/A
Cr	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Cu	mg/L	0.30	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Fe	mg/L	3.00	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A
K	mg/L		#N/A	#N/A	#N/A	#N/A	0.78	#N/A	#N/A	#N/A
Li	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Mg	mg/L		#N/A	#N/A	#N/A	#N/A	0.107	#N/A	#N/A	#N/A
Mn	mg/L		#N/A	#N/A	#N/A	#N/A	0.0116	#N/A	#N/A	#N/A
Mo	mg/L		#N/A	#N/A	#N/A	#N/A	0.00060	#N/A	#N/A	#N/A
Na	mg/L		#N/A	#N/A	#N/A	#N/A	0.05	#N/A	#N/A	#N/A
Ni	mg/L	0.50	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Pb	mg/L	0.20	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A
Sb	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A
Se	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Si	mg/L		#N/A	#N/A	#N/A	#N/A	0.34	#N/A	#N/A	#N/A
Sn	mg/L		#N/A	#N/A	#N/A	#N/A	0.00034	#N/A	#N/A	#N/A
Sr	mg/L		#N/A	#N/A	#N/A	#N/A	0.332	#N/A	#N/A	#N/A
Ti	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Tl	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A	#N/A	#N/A
U	mg/L		#N/A	#N/A	#N/A	#N/A	0.000838	#N/A	#N/A	#N/A
V	mg/L		#N/A	#N/A	#N/A	#N/A	0.00019	#N/A	#N/A	#N/A
W	mg/L		#N/A	#N/A	#N/A	#N/A	0.00022	#N/A	#N/A	#N/A
Y	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000001	#N/A	#N/A	#N/A
Zn	mg/L	0.50	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A

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**Reassay LIMS 10239-JAN09*

Transposed by	BB Dec 16/08	BB Dec 16/08	BB Dec 16/08	BB Jan 12/09	BB Jan 12/09	BB Jan 12/09	BB Jan 21/09	BB Jan 29/09
Checked by	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09		

**Due to accidenta*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Average Waste Overall Comp 1/4 inch	1000

Weekly Leach	No.	0	1	2	3	4	5	6	7	8	9
Summary of ABA Test Data											
Sulphur (S)	%	1.38	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	1.12	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	34.3	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t	21.3									
Leachate Paremeters Measured											
Leachate Volume Collected	mL	783	964	887	925	925	920	933	932	924	964
pH	units	8.42	7.63	7.57	7.20	7.13	7.18	7.49	7.26	7.07	7.68
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	14	24	15	15	11	9	22	11	8	15
Conductivity	µS/cm	114	106	59	62	54	39	54	42	34	41
SO_4	mg/L	11	16	11	9.8	7.7	5.9	6.2	4.5	3.3	3.1
Ca	mg/L	9.13	9.24	6.37	6.82	6.21	4.1	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	1.06	1.36	0.851	0.849	0.687	0.495	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	8.6	15.4	9.8	9.1	7.1	5.4	5.8	4.2	3.0	3.0
Cumulative SO4 Production	g/t	8.6	24.0	33.8	42.9	50.0	55.4	61.2	65.4	68.4	71.4
Weekly S= Depletion	%	0.03	0.05	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.01
Cumulative S= Depletion	%	0.03	0.07	0.10	0.13	0.15	0.16	0.18	0.19	0.20	0.21
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	8.97	16.07	10.16	9.44	7.42	5.65	6.03	4.37	3.18	3.11
Cumulative Total NP Depletion	%	0.03	0.07	0.10	0.13	0.15	0.17	0.19	0.20	0.21	0.22
Cumulative CO_3 NP Depletion	%	0.04	0.12	0.17	0.21	0.24	0.27	0.30	0.32	0.33	0.35
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.57	1.93	1.77	1.85	1.85	1.84	1.87	1.86	1.85	1.93
Alkalinity Production Rate	$CaCO_3$, g/t/wk	10.96	23.14	13.31	13.88	10.18	8.28	20.53	10.25	7.39	14.46
Open-System NP Consumption	$CaCO_3$, g/t/wk	18.37	37.27	21.69	21.47	15.74	12.09	24.69	12.76	8.72	15.64
Open-System Cumulative NP Depletion (Total NP)	%	0.05	0.16	0.23	0.29	0.33	0.37	0.44	0.48	0.50	0.55
Open-System Cumulative NP Depletion (CO_3 NP)	%	0.09	0.26	0.36	0.46	0.54	0.59	0.71	0.77	0.81	0.88
Anorthoclase Molar Ratio	Ca: SO_4	1.99	1.38	1.39	1.67	1.93	1.67	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	17.85	22.24	14.11	15.75	14.34	9.42	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	2.37	1.72	1.69	2.01	2.29	2.00	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	21.26	27.63	17.21	18.98	16.96	11.29	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Average Waste Overall Comp 1/4 inch	1000

Weekly Leach	No.	10	11	12	13	14	15	16	17	18	19
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	880	907	966	884	897	903	915	934	898	913
pH	units	7.61	7.66	7.55	7.52	7.32	7.36	7.22	7.04	7.05	7.30
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	10	12	25	12	14	13	14	12	11	12
Conductivity	µS/cm	33	36	46	32	34	38	47	32	27	29
SO_4	mg/L	2.8	2.6	3	2.1	2.8	2.7	5.8	2.2	1.8	2
Ca	mg/L	3.71	#N/A	#N/A	#N/A	#N/A	5.09	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	0.307	#N/A	#N/A	#N/A	#N/A	0.322	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	2.5	2.4	2.9	1.9	2.5	2.4	5.3	2.1	1.6	1.8
Cumulative SO4 Production	g/t	73.9	76.2	79.1	81.0	83.5	86.0	91.3	93.3	94.9	96.8
Weekly S= Depletion	%	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.00	0.01
Cumulative S= Depletion	%	0.22	0.23	0.24	0.24	0.25	0.26	0.27	0.28	0.28	0.29
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	2.57	2.46	3.02	1.93	2.62	2.54	5.53	2.14	1.68	1.90
Cumulative Total NP Depletion	%	0.22	0.23	0.24	0.25	0.25	0.26	0.28	0.28	0.29	0.29
Cumulative CO_3 NP Depletion	%	0.36	0.37	0.39	0.40	0.41	0.42	0.45	0.46	0.46	0.47
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.76	1.81	1.93	1.77	1.79	1.81	1.83	1.87	1.80	1.83
Alkalinity Production Rate	$CaCO_3$, g/t/wk	8.80	10.88	24.15	10.61	12.56	11.74	12.81	11.21	9.88	10.96
Open-System NP Consumption	$CaCO_3$, g/t/wk	9.61	11.53	25.24	10.77	13.38	12.47	16.51	11.48	9.77	11.03
Open-System Cumulative NP Depletion (Total NP)	**%**	0.58	0.61	0.68	0.72	0.76	0.79	0.84	0.87	0.90	0.93
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	0.93	0.98	1.10	1.15	1.22	1.27	1.35	1.41	1.45	1.50
Anorthoclase Molar Ratio	Ca: SO_4	3.18	#N/A	#N/A	#N/A	#N/A	4.52	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	8.15	#N/A	#N/A	#N/A	#N/A	11.47	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	3.61	#N/A	#N/A	#N/A	#N/A	4.99	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	9.26	#N/A	#N/A	#N/A	#N/A	12.67	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Average Waste Overall Comp 1/4 inch	1000

Weekly Leach	No.	20	21	22	23	24	25	26	27	28	29
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	900	891	829	893	901	958	945	905	927	931
pH	units	7.24	7.48	7.39	7.16	7.28	7.37	7.16	7.39	7.35	7.29
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	10	10	9	11	11	12	12	12	11	11
Conductivity	µS/cm	27	22	47	26	28	31	33	28	26	27
SO_4	mg/L	1.7	1.5	1.7	1.6	1.9	1.7	1.7	1.5	1.6	1.4
Ca	mg/L	4.08	#N/A	#N/A	#N/A	#N/A	4.81	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	0.192	#N/A	#N/A	#N/A	#N/A	0.204	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	1.5	1.3	1.4	1.4	1.7	1.6	1.6	1.4	1.5	1.3
Cumulative SO4 Production	g/t	98.3	99.6	101.0	102.5	104.2	105.8	107.4	108.8	110.2	111.6
Weekly S= Depletion	%	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Cumulative S= Depletion	%	0.29	0.30	0.30	0.30	0.31	0.31	0.32	0.32	0.33	0.33
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	1.59	1.39	1.47	1.49	1.78	1.70	1.67	1.41	1.55	1.36
Cumulative Total NP Depletion	%	0.30	0.30	0.31	0.31	0.32	0.32	0.33	0.33	0.33	0.34
Cumulative CO_3 NP Depletion	%	0.48	0.49	0.49	0.50	0.51	0.52	0.53	0.53	0.54	0.55
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.80	1.78	1.66	1.79	1.80	1.92	1.89	1.81	1.85	1.86
Alkalinity Production Rate	$CaCO_3$, g/t/wk	9.00	8.91	7.46	9.82	9.91	11.50	11.34	10.86	10.20	10.24
Open-System NP Consumption	$CaCO_3$, g/t/wk	8.79	8.52	7.27	9.53	9.89	11.28	11.12	10.46	9.89	9.74
Open-System Cumulative NP Depletion (Total NP)	**%**	0.96	0.98	1.01	1.03	1.06	1.09	1.13	1.16	1.19	1.21
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	1.54	1.58	1.62	1.66	1.71	1.76	1.82	1.86	1.91	1.96
Anorthoclase Molar Ratio	Ca: SO_4	5.75	#N/A	#N/A	#N/A	#N/A	6.78	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	9.17	#N/A	#N/A	#N/A	#N/A	11.50	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	6.20	#N/A	#N/A	#N/A	#N/A	7.26	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	9.88	#N/A	#N/A	#N/A	#N/A	12.31	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Average Waste Overall Comp 1/4 inch	1000

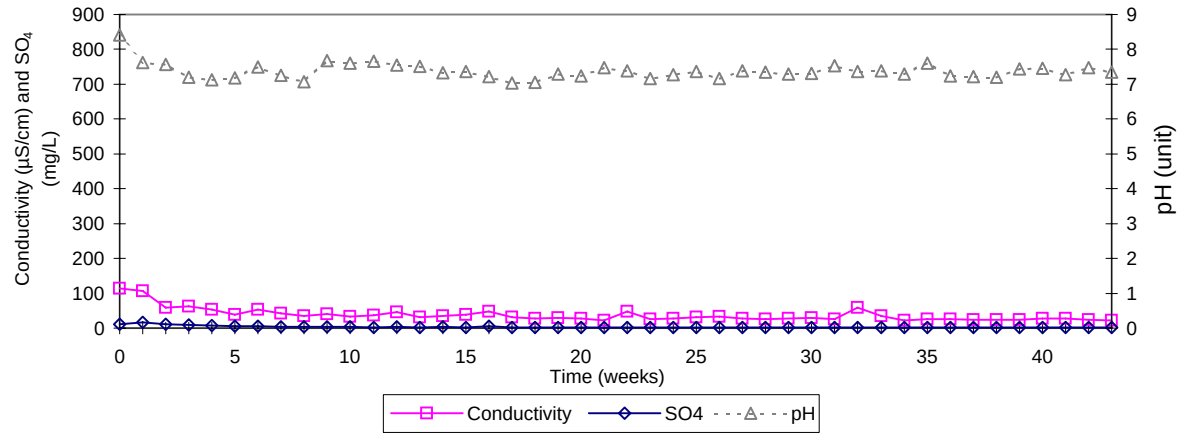
Weekly Leach	No.	30	31	32	33	34	35	36	37	38	39
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	933	952	888	909	894	921	962	904	895	932
pH	units	7.31	7.53	7.36	7.38	7.29	7.60	7.23	7.21	7.20	7.43
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	12	12	10	10	10	11	12	10	9	10
Conductivity	µS/cm	30	26	58	34	22	25	26	24	23	24
SO_4	mg/L	1.3	1.5	1.4	1.5	1.4	1.5	1.4	1.3	1.1	1.2
Ca	mg/L	4.43	#N/A	#N/A	#N/A	#N/A	4.19	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	0.156	#N/A	#N/A	#N/A	#N/A	0.135	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	1.2	1.4	1.2	1.4	1.3	1.4	1.3	1.2	1.0	1.1
Cumulative SO4 Production	g/t	112.8	114.2	115.4	116.8	118.1	119.4	120.8	122.0	122.9	124.1
Weekly S= Depletion	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cumulative S= Depletion	%	0.34	0.34	0.34	0.35	0.35	0.36	0.36	0.36	0.37	0.37
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	1.26	1.49	1.30	1.42	1.30	1.44	1.40	1.22	1.03	1.17
Cumulative Total NP Depletion	%	0.34	0.35	0.35	0.35	0.36	0.36	0.37	0.37	0.37	0.38
Cumulative CO_3 NP Depletion	%	0.55	0.56	0.56	0.57	0.58	0.58	0.59	0.60	0.60	0.61
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.87	1.90	1.78	1.82	1.79	1.84	1.92	1.81	1.79	1.86
Alkalinity Production Rate	$CaCO_3$, g/t/wk	11.20	11.42	8.88	9.09	8.94	10.13	11.54	9.04	8.06	9.32
Open-System NP Consumption	$CaCO_3$, g/t/wk	10.59	11.01	8.40	8.69	8.46	9.73	11.02	8.46	7.29	8.62
Open-System Cumulative NP Depletion (Total NP)	**%**	1.25	1.28	1.30	1.33	1.35	1.38	1.41	1.44	1.46	1.48
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	2.01	2.06	2.10	2.14	2.18	2.22	2.28	2.31	2.35	2.39
Anorthoclase Molar Ratio	Ca: SO_4	8.17	#N/A	#N/A	#N/A	#N/A	6.69	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	10.32	#N/A	#N/A	#N/A	#N/A	9.63	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	8.64	#N/A	#N/A	#N/A	#N/A	7.05	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	10.92	#N/A	#N/A	#N/A	#N/A	10.15	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

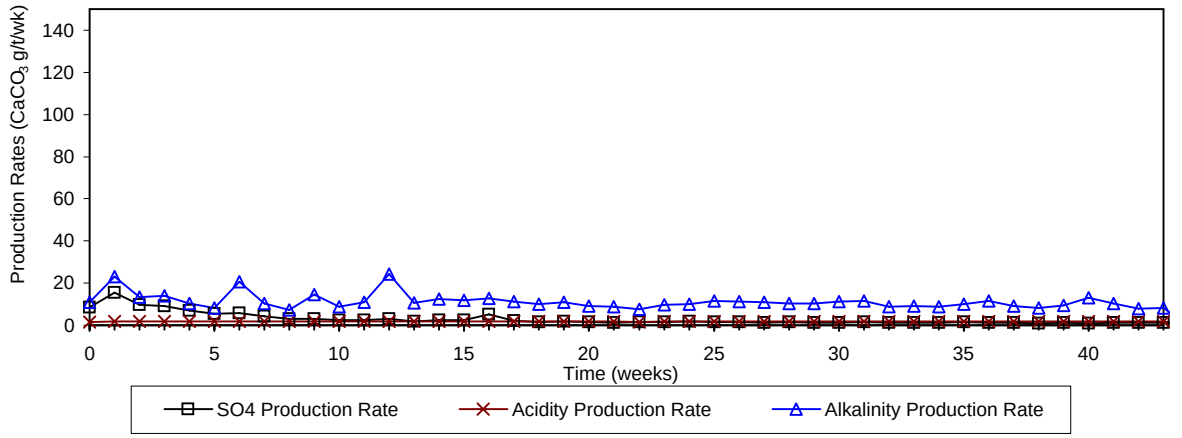
TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

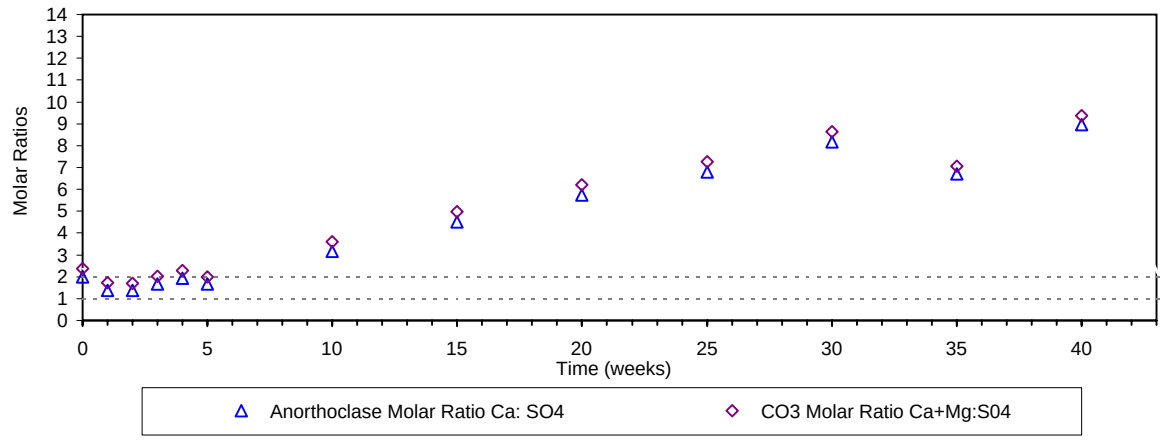
Conductivity, Sulphate, and pH in Weekly Humidity Cell Leachate - Average Waste Overall Comp 1/4 inch



Acidity, Alkalinity and SO_4 Production Rates - Average Waste Overall Comp 1/4 inch



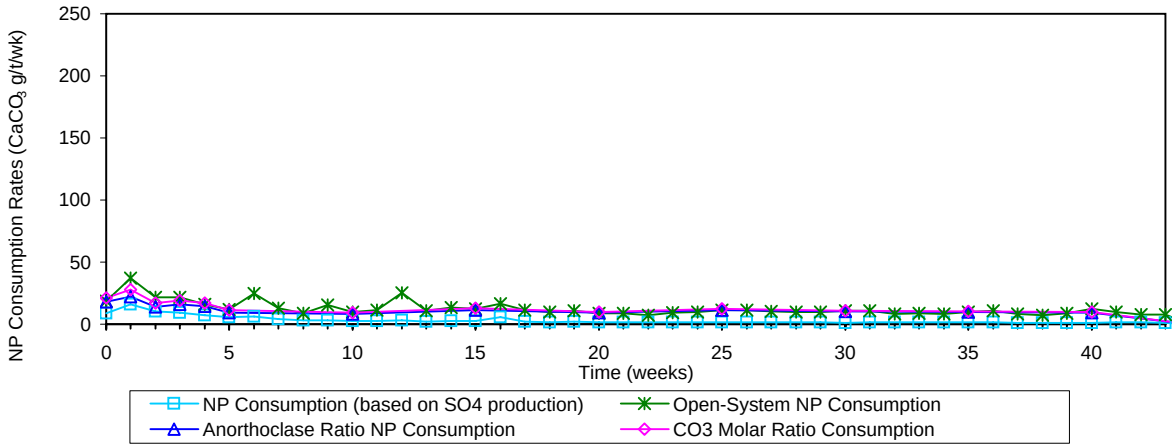
Carbonate (Ca + Mg/SO_4) and Anorthoclase (Ca/SO_4) Molar Ratios - Average Waste Overall Comp 1/4 inch



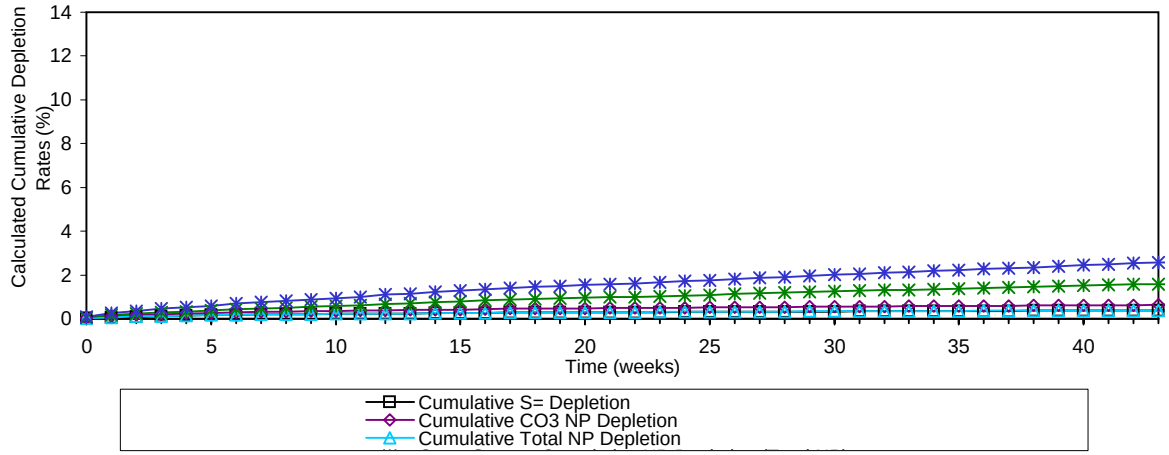
TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

NP Consumption Rates - Average Waste Overall Comp 1/4 inch



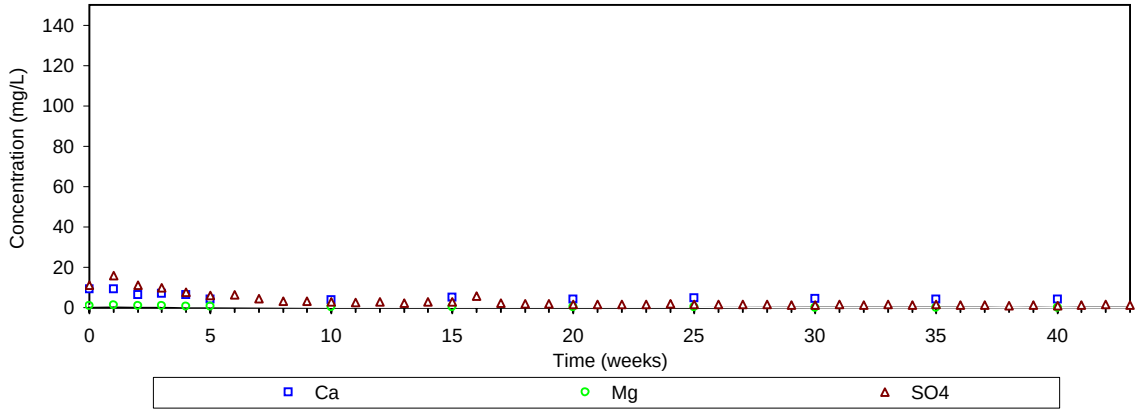
Cumulative Sulphide and NP Depletion Rates - Average Waste Overall Comp 1/4 inch



Note: Cumulative Total and CO_3 NP depletions calculated based on sulphate assay.

Note: Open-System NP depletion calculated based on cumulative NP depletion and alkalinity and acidty production rates.

Selected Parameters in Weekly Humidity Cell Leachate - Average Waste Overall Comp 1/4 inch



Test Specimen

Sample	Weight (g)
High Sulphide Waste Overall Comp 1/4 inch	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	0	1	2	3	4	5	6	7	8	9	10	11
LIMS			10359-MAR08	10361-MAR08	10000-APR08	10170-APR08	10315-APR08	10518-APR08	10632-APR08	10064-MAY08	10126-MAY08	10152-MAY08	10703-MAY08	10017-JUN08
Hum Cell Leachate Vol	mLs		746	979	936	968	963	914	968	936	948	975	902	948
pH	units	6-9.5	8.20	7.46	7.34	7.27	7.39	7.29	7.50	7.17	7.28	7.40	*7.33	7.43
Conductivity	µS/cm		95	107	59	62	54	41	46	59	49	46	*48	51
Alkalinity	mg/L as $CaCO_3$		13	22	17	15	15	12	14	13	12	12	*13	15
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	*<2	<2
SO_4	mg/L		11	18	9.3	7.3	6.4	5.2	5.2	6.1	4.2	3.8	5.9	3.9
Cl	mg/L		5.1	4.0	0.8	0.4	< 0.2	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A
F	mg/L		0.09	0.14	0.10	0.06	< 0.06	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A
NO_2	as N mg/L		< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A
NO_3	as N mg/L		0.28	0.06	0.21	0.26	0.08	0.35	#N/A	#N/A	#N/A	#N/A	*0.21	#N/A
NH_3+NH_4	as N mg/L		0.1	< 0.1	< 0.1	0.4	0.1	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Ag	mg/L		0.00002	0.00001	0.00003	0.00002	0.00001	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00001	#N/A
Al	mg/L		0.0373	0.0430	0.0337	0.0362	0.0481	0.0376	#N/A	#N/A	#N/A	#N/A	0.0453	#N/A
As	mg/L	0.20	< 0.0002	0.0004	0.0006	0.0002	0.0003	< 0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A
Ba	mg/L		0.0089	0.0143	0.0111	0.0149	0.0148	0.0120	#N/A	#N/A	#N/A	#N/A	0.0118	#N/A
Be	mg/L		< 0.00002	< 0.00002	0.00002	< 0.00002	< 0.00002	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A
B	mg/L		0.0015	0.0035	0.0016	0.0012	0.0012	0.0007	#N/A	#N/A	#N/A	#N/A	0.0003	#N/A
Bi	mg/L		0.00002	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00002	#N/A
Ca	mg/L		7.31	8.26	6.02	6.95	6.46	5.59	#N/A	#N/A	#N/A	#N/A	4.78	#N/A
Cd	mg/L		< 0.000003	< 0.000003	0.000007	0.000009	0.000006	0.000008	#N/A	#N/A	#N/A	#N/A	0.000009	#N/A
Co	mg/L		0.000057	0.000049	0.000073	0.000035	0.000013	0.000071	#N/A	#N/A	#N/A	#N/A	0.000063	#N/A
Cr	mg/L		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Cu	mg/L	0.30	0.0006	0.0006	< 0.0005	< 0.0005	< 0.0005	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Fe	mg/L	3.00	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A
K	mg/L		5.66	5.39	3.23	2.66	2.31	1.91	#N/A	#N/A	#N/A	#N/A	1.24	#N/A
Li	mg/L		0.004	0.003	0.003	0.001	0.003	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Mg	mg/L		1.07	1.47	0.922	0.896	0.708	0.547	#N/A	#N/A	#N/A	#N/A	0.318	#N/A
Mn	mg/L		0.0136	0.0206	0.0168	0.0151	0.0144	0.0174	#N/A	#N/A	#N/A	#N/A	0.0166	#N/A
Mo	mg/L		0.00303	0.0145	0.0101	0.00710	0.00598	0.00334	#N/A	#N/A	#N/A	#N/A	0.00125	#N/A
Na	mg/L		4.19	4.06	1.83	1.23	0.80	0.53	#N/A	#N/A	#N/A	#N/A	0.21	#N/A
Ni	mg/L	0.50	0.0006	0.0006	0.0003	0.0003	0.0003	0.0001	#N/A	#N/A	#N/A	#N/A	0.0002	#N/A
Pb	mg/L	0.20	0.00005	0.00014	0.00005	0.00006	0.00002	0.00003	#N/A	#N/A	#N/A	#N/A	0.00006	#N/A
Sb	mg/L		0.00123	0.00231	0.00086	0.00088	0.00084	0.00061	#N/A	#N/A	#N/A	#N/A	0.00060	#N/A
Se	mg/L		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Si	mg/L		0.38	0.57	0.45	0.53	0.57	0.35	#N/A	#N/A	#N/A	#N/A	0.33	#N/A
Sn	mg/L		0.00341	0.00263	0.00069	0.00073	0.00085	0.0005	#N/A	#N/A	#N/A	#N/A	0.00021	#N/A
Sr	mg/L		0.172	0.247	0.165	0.174	0.143	0.112	#N/A	#N/A	#N/A	#N/A	0.0780	#N/A
Ti	mg/L		0.0002	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Tl	mg/L		< 0.000002	< 0.000002	0.000003	< 0.000002	< 0.000002	0.000094	#N/A	#N/A	#N/A	#N/A	0.000004	#N/A
U	mg/L		0.000172	0.00129	0.000922	0.000988	0.00105	0.000623	#N/A	#N/A	#N/A	#N/A	0.00105	#N/A
V	mg/L		0.00037	0.00035	0.00029	0.00029	0.00043	0.00025	#N/A	#N/A	#N/A	#N/A	0.00031	#N/A
W	mg/L		0.00071	0.00108	0.00079	0.00065	0.00060	0.00059	#N/A	#N/A	#N/A	#N/A	0.00023	#N/A
Y	mg/L		0.000005	0.000008	0.000008	0.000007	0.000005	0.000004	#N/A	#N/A	#N/A	#N/A	0.000007	#N/A
Zn	mg/L	0.50	< 0.001	0.001	< 0.001	< 0.001	0.001	0.001	#N/A	#N/A	#N/A	#N/A	0.002	#N/A

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Wks 0, 1, 2, 3 and 4 NH_3 + NH_4 analyses reported on LIMS 10444-MAY08

Due to laboratory technician error metals analyses are not available for Week 10

Transposed by	BB Apr 9/08	BB Apr 9/08	BB Apr 22/08	BB May 5/08	BB May 5/08	BB May 5/08	BB Jun 2/08	BB Jun 2/08	BB Jun 2/08	BB july 16/08	BB july 16/08	BB july 16/08
Checked by	PW Apr 14/08	PW Apr 14/08	PW May 23/08	PW May 23/08	PW May 23/08	PW May 23/08	PW Jun 5/08	PW Jun 5/08	PW Jun 5/08	PW Aug 05/08	PW Aug 05/08	PW Aug 05/08

**Due to accidental acidification of the Week 23 sample in the laboratory, data for the Week 6 sample is reported as an average of the previous 5 weeks data (conductivity previous 3 weeks data).*

Test Specimen

Sample	Weight (g)
High Sulphide Waste Overall Comp 1/4 inch	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	12	13	14	15	16	17	18	19	20	21	22	23
LIMS			10050-JUN08	10100-JUN08	10379-JUN08	10019-JUL08	10046-JUL08	10123-JUL08	10149-JUL08	10457-JUL08	10015-AUG08	10046-AUG08	10428-AUG08	10502-AUG08
Hum Cell Leachate Vol	mLs		980	938	*949	913	977	983	942	930	901	957	975	935
pH	units	6-9.5	7.48	7.73	7.89	7.42	7.55	7.10	7.17	7.45	7.39	7.73	7.62	7.17
Conductivity	µS/cm		49	50	48	44	56	45	37	36	38	44	58	24
Alkalinity	mg/L as $CaCO_3$		17	17	22	16	23	16	14	14	14	18	15	9
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		4.3	4.2	4.4	3.3	3.9	3.3	2.8	2.8	2.8	3.5	2.9	1.7
Cl	mg/L		#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A
F	mg/L		#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_2	as N mg/L		#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_3	as N mg/L		#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A
NH_3+NH_4	as N mg/L		#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A
Hg	mg/L		#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Ag	mg/L		#N/A	#N/A	#N/A	0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Al	mg/L		#N/A	#N/A	#N/A	0.0597	#N/A	#N/A	#N/A	#N/A	0.0780	#N/A	#N/A	#N/A
As	mg/L	0.20	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	0.0003	#N/A	#N/A	#N/A
Ba	mg/L		#N/A	#N/A	#N/A	0.0201	#N/A	#N/A	#N/A	#N/A	0.0181	#N/A	#N/A	#N/A
Be	mg/L		#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A
B	mg/L		#N/A	#N/A	#N/A	0.0003	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A
Bi	mg/L		#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Ca	mg/L		#N/A	#N/A	#N/A	6.81	#N/A	#N/A	#N/A	#N/A	6.27	#N/A	#N/A	#N/A
Cd	mg/L		#N/A	#N/A	#N/A	0.000005	#N/A	#N/A	#N/A	#N/A	< 0.000003	#N/A	#N/A	#N/A
Co	mg/L		#N/A	#N/A	#N/A	0.000015	#N/A	#N/A	#N/A	#N/A	0.000004	#N/A	#N/A	#N/A
Cr	mg/L		#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Cu	mg/L	0.30	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Fe	mg/L	3.00	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A
K	mg/L		#N/A	#N/A	#N/A	1.37	#N/A	#N/A	#N/A	#N/A	1.21	#N/A	#N/A	#N/A
Li	mg/L		#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Mg	mg/L		#N/A	#N/A	#N/A	0.341	#N/A	#N/A	#N/A	#N/A	0.220	#N/A	#N/A	#N/A
Mn	mg/L		#N/A	#N/A	#N/A	0.0181	#N/A	#N/A	#N/A	#N/A	0.0202	#N/A	#N/A	#N/A
Mo	mg/L		#N/A	#N/A	#N/A	0.00092	#N/A	#N/A	#N/A	#N/A	0.00061	#N/A	#N/A	#N/A
Na	mg/L		#N/A	#N/A	#N/A	0.20	#N/A	#N/A	#N/A	#N/A	0.14	#N/A	#N/A	#N/A
Ni	mg/L	0.50	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	0.0001	#N/A	#N/A	#N/A
Pb	mg/L	0.20	#N/A	#N/A	#N/A	0.00002	#N/A	#N/A	#N/A	#N/A	0.00002	#N/A	#N/A	#N/A
Sb	mg/L		#N/A	#N/A	#N/A	0.00034	#N/A	#N/A	#N/A	#N/A	0.00018	#N/A	#N/A	#N/A
Se	mg/L		#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Si	mg/L		#N/A	#N/A	#N/A	0.51	#N/A	#N/A	#N/A	#N/A	0.50	#N/A	#N/A	#N/A
Sn	mg/L		#N/A	#N/A	#N/A	0.00021	#N/A	#N/A	#N/A	#N/A	0.00022	#N/A	#N/A	#N/A
Sr	mg/L		#N/A	#N/A	#N/A	0.0873	#N/A	#N/A	#N/A	#N/A	0.0649	#N/A	#N/A	#N/A
Ti	mg/L		#N/A	#N/A	#N/A	0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Tl	mg/L		#N/A	#N/A	#N/A	0.000007	#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A	#N/A	#N/A
U	mg/L		#N/A	#N/A	#N/A	0.00162	#N/A	#N/A	#N/A	#N/A	0.00136	#N/A	#N/A	#N/A
V	mg/L		#N/A	#N/A	#N/A	0.00038	#N/A	#N/A	#N/A	#N/A	0.00046	#N/A	#N/A	#N/A
W	mg/L		#N/A	#N/A	#N/A	0.00015	#N/A	#N/A	#N/A	#N/A	0.00012	#N/A	#N/A	#N/A
Y	mg/L		#N/A	#N/A	#N/A	0.000011	#N/A	#N/A	#N/A	#N/A	< 0.000001	#N/A	#N/A	#N/A
Zn	mg/L	0.50	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A

*Government du Quebec, Ministére de L'Environnement. 2005. Directiv*Week 12 leachate volume not available therefore volume shown is an average of the previous 5 weeks.*

Transposed by	BB july 16/08	BB july 16/08	BB july 21/08	RJC Aug 7/08	RJC Aug 7/08	RJC Aug 7/08	RJC Aug 7/08	RJC Aug 7/08	BB Aug 19/08	BB Aug 27/08	BB Aug 27/08	BB Sept 19/08	
Checked by	PW Aug 05/08	PW Aug 05/08	PW Aug 05/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 20/08	PW Aug 28/08	PW Aug 28/08	PW Sep 19/08	

**Due to accidenta*

Test Specimen

Sample	Weight (g)
High Sulphide Waste Overall Comp 1/4 inch	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	24	25	26	27	28	29	30	31	32	33	34	35
LIMS			10019-SEP08	10047-SEP08	10211-SEP08	10438-SEP08	10059-OCT08	10105-OCT08	10271-OCT08	10475-OCT08	10684-OCT08	10019-NOV08	10056-NOV08	10241-NOV08
Hum Cell Leachate Vol	mLs		963	988	963	971	968	936	917	940	940	955	960	966
pH	units	6-9.5	7.36	7.40	7.53	7.52	7.50	7.50	7.49	7.55	7.49	7.49	7.48	7.66
Conductivity	µS/cm		36	40	48	37	36	36	39	34	39	47	32	34
Alkalinity	mg/L as $CaCO_3$		14	15	18	15	15	14	15	14	13	15	14	14
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		2.6	3.0	3.1	2.5	2.8	2.4	2.0	2.5	2.5	2.8	2.6	2.7
Cl	mg/L		#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2
F	mg/L		#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06
NO_2	as N mg/L		#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06
NO_3	as N mg/L		#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05
NH_3+NH_4	as N mg/L		#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	0.2	#N/A	#N/A	#N/A	#N/A	< 0.1
Hg	mg/L		#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001
Ag	mg/L		#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001
Al	mg/L		#N/A	0.0549	#N/A	#N/A	#N/A	#N/A	0.0754	#N/A	#N/A	#N/A	#N/A	0.0558
As	mg/L	0.20	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002
Ba	mg/L		#N/A	0.0203	#N/A	#N/A	#N/A	#N/A	0.0200	#N/A	#N/A	#N/A	#N/A	0.0209
Be	mg/L		#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002
B	mg/L		#N/A	0.0003	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	0.0004
Bi	mg/L		#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00001
Ca	mg/L		#N/A	6.65	#N/A	#N/A	#N/A	#N/A	6.23	#N/A	#N/A	#N/A	#N/A	6.30
Cd	mg/L		#N/A	0.000005	#N/A	#N/A	#N/A	#N/A	0.000006	#N/A	#N/A	#N/A	#N/A	0.000013
Co	mg/L		#N/A	0.000023	#N/A	#N/A	#N/A	#N/A	0.000036	#N/A	#N/A	#N/A	#N/A	0.000022
Cr	mg/L		#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005
Cu	mg/L	0.30	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005
Fe	mg/L	3.00	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01
K	mg/L		#N/A	1.04	#N/A	#N/A	#N/A	#N/A	1.02	#N/A	#N/A	#N/A	#N/A	0.90
Li	mg/L		#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001
Mg	mg/L		#N/A	0.208	#N/A	#N/A	#N/A	#N/A	0.160	#N/A	#N/A	#N/A	#N/A	0.148
Mn	mg/L		#N/A	0.0193	#N/A	#N/A	#N/A	#N/A	0.0205	#N/A	#N/A	#N/A	#N/A	0.0228
Mo	mg/L		#N/A	0.00045	#N/A	#N/A	#N/A	#N/A	0.00027	#N/A	#N/A	#N/A	#N/A	0.00027
Na	mg/L		#N/A	0.10	#N/A	#N/A	#N/A	#N/A	0.12	#N/A	#N/A	#N/A	#N/A	0.09
Ni	mg/L	0.50	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0001
Pb	mg/L	0.20	#N/A	0.000100	#N/A	#N/A	#N/A	#N/A	0.00003	#N/A	#N/A	#N/A	#N/A	0.00003
Sb	mg/L		#N/A	0.00044	#N/A	#N/A	#N/A	#N/A	0.00020	#N/A	#N/A	#N/A	#N/A	< 0.0002
Se	mg/L		#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001
Si	mg/L		#N/A	0.54	#N/A	#N/A	#N/A	#N/A	0.47	#N/A	#N/A	#N/A	#N/A	0.45
Sn	mg/L		#N/A	0.00048	#N/A	#N/A	#N/A	#N/A	0.00014	#N/A	#N/A	#N/A	#N/A	0.00029
Sr	mg/L		#N/A	0.0628	#N/A	#N/A	#N/A	#N/A	0.0507	#N/A	#N/A	#N/A	#N/A	0.0487
Ti	mg/L		#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001
Tl	mg/L		#N/A	0.000003	#N/A	#N/A	#N/A	#N/A	0.000006	#N/A	#N/A	#N/A	#N/A	0.000008
U	mg/L		#N/A	0.00131	#N/A	#N/A	#N/A	#N/A	0.000960	#N/A	#N/A	#N/A	#N/A	0.00106
V	mg/L		#N/A	0.00032	#N/A	#N/A	#N/A	#N/A	0.00032	#N/A	#N/A	#N/A	#N/A	0.00027
W	mg/L		#N/A	0.00017	#N/A	#N/A	#N/A	#N/A	0.00009	#N/A	#N/A	#N/A	#N/A	0.00005
Y	mg/L		#N/A	0.000017	#N/A	#N/A	#N/A	#N/A	0.000008	#N/A	#N/A	#N/A	#N/A	0.000013
Zn	mg/L	0.50	#N/A	0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001

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Transposed by	BB Sept 19/08	BB Sept 19/08	BB Oct6/08	BB Oct6/08	BB Oct15/08	BB Oct15/08	BB Oct30/08	BB Dec 1/08	BB Dec 1/08	BB Dec 1/08	BB Dec 1/08	BB Dec 1/08	
Checked by	PW Sep 19/08	PW Sep 19/08	PW Oct.21/08	PW Oct.21/08	PW Oct.21/08	PW Oct.21/08	PW Oct.30/08	PW Dec.01/08	PW Dec.01/08	PW Dec.01/08	PW Dec.01/08	PW Dec.01/08	

**Due to accidenta* *Not sufficient sample to reassay alkalinity*

Test Specimen

Sample	Weight (g)
High Sulphide Waste Overall Comp 1/4 inch	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	36	37	38	39	40	41	42	43
LIMS			10418-NOV08	10021-DEC08	10051-DEC08	10137-DEC08	10278-DEC08	10513-DEC08	10021-JAN09	10051-JAN09
Hum Cell Leachate Vol	mLs		1001	949	949	968	918	935	961	905
pH	units	6-9.5	7.39	7.37	7.41	7.64	7.59	7.58	7.67	7.51
Conductivity	µS/cm		33	34	36	34	36	33	34	26
Alkalinity	mg/L as $CaCO_3$		14	13	*13	14	14	15	13	11
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		2.5	2.3	2.1	2.1	2.0	2.4	2.7	1.9
Cl	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A
F	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_2	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_3	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A
NH_3+NH_4	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A
Hg	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Ag	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Al	mg/L		#N/A	#N/A	#N/A	#N/A	0.0614	#N/A	#N/A	#N/A
As	mg/L	0.20	#N/A	#N/A	#N/A	#N/A	0.0003	#N/A	#N/A	#N/A
Ba	mg/L		#N/A	#N/A	#N/A	#N/A	0.0203	#N/A	#N/A	#N/A
Be	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A
B	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A
Bi	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Ca	mg/L		#N/A	#N/A	#N/A	#N/A	5.97	#N/A	#N/A	#N/A
Cd	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000003	#N/A	#N/A	#N/A
Co	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A	#N/A	#N/A
Cr	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Cu	mg/L	0.30	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Fe	mg/L	3.00	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A
K	mg/L		#N/A	#N/A	#N/A	#N/A	0.86	#N/A	#N/A	#N/A
Li	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Mg	mg/L		#N/A	#N/A	#N/A	#N/A	0.119	#N/A	#N/A	#N/A
Mn	mg/L		#N/A	#N/A	#N/A	#N/A	0.0251	#N/A	#N/A	#N/A
Mo	mg/L		#N/A	#N/A	#N/A	#N/A	0.00031	#N/A	#N/A	#N/A
Na	mg/L		#N/A	#N/A	#N/A	#N/A	0.06	#N/A	#N/A	#N/A
Ni	mg/L	0.50	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Pb	mg/L	0.20	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A
Sb	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A
Se	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Si	mg/L		#N/A	#N/A	#N/A	#N/A	0.40	#N/A	#N/A	#N/A
Sn	mg/L		#N/A	#N/A	#N/A	#N/A	0.00031	#N/A	#N/A	#N/A
Sr	mg/L		#N/A	#N/A	#N/A	#N/A	0.0441	#N/A	#N/A	#N/A
Ti	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Tl	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A	#N/A	#N/A
U	mg/L		#N/A	#N/A	#N/A	#N/A	0.000904	#N/A	#N/A	#N/A
V	mg/L		#N/A	#N/A	#N/A	#N/A	0.00015	#N/A	#N/A	#N/A
W	mg/L		#N/A	#N/A	#N/A	#N/A	0.00022	#N/A	#N/A	#N/A
Y	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000001	#N/A	#N/A	#N/A
Zn	mg/L	0.50	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A

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**Reassay LIMS 10239-JAN09*

Transposed by	BB Dec 16/08	BB Dec 16/08	BB Dec 16/08	BB Jan 12/09	BB Jan 12/09	BB Jan 12/09	BB Jan 21/09	BB Jan 29/09	
Checked by	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09	PW Jan.12/09			

**Due to accidenta*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
High Sulphide Waste Overall Comp 1/4 inch	1000

Weekly Leach	No.	0	1	2	3	4	5	6	7	8	9
Summary of ABA Test Data											
Sulphur (S)	%	2.13	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	1.88	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	52.7	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t	32.8									
Leachate Paremeters Measured											
Leachate Volume Collected	mL	746	979	936	968	963	914	968	936	948	975
pH	units	8.20	7.46	7.34	7.27	7.39	7.29	7.50	7.17	7.28	7.40
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	13	22	17	15	15	12	14	13	12	12
Conductivity	µS/cm	95	107	59	62	54	41	46	59	49	46
SO_4	mg/L	11	18	9.3	7.3	6.4	5.2	5.2	6.1	4.2	3.8
Ca	mg/L	7.31	8.26	6.02	6.95	6.46	5.59	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	1.07	1.47	0.922	0.896	0.708	0.547	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	8.2	17.6	8.7	7.1	6.2	4.8	5.0	5.7	4.0	3.7
Cumulative SO4 Production	g/t	8.2	25.8	34.5	41.6	47.8	52.5	57.5	63.3	67.2	70.9
Weekly S= Depletion	%	0.01	0.03	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Cumulative S= Depletion	%	0.01	0.05	0.06	0.07	0.08	0.09	0.10	0.11	0.12	0.13
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	8.55	18.36	9.07	7.36	6.42	4.95	5.24	5.95	4.15	3.86
Cumulative Total NP Depletion	%	0.02	0.05	0.07	0.08	0.09	0.10	0.11	0.13	0.13	0.14
Cumulative CO_3 NP Depletion	%	0.03	0.08	0.11	0.13	0.15	0.17	0.18	0.20	0.21	0.23
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.49	1.96	1.87	1.94	1.93	1.83	1.94	1.87	1.90	1.95
Alkalinity Production Rate	$CaCO_3$, g/t/wk	9.70	21.54	15.91	14.52	14.45	10.97	13.55	12.17	11.38	11.70
Open-System NP Consumption	$CaCO_3$, g/t/wk	16.75	37.94	23.11	19.94	18.94	14.09	16.86	16.24	13.63	13.61
Open-System Cumulative NP Depletion (Total NP)	**%**	0.03	0.10	0.15	0.19	0.22	0.25	0.28	0.31	0.34	0.36
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	0.05	0.17	0.24	0.30	0.36	0.40	0.45	0.50	0.54	0.58
Anorthoclase Molar Ratio	Ca: SO_4	1.59	1.10	1.55	2.28	2.42	2.58	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	13.61	20.19	14.07	16.80	15.53	12.76	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	1.98	1.42	1.94	2.77	2.86	2.99	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	16.90	26.11	17.62	20.37	18.34	14.81	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
High Sulphide Waste Overall Comp 1/4 inch	1000

Weekly Leach	No.	10	11	12	13	14	15	16	17	18	19
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	902	948	980	938	948.6	913	977	983	942	930
pH	units	7.33	7.43	7.48	7.73	7.89	7.42	7.55	7.10	7.17	7.45
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	12.6	15	17	17	22	16	23	16	14	14
Conductivity	µS/cm	48.2	51	49	50	48	44	56	45	37	36
SO_4	mg/L	5.9	3.9	4.3	4.2	4.4	3.3	3.9	3.3	2.8	2.8
Ca	mg/L	4.78	#N/A	#N/A	#N/A	#N/A	6.81	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	0.318	#N/A	#N/A	#N/A	#N/A	0.341	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	5.3	3.7	4.2	3.9	4.2	3.0	3.8	3.2	2.6	2.6
Cumulative SO4 Production	g/t	76.3	80.0	84.2	88.1	92.3	95.3	99.1	102.4	105.0	107.6
Weekly S= Depletion	%	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
Cumulative S= Depletion	%	0.14	0.14	0.15	0.16	0.16	0.17	0.18	0.18	0.19	0.19
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	5.54	3.85	4.39	4.10	4.35	3.14	3.97	3.38	2.75	2.71
Cumulative Total NP Depletion	%	0.15	0.16	0.17	0.17	0.18	0.19	0.20	0.20	0.21	0.21
Cumulative CO_3 NP Depletion	%	0.24	0.25	0.27	0.28	0.29	0.30	0.31	0.33	0.33	0.34
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.80	1.90	1.96	1.88	1.90	1.83	1.95	1.97	1.88	1.86
Alkalinity Production Rate	$CaCO_3$, g/t/wk	11.37	14.22	16.66	15.95	20.87	14.61	22.47	15.73	13.19	13.02
Open-System NP Consumption	$CaCO_3$, g/t/wk	15.10	16.18	19.09	18.17	23.32	15.92	24.49	17.14	14.05	13.87
Open-System Cumulative NP Depletion (Total NP)	**%**	0.39	0.42	0.46	0.49	0.54	0.57	0.61	0.65	0.67	0.70
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	0.63	0.68	0.74	0.79	0.86	0.91	0.99	1.04	1.08	1.12
Anorthoclase Molar Ratio	Ca: SO_4	1.94	#N/A	#N/A	#N/A	#N/A	4.95	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	10.76	#N/A	#N/A	#N/A	#N/A	15.52	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	2.15	#N/A	#N/A	#N/A	#N/A	5.35	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	11.94	#N/A	#N/A	#N/A	#N/A	16.80	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
High Sulphide Waste Overall Comp 1/4 inch	1000

Weekly Leach	No.	20	21	22	23	24	25	26	27	28	29
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	901	957	975	935	963	988	963	971	968	936
pH	units	7.39	7.73	7.62	7.17	7.36	7.40	7.53	7.52	7.50	7.50
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	14	18	15	9	14	15	18	15	15	14
Conductivity	µS/cm	38	44	58	24	36	40	48	37	36	36
SO_4	mg/L	2.8	3.5	2.9	1.7	2.6	3.0	3.1	2.5	2.8	2.4
Ca	mg/L	6.27	#N/A	#N/A	#N/A	#N/A	6.65	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	0.22	#N/A	#N/A	#N/A	#N/A	0.208	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	2.5	3.3	2.8	1.6	2.5	3.0	3.0	2.4	2.7	2.2
Cumulative SO4 Production	g/t	110.1	113.5	116.3	117.9	120.4	123.4	126.3	128.8	131.5	133.7
Weekly S= Depletion	%	0.00	0.01	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00
Cumulative S= Depletion	%	0.20	0.20	0.21	0.21	0.21	0.22	0.22	0.23	0.23	0.24
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	2.63	3.49	2.95	1.66	2.61	3.09	3.11	2.53	2.82	2.34
Cumulative Total NP Depletion	%	0.22	0.22	0.23	0.23	0.24	0.24	0.25	0.25	0.26	0.26
Cumulative CO_3 NP Depletion	%	0.35	0.36	0.37	0.37	0.38	0.39	0.40	0.41	0.42	0.42
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.80	1.91	1.95	1.87	1.93	1.98	1.93	1.94	1.94	1.87
Alkalinity Production Rate	$CaCO_3$, g/t/wk	12.61	17.23	14.63	8.42	13.48	14.82	17.33	14.57	14.52	13.10
Open-System NP Consumption	$CaCO_3$, g/t/wk	13.44	18.80	15.62	8.20	14.16	15.93	18.52	15.15	15.41	13.57
Open-System Cumulative NP Depletion (Total NP)	**%**	0.72	0.76	0.79	0.81	0.83	0.86	0.90	0.93	0.96	0.98
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	1.16	1.22	1.27	1.29	1.34	1.39	1.44	1.49	1.54	1.58
Anorthoclase Molar Ratio	Ca: SO_4	5.37	#N/A	#N/A	#N/A	#N/A	5.31	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	14.10	#N/A	#N/A	#N/A	#N/A	16.40	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	5.68	#N/A	#N/A	#N/A	#N/A	5.59	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	14.92	#N/A	#N/A	#N/A	#N/A	17.25	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
High Sulphide Waste Overall Comp 1/4 inch	1000

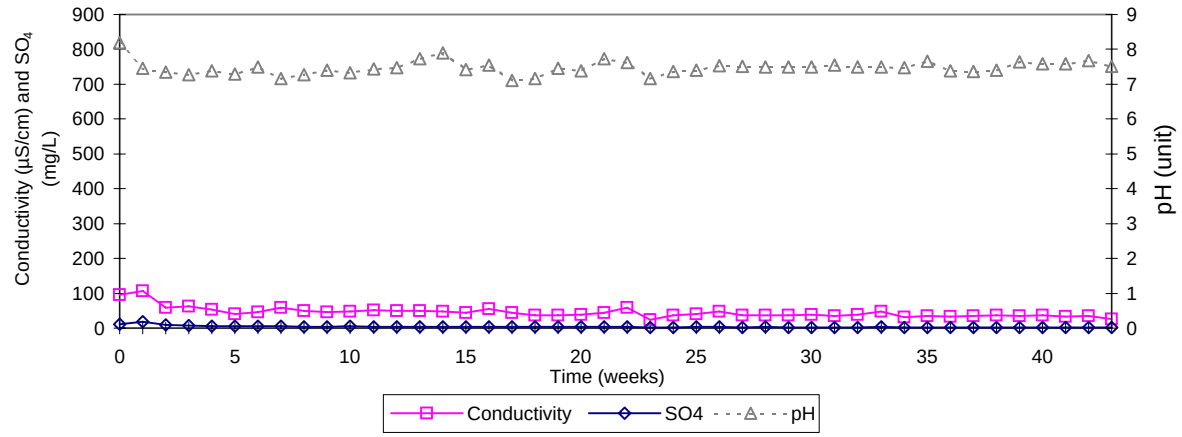
Weekly Leach	No.	30	31	32	33	34	35	36	37	38	39
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	917	940	940	955	960	966	1001	949	949	968
pH	units	7.49	7.55	7.49	7.49	7.48	7.66	7.39	7.37	7.41	7.64
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	15	14	13	15	14	14	14	13	13	14
Conductivity	µS/cm	39	34	39	47	32	34	33	34	36	34
SO_4	mg/L	2.0	2.5	2.5	2.8	2.6	2.7	2.5	2.3	2.1	2.1
Ca	mg/L	6.23	#N/A	#N/A	#N/A	#N/A	6.3	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	0.16	#N/A	#N/A	#N/A	#N/A	0.148	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	1.8	2.4	2.4	2.7	2.5	2.6	2.5	2.2	2.0	2.0
Cumulative SO4 Production	g/t	135.6	137.9	140.3	142.9	145.4	148.0	150.5	152.7	154.7	156.7
Weekly S= Depletion	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cumulative S= Depletion	%	0.24	0.24	0.25	0.25	0.26	0.26	0.27	0.27	0.27	0.28
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	1.91	2.45	2.45	2.79	2.60	2.72	2.61	2.27	2.08	2.12
Cumulative Total NP Depletion	%	0.27	0.27	0.28	0.28	0.29	0.29	0.30	0.30	0.31	0.31
Cumulative CO_3 NP Depletion	%	0.43	0.44	0.45	0.45	0.46	0.47	0.48	0.49	0.49	0.50
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.83	1.88	1.88	1.91	1.92	1.93	2.00	1.90	1.90	1.94
Alkalinity Production Rate	$CaCO_3$, g/t/wk	13.76	13.16	12.22	14.33	13.44	13.52	14.01	12.34	12.34	13.55
Open-System NP Consumption	$CaCO_3$, g/t/wk	13.83	13.73	12.79	15.20	14.12	14.31	14.62	12.71	12.51	13.73
Open-System Cumulative NP Depletion (Total NP)	**%**	1.01	1.03	1.06	1.09	1.11	1.14	1.17	1.19	1.22	1.24
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	1.62	1.66	1.70	1.75	1.79	1.83	1.88	1.92	1.95	2.00
Anorthoclase Molar Ratio	Ca: SO_4	7.47	#N/A	#N/A	#N/A	#N/A	5.59	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	14.26	#N/A	#N/A	#N/A	#N/A	15.19	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	7.78	#N/A	#N/A	#N/A	#N/A	5.81	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	14.87	#N/A	#N/A	#N/A	#N/A	15.78	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

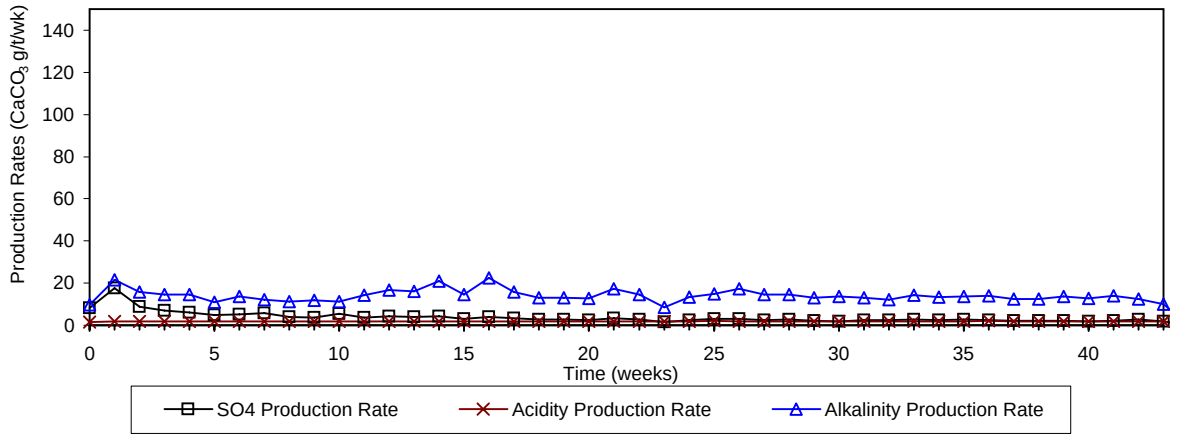
TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

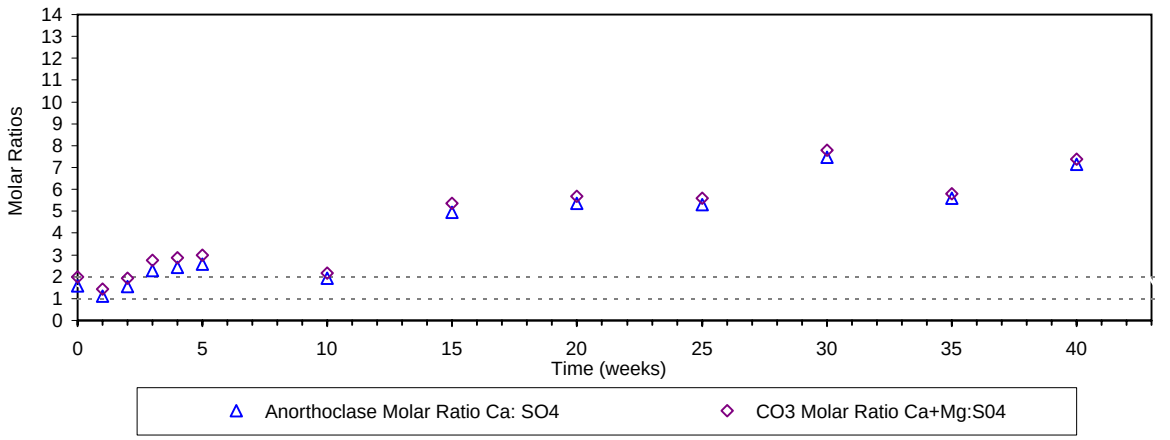
Conductivity, Sulphate, and pH in Weekly Humidity Cell Leachate - High Sulphide Waste Overall Comp 1/4 inch



Acidity, Alkalinity and SO_4 Production Rates - High Sulphide Waste Overall Comp 1/4 inch



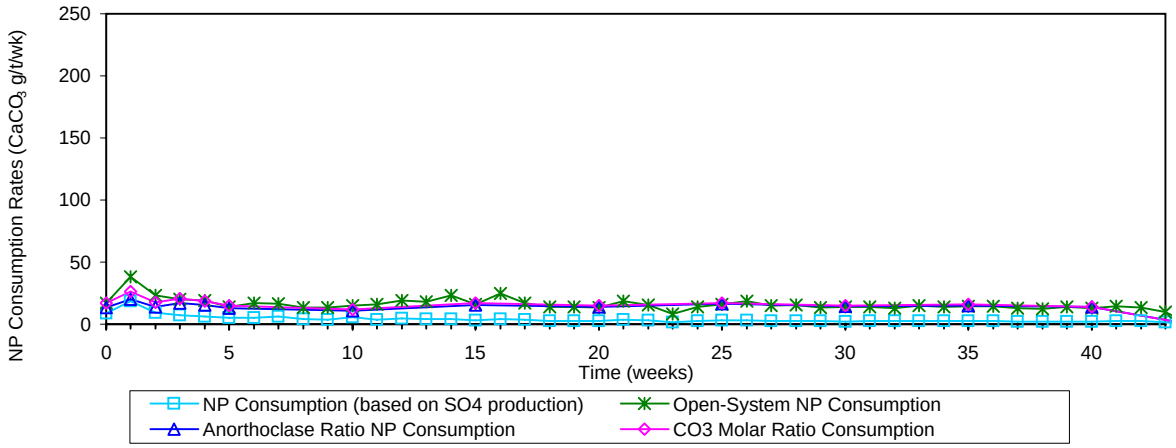
Carbonate (Ca + Mg/SO_4) and Anorthoclase (Ca/SO_4) Molar Ratios - High Sulphide Waste Overall Comp 1/4 inch



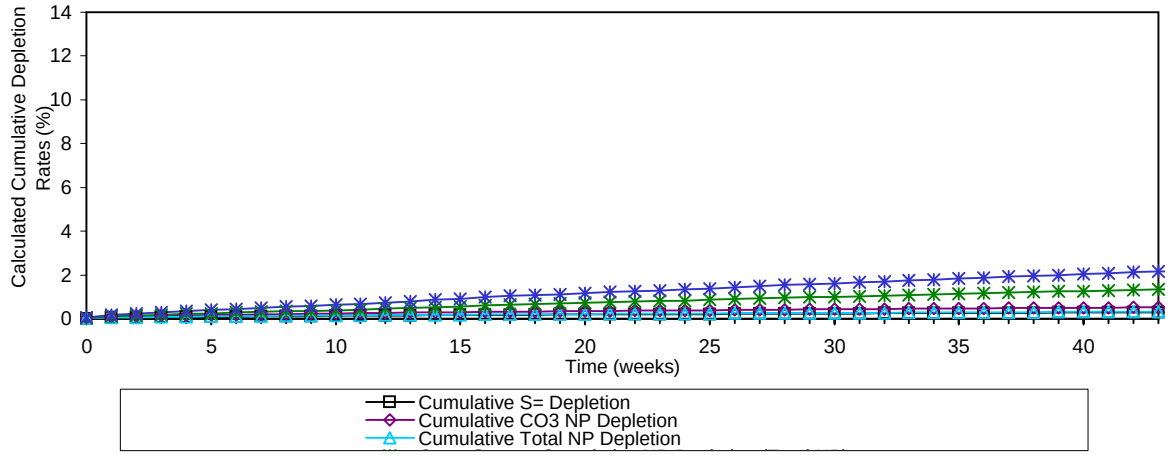
TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

NP Consumption Rates - High Sulphide Waste Overall Comp 1/4 inch



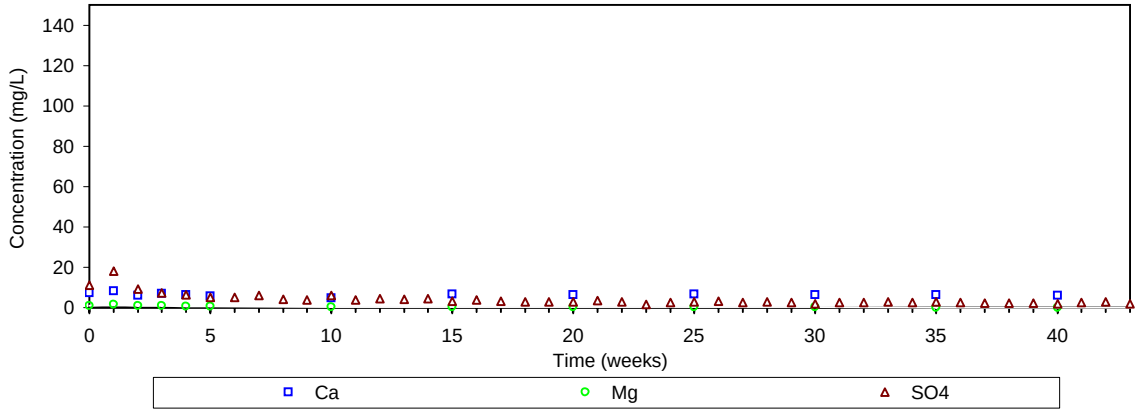
Cumulative Sulphide and NP Depletion Rates - High Sulphide Waste Overall Comp 1/4 inch



Note: Cumulative Total and CO_3 NP depletions calculated based on sulphate assay.

Note: Open-System NP depletion calculated based on cumulative NP depletion and alkalinity and acidty production rates.

Selected Parameters in Weekly Humidity Cell Leachate - High Sulphide Waste Overall Comp 1/4 inch



Test Specimen

Sample	Weight (g)
Low Grade Ore Overall Comp -200 mesh	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	0	1	2	3	4	5	6	7	8	9	10	11
LIMS			10066-APR08	10169-APR08	10316-APR08	10519-APR08	10633-APR08	10065-MAY08	10127-MAY08	10153-MAY08	10702-MAY08	10016-JUN08	10049-JUN08	10099-JUN08
Hum Cell Leachate Vol	mLs		132	995	985	985	955	988	986	986	979	985	960	987
pH	units	6-9.5	6.75	8.17	8.37	7.86	8.30	7.24	7.16	8.64	7.53	7.50	7.72	7.66
Conductivity	µS/cm		60	478	292	208	196	196	78	60	74	64	86	71
Alkalinity	mg/L as $CaCO_3$		9	91	79	57	60	42	27	18	14	16	22	18
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		1.4	58	32	23	27	27	7.1	6.3	10	10	16	12
Cl	mg/L		0.6	17	2.1	0.2	< 0.2	< 0.2	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
F	mg/L		#N/A	1.66	0.87	0.32	0.20	0.16	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
NO_2	as N mg/L		< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
NO_3	as N mg/L		4.90	0.38	0.49	2.07	0.05	4.82	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
NH_3+NH_4	as N mg/L		0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
CN(T)	mg/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
CN_{WAD}	mg/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
CN(F)	mg/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
CNO	mg/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
CNS	mg/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
Hg	mg/L		#N/A	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Ag	mg/L		0.00017	0.00004	< 0.00001	< 0.00001	< 0.00001	0.00002	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Al	mg/L		0.295	0.247	0.234	0.163	0.160	0.160	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
As	mg/L	0.20	< 0.0002	0.0018	0.0020	0.0013	0.0009	0.0009	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Ba	mg/L		0.0043	0.0267	0.0217	0.0192	0.0193	0.0192	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Be	mg/L		< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
B	mg/L		0.0117	0.0446	0.0238	0.0099	0.0065	0.0052	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Bi	mg/L		< 0.00001	0.00002	0.00004	0.00002	< 0.00001	< 0.00001	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Ca	mg/L		6.08	7.26	6.01	9.22	12.5	15.1	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Cd	mg/L		0.000015	0.000023	0.000004	0.000011	0.000009	< 0.000003	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Co	mg/L		0.000352	0.000251	0.000054	0.000084	0.000037	0.000042	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Cr	mg/L		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Cu	mg/L	0.30	0.0016	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fe	mg/L	3.00	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
K	mg/L		4.21	52.8	42.8	28.7	21.0	17.1	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Li	mg/L		0.002	0.07	0.009	0.008	0.009	0.009	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Mg	mg/L		0.409	2.22	2.38	3.66	4.63	4.67	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Mn	mg/L		0.00845	0.00486	0.00234	0.00294	0.00550	0.00667	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Mo	mg/L		0.00161	0.0576	0.0185	0.00672	0.00546	0.00461	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Na	mg/L		1.25	36.6	20.2	7.50	4.38	3.57	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Ni	mg/L	0.50	0.0008	0.0012	0.0005	0.0003	0.0001	0.0002	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Pb	mg/L	0.20	0.00027	0.00021	0.00007	0.00004	0.00003	< 0.00002	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Sb	mg/L		0.00373	0.0118	0.00681	0.00295	0.00263	0.00267	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Se	mg/L		0.001	0.001	< 0.001	< 0.001	< 0.001	< 0.001	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Si	mg/L		0.95	2.66	3.47	3.10	3.37	3.40	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Sn	mg/L		0.00226	0.00875	0.00711	0.00385	0.00292	0.00271	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Sr	mg/L		0.115	0.370	0.339	0.465	0.560	0.587	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Ti	mg/L		0.0007	0.0002	0.0003	0.0003	0.0001	0.0002	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Tl	mg/L		0.000003	< 0.000002	0.000007	0.000099	0.000009	0.000007	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
U	mg/L		0.000035	0.00196	0.00351	0.00312	0.00392	0.00441	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
V	mg/L		0.00165	0.00732	0.0134	0.00914	0.00684	0.00624	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	mg/L		0.00182	0.0242	0.00902	0.00414	0.00309	0.00342	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Y	mg/L		0.000042	0.000010	0.000008	0.000009	0.000012	0.000012	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Zn	mg/L	0.50	0.002	0.003	0.002	0.002	0.002	0.003	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

Government du Quebec, Ministére de L'Environnement. 2005. Directive no. 019.

Wks 0, 1, 2, 3 and 4 NH_3 + NH_4 analyses reported on LIMS 10444-MAY08 Due to laboratory technician error metals analyses are not available for Week 10

Test Specimen

Sample	Weight (g)
Low Grade Ore Overall Comp -200 mesh	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	12	13	14	15	16	17	18	19	20	21	22	23
LIMS			10378-JUN08	10018-JUL08	10045-JUL08	10122-JUL08	10148-JUL08	10456-JUL08	10020-AUG08	10045-AUG08	10427-AUG08	10501-AUG08	10018-SEP08	10046-SEP08
Hum Cell Leachate Vol	mLs		978	987	987	984	985	975	978	977	978	983	971	979
pH	units	6-9.5	7.64	7.66	7.61	6.99	7.14	7.66	7.54	8.64	7.45	7.40	7.55	7.76
Conductivity	µS/cm		52	66	68	63	63	57	55	97	72	62	46	55
Alkalinity	mg/L as $CaCO_3$		16	15	16	17	16	16	14	18	14	21	14	14
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		9.1	12	12	11	11	10	10	16	9.1	12	6.3	9.2
Cl	mg/L		#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A
F	mg/L		#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_2	as N mg/L		#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_3	as N mg/L		#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A
NH_3+NH_4	as N mg/L		#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A
CN(T)	mg/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
CN_{WAD}	mg/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
CN(F)	mg/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
CNO	mg/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
CNS	mg/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
Hg	mg/L		#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Ag	mg/L		#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00004	#N/A	#N/A	#N/A
Al	mg/L		#N/A	#N/A	#N/A	0.0335	#N/A	#N/A	#N/A	#N/A	0.0226	#N/A	#N/A	#N/A
As	mg/L	0.20	#N/A	#N/A	#N/A	0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A
Ba	mg/L		#N/A	#N/A	#N/A	0.0041	#N/A	#N/A	#N/A	#N/A	0.0032	#N/A	#N/A	#N/A
Be	mg/L		#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	0.00005	#N/A	#N/A	#N/A
B	mg/L		#N/A	#N/A	#N/A	0.0007	#N/A	#N/A	#N/A	#N/A	0.0009	#N/A	#N/A	#N/A
Bi	mg/L		#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00004	#N/A	#N/A	#N/A
Ca	mg/L		#N/A	#N/A	#N/A	7.77	#N/A	#N/A	#N/A	#N/A	6.88	#N/A	#N/A	#N/A
Cd	mg/L		#N/A	#N/A	#N/A	< 0.000003	#N/A	#N/A	#N/A	#N/A	0.000047	#N/A	#N/A	#N/A
Co	mg/L		#N/A	#N/A	#N/A	0.000025	#N/A	#N/A	#N/A	#N/A	0.000077	#N/A	#N/A	#N/A
Cr	mg/L		#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Cu	mg/L	0.30	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Fe	mg/L	3.00	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A
K	mg/L		#N/A	#N/A	#N/A	1.99	#N/A	#N/A	#N/A	#N/A	1.62	#N/A	#N/A	#N/A
Li	mg/L		#N/A	#N/A	#N/A	0.002	#N/A	#N/A	#N/A	#N/A	0.001	#N/A	#N/A	#N/A
Mg	mg/L		#N/A	#N/A	#N/A	1.02	#N/A	#N/A	#N/A	#N/A	0.836	#N/A	#N/A	#N/A
Mn	mg/L		#N/A	#N/A	#N/A	0.0406	#N/A	#N/A	#N/A	#N/A	0.0349	#N/A	#N/A	#N/A
Mo	mg/L		#N/A	#N/A	#N/A	0.00167	#N/A	#N/A	#N/A	#N/A	0.00108	#N/A	#N/A	#N/A
Na	mg/L		#N/A	#N/A	#N/A	0.56	#N/A	#N/A	#N/A	#N/A	0.56	#N/A	#N/A	#N/A
Ni	mg/L	0.50	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	0.0002	#N/A	#N/A	#N/A
Pb	mg/L	0.20	#N/A	#N/A	#N/A	0.00004	#N/A	#N/A	#N/A	#N/A	0.00007	#N/A	#N/A	#N/A
Sb	mg/L		#N/A	#N/A	#N/A	0.00041	#N/A	#N/A	#N/A	#N/A	0.00045	#N/A	#N/A	#N/A
Se	mg/L		#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Si	mg/L		#N/A	#N/A	#N/A	0.28	#N/A	#N/A	#N/A	#N/A	0.34	#N/A	#N/A	#N/A
Sn	mg/L		#N/A	#N/A	#N/A	0.00200	#N/A	#N/A	#N/A	#N/A	0.00163	#N/A	#N/A	#N/A
Sr	mg/L		#N/A	#N/A	#N/A	0.118	#N/A	#N/A	#N/A	#N/A	0.0896	#N/A	#N/A	#N/A
Ti	mg/L		#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	0.0002	#N/A	#N/A	#N/A
Tl	mg/L		#N/A	#N/A	#N/A	0.000004	#N/A	#N/A	#N/A	#N/A	0.000046	#N/A	#N/A	#N/A
U	mg/L		#N/A	#N/A	#N/A	0.00126	#N/A	#N/A	#N/A	#N/A	0.000966	#N/A	#N/A	#N/A
V	mg/L		#N/A	#N/A	#N/A	0.00017	#N/A	#N/A	#N/A	#N/A	0.00024	#N/A	#N/A	#N/A
W	mg/L		#N/A	#N/A	#N/A	0.00019	#N/A	#N/A	#N/A	#N/A	0.00036	#N/A	#N/A	#N/A
Y	mg/L		#N/A	#N/A	#N/A	0.000010	#N/A	#N/A	#N/A	#N/A	0.000057	#N/A	#N/A	#N/A
Zn	mg/L	0.50	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A

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Test Specimen

Sample	Weight (g)
Low Grade Ore Overall Comp -200 mesh	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	24	25	26	27	28	29	30	31	32	33	34	35
LIMS			10210-SEP08	10437-SEP08	10058-OCT08	10104-OCT08	10270-OCT08	10474-OCT08	10683-OCT08	10018-NOV08	10055-NOV08	10240-NOV08	10417-NOV08	10020-DEC08
Hum Cell Leachate Vol	mLs		968	984	978	977	981	986	987	974	983	990	990	980
pH	units	6-9.5	7.35	7.56	7.66	7.48	7.58	7.59	7.57	7.64	7.03	*7.87	7.57	7.77
Conductivity	µS/cm		48	59	39	44	43	36	67	58	44	*42	37	45
Alkalinity	mg/L as $CaCO_3$		14	16	14	13	13	13	17	16	13	14	13	15
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		6.5	10	6.0	6.0	5.6	5.2	9.1	6.4	5.8	4.4	4.5	5.3
Cl	mg/L		#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2
F	mg/L		#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06
NO_2	as N mg/L		#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06
NO_3	as N mg/L		#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05
NH_3+NH_4	as N mg/L		#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	---	#N/A	#N/A	#N/A	#N/A	#N/A
CN(T)	mg/L		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	---	#N/A	#N/A	#N/A	#N/A	#N/A
CN_{WAD}	mg/L		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	---	#N/A	#N/A	#N/A	#N/A	#N/A
CN(F)	mg/L		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	---	#N/A	#N/A	#N/A	#N/A	#N/A
CNO	mg/L		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	---	#N/A	#N/A	#N/A	#N/A	#N/A
CNS	mg/L		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	---	#N/A	#N/A	#N/A	#N/A	#N/A
Hg	mg/L		#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001
Ag	mg/L		#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001
Al	mg/L		#N/A	0.0246	#N/A	#N/A	#N/A	#N/A	0.0444	#N/A	#N/A	#N/A	#N/A	0.0632
As	mg/L	0.20	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002
Ba	mg/L		#N/A	0.0043	#N/A	#N/A	#N/A	#N/A	0.0037	#N/A	#N/A	#N/A	#N/A	0.0023
Be	mg/L		#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002
B	mg/L		#N/A	0.0008	#N/A	#N/A	#N/A	#N/A	0.0006	#N/A	#N/A	#N/A	#N/A	0.0004
Bi	mg/L		#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001
Ca	mg/L		#N/A	8.45	#N/A	#N/A	#N/A	#N/A	8.08	#N/A	#N/A	#N/A	#N/A	6.51
Cd	mg/L		#N/A	< 0.000003	#N/A	#N/A	#N/A	#N/A	< 0.000003	#N/A	#N/A	#N/A	#N/A	0.000004
Co	mg/L		#N/A	0.000029	#N/A	#N/A	#N/A	#N/A	0.000033	#N/A	#N/A	#N/A	#N/A	0.000182
Cr	mg/L		#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005
Cu	mg/L	0.30	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005
Fe	mg/L	3.00	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01
K	mg/L		#N/A	1.99	#N/A	#N/A	#N/A	#N/A	1.98	#N/A	#N/A	#N/A	#N/A	1.41
Li	mg/L		#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	0.001	#N/A	#N/A	#N/A	#N/A	< 0.001
Mg	mg/L		#N/A	1.17	#N/A	#N/A	#N/A	#N/A	1.14	#N/A	#N/A	#N/A	#N/A	0.726
Mn	mg/L		#N/A	0.0458	#N/A	#N/A	#N/A	#N/A	0.0308	#N/A	#N/A	#N/A	#N/A	0.0330
Mo	mg/L		#N/A	0.00118	#N/A	#N/A	#N/A	#N/A	0.00116	#N/A	#N/A	#N/A	#N/A	0.00062
Na	mg/L		#N/A	0.64	#N/A	#N/A	#N/A	#N/A	0.61	#N/A	#N/A	#N/A	#N/A	0.41
Ni	mg/L	0.50	#N/A	0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	0.0017
Pb	mg/L	0.20	#N/A	0.00003	#N/A	#N/A	#N/A	#N/A	0.00013	#N/A	#N/A	#N/A	#N/A	0.00003
Sb	mg/L		#N/A	0.00061	#N/A	#N/A	#N/A	#N/A	0.00063	#N/A	#N/A	#N/A	#N/A	0.0002
Se	mg/L		#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001
Si	mg/L		#N/A	0.14	#N/A	#N/A	#N/A	#N/A	0.54	#N/A	#N/A	#N/A	#N/A	0.43
Sn	mg/L		#N/A	0.00181	#N/A	#N/A	#N/A	#N/A	0.00143	#N/A	#N/A	#N/A	#N/A	0.00110
Sr	mg/L		#N/A	0.118	#N/A	#N/A	#N/A	#N/A	0.112	#N/A	#N/A	#N/A	#N/A	0.0749
Ti	mg/L		#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0001
Tl	mg/L		#N/A	0.000004	#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A	#N/A	#N/A	#N/A	< 0.000002
U	mg/L		#N/A	0.00170	#N/A	#N/A	#N/A	#N/A	0.00152	#N/A	#N/A	#N/A	#N/A	0.000968
V	mg/L		#N/A	0.00027	#N/A	#N/A	#N/A	#N/A	0.00036	#N/A	#N/A	#N/A	#N/A	0.00031
W	mg/L		#N/A	0.00039	#N/A	#N/A	#N/A	#N/A	0.00051	#N/A	#N/A	#N/A	#N/A	0.00032
Y	mg/L		#N/A	0.000015	#N/A	#N/A	#N/A	#N/A	0.000005	#N/A	#N/A	#N/A	#N/A	0.000037
Zn	mg/L	0.50	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001

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*** Reassay LIMS 10073-DEC08*

Test Specimen

Sample	Weight (g)
Low Grade Ore Overall Comp -200 mesh	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	36	37	38	39	40	41
LIMS			10050-DEC08	10136-DEC08	10277-DEC08	10512-DEC08	10020-JAN09	10050-JAN09
Hum Cell Leachate Vol	mLs		981	980	984	988	989	990
pH	units	6-9.5	7.61	7.63	7.94	*7.49	7.56	7.73
Conductivity	µS/cm		46	39	35	40	34	53
Alkalinity	mg/L as $CaCO_3$		15	13	17	15	11	17
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2
SO_4	mg/L		5.0	4.2	3.4	4.1	3.8	7.2
Cl	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A
F	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A
NO_2	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A
NO_3	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A
NH_3+NH_4	as N mg/L		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
CN(T)	mg/L		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
CN_{WAD}	mg/L		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
CN(F)	mg/L		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
CNO	mg/L		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
CNS	mg/L		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Hg	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Ag	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A
Al	mg/L		#N/A	#N/A	#N/A	#N/A	0.0163	#N/A
As	mg/L	0.20	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A
Ba	mg/L		#N/A	#N/A	#N/A	#N/A	0.0019	#N/A
Be	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A
B	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A
Bi	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A
Ca	mg/L		#N/A	#N/A	#N/A	#N/A	4.9	#N/A
Cd	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000003	#N/A
Co	mg/L		#N/A	#N/A	#N/A	#N/A	0.000024	#N/A
Cr	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Cu	mg/L	0.30	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Fe	mg/L	3.00	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A
K	mg/L		#N/A	#N/A	#N/A	#N/A	1.04	#N/A
Li	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Mg	mg/L		#N/A	#N/A	#N/A	#N/A	0.549	#N/A
Mn	mg/L		#N/A	#N/A	#N/A	#N/A	0.0274	#N/A
Mo	mg/L		#N/A	#N/A	#N/A	#N/A	0.00038	#N/A
Na	mg/L		#N/A	#N/A	#N/A	#N/A	0.3	#N/A
Ni	mg/L	0.50	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Pb	mg/L	0.20	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A
Sb	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A
Se	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Si	mg/L		#N/A	#N/A	#N/A	#N/A	0.33	#N/A
Sn	mg/L		#N/A	#N/A	#N/A	#N/A	0.00077	#N/A
Sr	mg/L		#N/A	#N/A	#N/A	#N/A	0.053	#N/A
Ti	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Tl	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A
U	mg/L		#N/A	#N/A	#N/A	#N/A	0.00127	#N/A
V	mg/L		#N/A	#N/A	#N/A	#N/A	0.00023	#N/A
W	mg/L		#N/A	#N/A	#N/A	#N/A	0.00014	#N/A
Y	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000001	#N/A
Zn	mg/L	0.50	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A

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**Reassay LIMS 10388-JAN09*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Low Grade Ore Overall Comp -200 mesh	1000

Weekly Leach	No.	0	1	2	3	4	5	6	7	8	9
Summary of ABA Test Data											
Sulphur (S)	%	0.87	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	0.55	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	52.9	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t	41.6									
Leachate Paremeters Measured											
Leachate Volume Collected	mL	132	995	985	985	955	988	986	986	979	985
pH	units	6.75	8.17	8.37	7.86	8.30	7.24	7.16	8.64	7.53	7.50
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	9	91	79	57	60	42	27	18	14	16
Conductivity	µS/cm	60	478	292	208	196	196	78	60	74	64
SO_4	mg/L	1.4	58	32	23	27	27	7.1	6.3	10	10
Ca	mg/L	6.08	7.26	6.01	9.22	12.5	15.1	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	0.409	2.22	2.38	3.66	4.63	4.67	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	0.2	57.7	31.5	22.7	25.8	26.7	7.0	6.2	9.8	9.9
Cumulative SO4 Production	g/t	0.2	57.9	89.4	112.1	137.9	164.5	171.5	177.7	187.5	197.4
Weekly S= Depletion	%	0.00	0.35	0.19	0.14	0.16	0.16	0.04	0.04	0.06	0.06
Cumulative S= Depletion	%	0.00	0.35	0.54	0.68	0.84	1.00	1.04	1.08	1.14	1.20
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	0.19	60.11	32.83	23.60	26.86	27.79	7.29	6.47	10.20	10.26
Cumulative Total NP Depletion	%	0.00	0.11	0.18	0.22	0.27	0.32	0.34	0.35	0.37	0.39
Cumulative CO_3 NP Depletion	%	0.00	0.14	0.22	0.28	0.35	0.41	0.43	0.45	0.47	0.49
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	0.26	1.99	1.97	1.97	1.91	1.98	1.97	1.97	1.96	1.97
Alkalinity Production Rate	$CaCO_3$, g/t/wk	1.19	90.55	77.82	56.15	57.30	41.50	26.62	17.75	13.71	15.76
Open-System NP Consumption	$CaCO_3$, g/t/wk	1.12	148.67	108.68	77.77	82.25	67.31	31.94	22.25	21.95	24.05
Open-System Cumulative NP Depletion (Total NP)	**%**	0.00	0.28	0.49	0.64	0.79	0.92	0.98	1.02	1.06	1.11
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	0.00	0.36	0.62	0.81	1.01	1.17	1.24	1.30	1.35	1.41
Anorthoclase Molar Ratio	Ca: SO_4	10.41	0.30	0.45	0.96	1.11	1.34	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	2.00	18.03	14.78	22.67	29.80	37.25	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	11.56	0.45	0.74	1.59	1.79	2.02	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	2.23	27.13	24.43	37.51	48.00	56.24	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Low Grade Ore Overall Comp -200 mesh	1000

Weekly Leach	No.	10	11	12	13	14	15	16	17	18	19
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	960	987	978	987	987	984	985	975	978	977
pH	units	7.72	7.66	7.64	7.66	7.61	6.99	7.14	7.66	7.54	8.64
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	22	18	16	15	16	17	16	16	14	18
Conductivity	µS/cm	86	71	52	66	68	63	63	57	55	97
SO_4	mg/L	16	12	9.1	12	12	11	11	10	10	16
Ca	mg/L	#N/A	#N/A	#N/A	#N/A	#N/A	7.77	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	#N/A	#N/A	#N/A	#N/A	#N/A	1.02	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	15.4	11.8	8.9	11.8	11.8	10.8	10.8	9.8	9.8	15.6
Cumulative SO4 Production	g/t	212.7	224.6	233.5	245.3	257.2	268.0	278.8	288.6	298.4	314.0
Weekly S= Depletion	%	0.09	0.07	0.05	0.07	0.07	0.07	0.07	0.06	0.06	0.09
Cumulative S= Depletion	%	1.29	1.36	1.42	1.49	1.56	1.62	1.69	1.75	1.81	1.90
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	16.00	12.34	9.27	12.34	12.34	11.28	11.29	10.16	10.19	16.28
Cumulative Total NP Depletion	%	0.42	0.44	0.46	0.48	0.51	0.53	0.55	0.57	0.59	0.62
Cumulative CO_3 NP Depletion	%	0.53	0.56	0.58	0.61	0.64	0.67	0.70	0.72	0.75	0.79
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.92	1.97	1.96	1.97	1.97	1.97	1.97	1.95	1.96	1.95
Alkalinity Production Rate	$CaCO_3$, g/t/wk	21.12	17.77	15.65	14.81	15.79	16.73	15.76	15.60	13.69	17.59
Open-System NP Consumption	$CaCO_3$, g/t/wk	35.20	28.13	22.96	25.17	26.16	26.04	25.08	23.81	21.92	31.92
Open-System Cumulative NP Depletion (Total NP)	**%**	1.17	1.23	1.27	1.32	1.37	1.42	1.46	1.51	1.55	1.61
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	1.49	1.56	1.62	1.68	1.74	1.80	1.86	1.92	1.97	2.05
Anorthoclase Molar Ratio	Ca: SO_4	#N/A	#N/A	#N/A	#N/A	#N/A	1.69	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	#N/A	#N/A	#N/A	#N/A	#N/A	19.09	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	#N/A	#N/A	#N/A	#N/A	#N/A	2.06	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	#N/A	#N/A	#N/A	#N/A	#N/A	23.22	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Low Grade Ore Overall Comp -200 mesh	1000

Weekly Leach	No.	20	21	22	23	24	25	26	27	28	29
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	978	983	971	979	968	984	978	977	981	986
pH	units	7.45	7.40	7.55	7.76	7.35	7.56	7.66	7.48	7.58	7.59
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	14	21	14	14	14	16	14	13	13	13
Conductivity	µS/cm	72	62	46	55	48	59	39	44	43	36
SO_4	mg/L	9.1	12	6.3	9.2	6.5	10	6.0	6.0	5.6	5.2
Ca	mg/L	6.88	#N/A	#N/A	#N/A	#N/A	8.45	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	0.836	#N/A	#N/A	#N/A	#N/A	1.17	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	8.9	11.8	6.1	9.0	6.3	9.8	5.9	5.9	5.5	5.1
Cumulative SO4 Production	g/t	322.9	334.7	340.8	349.8	356.1	365.9	371.8	377.7	383.2	388.3
Weekly S= Depletion	%	0.05	0.07	0.04	0.05	0.04	0.06	0.04	0.04	0.03	0.03
Cumulative S= Depletion	%	1.96	2.03	2.07	2.12	2.16	2.22	2.25	2.29	2.32	2.35
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	9.27	12.29	6.37	9.38	6.55	10.25	6.11	6.11	5.72	5.34
Cumulative Total NP Depletion	%	0.64	0.66	0.67	0.69	0.70	0.72	0.73	0.74	0.75	0.76
Cumulative CO_3 NP Depletion	%	0.81	0.84	0.85	0.88	0.89	0.92	0.93	0.95	0.96	0.97
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.96	1.97	1.94	1.96	1.94	1.97	1.96	1.95	1.96	1.97
Alkalinity Production Rate	$CaCO_3$, g/t/wk	13.69	20.64	13.59	13.71	13.55	15.74	13.69	12.70	12.75	12.82
Open-System NP Consumption	$CaCO_3$, g/t/wk	21.01	30.96	18.02	21.13	18.17	24.03	17.85	16.85	16.51	16.19
Open-System Cumulative NP Depletion (Total NP)	**%**	1.65	1.71	1.74	1.78	1.82	1.86	1.90	1.93	1.96	1.99
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	2.10	2.17	2.22	2.27	2.31	2.37	2.41	2.45	2.49	2.53
Anorthoclase Molar Ratio	Ca: SO_4	1.81	#N/A	#N/A	#N/A	#N/A	2.03	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	16.80	#N/A	#N/A	#N/A	#N/A	20.76	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	2.18	#N/A	#N/A	#N/A	#N/A	2.49	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	20.16	#N/A	#N/A	#N/A	#N/A	25.50	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Low Grade Ore Overall Comp -200 mesh	1000

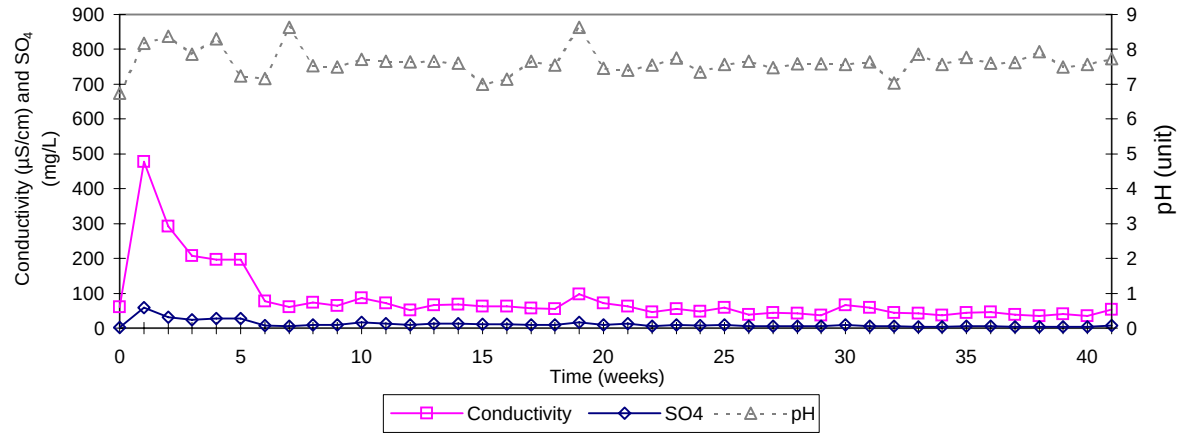
Weekly Leach	No.	30	31	32	33	34	35	36	37	38	39
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	987	974	983	990	990	980	981	980	984	988
pH	units	7.57	7.64	7.03	7.87	7.57	7.77	7.61	7.63	7.94	7.49
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	17	16	13	14	13	15	15	13	17	15
Conductivity	µS/cm	67	58	44	42	37	45	46	39	35	40
SO_4	mg/L	9.1	6.4	5.8	4.4	4.5	5.3	5.0	4.2	3.4	4.1
Ca	mg/L	8.08	#N/A	#N/A	#N/A	#N/A	6.51	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	1.14	#N/A	#N/A	#N/A	#N/A	0.726	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	9.0	6.2	5.7	4.4	4.5	5.2	4.9	4.1	3.3	4.1
Cumulative SO4 Production	g/t	397.3	403.5	409.2	413.6	418.0	423.2	428.1	432.2	435.6	439.6
Weekly S= Depletion	%	0.05	0.04	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02
Cumulative S= Depletion	%	2.41	2.45	2.48	2.51	2.53	2.56	2.59	2.62	2.64	2.66
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	9.36	6.49	5.94	4.54	4.64	5.41	5.11	4.29	3.49	4.22
Cumulative Total NP Depletion	%	0.78	0.79	0.81	0.81	0.82	0.83	0.84	0.85	0.86	0.87
Cumulative CO_3 NP Depletion	%	0.99	1.01	1.02	1.04	1.05	1.06	1.07	1.08	1.09	1.10
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.97	1.95	1.97	1.98	1.98	1.96	1.96	1.96	1.97	1.98
Alkalinity Production Rate	$CaCO_3$, g/t/wk	16.78	15.58	12.78	13.86	12.87	14.70	14.72	12.74	16.73	14.82
Open-System NP Consumption	$CaCO_3$, g/t/wk	24.16	20.13	16.75	16.42	15.53	18.15	17.86	15.07	18.25	17.06
Open-System Cumulative NP Depletion (Total NP)	**%**	2.04	2.07	2.11	2.14	2.17	2.20	2.23	2.26	2.30	2.33
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	2.59	2.64	2.68	2.72	2.75	2.80	2.84	2.88	2.92	2.96
Anorthoclase Molar Ratio	Ca: SO_4	2.13	#N/A	#N/A	#N/A	#N/A	2.94	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	19.91	#N/A	#N/A	#N/A	#N/A	15.93	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	2.62	#N/A	#N/A	#N/A	#N/A	3.49	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	24.54	#N/A	#N/A	#N/A	#N/A	18.86	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

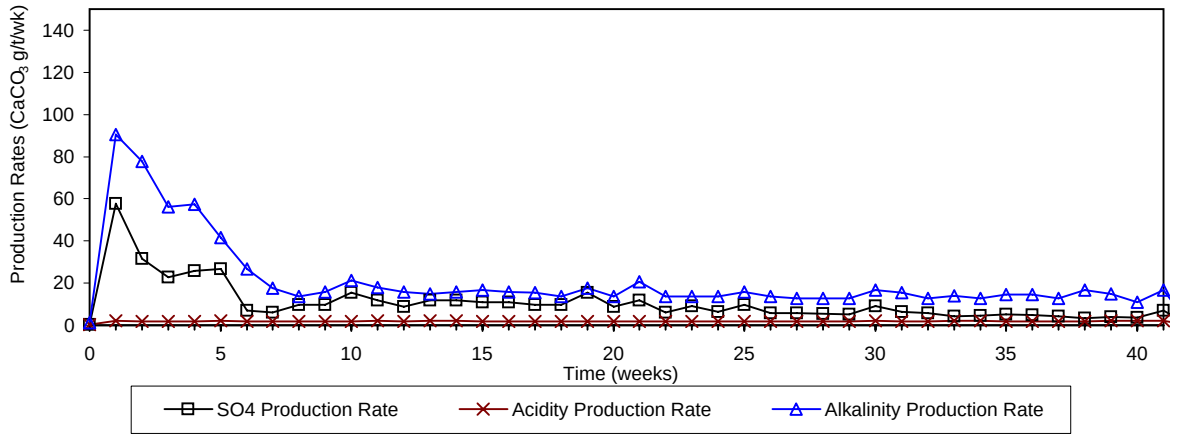
TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

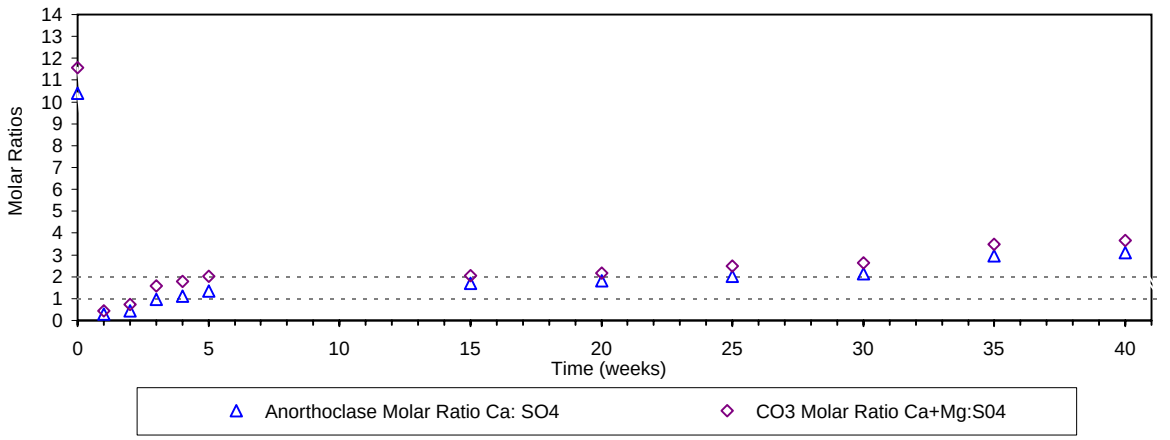
Conductivity, Sulphate, and pH in Weekly Humidity Cell Leachate - Low Grade Ore Overall Comp -200 mesh



Acidity, Alkalinity and SO_4 Production Rates - Low Grade Ore Overall Comp -200 mesh



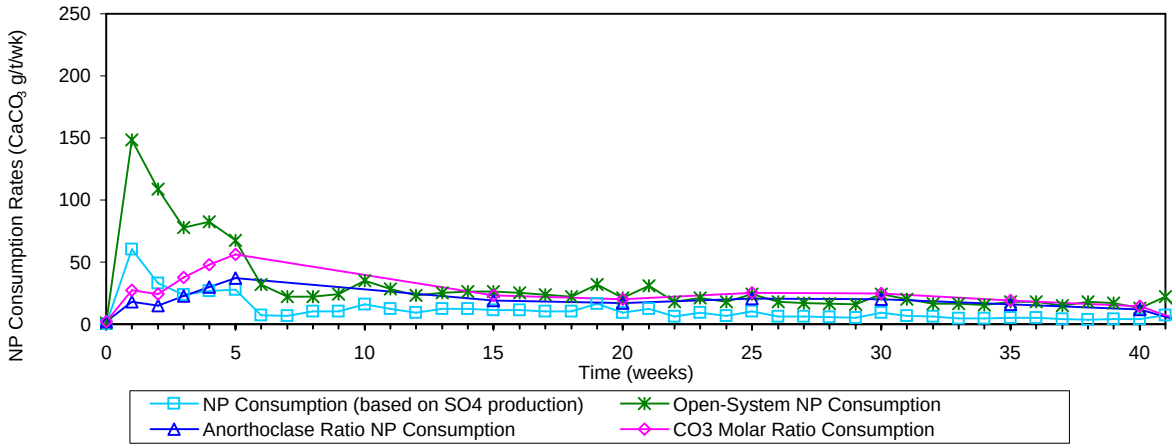
Carbonate (Ca + Mg/SO_4) and Anorthoclase (Ca/SO_4) Molar Ratios - Low Grade Ore Overall Comp -200 mesh



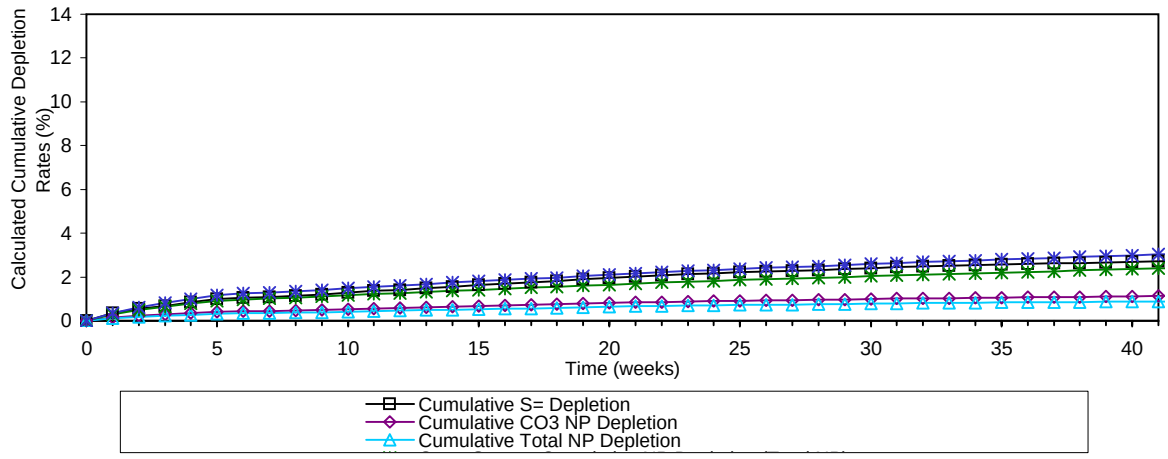
TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

NP Consumption Rates - Low Grade Ore Overall Comp -200 mesh



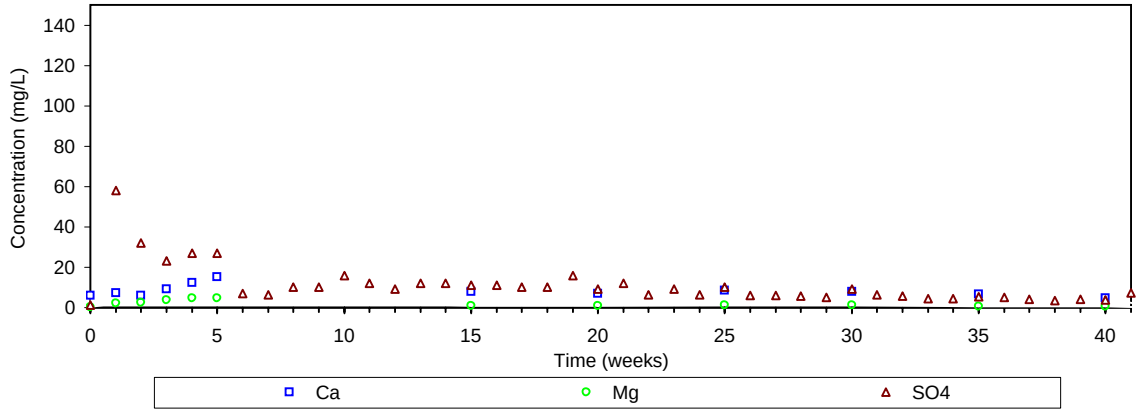
Cumulative Sulphide and NP Depletion Rates - Low Grade Ore Overall Comp -200 mesh



Note: Cumulative Total and CO_3 NP depletions calculated based on sulphate assay.

Note: Open-System NP depletion calculated based on cumulative NP depletion and alkalinity and acidty production rates.

Selected Parameters in Weekly Humidity Cell Leachate - Low Grade Ore Overall Comp -200 mesh



Test Specimen

Sample	Weight (g)
Average Grade Ore Overall Comp -200 mesh	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	0	1	2	3	4	5	6	7	8	9	10	11
LIMS			10066-APR08	10169-APR08	10316-APR08	10519-APR08	10633-APR08	10065-MAY08	10127-MAY08	10153-MAY08	10702-MAY08	10016-JUN08	10049-JUN08	10099-JUN08
Hum Cell Leachate Vol	mLs		152	945	986	985	981	988	966	986	978	980	984	988
pH	units	6-9.5	7.22	7.33	8.27	7.70	7.71	7.42	*7.69	7.26	7.06	7.57	7.41	7.75
Conductivity	µS/cm		68	714	378	97	58	57	*71	99	78	74	92	106
Alkalinity	mg/L as $CaCO_3$		23	90	75	29	17	14	*45	15	7	16	21	24
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	*<2	<2	<2	<2	<2	<2
SO_4	mg/L		7.9	150	77	12	8.8	9.7	24	19	13	13	19	23
Cl	mg/L		2.1	32	2.8	< 0.2	< 0.2	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A
F	mg/L		0.12	1.62	1.03	0.17	< 0.06	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A
NO_2	as N mg/L		< 0.06	0.2	< 0.06	< 0.06	< 0.06	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A
NO_3	as N mg/L		0.73	0.61	0.24	0.08	0.08	0.22	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A
NH_3+NH_4	as N mg/L		0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A
CN(T)	mg/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
CN_{WAD}	mg/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
CN(F)	mg/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
CNO	mg/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
CNS	mg/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
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Ag	mg/L		0.00017	0.00016	0.00003	< 0.00001	< 0.00001	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A
Al	mg/L		0.331	0.118	0.120	0.0463	0.0385	0.0259	#N/A	#N/A	#N/A	#N/A	0.0360	#N/A
As	mg/L	0.20	< 0.0002	0.0018	0.0017	0.0004	< 0.0002	< 0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A
Ba	mg/L		0.0244	0.216	0.179	0.0591	0.0195	0.0098	#N/A	#N/A	#N/A	#N/A	0.0091	#N/A
Be	mg/L		< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A
B	mg/L		0.0197	0.0274	0.0182	0.0028	0.0012	0.0011	#N/A	#N/A	#N/A	#N/A	0.0025	#N/A
Bi	mg/L		< 0.00001	0.00001	0.00005	< 0.00001	< 0.00001	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A
Ca	mg/L		5.95	17.4	11.6	7.75	6.48	6.03	#N/A	#N/A	#N/A	#N/A	9.76	#N/A
Cd	mg/L		< 0.000003	0.000007	< 0.000003	< 0.000003	< 0.000003	< 0.000003	#N/A	#N/A	#N/A	#N/A	< 0.000003	#N/A
Co	mg/L		0.000220	0.000966	0.000360	0.000170	0.000098	0.000210	#N/A	#N/A	#N/A	#N/A	0.000230	#N/A
Cr	mg/L		0.0006	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Cu	mg/L	0.30	0.0018	0.0025	0.0010	< 0.0005	< 0.0005	< 0.0005	#N/A	#N/A	#N/A	#N/A	0.0005	#N/A
Fe	mg/L	3.00	< 0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A
K	mg/L		5.57	67.3	47.2	11.0	3.31	2.78	#N/A	#N/A	#N/A	#N/A	3.83	#N/A
Li	mg/L		0.003	0.017	0.021	0.005	0.003	0.003	#N/A	#N/A	#N/A	#N/A	0.004	#N/A
Mg	mg/L		0.532	6.22	5.51	1.64	0.887	0.862	#N/A	#N/A	#N/A	#N/A	1.78	#N/A
Mn	mg/L		0.00351	0.0219	0.0106	0.0290	0.0333	0.0390	#N/A	#N/A	#N/A	#N/A	0.0550	#N/A
Mo	mg/L		0.00264	0.0664	0.0214	0.00304	0.00268	0.00270	#N/A	#N/A	#N/A	#N/A	0.00513	#N/A
Na	mg/L		2.83	91.6	21.4	2.64	0.79	0.77	#N/A	#N/A	#N/A	#N/A	1.12	#N/A
Ni	mg/L	0.50	0.0017	0.0049	0.0015	0.0003	0.0001	0.0009	#N/A	#N/A	#N/A	#N/A	0.0007	#N/A
Pb	mg/L	0.20	0.00012	0.00019	0.00008	< 0.00002	< 0.00002	< 0.00002	#N/A	#N/A	#N/A	#N/A	0.00007	#N/A
Sb	mg/L		0.00489	0.0377	0.0208	0.00373	0.00114	0.00113	#N/A	#N/A	#N/A	#N/A	0.00104	#N/A
Se	mg/L		< 0.001	0.001	< 0.001	< 0.001	< 0.001	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Si	mg/L		0.87	3.19	3.94	1.33	0.42	0.3	#N/A	#N/A	#N/A	#N/A	0.51	#N/A
Sn	mg/L		0.00289	0.0328	0.0347	0.0154	0.00652	0.00421	#N/A	#N/A	#N/A	#N/A	0.00707	#N/A
Sr	mg/L		0.323	2.68	3.02	1.05	0.508	0.421	#N/A	#N/A	#N/A	#N/A	0.719	#N/A
Ti	mg/L		0.0006	0.0002	0.0003	0.0002	0.0001	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Tl	mg/L		0.000003	0.000018	0.000050	0.000097	< 0.000002	0.000007	#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A
U	mg/L		0.000163	0.00204	0.00171	0.000422	0.000113	0.000236	#N/A	#N/A	#N/A	#N/A	0.000513	#N/A
V	mg/L		0.00141	0.00387	0.00627	0.00165	0.00032	0.00021	#N/A	#N/A	#N/A	#N/A	0.00030	#N/A
W	mg/L		0.00241	0.0135	0.00622	0.00123	0.00033	0.00032	#N/A	#N/A	#N/A	#N/A	0.00011	#N/A
Y	mg/L		0.000022	0.00002	0.000014	0.000019	0.000006	0.000010	#N/A	#N/A	#N/A	#N/A	0.000010	#N/A
Zn	mg/L	0.50	< 0.001	0.004	0.004	< 0.001	< 0.001	< 0.001	#N/A	#N/A	#N/A	#N/A	0.001	#N/A

Government du Quebec, Ministére de L'Environnement. 2005. Directive no. 019. *Wks 0, 1, 2, 3 and 4 NH_3 + NH_4 analyses reported on LIMS 10444-MAY08*

**Due to accidental acidification of the Week 23 sample in the laboratory, data for the Week 6 sample is reported as an average of the previous 5 weeks data (conductivity previous 3 weeks data).*

Test Specimen

Sample	Weight (g)
Average Grade Ore Overall Comp -200 mesh	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	12	13	14	15	16	17	18	19	20	21	22	23
LIMS			10378-JUN08	10018-JUL08	10045-JUL08	10122-JUL08	10148-JUL08	10456-JUL08	10020-AUG08	10045-AUG08	10427-AUG08	10501-AUG08	10018-SEP08	10046-SEP08
Hum Cell Leachate Vol	mLs		960	983	975	980	980	978	981	977	977	985	979	978
pH	units	6-9.5	7.63	7.57	7.63	7.18	7.09	7.79	7.67	8.52	7.42	7.39	7.55	7.84
Conductivity	µS/cm		109	75	84	78	80	75	73	97	112	87	75	66
Alkalinity	mg/L as $CaCO_3$		26	16	18	17	17	17	16	16	16	17	16	14
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		29	16	17	17	17	16	16	16	18	22	17	14
Cl	mg/L		#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A
F	mg/L		#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_2	as N mg/L		#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_3	as N mg/L		#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A
NH_3+NH_4	as N mg/L		#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A
CN(T)	mg/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
CN_{WAD}	mg/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
CN(F)	mg/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
CNO	mg/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
CNS	mg/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
Hg	mg/L		#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Ag	mg/L		#N/A	#N/A	#N/A	0.00001	#N/A	#N/A	#N/A	#N/A	0.00002	#N/A	#N/A	#N/A
Al	mg/L		#N/A	#N/A	#N/A	0.0358	#N/A	#N/A	#N/A	#N/A	0.0321	#N/A	#N/A	#N/A
As	mg/L	0.20	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A
Ba	mg/L		#N/A	#N/A	#N/A	0.0067	#N/A	#N/A	#N/A	#N/A	0.0056	#N/A	#N/A	#N/A
Be	mg/L		#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	0.00005	#N/A	#N/A	#N/A
B	mg/L		#N/A	#N/A	#N/A	0.0011	#N/A	#N/A	#N/A	#N/A	0.0014	#N/A	#N/A	#N/A
Bi	mg/L		#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00002	#N/A	#N/A	#N/A
Ca	mg/L		#N/A	#N/A	#N/A	9.26	#N/A	#N/A	#N/A	#N/A	9.69	#N/A	#N/A	#N/A
Cd	mg/L		#N/A	#N/A	#N/A	< 0.000003	#N/A	#N/A	#N/A	#N/A	0.000027	#N/A	#N/A	#N/A
Co	mg/L		#N/A	#N/A	#N/A	0.000127	#N/A	#N/A	#N/A	#N/A	0.000132	#N/A	#N/A	#N/A
Cr	mg/L		#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Cu	mg/L	0.30	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Fe	mg/L	3.00	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A
K	mg/L		#N/A	#N/A	#N/A	2.69	#N/A	#N/A	#N/A	#N/A	2.57	#N/A	#N/A	#N/A
Li	mg/L		#N/A	#N/A	#N/A	0.003	#N/A	#N/A	#N/A	#N/A	0.002	#N/A	#N/A	#N/A
Mg	mg/L		#N/A	#N/A	#N/A	1.39	#N/A	#N/A	#N/A	#N/A	1.37	#N/A	#N/A	#N/A
Mn	mg/L		#N/A	#N/A	#N/A	0.0568	#N/A	#N/A	#N/A	#N/A	0.0541	#N/A	#N/A	#N/A
Mo	mg/L		#N/A	#N/A	#N/A	0.00527	#N/A	#N/A	#N/A	#N/A	0.00471	#N/A	#N/A	#N/A
Na	mg/L		#N/A	#N/A	#N/A	0.80	#N/A	#N/A	#N/A	#N/A	0.72	#N/A	#N/A	#N/A
Ni	mg/L	0.50	#N/A	#N/A	#N/A	0.0003	#N/A	#N/A	#N/A	#N/A	0.0003	#N/A	#N/A	#N/A
Pb	mg/L	0.20	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	0.00005	#N/A	#N/A	#N/A
Sb	mg/L		#N/A	#N/A	#N/A	0.00084	#N/A	#N/A	#N/A	#N/A	0.00072	#N/A	#N/A	#N/A
Se	mg/L		#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Si	mg/L		#N/A	#N/A	#N/A	0.34	#N/A	#N/A	#N/A	#N/A	0.44	#N/A	#N/A	#N/A
Sn	mg/L		#N/A	#N/A	#N/A	0.00457	#N/A	#N/A	#N/A	#N/A	0.00390	#N/A	#N/A	#N/A
Sr	mg/L		#N/A	#N/A	#N/A	0.571	#N/A	#N/A	#N/A	#N/A	0.592	#N/A	#N/A	#N/A
Ti	mg/L		#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	0.0001	#N/A	#N/A	#N/A
Tl	mg/L		#N/A	#N/A	#N/A	0.000008	#N/A	#N/A	#N/A	#N/A	0.000030	#N/A	#N/A	#N/A
U	mg/L		#N/A	#N/A	#N/A	0.000875	#N/A	#N/A	#N/A	#N/A	0.000848	#N/A	#N/A	#N/A
V	mg/L		#N/A	#N/A	#N/A	0.00021	#N/A	#N/A	#N/A	#N/A	0.00032	#N/A	#N/A	#N/A
W	mg/L		#N/A	#N/A	#N/A	0.00009	#N/A	#N/A	#N/A	#N/A	0.00023	#N/A	#N/A	#N/A
Y	mg/L		#N/A	#N/A	#N/A	0.000009	#N/A	#N/A	#N/A	#N/A	0.000035	#N/A	#N/A	#N/A
Zn	mg/L	0.50	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A

Government du Quebec, Ministére de L'Environnement. 2005. Directive

**Due to accidenta*

Test Specimen

Sample	Weight (g)
Average Grade Ore Overall Comp -200 mesh	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	24	25	26	27	28	29	30	31	32	33	34	35
LIMS			10210-SEP08	10437-SEP08	10058-OCT08	10104-OCT08	10270-OCT08	10474-OCT08	10683-OCT08	10018-NOV08	10055-NOV08	10240-NOV08	10417-NOV08	10020-DEC08
Hum Cell Leachate Vol	mLs		982	**202	980	983	966	987	989	982	982	984	986	980
pH	units	6-9.5	7.41	7.78	7.62	7.53	7.60	7.62	7.50	7.54	7.73	7.80	7.60	7.61
Conductivity	µS/cm		82	*81	72	68	70	62	89	70	60	54	46	57
Alkalinity	mg/L as $CaCO_3$		15	47	15	14	15	15	16	26	27	13	12	15
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		18	12	18	14	14	14	19	11	13	11	8.7	10
Cl	mg/L		#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2
F	mg/L		#N/A	0.14	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06
NO_2	as N mg/L		#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06
NO_3	as N mg/L		#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05
NH_3+NH_4	as N mg/L		#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
CN(T)	mg/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
CN_{WAD}	mg/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
CN(F)	mg/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
CNO	mg/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
CNS	mg/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
Hg	mg/L		#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001
Ag	mg/L		#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00001
Al	mg/L		#N/A	0.0497	#N/A	#N/A	#N/A	#N/A	0.0392	#N/A	#N/A	#N/A	#N/A	0.207
As	mg/L	0.20	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002
Ba	mg/L		#N/A	0.0004	#N/A	#N/A	#N/A	#N/A	0.0089	#N/A	#N/A	#N/A	#N/A	0.0071
Be	mg/L		#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	0.00002	#N/A	#N/A	#N/A	#N/A	0.00002
B	mg/L		#N/A	0.0021	#N/A	#N/A	#N/A	#N/A	0.0009	#N/A	#N/A	#N/A	#N/A	0.0006
Bi	mg/L		#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00003	#N/A	#N/A	#N/A	#N/A	< 0.00001
Ca	mg/L		#N/A	8.18	#N/A	#N/A	#N/A	#N/A	10.8	#N/A	#N/A	#N/A	#N/A	8.06
Cd	mg/L		#N/A	< 0.000003	#N/A	#N/A	#N/A	#N/A	< 0.000003	#N/A	#N/A	#N/A	#N/A	0.000004
Co	mg/L		#N/A	0.000024	#N/A	#N/A	#N/A	#N/A	0.000121	#N/A	#N/A	#N/A	#N/A	0.00109
Cr	mg/L		#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005
Cu	mg/L	0.30	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	0.0009
Fe	mg/L	3.00	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01
K	mg/L		#N/A	1.79	#N/A	#N/A	#N/A	#N/A	2.50	#N/A	#N/A	#N/A	#N/A	1.81
Li	mg/L		#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	0.001	#N/A	#N/A	#N/A	#N/A	0.001
Mg	mg/L		#N/A	3.35	#N/A	#N/A	#N/A	#N/A	1.48	#N/A	#N/A	#N/A	#N/A	0.818
Mn	mg/L		#N/A	0.0258	#N/A	#N/A	#N/A	#N/A	0.0460	#N/A	#N/A	#N/A	#N/A	0.0436
Mo	mg/L		#N/A	0.00107	#N/A	#N/A	#N/A	#N/A	0.00474	#N/A	#N/A	#N/A	#N/A	0.00235
Na	mg/L		#N/A	0.46	#N/A	#N/A	#N/A	#N/A	0.74	#N/A	#N/A	#N/A	#N/A	0.47
Ni	mg/L	0.50	#N/A	0.0002	#N/A	#N/A	#N/A	#N/A	0.0002	#N/A	#N/A	#N/A	#N/A	0.0102
Pb	mg/L	0.20	#N/A	0.00003	#N/A	#N/A	#N/A	#N/A	0.00007	#N/A	#N/A	#N/A	#N/A	< 0.00002
Sb	mg/L		#N/A	0.00069	#N/A	#N/A	#N/A	#N/A	0.00093	#N/A	#N/A	#N/A	#N/A	0.0004
Se	mg/L		#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001
Si	mg/L		#N/A	0.10	#N/A	#N/A	#N/A	#N/A	0.53	#N/A	#N/A	#N/A	#N/A	0.46
Sn	mg/L		#N/A	0.00295	#N/A	#N/A	#N/A	#N/A	0.00274	#N/A	#N/A	#N/A	#N/A	0.00258
Sr	mg/L		#N/A	0.0451	#N/A	#N/A	#N/A	#N/A	0.757	#N/A	#N/A	#N/A	#N/A	0.491
Ti	mg/L		#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	0.0001
Tl	mg/L		#N/A	0.000005	#N/A	#N/A	#N/A	#N/A	0.000017	#N/A	#N/A	#N/A	#N/A	< 0.000002
U	mg/L		#N/A	0.000049	#N/A	#N/A	#N/A	#N/A	0.00117	#N/A	#N/A	#N/A	#N/A	0.000659
V	mg/L		#N/A	0.00054	#N/A	#N/A	#N/A	#N/A	0.00043	#N/A	#N/A	#N/A	#N/A	0.00039
W	mg/L		#N/A	0.00019	#N/A	#N/A	#N/A	#N/A	0.00023	#N/A	#N/A	#N/A	#N/A	0.00013
Y	mg/L		#N/A	0.000016	#N/A	#N/A	#N/A	#N/A	0.000009	#N/A	#N/A	#N/A	#N/A	0.000176
Zn	mg/L	0.50	#N/A	0.002	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	0.002

Government du Quebec, Ministére de L'Environnement. 2005. Directiv **Reassay LIMS 10581-OCT08* *** Low volume due to leak*

**Due to accidenta* *Not sufficient sample to reassay alkalinity*

Test Specimen

Sample	Weight (g)
Average Grade Ore Overall Comp -200 mesh	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	36	37	38	39	40	41
LIMS			10050-DEC08	10136-DEC08	10277-DEC08	10512-DEC08	10020-JAN09	10050-JAN09
Hum Cell Leachate Vol	mLs		983	982	925	983	987	990
pH	units	6-9.5	7.54	7.78	7.61	7.94	7.83	7.73
Conductivity	µS/cm		57	66	44	47	47	56
Alkalinity	mg/L as $CaCO_3$		14	17	12	12	13	14
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2
SO_4	mg/L		9.6	13	*7.0	7.8	8.1	9.9
Cl	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A
F	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A
NO_2	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A
NO_3	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A
NH_3+NH_4	as N mg/L		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
CN(T)	mg/L		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
CN_{WAD}	mg/L		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
CN(F)	mg/L		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
CNO	mg/L		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
CNS	mg/L		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Hg	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Ag	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A
Al	mg/L		#N/A	#N/A	#N/A	#N/A	0.0196	#N/A
As	mg/L	0.20	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A
Ba	mg/L		#N/A	#N/A	#N/A	#N/A	0.0092	#N/A
Be	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A
B	mg/L		#N/A	#N/A	#N/A	#N/A	0.0003	#N/A
Bi	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A
Ca	mg/L		#N/A	#N/A	#N/A	#N/A	6.57	#N/A
Cd	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000003	#N/A
Co	mg/L		#N/A	#N/A	#N/A	#N/A	0.000077	#N/A
Cr	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Cu	mg/L	0.30	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Fe	mg/L	3.00	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A
K	mg/L		#N/A	#N/A	#N/A	#N/A	1.35	#N/A
Li	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Mg	mg/L		#N/A	#N/A	#N/A	#N/A	0.641	#N/A
Mn	mg/L		#N/A	#N/A	#N/A	#N/A	0.0399	#N/A
Mo	mg/L		#N/A	#N/A	#N/A	#N/A	0.00184	#N/A
Na	mg/L		#N/A	#N/A	#N/A	#N/A	0.37	#N/A
Ni	mg/L	0.50	#N/A	#N/A	#N/A	#N/A	0.0002	#N/A
Pb	mg/L	0.20	#N/A	#N/A	#N/A	#N/A	0.00002	#N/A
Sb	mg/L		#N/A	#N/A	#N/A	#N/A	0.0003	#N/A
Se	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Si	mg/L		#N/A	#N/A	#N/A	#N/A	0.37	#N/A
Sn	mg/L		#N/A	#N/A	#N/A	#N/A	0.00208	#N/A
Sr	mg/L		#N/A	#N/A	#N/A	#N/A	0.433	#N/A
Ti	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Tl	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A
U	mg/L		#N/A	#N/A	#N/A	#N/A	0.000507	#N/A
V	mg/L		#N/A	#N/A	#N/A	#N/A	0.00034	#N/A
W	mg/L		#N/A	#N/A	#N/A	#N/A	0.0001	#N/A
Y	mg/L		#N/A	#N/A	#N/A	#N/A	0.000002	#N/A
Zn	mg/L	0.50	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A

Government du Quebec, Ministére de L'Environnement. 2005. Directiv **Reassay LIMS 10241-JAN09*

**Due to accidenta*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Average Grade Ore Overall Comp -200 mesh	1000

Weekly Leach	No.	0	1	2	3	4	5	6	7	8	9
Summary of ABA Test Data											
Sulphur (S)	%	1.23	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	1.01	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	67.4	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t	56.5									
Leachate Paremeters Measured											
Leachate Volume Collected	mL	152	945	986	985	981	988	966	986	978	980
pH	units	7.22	7.33	8.27	7.70	7.71	7.42	7.69	7.26	7.06	7.57
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	23	90	75	29	17	14	45	15	7	16
Conductivity	µS/cm	68	714	378	97	58	57	71	99	78	74
SO_4	mg/L	7.9	150	77	12	8.8	9.7	24	19	13	13
Ca	mg/L	5.95	17.4	11.6	7.75	6.48	6.03	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	0.532	6.22	5.51	1.64	0.887	0.862	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	1.2	141.8	75.9	11.8	8.6	9.6	23.2	18.7	12.7	12.7
Cumulative SO4 Production	g/t	1.2	143.0	218.9	230.7	239.3	248.9	272.1	290.8	303.5	316.3
Weekly S= Depletion	%	0.00	0.47	0.25	0.04	0.03	0.03	0.08	0.06	0.04	0.04
Cumulative S= Depletion	%	0.00	0.47	0.72	0.76	0.79	0.82	0.90	0.96	1.00	1.04
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	1.25	147.66	79.09	12.31	8.99	9.98	24.15	19.51	13.24	13.27
Cumulative Total NP Depletion	%	0.00	0.22	0.34	0.36	0.37	0.38	0.42	0.45	0.47	0.49
Cumulative CO_3 NP Depletion	%	0.00	0.26	0.40	0.43	0.44	0.46	0.50	0.54	0.56	0.58
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	0.30	1.89	1.97	1.97	1.96	1.98	1.93	1.97	1.96	1.96
Alkalinity Production Rate	$CaCO_3$, g/t/wk	3.50	85.05	73.95	28.57	16.68	13.83	43.47	14.79	6.85	15.68
Open-System NP Consumption	$CaCO_3$, g/t/wk	4.44	230.82	151.06	38.91	23.71	21.84	65.69	32.33	18.13	26.99
Open-System Cumulative NP Depletion (Total NP)	**%**	0.01	0.35	0.57	0.63	0.67	0.70	0.80	0.84	0.87	0.91
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	0.01	0.42	0.68	0.75	0.79	0.83	0.95	1.01	1.04	1.09
Anorthoclase Molar Ratio	Ca: SO_4	1.81	0.28	0.36	1.55	1.76	1.49	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	2.26	41.05	28.55	19.06	15.87	14.87	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	2.07	0.44	0.64	2.09	2.16	1.84	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	2.59	65.25	50.92	25.71	19.45	18.38	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Average Grade Ore Overall Comp -200 mesh	1000

Weekly Leach	No.	10	11	12	13	14	15	16	17	18	19
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	984	988	960	983	975	980	980	978	981	977
pH	units	7.41	7.75	7.63	7.57	7.63	7.18	7.09	7.79	7.67	8.52
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	21	24	26	16	18	17	17	17	16	16
Conductivity	µS/cm	92	106	109	75	84	78	80	75	73	97
SO_4	mg/L	19	23	29	16	17	17	17	16	16	16
Ca	mg/L	9.76	#N/A	#N/A	#N/A	#N/A	9.26	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	1.78	#N/A	#N/A	#N/A	#N/A	1.39	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	18.7	22.7	27.8	15.7	16.6	16.7	16.7	15.6	15.7	15.6
Cumulative SO4 Production	g/t	335.0	357.7	385.5	401.3	417.8	434.5	451.2	466.8	482.5	498.1
Weekly S= Depletion	%	0.06	0.07	0.09	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Cumulative S= Depletion	%	1.11	1.18	1.27	1.32	1.38	1.43	1.49	1.54	1.59	1.64
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	19.48	23.67	29.00	16.38	17.27	17.35	17.35	16.30	16.35	16.28
Cumulative Total NP Depletion	%	0.52	0.55	0.60	0.62	0.65	0.67	0.70	0.72	0.75	0.77
Cumulative CO_3 NP Depletion	%	0.62	0.66	0.71	0.74	0.77	0.80	0.83	0.86	0.89	0.92
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.97	1.98	1.92	1.97	1.95	1.96	1.96	1.96	1.96	1.95
Alkalinity Production Rate	$CaCO_3$, g/t/wk	20.66	23.71	24.96	15.73	17.55	16.66	16.66	16.63	15.70	15.63
Open-System NP Consumption	$CaCO_3$, g/t/wk	38.17	45.41	52.04	30.15	32.87	32.05	32.05	30.97	30.08	29.96
Open-System Cumulative NP Depletion (Total NP)	**%**	0.97	1.03	1.11	1.16	1.21	1.25	1.30	1.35	1.39	1.44
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	1.15	1.23	1.33	1.38	1.44	1.49	1.55	1.61	1.66	1.71
Anorthoclase Molar Ratio	Ca: SO_4	1.23	#N/A	#N/A	#N/A	#N/A	1.31	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	23.98	#N/A	#N/A	#N/A	#N/A	22.66	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	1.60	#N/A	#N/A	#N/A	#N/A	1.63	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	31.19	#N/A	#N/A	#N/A	#N/A	28.26	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Average Grade Ore Overall Comp -200 mesh	1000

Weekly Leach	No.	20	21	22	23	24	25	26	27	28	29
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	977	985	979	978	982	202	980	983	966	987
pH	units	7.42	7.39	7.55	7.84	7.41	7.78	7.62	7.53	7.60	7.62
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	16	17	16	14	15	47	15	14	15	15
Conductivity	µS/cm	112	87	75	66	82	81	72	68	70	62
SO_4	mg/L	18	22	17	14	18	12	18	14	14	14
Ca	mg/L	9.69	#N/A	#N/A	#N/A	#N/A	8.18	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	1.37	#N/A	#N/A	#N/A	#N/A	3.35	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	17.6	21.7	16.6	13.7	17.7	2.4	17.6	13.8	13.5	13.8
Cumulative SO4 Production	g/t	515.7	537.4	554.0	567.7	585.4	587.8	605.5	619.2	632.8	646.6
Weekly S= Depletion	%	0.06	0.07	0.05	0.05	0.06	0.01	0.06	0.05	0.04	0.05
Cumulative S= Depletion	%	1.70	1.77	1.83	1.87	1.93	1.94	2.00	2.04	2.09	2.13
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	18.32	22.57	17.34	14.26	18.41	2.53	18.38	14.34	14.09	14.39
Cumulative Total NP Depletion	%	0.80	0.83	0.86	0.88	0.90	0.91	0.94	0.96	0.98	1.00
Cumulative CO_3 NP Depletion	%	0.95	0.99	1.02	1.05	1.08	1.08	1.12	1.14	1.17	1.19
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.95	1.97	1.96	1.96	1.96	0.40	1.96	1.97	1.93	1.97
Alkalinity Production Rate	$CaCO_3$, g/t/wk	15.63	16.75	15.66	13.69	14.73	9.49	14.70	13.76	14.49	14.81
Open-System NP Consumption	$CaCO_3$, g/t/wk	32.00	37.35	31.04	26.00	31.18	11.62	31.12	26.13	26.65	27.22
Open-System Cumulative NP Depletion (Total NP)	**%**	1.48	1.54	1.58	1.62	1.67	1.69	1.73	1.77	1.81	1.85
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	1.77	1.84	1.89	1.94	1.99	2.01	2.07	2.11	2.16	2.21
Anorthoclase Molar Ratio	Ca: SO_4	1.29	#N/A	#N/A	#N/A	#N/A	1.63	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	23.64	#N/A	#N/A	#N/A	#N/A	4.13	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	1.59	#N/A	#N/A	#N/A	#N/A	2.74	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	29.14	#N/A	#N/A	#N/A	#N/A	6.91	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Average Grade Ore Overall Comp -200 mesh	1000

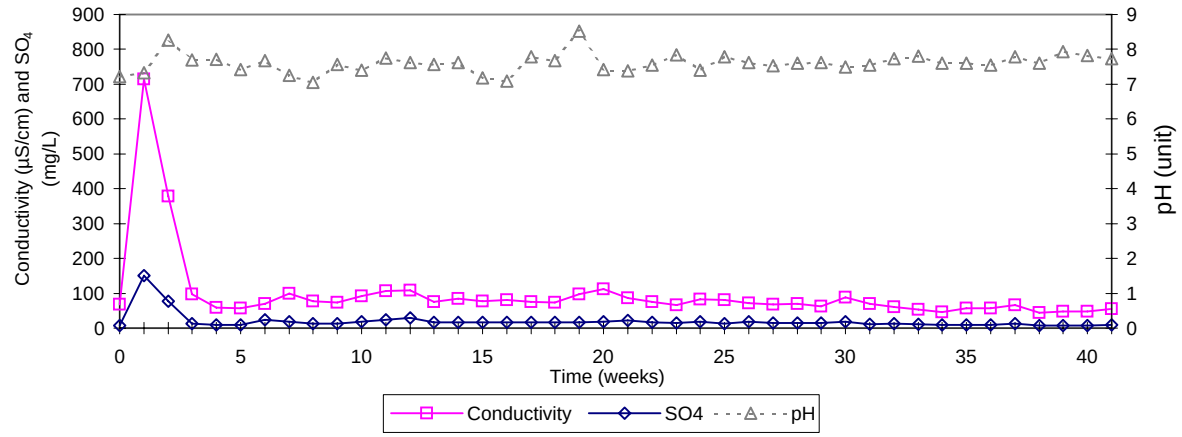
Weekly Leach	No.	30	31	32	33	34	35	36	37	38	39
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	989	982	982	984	986	980	983	982	925	983
pH	units	7.50	7.54	7.73	7.80	7.60	7.61	7.54	7.78	7.61	7.94
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	16	26	27	13	12	15	14	17	12	12
Conductivity	µS/cm	89	70	60	54	46	57	57	66	44	47
SO_4	mg/L	19	11	13	11	8.7	10	9.6	13	7.0	7.8
Ca	mg/L	10.8	#N/A	#N/A	#N/A	#N/A	8.06	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	1.48	#N/A	#N/A	#N/A	#N/A	0.818	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	18.8	10.8	12.8	10.8	8.6	9.8	9.4	12.8	6.5	7.7
Cumulative SO4 Production	g/t	665.4	676.2	688.9	699.8	708.3	718.1	727.6	740.3	746.8	754.5
Weekly S= Depletion	%	0.06	0.04	0.04	0.04	0.03	0.03	0.03	0.04	0.02	0.03
Cumulative S= Depletion	%	2.20	2.23	2.27	2.31	2.34	2.37	2.40	2.44	2.46	2.49
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	19.57	11.25	13.30	11.28	8.94	10.21	9.83	13.30	6.74	7.99
Cumulative Total NP Depletion	%	1.03	1.05	1.06	1.08	1.09	1.11	1.12	1.14	1.15	1.17
Cumulative CO_3 NP Depletion	%	1.23	1.25	1.27	1.29	1.31	1.32	1.34	1.36	1.38	1.39
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.98	1.96	1.96	1.97	1.97	1.96	1.97	1.96	1.85	1.97
Alkalinity Production Rate	$CaCO_3$, g/t/wk	15.82	25.53	26.51	12.79	11.83	14.70	13.76	16.69	11.10	11.80
Open-System NP Consumption	$CaCO_3$, g/t/wk	33.42	34.82	37.85	22.10	18.80	22.95	21.63	28.03	15.99	17.82
Open-System Cumulative NP Depletion (Total NP)	**%**	1.90	1.95	2.01	2.04	2.07	2.10	2.14	2.18	2.20	2.23
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	2.27	2.33	2.40	2.44	2.47	2.51	2.55	2.60	2.63	2.66
Anorthoclase Molar Ratio	Ca: SO_4	1.36	#N/A	#N/A	#N/A	#N/A	1.93	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	26.67	#N/A	#N/A	#N/A	#N/A	19.72	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	1.67	#N/A	#N/A	#N/A	#N/A	2.25	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	32.69	#N/A	#N/A	#N/A	#N/A	23.02	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

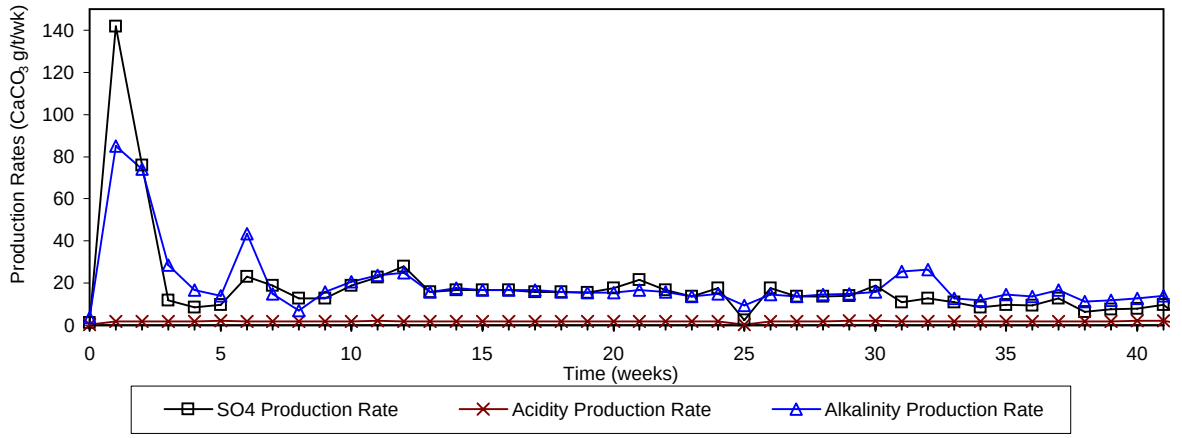
TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

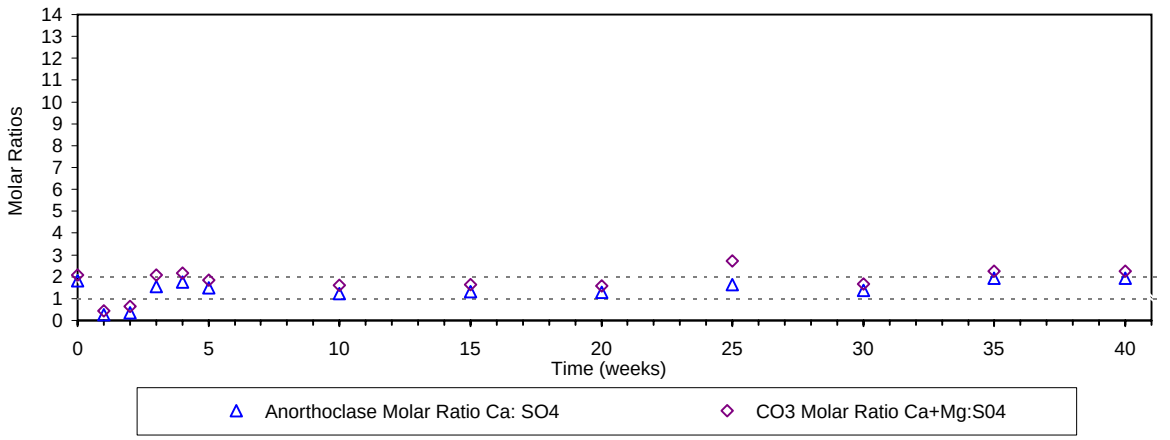
Conductivity, Sulphate, and pH in Weekly Humidity Cell Leachate - Average Grade Ore Overall Comp -200 mesh



Acidity, Alkalinity and SO_4 Production Rates - Average Grade Ore Overall Comp -200 mesh



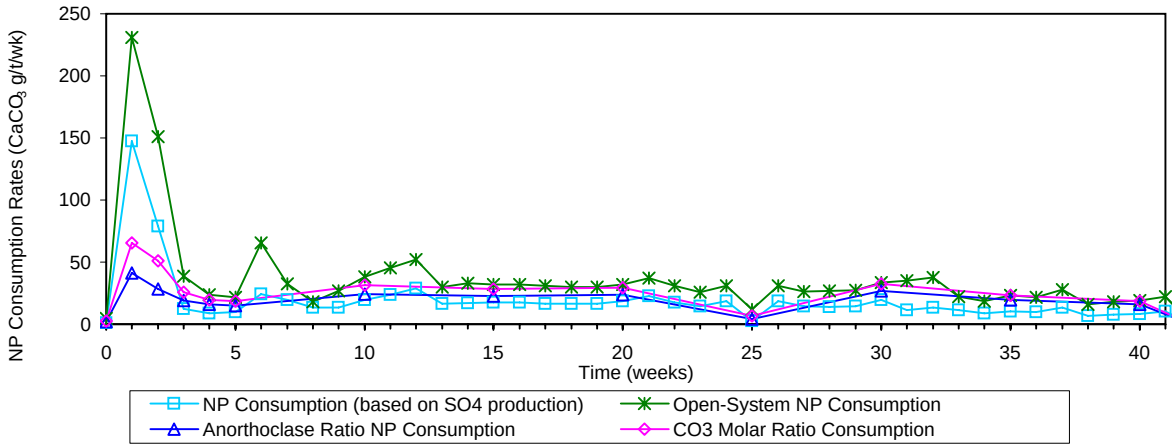
Carbonate (Ca + Mg/SO_4) and Anorthoclase (Ca/SO_4) Molar Ratios - Average Grade Ore Overall Comp -200 mesh



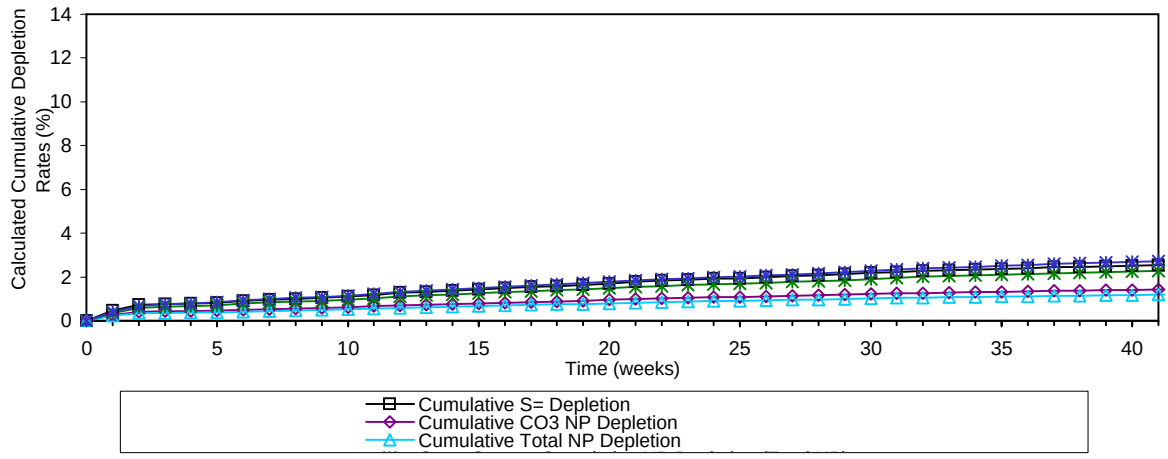
TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

NP Consumption Rates - Average Grade Ore Overall Comp -200 mesh



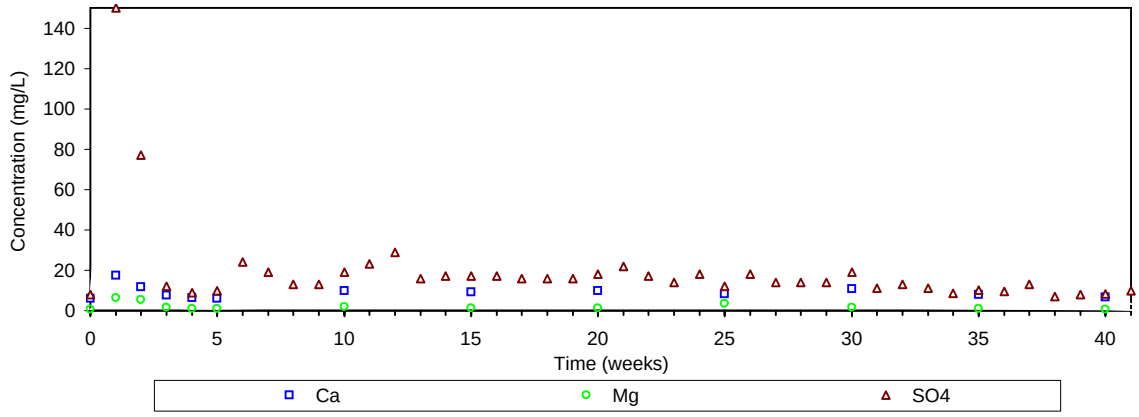
Cumulative Sulphide and NP Depletion Rates - Average Grade Ore Overall Comp -200 mesh



Note: Cumulative Total and CO_3 NP depletions calculated based on sulphate assay.

Note: Open-System NP depletion calculated based on cumulative NP depletion and alkalinity and acidty production rates.

Selected Parameters in Weekly Humidity Cell Leachate - Average Grade Ore Overall Comp -200 mesh



Test Specimen

Sample	Weight (g)
High Sulphide Ore Overall Comp -200 mesh	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	0	1	2	3	4	5	6	7	8	9	10	11
LIMS			10066-APR08	10169-APR08	10316-APR08	10519-APR08	10633-APR08	10065-MAY08	10127-MAY08	10153-MAY08	10702-MAY08	10016-JUN08	10049-JUN08	10099-JUN08
Hum Cell Leachate Vol	mLs		242	976	985	961	994	991	979	985	850	946	994	985
pH	units	6-9.5	7.58	7.47	7.37	7.48	7.62	7.81	7.56	7.42	7.73	7.52	7.68	7.57
Conductivity	µS/cm		84	230	120	87	188	95	81	89	84	93	121	114
Alkalinity	mg/L as $CaCO_3$		26	36	21	17	26	17	<2	13	15	14	22	17
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	6	<2	<2	<2	<2	<2
SO_4	mg/L		12	38	20	12	42	19	25	15	16	19	28	28
Cl	mg/L		2.0	6.1	2.1	1.1	2.3	0.8	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
F	mg/L		0.25	0.65	0.22	0.12	0.20	0.10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
NO_2	as N mg/L		< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
NO_3	as N mg/L		0.37	0.95	0.74	0.08	0.43	< 0.05	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
NH_3+NH_4	as N mg/L		0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
CN(T)	mg/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
CN_{WAD}	mg/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
CN(F)	mg/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
CNO	mg/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
CNS	mg/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
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Ag	mg/L		0.00016	0.00009	< 0.00001	< 0.00001	< 0.00001	< 0.00001	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Al	mg/L		0.304	0.0811	0.0417	0.0251	0.0245	0.0240	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
As	mg/L	0.20	< 0.0002	0.0006	0.0002	< 0.0002	< 0.0002	< 0.0002	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Ba	mg/L		0.0186	0.0256	0.0124	0.0067	0.0112	0.0055	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Be	mg/L		< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
B	mg/L		0.0104	0.0075	0.0033	0.0018	0.0045	0.0030	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Bi	mg/L		< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Ca	mg/L		5.83	7.24	6.12	5.52	9.42	6.63	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Cd	mg/L		< 0.000003	0.000003	0.000007	0.000008	0.000012	< 0.000003	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Co	mg/L		0.000103	0.000087	0.000022	0.000051	0.000068	0.000025	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Cr	mg/L		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Cu	mg/L	0.30	0.0013	0.0007	< 0.0005	< 0.0005	0.0006	< 0.0005	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fe	mg/L	3.00	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
K	mg/L		8.71	24.8	10.9	7.31	15.5	7.22	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Li	mg/L		0.003	0.005	0.005	0.003	0.008	0.005	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Mg	mg/L		0.867	1.78	1.48	1.15	3.66	1.60	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Mn	mg/L		0.00237	0.0302	0.0311	0.0436	0.0561	0.0439	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Mo	mg/L		0.00285	0.0140	0.00711	0.00477	0.0122	0.00511	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Na	mg/L		3.79	12.2	6.17	3.87	9.39	3.66	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Ni	mg/L	0.50	0.0002	0.0007	0.0002	< 0.0001	0.0003	0.0001	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Pb	mg/L	0.20	0.00012	0.00010	< 0.00002	< 0.00002	< 0.00002	< 0.00002	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Sb	mg/L		0.00341	0.00681	0.00223	0.00090	0.00189	0.00100	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Se	mg/L		0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Si	mg/L		1.06	1.00	0.41	0.23	0.57	0.31	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Sn	mg/L		0.00226	0.00414	0.00281	0.00136	0.00468	0.00241	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Sr	mg/L		0.150	0.245	0.155	0.113	0.288	0.139	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Ti	mg/L		0.0005	0.0001	< 0.0001	0.0001	0.0003	< 0.0001	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Tl	mg/L		0.000005	< 0.000002	0.000006	0.000096	0.00001	0.000003	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
U	mg/L		0.000035	0.000356	0.000204	0.000252	0.00106	0.000432	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
V	mg/L		0.00229	0.00117	0.00030	0.00011	0.00019	0.00014	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	mg/L		0.00291	0.00489	0.00110	0.00069	0.00066	0.00041	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Y	mg/L		0.000015	0.000006	0.000002	0.000005	0.000008	0.000007	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Zn	mg/L	0.50	0.001	0.001	< 0.001	< 0.001	< 0.001	< 0.001	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

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Wks 0, 1, 2, 3 and 4 NH_3 + NH_4 analyses reported on LIMS 10444-MAY08

Due to laboratory technician error metals analyses are not available for Week 10

Test Specimen

Sample	Weight (g)
High Sulphide Ore Overall Comp -200 mesh	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	12	13	14	15	16	17	18	19	20	21	22	23
LIMS			10378-JUN08	10018-JUL08	10045-JUL08	10122-JUL08	10148-JUL08	10456-JUL08	10020-AUG08	10045-AUG08	10427-AUG08	10501-AUG08	10018-SEP08	10046-SEP08
Hum Cell Leachate Vol	mLs		*952	982	986	987	986	990	989	979	986	991	981	970
pH	units	6-9.5	7.42	7.65	7.40	7.06	6.94	7.65	7.61	8.15	7.29	7.30	7.34	7.40
Conductivity	µS/cm		83	77	98	105	106	77	91	103	102	70	106	89
Alkalinity	mg/L as $CaCO_3$		16	14	13	17	14	14	16	12	13	11	13	12
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		20	17	25	26	28	18	24	20	17	19	31	25
Cl	mg/L		#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A
F	mg/L		#N/A	#N/A	#N/A	0.07	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_2	as N mg/L		#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_3	as N mg/L		#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A
NH_3+NH_4	as N mg/L		#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A
CN(T)	mg/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
CN_{WAD}	mg/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
CN(F)	mg/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
CNO	mg/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
CNS	mg/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
Hg	mg/L		#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Ag	mg/L		#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Al	mg/L		#N/A	#N/A	#N/A	0.0245	#N/A	#N/A	#N/A	#N/A	0.0282	#N/A	#N/A	#N/A
As	mg/L	0.20	#N/A	#N/A	#N/A	0.0003	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A
Ba	mg/L		#N/A	#N/A	#N/A	0.0053	#N/A	#N/A	#N/A	#N/A	0.0034	#N/A	#N/A	#N/A
Be	mg/L		#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A
B	mg/L		#N/A	#N/A	#N/A	0.0014	#N/A	#N/A	#N/A	#N/A	0.0009	#N/A	#N/A	#N/A
Bi	mg/L		#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Ca	mg/L		#N/A	#N/A	#N/A	10.2	#N/A	#N/A	#N/A	#N/A	8.31	#N/A	#N/A	#N/A
Cd	mg/L		#N/A	#N/A	#N/A	< 0.000003	#N/A	#N/A	#N/A	#N/A	0.000007	#N/A	#N/A	#N/A
Co	mg/L		#N/A	#N/A	#N/A	0.000043	#N/A	#N/A	#N/A	#N/A	0.000040	#N/A	#N/A	#N/A
Cr	mg/L		#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Cu	mg/L	0.30	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Fe	mg/L	3.00	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A
K	mg/L		#N/A	#N/A	#N/A	4.84	#N/A	#N/A	#N/A	#N/A	2.38	#N/A	#N/A	#N/A
Li	mg/L		#N/A	#N/A	#N/A	0.003	#N/A	#N/A	#N/A	#N/A	0.002	#N/A	#N/A	#N/A
Mg	mg/L		#N/A	#N/A	#N/A	2.10	#N/A	#N/A	#N/A	#N/A	1.22	#N/A	#N/A	#N/A
Mn	mg/L		#N/A	#N/A	#N/A	0.0662	#N/A	#N/A	#N/A	#N/A	0.0652	#N/A	#N/A	#N/A
Mo	mg/L		#N/A	#N/A	#N/A	0.00278	#N/A	#N/A	#N/A	#N/A	0.00124	#N/A	#N/A	#N/A
Na	mg/L		#N/A	#N/A	#N/A	2.01	#N/A	#N/A	#N/A	#N/A	0.86	#N/A	#N/A	#N/A
Ni	mg/L	0.50	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	0.0002	#N/A	#N/A	#N/A
Pb	mg/L	0.20	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	0.00003	#N/A	#N/A	#N/A
Sb	mg/L		#N/A	#N/A	#N/A	0.00052	#N/A	#N/A	#N/A	#N/A	0.00030	#N/A	#N/A	#N/A
Se	mg/L		#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Si	mg/L		#N/A	#N/A	#N/A	0.23	#N/A	#N/A	#N/A	#N/A	0.23	#N/A	#N/A	#N/A
Sn	mg/L		#N/A	#N/A	#N/A	0.00142	#N/A	#N/A	#N/A	#N/A	0.00083	#N/A	#N/A	#N/A
Sr	mg/L		#N/A	#N/A	#N/A	0.194	#N/A	#N/A	#N/A	#N/A	0.124	#N/A	#N/A	#N/A
Ti	mg/L		#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Tl	mg/L		#N/A	#N/A	#N/A	0.000014	#N/A	#N/A	#N/A	#N/A	0.000009	#N/A	#N/A	#N/A
U	mg/L		#N/A	#N/A	#N/A	0.000884	#N/A	#N/A	#N/A	#N/A	0.000401	#N/A	#N/A	#N/A
V	mg/L		#N/A	#N/A	#N/A	0.00006	#N/A	#N/A	#N/A	#N/A	0.00011	#N/A	#N/A	#N/A
W	mg/L		#N/A	#N/A	#N/A	0.00006	#N/A	#N/A	#N/A	#N/A	0.00008	#N/A	#N/A	#N/A
Y	mg/L		#N/A	#N/A	#N/A	0.000003	#N/A	#N/A	#N/A	#N/A	0.000008	#N/A	#N/A	#N/A
Zn	mg/L	0.50	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A

*Government du Quebec, Ministére de L'Environnement. 2005. Directiv*Week 12 leachate volume not available therefore volume shown is an average of the previous 5 weeks.*

Test Specimen

Sample	Weight (g)
High Sulphide Ore Overall Comp -200 mesh	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	24	25	26	27	28	29	30	31	32	33	34	35
LIMS			10210-SEP08	10437-SEP08	10058-OCT08	10104-OCT08	10270-OCT08	10474-OCT08	10683-OCT08	10018-NOV08	10055-NOV08	10240-NOV08	10417-NOV08	10020-DEC08
Hum Cell Leachate Vol	mLs		1014	992	986	984	986	992	986	957	960	945	913	937
pH	units	6-9.5	7.34	7.40	7.51	7.42	7.42	7.51	7.47	7.47	*7.27	7.67	7.36	7.24
Conductivity	µS/cm		132	88	107	84	87	76	103	61	56	43	46	63
Alkalinity	mg/L as $CaCO_3$		16	15	14	14	14	13	15	11	9	9	10	11
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		39	26	34	22	23	21	25	11	15	9.8	11	15
Cl	mg/L		#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2
F	mg/L		#N/A	0.07	#N/A	#N/A	#N/A	#N/A	0.09	#N/A	#N/A	#N/A	#N/A	0.08
NO_2	as N mg/L		#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06
NO_3	as N mg/L		#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05
NH_3+NH_4	as N mg/L		#N/A	0.1	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
CN(T)	mg/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
CN_{WAD}	mg/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
CN(F)	mg/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
CNO	mg/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
CNS	mg/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
Hg	mg/L		#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001
Ag	mg/L		#N/A	0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001
Al	mg/L		#N/A	0.0197	#N/A	#N/A	#N/A	#N/A	0.0263	#N/A	#N/A	#N/A	#N/A	0.0399
As	mg/L	0.20	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002
Ba	mg/L		#N/A	0.0042	#N/A	#N/A	#N/A	#N/A	0.0066	#N/A	#N/A	#N/A	#N/A	0.0053
Be	mg/L		#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002
B	mg/L		#N/A	0.0010	#N/A	#N/A	#N/A	#N/A	0.0008	#N/A	#N/A	#N/A	#N/A	0.0004
Bi	mg/L		#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001
Ca	mg/L		#N/A	10.9	#N/A	#N/A	#N/A	#N/A	11.7	#N/A	#N/A	#N/A	#N/A	8.42
Cd	mg/L		#N/A	0.000004	#N/A	#N/A	#N/A	#N/A	< 0.000003	#N/A	#N/A	#N/A	#N/A	0.000008
Co	mg/L		#N/A	0.000044	#N/A	#N/A	#N/A	#N/A	0.000040	#N/A	#N/A	#N/A	#N/A	0.000099
Cr	mg/L		#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005
Cu	mg/L	0.30	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005
Fe	mg/L	3.00	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01
K	mg/L		#N/A	3.51	#N/A	#N/A	#N/A	#N/A	4.04	#N/A	#N/A	#N/A	#N/A	2.25
Li	mg/L		#N/A	0.001	#N/A	#N/A	#N/A	#N/A	0.002	#N/A	#N/A	#N/A	#N/A	< 0.001
Mg	mg/L		#N/A	1.69	#N/A	#N/A	#N/A	#N/A	1.60	#N/A	#N/A	#N/A	#N/A	0.854
Mn	mg/L		#N/A	0.0778	#N/A	#N/A	#N/A	#N/A	0.0717	#N/A	#N/A	#N/A	#N/A	0.047
Mo	mg/L		#N/A	0.00167	#N/A	#N/A	#N/A	#N/A	0.00167	#N/A	#N/A	#N/A	#N/A	0.00099
Na	mg/L		#N/A	1.18	#N/A	#N/A	#N/A	#N/A	1.15	#N/A	#N/A	#N/A	#N/A	0.57
Ni	mg/L	0.50	#N/A	0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	0.0009
Pb	mg/L	0.20	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	0.00004
Sb	mg/L		#N/A	0.00053	#N/A	#N/A	#N/A	#N/A	0.00058	#N/A	#N/A	#N/A	#N/A	0.0002
Se	mg/L		#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001
Si	mg/L		#N/A	0.25	#N/A	#N/A	#N/A	#N/A	0.45	#N/A	#N/A	#N/A	#N/A	0.29
Sn	mg/L		#N/A	0.00102	#N/A	#N/A	#N/A	#N/A	0.00093	#N/A	#N/A	#N/A	#N/A	0.00054
Sr	mg/L		#N/A	0.171	#N/A	#N/A	#N/A	#N/A	0.177	#N/A	#N/A	#N/A	#N/A	0.114
Ti	mg/L		#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001
Tl	mg/L		#N/A	0.000007	#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A	#N/A	#N/A	#N/A	< 0.000002
U	mg/L		#N/A	0.000862	#N/A	#N/A	#N/A	#N/A	0.000841	#N/A	#N/A	#N/A	#N/A	0.000398
V	mg/L		#N/A	0.00011	#N/A	#N/A	#N/A	#N/A	0.00015	#N/A	#N/A	#N/A	#N/A	0.00015
W	mg/L		#N/A	0.00012	#N/A	#N/A	#N/A	#N/A	0.00014	#N/A	#N/A	#N/A	#N/A	0.00008
Y	mg/L		#N/A	0.000008	#N/A	#N/A	#N/A	#N/A	< 0.000001	#N/A	#N/A	#N/A	#N/A	0.000018
Zn	mg/L	0.50	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001

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** Reassay LIMS 10072-DEC08*

Test Specimen

Sample	Weight (g)
High Sulphide Ore Overall Comp -200 mesh	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	36	37	38	39	40	41
LIMS			10050-DEC08	10136-DEC08	10277-DEC08	10512-DEC08	10020-JAN09	10050-JAN09
Hum Cell Leachate Vol	mLs		952	951	955	896	940	923
pH	units	6-9.5	7.39	7.51	7.84	7.85	7.72	7.58
Conductivity	µS/cm		57	49	42	52	52	53
Alkalinity	mg/L as $CaCO_3$		10	10	9	10	11	11
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2
SO_4	mg/L		11	10	7.8	11	12	12
Cl	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A
F	mg/L		#N/A	#N/A	#N/A	#N/A	0.06	#N/A
NO_2	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A
NO_3	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A
NH_3+NH_4	as N mg/L		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
CN(T)	mg/L		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
CN_{WAD}	mg/L		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
CN(F)	mg/L		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
CNO	mg/L		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
CNS	mg/L		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Hg	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Ag	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A
Al	mg/L		#N/A	#N/A	#N/A	#N/A	0.0192	#N/A
As	mg/L	0.20	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A
Ba	mg/L		#N/A	#N/A	#N/A	#N/A	0.0041	#N/A
Be	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A
B	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A
Bi	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A
Ca	mg/L		#N/A	#N/A	#N/A	#N/A	7.48	#N/A
Cd	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000003	#N/A
Co	mg/L		#N/A	#N/A	#N/A	#N/A	0.000036	#N/A
Cr	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Cu	mg/L	0.30	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Fe	mg/L	3.00	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A
K	mg/L		#N/A	#N/A	#N/A	#N/A	1.77	#N/A
Li	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Mg	mg/L		#N/A	#N/A	#N/A	#N/A	0.727	#N/A
Mn	mg/L		#N/A	#N/A	#N/A	#N/A	0.045	#N/A
Mo	mg/L		#N/A	#N/A	#N/A	#N/A	0.0008	#N/A
Na	mg/L		#N/A	#N/A	#N/A	#N/A	0.44	#N/A
Ni	mg/L	0.50	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Pb	mg/L	0.20	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A
Sb	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A
Se	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Si	mg/L		#N/A	#N/A	#N/A	#N/A	0.24	#N/A
Sn	mg/L		#N/A	#N/A	#N/A	#N/A	0.00039	#N/A
Sr	mg/L		#N/A	#N/A	#N/A	#N/A	0.102	#N/A
Ti	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Tl	mg/L		#N/A	#N/A	#N/A	#N/A	0.000003	#N/A
U	mg/L		#N/A	#N/A	#N/A	#N/A	0.000319	#N/A
V	mg/L		#N/A	#N/A	#N/A	#N/A	0.00014	#N/A
W	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00003	#N/A
Y	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000001	#N/A
Zn	mg/L	0.50	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A

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TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
High Sulphide Ore Overall Comp -200 mesh	1000

Weekly Leach	No.	0	1	2	3	4	5	6	7	8	9
Summary of ABA Test Data											
Sulphur (S)	%	1.65	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	1.38	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	76.4	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t	64.6									
Leachate Paremeters Measured											
Leachate Volume Collected	mL	242	976	985	961	994	991	979	985	850	946
pH	units	7.58	7.47	7.37	7.48	7.62	7.81	7.56	7.42	7.73	7.52
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	6	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	26	36	21	17	26	17	2	13	15	14
Conductivity	µS/cm	84	230	120	87	188	95	81	89	84	93
SO_4	mg/L	12	38	20	12	42	19	25	15	16	19
Ca	mg/L	5.83	7.24	6.12	5.52	9.42	6.63	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	0.867	1.78	1.48	1.15	3.66	1.6	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	2.9	37.1	19.7	11.5	41.7	18.8	24.5	14.8	13.6	18.0
Cumulative SO4 Production	g/t	2.9	40.0	59.7	71.2	113.0	131.8	156.3	171.1	184.7	202.6
Weekly S= Depletion	%	0.01	0.09	0.05	0.03	0.10	0.05	0.06	0.04	0.03	0.04
Cumulative S= Depletion	%	0.01	0.10	0.14	0.17	0.27	0.32	0.38	0.41	0.45	0.49
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	3.03	38.63	20.52	12.01	43.49	19.61	25.49	15.39	14.17	18.72
Cumulative Total NP Depletion	%	0.00	0.05	0.08	0.10	0.15	0.18	0.21	0.23	0.25	0.28
Cumulative CO_3 NP Depletion	%	0.00	0.06	0.10	0.11	0.18	0.21	0.25	0.28	0.30	0.33
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	0.48	1.95	1.97	1.92	1.99	1.98	5.87	1.97	1.70	1.89
Alkalinity Production Rate	$CaCO_3$, g/t/wk	6.29	35.14	20.69	16.34	25.84	16.85	1.96	12.81	12.75	13.24
Open-System NP Consumption	$CaCO_3$, g/t/wk	8.83	71.82	39.24	26.43	67.34	34.48	21.58	26.23	25.22	30.07
Open-System Cumulative NP Depletion (Total NP)	**%**	0.01	0.11	0.16	0.19	0.28	0.32	0.35	0.39	0.42	0.46
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	0.01	0.12	0.19	0.23	0.33	0.38	0.42	0.46	0.50	0.54
Anorthoclase Molar Ratio	Ca: SO_4	1.16	0.46	0.73	1.10	0.54	0.84	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	3.52	17.64	15.05	13.24	23.38	16.40	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	1.45	0.64	1.03	1.48	0.88	1.17	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	4.39	24.79	21.05	17.79	38.35	22.93	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
High Sulphide Ore Overall Comp -200 mesh	1000

Weekly Leach	No.	10	11	12	13	14	15	16	17	18	19
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	994	985	952	982	986	987	986	990	989	979
pH	units	7.68	7.57	7.42	7.65	7.40	7.06	6.94	7.65	7.61	8.15
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	22	17	16	14	13	17	14	14	16	12
Conductivity	µS/cm	121	114	83	77	98	105	106	77	91	103
SO_4	mg/L	28	28	20	17	25	26	28	18	24	20
Ca	mg/L	#N/A	#N/A	#N/A	#N/A	#N/A	10.2	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	#N/A	#N/A	#N/A	#N/A	#N/A	2.1	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	27.8	27.6	19.0	16.7	24.7	25.7	27.6	17.8	23.7	19.6
Cumulative SO4 Production	g/t	230.5	258.0	277.1	293.8	318.4	344.1	371.7	389.5	413.2	432.8
Weekly S= Depletion	%	0.07	0.07	0.05	0.04	0.06	0.06	0.07	0.04	0.06	0.05
Cumulative S= Depletion	%	0.56	0.62	0.67	0.71	0.77	0.83	0.90	0.94	1.00	1.05
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	28.99	28.73	19.83	17.39	25.68	26.73	28.76	18.56	24.73	20.40
Cumulative Total NP Depletion	%	0.31	0.35	0.38	0.40	0.43	0.47	0.51	0.53	0.56	0.59
Cumulative CO_3 NP Depletion	%	0.37	0.42	0.45	0.47	0.51	0.55	0.60	0.63	0.67	0.70
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.99	1.97	1.90	1.96	1.97	1.97	1.97	1.98	1.98	1.96
Alkalinity Production Rate	$CaCO_3$, g/t/wk	21.87	16.75	15.23	13.75	12.82	16.78	13.80	13.86	15.82	11.75
Open-System NP Consumption	$CaCO_3$, g/t/wk	48.87	43.50	33.16	29.17	36.52	41.54	40.59	30.44	38.57	30.19
Open-System Cumulative NP Depletion (Total NP)	**%**	0.52	0.58	0.62	0.66	0.71	0.76	0.82	0.86	0.91	0.95
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	0.62	0.69	0.74	0.78	0.84	0.90	0.97	1.01	1.07	1.12
Anorthoclase Molar Ratio	Ca: SO_4	#N/A	#N/A	#N/A	#N/A	#N/A	0.94	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	#N/A	#N/A	#N/A	#N/A	#N/A	25.13	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	#N/A	#N/A	#N/A	#N/A	#N/A	1.26	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	#N/A	#N/A	#N/A	#N/A	#N/A	33.67	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
High Sulphide Ore Overall Comp -200 mesh	1000

Weekly Leach	No.	20	21	22	23	24	25	26	27	28	29
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	986	991	981	970	1014	992	986	984	986	992
pH	units	7.29	7.30	7.34	7.40	7.34	7.40	7.51	7.42	7.42	7.51
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	13	11	13	12	16	15	14	14	14	13
Conductivity	µS/cm	102	70	106	89	132	88	107	84	87	76
SO_4	mg/L	17	19	31	25	39	26	34	22	23	21
Ca	mg/L	8.31	#N/A	#N/A	#N/A	#N/A	10.9	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	1.22	#N/A	#N/A	#N/A	#N/A	1.69	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	16.8	18.8	30.4	24.3	39.5	25.8	33.5	21.6	22.7	20.8
Cumulative SO4 Production	g/t	449.6	468.4	498.8	523.1	562.6	588.4	621.9	643.6	666.3	687.1
Weekly S= Depletion	%	0.04	0.05	0.07	0.06	0.10	0.06	0.08	0.05	0.05	0.05
Cumulative S= Depletion	%	1.09	1.13	1.20	1.26	1.36	1.42	1.50	1.55	1.61	1.66
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	17.46	19.61	31.68	25.26	41.19	26.87	34.92	22.55	23.62	21.70
Cumulative Total NP Depletion	%	0.61	0.64	0.68	0.71	0.77	0.80	0.85	0.88	0.91	0.94
Cumulative CO_3 NP Depletion	%	0.72	0.76	0.80	0.84	0.91	0.95	1.00	1.04	1.07	1.11
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.97	1.98	1.96	1.94	2.03	1.98	1.97	1.97	1.97	1.98
Alkalinity Production Rate	$CaCO_3$, g/t/wk	12.82	10.90	12.75	11.64	16.22	14.88	13.80	13.78	13.80	12.90
Open-System NP Consumption	$CaCO_3$, g/t/wk	28.31	28.53	42.47	34.96	55.39	39.76	46.75	34.36	35.45	32.61
Open-System Cumulative NP Depletion (Total NP)	**%**	0.98	1.02	1.08	1.12	1.20	1.25	1.31	1.35	1.40	1.44
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	1.16	1.21	1.27	1.33	1.41	1.48	1.55	1.60	1.66	1.71
Anorthoclase Molar Ratio	Ca: SO_4	1.17	#N/A	#N/A	#N/A	#N/A	1.00	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	20.46	#N/A	#N/A	#N/A	#N/A	26.99	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	1.46	#N/A	#N/A	#N/A	#N/A	1.26	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	25.41	#N/A	#N/A	#N/A	#N/A	33.90	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
High Sulphide Ore Overall Comp -200 mesh	1000

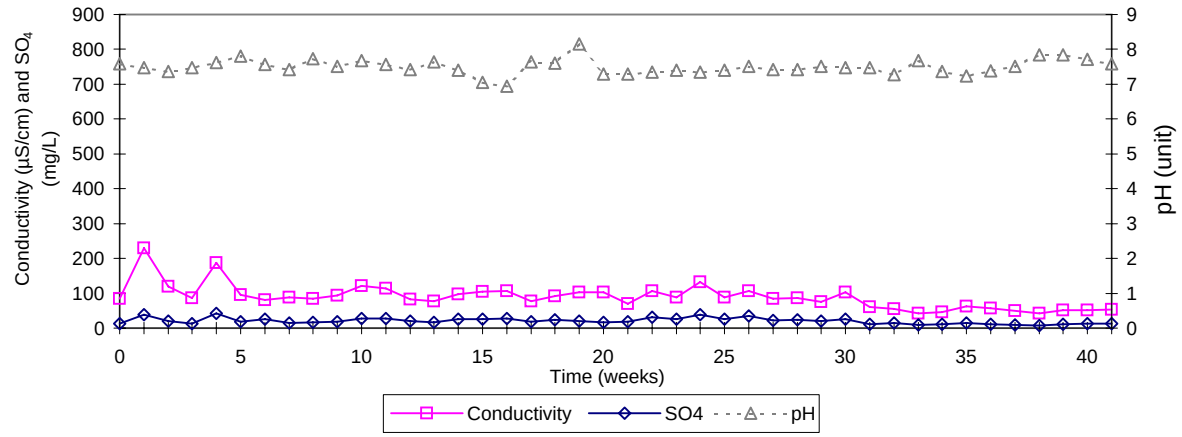
Weekly Leach	No.	30	31	32	33	34	35	36	37	38	39
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	986	957	960	945	913	937	952	951	955	896
pH	units	7.47	7.47	7.27	7.67	7.36	7.24	7.39	7.51	7.84	7.85
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	15	11	9	9	10	11	10	10	9	10
Conductivity	µS/cm	103	61	56	43	46	63	57	49	42	52
SO_4	mg/L	25	11	15	9.8	11	15	11	10	7.8	11
Ca	mg/L	11.7	#N/A	#N/A	#N/A	#N/A	8.42	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	1.6	#N/A	#N/A	#N/A	#N/A	0.854	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	24.7	10.5	14.4	9.3	10.0	14.1	10.5	9.5	7.4	9.9
Cumulative SO4 Production	g/t	711.7	722.3	736.7	745.9	756.0	770.0	780.5	790.0	797.5	807.3
Weekly S= Depletion	%	0.06	0.03	0.03	0.02	0.02	0.03	0.03	0.02	0.02	0.02
Cumulative S= Depletion	%	1.72	1.74	1.78	1.80	1.83	1.86	1.89	1.91	1.93	1.95
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	25.68	10.97	15.00	9.65	10.46	14.64	10.91	9.91	7.76	10.27
Cumulative Total NP Depletion	%	0.97	0.98	1.00	1.02	1.03	1.05	1.06	1.08	1.09	1.10
Cumulative CO_3 NP Depletion	%	1.15	1.16	1.19	1.20	1.22	1.24	1.26	1.27	1.29	1.30
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.97	1.91	1.92	1.89	1.83	1.87	1.90	1.90	1.91	1.79
Alkalinity Production Rate	$CaCO_3$, g/t/wk	14.79	10.53	8.64	8.51	9.13	10.31	9.52	9.51	8.60	8.96
Open-System NP Consumption	$CaCO_3$, g/t/wk	38.50	19.58	21.72	16.26	17.77	23.07	18.52	17.51	14.44	17.43
Open-System Cumulative NP Depletion (Total NP)	**%**	1.49	1.52	1.55	1.57	1.59	1.62	1.65	1.67	1.69	1.71
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	1.77	1.80	1.83	1.86	1.88	1.92	1.95	1.97	2.00	2.02
Anorthoclase Molar Ratio	Ca: SO_4	1.12	#N/A	#N/A	#N/A	#N/A	1.35	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	28.80	#N/A	#N/A	#N/A	#N/A	19.70	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	1.37	#N/A	#N/A	#N/A	#N/A	1.57	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	35.29	#N/A	#N/A	#N/A	#N/A	22.99	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

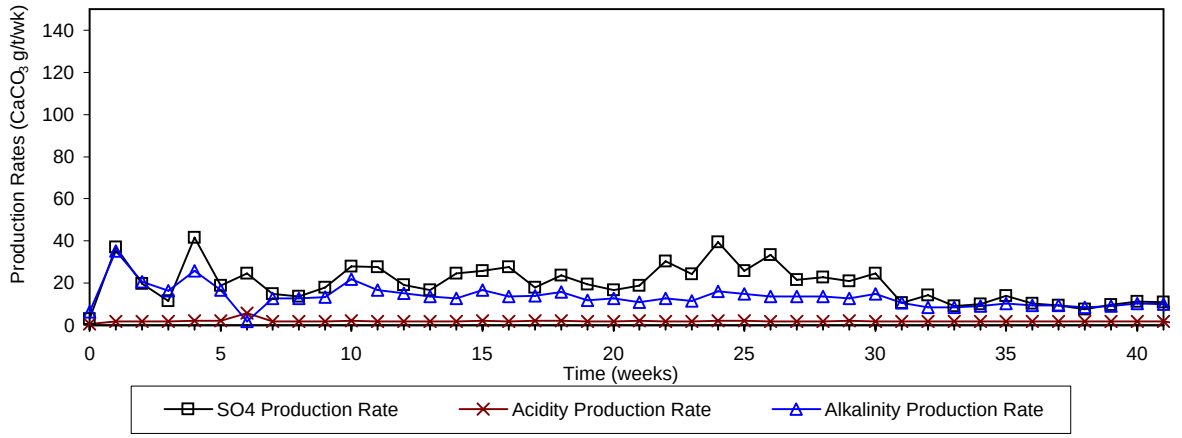
TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

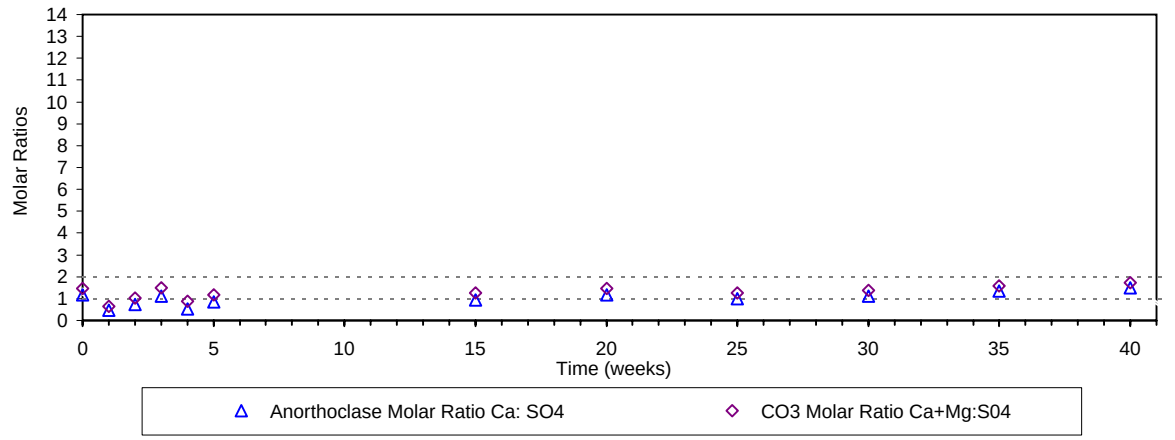
Conductivity, Sulphate, and pH in Weekly Humidity Cell Leachate - High Sulphide Ore Overall Comp -200 mesh



Acidity, Alkalinity and SO_4 Production Rates - High Sulphide Ore Overall Comp -200 mesh



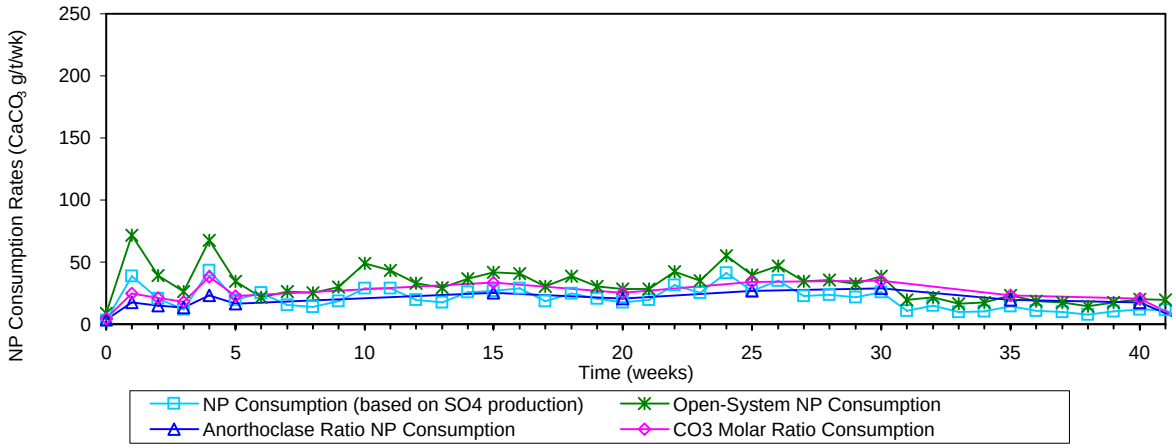
Carbonate (Ca + Mg/SO_4) and Anorthoclase (Ca/SO_4) Molar Ratios - High Sulphide Ore Overall Comp -200 mesh



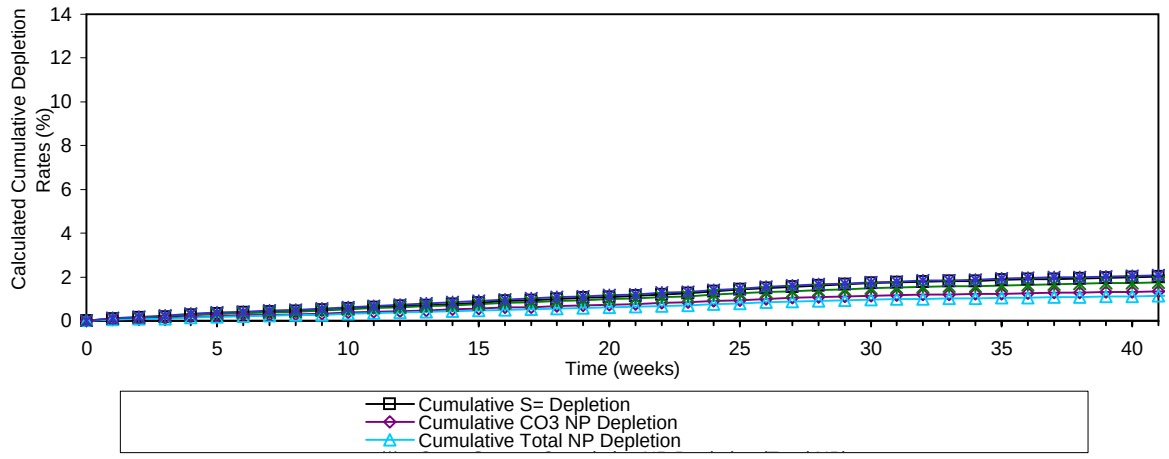
TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

NP Consumption Rates - High Sulphide Ore Overall Comp -200 mesh



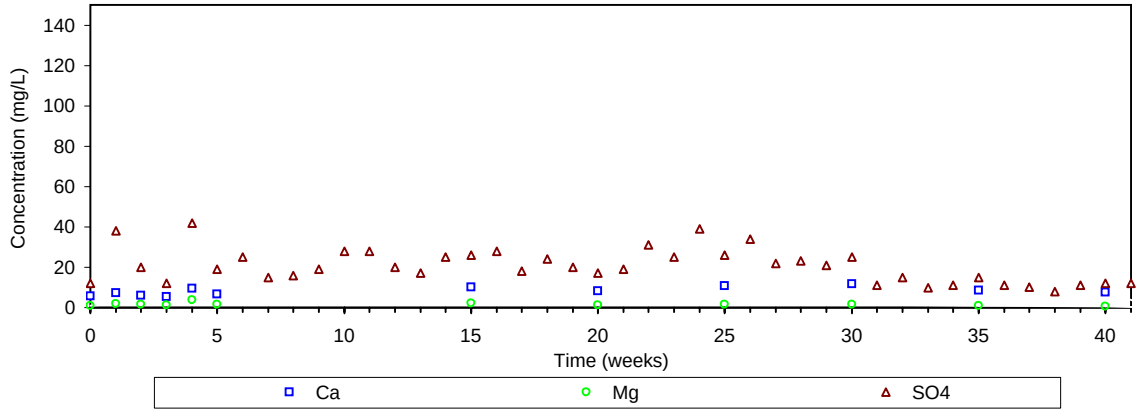
Cumulative Sulphide and NP Depletion Rates - High Sulphide Ore Overall Comp -200 mesh



Note: Cumulative Total and CO_3 NP depletions calculated based on sulphate assay.

Note: Open-System NP depletion calculated based on cumulative NP depletion and alkalinity and acidty production rates.

Selected Parameters in Weekly Humidity Cell Leachate - High Sulphide Ore Overall Comp -200 mesh



Test Specimen

Sample	Weight (g)
Overall Comp CN95/96	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	0	1	2	3	4	5	6	7	8	9	10	11
LIMS			10433-DEC07	10493-DEC07	10010-JAN08	10077-JAN08	10210-JAN08	10377-JAN08	10537-JAN08	10001-FEB08	10168-FEB08	10316-FEB08	10437-FEB08	10002-MAR08
Hum Cell Leachate Vol	mLs		692	1099	843	924	958	907	**946	900	902	948	912	856
pH	units	6-9.5	7.75	7.74	7.55	7.31	7.51	7.62	7.50	7.82	7.69	8.09	7.82	7.91
Conductivity	µS/cm		210	269	201	170	168	*161	124	114	189	352	253	237
Alkalinity	mg/L as $CaCO_3$		31	32	39	31	29	29	20	18	25	43	41	34
Acidity	mg/L as $CaCO_3$		<2	18	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		36	56	34	36	43	46	33	34	54	150	96	73
Cl	mg/L		4.6	0.3	< 0.2	< 0.2	< 0.2	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A
NO_2	as N mg/L		< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A
NO_3	as N mg/L		1.54	0.41	0.21	0.32	0.56	< 0.05	#N/A	#N/A	#N/A	#N/A	0.10	#N/A
NH_3+NH_4	as N mg/L		0.6	0.1	0.3	0.1	0.2	0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A
CN(T)	mg/L	1.00	**2.84**	0.94	0.42	< 0.01	0.16	0.11	#N/A	#N/A	#N/A	#N/A	0.02	#N/A
CN_{WAD}	mg/L		0.15	0.22	< 0.1	< 0.01	< 0.1	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A
CN(F)	mg/L		0.15	0.22	< 0.1	< 0.01	< 0.1	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.02	#N/A
CNO	mg/L		1.0	< 0.1	< 0.1	< 1	< 0.1	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A
CNS	mg/L		2.6	1.4	5.5	< 5	< 2	< 2	#N/A	#N/A	#N/A	#N/A	< 2	#N/A
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Ag	mg/L		0.00067	0.00037	0.00011	0.00002	0.00001	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A
Al	mg/L		0.189	0.0633	0.0712	0.0562	0.0400	0.0527	#N/A	#N/A	#N/A	#N/A	0.104	#N/A
As	mg/L	0.20	0.0044	0.0005	0.0004	< 0.0002	0.0002	< 0.0002	#N/A	#N/A	#N/A	#N/A	0.0003	#N/A
Ba	mg/L		0.0289	0.0731	0.0680	0.0462	0.0390	0.0264	#N/A	#N/A	#N/A	#N/A	0.0345	#N/A
Be	mg/L		< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A
B	mg/L		0.0064	0.0029	0.0022	0.0021	0.0013	0.0020	#N/A	#N/A	#N/A	#N/A	0.0017	#N/A
Bi	mg/L		< 0.00001	< 0.00001	< 0.00001	0.00001	0.00002	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A
Ca	mg/L		10.7	22.9	20.7	18.2	20.9	20.0	#N/A	#N/A	#N/A	#N/A	37.6	#N/A
Cd	mg/L		0.000047	0.000009	< 0.000003	< 0.000003	< 0.000003	< 0.000003	#N/A	#N/A	#N/A	#N/A	0.000009	#N/A
Co	mg/L		0.0272	0.00284	0.000620	0.000477	0.000483	0.000454	#N/A	#N/A	#N/A	#N/A	0.000552	#N/A
Cr	mg/L		0.0014	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Cu	mg/L	0.30	0.0393	0.0006	< 0.0005	< 0.0005	< 0.0005	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Fe	mg/L	3.00	1.01	0.29	0.12	0.08	0.06	0.03	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A
K	mg/L		9.68	9.26	7.97	5.84	5.26	5.04	#N/A	#N/A	#N/A	#N/A	8.74	#N/A
Li	mg/L		0.002	0.002	0.001	0.002	< 0.001	0.002	#N/A	#N/A	#N/A	#N/A	0.004	#N/A
Mg	mg/L		0.273	1.72	1.82	1.80	2.22	2.21	#N/A	#N/A	#N/A	#N/A	4.23	#N/A
Mn	mg/L		0.00086	0.0112	0.0157	0.0216	0.0339	0.03292	#N/A	#N/A	#N/A	#N/A	0.0413	#N/A
Mo	mg/L		0.0520	0.0471	0.0192	0.0144	0.0142	0.01404	#N/A	#N/A	#N/A	#N/A	0.0313	#N/A
Na	mg/L		23.1	11.9	5.97	3.16	2.70	2.27	#N/A	#N/A	#N/A	#N/A	2.44	#N/A
Ni	mg/L	0.50	0.108	0.0024	0.0011	0.0007	0.0011	0.0006	#N/A	#N/A	#N/A	#N/A	0.0018	#N/A
Pb	mg/L	0.20	0.00009	0.00007	0.00002	0.00004	0.00003	< 0.00002	#N/A	#N/A	#N/A	#N/A	0.00003	#N/A
Sb	mg/L		0.00688	0.00214	0.00208	0.00115	0.00092	0.00064	#N/A	#N/A	#N/A	#N/A	0.00080	#N/A
Se	mg/L		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Si	mg/L		3.93	1.58	1.74	1.16	0.96	0.92	#N/A	#N/A	#N/A	#N/A	1.39	#N/A
Sn	mg/L		0.00214	0.00057	0.00029	0.00048	0.00020	0.00002	#N/A	#N/A	#N/A	#N/A	0.00013	#N/A
Sr	mg/L		0.877	1.92	1.69	1.34	1.42	1.27	#N/A	#N/A	#N/A	#N/A	1.99	#N/A
Ti	mg/L		0.0005	0.0003	0.0005	0.0002	< 0.0001	< 0.0001	#N/A	#N/A	#N/A	#N/A	0.0002	#N/A
Tl	mg/L		0.000008	0.000018	0.000009	0.000011	0.000026	0.000012	#N/A	#N/A	#N/A	#N/A	0.000018	#N/A
U	mg/L		0.000667	0.00202	0.00189	0.00153	0.00128	0.000872	#N/A	#N/A	#N/A	#N/A	0.00194	#N/A
V	mg/L		0.00867	0.00066	0.00058	0.00042	0.00029	0.00027	#N/A	#N/A	#N/A	#N/A	0.00056	#N/A
W	mg/L		0.00378	0.00207	0.00151	0.00078	0.00050	0.00033	#N/A	#N/A	#N/A	#N/A	0.00042	#N/A
Y	mg/L		0.000006	0.000008	0.000010	0.000009	0.000009	0.000009	#N/A	#N/A	#N/A	#N/A	0.000010	#N/A
Zn	mg/L	0.50	< 0.001	0.003	0.002	0.002	0.002	< 0.001	#N/A	#N/A	#N/A	#N/A	0.002	#N/A

Government du Quebec, Ministére de L'Environnement. 2005. Directive no. 019. **Reassay 10250-FEB08 **Leachate volume is estimated based on previous 5 weeks data.*

Wks 0, 1, 2, 3 and 4 NH_3 + NH_4 analyses reported on LIMS 10444-MAY08

Due to laboratory technician error metals analyses are not available for Week 10

Test Specimen

Sample	Weight (g)
Overall Comp CN95/96	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	12	13	14	15	16	17	18	19	20	21	22	23
LIMS			10166-MAR08	10264-MAR08	10365-MAR08	10004-APR08	10175-APR08	10311-APR08	10515-APR08	10628-APR08	10060-MAY08	10122-MAY08	10148-MAY08	10701-MAY08
Hum Cell Leachate Vol	mLs		902	896	911	961	910	922	899	949	872	904	918	820
pH	units	6-9.5	7.91	7.76	7.66	7.38	7.21	7.20	6.22	7.97	8.64	7.41	6.85	7.42
Conductivity	µS/cm		243	157	237	242	219	219	145	289	208	171	199	132
Alkalinity	mg/L as $CaCO_3$		45	32	30	50	44	44	3	61	50	43	31	16
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		80	51	83	77	53	48	40	74	45	36	35	31
Cl	mg/L		#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A
NO_2	as N mg/L		#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_3	as N mg/L		#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	0.82	#N/A	#N/A	#N/A
NH_3+NH_4	as N mg/L		#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A
CN(T)	mg/L	1.00	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A
CN_{WAD}	mg/L		#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A
CN(F)	mg/L		#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A
CNO	mg/L		#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A
CNS	mg/L		#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 2	#N/A	#N/A	#N/A
Hg	mg/L		#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Ag	mg/L		#N/A	#N/A	#N/A	0.00004	#N/A	#N/A	#N/A	#N/A	0.00002	#N/A	#N/A	#N/A
Al	mg/L		#N/A	#N/A	#N/A	0.0688	#N/A	#N/A	#N/A	#N/A	0.0568	#N/A	#N/A	#N/A
As	mg/L	0.20	#N/A	#N/A	#N/A	0.0008	#N/A	#N/A	#N/A	#N/A	0.0002	#N/A	#N/A	#N/A
Ba	mg/L		#N/A	#N/A	#N/A	0.0349	#N/A	#N/A	#N/A	#N/A	0.0498	#N/A	#N/A	#N/A
Be	mg/L		#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A
B	mg/L		#N/A	#N/A	#N/A	0.0009	#N/A	#N/A	#N/A	#N/A	0.0010	#N/A	#N/A	#N/A
Bi	mg/L		#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00001	#N/A	#N/A	#N/A
Ca	mg/L		#N/A	#N/A	#N/A	37.7	#N/A	#N/A	#N/A	#N/A	26.1	#N/A	#N/A	#N/A
Cd	mg/L		#N/A	#N/A	#N/A	0.000019	#N/A	#N/A	#N/A	#N/A	0.000016	#N/A	#N/A	#N/A
Co	mg/L		#N/A	#N/A	#N/A	0.000577	#N/A	#N/A	#N/A	#N/A	0.000303	#N/A	#N/A	#N/A
Cr	mg/L		#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Cu	mg/L	0.30	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Fe	mg/L	3.00	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A
K	mg/L		#N/A	#N/A	#N/A	7.65	#N/A	#N/A	#N/A	#N/A	5.81	#N/A	#N/A	#N/A
Li	mg/L		#N/A	#N/A	#N/A	0.003	#N/A	#N/A	#N/A	#N/A	0.003	#N/A	#N/A	#N/A
Mg	mg/L		#N/A	#N/A	#N/A	4.10	#N/A	#N/A	#N/A	#N/A	2.73	#N/A	#N/A	#N/A
Mn	mg/L		#N/A	#N/A	#N/A	0.0627	#N/A	#N/A	#N/A	#N/A	0.0532	#N/A	#N/A	#N/A
Mo	mg/L		#N/A	#N/A	#N/A	0.0227	#N/A	#N/A	#N/A	#N/A	0.0152	#N/A	#N/A	#N/A
Na	mg/L		#N/A	#N/A	#N/A	1.64	#N/A	#N/A	#N/A	#N/A	0.90	#N/A	#N/A	#N/A
Ni	mg/L	0.50	#N/A	#N/A	#N/A	0.0028	#N/A	#N/A	#N/A	#N/A	0.0015	#N/A	#N/A	#N/A
Pb	mg/L	0.20	#N/A	#N/A	#N/A	0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A
Sb	mg/L		#N/A	#N/A	#N/A	0.00041	#N/A	#N/A	#N/A	#N/A	0.00118	#N/A	#N/A	#N/A
Se	mg/L		#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Si	mg/L		#N/A	#N/A	#N/A	1.75	#N/A	#N/A	#N/A	#N/A	1.47	#N/A	#N/A	#N/A
Sn	mg/L		#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00109	#N/A	#N/A	#N/A
Sr	mg/L		#N/A	#N/A	#N/A	1.82	#N/A	#N/A	#N/A	#N/A	1.16	#N/A	#N/A	#N/A
Ti	mg/L		#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	0.0001	#N/A	#N/A	#N/A
Tl	mg/L		#N/A	#N/A	#N/A	0.000013	#N/A	#N/A	#N/A	#N/A	0.000025	#N/A	#N/A	#N/A
U	mg/L		#N/A	#N/A	#N/A	0.00201	#N/A	#N/A	#N/A	#N/A	0.00145	#N/A	#N/A	#N/A
V	mg/L		#N/A	#N/A	#N/A	0.00053	#N/A	#N/A	#N/A	#N/A	0.00057	#N/A	#N/A	#N/A
W	mg/L		#N/A	#N/A	#N/A	0.00037	#N/A	#N/A	#N/A	#N/A	0.00079	#N/A	#N/A	#N/A
Y	mg/L		#N/A	#N/A	#N/A	0.000020	#N/A	#N/A	#N/A	#N/A	0.000010	#N/A	#N/A	#N/A
Zn	mg/L	0.50	#N/A	#N/A	#N/A	0.002	#N/A	#N/A	#N/A	#N/A	0.003	#N/A	#N/A	#N/A

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**Week 12 leachate volume not available therefore volume shown is an average of the previous 5 weeks.*

Test Specimen

Sample	Weight (g)
Overall Comp CN95/96	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	24	25	26	27	28	29	30	31	32	33	34	35
LIMS			10015-JUN08	10048-JUN08	10098-JUN08	10377-JUN08	10017-JUL08	10044-JUL08	10121-JUL08	10147-JUL08	10453-JUL08	10014-AUG08	10044-AUG08	10426-AUG08
Hum Cell Leachate Vol	mLs		876	908	829	989	922	941	928	895	890	918	904	798
pH	units	6-9.5	7.61	7.77	7.83	7.67	7.56	7.56	7.28	7.17	7.36	7.57	7.45	7.39
Conductivity	µS/cm		117	219	223	56	71	176	134	117	80	105	43	156
Alkalinity	mg/L as $CaCO_3$		23	50	61	22	21	42	38	32	22	26	10	18
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		27	53	46	7.6	12	38	25	23	15	24	8.6	31
Cl	mg/L		#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2
NO_2	as N mg/L		#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06
NO_3	as N mg/L		#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05
NH_3+NH_4	as N mg/L		#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	0.1	#N/A	#N/A	#N/A	#N/A	< 0.1
CN(T)	mg/L	1.00	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01
CN_{WAD}	mg/L		#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01
CN(F)	mg/L		#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.02
CNO	mg/L		#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1
CNS	mg/L		#N/A	< 2	#N/A	#N/A	#N/A	#N/A	< 2	#N/A	#N/A	#N/A	#N/A	< 2
Hg	mg/L		#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001
Ag	mg/L		#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001
Al	mg/L		#N/A	0.0710	#N/A	#N/A	#N/A	#N/A	0.0532	#N/A	#N/A	#N/A	#N/A	0.0511
As	mg/L	0.20	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	0.0004	#N/A	#N/A	#N/A	#N/A	< 0.0002
Ba	mg/L		#N/A	0.0461	#N/A	#N/A	#N/A	#N/A	0.0327	#N/A	#N/A	#N/A	#N/A	0.0219
Be	mg/L		#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002
B	mg/L		#N/A	0.0021	#N/A	#N/A	#N/A	#N/A	0.0004	#N/A	#N/A	#N/A	#N/A	< 0.0002
Bi	mg/L		#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001
Ca	mg/L		#N/A	32.3	#N/A	#N/A	#N/A	#N/A	18.7	#N/A	#N/A	#N/A	#N/A	15.3
Cd	mg/L		#N/A	0.000007	#N/A	#N/A	#N/A	#N/A	0.000009	#N/A	#N/A	#N/A	#N/A	0.000005
Co	mg/L		#N/A	0.000451	#N/A	#N/A	#N/A	#N/A	0.000205	#N/A	#N/A	#N/A	#N/A	0.000117
Cr	mg/L		#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005
Cu	mg/L	0.30	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005
Fe	mg/L	3.00	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01
K	mg/L		#N/A	7.07	#N/A	#N/A	#N/A	#N/A	4.19	#N/A	#N/A	#N/A	#N/A	3.04
Li	mg/L		#N/A	0.003	#N/A	#N/A	#N/A	#N/A	0.002	#N/A	#N/A	#N/A	#N/A	0.001
Mg	mg/L		#N/A	3.53	#N/A	#N/A	#N/A	#N/A	1.97	#N/A	#N/A	#N/A	#N/A	1.56
Mn	mg/L		#N/A	0.0679	#N/A	#N/A	#N/A	#N/A	0.0487	#N/A	#N/A	#N/A	#N/A	0.0291
Mo	mg/L		#N/A	0.0222	#N/A	#N/A	#N/A	#N/A	0.0132	#N/A	#N/A	#N/A	#N/A	0.0192
Na	mg/L		#N/A	1.05	#N/A	#N/A	#N/A	#N/A	0.61	#N/A	#N/A	#N/A	#N/A	0.43
Ni	mg/L	0.50	#N/A	0.0022	#N/A	#N/A	#N/A	#N/A	0.0007	#N/A	#N/A	#N/A	#N/A	0.0006
Pb	mg/L	0.20	#N/A	0.00003	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	0.00003
Sb	mg/L		#N/A	0.00039	#N/A	#N/A	#N/A	#N/A	0.00047	#N/A	#N/A	#N/A	#N/A	0.00013
Se	mg/L		#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001
Si	mg/L		#N/A	1.87	#N/A	#N/A	#N/A	#N/A	1.07	#N/A	#N/A	#N/A	#N/A	0.79
Sn	mg/L		#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00016	#N/A	#N/A	#N/A	#N/A	< 0.00001
Sr	mg/L		#N/A	1.25	#N/A	#N/A	#N/A	#N/A	0.697	#N/A	#N/A	#N/A	#N/A	0.512
Ti	mg/L		#N/A	0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001
Tl	mg/L		#N/A	0.000012	#N/A	#N/A	#N/A	#N/A	0.000014	#N/A	#N/A	#N/A	#N/A	0.000007
U	mg/L		#N/A	0.00125	#N/A	#N/A	#N/A	#N/A	0.00118	#N/A	#N/A	#N/A	#N/A	0.00110
V	mg/L		#N/A	0.00073	#N/A	#N/A	#N/A	#N/A	0.00051	#N/A	#N/A	#N/A	#N/A	0.00060
W	mg/L		#N/A	0.00032	#N/A	#N/A	#N/A	#N/A	0.00040	#N/A	#N/A	#N/A	#N/A	0.00030
Y	mg/L		#N/A	0.000011	#N/A	#N/A	#N/A	#N/A	0.000004	#N/A	#N/A	#N/A	#N/A	0.000005
Zn	mg/L	0.50	#N/A	0.004	#N/A	#N/A	#N/A	#N/A	0.003	#N/A	#N/A	#N/A	#N/A	< 0.001

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Test Specimen

Sample	Weight (g)
Overall Comp CN95/96	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	36	37	38	39	40	41	42	43	44	45	46	47
LIMS			10500-AUG08	10017-SEP08	10045-SEP08	10209-SEP08	10436-SEP08	10057-OCT08	10103-OCT08	10269-OCT08	10473-OCT08	10682-OCT08	10017-NOV08	10054-NOV08
Hum Cell Leachate Vol	mLs		886	912	933	923	884	964	881	907	932	848	908	865
pH	units	6-9.5	7.56	7.65	8.08	7.74	7.44	7.82	7.45	7.68	7.44	7.60	7.94	7.74
Conductivity	µS/cm		145	132	150	105	59	104	45	83	71	74	112	55
Alkalinity	mg/L as $CaCO_3$		32	38	49	33	20	92	14	35	26	23	36	25
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		40	26	22	15	32	18	*8.9	12	10	9.4	15	7.9
Cl	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A
NO_2	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A
NO_3	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A
NH_3+NH_4	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A
CN(T)	mg/L	1.00	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A
CN_{WAD}	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A
CN(F)	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.02	#N/A	#N/A
CNO	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A
CNS	mg/L		#N/A	#N/A	#N/A	#N/A	< 2	#N/A	#N/A	#N/A	#N/A	< 2	#N/A	#N/A
Hg	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A
Ag	mg/L		#N/A	#N/A	#N/A	#N/A	0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A
Al	mg/L		#N/A	#N/A	#N/A	#N/A	0.0588	#N/A	#N/A	#N/A	#N/A	0.0532	#N/A	#N/A
As	mg/L	0.20	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A
Ba	mg/L		#N/A	#N/A	#N/A	#N/A	0.0274	#N/A	#N/A	#N/A	#N/A	0.0331	#N/A	#N/A
Be	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A
B	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	0.0004	#N/A	#N/A
Bi	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A
Ca	mg/L		#N/A	#N/A	#N/A	#N/A	9.20	#N/A	#N/A	#N/A	#N/A	9.90	#N/A	#N/A
Cd	mg/L		#N/A	#N/A	#N/A	#N/A	0.000004	#N/A	#N/A	#N/A	#N/A	0.000006	#N/A	#N/A
Co	mg/L		#N/A	#N/A	#N/A	#N/A	0.000107	#N/A	#N/A	#N/A	#N/A	0.000087	#N/A	#N/A
Cr	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A
Cu	mg/L	0.30	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A
Fe	mg/L	3.00	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A
K	mg/L		#N/A	#N/A	#N/A	#N/A	2.17	#N/A	#N/A	#N/A	#N/A	2.69	#N/A	#N/A
Li	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A
Mg	mg/L		#N/A	#N/A	#N/A	#N/A	0.842	#N/A	#N/A	#N/A	#N/A	0.974	#N/A	#N/A
Mn	mg/L		#N/A	#N/A	#N/A	#N/A	0.0234	#N/A	#N/A	#N/A	#N/A	0.0221	#N/A	#N/A
Mo	mg/L		#N/A	#N/A	#N/A	#N/A	0.00822	#N/A	#N/A	#N/A	#N/A	0.0109	#N/A	#N/A
Na	mg/L		#N/A	#N/A	#N/A	#N/A	0.26	#N/A	#N/A	#N/A	#N/A	0.34	#N/A	#N/A
Ni	mg/L	0.50	#N/A	#N/A	#N/A	#N/A	0.0012	#N/A	#N/A	#N/A	#N/A	0.0002	#N/A	#N/A
Pb	mg/L	0.20	#N/A	#N/A	#N/A	#N/A	0.00004	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A
Sb	mg/L		#N/A	#N/A	#N/A	#N/A	0.00053	#N/A	#N/A	#N/A	#N/A	0.00036	#N/A	#N/A
Se	mg/L		#N/A	#N/A	#N/A	#N/A	0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A
Si	mg/L		#N/A	#N/A	#N/A	#N/A	0.35	#N/A	#N/A	#N/A	#N/A	0.90	#N/A	#N/A
Sn	mg/L		#N/A	#N/A	#N/A	#N/A	0.00006	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A
Sr	mg/L		#N/A	#N/A	#N/A	#N/A	0.302	#N/A	#N/A	#N/A	#N/A	0.322	#N/A	#N/A
Ti	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A
Tl	mg/L		#N/A	#N/A	#N/A	#N/A	0.000010	#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A	#N/A
U	mg/L		#N/A	#N/A	#N/A	#N/A	0.000550	#N/A	#N/A	#N/A	#N/A	0.000533	#N/A	#N/A
V	mg/L		#N/A	#N/A	#N/A	#N/A	0.00067	#N/A	#N/A	#N/A	#N/A	0.00083	#N/A	#N/A
W	mg/L		#N/A	#N/A	#N/A	#N/A	0.00042	#N/A	#N/A	#N/A	#N/A	0.00059	#N/A	#N/A
Y	mg/L		#N/A	#N/A	#N/A	#N/A	0.000016	#N/A	#N/A	#N/A	#N/A	< 0.000001	#N/A	#N/A
Zn	mg/L	0.50	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A

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**Reassay LIMS 10432-OCT08*

Test Specimen

Sample	Weight (g)
Overall Comp CN95/96	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	48	49	50	51	52	53	54	55	56
LIMS			10239-NOV08	10416-NOV08	10019-DEC08	10049-DEC08	10135-DEC08	10276-DEC08	10511-DEC08	10019-JAN09	10049-JAN09
Hum Cell Leachate Vol	mLs		891	852	861	891	842	902	895	845	830
pH	units	6-9.5	8.04	7.35	7.76	7.99	8.06	8.20	8.25	7.93	7.98
Conductivity	µS/cm		111	105	103	99	98	101	97	91	93
Alkalinity	mg/L as $CaCO_3$		42	8	46	37	37	40	39	35	36
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		13	11	11	10	10	9.2	8.7	11	9.2
Cl	mg/L		#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A
NO_2	as N mg/L		#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A
NO_3	as N mg/L		#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A
NH_3+NH_4	as N mg/L		#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A
CN(T)	mg/L	1.00	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A
CN_{WAD}	mg/L		#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A
CN(F)	mg/L		#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.02	#N/A
CNO	mg/L		#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A
CNS	mg/L		#N/A	#N/A	< 2	#N/A	#N/A	#N/A	#N/A	< 2	#N/A
Hg	mg/L		#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Ag	mg/L		#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00002	#N/A
Al	mg/L		#N/A	#N/A	0.140	#N/A	#N/A	#N/A	#N/A	0.123	#N/A
As	mg/L	0.20	#N/A	#N/A	0.0003	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A
Ba	mg/L		#N/A	#N/A	0.0684	#N/A	#N/A	#N/A	#N/A	0.0812	#N/A
Be	mg/L		#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A
B	mg/L		#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	0.0006	#N/A
Bi	mg/L		#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00003	#N/A
Ca	mg/L		#N/A	#N/A	15.3	#N/A	#N/A	#N/A	#N/A	14.5	#N/A
Cd	mg/L		#N/A	#N/A	0.000004	#N/A	#N/A	#N/A	#N/A	0.000012	#N/A
Co	mg/L		#N/A	#N/A	0.000097	#N/A	#N/A	#N/A	#N/A	0.000116	#N/A
Cr	mg/L		#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Cu	mg/L	0.30	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Fe	mg/L	3.00	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A
K	mg/L		#N/A	#N/A	4.74	#N/A	#N/A	#N/A	#N/A	4.05	#N/A
Li	mg/L		#N/A	#N/A	0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Mg	mg/L		#N/A	#N/A	1.47	#N/A	#N/A	#N/A	#N/A	1.38	#N/A
Mn	mg/L		#N/A	#N/A	0.0229	#N/A	#N/A	#N/A	#N/A	0.0203	#N/A
Mo	mg/L		#N/A	#N/A	0.0109	#N/A	#N/A	#N/A	#N/A	0.00794	#N/A
Na	mg/L		#N/A	#N/A	0.53	#N/A	#N/A	#N/A	#N/A	0.39	#N/A
Ni	mg/L	0.50	#N/A	#N/A	0.0004	#N/A	#N/A	#N/A	#N/A	0.0003	#N/A
Pb	mg/L	0.20	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	0.00004	#N/A
Sb	mg/L		#N/A	#N/A	0.0003	#N/A	#N/A	#N/A	#N/A	0.0002	#N/A
Se	mg/L		#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Si	mg/L		#N/A	#N/A	2.16	#N/A	#N/A	#N/A	#N/A	1.8	#N/A
Sn	mg/L		#N/A	#N/A	0.00003	#N/A	#N/A	#N/A	#N/A	0.00006	#N/A
Sr	mg/L		#N/A	#N/A	0.498	#N/A	#N/A	#N/A	#N/A	0.424	#N/A
Ti	mg/L		#N/A	#N/A	0.0001	#N/A	#N/A	#N/A	#N/A	0.0001	#N/A
Tl	mg/L		#N/A	#N/A	0.000011	#N/A	#N/A	#N/A	#N/A	0.00003	#N/A
U	mg/L		#N/A	#N/A	0.000629	#N/A	#N/A	#N/A	#N/A	0.000728	#N/A
V	mg/L		#N/A	#N/A	0.00274	#N/A	#N/A	#N/A	#N/A	0.00238	#N/A
W	mg/L		#N/A	#N/A	0.00129	#N/A	#N/A	#N/A	#N/A	0.00103	#N/A
Y	mg/L		#N/A	#N/A	0.000005	#N/A	#N/A	#N/A	#N/A	0.000016	#N/A
Zn	mg/L	0.50	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A

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TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Overall Comp CN95/96	1000

Weekly Leach	No.	0	1	2	3	4	5	6	7	8	9	10
Summary of ABA Test Data												
Sulphur (S)	%	1.77	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	1.43	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	56.8	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t	26.9										
Leachate Paremeters Measured												
Leachate Volume Collected	mL	692	1099	843	924	958	907	946.2	900	902	948	912
pH	units	7.75	7.74	7.55	7.31	7.51	7.62	7.50	7.82	7.69	8.09	7.82
Acidity	$CaCO_3$ eq.mg/L	<2	<18	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	31	32	39	31	29	29	20	18	25	43	41
Conductivity	µS/cm	210	269	201	170	168	161	124	114	189	352	253
SO_4	mg/L	36	56	34	36	43	46	33	34	54	150	96
Ca	mg/L	10.7	22.9	20.7	18.2	20.9	20	#N/A	#N/A	#N/A	#N/A	37.6
Mg	mg/L	0.273	1.72	1.82	1.8	2.22	2.21	#N/A	#N/A	#N/A	#N/A	4.23
Acid Generation [1]												
SO_4 Production Rate	g/t/wk	24.9	61.5	28.7	33.3	41.2	41.7	31.2	30.6	48.7	142.2	87.6
Cumulative SO4 Production	g/t	24.9	86.5	115.1	148.4	189.6	231.3	262.5	293.1	341.8	484.0	571.6
Weekly S= Depletion	%	0.06	0.14	0.07	0.08	0.10	0.10	0.07	0.07	0.11	0.33	0.20
Cumulative S= Depletion	%	0.06	0.20	0.27	0.35	0.44	0.54	0.61	0.68	0.80	1.13	1.33
Acid Neutralization [1]												
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	25.95	64.11	29.86	34.65	42.91	43.46	32.53	31.88	50.74	148.13	91.20
Cumulative Total NP Depletion	%	0.05	0.16	0.21	0.27	0.35	0.42	0.48	0.54	0.63	0.89	1.05
Cumulative CO_3 NP Depletion	%	0.10	0.33	0.45	0.57	0.73	0.90	1.02	1.14	1.32	1.87	2.21
Carbonate Molar Ratio												
Acidity Production Rate	$CaCO_3$, g/t/wk	1.38	19.78	1.69	1.85	1.92	1.81	1.89	1.80	1.80	1.90	1.82
Alkalinity Production Rate	$CaCO_3$, g/t/wk	21.45	35.17	32.88	28.64	27.78	26.30	18.92	16.20	22.55	40.76	37.39
Open-System NP Consumption	$CaCO_3$, g/t/wk	46.02	79.49	61.05	61.45	68.78	67.95	49.56	46.28	71.48	186.99	126.77
Open-System Cumulative NP Depletion (Total NP)	%	0.08	0.22	0.33	0.44	0.56	0.68	0.76	0.85	0.97	1.30	1.52
Open-System Cumulative NP Depletion (CO_3 NP)	%	0.17	0.47	0.69	0.92	1.18	1.43	1.61	1.79	2.05	2.75	3.22
Anorthoclase Molar Ratio	Ca: SO_4	0.71	0.98	1.46	1.21	1.16	1.04	#N/A	#N/A	#N/A	#N/A	0.94
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	18.49	62.83	43.57	41.98	49.99	45.29	#N/A	#N/A	#N/A	#N/A	85.61
CO_3 Molar Ratio	Ca+Mg:$S0_4$	0.74	1.10	1.67	1.41	1.37	1.23	#N/A	#N/A	#N/A	#N/A	1.11
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	19.26	70.61	49.88	48.83	58.74	53.54	#N/A	#N/A	#N/A	#N/A	101.49

[1] *Calculated values*

TEST REPORT
Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Overall Comp CN95/96	1000

Weekly Leach	No.	11	12	13	14	15	16	17	18	19	20	21
Summary of ABA Test Data												
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t											
Leachate Paremeters Measured												
Leachate Volume Collected	mL	856	902	896	911	961	910	922	899	949	872	904
pH	units	7.91	7.91	7.76	7.66	7.38	7.21	7.20	6.22	7.97	8.64	7.41
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	34	45	32	30	50	44	44	3	61	50	43
Conductivity	µS/cm	237	243	157	237	242	219	219	145	289	208	171
SO_4	mg/L	73	80	51	83	77	53	48	40	74	45	36
Ca	mg/L	#N/A	#N/A	#N/A	#N/A	37.7	#N/A	#N/A	#N/A	#N/A	26.1	#N/A
Mg	mg/L	#N/A	#N/A	#N/A	#N/A	4.1	#N/A	#N/A	#N/A	#N/A	2.73	#N/A
Acid Generation [1]												
SO_4 Production Rate	g/t/wk	62.5	72.2	45.7	75.6	74.0	48.2	44.3	36.0	70.2	39.2	32.5
Cumulative SO4 Production	g/t	634.1	706.2	751.9	827.5	901.5	949.8	994.0	1030.0	1100.2	1139.4	1172.0
Weekly S= Depletion	%	0.15	0.17	0.11	0.18	0.17	0.11	0.10	0.08	0.16	0.09	0.08
Cumulative S= Depletion	%	1.48	1.65	1.75	1.93	2.10	2.21	2.32	2.40	2.56	2.66	2.73
Acid Neutralization [1]												
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	65.09	75.17	47.60	78.76	77.08	50.24	46.10	37.46	73.15	40.88	33.90
Cumulative Total NP Depletion	%	1.16	1.30	1.38	1.52	1.65	1.74	1.82	1.89	2.02	2.09	2.15
Cumulative CO_3 NP Depletion	%	2.46	2.73	2.91	3.20	3.49	3.68	3.85	3.99	4.26	4.41	4.54
Carbonate Molar Ratio												
Acidity Production Rate	$CaCO_3$, g/t/wk	1.71	1.80	1.79	1.82	1.92	1.82	1.84	1.80	1.90	1.74	1.81
Alkalinity Production Rate	$CaCO_3$, g/t/wk	29.10	40.59	28.67	27.33	48.05	40.04	40.57	2.70	57.89	43.60	38.87
Open-System NP Consumption	$CaCO_3$, g/t/wk	92.48	113.95	74.48	104.27	123.21	88.46	84.82	38.36	129.14	82.73	70.96
Open-System Cumulative NP Depletion (Total NP)	%	1.69	1.89	2.02	2.20	2.42	2.58	2.72	2.79	3.02	3.16	3.29
Open-System Cumulative NP Depletion (CO_3 NP)	%	3.56	3.99	4.26	4.65	5.11	5.44	5.75	5.90	6.38	6.68	6.95
Anorthoclase Molar Ratio	Ca: SO_4	#N/A	#N/A	#N/A	#N/A	1.17	#N/A	#N/A	#N/A	#N/A	1.39	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	#N/A	#N/A	#N/A	#N/A	90.45	#N/A	#N/A	#N/A	#N/A	56.82	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	#N/A	#N/A	#N/A	#N/A	1.38	#N/A	#N/A	#N/A	#N/A	1.63	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	#N/A	#N/A	#N/A	#N/A	106.67	#N/A	#N/A	#N/A	#N/A	66.62	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Overall Comp CN95/96	1000

Weekly Leach	No.	22	23	24	25	26	27	28	29	30	31	32
Summary of ABA Test Data												
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t											
Leachate Paremeters Measured												
Leachate Volume Collected	mL	918	820	876	908	829	989	922	941	928	895	890
pH	units	6.85	7.42	7.61	7.77	7.83	7.67	7.56	7.56	7.28	7.17	7.36
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	31	16	23	50	61	22	21	42	38	32	22
Conductivity	µS/cm	199	132	117	219	223	56	71	176	134	117	80
SO_4	mg/L	35	31	27	53	46	7.6	12	38	25	23	15
Ca	mg/L	#N/A	#N/A	#N/A	32.3	#N/A	#N/A	#N/A	#N/A	18.7	#N/A	#N/A
Mg	mg/L	#N/A	#N/A	#N/A	3.53	#N/A	#N/A	#N/A	#N/A	1.97	#N/A	#N/A
Acid Generation [1]												
SO_4 Production Rate	g/t/wk	32.1	25.4	23.7	48.1	38.1	7.5	11.1	35.8	23.2	20.6	13.4
Cumulative SO4 Production	g/t	1204.1	1229.5	1253.2	1301.3	1339.5	1347.0	1358.0	1393.8	1417.0	1437.6	1450.9
Weekly S= Depletion	%	0.07	0.06	0.06	0.11	0.09	0.02	0.03	0.08	0.05	0.05	0.03
Cumulative S= Depletion	%	2.81	2.87	2.92	3.03	3.12	3.14	3.17	3.25	3.30	3.35	3.38
Acid Neutralization [1]												
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	33.47	26.48	24.64	50.13	39.72	7.83	11.53	37.25	24.17	21.44	13.91
Cumulative Total NP Depletion	%	2.21	2.25	2.30	2.39	2.46	2.47	2.49	2.56	2.60	2.64	2.66
Cumulative CO_3 NP Depletion	%	4.66	4.76	4.85	5.04	5.19	5.22	5.26	5.40	5.49	5.57	5.62
Carbonate Molar Ratio												
Acidity Production Rate	$CaCO_3$, g/t/wk	1.84	1.64	1.75	1.82	1.66	1.98	1.84	1.88	1.86	1.79	1.78
Alkalinity Production Rate	$CaCO_3$, g/t/wk	28.46	13.12	20.15	45.40	50.57	21.76	19.36	39.52	35.26	28.64	19.58
Open-System NP Consumption	$CaCO_3$, g/t/wk	60.09	37.96	43.03	93.71	88.63	27.61	29.04	74.89	57.57	48.29	31.71
Open-System Cumulative NP Depletion (Total NP)	%	3.40	3.46	3.54	3.70	3.86	3.91	3.96	4.09	4.19	4.28	4.33
Open-System Cumulative NP Depletion (CO_3 NP)	%	7.17	7.31	7.47	7.82	8.15	8.25	8.36	8.64	8.85	9.03	9.15
Anorthoclase Molar Ratio	Ca: SO_4	#N/A	#N/A	#N/A	1.46	#N/A	#N/A	#N/A	#N/A	1.79	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	#N/A	#N/A	#N/A	73.22	#N/A	#N/A	#N/A	#N/A	43.32	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	#N/A	#N/A	#N/A	1.72	#N/A	#N/A	#N/A	#N/A	2.10	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	#N/A	#N/A	#N/A	86.41	#N/A	#N/A	#N/A	#N/A	50.85	#N/A	#N/A

[1] *Calculated values*

TEST REPORT
Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Overall Comp CN95/96	1000

Weekly Leach	No.	33	34	35	36	37	38	39	40	41	42	43
Summary of ABA Test Data												
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t											
Leachate Paremeters Measured												
Leachate Volume Collected	mL	918	904	798	886	912	933	923	884	964	881	907
pH	units	7.57	7.45	7.39	7.56	7.65	8.08	7.74	7.44	7.82	7.45	7.68
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	2	<2
Alkalinity	$CaCO_3$ eq.mg/L	26	10	18	32	38	49	33	20	92	14	35
Conductivity	µS/cm	105	43	156	145	132	150	105	59	104	45	83
SO_4	mg/L	24	8.6	31	40	26	22	15	32	18	8.9	12
Ca	mg/L	#N/A	#N/A	15.3	#N/A	#N/A	#N/A	#N/A	9.2	#N/A	#N/A	#N/A
Mg	mg/L	#N/A	#N/A	1.56	#N/A	#N/A	#N/A	#N/A	0.842	#N/A	#N/A	#N/A
Acid Generation [1]												
SO_4 Production Rate	g/t/wk	22.0	7.8	24.7	35.4	23.7	20.5	13.8	28.3	17.4	7.8	10.9
Cumulative SO4 Production	g/t	1473.0	1480.7	1505.5	1540.9	1564.6	1585.1	1599.0	1627.3	1644.6	1652.5	1663.4
Weekly S= Depletion	%	0.05	0.02	0.06	0.08	0.06	0.05	0.03	0.07	0.04	0.02	0.03
Cumulative S= Depletion	%	3.43	3.45	3.51	3.59	3.65	3.69	3.73	3.79	3.83	3.85	3.88
Acid Neutralization [1]												
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	22.95	8.10	25.77	36.92	24.70	21.38	14.42	29.47	18.08	8.17	11.34
Cumulative Total NP Depletion	%	2.70	2.72	2.76	2.83	2.87	2.91	2.93	2.98	3.02	3.03	3.05
Cumulative CO_3 NP Depletion	%	5.70	5.73	5.83	5.97	6.06	6.14	6.19	6.30	6.37	6.40	6.44
Carbonate Molar Ratio												
Acidity Production Rate	$CaCO_3$, g/t/wk	1.84	1.81	1.60	1.77	1.82	1.87	1.85	1.77	1.93	1.76	1.81
Alkalinity Production Rate	$CaCO_3$, g/t/wk	23.87	9.04	14.36	28.35	34.66	45.72	30.46	17.68	88.69	12.33	31.75
Open-System NP Consumption	$CaCO_3$, g/t/wk	44.98	15.33	38.54	63.50	57.53	65.23	43.03	45.38	104.84	18.74	41.27
Open-System Cumulative NP Depletion (Total NP)	%	4.41	4.44	4.51	4.62	4.72	4.84	4.91	4.99	5.18	5.21	5.28
Open-System Cumulative NP Depletion (CO_3 NP)	%	9.32	9.37	9.52	9.75	9.97	10.21	10.37	10.54	10.93	11.00	11.15
Anorthoclase Molar Ratio	Ca: SO_4	#N/A	#N/A	1.18	#N/A	#N/A	#N/A	#N/A	0.69	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	#N/A	#N/A	30.48	#N/A	#N/A	#N/A	#N/A	20.30	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	#N/A	#N/A	1.38	#N/A	#N/A	#N/A	#N/A	0.79	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	#N/A	#N/A	35.61	#N/A	#N/A	#N/A	#N/A	23.37	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Overall Comp CN95/96	1000

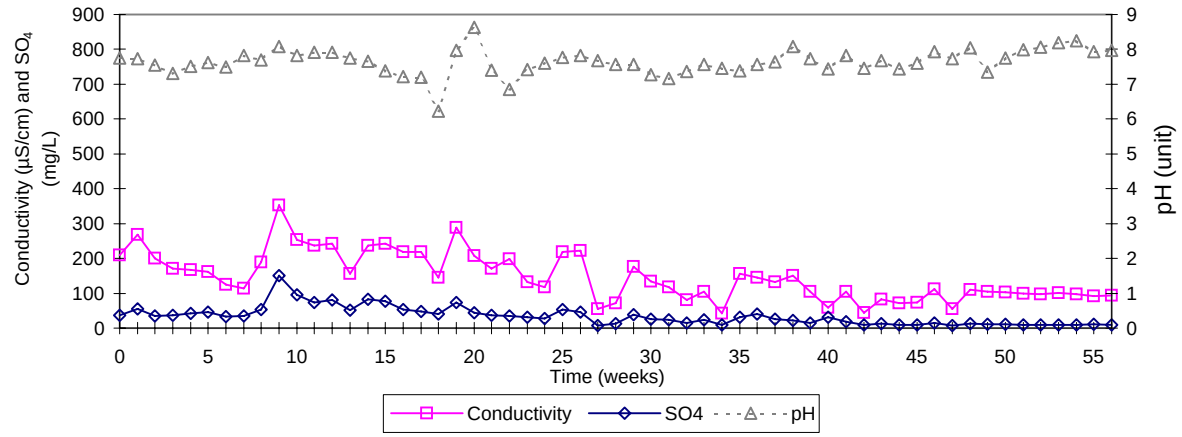
Weekly Leach	No.	44	45	46	47	48	49	50	51	52	53	54
Summary of ABA Test Data												
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t											
Leachate Paremeters Measured												
Leachate Volume Collected	mL	932	848	908	865	891	852	861	891	842	902	895
pH	units	7.44	7.60	7.94	7.74	8.04	7.35	7.76	7.99	8.06	8.20	8.25
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	26	23	36	25	42	8	46	37	37	40	39
Conductivity	µS/cm	71	74	112	55	111	105	103	99	98	101	97
SO_4	mg/L	10	9.4	15	7.9	13	11	11	10	10	9.2	8.7
Ca	mg/L	#N/A	9.9	#N/A	#N/A	#N/A	#N/A	15.3	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	#N/A	0.974	#N/A	#N/A	#N/A	#N/A	1.47	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]												
SO_4 Production Rate	g/t/wk	9.3	8.0	13.6	6.8	11.6	9.4	9.5	8.9	8.4	8.3	7.8
Cumulative SO4 Production	g/t	1672.7	1680.6	1694.3	1701.1	1712.7	1722.1	1731.5	1740.4	1748.9	1757.2	1764.9
Weekly S= Depletion	%	0.02	0.02	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02
Cumulative S= Depletion	%	3.90	3.92	3.95	3.97	3.99	4.01	4.04	4.06	4.08	4.10	4.11
Acid Neutralization [1]												
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	9.71	8.30	14.19	7.12	12.07	9.76	9.87	9.28	8.77	8.64	8.11
Cumulative Total NP Depletion	%	3.07	3.08	3.11	3.12	3.14	3.16	3.18	3.19	3.21	3.22	3.24
Cumulative CO_3 NP Depletion	%	6.48	6.51	6.56	6.59	6.63	6.67	6.71	6.74	6.77	6.80	6.83
Carbonate Molar Ratio												
Acidity Production Rate	$CaCO_3$, g/t/wk	1.86	1.70	1.82	1.73	1.78	1.70	1.72	1.78	1.68	1.80	1.79
Alkalinity Production Rate	$CaCO_3$, g/t/wk	24.23	19.50	32.69	21.63	37.42	6.82	39.61	32.97	31.15	36.08	34.91
Open-System NP Consumption	$CaCO_3$, g/t/wk	32.08	26.11	45.06	27.01	47.71	14.87	47.75	40.47	38.24	42.92	41.23
Open-System Cumulative NP Depletion (Total NP)	%	5.34	5.38	5.46	5.51	5.59	5.62	5.70	5.78	5.84	5.92	5.99
Open-System Cumulative NP Depletion (CO_3 NP)	%	11.27	11.37	11.53	11.64	11.81	11.87	12.05	12.20	12.34	12.50	12.65
Anorthoclase Molar Ratio	Ca: SO_4	#N/A	2.52	#N/A	#N/A	#N/A	#N/A	3.33	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	#N/A	20.96	#N/A	#N/A	#N/A	#N/A	32.89	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	#N/A	2.93	#N/A	#N/A	#N/A	#N/A	3.86	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	#N/A	24.36	#N/A	#N/A	#N/A	#N/A	38.10	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

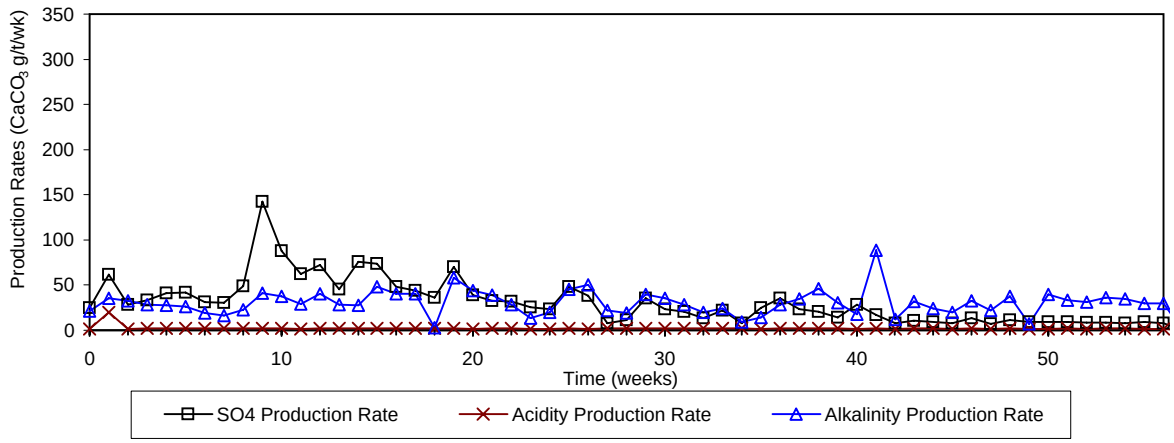
TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

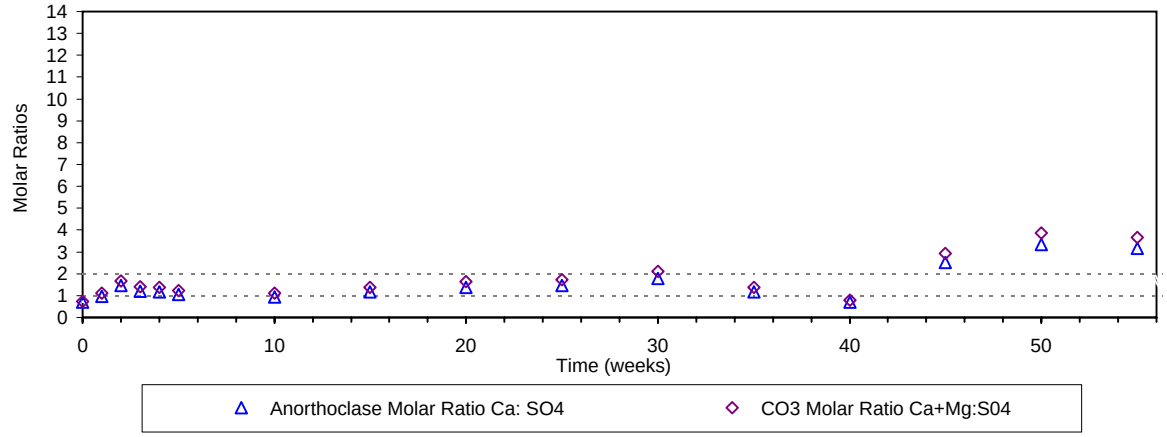
Conductivity, Sulphate, and pH in Weekly Humidity Cell Leachate - Overall Comp CN95/96



Acidity, Alkalinity and SO_4 Production Rates - Overall Comp CN95/96



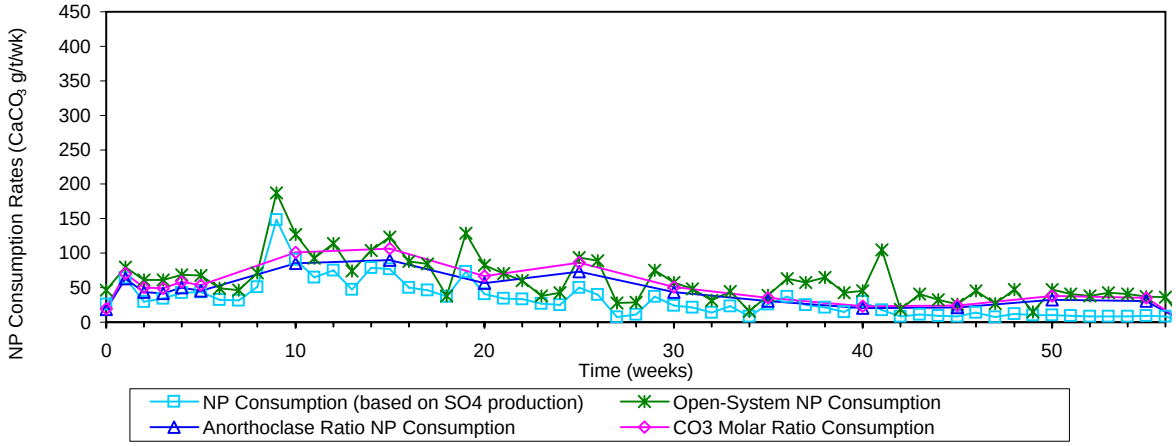
Carbonate (Ca + Mg/SO_4) and Anorthoclase (Ca/SO_4) Molar Ratios - Overall Comp CN95/96



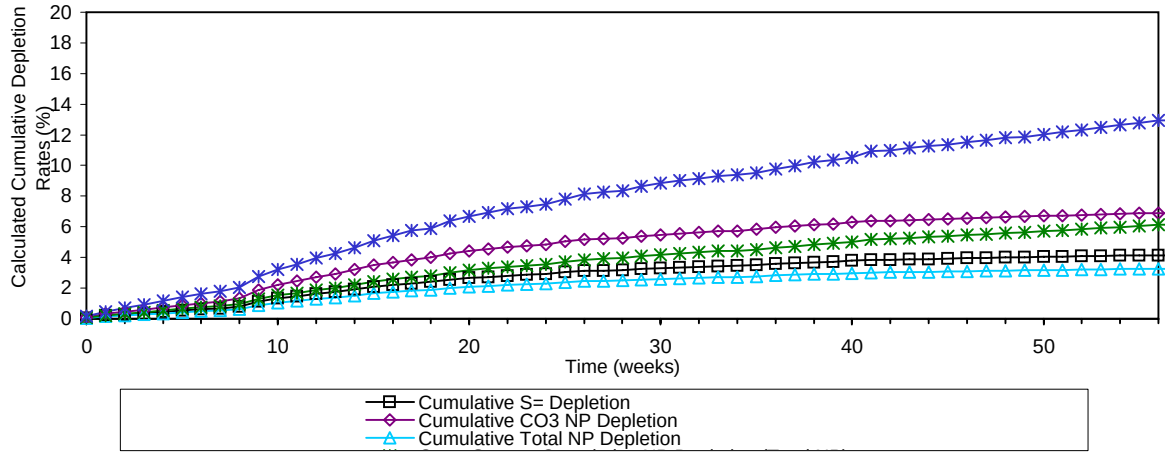
TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

NP Consumption Rates - Overall Comp CN95/96



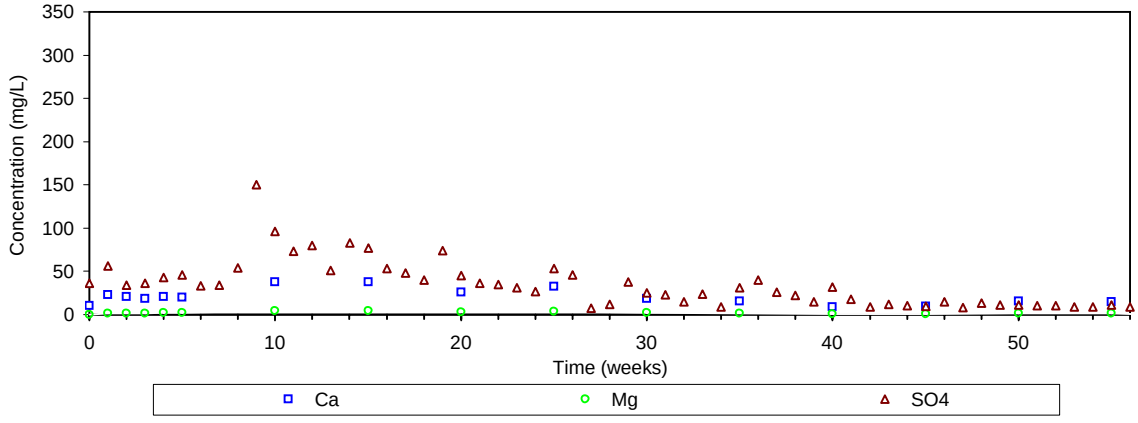
Cumulative Sulphide and NP Depletion Rates - Overall Comp CN95/96



Note: Cumulative Total and CO_3 NP depletions calculated based on sulphate assay.

Note: Open-System NP depletion calculated based on cumulative NP depletion and alkalinity and acidty production rates.

Selected Parameters in Weekly Humidity Cell Leachate - Overall Comp CN95/96



Test Specimen

Sample	Weight (g)
Overall Comp CND2 (-200 mesh)	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	0	1	2	3	4	5	6	7	8	9	10	11
LIMS			10433-DEC07	10493-DEC07	10010-JAN08	10077-JAN08	10210-JAN08	10377-JAN08	10537-JAN08	10001-FEB08	10168-FEB08	10316-FEB08	10437-FEB08	10002-MAR08
Hum Cell Leachate Vol	mLs		730	1083	976	885	975	897	917	887	917	883	906	869
pH	units	6-9.5	7.60	7.48	8.21	7.22	7.40	7.31	7.49	7.48	7.09	7.51	7.16	7.63
Conductivity	µS/cm		101	91	140	74	118	*96	92	85	111	69	88	129
Alkalinity	mg/L as $CaCO_3$		28	21	28	11	18	14	9	8	10	11	9	10
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		14	15	28	15	29	28	28	28	33	21	31	44
Cl	mg/L		0.9	0.5	0.8	0.2	0.3	0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A
NO_2	as N mg/L		< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A
NO_3	as N mg/L		0.56	0.22	0.13	0.35	0.42	< 0.05	#N/A	#N/A	#N/A	#N/A	0.15	#N/A
NH_3+NH_4	as N mg/L		0.6	0.4	0.5	0.2	0.3	0.2	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A
CN(T)	mg/L	1.00	0.99	0.13	< 0.1	0.010	< 0.1	< 0.1	#N/A	#N/A	#N/A	#N/A	0.03	#N/A
CN_{WAD}	mg/L		0.04	0.05	< 0.1	< 0.01	< 0.1	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A
CN(F)	mg/L		0.04	0.05	< 0.1	< 0.01	< 0.1	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.02	#N/A
CNO	mg/L		1.2	0.4	0.6	< 1	0.2	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A
CNS	mg/L		< 2	0.3	< 2	< 5	< 2	< 2	#N/A	#N/A	#N/A	#N/A	< 2	#N/A
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Ag	mg/L		0.00011	0.00003	0.00006	0.00001	< 0.00001	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A
Al	mg/L		0.269	0.0653	0.0571	0.0283	0.0171	0.0161	#N/A	#N/A	#N/A	#N/A	0.0196	#N/A
As	mg/L	0.20	0.0019	0.0003	0.0005	< 0.0002	< 0.0002	< 0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A
Ba	mg/L		0.0234	0.0160	0.0211	0.0082	0.0128	0.0065	#N/A	#N/A	#N/A	#N/A	0.0075	#N/A
Be	mg/L		< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A
B	mg/L		0.0011	0.0007	0.0017	0.0007	0.0011	0.0012	#N/A	#N/A	#N/A	#N/A	0.0006	#N/A
Bi	mg/L		< 0.00001	< 0.00001	< 0.00001	< 0.00001	0.00002	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A
Ca	mg/L		7.91	6.52	10.2	6.23	11.0	8.81	#N/A	#N/A	#N/A	#N/A	10.5	#N/A
Cd	mg/L		< 0.000003	< 0.000003	< 0.000003	< 0.000003	< 0.000003	< 0.000003	#N/A	#N/A	#N/A	#N/A	0.000004	#N/A
Co	mg/L		0.000471	0.000282	0.000579	0.000352	0.000465	0.000365	#N/A	#N/A	#N/A	#N/A	0.000334	#N/A
Cr	mg/L		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Cu	mg/L	0.30	0.0117	0.0097	0.0069	0.0051	0.0040	0.0041	#N/A	#N/A	#N/A	#N/A	0.0047	#N/A
Fe	mg/L	3.00	0.40	0.05	0.03	0.03	0.01	< 0.01	#N/A	#N/A	#N/A	#N/A	0.02	#N/A
K	mg/L		3.65	2.35	3.70	1.92	2.67	2.36	#N/A	#N/A	#N/A	#N/A	1.97	#N/A
Li	mg/L		0.003	0.002	< 0.001	< 0.001	< 0.001	0.001	#N/A	#N/A	#N/A	#N/A	0.001	#N/A
Mg	mg/L		0.438	0.428	0.883	0.473	1.07	1.01	#N/A	#N/A	#N/A	#N/A	1.11	#N/A
Mn	mg/L		0.00278	0.0123	0.0199	0.0206	0.0382	0.03008	#N/A	#N/A	#N/A	#N/A	0.0237	#N/A
Mo	mg/L		0.00333	0.00651	0.0133	0.00720	0.00951	0.00769	#N/A	#N/A	#N/A	#N/A	0.00398	#N/A
Na	mg/L		10.1	6.20	12.4	4.68	6.34	5.37	#N/A	#N/A	#N/A	#N/A	2.79	#N/A
Ni	mg/L	0.50	0.0003	0.0003	0.0004	0.0001	0.0003	< 0.0001	#N/A	#N/A	#N/A	#N/A	0.0002	#N/A
Pb	mg/L	0.20	0.00013	0.00010	0.00006	0.00004	0.00003	0.00004	#N/A	#N/A	#N/A	#N/A	0.00006	#N/A
Sb	mg/L		0.00239	0.00055	0.00084	0.00033	0.00045	0.00023	#N/A	#N/A	#N/A	#N/A	0.00029	#N/A
Se	mg/L		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Si	mg/L		1.34	0.36	0.54	0.19	0.34	0.21	#N/A	#N/A	#N/A	#N/A	0.15	#N/A
Sn	mg/L		0.00056	< 0.00001	0.00020	0.00036	0.00017	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00008	#N/A
Sr	mg/L		0.434	0.282	0.491	0.240	0.514	0.429	#N/A	#N/A	#N/A	#N/A	0.435	#N/A
Ti	mg/L		0.0008	0.0006	0.0005	0.0002	0.0002	0.0001	#N/A	#N/A	#N/A	#N/A	0.0002	#N/A
Tl	mg/L		< 0.000002	< 0.000002	< 0.000002	< 0.000002	0.00001	< 0.000002	#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A
U	mg/L		0.000479	0.000228	0.000516	0.000164	0.000489	0.000262	#N/A	#N/A	#N/A	#N/A	0.000328	#N/A
V	mg/L		0.00182	0.00033	0.00035	0.00021	0.00017	0.00011	#N/A	#N/A	#N/A	#N/A	0.00011	#N/A
W	mg/L		0.00080	0.00027	0.00034	0.00009	0.00011	0.00004	#N/A	#N/A	#N/A	#N/A	0.00005	#N/A
Y	mg/L		0.000006	0.000008	0.000007	0.000004	0.000007	0.000003	#N/A	#N/A	#N/A	#N/A	0.000004	#N/A
Zn	mg/L	0.50	< 0.001	0.002	0.002	< 0.001	< 0.001	< 0.001	#N/A	#N/A	#N/A	#N/A	0.002	#N/A

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Wks 0, 1, 2, 3 and 4 NH_3 + NH_4 analyses reported on LIMS 10444-MAY08

Test Specimen

Sample	Weight (g)
Overall Comp CND2 (-200 mesh)	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	12	13	14	15	16	17	18	19	20	21	22	23
LIMS			10166-MAR08	10264-MAR08	10365-MAR08	10004-APR08	10175-APR08	10311-APR08	10515-APR08	10628-APR08	10060-MAY08	10122-MAY08	10148-MAY08	10701-MAY08
Hum Cell Leachate Vol	mLs		873	925	894	901	904	914	897	936	931	916	911	817
pH	units	6-9.5	7.53	7.60	7.14	6.66	6.78	7.18	7.67	7.12	7.02	6.90	*7.18	7.38
Conductivity	µS/cm		153	130	126	137	144	160	96	113	121	117	*121	99
Alkalinity	mg/L as $CaCO_3$		10	10	9	6	8	10	36	9	7	5	*13	8
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	3	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		60	53	44	52	50	58	12	37	41	38	40	29
Cl	mg/L		#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A
NO_2	as N mg/L		#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_3	as N mg/L		#N/A	#N/A	#N/A	0.75	#N/A	#N/A	#N/A	#N/A	0.81	#N/A	#N/A	#N/A
NH_3+NH_4	as N mg/L		#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	0.1	#N/A	#N/A	#N/A
CN(T)	mg/L	1.00	#N/A	#N/A	#N/A	0.02	#N/A	#N/A	#N/A	#N/A	0.02	#N/A	#N/A	#N/A
CN_{WAD}	mg/L		#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A
CN(F)	mg/L		#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A
CNO	mg/L		#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A
CNS	mg/L		#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 2	#N/A	#N/A	#N/A
Hg	mg/L		#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Ag	mg/L		#N/A	#N/A	#N/A	0.00004	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Al	mg/L		#N/A	#N/A	#N/A	0.0183	#N/A	#N/A	#N/A	#N/A	0.0112	#N/A	#N/A	#N/A
As	mg/L	0.20	#N/A	#N/A	#N/A	0.0009	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A
Ba	mg/L		#N/A	#N/A	#N/A	0.0060	#N/A	#N/A	#N/A	#N/A	0.0051	#N/A	#N/A	#N/A
Be	mg/L		#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A
B	mg/L		#N/A	#N/A	#N/A	0.0007	#N/A	#N/A	#N/A	#N/A	0.0008	#N/A	#N/A	#N/A
Bi	mg/L		#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Ca	mg/L		#N/A	#N/A	#N/A	15.9	#N/A	#N/A	#N/A	#N/A	13.7	#N/A	#N/A	#N/A
Cd	mg/L		#N/A	#N/A	#N/A	0.000008	#N/A	#N/A	#N/A	#N/A	0.000006	#N/A	#N/A	#N/A
Co	mg/L		#N/A	#N/A	#N/A	0.000666	#N/A	#N/A	#N/A	#N/A	0.000452	#N/A	#N/A	#N/A
Cr	mg/L		#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Cu	mg/L	0.30	#N/A	#N/A	#N/A	0.0035	#N/A	#N/A	#N/A	#N/A	0.0023	#N/A	#N/A	#N/A
Fe	mg/L	3.00	#N/A	#N/A	#N/A	0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A
K	mg/L		#N/A	#N/A	#N/A	2.94	#N/A	#N/A	#N/A	#N/A	2.28	#N/A	#N/A	#N/A
Li	mg/L		#N/A	#N/A	#N/A	0.002	#N/A	#N/A	#N/A	#N/A	0.002	#N/A	#N/A	#N/A
Mg	mg/L		#N/A	#N/A	#N/A	2.15	#N/A	#N/A	#N/A	#N/A	1.89	#N/A	#N/A	#N/A
Mn	mg/L		#N/A	#N/A	#N/A	0.0284	#N/A	#N/A	#N/A	#N/A	0.0319	#N/A	#N/A	#N/A
Mo	mg/L		#N/A	#N/A	#N/A	0.00448	#N/A	#N/A	#N/A	#N/A	0.00299	#N/A	#N/A	#N/A
Na	mg/L		#N/A	#N/A	#N/A	3.96	#N/A	#N/A	#N/A	#N/A	2.36	#N/A	#N/A	#N/A
Ni	mg/L	0.50	#N/A	#N/A	#N/A	0.0004	#N/A	#N/A	#N/A	#N/A	0.0003	#N/A	#N/A	#N/A
Pb	mg/L	0.20	#N/A	#N/A	#N/A	0.00012	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A
Sb	mg/L		#N/A	#N/A	#N/A	0.00020	#N/A	#N/A	#N/A	#N/A	0.00058	#N/A	#N/A	#N/A
Se	mg/L		#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Si	mg/L		#N/A	#N/A	#N/A	0.24	#N/A	#N/A	#N/A	#N/A	0.18	#N/A	#N/A	#N/A
Sn	mg/L		#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00033	#N/A	#N/A	#N/A
Sr	mg/L		#N/A	#N/A	#N/A	0.676	#N/A	#N/A	#N/A	#N/A	0.534	#N/A	#N/A	#N/A
Ti	mg/L		#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	0.0001	#N/A	#N/A	#N/A
Tl	mg/L		#N/A	#N/A	#N/A	< 0.000002	#N/A	#N/A	#N/A	#N/A	0.000005	#N/A	#N/A	#N/A
U	mg/L		#N/A	#N/A	#N/A	0.000547	#N/A	#N/A	#N/A	#N/A	0.000527	#N/A	#N/A	#N/A
V	mg/L		#N/A	#N/A	#N/A	0.00016	#N/A	#N/A	#N/A	#N/A	0.00009	#N/A	#N/A	#N/A
W	mg/L		#N/A	#N/A	#N/A	0.00007	#N/A	#N/A	#N/A	#N/A	0.00021	#N/A	#N/A	#N/A
Y	mg/L		#N/A	#N/A	#N/A	0.000005	#N/A	#N/A	#N/A	#N/A	0.000004	#N/A	#N/A	#N/A
Zn	mg/L	0.50	#N/A	#N/A	#N/A	0.002	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A

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**Due to accidental acidification in the laboratory, data for the Week 23 sample is reported as an average of the previous 5 weeks data.*

**Week 12 leachate volume not available therefore volume shown is an average of the previous 5 weeks.*

Test Specimen

Sample	Weight (g)
Overall Comp CND2 (-200 mesh)	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	24	25	26	27	28	29	30	31	32	33	34	35
LIMS			10015-JUN08	10048-JUN08	10098-JUN08	10377-JUN08	10017-JUL08	10044-JUL08	10121-JUL08	10147-JUL08	10453-JUL08	10014-AUG08	10044-AUG08	10426-AUG08
Hum Cell Leachate Vol	mLs		908	938	922	966	931	961	904	920	904	908	911	804
pH	units	6-9.5	7.23	7.08	7.41	7.06	7.18	7.04	6.84	6.81	7.09	7.12	7.40	7.09
Conductivity	µS/cm		120	124	65	141	128	149	100	95	82	88	80	112
Alkalinity	mg/L as $CaCO_3$		9	10	10	11	10	12	13	9	8	7	8	9
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		36	41	17	56	45	49	31	30	25	28	26	24
Cl	mg/L		#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2
NO_2	as N mg/L		#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06
NO_3	as N mg/L		#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05
NH_3+NH_4	as N mg/L		#N/A	0.1	#N/A	#N/A	#N/A	#N/A	0.1	#N/A	#N/A	#N/A	#N/A	< 0.1
CN(T)	mg/L	1.00	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	0.01	#N/A	#N/A	#N/A	#N/A	0.04
CN_{WAD}	mg/L		#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01
CN(F)	mg/L		#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.02
CNO	mg/L		#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1
CNS	mg/L		#N/A	< 2	#N/A	#N/A	#N/A	#N/A	< 2	#N/A	#N/A	#N/A	#N/A	< 2
Hg	mg/L		#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001
Ag	mg/L		#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001
Al	mg/L		#N/A	0.0158	#N/A	#N/A	#N/A	#N/A	0.0171	#N/A	#N/A	#N/A	#N/A	0.0215
As	mg/L	0.20	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002
Ba	mg/L		#N/A	0.0055	#N/A	#N/A	#N/A	#N/A	0.0039	#N/A	#N/A	#N/A	#N/A	0.0050
Be	mg/L		#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002
B	mg/L		#N/A	0.0018	#N/A	#N/A	#N/A	#N/A	0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0002
Bi	mg/L		#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00001
Ca	mg/L		#N/A	14.8	#N/A	#N/A	#N/A	#N/A	11.6	#N/A	#N/A	#N/A	#N/A	10.5
Cd	mg/L		#N/A	0.000005	#N/A	#N/A	#N/A	#N/A	0.000020	#N/A	#N/A	#N/A	#N/A	< 0.000003
Co	mg/L		#N/A	0.000386	#N/A	#N/A	#N/A	#N/A	0.000409	#N/A	#N/A	#N/A	#N/A	0.000247
Cr	mg/L		#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005
Cu	mg/L	0.30	#N/A	0.0030	#N/A	#N/A	#N/A	#N/A	0.0034	#N/A	#N/A	#N/A	#N/A	0.0030
Fe	mg/L	3.00	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	0.02	#N/A	#N/A	#N/A	#N/A	0.02
K	mg/L		#N/A	2.50	#N/A	#N/A	#N/A	#N/A	1.94	#N/A	#N/A	#N/A	#N/A	1.46
Li	mg/L		#N/A	0.002	#N/A	#N/A	#N/A	#N/A	0.001	#N/A	#N/A	#N/A	#N/A	< 0.001
Mg	mg/L		#N/A	2.09	#N/A	#N/A	#N/A	#N/A	1.67	#N/A	#N/A	#N/A	#N/A	0.975
Mn	mg/L		#N/A	0.0346	#N/A	#N/A	#N/A	#N/A	0.0300	#N/A	#N/A	#N/A	#N/A	0.0254
Mo	mg/L		#N/A	0.00415	#N/A	#N/A	#N/A	#N/A	0.00290	#N/A	#N/A	#N/A	#N/A	0.00211
Na	mg/L		#N/A	2.04	#N/A	#N/A	#N/A	#N/A	1.36	#N/A	#N/A	#N/A	#N/A	0.69
Ni	mg/L	0.50	#N/A	0.0005	#N/A	#N/A	#N/A	#N/A	0.0002	#N/A	#N/A	#N/A	#N/A	0.0005
Pb	mg/L	0.20	#N/A	0.00003	#N/A	#N/A	#N/A	#N/A	0.00004	#N/A	#N/A	#N/A	#N/A	0.00004
Sb	mg/L		#N/A	0.00022	#N/A	#N/A	#N/A	#N/A	0.00035	#N/A	#N/A	#N/A	#N/A	0.00006
Se	mg/L		#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001
Si	mg/L		#N/A	0.22	#N/A	#N/A	#N/A	#N/A	0.12	#N/A	#N/A	#N/A	#N/A	0.20
Sn	mg/L		#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	0.00004	#N/A	#N/A	#N/A	#N/A	< 0.00001
Sr	mg/L		#N/A	0.554	#N/A	#N/A	#N/A	#N/A	0.432	#N/A	#N/A	#N/A	#N/A	0.322
Ti	mg/L		#N/A	0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001
Tl	mg/L		#N/A	< 0.000002	#N/A	#N/A	#N/A	#N/A	0.000010	#N/A	#N/A	#N/A	#N/A	< 0.000002
U	mg/L		#N/A	0.000374	#N/A	#N/A	#N/A	#N/A	0.000968	#N/A	#N/A	#N/A	#N/A	0.000270
V	mg/L		#N/A	0.00010	#N/A	#N/A	#N/A	#N/A	0.00006	#N/A	#N/A	#N/A	#N/A	0.00017
W	mg/L		#N/A	0.00004	#N/A	#N/A	#N/A	#N/A	0.00004	#N/A	#N/A	#N/A	#N/A	< 0.00003
Y	mg/L		#N/A	0.000005	#N/A	#N/A	#N/A	#N/A	0.000016	#N/A	#N/A	#N/A	#N/A	0.000004
Zn	mg/L	0.50	#N/A	0.002	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001

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Test Specimen

Sample	Weight (g)
Overall Comp CND2 (-200 mesh)	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	36	37	38	39	40	41	42	43	44	45	46	47
LIMS			10500-AUG08	10017-SEP08	10045-SEP08	10209-SEP08	10436-SEP08	10057-OCT08	10103-OCT08	10269-OCT08	10473-OCT08	10682-OCT08	10017-NOV08	10054-NOV08
Hum Cell Leachate Vol	mLs		902	918	938	946	893	991	911	898	942	889	900	890
pH	units	6-9.5	7.03	7.06	7.13	7.06	7.00	7.22	7.14	7.06	6.92	7.19	7.32	7.13
Conductivity	µS/cm		100	101	97	148	90	124	84	88	113	95	90	77
Alkalinity	mg/L as $CaCO_3$		8	7	7	10	8	11	7	7	9	8	8	9
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	3	<2	<2	<2	<2	<2
SO_4	mg/L		35	34	32	51	*31	46	28	29	41	28	27	26
Cl	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A
NO_2	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A
NO_3	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A
NH_3+NH_4	as N mg/L		#N/A	#N/A	#N/A	#N/A	0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A
CN(T)	mg/L	1.00	#N/A	#N/A	#N/A	#N/A	0.01	#N/A	#N/A	#N/A	#N/A	0.04	#N/A	#N/A
CN_{WAD}	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	0.04	#N/A	#N/A
CN(F)	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	0.04	#N/A	#N/A
CNO	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A
CNS	mg/L		#N/A	#N/A	#N/A	#N/A	< 2	#N/A	#N/A	#N/A	#N/A	< 2	#N/A	#N/A
Hg	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A
Ag	mg/L		#N/A	#N/A	#N/A	#N/A	0.00003	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A
Al	mg/L		#N/A	#N/A	#N/A	#N/A	0.0172	#N/A	#N/A	#N/A	#N/A	0.0159	#N/A	#N/A
As	mg/L	0.20	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A
Ba	mg/L		#N/A	#N/A	#N/A	#N/A	0.0038	#N/A	#N/A	#N/A	#N/A	0.0021	#N/A	#N/A
Be	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A
B	mg/L		#N/A	#N/A	#N/A	#N/A	0.0004	#N/A	#N/A	#N/A	#N/A	0.0004	#N/A	#N/A
Bi	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A
Ca	mg/L		#N/A	#N/A	#N/A	#N/A	11.7	#N/A	#N/A	#N/A	#N/A	5.06	#N/A	#N/A
Cd	mg/L		#N/A	#N/A	#N/A	#N/A	0.000004	#N/A	#N/A	#N/A	#N/A	0.000005	#N/A	#N/A
Co	mg/L		#N/A	#N/A	#N/A	#N/A	0.000355	#N/A	#N/A	#N/A	#N/A	0.000319	#N/A	#N/A
Cr	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A
Cu	mg/L	0.30	#N/A	#N/A	#N/A	#N/A	0.0017	#N/A	#N/A	#N/A	#N/A	0.0021	#N/A	#N/A
Fe	mg/L	3.00	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A
K	mg/L		#N/A	#N/A	#N/A	#N/A	1.96	#N/A	#N/A	#N/A	#N/A	0.90	#N/A	#N/A
Li	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A
Mg	mg/L		#N/A	#N/A	#N/A	#N/A	1.69	#N/A	#N/A	#N/A	#N/A	0.685	#N/A	#N/A
Mn	mg/L		#N/A	#N/A	#N/A	#N/A	0.0244	#N/A	#N/A	#N/A	#N/A	0.0230	#N/A	#N/A
Mo	mg/L		#N/A	#N/A	#N/A	#N/A	0.00274	#N/A	#N/A	#N/A	#N/A	0.00259	#N/A	#N/A
Na	mg/L		#N/A	#N/A	#N/A	#N/A	1.02	#N/A	#N/A	#N/A	#N/A	0.37	#N/A	#N/A
Ni	mg/L	0.50	#N/A	#N/A	#N/A	#N/A	0.0008	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A
Pb	mg/L	0.20	#N/A	#N/A	#N/A	#N/A	0.00003	#N/A	#N/A	#N/A	#N/A	0.00004	#N/A	#N/A
Sb	mg/L		#N/A	#N/A	#N/A	#N/A	0.00042	#N/A	#N/A	#N/A	#N/A	0.00028	#N/A	#N/A
Se	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A
Si	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.03	#N/A	#N/A	#N/A	#N/A	0.11	#N/A	#N/A
Sn	mg/L		#N/A	#N/A	#N/A	#N/A	0.00007	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A
Sr	mg/L		#N/A	#N/A	#N/A	#N/A	0.423	#N/A	#N/A	#N/A	#N/A	0.190	#N/A	#N/A
Ti	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A
Tl	mg/L		#N/A	#N/A	#N/A	#N/A	0.000004	#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A	#N/A
U	mg/L		#N/A	#N/A	#N/A	#N/A	0.000482	#N/A	#N/A	#N/A	#N/A	0.000364	#N/A	#N/A
V	mg/L		#N/A	#N/A	#N/A	#N/A	0.00011	#N/A	#N/A	#N/A	#N/A	0.00013	#N/A	#N/A
W	mg/L		#N/A	#N/A	#N/A	#N/A	0.00010	#N/A	#N/A	#N/A	#N/A	0.00008	#N/A	#N/A
Y	mg/L		#N/A	#N/A	#N/A	#N/A	0.000007	#N/A	#N/A	#N/A	#N/A	< 0.000001	#N/A	#N/A
Zn	mg/L	0.50	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A

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**Reassay LIMS 10432-OCT08*

Test Specimen

Sample	Weight (g)
Overall Comp CND2 (-200 mesh)	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	48	49	50	51	52	53	54	55	56
LIMS			10239-NOV08	10416-NOV08	10019-DEC08	10049-DEC08	10135-DEC08	10276-DEC08	10511-DEC08	10019-JAN09	10049-JAN09
Hum Cell Leachate Vol	mLs		890	886	872	871	888	896	913	850	859
pH	units	6-9.5	7.05	7.32	7.61	*7.00	7.32	7.63	7.68	7.52	7.37
Conductivity	µS/cm		91	66	90	*40	109	84	92	86	105
Alkalinity	mg/L as $CaCO_3$		8	8	15	8	10	8	8	11	10
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		29	21	26	*5.9	37	28	29	25	34
Cl	mg/L		#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A
NO_2	as N mg/L		#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A
NO_3	as N mg/L		#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A
NH_3+NH_4	as N mg/L		#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A
CN(T)	mg/L	1.00	#N/A	#N/A	0.04	#N/A	#N/A	#N/A	#N/A	0.04	#N/A
CN_{WAD}	mg/L		#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A
CN(F)	mg/L		#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.02	#N/A
CNO	mg/L		#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A
CNS	mg/L		#N/A	#N/A	< 2	#N/A	#N/A	#N/A	#N/A	< 2	#N/A
Hg	mg/L		#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Ag	mg/L		#N/A	#N/A	0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A
Al	mg/L		#N/A	#N/A	0.0307	#N/A	#N/A	#N/A	#N/A	0.0303	#N/A
As	mg/L	0.20	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A
Ba	mg/L		#N/A	#N/A	0.0072	#N/A	#N/A	#N/A	#N/A	0.0084	#N/A
Be	mg/L		#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A
B	mg/L		#N/A	#N/A	0.0003	#N/A	#N/A	#N/A	#N/A	0.0006	#N/A
Bi	mg/L		#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A
Ca	mg/L		#N/A	#N/A	11.2	#N/A	#N/A	#N/A	#N/A	11.5	#N/A
Cd	mg/L		#N/A	#N/A	0.000003	#N/A	#N/A	#N/A	#N/A	< 0.000003	#N/A
Co	mg/L		#N/A	#N/A	0.000325	#N/A	#N/A	#N/A	#N/A	0.000287	#N/A
Cr	mg/L		#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Cu	mg/L	0.30	#N/A	#N/A	0.0025	#N/A	#N/A	#N/A	#N/A	0.0028	#N/A
Fe	mg/L	3.00	#N/A	#N/A	0.02	#N/A	#N/A	#N/A	#N/A	0.02	#N/A
K	mg/L		#N/A	#N/A	2.16	#N/A	#N/A	#N/A	#N/A	2.04	#N/A
Li	mg/L		#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Mg	mg/L		#N/A	#N/A	1.53	#N/A	#N/A	#N/A	#N/A	1.51	#N/A
Mn	mg/L		#N/A	#N/A	0.0239	#N/A	#N/A	#N/A	#N/A	0.0233	#N/A
Mo	mg/L		#N/A	#N/A	0.00303	#N/A	#N/A	#N/A	#N/A	0.00291	#N/A
Na	mg/L		#N/A	#N/A	0.79	#N/A	#N/A	#N/A	#N/A	0.66	#N/A
Ni	mg/L	0.50	#N/A	#N/A	0.0003	#N/A	#N/A	#N/A	#N/A	0.0002	#N/A
Pb	mg/L	0.20	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	0.00004	#N/A
Sb	mg/L		#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A
Se	mg/L		#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Si	mg/L		#N/A	#N/A	0.32	#N/A	#N/A	#N/A	#N/A	0.33	#N/A
Sn	mg/L		#N/A	#N/A	0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A
Sr	mg/L		#N/A	#N/A	0.395	#N/A	#N/A	#N/A	#N/A	0.413	#N/A
Ti	mg/L		#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	0.0003	#N/A
Tl	mg/L		#N/A	#N/A	< 0.000002	#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A
U	mg/L		#N/A	#N/A	0.000360	#N/A	#N/A	#N/A	#N/A	0.000838	#N/A
V	mg/L		#N/A	#N/A	0.00030	#N/A	#N/A	#N/A	#N/A	0.00032	#N/A
W	mg/L		#N/A	#N/A	0.00013	#N/A	#N/A	#N/A	#N/A	0.00006	#N/A
Y	mg/L		#N/A	#N/A	0.000004	#N/A	#N/A	#N/A	#N/A	0.000001	#N/A
Zn	mg/L	0.50	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A

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**Resassay LIMS 10238-JAN09*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Overall Comp CND2 (-200 mesh)	1000

Weekly Leach	No.	0	1	2	3	4	5	6	7	8	9	10
Summary of ABA Test Data												
Sulphur (S)	%	1.49	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	1.16	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	63.9	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t	35.4										
Leachate Paremeters Measured												
Leachate Volume Collected	mL	730	1083	976	885	975	897	917	887	917	883	906
pH	units	7.60	7.48	8.21	7.22	7.40	7.31	7.49	7.48	7.09	7.51	7.16
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	28	21	28	11	18	14	9	8	10	11	9
Conductivity	µS/cm	101	91	140	74	118	96	92	85	111	69	88
SO_4	mg/L	14	15	28	15	29	28	28	28	33	21	31
Ca	mg/L	7.91	6.52	10.2	6.23	11	8.81	#N/A	#N/A	#N/A	#N/A	10.5
Mg	mg/L	0.438	0.428	0.883	0.473	1.07	1.01	#N/A	#N/A	#N/A	#N/A	1.11
Acid Generation [1]												
SO_4 Production Rate	g/t/wk	10.2	16.2	27.3	13.3	28.3	25.1	25.7	24.8	30.3	18.5	28.1
Cumulative SO4 Production	g/t	10.2	26.5	53.8	67.1	95.3	120.5	146.1	171.0	201.2	219.8	247.9
Weekly S= Depletion	%	0.03	0.05	0.08	0.04	0.08	0.07	0.07	0.07	0.09	0.05	0.08
Cumulative S= Depletion	%	0.03	0.08	0.15	0.19	0.27	0.35	0.42	0.49	0.58	0.63	0.71
Acid Neutralization [1]												
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	10.65	16.92	28.47	13.83	29.45	26.16	26.75	25.87	31.52	19.32	29.26
Cumulative Total NP Depletion	%	0.02	0.04	0.09	0.11	0.16	0.20	0.24	0.28	0.33	0.36	0.40
Cumulative CO_3 NP Depletion	%	0.03	0.08	0.16	0.20	0.28	0.35	0.43	0.50	0.59	0.65	0.73
Carbonate Molar Ratio												
Acidity Production Rate	$CaCO_3$, g/t/wk	1.46	2.17	1.95	1.77	1.95	1.79	1.83	1.77	1.83	1.77	1.81
Alkalinity Production Rate	$CaCO_3$, g/t/wk	20.44	22.74	27.33	9.74	17.55	12.56	8.25	7.10	9.17	9.71	8.15
Open-System NP Consumption	$CaCO_3$, g/t/wk	29.63	37.50	53.84	21.79	45.05	36.93	33.16	31.19	38.86	27.26	35.60
Open-System Cumulative NP Depletion (Total NP)	%	0.05	0.11	0.19	0.22	0.29	0.35	0.40	0.45	0.51	0.56	0.61
Open-System Cumulative NP Depletion (CO_3 NP)	%	0.08	0.19	0.34	0.40	0.53	0.63	0.73	0.82	0.93	1.00	1.10
Anorthoclase Molar Ratio	Ca: SO_4	1.35	1.04	0.87	1.00	0.91	0.75	#N/A	#N/A	#N/A	#N/A	0.81
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	14.42	17.63	24.85	13.76	26.78	19.73	#N/A	#N/A	#N/A	#N/A	23.75
CO_3 Molar Ratio	Ca+Mg:$S0_4$	1.48	1.15	1.00	1.12	1.05	0.90	#N/A	#N/A	#N/A	#N/A	0.95
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	15.73	19.54	28.40	15.49	31.07	23.46	#N/A	#N/A	#N/A	#N/A	27.89

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Overall Comp CND2 (-200 mesh)	1000

Weekly Leach	**No.**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**
Summary of ABA Test Data												
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t											
Leachate Paremeters Measured												
Leachate Volume Collected	mL	869	873	925	894	901	904	914	897	936	931	916
pH	units	7.63	7.53	7.60	7.14	6.66	6.78	7.18	7.67	7.12	7.02	6.90
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	3	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	10	10	10	9	6	8	10	36	9	7	5
Conductivity	µS/cm	129	153	130	126	137	144	160	96	113	121	117
SO_4	mg/L	44	60	53	44	52	50	58	12	37	41	38
Ca	mg/L	#N/A	#N/A	#N/A	#N/A	15.9	#N/A	#N/A	#N/A	#N/A	13.7	#N/A
Mg	mg/L	#N/A	#N/A	#N/A	#N/A	2.15	#N/A	#N/A	#N/A	#N/A	1.89	#N/A
Acid Generation [1]												
SO_4 Production Rate	g/t/wk	38.2	52.4	49.0	39.3	46.9	45.2	53.0	10.8	34.6	38.2	34.8
Cumulative SO4 Production	g/t	286.1	338.5	387.5	426.8	473.7	518.9	571.9	582.7	617.3	655.5	690.3
Weekly S= Depletion	%	0.11	0.15	0.14	0.11	0.13	0.13	0.15	0.03	0.10	0.11	0.10
Cumulative S= Depletion	%	0.82	0.97	1.11	1.23	1.36	1.49	1.64	1.67	1.77	1.88	1.98
Acid Neutralization [1]												
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	39.83	54.56	51.07	40.98	48.80	47.08	55.22	11.21	36.08	39.76	36.26
Cumulative Total NP Depletion	%	0.47	0.55	0.63	0.70	0.77	0.85	0.93	0.95	1.01	1.07	1.13
Cumulative CO_3 NP Depletion	%	0.84	1.00	1.14	1.26	1.39	1.53	1.68	1.71	1.82	1.93	2.03
Carbonate Molar Ratio												
Acidity Production Rate	$CaCO_3$, g/t/wk	1.74	1.75	1.85	1.79	1.80	2.71	1.83	1.79	1.87	1.86	1.83
Alkalinity Production Rate	$CaCO_3$, g/t/wk	8.69	8.73	9.25	8.05	5.41	7.23	9.14	32.29	8.42	6.52	4.58
Open-System NP Consumption	$CaCO_3$, g/t/wk	46.78	61.55	58.47	47.23	52.41	51.60	62.53	41.71	42.63	44.42	39.01
Open-System Cumulative NP Depletion (Total NP)	**%**	0.68	0.78	0.87	0.95	1.03	1.11	1.21	1.27	1.34	1.41	1.47
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	1.24	1.41	1.58	1.71	1.86	2.00	2.18	2.30	2.42	2.54	2.65
Anorthoclase Molar Ratio	Ca: SO_4	#N/A	#N/A	#N/A	#N/A	0.73	#N/A	#N/A	#N/A	#N/A	0.80	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	#N/A	#N/A	#N/A	#N/A	35.77	#N/A	#N/A	#N/A	#N/A	31.84	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	#N/A	#N/A	#N/A	#N/A	0.90	#N/A	#N/A	#N/A	#N/A	0.98	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	#N/A	#N/A	#N/A	#N/A	43.74	#N/A	#N/A	#N/A	#N/A	39.09	#N/A

[1] *Calculated values*

TEST REPORT
Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Overall Comp CND2 (-200 mesh)	1000

Weekly Leach	No.	22	23	24	25	26	27	28	29	30	31	32
Summary of ABA Test Data												
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t											
Leachate Paremeters Measured												
Leachate Volume Collected	mL	911	817	908	938	922	966	931	961	904	920	904
pH	units	7.18	7.38	7.23	7.08	7.41	7.06	7.18	7.04	6.84	6.81	7.09
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	13.4	8	9	10	10	11	10	12	13	9	8
Conductivity	µS/cm	121.4	99	120	124	65	141	128	149	100	95	82
SO_4	mg/L	40	29	36	41	17	56	45	49	31	30	25
Ca	mg/L	#N/A	#N/A	#N/A	14.8	#N/A	#N/A	#N/A	#N/A	11.6	#N/A	#N/A
Mg	mg/L	#N/A	#N/A	#N/A	2.09	#N/A	#N/A	#N/A	#N/A	1.67	#N/A	#N/A
Acid Generation [1]												
SO_4 Production Rate	g/t/wk	36.4	23.7	32.7	38.5	15.7	54.1	41.9	47.1	28.0	27.6	22.6
Cumulative SO4 Production	g/t	726.7	750.4	783.1	821.6	837.2	891.3	933.2	980.3	1008.3	1035.9	1058.5
Weekly S= Depletion	%	0.10	0.07	0.09	0.11	0.05	0.16	0.12	0.14	0.08	0.08	0.06
Cumulative S= Depletion	%	2.09	2.16	2.25	2.36	2.41	2.56	2.68	2.82	2.90	2.98	3.04
Acid Neutralization [1]												
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	37.96	24.68	34.05	40.06	16.33	56.35	43.64	49.05	29.19	28.75	23.54
Cumulative Total NP Depletion	%	1.18	1.22	1.28	1.34	1.36	1.45	1.52	1.60	1.64	1.69	1.73
Cumulative CO_3 NP Depletion	%	2.14	2.21	2.30	2.42	2.46	2.62	2.75	2.88	2.97	3.05	3.11
Carbonate Molar Ratio												
Acidity Production Rate	$CaCO_3$, g/t/wk	1.82	1.63	1.82	1.88	1.84	1.93	1.86	1.92	1.81	1.84	1.81
Alkalinity Production Rate	$CaCO_3$, g/t/wk	12.21	6.54	8.17	9.38	9.22	10.63	9.31	11.53	11.75	8.28	7.23
Open-System NP Consumption	$CaCO_3$, g/t/wk	48.34	29.58	40.41	47.56	23.70	65.04	51.09	58.66	39.14	35.19	28.97
Open-System Cumulative NP Depletion (Total NP)	%	1.55	1.59	1.65	1.73	1.77	1.87	1.95	2.04	2.10	2.16	2.20
Open-System Cumulative NP Depletion (CO_3 NP)	%	2.79	2.87	2.99	3.12	3.19	3.37	3.52	3.68	3.79	3.89	3.97
Anorthoclase Molar Ratio	Ca: SO_4	#N/A	#N/A	#N/A	0.87	#N/A	#N/A	#N/A	#N/A	0.90	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	#N/A	#N/A	#N/A	34.66	#N/A	#N/A	#N/A	#N/A	26.18	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	#N/A	#N/A	#N/A	1.07	#N/A	#N/A	#N/A	#N/A	1.11	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	#N/A	#N/A	#N/A	42.73	#N/A	#N/A	#N/A	#N/A	32.39	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Overall Comp CND2 (-200 mesh)	1000

Weekly Leach	No.	33	34	35	36	37	38	39	40	41	42	43
Summary of ABA Test Data												
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t											
Leachate Paremeters Measured												
Leachate Volume Collected	mL	908	911	804	902	918	938	946	893	991	911	898
pH	units	7.12	7.40	7.09	7.03	7.06	7.13	7.06	7.00	7.22	7.14	7.06
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	3	<2
Alkalinity	$CaCO_3$ eq.mg/L	7	8	9	8	7	7	10	8	11	7	7
Conductivity	µS/cm	88	80	112	100	101	97	148	90	124	84	88
SO_4	mg/L	28	26	24	35	34	32	51	31	46	28	29
Ca	mg/L	#N/A	#N/A	10.5	#N/A	#N/A	#N/A	#N/A	11.7	#N/A	#N/A	#N/A
Mg	mg/L	#N/A	#N/A	0.975	#N/A	#N/A	#N/A	#N/A	1.69	#N/A	#N/A	#N/A
Acid Generation [1]												
SO_4 Production Rate	g/t/wk	25.4	23.7	19.3	31.6	31.2	30.0	48.2	27.7	45.6	25.5	26.0
Cumulative SO4 Production	g/t	1084.0	1107.6	1126.9	1158.5	1189.7	1219.7	1268.0	1295.7	1341.3	1366.8	1392.8
Weekly S= Depletion	%	0.07	0.07	0.06	0.09	0.09	0.09	0.14	0.08	0.13	0.07	0.07
Cumulative S= Depletion	%	3.11	3.18	3.24	3.33	3.42	3.50	3.64	3.72	3.85	3.93	4.00
Acid Neutralization [1]												
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	26.48	24.67	20.10	32.89	32.51	31.27	50.26	28.84	47.49	26.57	27.13
Cumulative Total NP Depletion	%	1.77	1.81	1.84	1.89	1.94	1.99	2.07	2.11	2.19	2.23	2.27
Cumulative CO_3 NP Depletion	%	3.19	3.26	3.32	3.41	3.50	3.59	3.73	3.81	3.95	4.02	4.10
Carbonate Molar Ratio												
Acidity Production Rate	$CaCO_3$, g/t/wk	1.82	1.82	1.61	1.80	1.84	1.88	1.89	1.79	1.98	2.73	1.80
Alkalinity Production Rate	$CaCO_3$, g/t/wk	6.36	7.29	7.24	7.22	6.43	6.57	9.46	7.14	10.90	6.38	6.29
Open-System NP Consumption	$CaCO_3$, g/t/wk	31.02	30.14	25.73	38.30	37.10	35.96	57.82	34.19	56.40	30.21	31.62
Open-System Cumulative NP Depletion (Total NP)	%	2.25	2.30	2.34	2.40	2.46	2.51	2.60	2.66	2.74	2.79	2.84
Open-System Cumulative NP Depletion (CO_3 NP)	%	4.06	4.15	4.22	4.33	4.43	4.53	4.70	4.79	4.95	5.04	5.13
Anorthoclase Molar Ratio	Ca: SO_4	#N/A	#N/A	1.05	#N/A	#N/A	#N/A	#N/A	0.90	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	#N/A	#N/A	21.08	#N/A	#N/A	#N/A	#N/A	26.08	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	#N/A	#N/A	1.21	#N/A	#N/A	#N/A	#N/A	1.12	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	#N/A	#N/A	24.30	#N/A	#N/A	#N/A	#N/A	32.30	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
Overall Comp CND2 (-200 mesh)	1000

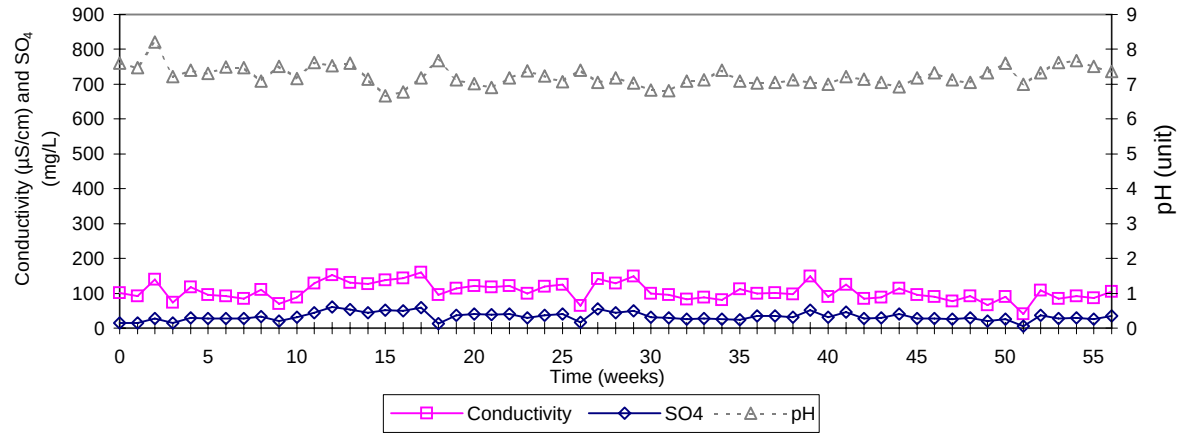
Weekly Leach	No.	44	45	46	47	48	49	50	51	52	53	54
Summary of ABA Test Data												
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t											
Leachate Paremeters Measured												
Leachate Volume Collected	mL	942	889	900	890	890	886	872	871	888	896	913
pH	units	6.92	7.19	7.32	7.13	7.05	7.32	7.61	7.00	7.32	7.63	7.68
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	9	8	8	9	8	8	15	8	10	8	8
Conductivity	µS/cm	113	95	90	77	91	66	90	40	109	84	92
SO_4	mg/L	41	28	27	26	29	21	26	5.9	37	28	29
Ca	mg/L	#N/A	5.06	#N/A	#N/A	#N/A	#N/A	11.2	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	#N/A	0.685	#N/A	#N/A	#N/A	#N/A	1.53	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]												
SO_4 Production Rate	g/t/wk	38.6	24.9	24.3	23.1	25.8	18.6	22.7	5.1	32.9	25.1	26.5
Cumulative SO4 Production	g/t	1431.4	1456.3	1480.6	1503.8	1529.6	1548.2	1570.8	1576.0	1608.8	1633.9	1660.4
Weekly S= Depletion	%	0.11	0.07	0.07	0.07	0.07	0.05	0.07	0.01	0.09	0.07	0.08
Cumulative S= Depletion	%	4.11	4.18	4.25	4.32	4.40	4.45	4.51	4.53	4.62	4.70	4.77
Acid Neutralization [1]												
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	40.23	25.93	25.31	24.10	26.89	19.38	23.62	5.35	34.23	26.13	27.58
Cumulative Total NP Depletion	%	2.33	2.37	2.41	2.45	2.49	2.52	2.56	2.57	2.62	2.66	2.71
Cumulative CO_3 NP Depletion	%	4.21	4.29	4.36	4.42	4.50	4.56	4.62	4.64	4.73	4.81	4.89
Carbonate Molar Ratio												
Acidity Production Rate	$CaCO_3$, g/t/wk	1.88	1.78	1.80	1.78	1.78	1.77	1.74	1.74	1.78	1.79	1.83
Alkalinity Production Rate	$CaCO_3$, g/t/wk	8.48	7.11	7.20	8.01	7.12	7.09	13.08	6.97	8.88	7.17	7.30
Open-System NP Consumption	$CaCO_3$, g/t/wk	46.83	31.26	30.71	30.33	32.23	24.70	34.95	10.58	41.33	31.51	33.06
Open-System Cumulative NP Depletion (Total NP)	%	2.91	2.96	3.01	3.06	3.11	3.15	3.20	3.22	3.28	3.33	3.38
Open-System Cumulative NP Depletion (CO_3 NP)	%	5.26	5.35	5.44	5.52	5.61	5.68	5.78	5.81	5.93	6.02	6.11
Anorthoclase Molar Ratio	Ca: SO_4	#N/A	0.43	#N/A	#N/A	#N/A	#N/A	1.03	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	#N/A	11.23	#N/A	#N/A	#N/A	#N/A	24.38	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	#N/A	0.53	#N/A	#N/A	#N/A	#N/A	1.26	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	#N/A	13.74	#N/A	#N/A	#N/A	#N/A	29.87	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

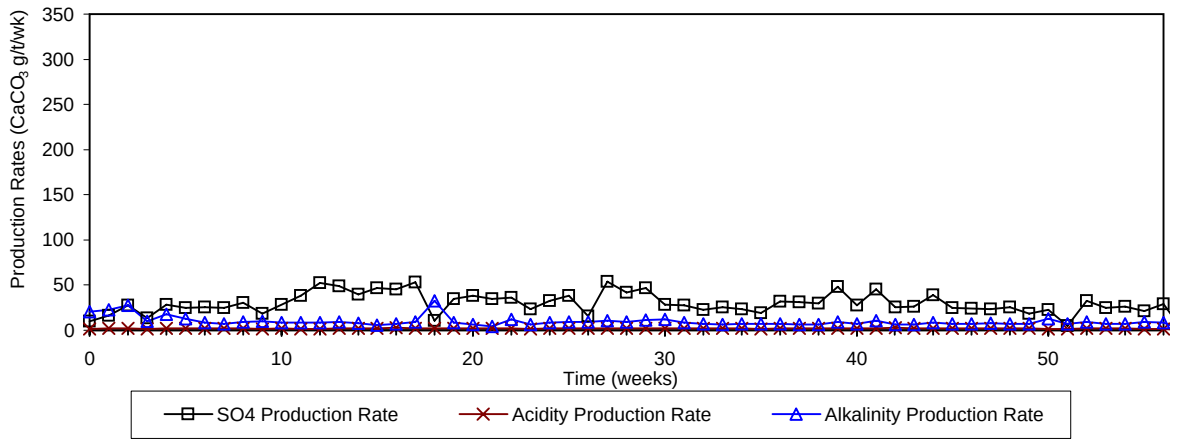
TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

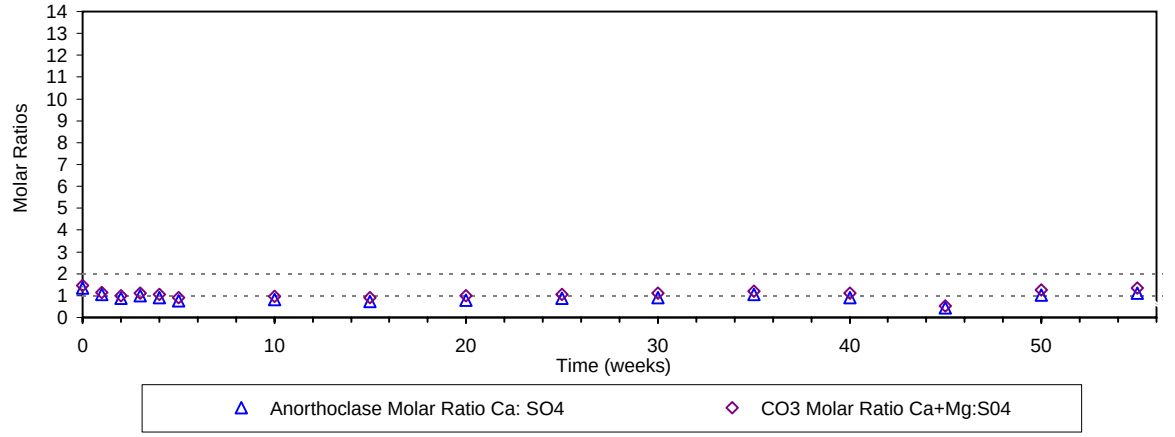
Conductivity, Sulphate, and pH in Weekly Humidity Cell Leachate - Overall Comp CND2 (-200 mesh)



Acidity, Alkalinity and SO_4 Production Rates - Overall Comp CND2 (-200 mesh)



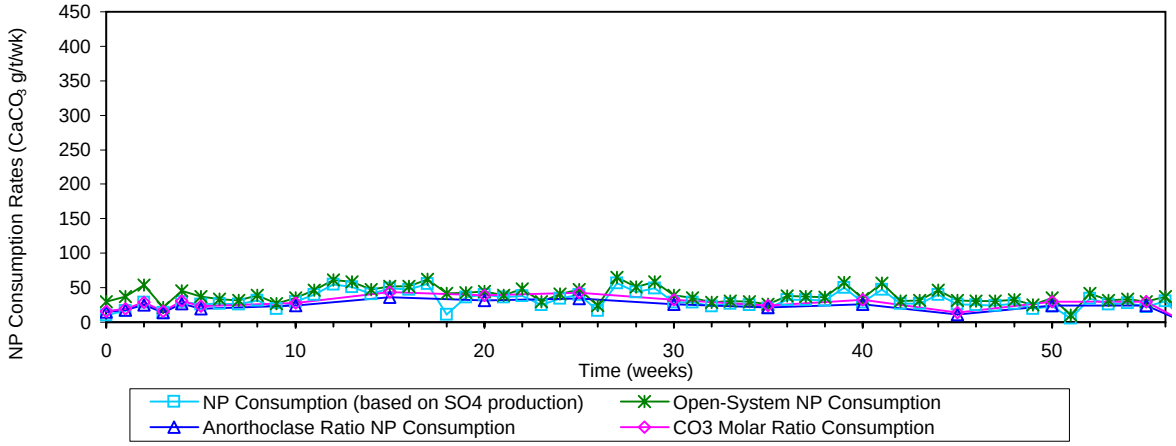
Carbonate (Ca + Mg/SO_4) and Anorthoclase (Ca/SO_4) Molar Ratios - Overall Comp CND2 (-200 mesh)



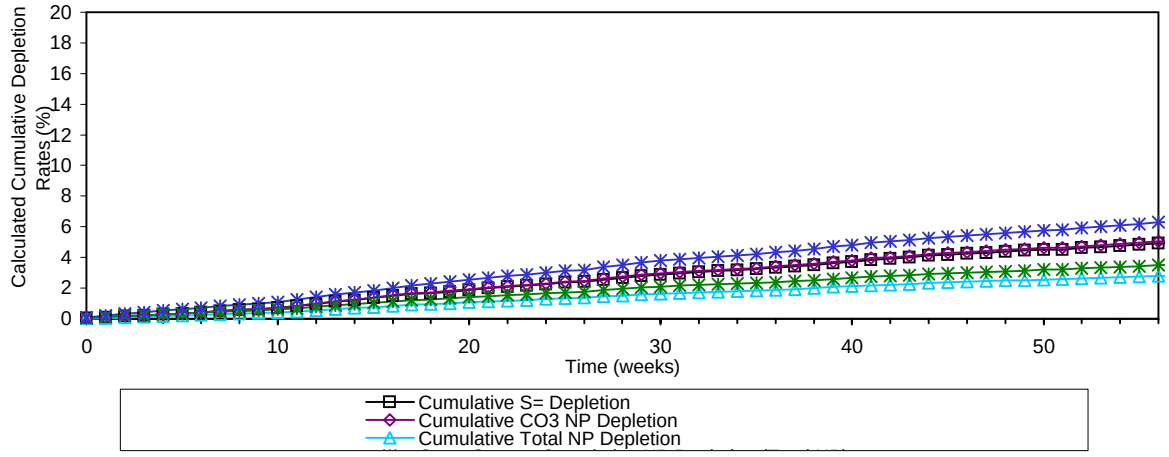
TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

NP Consumption Rates - Overall Comp CND2 (-200 mesh)



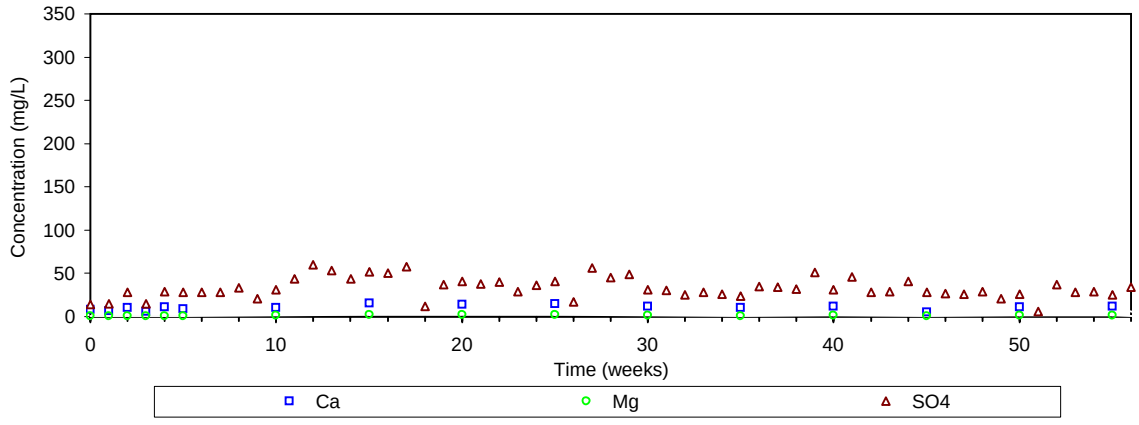
Cumulative Sulphide and NP Depletion Rates - Overall Comp CND2 (-200 mesh)



Note: Cumulative Total and CO_3 NP depletions calculated based on sulphate assay.

Note: Open-System NP depletion calculated based on cumulative NP depletion and alkalinity and acidty production rates.

Selected Parameters in Weekly Humidity Cell Leachate - Overall Comp CND2 (-200 mesh)



Test Specimen

Sample	Weight (g)
GT Residue	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	0	1	2	3	4	5	6	7	8	9	10	11
LIMS			10066-APR08	10169-APR08	10316-APR08	10519-APR08	10633-APR08	10065-MAY08	10127-MAY08	10153-MAY08	10702-MAY08	10016-JUN08	10049-JUN08	10099-JUN08
Hum Cell Leachate Vol	mLs		753	993	994	989	990	982	974	895	980	982	976	985
pH	units	6-9.5	6.88	7.80	8.05	7.53	6.81	7.01	7.17	7.39	6.83	7.16	7.14	7.31
Conductivity	µS/cm		378	823	346	152	91	64	76	134	74	65	83	82
Alkalinity	mg/L as $CaCO_3$		22	88	80	31	17	11	7	22	4	8	11	10
Acidity	mg/L as $CaCO_3$		20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		160	340	84	35	16	13	16	38	17	15	23	23
Cl	mg/L		0.7	0.7	< 0.2	< 0.2	< 0.2	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A
F	mg/L		0.07	0.28	0.27	0.06	< 0.06	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A
NO_2	as N mg/L		< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A
NO_3	as N mg/L		1.01	0.47	0.18	0.86	< 0.05	0.58	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A
NH_3+NH_4	as N mg/L		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A
CN(T)	mg/L	1.00	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A
CN_{WAD}	mg/L		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A
CN(F)	mg/L		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A
CNO	mg/L		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	#N/A	#N/A	#N/A	#N/A	2.2	#N/A
CNS	mg/L		< 0.2	< 0.2	< 2	< 2	< 2	< 2	#N/A	#N/A	#N/A	#N/A	< 2	#N/A
Hg	mg/L		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Ag	mg/L		0.00015	< 0.00001	< 0.00001	0.00001	< 0.00001	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A
Al	mg/L		0.0499	0.0283	0.0402	0.0173	0.0214	0.0126	#N/A	#N/A	#N/A	#N/A	0.0125	#N/A
As	mg/L	0.20	< 0.0002	0.0006	0.0003	< 0.0002	< 0.0002	< 0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A
Ba	mg/L		0.0200	0.0328	0.0768	0.0416	0.0148	0.0094	#N/A	#N/A	#N/A	#N/A	0.0068	#N/A
Be	mg/L		< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A
B	mg/L		0.0095	0.0057	0.0034	0.0010	0.0006	0.0024	#N/A	#N/A	#N/A	#N/A	0.0009	#N/A
Bi	mg/L		< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A
Ca	mg/L		50.8	104	47.2	20.4	10.5	8.14	#N/A	#N/A	#N/A	#N/A	10.7	#N/A
Cd	mg/L		0.000009	0.000017	< 0.000003	0.000006	< 0.000003	< 0.000003	#N/A	#N/A	#N/A	#N/A	< 0.000003	#N/A
Co	mg/L		0.000867	0.000937	0.000257	0.000169	0.000059	0.000069	#N/A	#N/A	#N/A	#N/A	0.000116	#N/A
Cr	mg/L		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Cu	mg/L	0.30	0.0012	0.0006	< 0.0005	< 0.0005	< 0.0005	0.0031	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Fe	mg/L	3.00	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A
K	mg/L		11.7	26.4	14.4	4.56	2.11	1.60	#N/A	#N/A	#N/A	#N/A	1.96	#N/A
Li	mg/L		0.005	0.007	0.006	< 0.001	0.002	0.002	#N/A	#N/A	#N/A	#N/A	0.002	#N/A
Mg	mg/L		4.74	10.7	4.41	1.70	0.813	0.660	#N/A	#N/A	#N/A	#N/A	1.21	#N/A
Mn	mg/L		0.0392	0.126	0.0399	0.0329	0.0375	0.0326	#N/A	#N/A	#N/A	#N/A	0.0277	#N/A
Mo	mg/L		0.00295	0.00834	0.00505	0.00150	0.00095	0.00044	#N/A	#N/A	#N/A	#N/A	0.00039	#N/A
Na	mg/L		8.76	15.7	4.55	1.15	0.51	0.42	#N/A	#N/A	#N/A	#N/A	0.63	#N/A
Ni	mg/L	0.50	0.0014	0.0034	0.0013	0.0003	< 0.0001	0.0002	#N/A	#N/A	#N/A	#N/A	0.0021	#N/A
Pb	mg/L	0.20	0.00015	< 0.00002	< 0.00002	< 0.00002	< 0.00002	0.00004	#N/A	#N/A	#N/A	#N/A	0.00005	#N/A
Sb	mg/L		0.00281	0.00250	0.00187	0.00067	0.00031	0.00043	#N/A	#N/A	#N/A	#N/A	0.00029	#N/A
Se	mg/L		0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Si	mg/L		0.63	2.71	2.81	0.93	0.43	0.31	#N/A	#N/A	#N/A	#N/A	0.37	#N/A
Sn	mg/L		0.00446	0.00300	0.00407	0.00479	0.00333	0.00378	#N/A	#N/A	#N/A	#N/A	0.00345	#N/A
Sr	mg/L		2.51	5.43	3.56	1.36	0.550	0.386	#N/A	#N/A	#N/A	#N/A	0.524	#N/A
Ti	mg/L		0.0004	< 0.0001	0.0001	0.0002	0.0002	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Tl	mg/L		0.000013	0.000025	0.000017	0.000098	< 0.000002	0.000002	#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A
U	mg/L		0.00121	0.00422	0.00167	0.000895	0.000343	0.000368	#N/A	#N/A	#N/A	#N/A	0.000307	#N/A
V	mg/L		0.00006	0.00008	0.00010	< 0.00003	0.00006	0.00004	#N/A	#N/A	#N/A	#N/A	< 0.00003	#N/A
W	mg/L		0.00057	0.00095	0.00117	0.00054	0.00018	0.00017	#N/A	#N/A	#N/A	#N/A	0.00004	#N/A
Y	mg/L		0.000024	0.000032	0.000014	0.000012	0.000005	0.000012	#N/A	#N/A	#N/A	#N/A	0.000003	#N/A
Zn	mg/L	0.50	0.004	0.004	0.005	0.004	< 0.001	0.004	#N/A	#N/A	#N/A	#N/A	0.002	#N/A

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Due to laboratory technician error metals analyses are not available for Week 10

Test Specimen

Sample	Weight (g)
GT Residue	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	12	13	14	15	16	17	18	19	20	21	22	23
LIMS			10378-JUN08	10018-JUL08	10045-JUL08	10122-JUL08	10148-JUL08	10456-JUL08	10020-AUG08	10045-AUG08	10427-AUG08	10501-AUG08	10018-SEP08	10046-SEP08
Hum Cell Leachate Vol	mLs		994	981	990	976	990	979	984	980	990	989	981	982
pH	units	6-9.5	6.95	7.09	6.85	6.75	6.77	6.96	7.04	7.01	6.97	6.99	7.04	7.05
Conductivity	µS/cm		56	69	71	62	73	65	66	90	98	83	58	56
Alkalinity	mg/L as $CaCO_3$		8	9	8	7	15	8	7	8	8	9	8	7
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		17	20	19	17	20	19	19	21	21	27	16	15
Cl	mg/L		#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A
F	mg/L		#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_2	as N mg/L		#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A
NO_3	as N mg/L		#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A
NH_3+NH_4	as N mg/L		#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A
CN(T)	mg/L	1.00	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A
CN_{WAD}	mg/L		#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A
CN(F)	mg/L		#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A
CNO	mg/L		#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A
CNS	mg/L		#N/A	#N/A	#N/A	< 2	#N/A	#N/A	#N/A	#N/A	< 2	#N/A	#N/A	#N/A
Hg	mg/L		#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Ag	mg/L		#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Al	mg/L		#N/A	#N/A	#N/A	0.0098	#N/A	#N/A	#N/A	#N/A	0.0066	#N/A	#N/A	#N/A
As	mg/L	0.20	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A
Ba	mg/L		#N/A	#N/A	#N/A	0.0035	#N/A	#N/A	#N/A	#N/A	0.0032	#N/A	#N/A	#N/A
Be	mg/L		#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A
B	mg/L		#N/A	#N/A	#N/A	0.0003	#N/A	#N/A	#N/A	#N/A	0.0004	#N/A	#N/A	#N/A
Bi	mg/L		#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A
Ca	mg/L		#N/A	#N/A	#N/A	7.72	#N/A	#N/A	#N/A	#N/A	8.69	#N/A	#N/A	#N/A
Cd	mg/L		#N/A	#N/A	#N/A	< 0.000003	#N/A	#N/A	#N/A	#N/A	< 0.000003	#N/A	#N/A	#N/A
Co	mg/L		#N/A	#N/A	#N/A	0.000050	#N/A	#N/A	#N/A	#N/A	0.000050	#N/A	#N/A	#N/A
Cr	mg/L		#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Cu	mg/L	0.30	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A
Fe	mg/L	3.00	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A
K	mg/L		#N/A	#N/A	#N/A	1.28	#N/A	#N/A	#N/A	#N/A	1.44	#N/A	#N/A	#N/A
Li	mg/L		#N/A	#N/A	#N/A	0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Mg	mg/L		#N/A	#N/A	#N/A	0.860	#N/A	#N/A	#N/A	#N/A	1.04	#N/A	#N/A	#N/A
Mn	mg/L		#N/A	#N/A	#N/A	0.0214	#N/A	#N/A	#N/A	#N/A	0.0195	#N/A	#N/A	#N/A
Mo	mg/L		#N/A	#N/A	#N/A	0.00043	#N/A	#N/A	#N/A	#N/A	0.00057	#N/A	#N/A	#N/A
Na	mg/L		#N/A	#N/A	#N/A	0.43	#N/A	#N/A	#N/A	#N/A	0.47	#N/A	#N/A	#N/A
Ni	mg/L	0.50	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	0.0003	#N/A	#N/A	#N/A
Pb	mg/L	0.20	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	0.00006	#N/A	#N/A	#N/A
Sb	mg/L		#N/A	#N/A	#N/A	0.00030	#N/A	#N/A	#N/A	#N/A	0.00020	#N/A	#N/A	#N/A
Se	mg/L		#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A
Si	mg/L		#N/A	#N/A	#N/A	0.18	#N/A	#N/A	#N/A	#N/A	0.30	#N/A	#N/A	#N/A
Sn	mg/L		#N/A	#N/A	#N/A	0.00313	#N/A	#N/A	#N/A	#N/A	0.00362	#N/A	#N/A	#N/A
Sr	mg/L		#N/A	#N/A	#N/A	0.350	#N/A	#N/A	#N/A	#N/A	0.390	#N/A	#N/A	#N/A
Ti	mg/L		#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A
Tl	mg/L		#N/A	#N/A	#N/A	0.000004	#N/A	#N/A	#N/A	#N/A	0.000006	#N/A	#N/A	#N/A
U	mg/L		#N/A	#N/A	#N/A	0.000291	#N/A	#N/A	#N/A	#N/A	0.000485	#N/A	#N/A	#N/A
V	mg/L		#N/A	#N/A	#N/A	< 0.00003	#N/A	#N/A	#N/A	#N/A	< 0.00003	#N/A	#N/A	#N/A
W	mg/L		#N/A	#N/A	#N/A	< 0.00003	#N/A	#N/A	#N/A	#N/A	0.00007	#N/A	#N/A	#N/A
Y	mg/L		#N/A	#N/A	#N/A	0.000001	#N/A	#N/A	#N/A	#N/A	0.000005	#N/A	#N/A	#N/A
Zn	mg/L	0.50	#N/A	#N/A	#N/A	0.002	#N/A	#N/A	#N/A	#N/A	0.001	#N/A	#N/A	#N/A

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Test Specimen

Sample	Weight (g)
GT Residue	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	24	25	26	27	28	29	30	31	32	33	34	35
LIMS			10210-SEP08	10437-SEP08	10058-OCT08	10104-OCT08	10270-OCT08	10474-OCT08	10683-OCT08	10018-NOV08	10055-NOV08	10240-NOV08	10417-NOV08	10020-DEC08
Hum Cell Leachate Vol	mLs		981	989	988	990	992	983	986	988	989	986	989	989
pH	units	6-9.5	6.90	7.12	7.14	7.26	7.14	7.18	7.29	7.43	*7.21	7.34	7.00	7.07
Conductivity	µS/cm		60	73	65	65	61	51	201	101	62	64	52	58
Alkalinity	mg/L as $CaCO_3$		7	9	10	12	11	9	12	15	10	11	9	10
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
SO_4	mg/L		16	23	19	17	16	14	19	23	18	17	14	14
Cl	mg/L		#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A	#N/A	#N/A	#N/A	< 0.2
F	mg/L		#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06
NO_2	as N mg/L		#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A	#N/A	#N/A	#N/A	< 0.06
NO_3	as N mg/L		#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A	#N/A	#N/A	#N/A	< 0.05
NH_3+NH_4	as N mg/L		#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1
CN(T)	mg/L	1.00	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01
CN_{WAD}	mg/L		#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01
CN(F)	mg/L		#N/A	< 0.02	#N/A	#N/A	#N/A	#N/A	< 0.02	#N/A	#N/A	#N/A	#N/A	< 0.01
CNO	mg/L		#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A	#N/A	#N/A	#N/A	< 0.1
CNS	mg/L		#N/A	< 2	#N/A	#N/A	#N/A	#N/A	< 2	#N/A	#N/A	#N/A	#N/A	< 2
Hg	mg/L		#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001
Ag	mg/L		#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001
Al	mg/L		#N/A	0.0080	#N/A	#N/A	#N/A	#N/A	0.0145	#N/A	#N/A	#N/A	#N/A	0.0176
As	mg/L	0.20	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0002
Ba	mg/L		#N/A	0.0039	#N/A	#N/A	#N/A	#N/A	0.0043	#N/A	#N/A	#N/A	#N/A	0.0041
Be	mg/L		#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002
B	mg/L		#N/A	0.0004	#N/A	#N/A	#N/A	#N/A	0.0003	#N/A	#N/A	#N/A	#N/A	0.0002
Bi	mg/L		#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A	#N/A	#N/A	#N/A	< 0.00001
Ca	mg/L		#N/A	9.98	#N/A	#N/A	#N/A	#N/A	10.0	#N/A	#N/A	#N/A	#N/A	7.87
Cd	mg/L		#N/A	< 0.000003	#N/A	#N/A	#N/A	#N/A	< 0.000003	#N/A	#N/A	#N/A	#N/A	< 0.000003
Co	mg/L		#N/A	0.000059	#N/A	#N/A	#N/A	#N/A	0.000040	#N/A	#N/A	#N/A	#N/A	0.000087
Cr	mg/L		#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005
Cu	mg/L	0.30	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A	#N/A	#N/A	#N/A	< 0.0005
Fe	mg/L	3.00	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A	#N/A	#N/A	#N/A	< 0.01
K	mg/L		#N/A	1.65	#N/A	#N/A	#N/A	#N/A	1.58	#N/A	#N/A	#N/A	#N/A	1.44
Li	mg/L		#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001
Mg	mg/L		#N/A	1.22	#N/A	#N/A	#N/A	#N/A	1.09	#N/A	#N/A	#N/A	#N/A	0.907
Mn	mg/L		#N/A	0.0247	#N/A	#N/A	#N/A	#N/A	0.0308	#N/A	#N/A	#N/A	#N/A	0.0203
Mo	mg/L		#N/A	0.00068	#N/A	#N/A	#N/A	#N/A	0.00060	#N/A	#N/A	#N/A	#N/A	0.00050
Na	mg/L		#N/A	0.55	#N/A	#N/A	#N/A	#N/A	0.46	#N/A	#N/A	#N/A	#N/A	0.39
Ni	mg/L	0.50	#N/A	0.0002	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	0.0009
Pb	mg/L	0.20	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A	#N/A	#N/A	#N/A	0.00006
Sb	mg/L		#N/A	0.00055	#N/A	#N/A	#N/A	#N/A	0.00037	#N/A	#N/A	#N/A	#N/A	< 0.0002
Se	mg/L		#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001
Si	mg/L		#N/A	0.31	#N/A	#N/A	#N/A	#N/A	0.35	#N/A	#N/A	#N/A	#N/A	0.37
Sn	mg/L		#N/A	0.00374	#N/A	#N/A	#N/A	#N/A	0.00297	#N/A	#N/A	#N/A	#N/A	0.00302
Sr	mg/L		#N/A	0.418	#N/A	#N/A	#N/A	#N/A	0.362	#N/A	#N/A	#N/A	#N/A	0.285
Ti	mg/L		#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A	#N/A	#N/A	#N/A	< 0.0001
Tl	mg/L		#N/A	0.000005	#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A	#N/A	#N/A	#N/A	0.000003
U	mg/L		#N/A	0.000723	#N/A	#N/A	#N/A	#N/A	0.000618	#N/A	#N/A	#N/A	#N/A	0.000451
V	mg/L		#N/A	0.00004	#N/A	#N/A	#N/A	#N/A	< 0.00003	#N/A	#N/A	#N/A	#N/A	0.00004
W	mg/L		#N/A	0.00011	#N/A	#N/A	#N/A	#N/A	0.00011	#N/A	#N/A	#N/A	#N/A	0.00009
Y	mg/L		#N/A	0.000005	#N/A	#N/A	#N/A	#N/A	< 0.000001	#N/A	#N/A	#N/A	#N/A	0.000012
Zn	mg/L	0.50	#N/A	0.001	#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A	#N/A	#N/A	#N/A	< 0.001

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** Reassay LIMS 10072-DEC08*

Test Specimen

Sample	Weight (g)
GT Residue	1000

Analysis of Weekly Humidity Cell Leachate

Parameter	Units	Dir. No. 019	36	37	38	39	40	41
LIMS			10050-DEC08	10136-DEC08	10277-DEC08	10512-DEC08	10020-JAN09	10050-JAN09
Hum Cell Leachate Vol	mLs		974	989	989	985	921	957
pH	units	6-9.5	7.19	7.26	7.33	7.14	7.11	7.34
Conductivity	µS/cm		58	53	56	44	43	48
Alkalinity	mg/L as $CaCO_3$		8	8	10	8	8	9
Acidity	mg/L as $CaCO_3$		<2	<2	<2	<2	<2	<2
SO_4	mg/L		12	13	13	12	10	11
Cl	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.2	#N/A
F	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A
NO_2	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.06	#N/A
NO_3	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.05	#N/A
NH_3+NH_4	as N mg/L		#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A
CN(T)	mg/L	1.00	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A
CN_{WAD}	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A
CN(F)	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.02	#N/A
CNO	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.1	#N/A
CNS	mg/L		#N/A	#N/A	#N/A	#N/A	< 2	#N/A
Hg	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Ag	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A
Al	mg/L		#N/A	#N/A	#N/A	#N/A	0.0099	#N/A
As	mg/L	0.20	#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A
Ba	mg/L		#N/A	#N/A	#N/A	#N/A	0.0039	#N/A
Be	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A
B	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A
Bi	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00001	#N/A
Ca	mg/L		#N/A	#N/A	#N/A	#N/A	6	#N/A
Cd	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000003	#N/A
Co	mg/L		#N/A	#N/A	#N/A	#N/A	0.000043	#N/A
Cr	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Cu	mg/L	0.30	#N/A	#N/A	#N/A	#N/A	< 0.0005	#N/A
Fe	mg/L	3.00	#N/A	#N/A	#N/A	#N/A	< 0.01	#N/A
K	mg/L		#N/A	#N/A	#N/A	#N/A	1.14	#N/A
Li	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Mg	mg/L		#N/A	#N/A	#N/A	#N/A	0.729	#N/A
Mn	mg/L		#N/A	#N/A	#N/A	#N/A	0.0139	#N/A
Mo	mg/L		#N/A	#N/A	#N/A	#N/A	0.00031	#N/A
Na	mg/L		#N/A	#N/A	#N/A	#N/A	0.3	#N/A
Ni	mg/L	0.50	#N/A	#N/A	#N/A	#N/A	0.0001	#N/A
Pb	mg/L	0.20	#N/A	#N/A	#N/A	#N/A	< 0.00002	#N/A
Sb	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0002	#N/A
Se	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.001	#N/A
Si	mg/L		#N/A	#N/A	#N/A	#N/A	0.32	#N/A
Sn	mg/L		#N/A	#N/A	#N/A	#N/A	0.00255	#N/A
Sr	mg/L		#N/A	#N/A	#N/A	#N/A	0.214	#N/A
Ti	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.0001	#N/A
Tl	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000002	#N/A
U	mg/L		#N/A	#N/A	#N/A	#N/A	0.000487	#N/A
V	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00003	#N/A
W	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.00003	#N/A
Y	mg/L		#N/A	#N/A	#N/A	#N/A	< 0.000001	#N/A
Zn	mg/L	0.50	#N/A	#N/A	#N/A	#N/A	0.001	#N/A

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TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
GT Residue	1000

Weekly Leach	No.	0	1	2	3	4	5	6	7	8	9
Summary of ABA Test Data											
Sulphur (S)	%	1.40	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	1.30	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	43.4	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t	34.0									
Leachate Paremeters Measured											
Leachate Volume Collected	mL	753	993	994	989	990	982	974	895	980	982
pH	units	6.88	7.80	8.05	7.53	6.81	7.01	7.17	7.39	6.83	7.16
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	22	88	80	31	17	11	7	22	4	8
Conductivity	µS/cm	378	823	346	152	91	64	76	134	74	65
SO_4	mg/L	160	340	84	35	16	13	16	38	17	15
Ca	mg/L	50.8	104	47.2	20.4	10.5	8.14	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	4.74	10.7	4.41	1.7	0.813	0.66	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	120.5	337.6	83.5	34.6	15.8	12.8	15.6	34.0	16.7	14.7
Cumulative SO4 Production	g/t	120.5	458.1	541.6	576.2	592.1	604.8	620.4	654.4	671.1	685.8
Weekly S= Depletion	%	0.31	0.87	0.21	0.09	0.04	0.03	0.04	0.09	0.04	0.04
Cumulative S= Depletion	%	0.31	1.17	1.39	1.48	1.52	1.55	1.59	1.68	1.72	1.76
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	125.50	351.69	86.98	36.06	16.50	13.30	16.23	35.43	17.35	15.34
Cumulative Total NP Depletion	%	0.29	1.10	1.30	1.38	1.42	1.45	1.49	1.57	1.61	1.65
Cumulative CO_3 NP Depletion	%	0.37	1.40	1.66	1.77	1.81	1.85	1.90	2.00	2.06	2.10
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.51	1.99	1.99	1.98	1.98	1.96	1.95	1.79	1.96	1.96
Alkalinity Production Rate	$CaCO_3$, g/t/wk	16.57	87.38	79.52	30.66	16.83	10.80	6.82	19.69	3.92	7.86
Open-System NP Consumption	$CaCO_3$, g/t/wk	140.56	437.09	164.51	64.74	31.35	22.14	21.10	53.33	19.31	21.24
Open-System Cumulative NP Depletion (Total NP)	%	0.32	1.33	1.71	1.86	1.93	1.98	2.03	2.15	2.20	2.25
Open-System Cumulative NP Depletion (CO_3 NP)	%	0.41	1.70	2.18	2.37	2.47	2.53	2.59	2.75	2.81	2.87
Anorthoclase Molar Ratio	Ca: SO_4	0.76	0.73	1.35	1.40	1.57	1.50	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	95.50	257.83	117.13	50.37	25.95	19.96	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	0.88	0.86	1.55	1.59	1.77	1.70	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	110.19	301.56	135.17	57.29	29.26	22.62	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
GT Residue	1000

Weekly Leach	No.	10	11	12	13	14	15	16	17	18	19
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	976	985	994	981	990	976	990	979	984	980
pH	units	7.14	7.31	6.95	7.09	6.85	6.75	6.77	6.96	7.04	7.01
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	11	10	8	9	8	7	15	8	7	8
Conductivity	µS/cm	83	82	56	69	71	62	73	65	66	90
SO_4	mg/L	23	23	17	20	19	17	20	19	19	21
Ca	mg/L	10.7	#N/A	#N/A	#N/A	#N/A	7.72	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	1.21	#N/A	#N/A	#N/A	#N/A	0.86	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	22.4	22.7	16.9	19.6	18.8	16.6	19.8	18.6	18.7	20.6
Cumulative SO4 Production	g/t	708.2	730.9	747.8	767.4	786.2	802.8	822.6	841.2	859.9	880.5
Weekly S= Depletion	%	0.06	0.06	0.04	0.05	0.05	0.04	0.05	0.05	0.05	0.05
Cumulative S= Depletion	%	1.82	1.87	1.92	1.97	2.02	2.06	2.11	2.16	2.20	2.26
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	23.38	23.60	17.60	20.44	19.59	17.28	20.63	19.38	19.48	21.44
Cumulative Total NP Depletion	%	1.70	1.75	1.79	1.84	1.89	1.93	1.97	2.02	2.06	2.11
Cumulative CO_3 NP Depletion	%	2.17	2.24	2.29	2.35	2.41	2.46	2.52	2.58	2.63	2.70
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.95	1.97	1.99	1.96	1.98	1.95	1.98	1.96	1.97	1.96
Alkalinity Production Rate	$CaCO_3$, g/t/wk	10.74	9.85	7.95	8.83	7.92	6.83	14.85	7.83	6.89	7.84
Open-System NP Consumption	$CaCO_3$, g/t/wk	32.17	31.48	23.57	27.30	25.53	22.16	33.50	25.25	24.40	27.32
Open-System Cumulative NP Depletion (Total NP)	**%**	2.32	2.39	2.45	2.51	2.57	2.62	2.70	2.76	2.81	2.88
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	2.96	3.06	3.13	3.21	3.28	3.35	3.44	3.52	3.59	3.67
Anorthoclase Molar Ratio	Ca: SO_4	1.11	#N/A	#N/A	#N/A	#N/A	1.09	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	26.07	#N/A	#N/A	#N/A	#N/A	18.81	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	1.32	#N/A	#N/A	#N/A	#N/A	1.29	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	30.93	#N/A	#N/A	#N/A	#N/A	22.27	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
GT Residue	1000

Weekly Leach	No.	20	21	22	23	24	25	26	27	28	29
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	990	989	981	982	981	989	988	990	992	983
pH	units	6.97	6.99	7.04	7.05	6.90	7.12	7.14	7.26	7.14	7.18
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	8	9	8	7	7	9	10	12	11	9
Conductivity	µS/cm	98	83	58	56	60	73	65	65	61	51
SO_4	mg/L	21	27	16	15	16	23	19	17	16	14
Ca	mg/L	8.69	#N/A	#N/A	#N/A	#N/A	9.98	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	1.04	#N/A	#N/A	#N/A	#N/A	1.22	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	20.8	26.7	15.7	14.7	15.7	22.7	18.8	16.8	15.9	13.8
Cumulative SO4 Production	g/t	901.3	928.0	943.7	958.4	974.1	996.9	1015.6	1032.5	1048.3	1062.1
Weekly S= Depletion	%	0.05	0.07	0.04	0.04	0.04	0.06	0.05	0.04	0.04	0.04
Cumulative S= Depletion	%	2.31	2.38	2.42	2.46	2.50	2.56	2.60	2.65	2.69	2.72
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	21.66	27.82	16.35	15.34	16.35	23.69	19.55	17.53	16.53	14.34
Cumulative Total NP Depletion	%	2.16	2.23	2.27	2.30	2.34	2.39	2.44	2.48	2.52	2.55
Cumulative CO_3 NP Depletion	%	2.76	2.84	2.89	2.94	2.98	3.05	3.11	3.16	3.21	3.25
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.98	1.98	1.96	1.96	1.96	1.98	1.98	1.98	1.98	1.97
Alkalinity Production Rate	$CaCO_3$, g/t/wk	7.92	8.90	7.85	6.87	6.87	8.90	9.88	11.88	10.91	8.85
Open-System NP Consumption	$CaCO_3$, g/t/wk	27.60	34.74	22.24	20.25	21.26	30.62	27.46	27.43	25.46	21.22
Open-System Cumulative NP Depletion (Total NP)	**%**	2.94	3.02	3.07	3.12	3.17	3.24	3.30	3.36	3.42	3.47
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	3.75	3.85	3.92	3.98	4.04	4.13	4.21	4.29	4.37	4.43
Anorthoclase Molar Ratio	Ca: SO_4	0.99	#N/A	#N/A	#N/A	#N/A	1.04	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	21.48	#N/A	#N/A	#N/A	#N/A	24.64	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	1.19	#N/A	#N/A	#N/A	#N/A	1.25	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	25.72	#N/A	#N/A	#N/A	#N/A	29.61	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

Test Specimen

Sample	Weight (g)
GT Residue	1000

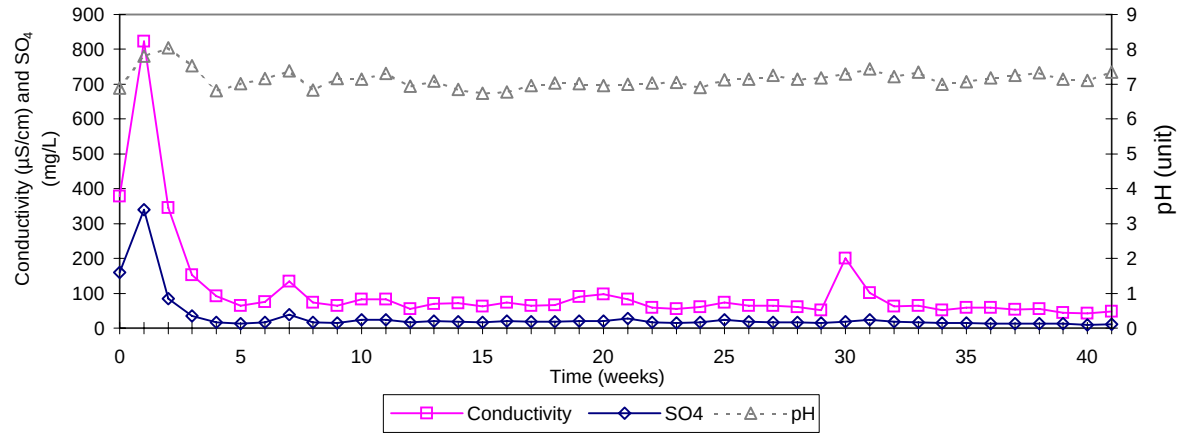
Weekly Leach	No.	30	31	32	33	34	35	36	37	38	39
Summary of ABA Test Data											
Sulphur (S)	%	-	-	-	-	-	-	-	-	-	-
Sulphide ($S^{=}$)	%	-	-	-	-	-	-	-	-	-	-
Total NP	t $CaCO_3$/1000 t	-	-	-	-	-	-	-	-	-	-
CO_3 NP	t $CaCO_3$/1000 t										
Leachate Paremeters Measured											
Leachate Volume Collected	mL	986	988	989	986	989	989	974	989	989	985
pH	units	7.29	7.43	7.21	7.34	7.00	7.07	7.19	7.26	7.33	7.14
Acidity	$CaCO_3$ eq.mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Alkalinity	$CaCO_3$ eq.mg/L	12	15	10	11	9	10	8	8	10	8
Conductivity	µS/cm	201	101	62	64	52	58	58	53	56	44
SO_4	mg/L	19	23	18	17	14	14	12	13	13	12
Ca	mg/L	10	#N/A	#N/A	#N/A	#N/A	7.87	#N/A	#N/A	#N/A	#N/A
Mg	mg/L	1.09	#N/A	#N/A	#N/A	#N/A	0.907	#N/A	#N/A	#N/A	#N/A
Acid Generation [1]											
SO_4 Production Rate	g/t/wk	18.7	22.7	17.8	16.8	13.8	13.8	11.7	12.9	12.9	11.8
Cumulative SO4 Production	g/t	1080.8	1103.6	1121.4	1138.1	1152.0	1165.8	1177.5	1190.4	1203.2	1215.0
Weekly S= Depletion	%	0.05	0.06	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03
Cumulative S= Depletion	%	2.77	2.83	2.88	2.92	2.95	2.99	3.02	3.05	3.09	3.12
Acid Neutralization [1]											
NP Consumption (based on SO_4 production)	$CaCO_3$, g/t/wk	19.51	23.67	18.54	17.46	14.42	14.42	12.18	13.39	13.39	12.31
Cumulative Total NP Depletion	%	2.59	2.65	2.69	2.73	2.76	2.80	2.83	2.86	2.89	2.92
Cumulative CO_3 NP Depletion	%	3.31	3.38	3.44	3.49	3.53	3.57	3.61	3.65	3.69	3.72
Carbonate Molar Ratio											
Acidity Production Rate	$CaCO_3$, g/t/wk	1.97	1.98	1.98	1.97	1.98	1.98	1.95	1.98	1.98	1.97
Alkalinity Production Rate	$CaCO_3$, g/t/wk	11.83	14.82	9.89	10.85	8.90	9.89	7.79	7.91	9.89	7.88
Open-System NP Consumption	$CaCO_3$, g/t/wk	29.37	36.51	26.46	26.33	21.35	22.33	18.02	19.33	21.30	18.22
Open-System Cumulative NP Depletion (Total NP)	**%**	3.54	3.62	3.68	3.74	3.79	3.84	3.89	3.93	3.98	4.02
Open-System Cumulative NP Depletion (CO_3 NP)	**%**	4.52	4.62	4.70	4.78	4.84	4.91	4.96	5.02	5.08	5.13
Anorthoclase Molar Ratio	Ca: SO_4	1.26	#N/A	#N/A	#N/A	#N/A	1.35	#N/A	#N/A	#N/A	#N/A
Anorthoclase Ratio NP Consumption	$CaCO_3$, g/t/wk	24.62	#N/A	#N/A	#N/A	#N/A	19.43	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio	Ca+Mg:$S0_4$	1.49	#N/A	#N/A	#N/A	#N/A	1.60	#N/A	#N/A	#N/A	#N/A
CO_3 Molar Ratio Consumption	$CaCO_3$, g/t/wk	29.04	#N/A	#N/A	#N/A	#N/A	23.12	#N/A	#N/A	#N/A	#N/A

[1] *Calculated values*

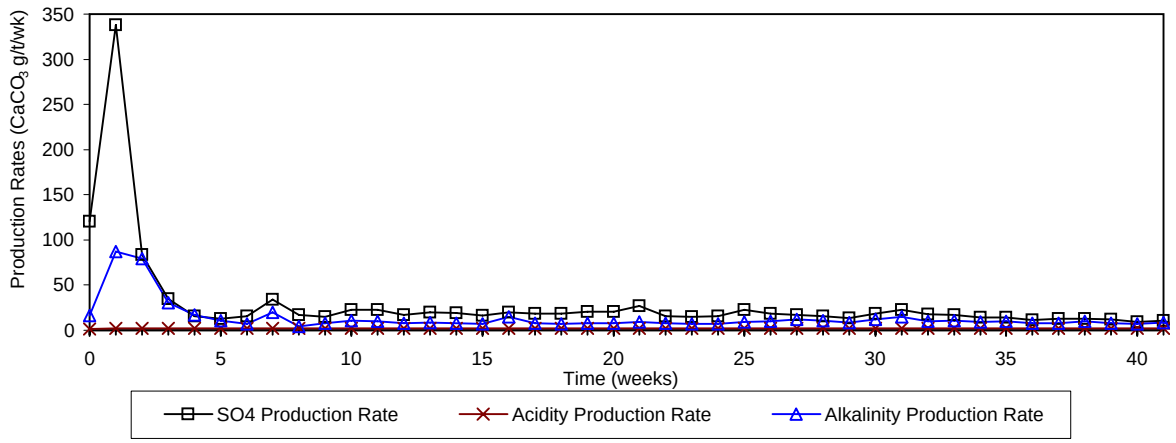
TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

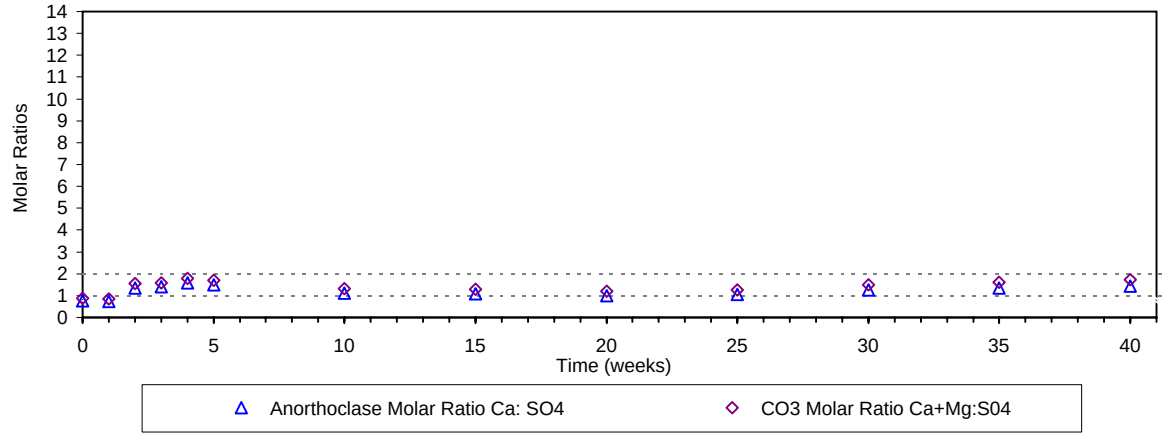
Conductivity, Sulphate, and pH in Weekly Humidity Cell Leachate - GT Residue



Acidity, Alkalinity and SO_4 Production Rates - GT Residue



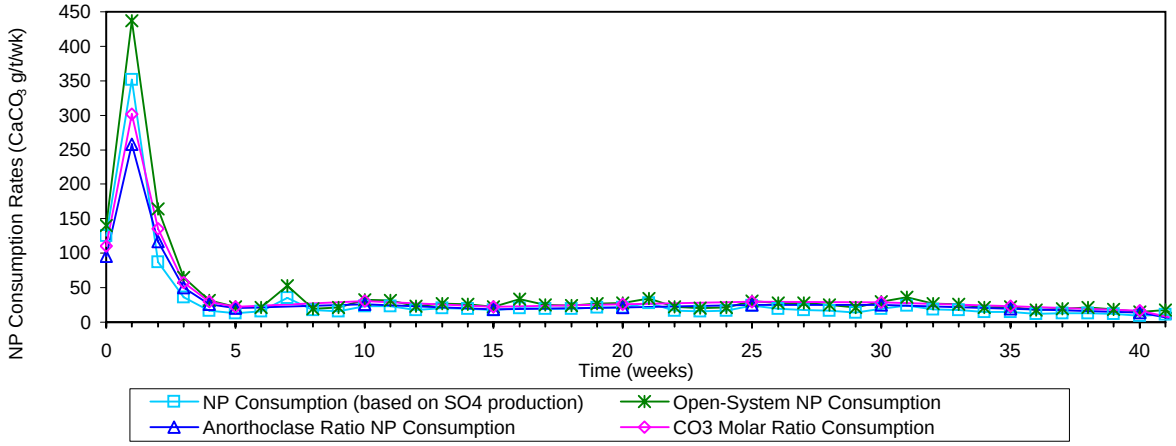
Carbonate (Ca + Mg/SO_4) and Anorthoclase (Ca/SO_4) Molar Ratios - GT Residue



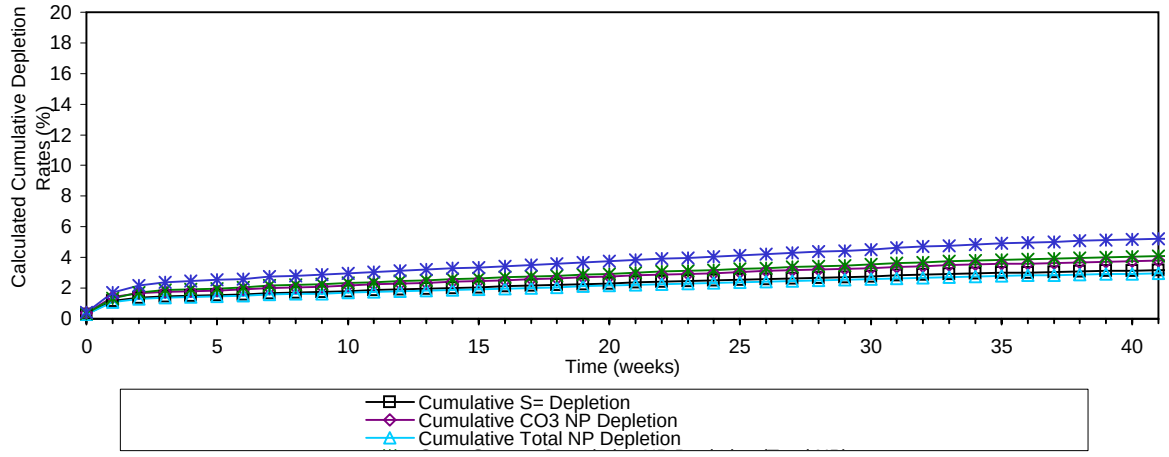
TEST REPORT

Humidity Cell Test (ASTM D 5744-96)

NP Consumption Rates - GT Residue



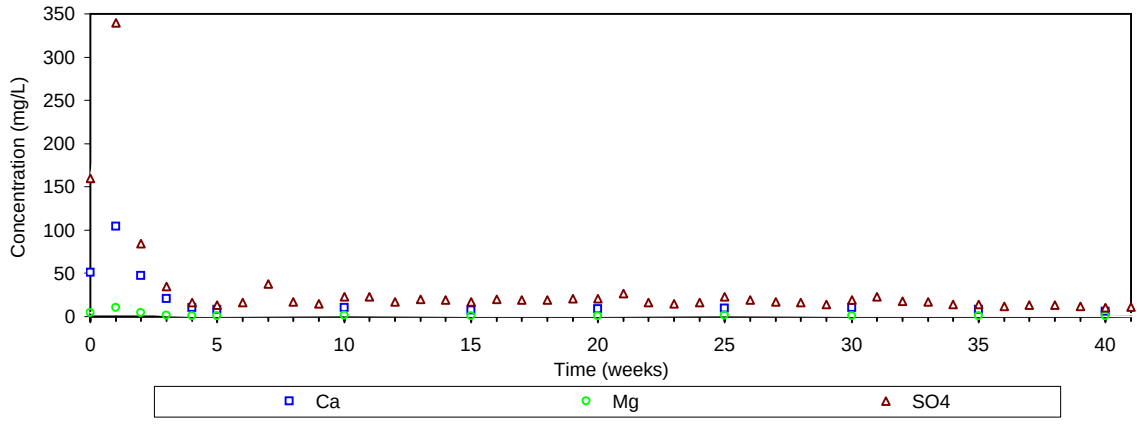
Cumulative Sulphide and NP Depletion Rates - GT Residue



Note: Cumulative Total and CO_3 NP depletions calculated based on sulphate assay.

Note: Open-System NP depletion calculated based on cumulative NP depletion and alkalinity and acidty production rates.

Selected Parameters in Weekly Humidity Cell Leachate - GT Residue



Appendix C – Humidity Cell Certificates of Analysis

SGS Lakefield Research Limited
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Phone: 705-652-2000 FAX: 705-652-6365

Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, April 29, 2008

Date Rec. : 02 April 2008
LR Report: **CA10066-APR08**
Reference: Wk#0

Copy: c#1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 0	6: Low Grade Ore Overall Comp -200m Wk# 0	7: High Sulphide Ore Overall Comp -200m Wk# 0	8: GT Residue Wk# 0
Sample Date & Time			02-Apr-08	02-Apr-08	02-Apr-08	02-Apr-08
Hum Cell Leachate Volume [mLs]	---	---	152	132	242	753
pH [no unit]	04-Apr-08	10:48	7.22	6.75	7.58	6.88
Conductivity [uS/cm]	04-Apr-08	10:48	68	60	84	378
Alkalinity [mg/L as CaCO3]	04-Apr-08	10:48	23	9	26	22
Acidity [mg/L as CaCO3]	04-Apr-08	10:48	< 2	< 2	< 2	20
Sulphate [mg/L]	18-Apr-08	16:22	7.9	1.4	12	160
Chloride [mg/L]	15-Apr-08	15:39	2.1	0.6	2.0	0.7
Fluoride [mg/L]	07-Apr-08	12:26	0.12	---	0.25	0.07
Nitrite (as nitrogen) [mg/L]	15-Apr-08	15:39	< 0.06	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	15-Apr-08	15:39	0.73	4.90	0.37	1.01
Ammonia+Ammonium (N) [mg/L]	22-Apr-08	12:24	---	---	---	< 0.1
Cyanide [mg/L]	21-Apr-08	12:42	---	---	---	< 0.01
Cyanide WAD [mg/L]	21-Apr-08	12:42	---	---	---	< 0.01
Free Cyanide [mg/L]	21-Apr-08	12:42	---	---	---	< 0.01
Cyanate [mg/L]	23-Apr-08	13:31	---	---	---	< 0.1
Thiocyanate [mg/L]	22-Apr-08	09:06	---	---	---	< 0.2
Mercury [mg/L]	07-Apr-08	16:29	---	---	< 0.0001	< 0.0001
Silver [mg/L]	08-Apr-08	15:33	0.00017	0.00017	0.00016	0.00015
Aluminum [mg/L]	08-Apr-08	15:33	0.331	0.295	0.304	0.0499
Arsenic [mg/L]	08-Apr-08	15:33	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Barium [mg/L]	07-Apr-08	15:24	0.0244	0.0043	0.0186	0.0200
Beryllium [mg/L]	08-Apr-08	15:33	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Boron [mg/L]	08-Apr-08	15:33	0.0197	0.0117	0.0104	0.0095
Bismuth [mg/L]	08-Apr-08	15:33	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Calcium [mg/L]	07-Apr-08	15:24	5.95	6.08	5.83	50.8
Cadmium [mg/L]	08-Apr-08	15:33	< 0.000003	0.000015	< 0.000003	0.000009
Cobalt [mg/L]	08-Apr-08	15:33	0.000220	0.000352	0.000103	0.000867
Chromium [mg/L]	08-Apr-08	15:33	0.0006	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	08-Apr-08	15:33	0.0018	0.0016	0.0013	0.0012
Iron [mg/L]	07-Apr-08	15:24	< 0.01	< 0.01	< 0.01	< 0.01
Potassium [mg/L]	07-Apr-08	15:24	5.57	4.21	8.71	11.7
Lithium [mg/L]	08-Apr-08	15:33	0.003	0.002	0.003	0.005
Magnesium [mg/L]	07-Apr-08	15:24	0.532	0.409	0.867	4.74
Manganese [mg/L]	08-Apr-08	15:33	0.00351	0.00845	0.00237	0.0392
Molybdenum [mg/L]	08-Apr-08	15:33	0.00264	0.00161	0.00285	0.00295
Sodium [mg/L]	07-Apr-08	15:24	2.83	1.25	3.79	8.76
Nickel [mg/L]	08-Apr-08	15:33	0.0017	0.0008	0.0002	0.0014

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Phone: 705-652-2000 FAX: 705-652-6365

Project : CALR-11623-002

LR Report : **CA10066-APR08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 0	6: Low Grade Ore Overall Comp -200m Wk# 0	7: High Sulphide Ore Overall Comp -200m Wk# 0	8: GT Residue Wk# 0
Lead [mg/L]	08-Apr-08	15:33	0.00012	0.00027	0.00012	0.00015
Antimony [mg/L]	08-Apr-08	15:33	0.00489	0.00373	0.00341	0.00281
Selenium [mg/L]	08-Apr-08	15:33	< 0.001	0.001	0.001	0.001
Silica [mg/L]	07-Apr-08	15:24	0.87	0.95	1.06	0.63
Tin [mg/L]	08-Apr-08	15:33	0.00289	0.00226	0.00226	0.00446
Strontium [mg/L]	07-Apr-08	15:24	0.323	0.115	0.150	2.51
Titanium [mg/L]	08-Apr-08	15:33	0.0006	0.0007	0.0005	0.0004
Thallium [mg/L]	08-Apr-08	15:33	0.000003	0.000003	0.000005	0.000013
Uranium [mg/L]	08-Apr-08	15:33	0.000163	0.000035	0.000035	0.00121
Vanadium [mg/L]	08-Apr-08	15:33	0.00141	0.00165	0.00229	0.00006
Tungsten [mg/L]	08-Apr-08	15:33	0.00241	0.00182	0.00291	0.00057
Yttrium [mg/L]	08-Apr-08	15:33	0.000022	0.000042	0.000015	0.000024
Zinc [mg/L]	08-Apr-08	15:33	< 0.001	0.002	0.001	0.004

Dianne Griffin
Project Specialist

OnLine LIMS

SGS Lakefield Research Limited
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Phone: 705-652-2000 FAX: 705-652-6365

Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, May 06, 2008

Date Rec. : 20 March 2008
LR Report: **CA10359-MAR08**
Reference: Wk#0

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk#0	6: Average Waste Overall Comp 1/4" Wk#0	7: High Sulphide Waste Overall Comp 1/4" Wk#0	8: Low Grade Ore Overall Comp 1/4" Wk#0	9: High Sulphide Ore Overall Comp 1/4" Wk#0
Sample Date & Time			20-Mar-08	20-Mar-08	20-Mar-08	20-Mar-08	20-Mar-08
Hum Cell Leachate Volume [mLs]	---	---	783	783	746	828	832
pH [no unit]	24-Mar-08	11:25	8.49	8.42	8.20	8.27	8.07
Conductivity [uS/cm]	24-Mar-08	11:25	131	114	95	75	107
Alkalinity [mg/L as CaCO3]	24-Mar-08	11:25	15	14	13	13	11
Acidity [mg/L as CaCO3]	28-Mar-08	10:01	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	09-Apr-08	08:26	18	11	11	6.1	16
Chloride [mg/L]	09-Apr-08	08:26	9.8	8.8	5.1	4.7	4.9
Fluoride [mg/L]	26-Mar-08	13:18	0.07	0.09	0.09	< 0.06	0.06
Nitrite (as nitrogen) [mg/L]	09-Apr-08	08:26	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	09-Apr-08	08:26	0.22	0.21	0.28	0.10	0.79
Ammonia+Ammonium (N) [mg/L]	25-Mar-08	13:31	< 0.1	< 0.1	0.1	< 0.1	< 0.1
Mercury [mg/L]	27-Mar-08	10:14	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	28-Mar-08	14:56	0.00003	0.00002	0.00002	< 0.00001	0.00001
Aluminum [mg/L]	28-Mar-08	14:56	0.0469	0.0510	0.0373	0.0381	0.0402
Arsenic [mg/L]	28-Mar-08	14:56	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Barium [mg/L]	27-Mar-08	08:17	0.0173	0.0139	0.0089	0.0050	0.0124
Beryllium [mg/L]	28-Mar-08	14:56	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Boron [mg/L]	28-Mar-08	14:56	0.0061	0.0033	0.0015	0.0019	0.0027
Bismuth [mg/L]	28-Mar-08	14:56	0.00002	0.00002	0.00002	0.00001	0.00001
Calcium [mg/L]	27-Mar-08	08:17	8.40	9.13	7.31	5.50	9.48
Cadmium [mg/L]	28-Mar-08	14:56	< 0.000003	< 0.000003	< 0.000003	< 0.000003	< 0.000003
Cobalt [mg/L]	28-Mar-08	14:56	0.000131	0.000167	0.000057	0.000041	0.000196
Chromium [mg/L]	28-Mar-08	14:56	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	28-Mar-08	14:56	0.0022	0.0011	0.0006	0.0006	0.0013
Iron [mg/L]	27-Mar-08	08:17	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Potassium [mg/L]	27-Mar-08	08:17	6.61	6.78	5.66	5.43	5.09

OnLine LIMS

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Project : CALR-11623-002

LR Report : **CA10359-MAR08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk#0	6: Average Waste Overall Comp 1/4" Wk#0	7: High Sulphide Waste Overall Comp 1/4" Wk#0	8: Low Grade Ore Overall Comp 1/4" Wk#0	9: High Sulphide Ore Overall Comp 1/4" Wk#0
Lithium [mg/L]	28-Mar-08	14:56	0.007	0.005	0.004	0.003	0.004
Magnesium [mg/L]	27-Mar-08	08:17	1.30	1.06	1.07	0.537	1.14
Manganese [mg/L]	28-Mar-08	14:56	0.0150	0.0106	0.0136	0.0102	0.0185
Molybdenum [mg/L]	28-Mar-08	14:56	0.00207	0.00551	0.00303	0.00407	0.00197
Sodium [mg/L]	27-Mar-08	08:17	6.61	5.58	4.19	3.57	3.58
Nickel [mg/L]	28-Mar-08	14:56	0.0024	0.0010	0.0006	0.0006	0.0008
Lead [mg/L]	28-Mar-08	14:56	0.00008	0.00014	0.00005	0.00009	0.00007
Antimony [mg/L]	28-Mar-08	14:56	0.00235	0.00188	0.00123	0.00171	0.00164
Selenium [mg/L]	28-Mar-08	14:56	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Silica [mg/L]	27-Mar-08	08:16	0.46	0.49	0.38	0.39	0.41
Tin [mg/L]	28-Mar-08	14:56	0.00224	0.00223	0.00341	0.00275	0.00583
Strontium [mg/L]	27-Mar-08	08:16	0.464	0.386	0.172	0.294	0.345
Titanium [mg/L]	28-Mar-08	14:56	0.0002	0.0003	0.0002	0.0002	0.0002
Thallium [mg/L]	28-Mar-08	14:56	0.000010	0.000010	< 0.000002	0.000003	0.000007
Uranium [mg/L]	28-Mar-08	14:56	0.000512	0.000755	0.000172	0.000251	0.000417
Vanadium [mg/L]	28-Mar-08	14:56	0.00061	0.00074	0.00037	0.00046	0.00043
Tungsten [mg/L]	28-Mar-08	14:56	0.00075	0.00143	0.00071	0.00151	0.00133
Yttrium [mg/L]	28-Mar-08	14:56	0.000025	0.000075	0.000005	0.000015	0.000008
Zinc [mg/L]	28-Mar-08	14:56	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, May 06, 2008

Date Rec. : 20 December 2007
LR Report: **CA10433-DEC07**
Reference: Wk#0

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: GR Comp CN73/74 Wk#0	6: Overall Comp Wk#0	7: Overall Comp CND2 (-200 mesh) Wk#0
Sample Date & Time			19-Dec-07	19-Dec-07	19-Dec-07
Hum Cell Leachate Volume [mLs]	---	---	---	692	730
pH [no unit]	03-Jan-08	14:13	7.51	7.75	7.60
Conductivity [uS/cm]	03-Jan-08	14:13	85	210	101
Alkalinity [mg/L as CaCO3]	03-Jan-08	14:14	15	31	28
Acidity [mg/L as CaCO3]	03-Jan-08	14:14	< 2	< 2	< 2
Sulphate [mg/L]	29-Dec-07	15:46	10	36	14
Chloride [mg/L]	29-Dec-07	15:46	1.3	4.6	0.9
Nitrite (as nitrogen) [mg/L]	29-Dec-07	15:46	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	29-Dec-07	15:46	0.50	1.54	0.56
Ammonia+Ammonium (N) [mg/L]	27-Dec-07	14:58	0.1	0.6	0.6
Cyanide [mg/L]	03-Jan-08	11:35	0.07	2.84	0.99
Cyanide WAD [mg/L]	07-Jan-08	10:55	---	0.15	0.04
Free Cyanide [mg/L]	07-Jan-08	10:55	---	0.15	0.04
Cyanate [mg/L]	27-Dec-07	15:34	< 0.1	1.0	1.2
Thiocyanate [mg/L]	28-Dec-07	15:43	< 2	2.6	< 2
Mercury [mg/L]	28-Dec-07	14:05	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	03-Jan-08	11:32	---	0.00067	0.00011
Aluminum [mg/L]	03-Jan-08	11:32	---	0.189	0.269
Arsenic [mg/L]	03-Jan-08	11:32	---	0.0044	0.0019
Barium [mg/L]	03-Jan-08	11:32	---	0.0289	0.0234
Beryllium [mg/L]	03-Jan-08	11:32	---	< 0.00002	< 0.00002
Boron [mg/L]	03-Jan-08	11:32	---	0.0064	0.0011
Bismuth [mg/L]	03-Jan-08	11:32	---	< 0.00001	< 0.00001
Calcium [mg/L]	29-Dec-07	11:01	8.97	10.7	7.91
Cadmium [mg/L]	03-Jan-08	11:32	---	0.000047	< 0.000003
Cobalt [mg/L]	03-Jan-08	11:32	---	0.0272	0.000471
Chromium [mg/L]	03-Jan-08	11:32	---	0.0014	< 0.0005
Copper [mg/L]	03-Jan-08	11:32	---	0.0393	0.0117

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Project : CALR-11623-002

LR Report : **CA10433-DEC07**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: GR Comp CN73/74 Wk#0	6: Overall Comp Wk#0	7: Overall Comp CND2 (-200 mesh) Wk#0
Iron [mg/L]	29-Dec-07	11:01	0.04	1.01	0.40
Potassium [mg/L]	29-Dec-07	11:01	3.70	9.68	3.65
Lithium [mg/L]	03-Jan-08	11:32	---	0.002	0.003
Magnesium [mg/L]	29-Dec-07	11:01	0.221	0.273	0.438
Manganese [mg/L]	03-Jan-08	11:32	---	0.00086	0.00278
Molybdenum [mg/L]	03-Jan-08	11:33	---	0.0520	0.00333
Sodium [mg/L]	29-Dec-07	11:01	3.87	23.1	10.1
Nickel [mg/L]	03-Jan-08	11:33	---	0.108	0.0003
Lead [mg/L]	03-Jan-08	11:33	---	0.00009	0.00013
Antimony [mg/L]	03-Jan-08	11:33	---	0.00688	0.00239
Selenium [mg/L]	03-Jan-08	11:33	---	< 0.001	< 0.001
Silica [mg/L]	29-Dec-07	11:01	1.02	3.93	1.34
Tin [mg/L]	03-Jan-08	11:33	---	0.00214	0.00056
Strontium [mg/L]	29-Dec-07	11:01	0.164	0.877	0.434
Titanium [mg/L]	03-Jan-08	11:33	---	0.0005	0.0008
Thallium [mg/L]	03-Jan-08	11:33	---	0.000008	< 0.000002
Uranium [mg/L]	03-Jan-08	11:33	---	0.000667	0.000479
Vanadium [mg/L]	03-Jan-08	11:33	---	0.00867	0.00182
Tungsten [mg/L]	03-Jan-08	11:33	---	0.00378	0.00080
Yttrium [mg/L]	03-Jan-08	11:33	---	0.000006	0.000006
Zinc [mg/L]	03-Jan-08	11:33	---	< 0.001	< 0.001

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, May 15, 2008

Date Rec. : 13 May 2008
LR Report: **CA10444-MAY08**
Reference: Wk#1,2,3,4

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Ammonia+Ammonium (N) mg/L
3: Analysis Approval Date		14-May-08
4: Analysis Approval Time		14:16
5: Average Grade Ore Overall Comp -200m Wk#0	02-Apr-08	0.2
6: Low Grade Ore Overall Comp -200m Wk#0	02-Apr-08	0.2
7: High Sulphide Ore Overall Comp -200m Wk#0	02-Apr-08	0.1
8: Average Grade Ore Overall Comp -200m Wk#1	09-Apr-08	< 0.1
9: Low Grade Ore Overall Comp -200m Wk#1	09-Apr-08	< 0.1
10: High Sulphide Ore Overall Comp -200m Wk#1	09-Apr-08	< 0.1
11: Average Grade Ore Overall Comp -200m Wk#2	16-Apr-08	< 0.1
12: Low Grade Ore Overall Comp -200m Wk#2	16-Apr-08	< 0.1
13: High Sulphide Ore Overall Comp -200m Wk#2	16-Apr-08	< 0.1
14: Average Grade Ore Overall Comp -200m Wk#3	23-Apr-08	< 0.1
15: Low Grade Ore Overall Comp -200m Wk#3	23-Apr-08	< 0.1
16: High Sulphide Ore Overall Comp -200m Wk#3	23-Apr-08	< 0.1
17: Average Grade Ore Overall Comp -200m Wk#4	30-Apr-08	< 0.1
18: Low Grade Ore Overall Comp -200m Wk#4	30-Apr-08	< 0.1
19: High Sulphide Ore Overall Comp -200m Wk#4	30-Apr-08	< 0.1

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, April 29, 2008

Date Rec. : 09 April 2008
LR Report: **CA10169-APR08**
Reference: Wk#1

Copy: c#1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk#1	6: Low Grade Ore Overall Comp -200m Wk#1	7: High Sulphide Ore Overall Comp -200m Wk#1	8: GT Residue Wk#1
Sample Date & Time			09-Apr-08	09-Apr-08	09-Apr-08	09-Apr-08
Hum Cell Leachate Volume [mLs]	---	---	945	995	976	993
pH [no unit]	11-Apr-08	14:20	7.33	8.17	7.47	7.80
Conductivity [uS/cm]	11-Apr-08	14:20	714	478	230	823
Alkalinity [mg/L as CaCO3]	11-Apr-08	14:20	90	91	36	88
Acidity [mg/L as CaCO3]	11-Apr-08	14:20	< 2	< 2	< 2	< 2
Sulphate [mg/L]	24-Apr-08	13:17	150	58	38	340
Chloride [mg/L]	24-Apr-08	13:17	32	17	6.1	0.7
Fluoride [mg/L]	21-Apr-08	11:20	1.62	1.66	0.65	0.28
Nitrite (as nitrogen) [mg/L]	17-Apr-08	19:14	0.20	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	17-Apr-08	19:14	0.61	0.38	0.95	0.47
Ammonia+Ammonium (N) [mg/L]	15-Apr-08	14:08	---	---	---	< 0.1
Cyanide [mg/L]	15-Apr-08	08:11	---	---	---	< 0.01
Cyanide WAD [mg/L]	16-Apr-08	08:37	---	---	---	< 0.01
Free Cyanide [mg/L]	16-Apr-08	08:37	---	---	---	< 0.01
Cyanate [mg/L]	23-Apr-08	13:32	---	---	---	< 0.1
Thiocyanate [mg/L]	22-Apr-08	09:07	---	---	---	< 0.2
Mercury [mg/L]	15-Apr-08	12:19	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	17-Apr-08	15:59	0.00016	0.00004	0.00009	< 0.00001
Aluminum [mg/L]	17-Apr-08	16:00	0.118	0.247	0.0811	0.0283
Arsenic [mg/L]	17-Apr-08	16:00	0.0018	0.0018	0.0006	0.0006
Barium [mg/L]	15-Apr-08	12:56	0.216	0.0267	0.0256	0.0328
Beryllium [mg/L]	17-Apr-08	16:00	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Boron [mg/L]	17-Apr-08	16:00	0.0274	0.0446	0.0075	0.0057
Bismuth [mg/L]	17-Apr-08	16:00	0.00001	0.00002	< 0.00001	< 0.00001
Calcium [mg/L]	15-Apr-08	12:56	17.4	7.26	7.24	104
Cadmium [mg/L]	17-Apr-08	16:00	0.000007	0.000023	0.000003	0.000017
Cobalt [mg/L]	17-Apr-08	16:00	0.000966	0.000251	0.000087	0.000937
Chromium [mg/L]	17-Apr-08	16:00	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	17-Apr-08	16:00	0.0025	< 0.0005	0.0007	0.0006
Iron [mg/L]	15-Apr-08	12:56	0.01	< 0.01	< 0.01	< 0.01
Potassium [mg/L]	15-Apr-08	12:56	67.3	52.8	24.8	26.4

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Project : CALR-11623-002

LR Report : **CA10169-APR08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk#1	6: Low Grade Ore Overall Comp -200m Wk#1	7: High Sulphide Ore Overall Comp -200m Wk#1	8: GT Residue Wk#1
Lithium [mg/L]	17-Apr-08	16:00	0.017	0.007	0.005	0.007
Magnesium [mg/L]	15-Apr-08	12:56	6.22	2.22	1.78	10.7
Manganese [mg/L]	17-Apr-08	16:00	0.0219	0.00486	0.0302	0.126
Molybdenum [mg/L]	17-Apr-08	16:00	0.0664	0.0576	0.0140	0.00834
Sodium [mg/L]	15-Apr-08	12:56	91.6	36.6	12.2	15.7
Nickel [mg/L]	17-Apr-08	16:00	0.0049	0.0012	0.0007	0.0034
Lead [mg/L]	17-Apr-08	16:00	0.00019	0.00021	0.00010	< 0.00002
Antimony [mg/L]	17-Apr-08	16:00	0.0377	0.0118	0.00681	0.00250
Selenium [mg/L]	17-Apr-08	16:00	0.001	0.001	< 0.001	< 0.001
Silica [mg/L]	15-Apr-08	12:56	3.19	2.66	1.00	2.71
Tin [mg/L]	17-Apr-08	16:00	0.0328	0.00875	0.00414	0.00300
Strontium [mg/L]	15-Apr-08	12:56	2.68	0.370	0.245	5.43
Titanium [mg/L]	17-Apr-08	16:00	0.0002	0.0002	0.0001	< 0.0001
Thallium [mg/L]	17-Apr-08	16:00	0.000018	< 0.000002	< 0.000002	0.000025
Uranium [mg/L]	17-Apr-08	16:00	0.00204	0.00196	0.000356	0.00422
Vanadium [mg/L]	17-Apr-08	16:00	0.00387	0.00732	0.00117	0.00008
Tungsten [mg/L]	17-Apr-08	16:00	0.0135	0.0242	0.00489	0.00095
Yttrium [mg/L]	17-Apr-08	16:00	0.000020	0.000010	0.000006	0.000032
Zinc [mg/L]	17-Apr-08	16:00	0.004	0.003	0.001	0.004

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, May 06, 2008

Date Rec. : 26 March 2008
LR Report: **CA10361-MAR08**
Reference: Wk# 1

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 1	6: Average Waste Overall Comp 1/4" Wk# 1	7: High Sulphide Waste Overall Comp 1/4" Wk# 1	8: Low Grade Ore Overall Comp 1/4" Wk# 1	9: High Sulphide Ore Overall Comp 1/4" Wk# 1
Sample Date & Time			26-Mar-08	26-Mar-08	26-Mar-08	26-Mar-08	26-Mar-08
Hum Cell Leachate Volume [mLs]	---	---	995	964	979	978	949
pH [no unit]	27-Mar-08	13:21	7.53	7.63	7.46	7.57	7.47
Conductivity [uS/cm]	27-Mar-08	13:21	135	106	107	90	110
Alkalinity [mg/L as CaCO3]	27-Mar-08	13:21	24	24	22	24	18
Acidity [mg/L as CaCO3]	31-Mar-08	13:10	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	31-Mar-08	14:14	24	16	18	11	23
Chloride [mg/L]	31-Mar-08	14:14	7.9	3.3	4.0	4.3	3.3
Fluoride [mg/L]	28-Mar-08	13:43	0.12	0.13	0.14	0.10	0.10
Nitrite (as nitrogen) [mg/L]	31-Mar-08	14:14	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	31-Mar-08	14:14	0.06	0.19	0.06	< 0.05	0.28
Ammonia+Ammonium (N) [mg/L]	31-Mar-08	14:02	< 0.1	< 0.1	< 0.1	< 0.1	0.1
Mercury [mg/L]	28-Mar-08	16:07	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	01-Apr-08	15:08	0.00005	0.00001	0.00001	< 0.00001	0.00004
Aluminum [mg/L]	01-Apr-08	15:08	0.0457	0.0524	0.0430	0.0581	0.0396
Arsenic [mg/L]	01-Apr-08	15:08	0.0004	0.0004	0.0004	0.0005	0.0004
Barium [mg/L]	01-Apr-08	15:08	0.0303	0.0252	0.0143	0.0104	0.0177
Beryllium [mg/L]	01-Apr-08	15:08	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Boron [mg/L]	01-Apr-08	15:08	0.0116	0.0049	0.0035	0.0044	0.0048
Bismuth [mg/L]	01-Apr-08	15:08	< 0.00001	0.00002	< 0.00001	< 0.00001	< 0.00001
Calcium [mg/L]	01-Apr-08	15:08	10.1	9.24	8.26	6.74	10.2
Cadmium [mg/L]	01-Apr-08	15:08	0.000005	0.000014	< 0.000003	0.000003	0.000006
Cobalt [mg/L]	01-Apr-08	15:08	0.000291	0.000085	0.000049	0.000050	0.000104
Chromium [mg/L]	01-Apr-08	15:08	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	01-Apr-08	15:08	0.0016	0.0008	0.0006	0.0005	0.0009
Iron [mg/L]	01-Apr-08	15:08	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Potassium [mg/L]	01-Apr-08	15:08	6.37	4.14	5.39	5.49	5.24

OnLine LIMS

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Project : CALR-11623-002

LR Report : **CA10361-MAR08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 1	6: Average Waste Overall Comp 1/4" Wk# 1	7: High Sulphide Waste Overall Comp 1/4" Wk# 1	8: Low Grade Ore Overall Comp 1/4" Wk# 1	9: High Sulphide Ore Overall Comp 1/4" Wk# 1
Lithium [mg/L]	01-Apr-08	15:08	0.008	0.004	0.003	0.003	0.004
Magnesium [mg/L]	01-Apr-08	15:08	1.89	1.36	1.47	0.944	1.79
Manganese [mg/L]	01-Apr-08	15:08	0.0333	0.0227	0.0206	0.0168	0.0375
Molybdenum [mg/L]	01-Apr-08	15:08	0.0132	0.0206	0.0145	0.0183	0.00937
Sodium [mg/L]	01-Apr-08	15:08	6.97	3.48	4.06	3.94	3.79
Nickel [mg/L]	01-Apr-08	15:08	0.0030	0.0009	0.0006	0.0004	0.0007
Lead [mg/L]	01-Apr-08	15:08	0.00007	0.00017	0.00014	0.00012	0.00009
Antimony [mg/L]	01-Apr-08	15:08	0.00471	0.00263	0.00231	0.00255	0.00251
Selenium [mg/L]	01-Apr-08	15:08	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Silica [mg/L]	01-Apr-08	15:08	0.73	0.68	0.57	0.60	0.61
Tin [mg/L]	01-Apr-08	15:08	0.00131	0.00175	0.00263	0.00186	0.00283
Strontium [mg/L]	01-Apr-08	15:08	0.841	0.644	0.247	0.602	0.550
Titanium [mg/L]	01-Apr-08	15:08	0.0001	0.0002	0.0001	0.0002	0.0001
Thallium [mg/L]	01-Apr-08	15:08	0.000003	< 0.000002	< 0.000002	< 0.000002	< 0.000002
Uranium [mg/L]	01-Apr-08	15:08	0.00243	0.00400	0.00129	0.00158	0.00195
Vanadium [mg/L]	01-Apr-08	15:08	0.00052	0.00050	0.00035	0.00047	0.00027
Tungsten [mg/L]	01-Apr-08	15:08	0.00040	0.00136	0.00108	0.00202	0.00066
Yttrium [mg/L]	01-Apr-08	15:08	0.000020	0.000026	0.000008	0.000020	0.000009
Zinc [mg/L]	01-Apr-08	15:08	< 0.001	< 0.001	0.001	< 0.001	< 0.001

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, May 06, 2008

Date Rec. : 27 December 2007
LR Report: **CA10493-DEC07**
Reference: Wk#1

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk#1	6: Overall Comp CND2 (-200 mesh) Wk#1
Sample Date & Time			27-Dec-07	27-Dec-07
Hum Cell Leachate Volume [mLs]	---	---	1099	1083
pH [no unit]	28-Dec-07	13:15	7.74	7.48
Conductivity [uS/cm]	28-Dec-07	13:15	269	91
Alkalinity [mg/L as CaCO3]	28-Dec-07	13:15	32	21
Acidity [mg/L as CaCO3]	28-Dec-07	13:15	18	< 2
Sulphate [mg/L]	29-Dec-07	11:42	56	15
Chloride [mg/L]	29-Dec-07	11:42	0.3	0.5
Nitrite (as nitrogen) [mg/L]	29-Dec-07	11:42	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	29-Dec-07	11:42	0.41	0.22
Ammonia+Ammonium (N) [mg/L]	31-Dec-07	11:17	0.1	0.4
Cyanide [mg/L]	07-Jan-08	13:50	0.94	0.13
Cyanide WAD [mg/L]	07-Jan-08	10:57	0.22	0.05
Free Cyanide [mg/L]	07-Jan-08	10:57	0.22	0.05
Cyanate [mg/L]	03-Jan-08	15:56	< 0.1	0.4
Thiocyanate [mg/L]	02-Jan-08	15:26	1.4	0.3
Mercury [mg/L]	29-Dec-07	07:41	< 0.0001	< 0.0001
Silver [mg/L]	05-Jan-08	10:52	0.00037	0.00003
Aluminum [mg/L]	05-Jan-08	10:52	0.0633	0.0653
Arsenic [mg/L]	05-Jan-08	10:52	0.0005	0.0003
Barium [mg/L]	02-Jan-08	11:29	0.0731	0.0160
Beryllium [mg/L]	05-Jan-08	10:52	< 0.00002	< 0.00002
Boron [mg/L]	05-Jan-08	10:52	0.0029	0.0007
Bismuth [mg/L]	05-Jan-08	10:52	< 0.00001	< 0.00001
Calcium [mg/L]	02-Jan-08	11:29	22.9	6.52
Cadmium [mg/L]	05-Jan-08	10:52	0.000009	< 0.000003
Cobalt [mg/L]	05-Jan-08	10:52	0.00284	0.000282
Chromium [mg/L]	05-Jan-08	10:52	< 0.0005	< 0.0005
Copper [mg/L]	05-Jan-08	10:52	0.0006	0.0097

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Project : CALR-11623-002

LR Report : **CA10493-DEC07**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk#1	6: Overall Comp CND2 (-200 mesh) Wk#1
Iron [mg/L]	02-Jan-08	11:29	0.29	0.05
Potassium [mg/L]	02-Jan-08	11:29	9.26	2.35
Lithium [mg/L]	05-Jan-08	10:52	0.002	0.002
Magnesium [mg/L]	02-Jan-08	11:29	1.72	0.428
Manganese [mg/L]	05-Jan-08	10:52	0.0112	0.0123
Molybdenum [mg/L]	05-Jan-08	10:52	0.0471	0.00651
Sodium [mg/L]	02-Jan-08	11:29	11.9	6.20
Nickel [mg/L]	05-Jan-08	10:52	0.0024	0.0003
Lead [mg/L]	05-Jan-08	10:52	0.00007	0.00010
Antimony [mg/L]	05-Jan-08	10:52	0.00214	0.00055
Selenium [mg/L]	05-Jan-08	10:52	< 0.001	< 0.001
Silica [mg/L]	02-Jan-08	11:29	1.58	0.36
Tin [mg/L]	05-Jan-08	10:52	0.00057	< 0.00001
Strontium [mg/L]	02-Jan-08	11:29	1.92	0.282
Titanium [mg/L]	05-Jan-08	10:52	0.0003	0.0006
Thallium [mg/L]	05-Jan-08	10:52	0.000018	< 0.000002
Uranium [mg/L]	05-Jan-08	10:53	0.00202	0.000228
Vanadium [mg/L]	05-Jan-08	10:53	0.00066	0.00033
Tungsten [mg/L]	05-Jan-08	10:53	0.00207	0.00027
Yttrium [mg/L]	05-Jan-08	10:53	0.000008	0.000008
Zinc [mg/L]	05-Jan-08	10:53	0.003	0.002

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Monday, May 05, 2008

Date Rec. : 02 April 2008
LR Report: **CA10000-APR08**
Reference: Wk# 2

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 2	6: Average Waste Overall Comp 1/4 " Wk # 2	7: High Sulphide Waste Overall Comp 1/4" Wk#2	8: Low Grade Ore Overall Comp 1/4" Wk# 2	9: High Sulphide Ore Overall Comp 1/4" Wk# 2
Sample Date & Time			02-Apr-08	02-Apr-08	02-Apr-08	02-Apr-08	02-Apr-08
Hum Cell Leachate Volume [mLs]	---	---	970	887	936	902	904
pH [no unit]	04-Apr-08	10:15	7.25	7.57	7.34	7.32	7.25
Conductivity [uS/cm]	04-Apr-08	10:15	83	59	59	50	55
Alkalinity [mg/L as CaCO3]	04-Apr-08	10:15	22	15	17	15	12
Acidity [mg/L as CaCO3]	04-Apr-08	10:15	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	09-Apr-08	10:55	14	11	9.3	6.7	10
Chloride [mg/L]	09-Apr-08	10:55	1.7	0.4	0.8	0.8	0.6
Fluoride [mg/L]	11-Apr-08	11:08	0.09	0.08	0.10	0.06	0.06
Nitrite (as nitrogen) [mg/L]	09-Apr-08	10:56	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	09-Apr-08	10:56	0.16	< 0.05	0.21	0.21	0.11
Ammonia+Ammonium (N) [mg/L]	04-Apr-08	14:28	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Mercury [mg/L]	07-Apr-08	16:27	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	10-Apr-08	11:16	0.00004	0.00003	0.00003	0.00003	0.00002
Aluminum [mg/L]	10-Apr-08	11:16	0.0464	0.0380	0.0337	0.0414	0.0311
Arsenic [mg/L]	10-Apr-08	11:16	0.0008	0.0008	0.0006	0.0006	0.0006
Barium [mg/L]	10-Apr-08	11:16	0.0357	0.0207	0.0111	0.0061	0.0093
Beryllium [mg/L]	10-Apr-08	11:16	< 0.00002	< 0.00002	0.00002	0.00002	< 0.00002
Boron [mg/L]	10-Apr-08	11:16	0.0056	0.0019	0.0016	0.0020	0.0019
Bismuth [mg/L]	10-Apr-08	11:16	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Calcium [mg/L]	10-Apr-08	11:16	8.07	6.37	6.02	4.61	5.32
Cadmium [mg/L]	10-Apr-08	11:16	0.000007	0.000018	0.000007	< 0.000003	0.000005
Cobalt [mg/L]	10-Apr-08	11:16	0.000230	0.000091	0.000073	0.000077	0.000090
Chromium [mg/L]	10-Apr-08	11:16	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	10-Apr-08	11:16	0.0007	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Iron [mg/L]	10-Apr-08	11:16	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Potassium [mg/L]	10-Apr-08	11:16	4.16	2.63	3.23	3.08	2.43

OnLine LIMS

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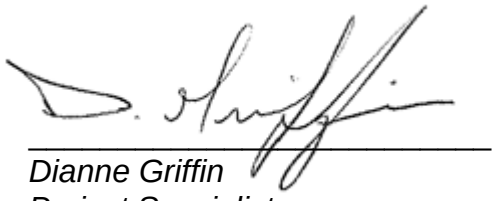
Project : CALR-11623-002

LR Report : **CA10000-APR08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 2	6: Average Waste Overall Comp 1/4 " Wk # 2	7: High Sulphide Waste Overall Comp 1/4" Wk#2	8: Low Grade Ore Overall Comp 1/4" Wk# 2	9: High Sulphide Ore Overall Comp 1/4" Wk# 2
Lithium [mg/L]	10-Apr-08	11:16	0.006	0.003	0.003	0.001	0.002
Magnesium [mg/L]	10-Apr-08	11:16	1.33	0.851	0.922	0.578	0.782
Manganese [mg/L]	10-Apr-08	11:16	0.0223	0.0147	0.0168	0.0142	0.0228
Molybdenum [mg/L]	10-Apr-08	11:16	0.0105	0.0122	0.0101	0.0113	0.00574
Sodium [mg/L]	10-Apr-08	11:16	2.76	1.51	1.83	1.53	1.25
Nickel [mg/L]	10-Apr-08	11:16	0.0015	0.0004	0.0003	0.0002	0.0002
Lead [mg/L]	10-Apr-08	11:16	0.00003	0.00007	0.00005	0.00004	0.00005
Antimony [mg/L]	10-Apr-08	11:16	0.00198	0.00081	0.00086	0.00092	0.00082
Selenium [mg/L]	10-Apr-08	11:16	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Silica [mg/L]	10-Apr-08	11:16	0.70	0.45	0.45	0.38	0.31
Tin [mg/L]	10-Apr-08	11:16	0.00049	0.00039	0.00069	0.00035	0.00059
Strontium [mg/L]	10-Apr-08	11:16	0.802	0.518	0.165	0.353	0.266
Titanium [mg/L]	10-Apr-08	11:16	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Thallium [mg/L]	10-Apr-08	11:16	0.000012	< 0.000002	0.000003	< 0.000002	0.000005
Uranium [mg/L]	10-Apr-08	11:16	0.00248	0.00257	0.000922	0.00149	0.000997
Vanadium [mg/L]	10-Apr-08	11:16	0.00049	0.00038	0.00029	0.00036	0.00022
Tungsten [mg/L]	10-Apr-08	11:16	0.00047	0.00117	0.00079	0.00228	0.00051
Yttrium [mg/L]	10-Apr-08	11:16	0.000013	0.000013	0.000008	0.000010	0.000004
Zinc [mg/L]	10-Apr-08	11:16	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001



Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, May 06, 2008

Date Rec. : 02 January 2008
LR Report: **CA10010-JAN08**
Reference: Wk#2

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk#2	6: Overall Comp CND2 (-200 mesh) Wk#2
Sample Date & Time			02-Jan-08	02-Jan-08
Hum Cell Leachate Volume [mLs]	---	---	843	976
pH [no unit]	04-Jan-08	13:58	7.55	8.21
Conductivity [uS/cm]	04-Jan-08	13:58	201	140
Alkalinity [mg/L as CaCO3]	04-Jan-08	13:58	39	28
Acidity [mg/L as CaCO3]	04-Jan-08	13:58	< 2	< 2
Sulphate [mg/L]	07-Jan-08	15:53	34	28
Chloride [mg/L]	08-Jan-08	11:23	< 0.2	0.8
Nitrite (as nitrogen) [mg/L]	07-Jan-08	15:53	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	07-Jan-08	15:53	0.21	0.13
Ammonia+Ammonium (N) [mg/L]	08-Jan-08	11:23	0.3	0.5
Cyanide [mg/L]	10-Jan-08	12:35	0.42	< 0.1
Cyanide WAD [mg/L]	22-Jan-08	08:48	< 0.1	< 0.1
Free Cyanide [mg/L]	22-Jan-08	08:48	< 0.1	< 0.1
Cyanate [mg/L]	10-Jan-08	09:28	< 0.1	0.6
Thiocyanate [mg/L]	10-Jan-08	09:24	5.5	< 2
Mercury [mg/L]	03-Jan-08	15:02	< 0.0001	< 0.0001
Silver [mg/L]	07-Jan-08	11:33	0.00011	0.00006
Aluminum [mg/L]	07-Jan-08	11:33	0.0712	0.0571
Arsenic [mg/L]	07-Jan-08	11:33	0.0004	0.0005
Barium [mg/L]	05-Jan-08	08:04	0.0680	0.0211
Beryllium [mg/L]	07-Jan-08	11:33	< 0.00002	< 0.00002
Boron [mg/L]	07-Jan-08	11:33	0.0022	0.0017
Bismuth [mg/L]	07-Jan-08	11:33	< 0.00001	< 0.00001
Calcium [mg/L]	05-Jan-08	08:04	20.7	10.2
Cadmium [mg/L]	07-Jan-08	11:33	< 0.000003	< 0.000003
Cobalt [mg/L]	07-Jan-08	11:33	0.000620	0.000579
Chromium [mg/L]	07-Jan-08	11:33	< 0.0005	< 0.0005
Copper [mg/L]	07-Jan-08	11:33	< 0.0005	0.0069

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Project : CALR-11623-002

LR Report : **CA10010-JAN08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk#2	6: Overall Comp CND2 (-200 mesh) Wk#2
Iron [mg/L]	05-Jan-08	08:05	0.12	0.03
Potassium [mg/L]	05-Jan-08	08:05	7.97	3.70
Lithium [mg/L]	07-Jan-08	11:33	0.001	< 0.001
Magnesium [mg/L]	05-Jan-08	08:05	1.82	0.883
Manganese [mg/L]	07-Jan-08	11:33	0.0157	0.0199
Molybdenum [mg/L]	07-Jan-08	11:33	0.0192	0.0133
Sodium [mg/L]	05-Jan-08	08:05	5.97	12.4
Nickel [mg/L]	07-Jan-08	11:34	0.0011	0.0004
Lead [mg/L]	07-Jan-08	11:34	0.00002	0.00006
Antimony [mg/L]	07-Jan-08	11:34	0.00208	0.00084
Selenium [mg/L]	07-Jan-08	11:34	< 0.001	< 0.001
Silica [mg/L]	05-Jan-08	08:05	1.74	0.54
Tin [mg/L]	07-Jan-08	11:34	0.00029	0.00020
Strontium [mg/L]	05-Jan-08	08:05	1.69	0.491
Titanium [mg/L]	07-Jan-08	11:34	0.0005	0.0005
Thallium [mg/L]	07-Jan-08	11:34	0.000009	< 0.000002
Uranium [mg/L]	07-Jan-08	11:34	0.00189	0.000516
Vanadium [mg/L]	07-Jan-08	11:34	0.00058	0.00035
Tungsten [mg/L]	07-Jan-08	11:34	0.00151	0.00034
Yttrium [mg/L]	07-Jan-08	11:34	0.000010	0.000007
Zinc [mg/L]	07-Jan-08	11:34	0.002	0.002

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, May 15, 2008

Date Rec. : 16 April 2008
LR Report: **CA10316-APR08**
Reference: Wk# 2

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 2	6: Low Grade Ore Overall Comp -200m Wk# 2	7: High Sulphide Ore Overall Comp -200m Wk# 2	8: GT Residue Wk# 2
Sample Date & Time			16-Apr-08	16-Apr-08	16-Apr-08	16-Apr-08
Hum Cell Leachate Volume [mLs]	---	---	986	985	985	994
pH [no unit]	17-Apr-08	13:19	8.27	8.37	7.37	8.05
Conductivity [uS/cm]	17-Apr-08	13:19	378	292	120	346
Alkalinity [mg/L as CaCO3]	17-Apr-08	13:19	75	79	21	80
Acidity [mg/L as CaCO3]	17-Apr-08	13:19	< 2	< 2	< 2	< 2
Sulphate [mg/L]	14-May-08	12:20	77	32	20	84
Chloride [mg/L]	28-Apr-08	11:29	2.8	2.1	2.1	< 0.2
Fluoride [mg/L]	23-Apr-08	10:35	1.03	0.87	0.22	0.27
Nitrite (as nitrogen) [mg/L]	28-Apr-08	11:29	< 0.06	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	28-Apr-08	11:29	0.24	0.49	0.74	0.18
Ammonia+Ammonium (N) [mg/L]	22-Apr-08	11:59	---	---	---	< 0.1
Cyanide [mg/L]	21-Apr-08	12:47	---	---	---	< 0.01
Cyanide WAD [mg/L]	21-Apr-08	12:47	---	---	---	< 0.01
Free Cyanide [mg/L]	21-Apr-08	12:47	---	---	---	< 0.01
Cyanate [mg/L]	24-Apr-08	08:50	---	---	---	< 0.1
Thiocyanate [mg/L]	22-Apr-08	09:07	---	---	---	< 2
Mercury [mg/L]	17-Apr-08	15:26	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	25-Apr-08	11:01	0.00003	< 0.00001	< 0.00001	< 0.00001
Aluminum [mg/L]	25-Apr-08	11:01	0.120	0.234	0.0417	0.0402
Arsenic [mg/L]	25-Apr-08	11:01	0.0017	0.0020	0.0002	0.0003
Barium [mg/L]	21-Apr-08	13:58	0.179	0.0217	0.0124	0.0768
Beryllium [mg/L]	25-Apr-08	11:01	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Boron [mg/L]	25-Apr-08	11:01	0.0182	0.0238	0.0033	0.0034
Bismuth [mg/L]	25-Apr-08	11:01	0.00005	0.00004	< 0.00001	< 0.00001
Calcium [mg/L]	21-Apr-08	13:58	11.6	6.01	6.12	47.2
Cadmium [mg/L]	25-Apr-08	11:01	< 0.000003	0.000004	0.000007	< 0.000003
Cobalt [mg/L]	25-Apr-08	11:01	0.000360	0.000054	0.000022	0.000257
Chromium [mg/L]	25-Apr-08	11:01	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	25-Apr-08	11:01	0.0010	< 0.0005	< 0.0005	< 0.0005
Iron [mg/L]	21-Apr-08	13:58	< 0.01	< 0.01	< 0.01	< 0.01

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Project : CALR-11623-002

LR Report : **CA10316-APR08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 2	6: Low Grade Ore Overall Comp -200m Wk# 2	7: High Sulphide Ore Overall Comp -200m Wk# 2	8: GT Residue Wk# 2
Potassium [mg/L]	21-Apr-08	13:59	47.2	42.8	10.9	14.4
Lithium [mg/L]	25-Apr-08	11:01	0.021	0.009	0.005	0.006
Magnesium [mg/L]	21-Apr-08	13:59	5.51	2.38	1.48	4.41
Manganese [mg/L]	25-Apr-08	11:01	0.0106	0.00234	0.0311	0.0399
Molybdenum [mg/L]	25-Apr-08	11:01	0.0214	0.0185	0.00711	0.00505
Sodium [mg/L]	21-Apr-08	13:59	21.4	20.2	6.17	4.55
Nickel [mg/L]	25-Apr-08	11:01	0.0015	0.0005	0.0002	0.0013
Lead [mg/L]	25-Apr-08	11:01	0.00008	0.00007	< 0.00002	< 0.00002
Antimony [mg/L]	25-Apr-08	11:01	0.0208	0.00681	0.00223	0.00187
Selenium [mg/L]	25-Apr-08	11:01	< 0.001	< 0.001	< 0.001	< 0.001
Silica [mg/L]	21-Apr-08	13:59	3.94	3.47	0.41	2.81
Tin [mg/L]	25-Apr-08	11:01	0.0347	0.00711	0.00281	0.00407
Strontium [mg/L]	21-Apr-08	13:59	3.02	0.339	0.155	3.56
Titanium [mg/L]	25-Apr-08	11:01	0.0003	0.0003	< 0.0001	0.0001
Thallium [mg/L]	25-Apr-08	11:01	0.000050	0.000007	0.000006	0.000017
Uranium [mg/L]	25-Apr-08	11:01	0.00171	0.00351	0.000204	0.00167
Vanadium [mg/L]	25-Apr-08	11:01	0.00627	0.0134	0.00030	0.00010
Tungsten [mg/L]	25-Apr-08	11:01	0.00622	0.00902	0.00110	0.00117
Yttrium [mg/L]	25-Apr-08	11:01	0.000014	0.000008	0.000002	0.000014
Zinc [mg/L]	25-Apr-08	11:01	0.004	0.002	< 0.001	0.005

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Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, May 06, 2008

Date Rec. : 09 January 2008
LR Report: **CA10077-JAN08**
Reference: Wk# 3

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk # 3	6: Overall Comp CND2 (-200 mesh) Wk #
Sample Date & Time			09-Jan-08	09-Jan-08
Hum Cell Leachate Volume [mLs]	---	---	924	885
pH [no unit]	11-Jan-08	14:49	7.31	7.22
Conductivity [uS/cm]	11-Jan-08	14:49	170	74
Alkalinity [mg/L as CaCO3]	11-Jan-08	14:49	31	11
Acidity [mg/L as CaCO3]	11-Jan-08	14:49	< 2	< 2
Sulphate [mg/L]	15-Jan-08	11:25	36	15
Chloride [mg/L]	15-Jan-08	11:25	< 0.2	0.2
Nitrite (as nitrogen) [mg/L]	15-Jan-08	11:25	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	15-Jan-08	11:25	0.32	0.35
Ammonia+Ammonium (N) [mg/L]	11-Jan-08	13:40	0.1	0.2
Cyanide [mg/L]	17-Jan-08	15:36	< 0.01	0.010
Cyanide WAD [mg/L]	21-Jan-08	22:23	< 0.01	< 0.01
Free Cyanide [mg/L]	21-Jan-08	22:23	< 0.01	< 0.01
Cyanate [mg/L]	15-Jan-08	13:52	< 1	< 1
Thiocyanate [mg/L]	14-Jan-08	11:29	< 5	< 5
Mercury [mg/L]	11-Jan-08	12:38	< 0.0001	< 0.0001
Silver [mg/L]	16-Jan-08	12:42	0.00002	0.00001
Aluminum [mg/L]	16-Jan-08	12:42	0.0562	0.0283
Arsenic [mg/L]	16-Jan-08	12:42	< 0.0002	< 0.0002
Barium [mg/L]	11-Jan-08	09:33	0.0462	0.0082
Beryllium [mg/L]	16-Jan-08	12:42	< 0.00002	< 0.00002
Boron [mg/L]	16-Jan-08	12:42	0.0021	0.0007
Bismuth [mg/L]	16-Jan-08	12:42	0.00001	< 0.00001
Calcium [mg/L]	11-Jan-08	09:33	18.2	6.23
Cadmium [mg/L]	16-Jan-08	12:42	< 0.000003	< 0.000003
Cobalt [mg/L]	16-Jan-08	12:42	0.000477	0.000352
Chromium [mg/L]	16-Jan-08	12:42	< 0.0005	< 0.0005
Copper [mg/L]	16-Jan-08	12:42	< 0.0005	0.0051

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Project : CALR-11623-002

LR Report : **CA10077-JAN08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk # 3	6: Overall Comp CND2 (-200 mesh) Wk #
Iron [mg/L]	11-Jan-08	09:33	0.08	0.03
Potassium [mg/L]	11-Jan-08	09:33	5.84	1.92
Lithium [mg/L]	16-Jan-08	12:42	0.002	< 0.001
Magnesium [mg/L]	11-Jan-08	09:33	1.80	0.473
Manganese [mg/L]	16-Jan-08	12:42	0.0216	0.0206
Molybdenum [mg/L]	16-Jan-08	12:42	0.0144	0.00720
Sodium [mg/L]	11-Jan-08	09:34	3.16	4.68
Nickel [mg/L]	16-Jan-08	12:42	0.0007	0.0001
Lead [mg/L]	16-Jan-08	12:42	0.00004	0.00004
Antimony [mg/L]	16-Jan-08	12:42	0.00115	0.00033
Selenium [mg/L]	16-Jan-08	12:42	< 0.001	< 0.001
Silica [mg/L]	11-Jan-08	09:34	1.16	0.19
Tin [mg/L]	16-Jan-08	12:42	0.00048	0.00036
Strontium [mg/L]	11-Jan-08	09:34	1.34	0.240
Titanium [mg/L]	16-Jan-08	12:42	0.0002	0.0002
Thallium [mg/L]	16-Jan-08	12:42	0.000011	< 0.000002
Uranium [mg/L]	16-Jan-08	12:42	0.00153	0.000164
Vanadium [mg/L]	16-Jan-08	12:42	0.00042	0.00021
Tungsten [mg/L]	16-Jan-08	12:42	0.00078	0.00009
Yttrium [mg/L]	16-Jan-08	12:42	0.000009	0.000004
Zinc [mg/L]	16-Jan-08	12:42	0.002	< 0.001

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Wednesday, April 30, 2008

Date Rec. : 09 April 2008
LR Report: **CA10170-APR08**
Reference: Wk#3

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade CTE Ore Overall Comp 1/4" Wk#3	6: Average Waste Overall Comp 1/4" Wk#3	7: High Sulphide Waste Overall Comp 1/4" Wk#3	8: Low Grade Ore Overall Comp 1/4" Wk#3	9: High Sulphide Ore Overall Comp 1/4" Wk#3
Sample Date & Time			09-Apr-08	09-Apr-08	09-Apr-08	09-Apr-08	09-Apr-08
Hum Cell Leachate Volume [mLs]	---	---	982	925	968	952	932
pH [no unit]	11-Apr-08	14:19	7.33	7.20	7.27	7.14	7.04
Conductivity [uS/cm]	11-Apr-08	14:19	77	62	62	51	55
Alkalinity [mg/L as CaCO3]	11-Apr-08	14:19	22	15	15	13	11
Acidity [mg/L as CaCO3]	11-Apr-08	14:19	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	28-Apr-08	11:35	12	9.8	7.3	5.5	9.2
Chloride [mg/L]	17-Apr-08	19:14	0.4	< 0.2	0.4	0.3	< 0.2
Fluoride [mg/L]	21-Apr-08	11:20	0.06	< 0.06	0.06	< 0.06	< 0.06
Nitrite (as nitrogen) [mg/L]	17-Apr-08	19:14	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	17-Apr-08	19:14	< 0.05	0.27	0.26	0.55	0.53
Ammonia+Ammonium (N) [mg/L]	14-Apr-08	13:17	0.4	0.4	0.4	0.3	0.3
Mercury [mg/L]	15-Apr-08	12:19	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	17-Apr-08	16:00	< 0.00001	< 0.00001	0.00002	< 0.00001	< 0.00001
Aluminum [mg/L]	17-Apr-08	16:00	0.0490	0.0403	0.0362	0.0427	0.0320
Arsenic [mg/L]	17-Apr-08	16:00	0.0004	< 0.0002	0.0002	< 0.0002	0.0002
Barium [mg/L]	15-Apr-08	12:55	0.0474	0.0286	0.0149	0.0081	0.0147
Beryllium [mg/L]	17-Apr-08	16:00	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Boron [mg/L]	17-Apr-08	16:00	0.0032	0.0014	0.0012	0.0016	0.0013
Bismuth [mg/L]	17-Apr-08	16:00	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Calcium [mg/L]	15-Apr-08	12:55	8.24	6.82	6.95	5.61	7.02
Cadmium [mg/L]	17-Apr-08	16:00	0.000013	0.000016	0.000009	0.000007	0.000007
Cobalt [mg/L]	17-Apr-08	16:00	0.000189	0.000040	0.000035	0.000024	0.000040
Chromium [mg/L]	17-Apr-08	16:00	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	17-Apr-08	16:00	0.0007	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Iron [mg/L]	15-Apr-08	12:55	0.04	0.02	< 0.01	< 0.01	< 0.01
Potassium [mg/L]	15-Apr-08	12:55	3.01	2.29	2.66	2.91	2.40
Lithium [mg/L]	17-Apr-08	16:00	0.003	0.001	0.001	0.001	0.002
Magnesium [mg/L]	15-Apr-08	12:55	1.22	0.849	0.896	0.685	0.876
Manganese [mg/L]	17-Apr-08	16:00	0.0298	0.0108	0.0151	0.0110	0.0203
Molybdenum [mg/L]	17-Apr-08	16:00	0.00761	0.00861	0.00710	0.00745	0.00476
Sodium [mg/L]	15-Apr-08	12:55	1.43	1.00	1.23	1.11	0.92
Nickel [mg/L]	17-Apr-08	16:00	0.0012	0.0003	0.0003	0.0002	0.0002
Lead [mg/L]	17-Apr-08	16:00	0.00003	< 0.00002	0.00006	< 0.00002	< 0.00002
Antimony [mg/L]	17-Apr-08	16:00	0.00180	0.00099	0.00088	0.00091	0.00084
Selenium [mg/L]	17-Apr-08	16:00	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Silica [mg/L]	15-Apr-08	12:56	0.68	0.54	0.53	0.48	0.45
Tin [mg/L]	17-Apr-08	16:00	0.00059	0.00059	0.00073	0.00047	0.00057

OnLine LIMS

SGS Lakefield Research Limited
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Project : CALR-11623-002

LR Report : **CA10170-APR08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade CTE Ore Overall Comp 1/4" Wk#3	6: Average Waste Overall Comp 1/4 " Wk#3	7: High Sulphide Waste Overall Comp 1/4" Wk#3	8: Low Grade Ore Overall Comp 1/4" Wk#3	9: High Sulphide Ore Overall Comp 1/4" Wk#3
Strontium [mg/L]	15-Apr-08	12:56	0.901	0.630	0.174	0.414	0.340
Titanium [mg/L]	17-Apr-08	16:01	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Thallium [mg/L]	17-Apr-08	16:01	< 0.000002	< 0.000002	< 0.000002	< 0.000002	< 0.000002
Uranium [mg/L]	17-Apr-08	16:01	0.00243	0.00301	0.000988	0.00148	0.00129
Vanadium [mg/L]	17-Apr-08	16:01	0.00046	0.00038	0.00029	0.00034	0.00020
Tungsten [mg/L]	17-Apr-08	16:01	0.00055	0.00123	0.00065	0.00189	0.00052
Yttrium [mg/L]	17-Apr-08	16:01	0.000016	0.000023	0.000007	0.000011	0.000006
Zinc [mg/L]	17-Apr-08	16:01	0.002	0.002	< 0.001	< 0.001	0.001

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, May 06, 2008

Date Rec. : 23 April 2008
LR Report: **CA10519-APR08**
Reference: Wk#3

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk#3	6: Low Grade Ore Overall Comp -200m Wk#3	7: High Sulphide Ore Overall Comp -200m Wk#3	8: GT Residue Wk#3
Sample Date & Time			23-Apr-08	23-Apr-08	23-Apr-08	23-Apr-08
Hum Cell Leachate Volume [mLs]	---	---	985	985	961	989
pH [no unit]	28-Apr-08	09:50	7.70	7.86	7.48	7.53
Conductivity [uS/cm]	28-Apr-08	09:50	97	208	87	152
Alkalinity [mg/L as CaCO3]	28-Apr-08	09:50	29	57	17	31
Acidity [mg/L as CaCO3]	28-Apr-08	09:50	< 2	< 2	< 2	< 2
Sulphate [mg/L]	06-May-08	15:01	12	23	12	35
Chloride [mg/L]	28-Apr-08	15:50	< 0.2	0.2	1.1	< 0.2
Fluoride [mg/L]	29-Apr-08	10:23	0.17	0.32	0.12	0.06
Nitrite (as nitrogen) [mg/L]	28-Apr-08	15:50	< 0.06	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	28-Apr-08	15:50	0.08	2.07	0.08	0.86
Ammonia+Ammonium (N) [mg/L]	28-Apr-08	10:47	---	---	---	< 0.1
Cyanide [mg/L]	28-Apr-08	11:53	---	---	---	< 0.01
Cyanide WAD [mg/L]	28-Apr-08	11:53	---	---	---	< 0.01
Free Cyanide [mg/L]	28-Apr-08	11:53	---	---	---	< 0.01
Cyanate [mg/L]	30-Apr-08	09:42	---	---	---	< 0.1
Thiocyanate [mg/L]	25-Apr-08	16:27	---	---	---	< 2
Mercury [mg/L]	25-Apr-08	10:30	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	02-May-08	13:51	< 0.00001	< 0.00001	< 0.00001	0.00001
Aluminum [mg/L]	02-May-08	13:51	0.0463	0.163	0.0251	0.0173
Arsenic [mg/L]	02-May-08	13:51	0.0004	0.0013	< 0.0002	< 0.0002
Barium [mg/L]	28-Apr-08	08:17	0.0591	0.0192	0.0067	0.0416
Beryllium [mg/L]	02-May-08	13:51	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Boron [mg/L]	02-May-08	13:51	0.0028	0.0099	0.0018	0.0010
Bismuth [mg/L]	02-May-08	13:51	< 0.00001	0.00002	< 0.00001	< 0.00001
Calcium [mg/L]	28-Apr-08	08:17	7.75	9.22	5.52	20.4
Cadmium [mg/L]	02-May-08	13:51	< 0.000003	0.000011	0.000008	0.000006

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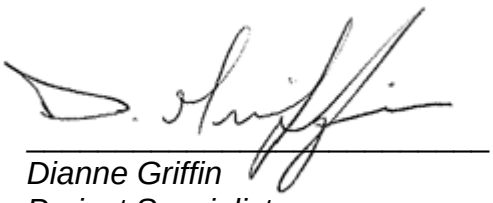
Project : CALR-11623-002

LR Report : **CA10519-APR08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk#3	6: Low Grade Ore Overall Comp -200m Wk#3	7: High Sulphide Ore Overall Comp -200m Wk#3	8: GT Residue Wk#3
Cobalt [mg/L]	02-May-08	13:51	0.000170	0.000084	0.000051	0.000169
Chromium [mg/L]	02-May-08	13:51	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	02-May-08	13:51	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Iron [mg/L]	28-Apr-08	08:17	< 0.01	< 0.01	< 0.01	< 0.01
Potassium [mg/L]	28-Apr-08	08:17	11.0	28.7	7.31	4.56
Lithium [mg/L]	02-May-08	13:51	0.005	0.008	0.003	< 0.001
Magnesium [mg/L]	28-Apr-08	08:17	1.64	3.66	1.15	1.70
Manganese [mg/L]	02-May-08	13:51	0.0290	0.00294	0.0436	0.0329
Molybdenum [mg/L]	02-May-08	13:51	0.00304	0.00672	0.00477	0.00150
Sodium [mg/L]	28-Apr-08	08:17	2.64	7.50	3.87	1.15
Nickel [mg/L]	02-May-08	13:51	0.0003	0.0003	< 0.0001	0.0003
Lead [mg/L]	02-May-08	13:51	< 0.00002	0.00004	< 0.00002	< 0.00002
Antimony [mg/L]	02-May-08	13:51	0.00373	0.00295	0.00090	0.00067
Selenium [mg/L]	02-May-08	13:51	< 0.001	< 0.001	< 0.001	< 0.001
Silica [mg/L]	28-Apr-08	08:17	1.33	3.10	0.23	0.93
Tin [mg/L]	02-May-08	13:51	0.0154	0.00385	0.00136	0.00479
Strontium [mg/L]	28-Apr-08	08:17	1.05	0.465	0.113	1.36
Titanium [mg/L]	02-May-08	13:51	0.0002	0.0003	0.0001	0.0002
Thallium [mg/L]	02-May-08	13:51	0.000097	0.000099	0.000096	0.000098
Uranium [mg/L]	02-May-08	13:51	0.000422	0.00312	0.000252	0.000895
Vanadium [mg/L]	02-May-08	13:51	0.00165	0.00914	0.00011	< 0.00003
Tungsten [mg/L]	02-May-08	13:51	0.00123	0.00414	0.00069	0.00054
Yttrium [mg/L]	02-May-08	13:51	0.000019	0.000009	0.000005	0.000012
Zinc [mg/L]	02-May-08	13:51	< 0.001	0.002	< 0.001	0.004



Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, May 06, 2008

Date Rec. : 16 January 2008
LR Report: **CA10210-JAN08**
Reference: Wk#4

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN95/96 Wk#4	6: Overall Comp CND2 (-200 mesh) Wk#4
Sample Date & Time			16-Jan-08	16-Jan-08
Hum Cell Leachate Volume [mLs]	---	---	958	975
pH [no unit]	18-Jan-08	09:28	7.51	7.40
Conductivity [uS/cm]	18-Jan-08	09:28	168	118
Alkalinity [mg/L as CaCO3]	18-Jan-08	09:28	29	18
Acidity [mg/L as CaCO3]	18-Jan-08	09:28	< 2	< 2
Sulphate [mg/L]	22-Jan-08	15:58	43	29
Chloride [mg/L]	22-Jan-08	15:58	< 0.2	0.3
Nitrite (as nitrogen) [mg/L]	22-Jan-08	15:58	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	22-Jan-08	15:58	0.56	0.42
Ammonia+Ammonium (N) [mg/L]	18-Jan-08	09:46	0.2	0.3
Cyanide [mg/L]	29-Jan-08	08:16	0.16	< 0.1
Cyanide WAD [mg/L]	31-Jan-08	08:21	< 0.1	< 0.1
Free Cyanide [mg/L]	31-Jan-08	08:21	< 0.1	< 0.1
Cyanate [mg/L]	29-Jan-08	17:12	< 0.1	0.2
Thiocyanate [mg/L]	28-Jan-08	11:59	< 2	< 2
Mercury [mg/L]	18-Jan-08	14:23	< 0.0001	< 0.0001
Silver [mg/L]	23-Jan-08	11:25	0.00001	< 0.00001
Aluminum [mg/L]	23-Jan-08	11:25	0.0400	0.0171
Arsenic [mg/L]	23-Jan-08	11:25	0.0002	< 0.0002
Barium [mg/L]	18-Jan-08	10:01	0.0390	0.0128
Beryllium [mg/L]	23-Jan-08	11:25	< 0.00002	< 0.00002
Boron [mg/L]	23-Jan-08	11:25	0.0013	0.0011
Bismuth [mg/L]	23-Jan-08	11:25	0.00002	0.00002
Calcium [mg/L]	18-Jan-08	10:01	20.9	11.0
Cadmium [mg/L]	23-Jan-08	11:25	< 0.000003	< 0.000003
Cobalt [mg/L]	23-Jan-08	11:26	0.000483	0.000465
Chromium [mg/L]	23-Jan-08	11:26	< 0.0005	< 0.0005
Copper [mg/L]	23-Jan-08	11:26	< 0.0005	0.0040

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Project : CALR-11623-002

LR Report : **CA10210-JAN08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN95/96 Wk#4	6: Overall Comp CND2 (-200 mesh) Wk#4
Iron [mg/L]	18-Jan-08	10:01	0.06	0.01
Potassium [mg/L]	18-Jan-08	10:01	5.26	2.67
Lithium [mg/L]	23-Jan-08	11:26	< 0.001	< 0.001
Magnesium [mg/L]	18-Jan-08	10:01	2.22	1.07
Manganese [mg/L]	23-Jan-08	11:26	0.0339	0.0382
Molybdenum [mg/L]	23-Jan-08	11:26	0.0142	0.00951
Sodium [mg/L]	18-Jan-08	10:01	2.70	6.34
Nickel [mg/L]	23-Jan-08	11:26	0.0011	0.0003
Lead [mg/L]	23-Jan-08	11:26	0.00003	0.00003
Antimony [mg/L]	23-Jan-08	11:26	0.00092	0.00045
Selenium [mg/L]	23-Jan-08	11:26	< 0.001	< 0.001
Silica [mg/L]	18-Jan-08	10:01	0.96	0.34
Tin [mg/L]	23-Jan-08	11:26	0.00020	0.00017
Strontium [mg/L]	18-Jan-08	10:01	1.42	0.514
Titanium [mg/L]	23-Jan-08	11:26	< 0.0001	0.0002
Thallium [mg/L]	23-Jan-08	11:26	0.000026	0.000010
Uranium [mg/L]	23-Jan-08	11:26	0.00128	0.000489
Vanadium [mg/L]	23-Jan-08	11:26	0.00029	0.00017
Tungsten [mg/L]	23-Jan-08	11:26	0.00050	0.00011
Yttrium [mg/L]	23-Jan-08	11:26	0.000009	0.000007
Zinc [mg/L]	23-Jan-08	11:26	0.002	< 0.001

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, May 01, 2008

Date Rec. : 16 April 2008
LR Report: **CA10315-APR08**
Reference: Wk# 4

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 4	6: Average Waste Overall Comp 1/4 " Wk# 4	7: High Sulphide Waste Overall Comp 1/4" Wk# 4	8: Low Grade Ore Overall Comp 1/4" Wk# 4	9: High Sulphide Ore Overall Comp 1/4" Wk# 4
Sample Date & Time			16-Apr-08	16-Apr-08	16-Apr-08	16-Apr-08	16-Apr-08
Hum Cell Leachate Volume [mLs]	---	---	993	925	963	941	933
pH [no unit]	17-Apr-08	13:19	7.49	7.13	7.39	7.36	7.19
Conductivity [uS/cm]	17-Apr-08	13:19	66	54	54	43	49
Alkalinity [mg/L as CaCO3]	17-Apr-08	13:19	20	11	15	13	12
Acidity [mg/L as CaCO3]	17-Apr-08	13:19	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	28-Apr-08	11:07	8.8	7.7	6.4	4.3	7.5
Chloride [mg/L]	28-Apr-08	11:07	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluoride [mg/L]	23-Apr-08	10:35	0.06	0.06	< 0.06	< 0.06	< 0.06
Nitrite (as nitrogen) [mg/L]	28-Apr-08	11:07	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	28-Apr-08	11:07	0.40	0.88	0.08	0.31	0.68
Ammonia+Ammonium (N) [mg/L]	22-Apr-08	11:59	< 0.1	< 0.1	0.1	< 0.1	< 0.1
Mercury [mg/L]	17-Apr-08	15:27	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	25-Apr-08	11:01	< 0.00001	< 0.00001	0.00001	0.00002	< 0.00001
Aluminum [mg/L]	25-Apr-08	11:01	0.0527	0.0486	0.0481	0.0553	0.0418
Arsenic [mg/L]	25-Apr-08	11:01	< 0.0002	0.0002	0.0003	0.0003	0.0002
Barium [mg/L]	21-Apr-08	13:58	0.0545	0.0301	0.0148	0.0065	0.0147
Beryllium [mg/L]	25-Apr-08	11:01	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Boron [mg/L]	25-Apr-08	11:01	0.0022	0.0016	0.0012	0.0014	0.0013
Bismuth [mg/L]	25-Apr-08	11:01	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Calcium [mg/L]	21-Apr-08	13:58	8.02	6.21	6.46	4.67	5.62
Cadmium [mg/L]	25-Apr-08	11:01	0.000006	0.000015	0.000006	< 0.000003	0.000005
Cobalt [mg/L]	25-Apr-08	11:01	0.000148	0.000019	0.000013	0.000012	0.000026
Chromium [mg/L]	25-Apr-08	11:01	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	25-Apr-08	11:01	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Iron [mg/L]	21-Apr-08	13:58	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Potassium [mg/L]	21-Apr-08	13:58	2.46	2.17	2.31	2.34	2.01
Lithium [mg/L]	25-Apr-08	11:01	0.004	0.003	0.003	0.003	0.003
Magnesium [mg/L]	21-Apr-08	13:58	0.917	0.687	0.708	0.532	0.615
Manganese [mg/L]	25-Apr-08	11:01	0.0259	0.0107	0.0144	0.0101	0.0175
Molybdenum [mg/L]	25-Apr-08	11:01	0.00565	0.00567	0.00598	0.00499	0.00407
Sodium [mg/L]	21-Apr-08	13:58	0.76	0.64	0.80	0.61	0.51
Nickel [mg/L]	25-Apr-08	11:01	0.0008	0.0003	0.0003	0.0002	0.0002
Lead [mg/L]	25-Apr-08	11:01	0.00006	0.00004	0.00002	< 0.00002	< 0.00002
Antimony [mg/L]	25-Apr-08	11:01	0.00144	0.00083	0.00084	0.00084	0.00079
Selenium [mg/L]	25-Apr-08	11:01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Silica [mg/L]	21-Apr-08	13:58	0.69	0.55	0.57	0.49	0.47

OnLine LIMS

SGS Lakefield Research Limited
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Phone: 705-652-2000 FAX: 705-652-6365

Project : CALR-11623-002

LR Report : **CA10315-APR08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 4	6: Average Waste Overall Comp 1/4 " Wk# 4	7: High Sulphide Waste Overall Comp 1/4" Wk# 4	8: Low Grade Ore Overall Comp 1/4" Wk# 4	9: High Sulphide Ore Overall Comp 1/4" Wk# 4
Tin [mg/L]	25-Apr-08	11:01	0.00089	0.00059	0.00085	0.00052	0.00066
Strontium [mg/L]	21-Apr-08	13:58	0.811	0.609	0.143	0.328	0.268
Titanium [mg/L]	25-Apr-08	11:01	< 0.0001	0.0006	< 0.0001	< 0.0001	< 0.0001
Thallium [mg/L]	25-Apr-08	11:01	< 0.000002	< 0.000002	< 0.000002	< 0.000002	< 0.000002
Uranium [mg/L]	25-Apr-08	11:01	0.00190	0.00218	0.00105	0.00143	0.00119
Vanadium [mg/L]	25-Apr-08	11:01	0.00055	0.00047	0.00043	0.00050	0.00029
Tungsten [mg/L]	25-Apr-08	11:01	0.00042	0.00111	0.00060	0.00150	0.00049
Yttrium [mg/L]	25-Apr-08	11:01	0.000010	0.000008	0.000005	0.000008	0.000003
Zinc [mg/L]	25-Apr-08	11:01	0.003	0.001	0.001	< 0.001	< 0.001

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, May 15, 2008

Date Rec. : 30 April 2008
LR Report: **CA10633-APR08**
Reference: Wk# 4

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk #4	6: Low Grade Ore Overall Comp -200m Wk #4	7: High Sulphide Ore Overall Comp -200m Wk #4	8: GT Residue Wk #4
Sample Date & Time			30-Apr-08	30-Apr-08	30-Apr-08	30-Apr-08
Hum Cell Leachate Volume [mLs]	---	---	981	955	994	990
pH [no unit]	02-May-08	09:17	7.71	8.30	7.62	6.81
Conductivity [uS/cm]	02-May-08	09:17	58	196	188	91
Alkalinity [mg/L as CaCO3]	02-May-08	09:17	17	60	26	17
Acidity [mg/L as CaCO3]	02-May-08	09:17	< 2	< 2	< 2	< 2
Sulphate [mg/L]	12-May-08	17:05	8.8	27	42	16
Chloride [mg/L]	07-May-08	17:08	< 0.2	< 0.2	2.3	< 0.2
Fluoride [mg/L]	06-May-08	15:54	< 0.06	0.20	0.20	< 0.06
Nitrite (as nitrogen) [mg/L]	07-May-08	17:08	< 0.06	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	07-May-08	17:08	0.08	0.05	0.43	< 0.05
Ammonia+Ammonium (N) [mg/L]	02-May-08	13:09	---	---	---	< 0.1
Cyanide [mg/L]	02-May-08	09:19	---	---	---	< 0.01
Cyanide WAD [mg/L]	02-May-08	09:19	---	---	---	< 0.01
Free Cyanide [mg/L]	02-May-08	09:19	---	---	---	< 0.01
Cyanate [mg/L]	13-May-08	12:08	---	---	---	< 0.1
Thiocyanate [mg/L]	15-May-08	08:23	---	---	---	< 2
Mercury [mg/L]	05-May-08	12:19	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	05-May-08	11:00	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Aluminum [mg/L]	05-May-08	11:00	0.0385	0.160	0.0245	0.0214
Arsenic [mg/L]	05-May-08	11:00	< 0.0002	0.0009	< 0.0002	< 0.0002
Barium [mg/L]	02-May-08	14:14	0.0195	0.0193	0.0112	0.0148
Beryllium [mg/L]	05-May-08	11:00	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Boron [mg/L]	05-May-08	11:00	0.0012	0.0065	0.0045	0.0006
Bismuth [mg/L]	05-May-08	11:00	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Calcium [mg/L]	02-May-08	14:14	6.48	12.5	9.42	10.5
Cadmium [mg/L]	05-May-08	11:00	< 0.000003	0.000009	0.000012	< 0.000003
Cobalt [mg/L]	05-May-08	11:00	0.000098	0.000037	0.000068	0.000059
Chromium [mg/L]	05-May-08	11:00	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	05-May-08	11:00	< 0.0005	< 0.0005	0.0006	< 0.0005
Iron [mg/L]	02-May-08	14:14	< 0.01	< 0.01	< 0.01	< 0.01
Potassium [mg/L]	02-May-08	14:14	3.31	21.0	15.5	2.11
Lithium [mg/L]	05-May-08	11:00	0.003	0.009	0.008	0.002
Magnesium [mg/L]	02-May-08	14:14	0.887	4.63	3.66	0.813
Manganese [mg/L]	05-May-08	11:00	0.0333	0.00550	0.0561	0.0375
Molybdenum [mg/L]	05-May-08	11:00	0.00268	0.00546	0.0122	0.00095
Sodium [mg/L]	02-May-08	14:14	0.79	4.38	9.39	0.51

OnLine LIMS

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Project : CALR-11623-002

LR Report : **CA10633-APR08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk #4	6: Low Grade Ore Overall Comp -200m Wk #4	7: High Sulphide Ore Overall Comp -200m Wk #4	8: GT Residue Wk #4
Nickel [mg/L]	05-May-08	11:00	0.0001	0.0001	0.0003	< 0.0001
Lead [mg/L]	05-May-08	11:00	< 0.00002	0.00003	< 0.00002	< 0.00002
Antimony [mg/L]	05-May-08	11:00	0.00114	0.00263	0.00189	0.00031
Selenium [mg/L]	05-May-08	11:00	< 0.001	< 0.001	< 0.001	< 0.001
Silica [mg/L]	02-May-08	14:15	0.42	3.37	0.57	0.43
Tin [mg/L]	05-May-08	11:00	0.00652	0.00292	0.00468	0.00333
Strontium [mg/L]	02-May-08	14:15	0.508	0.560	0.288	0.550
Titanium [mg/L]	05-May-08	11:00	0.0001	0.0001	0.0003	0.0002
Thallium [mg/L]	05-May-08	11:00	< 0.000002	0.000009	0.000010	< 0.000002
Uranium [mg/L]	05-May-08	11:00	0.000113	0.00392	0.00106	0.000343
Vanadium [mg/L]	05-May-08	11:00	0.00032	0.00684	0.00019	0.00006
Tungsten [mg/L]	05-May-08	11:00	0.00033	0.00309	0.00066	0.00018
Yttrium [mg/L]	05-May-08	11:00	0.000006	0.000012	0.000008	0.000005
Zinc [mg/L]	05-May-08	11:00	< 0.001	0.002	< 0.001	< 0.001

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Friday, May 23, 2008

Date Rec. : 07 May 2008
LR Report: **CA10065-MAY08**
Reference: Wk#5

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk#5	6: Low Grade Ore Overall Comp -200m Wk#5	7: High Sulphide Ore Overall Comp -200m Wk#5	8: GT Residue Wk#5
Sample Date & Time			07-May-08	07-May-08	07-May-08	07-May-08
Hum Cell Leachate Volume [mLs]	---	---	988	988	991	982
pH [no unit]	09-May-08	14:15	7.42	7.24	7.81	7.01
Conductivity [uS/cm]	09-May-08	14:15	57	196	95	64
Alkalinity [mg/L as CaCO3]	09-May-08	14:15	14	42	17	11
Acidity [mg/L as CaCO3]	09-May-08	14:15	< 2	< 2	< 2	< 2
Sulphate [mg/L]	23-May-08	14:24	9.7	27	19	13
Chloride [mg/L]	17-May-08	10:28	< 0.2	< 0.2	0.8	< 0.2
Fluoride [mg/L]	12-May-08	10:11	< 0.06	0.16	0.10	< 0.06
Nitrite (as nitrogen) [mg/L]	17-May-08	10:28	< 0.06	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	17-May-08	10:28	0.22	4.82	< 0.05	0.58
Ammonia+Ammonium (N) [mg/L]	23-May-08	13:35	---	---	---	< 0.1
Ammonia+Ammonium (N) [mg/L]	13-May-08	15:47	< 0.1	< 0.1	< 0.1	---
Cyanide [mg/L]	08-May-08	14:32	---	---	---	< 0.01
Cyanide WAD [mg/L]	08-May-08	14:32	---	---	---	< 0.01
Free Cyanide [mg/L]	08-May-08	14:32	---	---	---	< 0.01
Cyanate [mg/L]	13-May-08	12:07	---	---	---	< 0.1
Thiocyanate [mg/L]	15-May-08	08:24	---	---	---	< 2
Mercury [mg/L]	09-May-08	14:40	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	15-May-08	08:13	< 0.00001	0.00002	< 0.00001	< 0.00001
Aluminum [mg/L]	15-May-08	08:13	0.0259	0.160	0.0240	0.0126
Arsenic [mg/L]	15-May-08	08:13	< 0.0002	0.0009	< 0.0002	< 0.0002
Barium [mg/L]	12-May-08	13:15	0.0098	0.0192	0.0055	0.0094
Beryllium [mg/L]	15-May-08	08:13	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Boron [mg/L]	15-May-08	08:13	0.0011	0.0052	0.0030	0.0024
Bismuth [mg/L]	15-May-08	08:13	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Calcium [mg/L]	12-May-08	13:15	6.03	15.1	6.63	8.14

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Project : CALR-11623-002

LR Report : **CA10065-MAY08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk#5	6: Low Grade Ore Overall Comp -200m Wk#5	7: High Sulphide Ore Overall Comp -200m Wk#5	8: GT Residue Wk#5
Cadmium [mg/L]	15-May-08	08:14	< 0.000003	< 0.000003	< 0.000003	< 0.000003
Cobalt [mg/L]	15-May-08	08:14	0.000210	0.000042	0.000025	0.000069
Chromium [mg/L]	15-May-08	08:14	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	15-May-08	08:14	< 0.0005	< 0.0005	< 0.0005	0.0031
Iron [mg/L]	12-May-08	13:15	< 0.01	< 0.01	< 0.01	< 0.01
Potassium [mg/L]	12-May-08	13:15	2.78	17.1	7.22	1.60
Lithium [mg/L]	15-May-08	08:14	0.003	0.009	0.005	0.002
Magnesium [mg/L]	12-May-08	13:15	0.862	4.67	1.60	0.660
Manganese [mg/L]	15-May-08	08:14	0.0390	0.00667	0.0439	0.0326
Molybdenum [mg/L]	15-May-08	08:14	0.00270	0.00461	0.00511	0.00044
Sodium [mg/L]	12-May-08	13:15	0.77	3.57	3.66	0.42
Nickel [mg/L]	15-May-08	08:14	0.0009	0.0002	0.0001	0.0002
Lead [mg/L]	15-May-08	08:14	< 0.00002	< 0.00002	< 0.00002	0.00004
Antimony [mg/L]	15-May-08	08:14	0.00113	0.00267	0.00100	0.00043
Selenium [mg/L]	15-May-08	08:14	< 0.001	< 0.001	< 0.001	< 0.001
Silica [mg/L]	12-May-08	13:15	0.30	3.40	0.31	0.31
Tin [mg/L]	15-May-08	08:14	0.00421	0.00271	0.00241	0.00378
Strontium [mg/L]	12-May-08	13:15	0.421	0.587	0.139	0.386
Titanium [mg/L]	15-May-08	08:14	< 0.0001	0.0002	< 0.0001	< 0.0001
Thallium [mg/L]	15-May-08	08:14	0.000007	0.000007	0.000003	0.000002
Uranium [mg/L]	15-May-08	08:14	0.000236	0.00441	0.000432	0.000368
Vanadium [mg/L]	15-May-08	08:14	0.00021	0.00624	0.00014	0.00004
Tungsten [mg/L]	15-May-08	08:14	0.00032	0.00342	0.00041	0.00017
Yttrium [mg/L]	15-May-08	08:14	0.000010	0.000012	0.000007	0.000012
Zinc [mg/L]	15-May-08	08:14	< 0.001	0.003	< 0.001	0.004

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, May 06, 2008

Date Rec. : 14 February 2008
LR Report: **CA10250-FEB08**
Reference: Wk# 5 reassay

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN 95/96 Wk# 5	6: Overall Comp CND2 (-200 mesh) Wk# 5
Sample Date & Time			Date:N/A	Date:N/A
Conductivity [uS/cm]	27-Feb-08	11:17	161	96

Dianne Griffin
Project Specialist

OnLine LIMS

SGS Lakefield Research Limited
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Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, May 06, 2008

Date Rec. : 23 January 2008
LR Report: **CA10377-JAN08**
Reference: Wk# 5

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN 95/96 Wk# 5	6: Overall Comp CND2 (-200 mesh) Wk# 5
Sample Date & Time			23-Jan-08	23-Jan-08
Hum Cell Leachate Volume [mLs]	---	---	907	897
pH [no unit]	25-Jan-08	15:58	7.62	7.31
Conductivity [uS/cm]	25-Jan-08	15:58	< 1	< 1
Alkalinity [mg/L as CaCO3]	25-Jan-08	15:58	29	14
Acidity [mg/L as CaCO3]	25-Jan-08	15:58	< 2	< 2
Sulphate [mg/L]	30-Jan-08	10:26	46	28
Chloride [mg/L]	30-Jan-08	10:27	< 0.2	0.2
Nitrite (as nitrogen) [mg/L]	30-Jan-08	10:27	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	30-Jan-08	10:27	< 0.05	< 0.05
Ammonia+Ammonium (N) [mg/L]	25-Jan-08	12:46	0.1	0.2
Cyanide [mg/L]	31-Jan-08	08:59	0.11	< 0.1
Cyanide WAD [mg/L]	31-Jan-08	08:24	< 0.1	< 0.1
Free Cyanide [mg/L]	31-Jan-08	08:24	< 0.1	< 0.1
Cyanate [mg/L]	29-Jan-08	17:12	< 0.1	< 0.1
Thiocyanate [mg/L]	24-Jan-08	14:25	< 2	< 2
Mercury [mg/L]	29-Jan-08	08:05	< 0.0001	< 0.0001
Silver [mg/L]	28-Jan-08	10:48	< 0.00001	< 0.00001
Aluminum [mg/L]	28-Jan-08	10:48	0.0527	0.0161
Arsenic [mg/L]	28-Jan-08	10:48	< 0.0002	< 0.0002
Barium [mg/L]	28-Jan-08	10:35	0.0264	0.0065
Beryllium [mg/L]	28-Jan-08	10:48	< 0.00002	< 0.00002
Boron [mg/L]	28-Jan-08	10:48	0.0020	0.0012
Bismuth [mg/L]	28-Jan-08	10:48	< 0.00001	< 0.00001
Calcium [mg/L]	28-Jan-08	10:35	20.0	8.81
Cadmium [mg/L]	28-Jan-08	10:48	< 0.000003	< 0.000003
Cobalt [mg/L]	28-Jan-08	10:48	0.000454	0.000365
Chromium [mg/L]	28-Jan-08	10:48	< 0.0005	< 0.0005
Copper [mg/L]	28-Jan-08	10:48	< 0.0005	0.0041

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Project : CALR-11623-002

LR Report : **CA10377-JAN08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN 95/96 Wk# 5	6: Overall Comp CND2 (-200 mesh) Wk# 5
Iron [mg/L]	28-Jan-08	10:35	0.03	< 0.01
Potassium [mg/L]	28-Jan-08	10:35	5.04	2.36
Lithium [mg/L]	28-Jan-08	10:48	0.002	0.001
Magnesium [mg/L]	28-Jan-08	10:35	2.21	1.01
Manganese [mg/L]	28-Jan-08	10:48	0.03292	0.03008
Molybdenum [mg/L]	28-Jan-08	10:48	0.01404	0.00769
Sodium [mg/L]	28-Jan-08	10:35	2.27	5.37
Nickel [mg/L]	28-Jan-08	10:48	0.0006	< 0.0001
Lead [mg/L]	28-Jan-08	10:48	< 0.00002	0.00004
Antimony [mg/L]	28-Jan-08	10:48	0.00064	0.00023
Selenium [mg/L]	28-Jan-08	10:48	< 0.001	< 0.001
Silica [mg/L]	28-Jan-08	10:35	0.92	0.21
Tin [mg/L]	28-Jan-08	10:48	0.00002	< 0.00001
Strontium [mg/L]	28-Jan-08	10:35	1.27	0.429
Titanium [mg/L]	28-Jan-08	10:48	< 0.0001	0.0001
Thallium [mg/L]	28-Jan-08	10:49	0.000012	< 0.000002
Uranium [mg/L]	28-Jan-08	10:49	0.000872	0.000262
Vanadium [mg/L]	28-Jan-08	10:49	0.00027	0.00011
Tungsten [mg/L]	28-Jan-08	10:49	0.00033	0.00004
Yttrium [mg/L]	28-Jan-08	10:49	0.000009	0.000003
Zinc [mg/L]	28-Jan-08	10:49	< 0.001	< 0.001

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Monday, May 05, 2008

Date Rec. : 23 April 2008
LR Report: **CA10518-APR08**
Reference: Wk#5

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk#5	6: Average Waste Overall Comp 1/4 " Wk#5	7: High Sulphide Waste Overall Comp 1/4" Wk#5	8: Low Grade Ore Overall Comp 1/4" Wk#5	9: High Sulphide Ore Overall Comp 1/4" Wk#5
Sample Date & Time			23-Apr-08	23-Apr-08	23-Apr-08	23-Apr-08	23-Apr-08
Hum Cell Leachate Volume [mLs]	---	---	988	920	914	857	850
pH [no unit]	28-Apr-08	09:50	7.34	7.18	7.29	7.19	5.88
Conductivity [uS/cm]	28-Apr-08	09:50	54	39	41	33	64
Alkalinity [mg/L as CaCO3]	28-Apr-08	09:50	63	9	12	9	8
Acidity [mg/L as CaCO3]	28-Apr-08	09:50	30	< 2	< 2	< 2	< 2
Sulphate [mg/L]	02-May-08	11:35	8.5	5.9	5.2	3.9	5.5
Chloride [mg/L]	02-May-08	11:34	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluoride [mg/L]	29-Apr-08	10:23	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Nitrite (as nitrogen) [mg/L]	02-May-08	11:34	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	02-May-08	11:34	0.33	0.61	0.35	0.43	0.25
Ammonia+Ammonium (N) [mg/L]	28-Apr-08	10:47	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Mercury [mg/L]	24-Apr-08	15:25	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	02-May-08	13:50	< 0.00001	0.00001	< 0.00001	< 0.00001	0.00001
Aluminum [mg/L]	02-May-08	13:50	0.0473	0.0609	0.0376	0.0560	0.0435
Arsenic [mg/L]	02-May-08	13:50	0.0004	0.0004	< 0.0002	0.0002	0.0003
Barium [mg/L]	28-Apr-08	08:17	0.0623	0.0243	0.0120	0.0051	0.0139
Beryllium [mg/L]	02-May-08	13:50	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Boron [mg/L]	02-May-08	13:50	0.0018	0.0008	0.0007	0.0008	0.0008
Bismuth [mg/L]	02-May-08	13:50	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Calcium [mg/L]	28-Apr-08	08:17	8.42	4.10	5.59	3.62	4.14
Cadmium [mg/L]	02-May-08	13:50	0.000006	0.000009	0.000008	0.000004	< 0.000003
Cobalt [mg/L]	02-May-08	13:50	0.000180	0.000069	0.000071	0.000109	0.000054
Chromium [mg/L]	02-May-08	13:50	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	02-May-08	13:50	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Iron [mg/L]	28-Apr-08	08:17	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Potassium [mg/L]	28-Apr-08	08:17	2.42	1.85	1.91	2.29	2.01

OnLine LIMS

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Project : CALR-11623-002

LR Report : **CA10518-APR08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk#5	6: Average Waste Overall Comp 1/4 " Wk#5	7: High Sulphide Waste Overall Comp 1/4" Wk#5	8: Low Grade Ore Overall Comp 1/4" Wk#5	9: High Sulphide Ore Overall Comp 1/4" Wk#5
Lithium [mg/L]	02-May-08	13:50	0.002	< 0.001	< 0.001	< 0.001	< 0.001
Magnesium [mg/L]	28-Apr-08	08:16	0.928	0.495	0.547	0.492	0.486
Manganese [mg/L]	02-May-08	13:50	0.0250	0.00715	0.0174	0.00772	0.0111
Molybdenum [mg/L]	02-May-08	13:50	0.00416	0.00326	0.00334	0.00339	0.00278
Sodium [mg/L]	28-Apr-08	08:16	0.60	0.42	0.53	0.51	0.40
Nickel [mg/L]	02-May-08	13:50	0.0006	0.0001	0.0001	< 0.0001	0.0001
Lead [mg/L]	02-May-08	13:50	< 0.00002	0.00007	0.00003	0.00006	< 0.00002
Antimony [mg/L]	02-May-08	13:50	0.00138	0.00073	0.00061	0.00067	0.00058
Selenium [mg/L]	02-May-08	13:50	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Silica [mg/L]	28-Apr-08	08:16	0.68	0.37	0.35	0.33	0.30
Tin [mg/L]	02-May-08	13:50	0.00094	0.00077	0.00050	0.00071	0.00101
Strontium [mg/L]	28-Apr-08	08:16	0.918	0.462	0.112	0.258	0.207
Titanium [mg/L]	02-May-08	13:50	0.0002	0.0005	< 0.0001	0.0004	0.0001
Thallium [mg/L]	02-May-08	13:50	0.000098	0.000095	0.000094	0.000094	0.000092
Uranium [mg/L]	02-May-08	13:50	0.00204	0.00142	0.000623	0.000976	0.000668
Vanadium [mg/L]	02-May-08	13:50	0.00043	0.00046	0.00025	0.00037	0.00026
Tungsten [mg/L]	02-May-08	13:50	0.00084	0.00094	0.00059	0.00098	0.00050
Yttrium [mg/L]	02-May-08	13:50	0.000012	0.000011	0.000004	0.000004	0.000003
Zinc [mg/L]	02-May-08	13:50	< 0.001	< 0.001	0.001	< 0.001	< 0.001

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, May 06, 2008

Date Rec. : 30 January 2008
LR Report: **CA10537-JAN08**
Reference: Wk# 6

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 6	6: Overall Comp CND2 (-200 mesh) Wk# 6
Sample Date & Time			30-Jan-08	30-Jan-08
Hum Cell Leachate Volume [mLs]	---	---	*	917
pH [no unit]	31-Jan-08	09:23	7.50	7.49
Conductivity [uS/cm]	31-Jan-08	09:23	124	92
Alkalinity [mg/L as CaCO3]	31-Jan-08	09:23	20	9
Acidity [mg/L as CaCO3]	31-Jan-08	09:23	< 2	< 2
Sulphate [mg/L]	01-Feb-08	13:00	33	28

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, May 15, 2008

Date Rec. : 30 April 2008
LR Report: **CA10632-APR08**
Reference: Wk# 6

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk #6	6: Average Waste Overall Comp 1/4" Wk #6	7: High Sulphide Waste Overall Comp 1/4" Wk #6	8: Low Grade Ore Overall Comp 1/4" Wk #6	9: High Sulphide Ore Overall Comp 1/4" Wk #6
Sample Date & Time			30-Apr-08	30-Apr-08	30-Apr-08	30-Apr-08	30-Apr-08
Hum Cell Leachate Volume [mLs]	---	---	994	933	968	945	938
pH [no unit]	02-May-08	09:17	7.45	7.49	7.50	7.40	7.46
Conductivity [uS/cm]	02-May-08	09:17	42	54	46	33	34
Alkalinity [mg/L as CaCO3]	02-May-08	09:17	14	22	14	12	11
Acidity [mg/L as CaCO3]	02-May-08	09:17	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	13-May-08	15:29	4.8	6.2	5.2	2.4	3.6

Dianne Griffin
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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, July 17, 2008

Date Rec. : 14 May 2008
LR Report: **CA10127-MAY08**
Reference: Wk#6

Copy: #2

CERTIFICATE OF ANALYSIS

Final Report - Revised

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk#6	6: Low Grade Ore Overall Comp -200m Wk#6	7: High Sulphide Ore Overall Comp -200m Wk#6	8: GT Residue Wk#6
Sample Date & Time			14-May-08	14-May-08	14-May-08	14-May-08
Hum Cell Leachate Volume [mLs]	---	---	966	986	979	974
pH [no unit]	23-May-08	10:39	3.08	7.16	7.56	7.17
Conductivity [uS/cm]	20-May-08	10:42	666	78	81	76
Alkalinity [mg/L as CaCO3]	20-May-08	10:42	< 2	27	< 2	7
Acidity [mg/L as CaCO3]	20-May-08	10:42	68	< 2	6	< 2
Sulphate [mg/L]	30-May-08	15:06	24	7.1	25	16

Please note: Due to suspected trace nitric acid contamination during a lab rinsing procedure, analytical results for pH, alkalinity, acidity, conductivity, and SO4 may be unreliable for samples within this batch.

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, May 06, 2008

Date Rec. : 06 February 2008
LR Report: **CA10001-FEB08**
Reference: Wk#7

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall CompCN95/96 Wk#7	6: Overall Comp CND2 (-200 mesh) Wk#7
Sample Date & Time			06-Feb-08	06-Feb-08
Hum Cell Leachate Volume [mLs]	---	---	900	887
pH [no unit]	07-Feb-08	11:22	7.82	7.48
Conductivity [uS/cm]	07-Feb-08	11:22	114	85
Alkalinity [mg/L as CaCO3]	07-Feb-08	11:22	18	8
Acidity [mg/L as CaCO3]	07-Feb-08	11:22	< 2	< 2
Sulphate [mg/L]	13-Feb-08	16:20	34	28

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, July 17, 2008

Date Rec. : 07 May 2008
LR Report: **CA10064-MAY08**
Reference: Wk#7

Copy: #2

CERTIFICATE OF ANALYSIS

Final Report - Revised

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk#7	6: Average Waste Overall Comp 1/4" Wk#7	7: High Sulphide Waste Overall Comp 1/4" Wk#7	8: Low Grade Ore Overall Comp 1/4" Wk#7	9: High Sulphide Ore Overall Comp 1/4" Wk#7
Sample Date & Time			07-May-08	07-May-08	07-May-08	07-May-08	07-May-08
Hum Cell Leachate Volume [mLs]	---	---	982	932	936	931	932
pH [no unit]	09-May-08	14:17	7.25	7.26	7.17	6.93	3.67
Conductivity [uS/cm]	09-May-08	14:17	56	42	59	36	138
Alkalinity [mg/L as CaCO3]	12-May-08	10:20	15	11	13	< 2	< 2
Acidity [mg/L as CaCO3]	09-May-08	14:17	< 2	< 2	< 2	< 2	15
Sulphate [mg/L]	20-May-08	16:08	5.6	4.5	6.1	2.7	3.2

Please note: Due to suspected trace nitric acid contamination during a lab rinsing procedure, analytical results for pH, alkalinity, acidity, conductivity, and SO4 may be unreliable for samples within this batch.

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, June 10, 2008

Date Rec. : 21 May 2008
LR Report: **CA10153-MAY08**
Reference: Wk# 7

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 7	6: Low Grade Ore Overall Comp -200m Wk# 7	7: High Sulphide Ore Overall Comp -200m Wk# 7	8: GT Residue Wk# 7
Sample Date & Time			21-May-08	21-May-08	21-May-08	21-May-08
Hum Cell Leachate Volume [mLs]	---	---	986	986	985	895
pH [no unit]	26-May-08	12:31	7.26	8.64	7.42	7.39
Conductivity [uS/cm]	22-May-08	16:29	99	60	89	134
Alkalinity [mg/L as CaCO3]	22-May-08	16:29	15	18	13	22
Acidity [mg/L as CaCO3]	22-May-08	16:29	< 2	< 2	< 2	< 2
Sulphate [mg/L]	09-Jun-08	12:52	19	6.3	15	38

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, July 17, 2008

Date Rec. : 07 May 2008
LR Report: **CA10064-MAY08**
Reference: Wk#7

Copy: #2

CERTIFICATE OF ANALYSIS

Final Report - Revised

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk#7	6: Average Waste Overall Comp 1/4" Wk#7	7: High Sulphide Waste Overall Comp 1/4" Wk#7	8: Low Grade Ore Overall Comp 1/4" Wk#7	9: High Sulphide Ore Overall Comp 1/4" Wk#7
Sample Date & Time			07-May-08	07-May-08	07-May-08	07-May-08	07-May-08
Hum Cell Leachate Volume [mLs]	---	---	982	932	936	931	932
pH [no unit]	09-May-08	14:17	7.25	7.26	7.17	6.93	3.67
Conductivity [uS/cm]	09-May-08	14:17	56	42	59	36	138
Alkalinity [mg/L as CaCO3]	12-May-08	10:20	15	11	13	< 2	< 2
Acidity [mg/L as CaCO3]	09-May-08	14:17	< 2	< 2	< 2	< 2	15
Sulphate [mg/L]	20-May-08	16:08	5.6	4.5	6.1	2.7	3.2

Please note: Due to suspected trace nitric acid contamination during a lab rinsing procedure, analytical results for pH, alkalinity, acidity, conductivity, and SO4 may be unreliable for samples within this batch.

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, July 17, 2008

Date Rec. : 04 June 2008
LR Report: **CA10142-JUN08**
Reference: Wk#7

Copy: #2

CERTIFICATE OF ANALYSIS

Final Report - Revised

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: High Sulphide Ore Overall Comp 1/4" Wk#7
Sample Date & Time			07-May-08
Hum Cell Leachate Volume [mLs]	---	---	932
pH [no unit]	08-Jun-08	14:04	3.59
Conductivity [uS/cm]	08-Jun-08	14:04	145
Alkalinity [mg/L as CaCO3]	08-Jun-08	14:04	< 2
Acidity [mg/L as CaCO3]	08-Jun-08	14:04	14

Please note: Due to suspected trace nitric acid contamination during a lab rinsing procedure, analytical results for pH, alkalinity, acidity, conductivity, and SO4 may be unreliable for samples within this batch.

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, May 06, 2008

Date Rec. : 13 February 2008
LR Report: **CA10168-FEB08**
Reference: Wk# 8

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN95/96 Wk# 8	6: Overall Comp CND2 (-200 mesh) Wk# 8
Sample Date & Time			13-Feb-08	13-Feb-08
Hum Cell Leachate Volume [mLs]	---	---	902	917
pH [no unit]	15-Feb-08	10:45	7.69	7.09
Conductivity [uS/cm]	15-Feb-08	10:45	189	111
Alkalinity [mg/L as CaCO3]	15-Feb-08	10:45	25	10
Acidity [mg/L as CaCO3]	15-Feb-08	10:45	< 2	< 2
Sulphate [mg/L]	19-Feb-08	17:00	54	33

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, June 10, 2008

Date Rec. : 28 May 2008
LR Report: **CA10702-MAY08**
Reference: Wk#8

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk#8	6: Low Grade Ore Overall Comp -200m Wk#8	7: High Sulphide Ore Overall Comp -200m Wk#8	8: GT Residue Wk#8
Sample Date & Time			28-May-08	28-May-08	28-May-08	28-May-08
Hum Cell Leachate Volume [mLs]	---	---	978	979	850	980
pH [no unit]	02-Jun-08	11:03	7.06	7.53	7.73	6.83
Conductivity [uS/cm]	02-Jun-08	11:03	78	74	84	74
Alkalinity [mg/L as CaCO3]	02-Jun-08	11:03	7	14	15	4
Acidity [mg/L as CaCO3]	02-Jun-08	11:03	< 2	< 2	< 2	< 2
Sulphate [mg/L]	09-Jun-08	15:36	13	10	16	17

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, July 17, 2008

Date Rec. : 14 May 2008
LR Report: **CA10126-MAY08**
Reference: Wk#8

Copy: #2

CERTIFICATE OF ANALYSIS

Final Report - Revised

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk#8	6: Average Waste Overall Comp 1/4" Wk#8	7: High Sulphide Waste Overall Comp 1/4" Wk#8	8: Low Grade Ore Overall Comp 1/4" Wk#8	9: High Sulphide Ore Overall Comp 1/4" Wk#8
Sample Date & Time			14-May-08	14-May-08	14-May-08	14-May-08	14-May-08
Hum Cell Leachate Volume [mLs]	---	---	976	924	948	929	935
pH [no unit]	23-May-08	10:41	7.17	7.07	7.28	4.30	7.05
Conductivity [uS/cm]	20-May-08	10:38	51	34	49	71	35
Alkalinity [mg/L as CaCO3]	20-May-08	10:39	16	118	12	< 2	9
Acidity [mg/L as CaCO3]	20-May-08	10:39	< 2	< 2	< 2	6	< 2
Sulphate [mg/L]	21-May-08	15:32	4.5	3.3	4.2	3.2	2.7

Please note: Due to suspected trace nitric acid contamination during a lab rinsing procedure, analytical results for pH, alkalinity, acidity, conductivity, and SO4 may be unreliable for samples within this batch.

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, July 17, 2008

Date Rec. : 04 June 2008
LR Report: **CA10144-JUN08**
Reference: Wk#8

Copy: #2

CERTIFICATE OF ANALYSIS

Final Report - Revised

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Waste Overall Comp 1/4" Wk#8	6: Low Grade Ore Overall Comp 1/4" Wk#8
Sample Date & Time			14-May-08	14-May-08
Hum Cell Leachate Volume [mLs]	---	---	924	929
pH [no unit]	08-Jun-08	14:07	---	4.19
Conductivity [uS/cm]	08-Jun-08	14:07	---	70
Alkalinity [mg/L as CaCO3]	16-Jun-08	10:29	8	---
Acidity [mg/L as CaCO3]	08-Jun-08	14:07	---	5

Please note: Due to suspected trace nitric acid contamination during a lab rinsing procedure, analytical results for pH, alkalinity, acidity, conductivity, and SO4 may be unreliable for samples within this batch.

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, June 19, 2008

Date Rec. : 04 June 2008
LR Report: **CA10016-JUN08**
Reference: Wk# 9

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 9	6: Low Grade Ore Overall Comp -200m Wk# 9	7: High Sulphide Ore Overall Comp -200m Wk# 9	8: GT Residue Wk# 9
Sample Date & Time			04-June-08	04-June-08	04-June-08	04-June-08
Hum Cell Leachate Volume [mLs]	---	---	980	985	946	982
pH [no unit]	07-Jun-08	23:20	7.57	7.50	7.52	7.16
Conductivity [uS/cm]	07-Jun-08	23:20	74	64	93	65
Alkalinity [mg/L as CaCO3]	07-Jun-08	23:20	16	16	14	8
Acidity [mg/L as CaCO3]	07-Jun-08	23:20	< 2	< 2	< 2	< 2
Sulphate [mg/L]	18-Jun-08	15:37	13	10	19	15

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Monday, June 09, 2008

Date Rec. : 21 May 2008
LR Report: **CA10152-MAY08**
Reference: Wk# 9

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 9	6: Average Waste Overall Comp 1/4" Wk# 9	7: High Sulphide Waste Overall Comp 1/4" Wk# 9	8: Low Grade Ore Overall Comp 1/4" Wk# 9	9: High Sulphide Ore Overall Comp 1/4" Wk# 9
Sample Date & Time			21-May-08	21-May-08	21-May-08	21-May-08	21-May-08
Hum Cell Leachate Volume [m	---	---	979	964	975	979	976
pH [no unit]	26-May-08	12:31	7.05	7.68	7.40	6.91	7.31
Conductivity [uS/cm]	22-May-08	16:29	58	41	46	39	40
Alkalinity [mg/L as CaCO3]	22-May-08	16:29	12	15	12	7	10
Acidity [mg/L as CaCO3]	22-May-08	16:29	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	31-May-08	13:48	4.3	3.1	3.8	1.9	2.6

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, May 06, 2008

Date Rec. : 20 February 2008
LR Report: **CA10316-FEB08**
Reference: Wk# 9

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN 95/96 Wk# 9	6: Overall Comp CND2 (-200 mesh) Wk# 9
Sample Date & Time			20-Feb-08	20-Feb-08
Hum Cell Leachate Volume [mLs]	---	---	948	883
pH [no unit]	22-Feb-08	10:45	8.09	7.51
Conductivity [uS/cm]	22-Feb-08	10:45	352	69
Alkalinity [mg/L as CaCO3]	22-Feb-08	10:45	43	11
Acidity [mg/L as CaCO3]	22-Feb-08	10:45	< 2	< 2
Sulphate [mg/L]	02-Mar-08	17:26	150	21

Dianne Griffin
Project Specialist

OnLine LIMS

SGS Lakefield Research Limited
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, May 06, 2008

Date Rec. : 27 February 2008
LR Report: **CA10437-FEB08**
Reference: Wk# 10

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN95/96 WK# 10	6: Overall Comp CND2 (-200 mesh) Wk# 10
Sample Date & Time			27-Feb-08	27-Feb-08
Hum Cell Leachate Volume [mLs]	---	---	912	906
pH [no unit]	28-Feb-08	18:07	7.82	7.16
Conductivity [uS/cm]	28-Feb-08	18:07	253	88
Alkalinity [mg/L as CaCO3]	28-Feb-08	18:07	41	9
Acidity [mg/L as CaCO3]	28-Feb-08	18:07	< 2	< 2
Sulphate [mg/L]	03-Mar-08	20:28	96	31
Chloride [mg/L]	03-Mar-08	20:28	< 0.2	< 0.2
Nitrite (as nitrogen) [mg/L]	03-Mar-08	20:28	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	03-Mar-08	20:28	0.10	0.15
Ammonia+Ammonium (N) [mg/L]	29-Feb-08	13:26	< 0.1	< 0.1
Cyanide [mg/L]	29-Feb-08	08:12	0.02	0.03
Cyanide WAD [mg/L]	28-Feb-08	13:37	< 0.01	< 0.01
Free Cyanide [mg/L]	28-Feb-08	13:37	< 0.02	< 0.02
Cyanate [mg/L]	04-Mar-08	15:22	< 0.1	< 0.1
Thiocyanate [mg/L]	04-Mar-08	14:24	< 2	< 2
Mercury [mg/L]	05-Mar-08	15:12	< 0.0001	< 0.0001
Silver [mg/L]	07-Mar-08	11:50	< 0.00001	< 0.00001
Aluminum [mg/L]	07-Mar-08	11:50	0.104	0.0196
Arsenic [mg/L]	07-Mar-08	11:50	0.0003	< 0.0002
Barium [mg/L]	03-Mar-08	13:36	0.0345	0.0075
Beryllium [mg/L]	07-Mar-08	11:50	< 0.00002	< 0.00002
Boron [mg/L]	07-Mar-08	11:50	0.0017	0.0006
Bismuth [mg/L]	07-Mar-08	11:50	< 0.00001	< 0.00001
Calcium [mg/L]	03-Mar-08	13:36	37.6	10.5
Cadmium [mg/L]	07-Mar-08	11:50	0.000009	0.000004
Cobalt [mg/L]	07-Mar-08	11:50	0.000552	0.000334
Chromium [mg/L]	07-Mar-08	11:50	< 0.0005	< 0.0005
Copper [mg/L]	07-Mar-08	11:50	< 0.0005	0.0047

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Project : CALR-11623-002

LR Report : **CA10437-FEB08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN95/96 WK# 10	6: Overall Comp CND2 (-200 mesh) Wk# 10
Iron [mg/L]	03-Mar-08	13:36	< 0.01	0.02
Potassium [mg/L]	03-Mar-08	13:36	8.74	1.97
Lithium [mg/L]	07-Mar-08	11:50	0.004	0.001
Magnesium [mg/L]	03-Mar-08	13:37	4.23	1.11
Manganese [mg/L]	07-Mar-08	11:50	0.0413	0.0237
Molybdenum [mg/L]	07-Mar-08	11:50	0.0313	0.00398
Sodium [mg/L]	03-Mar-08	13:37	2.44	2.79
Nickel [mg/L]	07-Mar-08	11:50	0.0018	0.0002
Lead [mg/L]	07-Mar-08	11:50	0.00003	0.00006
Antimony [mg/L]	07-Mar-08	11:50	0.00080	0.00029
Selenium [mg/L]	07-Mar-08	11:50	< 0.001	< 0.001
Silica [mg/L]	03-Mar-08	13:37	1.39	0.15
Tin [mg/L]	07-Mar-08	11:50	0.00013	0.00008
Strontium [mg/L]	03-Mar-08	13:37	1.99	0.435
Titanium [mg/L]	07-Mar-08	11:50	0.0002	0.0002
Thallium [mg/L]	07-Mar-08	11:50	0.000018	< 0.000002
Uranium [mg/L]	07-Mar-08	11:50	0.00194	0.000328
Vanadium [mg/L]	07-Mar-08	11:50	0.00056	0.00011
Tungsten [mg/L]	07-Mar-08	11:50	0.00042	0.00005
Yttrium [mg/L]	07-Mar-08	11:50	0.000010	0.000004
Zinc [mg/L]	07-Mar-08	11:50	0.002	0.002

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, August 19, 2008

Date Rec. : 11 June 2008
LR Report: **CA10049-JUN08**
Reference: Wk#10

Copy: #2

CERTIFICATE OF ANALYSIS

Final Report - Revised

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk#10	8: GT Residue Wk#10	9: Low Grade Ore Overall Comp -200m Wk#10	10: High Sulphide Ore Overall Comp -200m Wk#10
Sample Date & Time			11-Jun-08	11-Jun-08	11-Jun-08	11-Jun-08
Hum Cell Leachate Volume [mLs]	---	---	984	976	960	994
pH [no unit]	12-Jun-08	11:16	7.41	7.14	7.72	7.68
Conductivity [uS/cm]	12-Jun-08	11:16	92	83	86	121
Alkalinity [mg/L as CaCO3]	12-Jun-08	11:16	21	11	22	22
Acidity [mg/L as CaCO3]	12-Jun-08	11:16	< 2	< 2	<2	<2
Sulphate [mg/L]	20-Jun-08	11:25	19	23	16	28
Chloride [mg/L]	20-Jun-08	11:25	< 0.2	< 0.2	---	---
Fluoride [mg/L]	25-Jun-08	10:01	< 0.06	< 0.06	---	---
Nitrite (as nitrogen) [mg/L]	20-Jun-08	11:25	< 0.06	< 0.06	---	---
Nitrate (as nitrogen) [mg/L]	20-Jun-08	11:25	< 0.05	< 0.05	---	---
Ammonia+Ammonium (N) [mg/L]	13-Jun-08	15:23	< 0.1	< 0.1	---	---
Cyanide [mg/L]	12-Jun-08	23:17	---	< 0.01	---	---
Cyanide WAD [mg/L]	12-Jun-08	23:17	---	< 0.01	---	---
Free Cyanide [mg/L]	12-Jun-08	23:17	---	< 0.01	---	---
Cyanate [mg/L]	18-Jun-08	16:23	---	2.2	---	---
Thiocyanate [mg/L]	18-Jun-08	16:21	---	< 2	---	---
Mercury [mg/L]	13-Jun-08	09:16	< 0.0001	< 0.0001	---	---
Silver [mg/L]	20-Jun-08	13:55	< 0.00001	< 0.00001	---	---
Aluminum [mg/L]	20-Jun-08	13:55	0.0360	0.0125	---	---
Arsenic [mg/L]	20-Jun-08	13:55	< 0.0002	< 0.0002	---	---
Barium [mg/L]	16-Jun-08	08:09	0.0091	0.0068	---	---
Beryllium [mg/L]	20-Jun-08	13:55	< 0.00002	< 0.00002	---	---
Boron [mg/L]	20-Jun-08	13:55	0.0025	0.0009	---	---
Bismuth [mg/L]	20-Jun-08	13:55	< 0.00001	< 0.00001	---	---
Calcium [mg/L]	16-Jun-08	08:09	9.76	10.7	---	---
Cadmium [mg/L]	20-Jun-08	13:55	< 0.000003	< 0.000003	---	---
Cobalt [mg/L]	20-Jun-08	13:55	0.000230	0.000116	---	---
Chromium [mg/L]	20-Jun-08	13:55	< 0.0005	< 0.0005	---	---
Copper [mg/L]	20-Jun-08	13:55	0.0005	< 0.0005	---	---
Iron [mg/L]	16-Jun-08	08:09	< 0.01	< 0.01	---	---

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Project : CALR-11623-002

LR Report : **CA10049-JUN08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk#10	8: GT Residue Wk#10	9: Low Grade Ore Overall Comp -200m Wk#10	10: High Sulphide Ore Overall Comp -200m Wk#10
Potassium [mg/L]	16-Jun-08	08:09	3.83	1.96	---	---
Lithium [mg/L]	20-Jun-08	13:55	0.004	0.002	---	---
Magnesium [mg/L]	16-Jun-08	08:09	1.78	1.21	---	---
Manganese [mg/L]	20-Jun-08	13:55	0.0550	0.0277	---	---
Molybdenum [mg/L]	20-Jun-08	13:55	0.00513	0.00039	---	---
Sodium [mg/L]	16-Jun-08	08:09	1.12	0.63	---	---
Nickel [mg/L]	20-Jun-08	13:55	0.0007	0.0021	---	---
Lead [mg/L]	20-Jun-08	13:55	0.00007	0.00005	---	---
Antimony [mg/L]	20-Jun-08	13:55	0.00104	0.00029	---	---
Selenium [mg/L]	20-Jun-08	13:55	< 0.001	< 0.001	---	---
Silica [mg/L]	16-Jun-08	08:09	0.51	0.37	---	---
Tin [mg/L]	20-Jun-08	13:56	0.00707	0.00345	---	---
Strontium [mg/L]	16-Jun-08	08:09	0.719	0.524	---	---
Titanium [mg/L]	20-Jun-08	13:56	< 0.0001	< 0.0001	---	---
Thallium [mg/L]	20-Jun-08	13:56	< 0.000002	< 0.000002	---	---
Uranium [mg/L]	20-Jun-08	13:56	0.000513	0.000307	---	---
Vanadium [mg/L]	20-Jun-08	13:56	0.00030	< 0.00003	---	---
Tungsten [mg/L]	20-Jun-08	13:56	0.00011	0.00004	---	---
Yttrium [mg/L]	20-Jun-08	13:56	0.000010	0.000003	---	---
Zinc [mg/L]	20-Jun-08	13:56	0.001	0.002	---	---

Revised: Updated sample results for Low Grade Ore Overall Comp -200m Wk#10 and High Sulphide Ore Overall Comp -200m Wk#10.

Results for metals, chloride, fluoride, nitrite, nitrate and ammonia + ammonium are unavaible due to laboratory error.

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, July 17, 2008

Date Rec. : 28 May 2008
LR Report: **CA10703-MAY08**
Reference: Wk#10

Copy: #2

CERTIFICATE OF ANALYSIS

Final Report - Revised

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk#10	6: Average Waste Overall Comp 1/4 " Wk#10	7: High Sulphide Waste Overall Comp 1/4" Wk#10	8: Low Grade Ore Overall Comp 1/4" Wk#10	9: High Sulphide Ore Overall Comp 1/4" Wk#10
Sample Date & Time			28-May-08	28-May-08	28-May-08	28-May-08	28-May-08
Hum Cell Leachate Volume [mLs]	---	---	824	880	902	849	845
pH [no unit]	02-Jun-08	11:01	7.42	7.61	4.63	7.57	7.54
Conductivity [uS/cm]	02-Jun-08	11:01	48	33	93	33	28
Alkalinity [mg/L as CaCO3]	02-Jun-08	11:01	13	10	< 2	10	9
Acidity [mg/L as CaCO3]	02-Jun-08	11:56	< 2	< 2	9	< 2	< 2
Sulphate [mg/L]	19-Jun-08	09:54	3.8	2.8	5.9	2.1	2.4
Chloride [mg/L]	12-Jun-08	15:39	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluoride [mg/L]	07-Jun-08	18:23	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Nitrite (as nitrogen) [mg/L]	05-Jun-08	10:05	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	05-Jun-08	10:05	0.70	0.16	4.60	< 0.05	0.07
Ammonia+Ammonium (N) [mg/L]	01-Jun-08	09:46	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Mercury [mg/L]	30-May-08	15:35	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	04-Jun-08	11:50	0.00002	0.00002	0.00001	0.00001	0.00003
Aluminum [mg/L]	04-Jun-08	11:50	0.0698	0.0629	0.0453	0.0618	0.0350
Arsenic [mg/L]	04-Jun-08	11:50	0.0003	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Barium [mg/L]	04-Jun-08	11:50	0.0654	0.0296	0.0118	0.0039	0.0168
Beryllium [mg/L]	04-Jun-08	11:50	0.00002	0.00003	< 0.00002	< 0.00002	< 0.00002
Boron [mg/L]	04-Jun-08	11:50	0.0003	0.0002	0.0003	0.0003	0.0003
Bismuth [mg/L]	04-Jun-08	11:50	0.00002	0.00002	0.00002	0.00002	0.00001
Calcium [mg/L]	04-Jun-08	11:50	6.04	3.71	4.78	3.00	3.47
Cadmium [mg/L]	04-Jun-08	11:50	0.000006	0.000010	0.000009	0.000006	0.000009
Cobalt [mg/L]	04-Jun-08	11:50	0.000122	0.000050	0.000063	0.000045	0.000052
Chromium [mg/L]	04-Jun-08	11:50	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	04-Jun-08	11:50	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Iron [mg/L]	04-Jun-08	11:50	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Potassium [mg/L]	04-Jun-08	11:50	1.43	1.26	1.24	1.33	1.19

OnLine LIMS

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Project : CALR-11623-002

LR Report : **CA10703-MAY08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk#10	6: Average Waste Overall Comp 1/4 " Wk#10	7: High Sulphide Waste Overall Comp 1/4" Wk#10	8: Low Grade Ore Overall Comp 1/4" Wk#10	9: High Sulphide Ore Overall Comp 1/4" Wk#10
Lithium [mg/L]	04-Jun-08	11:50	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Magnesium [mg/L]	04-Jun-08	11:50	0.486	0.307	0.318	0.306	0.244
Manganese [mg/L]	04-Jun-08	11:50	0.0165	0.00784	0.0166	0.00694	0.0129
Molybdenum [mg/L]	04-Jun-08	11:50	0.00155	0.00129	0.00125	0.00119	0.00077
Sodium [mg/L]	04-Jun-08	11:50	0.20	0.17	0.21	0.17	0.15
Nickel [mg/L]	04-Jun-08	11:50	0.0004	0.0002	0.0002	0.0001	0.0002
Lead [mg/L]	04-Jun-08	11:50	0.00002	0.00010	0.00006	0.00008	0.00011
Antimony [mg/L]	04-Jun-08	11:50	0.00129	0.00062	0.00060	0.00063	0.00049
Selenium [mg/L]	04-Jun-08	11:50	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Silica [mg/L]	04-Jun-08	11:50	0.62	0.35	0.33	0.30	0.19
Tin [mg/L]	04-Jun-08	11:50	0.00030	0.00027	0.00021	0.00038	0.00065
Strontium [mg/L]	04-Jun-08	11:50	0.704	0.450	0.0780	0.154	0.125
Titanium [mg/L]	04-Jun-08	11:50	< 0.0001	0.0003	< 0.0001	0.0002	< 0.0001
Thallium [mg/L]	04-Jun-08	11:50	0.000011	0.000005	0.000004	0.000003	< 0.000002
Uranium [mg/L]	04-Jun-08	11:50	0.00174	0.00152	0.00105	0.00174	0.000886
Vanadium [mg/L]	04-Jun-08	11:50	0.00067	0.00051	0.00031	0.00046	0.00020
Tungsten [mg/L]	04-Jun-08	11:50	0.00031	0.00034	0.00023	0.00033	0.00017
Yttrium [mg/L]	04-Jun-08	11:50	0.000011	0.000008	0.000007	0.000009	0.000004
Zinc [mg/L]	04-Jun-08	11:50	< 0.001	< 0.001	0.002	< 0.001	0.001

Please note: Due to suspected trace nitric acid contamination during a lab rinsing procedure, analytical results for pH, alkalinity, acidity, conductivity, and SO4 may be unreliable for samples within this batch.

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, August 19, 2008

Date Rec. : 25 July 2008
LR Report: **CA10761-JUL08**

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	7: Low Grade Ore Overall Comp -200mesh	8: High Sulphide Ore Overall Comp -200mesh
Sample Date & Time			11-Jun-08	11-Jun-08
Hum Cell Leachate Volume [mLs]	---	---	960	994
Conductivity [uS/cm]	31-Jul-08	14:06	86	124
Sulphate [mg/L]	05-Aug-08	10:54	16	31

Reassay of CA10049-JUN08

Revised: Updated sample results Aug. 19/08

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, August 19, 2008

Date Rec. : 25 July 2008
LR Report: **CA10761-JUL08**

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	7: Low Grade Ore Overall Comp -200mesh	8: High Sulphide Ore Overall Comp -200mesh
Sample Date & Time			11-Jun-08	11-Jun-08
Hum Cell Leachate Volume [mLs]	---	---	960	994
Conductivity [uS/cm]	31-Jul-08	14:06	86	124
Sulphate [mg/L]	05-Aug-08	10:54	16	31

Reassay of CA10049-JUN08

Revised: Updated sample results Aug. 19/08

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, May 06, 2008

Date Rec. : 05 March 2008
LR Report: **CA10002-MAR08**
Reference: Wk# 11

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN95/96 WK# 11	6: Overall Comp CN95/96(-200 mesh) WK# 11
Sample Date & Time			05-Mar-08	05-Mar-08
Hum Cell Leachate Volume [mLs]	---	---	856	869
pH [no unit]	06-Mar-08	16:27	7.91	7.63
Conductivity [uS/cm]	06-Mar-08	16:27	237	129
Alkalinity [mg/L as CaCO3]	06-Mar-08	16:27	34	10
Acidity [mg/L as CaCO3]	06-Mar-08	16:27	< 2	< 2
Sulphate [mg/L]	12-Mar-08	10:54	73	44

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, June 12, 2008

Date Rec. : 04 June 2008
LR Report: **CA10017-JUN08**
Reference: Wk# 11

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 11	6: Average Waste Overall Comp 1/4" Wk# 11	7: High Sulphide Waste Overall Comp 1/4" Wk# 11	8: Low Grade Ore Overall Comp 1/4" Wk# 11	9: High Sulphide Ore Overall Comp 1/4" Wk# 11
Sample Date & Time			04-June-08	04-June-08	04-June-08	04-June-08	04-June-08
Hum Cell Leachate Volume [mLs]	---	---	1002	907	948	872	903
pH [no unit]	07-Jun-08	23:32	7.66	7.66	7.43	7.26	7.41
Conductivity [uS/cm]	07-Jun-08	23:32	53	36	51	28	35
Alkalinity [mg/L as CaCO3]	07-Jun-08	23:32	17	12	15	10	12
Acidity [mg/L as CaCO3]	07-Jun-08	23:32	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	12-Jun-08	15:35	4.1	2.6	3.9	1.5	2.1

Dianne Griffin
Project Specialist

OnLine LIMS

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Phone: 705-652-2000 FAX: 705-652-6365

Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, June 26, 2008

Date Rec. : 18 June 2008
LR Report: **CA10099-JUN08**
Reference: Wk# 11

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 11	6: Low Grade Ore Overall Comp -200m Wk# 11	7: High Sulphide Ore Overall Comp -200m Wk# 11	8: GT Residue Wk# 11
Sample Date & Time			18-Jun-08	18-Jun-08	18-Jun-08	18-Jun-08
Hum Cell Leachate Volume [mLs]	---	---	988	987	985	985
pH [no unit]	23-Jun-08	11:12	7.75	7.66	7.57	7.31
Conductivity [uS/cm]	23-Jun-08	11:12	106	71	114	82
Alkalinity [mg/L as CaCO3]	23-Jun-08	11:12	24	18	17	10
Acidity [mg/L as CaCO3]	23-Jun-08	11:12	< 2	< 2	< 2	< 2
Sulphate [mg/L]	25-Jun-08	15:48	23	12	28	23

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, May 06, 2008

Date Rec. : 12 March 2008
LR Report: **CA10166-MAR08**
Reference: Wk# 12

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 12	6: Overall Comp CND2 (-200 mesh) Wk# 12
Sample Date & Time			12-Mar-08	12-Mar-08
Hum Cell Leachate Volume [mLs]	---	---	902	873
pH [no unit]	17-Mar-08	10:23	7.91	7.53
Conductivity [uS/cm]	17-Mar-08	10:23	243	153
Alkalinity [mg/L as CaCO3]	17-Mar-08	10:23	45	10
Acidity [mg/L as CaCO3]	17-Mar-08	10:23	< 2	< 2
Sulphate [mg/L]	20-Mar-08	09:31	80	60

Dianne Griffin
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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, July 17, 2008

Date Rec. : 25 June 2008
LR Report: **CA10378-JUN08**
Reference: Wk#12

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 12	6: Low Grade Ore Overall Comp -200m Wk# 12	7: High Sulphide Ore Overall Comp -200m Wk# 12	8: GT Residue Wk# 12
Sample Date & Time			25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08
Hum Cell Leachate Volume [mLs]	---	---	960	978	---	994
pH [no unit]	26-Jun-08	14:32	7.63	7.64	7.42	6.95
Conductivity [uS/cm]	26-Jun-08	14:32	109	52	83	56
Alkalinity [mg/L as CaCO3]	26-Jun-08	14:32	26	16	16	8
Acidity [mg/L as CaCO3]	26-Jun-08	14:32	< 2	< 2	< 2	< 2
Sulphate [mg/L]	16-Jul-08	15:49	29	9.1	20	17

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, August 19, 2008

Date Rec. : 11 June 2008
LR Report: **CA10050-JUN08**
Reference: Wk# 12

Copy: #2

CERTIFICATE OF ANALYSIS

Final Report - Revised

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 12	6: Average Waste Overall Comp 1/4" Wk# 12	7: High Sulphide Waste Overall Comp 1/4" Wk# 12	10: Low Grade Ore Overall Comp 1/4" Wk# 12	11: High Sulphide Ore Overall Comp 1/4" Wk# 12
Sample Date & Time			11-Jun-08	11-Jun-08	11-Jun-08	11-Jun-08	11-Jun-08
Hum Cell Leachate Volume [mLs]	---	---	978	966	980	984	982
pH [no unit]	12-Jun-08	11:16	7.30	7.55	7.48	7.39	7.54
Conductivity [uS/cm]	12-Jun-08	11:16	52	46	49	35	42
Alkalinity [mg/L as CaCO3]	12-Jun-08	11:16	17	25	17	15	16
Acidity [mg/L as CaCO3]	12-Jun-08	11:16	< 2	< 2	< 2	<2	<2
Sulphate [mg/L]	23-Jun-08	11:31	3.6	3.0	4.3	1.6	2.3

Revised: Updated results for samples Low Grade Ore Overall Comp 1/4" Wk# 12 and High Sulphide Ore Overall Comp 1/4" Wk# 12.

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, August 19, 2008

Date Rec. : 25 July 2008
LR Report: **CA10762-JUL08**
Reference: Wk# 12

Copy: #2

CERTIFICATE OF ANALYSIS

Final Report - Revised

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	7: Low Grade Ore Overall Comp 1/4" Wk# 12	8: High Sulphide Ore Overall Comp 1/4" Wk# 12
Sample Date & Time			11-Jun-08	11-Jun-08
Hum Cell Leachate Volume [mLs]	---	---	984	982
Conductivity [uS/cm]	06-Aug-08	14:55	32	38
Sulphate [mg/L]	07-Aug-08	09:56	1.7	2.4

Revised: Updated sample results Aug. 19/08.

Dianne Griffin
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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, August 19, 2008

Date Rec. : 25 July 2008
LR Report: **CA10762-JUL08**
Reference: Wk# 12

Copy: #2

CERTIFICATE OF ANALYSIS

Final Report - Revised

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	7: Low Grade Ore Overall Comp 1/4" Wk# 12	8: High Sulphide Ore Overall Comp 1/4" Wk# 12
Sample Date & Time			11-Jun-08	11-Jun-08
Hum Cell Leachate Volume [mLs]	---	---	984	982
Conductivity [uS/cm]	06-Aug-08	14:55	32	38
Sulphate [mg/L]	07-Aug-08	09:56	1.7	2.4

Revised: Updated sample results Aug. 19/08.

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Monday, July 14, 2008

Date Rec. : 02 July 2008
LR Report: **CA10018-JUL08**
Reference: Wk# 13

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 13	6: Low Grade Ore Overall Comp -200m Wk# 13	7: High Sulphide Ore Overall Comp -200m Wk# 13	8: GT Residue Wk# 13
Sample Date & Time			02-July-08	02-July-08	02-July-08	02-July-08
Hum Cell Leachate Volume [mLs]	---	---	983	987	982	981
pH [no unit]	04-Jul-08	13:13	7.57	7.66	7.65	7.09
Conductivity [uS/cm]	04-Jul-08	13:13	75	66	77	69
Alkalinity [mg/L as CaCO3]	04-Jul-08	13:13	16	15	14	9
Acidity [mg/L as CaCO3]	04-Jul-08	13:13	< 2	< 2	< 2	< 2
Sulphate [mg/L]	13-Jul-08	14:17	16	12	17	20

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Monday, June 23, 2008

Date Rec. : 18 June 2008
LR Report: **CA10100-JUN08**
Reference: Wk# 13

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 13	6: Average Waste Overall Comp 1/4" Wk# 13	7: High Sulphide Waste Overall Comp 1/4" Wk# 13	8: Low Grade Ore Overall Comp 1/4" Wk# 13	9: High Sulphide Ore Overall Comp 1/4" Wk# 13
Sample Date & Time			18-Jun-08	18-Jun-08	18-Jun-08	18-Jun-08	18-Jun-08
Hum Cell Leachate Volume [mLs]	---	---	906	884	938	946	979
pH [no unit]	23-Jun-08	11:13	7.61	7.52	7.73	7.53	7.54
Conductivity [uS/cm]	23-Jun-08	11:13	42	32	50	30	36
Alkalinity [mg/L as CaCO3]	23-Jun-08	11:13	16	12	17	11	12
Acidity [mg/L as CaCO3]	23-Jun-08	11:13	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	23-Jun-08	12:15	3.3	2.1	4.2	1.7	2.5

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, May 06, 2008

Date Rec. : 19 March 2008
LR Report: **CA10264-MAR08**
Reference: Wk# 13

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN95/96 Wk# 13	6: Overall Comp CND2 (-200 mesh) Wk# 13
Sample Date & Time			19-Mar-08	19-Mar-08
Hum Cell Leachate Volume [mLs]	---	---	896	925
pH [no unit]	20-Mar-08	12:07	7.76	7.60
Conductivity [uS/cm]	20-Mar-08	12:07	157	130
Alkalinity [mg/L as CaCO3]	20-Mar-08	12:07	32	10
Acidity [mg/L as CaCO3]	20-Mar-08	12:07	< 2	< 2
Sulphate [mg/L]	01-Apr-08	07:55	51	53

Dianne Griffin
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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Monday, July 21, 2008

Date Rec. : 09 July 2008
LR Report: **CA10045-JUL08**
Reference: Wk# 14

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk#14	6: Low Grade Ore Overall Comp -200m Wk# 14	7: High Sulphide Ore Overall Comp -200m Wk# 14	8: GT Residue Wk# 14
Sample Date & Time			09-July-08	09-July-08	09-July-08	09-July-08
Hum Cell Leachate Volume [mLs]	---	---	975	987	986	990
pH [no unit]	11-Jul-08	09:21	7.63	7.61	7.40	6.85
Conductivity [uS/cm]	11-Jul-08	09:21	84	68	98	71
Alkalinity [mg/L as CaCO3]	11-Jul-08	09:21	18	16	13	8
Acidity [mg/L as CaCO3]	11-Jul-08	09:21	< 2	< 2	< 2	< 2
Sulphate [mg/L]	21-Jul-08	11:56	17	12	25	19

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, May 06, 2008

Date Rec. : 26 March 2008
LR Report: **CA10365-MAR08**
Reference: Wk# 14

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN95/96 Wk# 14	6: Overall Comp CND2 (-200 mesh) Wk# 14
Sample Date & Time			26-Mar-08	26-Mar-08
Hum Cell Leachate Volume [mLs	---	---	911	894
pH [no unit]	27-Mar-08	13:20	7.66	7.14
Conductivity [uS/cm]	27-Mar-08	13:20	237	126
Alkalinity [mg/L as CaCO3]	27-Mar-08	13:20	30	9
Acidity [mg/L as CaCO3]	27-Mar-08	13:20	< 2	< 2
Sulphate [mg/L]	30-Mar-08	12:23	83	44

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, July 17, 2008

Date Rec. : 25 June 2008
LR Report: **CA10379-JUN08**
Reference: Wk#14

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 14	6: Average Waste Overall Comp 1/4" Wk# 14	7: High Sulphide Waste Overall Comp 1/4" Wk# 14	8: Low Grade Ore Overall Comp 1/4" Wk# 14	9: High Sulphide Ore Overall Comp 1/4" Wk# 14
Sample Date & Time			25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08
Hum Cell Leachate Volume [mLs]	---	---	977	897	---	969	958
pH [no unit]	26-Jun-08	14:32	7.43	7.32	7.89	7.26	7.27
Conductivity [uS/cm]	26-Jun-08	14:32	45	34	48	29	28
Alkalinity [mg/L as CaCO3]	26-Jun-08	14:32	21	14	22	12	12
Acidity [mg/L as CaCO3]	26-Jun-08	14:32	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	16-Jul-08	15:49	4.7	2.8	4.4	1.6	2.0

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Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Monday, May 05, 2008

Date Rec. : 02 April 2008
LR Report: **CA10004-APR08**
Reference: Wk# 15

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 15	6: Overall Comp CND2 (-200 mesh) Wk# 15
Sample Date & Time			02-Apr-08	02-Apr-08
Hum Cell Leachate Volume [mLs	---	---	961	901
pH [no unit]	04-Apr-08	10:11	7.38	6.66
Conductivity [uS/cm]	04-Apr-08	10:11	242	137
Alkalinity [mg/L as CaCO3]	04-Apr-08	10:11	50	6
Acidity [mg/L as CaCO3]	04-Apr-08	10:11	< 2	< 2
Sulphate [mg/L]	09-Apr-08	11:21	77	52
Chloride [mg/L]	14-Apr-08	12:45	< 0.2	< 0.2
Nitrite (as nitrogen) [mg/L]	09-Apr-08	11:21	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	09-Apr-08	11:21	< 0.05	0.75
Ammonia+Ammonium (N) [mg/L]	04-Apr-08	14:28	< 0.1	< 0.1
Cyanide [mg/L]	08-Apr-08	08:56	< 0.01	0.02
Cyanide WAD [mg/L]	03-Apr-08	14:19	< 0.01	< 0.01
Free Cyanide [mg/L]	03-Apr-08	14:19	< 0.01	< 0.01
Cyanate [mg/L]	10-Apr-08	08:01	< 0.1	< 0.1
Thiocyanate [mg/L]	09-Apr-08	11:37	< 0.2	< 0.2
Mercury [mg/L]	07-Apr-08	16:28	< 0.0001	< 0.0001
Silver [mg/L]	10-Apr-08	11:17	0.00004	0.00004
Aluminum [mg/L]	10-Apr-08	11:17	0.0688	0.0183
Arsenic [mg/L]	10-Apr-08	11:17	0.0008	0.0009
Barium [mg/L]	10-Apr-08	11:17	0.0349	0.0060
Beryllium [mg/L]	10-Apr-08	11:17	< 0.00002	< 0.00002
Boron [mg/L]	10-Apr-08	11:17	0.0009	0.0007
Bismuth [mg/L]	10-Apr-08	11:17	< 0.00001	< 0.00001
Calcium [mg/L]	10-Apr-08	11:17	37.7	15.9
Cadmium [mg/L]	10-Apr-08	11:17	0.000019	0.000008
Cobalt [mg/L]	10-Apr-08	11:17	0.000577	0.000666
Chromium [mg/L]	10-Apr-08	11:17	< 0.0005	< 0.0005
Copper [mg/L]	10-Apr-08	11:17	< 0.0005	0.0035

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Project : CALR-11623-002

LR Report : **CA10004-APR08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 15	6: Overall Comp CND2 (-200 mesh) Wk# 15
Iron [mg/L]	10-Apr-08	11:17	< 0.01	0.01
Potassium [mg/L]	10-Apr-08	11:17	7.65	2.94
Lithium [mg/L]	10-Apr-08	11:17	0.003	0.002
Magnesium [mg/L]	10-Apr-08	11:17	4.10	2.15
Manganese [mg/L]	10-Apr-08	11:17	0.0627	0.0284
Molybdenum [mg/L]	10-Apr-08	11:17	0.0227	0.00448
Sodium [mg/L]	10-Apr-08	11:17	1.64	3.96
Nickel [mg/L]	10-Apr-08	11:17	0.0028	0.0004
Lead [mg/L]	10-Apr-08	11:17	0.00002	0.00012
Antimony [mg/L]	10-Apr-08	11:17	0.00041	0.00020
Selenium [mg/L]	10-Apr-08	11:18	< 0.001	< 0.001
Silica [mg/L]	10-Apr-08	11:18	1.75	0.24
Tin [mg/L]	10-Apr-08	11:18	< 0.00001	< 0.00001
Strontium [mg/L]	10-Apr-08	11:18	1.82	0.676
Titanium [mg/L]	10-Apr-08	11:18	< 0.0001	< 0.0001
Thallium [mg/L]	10-Apr-08	11:18	0.000013	< 0.000002
Uranium [mg/L]	10-Apr-08	11:18	0.00201	0.000547
Vanadium [mg/L]	10-Apr-08	11:18	0.00053	0.00016
Tungsten [mg/L]	10-Apr-08	11:18	0.00037	0.00007
Yttrium [mg/L]	10-Apr-08	11:18	0.000020	0.000005
Zinc [mg/L]	10-Apr-08	11:18	0.002	0.002

Dianne Griffin
Project Specialist

OnLine LIMS

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0.45um

Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, July 22, 2008

Date Rec. : 02 July 2008
LR Report: **CA10019-JUL08**
Reference: Wk# 15

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 15	6: Average Waste Overall Comp 1/4 " Wk# 15	7: High Sulphide Waste Overall Comp 1/4" Wk# 15	8: Low Grade Ore Overall Comp 1/4" Wk# 15	9: High Sulphide Ore Overall Comp 1/4" Wk# 15
Sample Date & Time			02-July-08	02-July-08	02-July-08	02-July-08	02-July-08
Hum Cell Leachate Volume [mLs]	---	---	952	903	913	940	892
pH [no unit]	04-Jul-08	13:13	7.43	7.36	7.42	7.22	7.23
Conductivity [uS/cm]	04-Jul-08	13:13	41	38	44	28	27
Alkalinity [mg/L as CaCO3]	04-Jul-08	13:13	15	13	16	12	10
Acidity [mg/L as CaCO3]	04-Jul-08	13:13	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	22-Jul-08	10:38	3.6	2.7	3.3	1.5	1.8
Chloride [mg/L]	22-Jul-08	10:38	< 0.2	0.5	< 0.2	< 0.2	< 0.2
Fluoride [mg/L]	11-Jul-08	11:43	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Nitrite (as nitrogen) [mg/L]	22-Jul-08	10:38	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	22-Jul-08	10:38	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Ammonia+Ammonium (N) [mg/L]	03-Jul-08	15:18	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Mercury [mg/L]	04-Jul-08	15:10	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	09-Jul-08	13:08	< 0.00001	< 0.00001	0.00001	< 0.00001	< 0.00001
Aluminum [mg/L]	09-Jul-08	13:08	0.0515	0.0536	0.0597	0.0466	0.0367
Arsenic [mg/L]	09-Jul-08	13:08	< 0.0002	0.0003	< 0.0002	< 0.0002	< 0.0002
Barium [mg/L]	04-Jul-08	15:10	0.0744	0.0441	0.0201	0.0050	0.0257
Beryllium [mg/L]	09-Jul-08	13:08	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Boron [mg/L]	09-Jul-08	13:08	0.0004	0.0010	0.0003	0.0004	0.0003
Bismuth [mg/L]	09-Jul-08	13:08	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Calcium [mg/L]	04-Jul-08	15:10	6.03	5.09	6.81	3.93	4.10
Cadmium [mg/L]	09-Jul-08	13:08	0.000004	0.000008	0.000005	0.000004	0.000003
Cobalt [mg/L]	09-Jul-08	13:08	0.000073	0.000134	0.000015	0.000006	0.000010
Chromium [mg/L]	09-Jul-08	13:08	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	09-Jul-08	13:08	< 0.0005	0.0008	< 0.0005	< 0.0005	< 0.0005
Iron [mg/L]	04-Jul-08	15:10	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Potassium [mg/L]	04-Jul-08	15:10	1.17	1.17	1.37	1.05	1.01
Lithium [mg/L]	09-Jul-08	13:08	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Magnesium [mg/L]	04-Jul-08	15:10	0.374	0.322	0.341	0.291	0.202
Manganese [mg/L]	09-Jul-08	13:08	0.0161	0.00972	0.0181	0.00859	0.0136
Molybdenum [mg/L]	09-Jul-08	13:09	0.00198	0.00121	0.00092	0.00082	0.00051

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Project : CALR-11623-002

LR Report : **CA10019-JUL08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 15	6: Average Waste Overall Comp 1/4 " Wk# 15	7: High Sulphide Waste Overall Comp 1/4" Wk# 15	8: Low Grade Ore Overall Comp 1/4" Wk# 15	9: High Sulphide Ore Overall Comp 1/4" Wk# 15
Sodium [mg/L]	04-Jul-08	15:10	0.15	0.45	0.20	0.13	0.11
Nickel [mg/L]	09-Jul-08	13:09	< 0.0001	0.0025	< 0.0001	< 0.0001	< 0.0001
Lead [mg/L]	09-Jul-08	13:09	0.00003	0.00013	0.00002	< 0.00002	0.00005
Antimony [mg/L]	09-Jul-08	13:09	0.00073	0.00040	0.00034	0.00038	0.00030
Selenium [mg/L]	09-Jul-08	13:09	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Silica [mg/L]	04-Jul-08	15:10	0.53	0.49	0.51	0.40	0.35
Tin [mg/L]	09-Jul-08	13:09	0.00005	0.00056	0.00021	0.00037	0.00010
Strontium [mg/L]	04-Jul-08	15:10	0.662	0.560	0.0873	0.160	0.124
Titanium [mg/L]	09-Jul-08	13:09	< 0.0001	< 0.0001	0.0001	< 0.0001	< 0.0001
Thallium [mg/L]	09-Jul-08	13:09	< 0.000002	< 0.000002	0.000007	< 0.000002	< 0.000002
Uranium [mg/L]	09-Jul-08	13:09	0.00185	0.00186	0.00162	0.00212	0.00112
Vanadium [mg/L]	09-Jul-08	13:09	0.00054	0.00050	0.00038	0.00039	0.00023
Tungsten [mg/L]	09-Jul-08	13:09	0.00013	0.00025	0.00015	0.00024	0.00014
Yttrium [mg/L]	09-Jul-08	13:09	0.000010	0.000008	0.000011	0.000006	0.000003
Zinc [mg/L]	09-Jul-08	13:09	< 0.001	0.002	< 0.001	< 0.001	< 0.001

Please note: High Sulphide Ore Overall Comp 1/4" Wk# 15 sample was analyzed past holding time for NO2 and NO3 due to a laboratory error.

Dianne Griffin
Project Specialist

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0.45um

Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Wednesday, August 06, 2008

Date Rec. : 16 July 2008
LR Report: **CA10122-JUL08**
Reference: Wk# 15

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 15	6: Low Grade Ore Overall Comp -200m Wk# 15	7: High Sulphide Ore Overall Comp -200m Wk# 15	8: GT Residue Wk# 15
Sample Date & Time			16-Jul-08	16-Jul-08	16-Jul-08	16-Jul-08
Hum Cell Leachate Volume [mLs]	---	---	980	984	987	976
pH [no unit]	17-Jul-08	15:53	7.18	6.99	7.06	6.75
Conductivity [uS/cm]	17-Jul-08	15:53	78	63	105	62
Alkalinity [mg/L as CaCO3]	25-Jul-08	10:00	17	17	17	7
Acidity [mg/L as CaCO3]	25-Jul-08	10:00	< 2	< 2	< 2	< 2
Sulphate [mg/L]	22-Jul-08	15:37	17	11	26	17
Chloride [mg/L]	29-Jul-08	14:31	< 0.2	< 0.2	< 0.2	< 0.2
Fluoride [mg/L]	30-Jul-08	12:14	< 0.06	< 0.06	0.07	< 0.06
Nitrite (as nitrogen) [mg/L]	29-Jul-08	14:31	< 0.06	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	29-Jul-08	14:31	< 0.05	< 0.05	< 0.05	< 0.05
Ammonia+Ammonium (N) [mg/L]	18-Jul-08	14:28	< 0.1	< 0.1	< 0.1	< 0.1
Cyanide [mg/L]	18-Jul-08	16:15	---	---	---	< 0.01
Cyanide WAD [mg/L]	18-Jul-08	16:15	---	---	---	< 0.01
Free Cyanide [mg/L]	18-Jul-08	16:15	---	---	---	< 0.01
Cyanate [mg/L]	22-Jul-08	09:25	---	---	---	< 0.1
Thiocyanate [mg/L]	18-Jul-08	17:42	---	---	---	< 2
Mercury [mg/L]	21-Jul-08	09:40	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	22-Jul-08	13:58	0.00001	< 0.00001	< 0.00001	< 0.00001
Aluminum [mg/L]	22-Jul-08	13:58	0.0358	0.0335	0.0245	0.0098
Arsenic [mg/L]	22-Jul-08	13:58	< 0.0002	0.0002	0.0003	< 0.0002
Barium [mg/L]	23-Jul-08	08:59	0.0067	0.0041	0.0053	0.0035
Beryllium [mg/L]	22-Jul-08	13:58	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Boron [mg/L]	22-Jul-08	13:59	0.0011	0.0007	0.0014	0.0003
Bismuth [mg/L]	22-Jul-08	13:59	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Calcium [mg/L]	23-Jul-08	08:59	9.26	7.77	10.2	7.72
Cadmium [mg/L]	22-Jul-08	13:59	< 0.000003	< 0.000003	< 0.000003	< 0.000003
Cobalt [mg/L]	22-Jul-08	13:59	0.000127	0.000025	0.000043	0.000050
Chromium [mg/L]	22-Jul-08	13:59	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	22-Jul-08	13:59	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Iron [mg/L]	23-Jul-08	08:59	< 0.01	< 0.01	< 0.01	< 0.01

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Project : CALR-11623-002

LR Report : **CA10122-JUL08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 15	6: Low Grade Ore Overall Comp -200m Wk# 15	7: High Sulphide Ore Overall Comp -200m Wk# 15	8: GT Residue Wk# 15
Potassium [mg/L]	23-Jul-08	08:59	2.69	1.99	4.84	1.28
Lithium [mg/L]	22-Jul-08	13:59	0.003	0.002	0.003	0.001
Magnesium [mg/L]	23-Jul-08	08:59	1.39	1.02	2.10	0.860
Manganese [mg/L]	22-Jul-08	13:59	0.0568	0.0406	0.0662	0.0214
Molybdenum [mg/L]	22-Jul-08	13:59	0.00527	0.00167	0.00278	0.00043
Sodium [mg/L]	23-Jul-08	08:58	0.80	0.56	2.01	0.43
Nickel [mg/L]	22-Jul-08	13:59	0.0003	< 0.0001	< 0.0001	< 0.0001
Lead [mg/L]	22-Jul-08	13:59	< 0.00002	0.00004	< 0.00002	< 0.00002
Antimony [mg/L]	22-Jul-08	13:59	0.00084	0.00041	0.00052	0.00030
Selenium [mg/L]	22-Jul-08	13:59	< 0.001	< 0.001	< 0.001	< 0.001
Silica [mg/L]	23-Jul-08	08:58	0.34	0.28	0.23	0.18
Tin [mg/L]	22-Jul-08	13:59	0.00457	0.00200	0.00142	0.00313
Strontium [mg/L]	23-Jul-08	08:58	0.571	0.118	0.194	0.350
Titanium [mg/L]	22-Jul-08	13:59	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Thallium [mg/L]	22-Jul-08	13:59	0.000008	0.000004	0.000014	0.000004
Uranium [mg/L]	22-Jul-08	13:59	0.000875	0.00126	0.000884	0.000291
Vanadium [mg/L]	22-Jul-08	13:59	0.00021	0.00017	0.00006	< 0.00003
Tungsten [mg/L]	22-Jul-08	13:59	0.00009	0.00019	0.00006	< 0.00003
Yttrium [mg/L]	22-Jul-08	13:59	0.000009	0.000010	0.000003	0.000001
Zinc [mg/L]	22-Jul-08	13:59	< 0.001	< 0.001	< 0.001	0.002

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Wednesday, August 06, 2008

Date Rec. : 09 July 2008
LR Report: **CA10046-JUL08**
Reference: Wk# 16

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 16	6: Average Waste Overall Comp 1/4" Wk# 16	7: High Sulphide Waste Overall Comp 1/4" Wk# 16	8: Low Grade Ore Overall Comp 1/4" Wk# 16	9: High Sulphide Ore Overall Comp 1/4" Wk# 16
Sample Date & Time			09-July-08	09-July-08	09-July-08	09-July-08	09-July-08
Hum Cell Leachate Volume [mLs]	---	---	982	915	977	984	981
pH [no unit]	11-Jul-08	09:22	7.22	7.22	7.55	7.24	7.18
Conductivity [uS/cm]	11-Jul-08	09:22	44	47	56	36	36
Alkalinity [mg/L as CaCO3]	11-Jul-08	09:22	16	14	23	15	13
Acidity [mg/L as CaCO3]	11-Jul-08	09:22	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	28-Jul-08	11:50	3.7	5.8	3.9	1.6	2.1

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Wednesday, August 06, 2008

Date Rec. : 23 July 2008
LR Report: **CA10148-JUL08**
Reference: Wk# 16

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 16	6: Low Grade Ore Overall Comp -200m Wk# 16	7: High Sulphide Ore Overall Comp -200m Wk# 16	8: GT Residue Wk# 16
Sample Date & Time			23-Jul-08	23-Jul-08	23-Jul-08	23-Jul-08
Hum Cell Leachate Volume [mLs]	---	---	980	985	986	990
pH [no unit]	25-Jul-08	09:54	7.09	7.14	6.94	6.77
Conductivity [uS/cm]	25-Jul-08	09:54	80	63	106	73
Alkalinity [mg/L as CaCO3]	25-Jul-08	09:54	17	16	14	15
Acidity [mg/L as CaCO3]	25-Jul-08	09:54	< 2	< 2	< 2	< 2
Sulphate [mg/L]	30-Jul-08	12:29	17	11	28	20

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Monday, May 05, 2008

Date Rec. : 09 April 2008
LR Report: **CA10175-APR08**
Reference: Wk# 16

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CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN 95/96Wk# 16	6: Overall Comp CND2 (-200 mesh) Wk# 16
Sample Date & Time			09-Apr-08	09-Apr-08
Hum Cell Leachate Volume [mLs]	---	---	910	904
pH [no unit]	11-Apr-08	14:13	7.21	6.78
Conductivity [uS/cm]	11-Apr-08	14:13	219	144
Alkalinity [mg/L as CaCO3]	11-Apr-08	14:13	44	8
Acidity [mg/L as CaCO3]	11-Apr-08	14:13	< 2	3
Sulphate [mg/L]	19-Apr-08	10:26	53	50

Dianne Griffin
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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowmam

Monday, July 28, 2008

Date Rec. : 16 July 2008
LR Report: **CA10123-JUL08**
Reference: Wk# 17

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CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 17	6: Average Waste Overall Comp 1/4" Wk# 17	7: High Sulphide Waste Overall Comp 1/4" Wk# 17	8: Low Grade Ore Overall Comp 1/4" Wk# 17	9: High Sulphide Ore Overall Comp 1/4 " Wk # 17
Sample Date & Time			16-Jul-08	16-Jul-08	16-Jul-08	16-Jul-08	16-Jul-08
Hum Cell Leachate Volume [mLs]	---	---	925	934	983	959	943
pH [no unit]	17-Jul-08	15:49	7.11	7.04	7.10	7.06	7.02
Conductivity [uS/cm]	17-Jul-08	15:49	37	32	45	28	28
Alkalinity [mg/L as CaCO3]	17-Jul-08	15:49	17	12	16	11	14
Acidity [mg/L as CaCO3]	17-Jul-08	15:49	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	25-Jul-08	16:15	3.2	2.2	3.3	1.5	1.9

Dianne Griffin
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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, May 01, 2008

Date Rec. : 16 April 2008
LR Report: **CA10311-APR08**
Reference: Wk# 17

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN95/96 Wk# 17	6: Overall Comp CND2 (-200 mesh) Wk# 17
Sample Date & Time			16-Apr-08	16-Apr-08
Hum Cell Leachate Volume [mLs]	---	---	922	914
pH [no unit]	17-Apr-08	13:19	7.20	7.18
Conductivity [uS/cm]	17-Apr-08	13:19	219	160
Alkalinity [mg/L as CaCO3]	17-Apr-08	13:19	44	10
Acidity [mg/L as CaCO3]	17-Apr-08	13:19	< 2	< 2
Sulphate [mg/L]	28-Apr-08	16:36	48	58

Dianne Griffin
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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, August 12, 2008

Date Rec. : 30 July 2008
LR Report: **CA10456-JUL08**
Reference: Wk#17

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk#17	6: Low Grade Ore Overall Comp -200m Wk#17	7: High Sulphide Ore Overall Comp -200m Wk#17	8: GT Residue Wk#17
Sample Date & Time			30-Jul-08	30-Jul-08	30-Jul-08	30-Jul-08
Hum Cell Leachate Volume [mLs]	---	---	978	975	990	979
pH [no unit]	01-Aug-08	16:38	7.79	7.66	7.65	6.96
Conductivity [uS/cm]	01-Aug-08	16:38	75	57	77	65
Alkalinity [mg/L as CaCO3]	01-Aug-08	16:38	17	16	14	8
Acidity [mg/L as CaCO3]	01-Aug-08	16:38	< 2	< 2	< 2	< 2
Sulphate [mg/L]	09-Aug-08	10:37	16	10	18	19

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Wednesday, August 20, 2008

Date Rec. : 05 August 2008
LR Report: **CA10020-AUG08**
Reference: Wk# 18

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 18	6: Low Grade Ore Overall Comp -200m Wk# 18	7: High Sulphide Ore Overall Comp -200m Wk# 18	8: GT Residue Wk# 18
Sample Date & Time			06-Aug-08	06-Aug-08	06-Aug-08	06-Aug-08
Hum Cell Leachate Volume [mLs]	---	---	981	978	989	984
pH [no unit]	08-Aug-08	15:58	7.67	7.54	7.61	7.04
Conductivity [uS/cm]	08-Aug-08	15:58	73	55	91	66
Alkalinity [mg/L as CaCO3]	08-Aug-08	15:58	16	14	16	7
Acidity [mg/L as CaCO3]	08-Aug-08	15:58	< 2	< 2	< 2	< 2
Sulphate [mg/L]	19-Aug-08	09:59	16	10	24	19

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Wednesday, August 06, 2008

Date Rec. : 23 July 2008
LR Report: **CA10149-JUL08**
Reference: Wk# 18

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 18	6: Average Waste Overall Comp 1/4" Wk# 18	7: High Sulphide Waste Overall Comp 1/4" Wk# 18	8: Low Grade Ore Overall Comp 1/4" Wk# 18	9: High Sulphide Ore Overall Comp 1/4" Wk# 18
Sample Date & Time			23-Jul-08	23-Jul-08	23-Jul-08	23-Jul-08	23-Jul-08
Hum Cell Leachate Volume [mLs]	---	---	916	898	942	901	892
pH [no unit]	25-Jul-08	09:54	7.09	7.05	7.17	6.96	6.93
Conductivity [uS/cm]	25-Jul-08	09:54	36	27	37	22	22
Alkalinity [mg/L as CaCO3]	25-Jul-08	09:54	14	11	14	9	8
Acidity [mg/L as CaCO3]	25-Jul-08	09:54	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	30-Jul-08	12:29	2.7	1.8	2.8	1.3	1.5

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, May 20, 2008

Date Rec. : 05 May 2008
LR Report: **CA10234-MAY08**
Reference: Wk#18

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk#18	6: Overall Comp CND2 (-200 mesh) Wk#18
Sample Date & Time			23-Apr-08	23-Apr-08
pH [no unit]	09-May-08	13:58	6.38	7.59
Alkalinity [mg/L as CaCO3]	09-May-08	13:58	4	36
Sulphate [mg/L]	17-May-08	09:51	---	11

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Friday, May 02, 2008

Date Rec. : 23 April 2008
LR Report: **CA10515-APR08**
Reference: Wk#18

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk#18	6: Overall Comp CND2 (-200 mesh) Wk#18
Sample Date & Time			23-Apr-08	23-Apr-08
Hum Cell Leachate Volume [mLs]	---	---	899	897
pH [no unit]	28-Apr-08	09:49	6.22	7.67
Conductivity [uS/cm]	28-Apr-08	09:49	145	96
Alkalinity [mg/L as CaCO3]	28-Apr-08	09:49	3	36
Acidity [mg/L as CaCO3]	28-Apr-08	09:49	< 2	< 2
Sulphate [mg/L]	01-May-08	20:25	40	12

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, August 28, 2008

Date Rec. : 13 August 2008
LR Report: **CA10045-AUG08**
Reference: Wk#19

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk#19	6: Low Grade Ore Overall Comp -200m Wk#19	7: High Sulphide Ore Overall Comp -200m Wk#19	8: GT Residue Wk#19
Sample Date & Time			13-Aug-08	13-Aug-08	13-Aug-08	13-Aug-08
Hum Cell Leachate Volume [mLs]	---	---	977	977	979	980
pH [no unit]	15-Aug-08	10:17	8.52	8.64	8.15	7.01
Conductivity [uS/cm]	15-Aug-08	10:17	97	97	103	90
Alkalinity [mg/L as CaCO3]	15-Aug-08	10:17	16	18	12	8
Acidity [mg/L as CaCO3]	15-Aug-08	10:17	< 2	< 2	< 2	< 2
Sulphate [mg/L]	26-Aug-08	21:41	16	16	20	21

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, August 12, 2008

Date Rec. : 30 July 2008
LR Report: **CA10457-JUL08**
Reference: Wk#19

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk#19	6: Average Waste Overall Comp 1/4" Wk#19	7: High Sulphide Waste Overall Comp 1/4" Wk#19	8: Low Grade Ore Overall Comp 1/4" Wk#19	9: High Sulphide Ore Overall Comp 1/4" Wk#19
Sample Date & Time			30-Jul-08	30-Jul-08	30-Jul-08	30-Jul-08	30-Jul-08
Hum Cell Leachate Volume [mLs]	---	---	914	913	930	910	906
pH [no unit]	01-Aug-08	16:38	7.34	7.30	7.45	7.23	7.18
Conductivity [uS/cm]	01-Aug-08	16:38	33	29	36	23	24
Alkalinity [mg/L as CaCO3]	01-Aug-08	16:38	13	12	14	9	9
Acidity [mg/L as CaCO3]	01-Aug-08	16:38	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	09-Aug-08	10:37	2.4	2.0	2.8	1.3	1.6

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Monday, May 12, 2008

Date Rec. : 30 April 2008
LR Report: **CA10628-APR08**
Reference: Wk# 19

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 19	6: Overall Comp CND2 (-200 mesh) Wk# 19
Sample Date & Time			30-Apr-08	30-Apr-08
Hum Cell Leachate Volume [mLs]	---	---	949	936
pH [no unit]	02-May-08	09:16	7.97	7.12
Conductivity [uS/cm]	02-May-08	09:16	289	113
Alkalinity [mg/L as CaCO3]	02-May-08	09:16	61	9
Acidity [mg/L as CaCO3]	02-May-08	09:16	< 2	< 2
Sulphate [mg/L]	11-May-08	12:03	74	37

Dianne Griffin
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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Friday, August 15, 2008

Date Rec. : 06 August 2008
LR Report: **CA10015-AUG08**
Reference: Wk#20

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk#20	6: Average Waste Overall Comp 1/4 " Wk#20	7: High Sulphide Waste Overall Comp 1/4" Wk#20	8: Low Grade Ore Overall Comp 1/4" Wk#20	9: High Sulphide Ore Overall Comp 1/4" Wk#20
Sample Date & Time			06-Aug-08	06-Aug-08	06-Aug-08	06-Aug-08	06-Aug-08
Hum Cell Leachate Volume [mLs]	---	---	905	900	901	910	912
pH [no unit]	08-Aug-08	15:59	7.33	7.24	7.39	7.16	7.21
Conductivity [uS/cm]	08-Aug-08	15:59	32	27	38	22	23
Alkalinity [mg/L as CaCO3]	08-Aug-08	15:59	12	10	14	9	9
Acidity [mg/L as CaCO3]	08-Aug-08	15:59	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	14-Aug-08	08:51	2.1	1.7	2.8	1.2	1.5
Chloride [mg/L]	14-Aug-08	08:51	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluoride [mg/L]	11-Aug-08	12:31	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Nitrite (as nitrogen) [mg/L]	14-Aug-08	08:51	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	14-Aug-08	08:51	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Ammonia+Ammonium (N) [mg/L]	11-Aug-08	10:32	< 0.1	< 0.1	< 0.1	< 0.1	0.2
Mercury [mg/L]	12-Aug-08	15:36	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	14-Aug-08	08:23	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Aluminum [mg/L]	14-Aug-08	08:23	0.0540	0.0457	0.0780	0.0514	0.0382
Arsenic [mg/L]	14-Aug-08	08:23	0.0003	0.0004	0.0003	0.0004	< 0.0002
Barium [mg/L]	13-Aug-08	10:49	0.0592	0.0407	0.0181	0.0043	0.0215
Beryllium [mg/L]	14-Aug-08	08:23	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Boron [mg/L]	14-Aug-08	08:23	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Bismuth [mg/L]	14-Aug-08	08:23	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Calcium [mg/L]	13-Aug-08	10:49	4.86	4.08	6.27	3.41	3.48
Cadmium [mg/L]	14-Aug-08	08:23	< 0.000003	< 0.000003	< 0.000003	< 0.000003	< 0.000003
Cobalt [mg/L]	14-Aug-08	08:23	0.000042	0.000007	0.000004	< 0.000002	0.000004
Chromium [mg/L]	14-Aug-08	08:23	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	14-Aug-08	08:23	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Iron [mg/L]	13-Aug-08	10:49	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Potassium [mg/L]	13-Aug-08	10:49	1.00	0.95	1.21	0.89	0.84
Lithium [mg/L]	14-Aug-08	08:23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Magnesium [mg/L]	13-Aug-08	10:49	0.234	0.192	0.220	0.211	0.136
Manganese [mg/L]	14-Aug-08	08:23	0.0137	0.00900	0.0202	0.00908	0.0133
Molybdenum [mg/L]	14-Aug-08	08:23	0.00119	0.00074	0.00061	0.00057	0.00031

OnLine LIMS

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Project : CALR-11623-002

LR Report : **CA10015-AUG08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk#20	6: Average Waste Overall Comp 1/4 " Wk#20	7: High Sulphide Waste Overall Comp 1/4" Wk#20	8: Low Grade Ore Overall Comp 1/4" Wk#20	9: High Sulphide Ore Overall Comp 1/4" Wk#20
Sodium [mg/L]	13-Aug-08	10:49	0.11	0.11	0.14	0.10	0.08
Nickel [mg/L]	14-Aug-08	08:23	0.0001	0.0001	0.0001	< 0.0001	< 0.0001
Lead [mg/L]	14-Aug-08	08:23	< 0.00002	0.00006	0.00002	< 0.00002	0.00003
Antimony [mg/L]	14-Aug-08	08:23	0.00032	0.00018	0.00018	0.00015	0.00015
Selenium [mg/L]	14-Aug-08	08:23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Silica [mg/L]	13-Aug-08	10:49	0.40	0.38	0.50	0.31	0.25
Tin [mg/L]	14-Aug-08	08:23	0.00004	0.00024	0.00022	0.00011	0.00013
Strontium [mg/L]	13-Aug-08	10:49	0.461	0.454	0.0649	0.115	0.0848
Titanium [mg/L]	14-Aug-08	08:23	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Thallium [mg/L]	14-Aug-08	08:23	< 0.000002	< 0.000002	< 0.000002	< 0.000002	< 0.000002
Uranium [mg/L]	14-Aug-08	08:23	0.00154	0.00156	0.00136	0.00173	0.000883
Vanadium [mg/L]	14-Aug-08	08:23	0.00049	0.00036	0.00046	0.00032	0.00019
Tungsten [mg/L]	14-Aug-08	08:23	0.00012	0.00013	0.00012	0.00017	0.00011
Yttrium [mg/L]	14-Aug-08	08:23	< 0.000001	< 0.000001	< 0.000001	< 0.000001	< 0.000001
Zinc [mg/L]	14-Aug-08	08:23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, May 20, 2008

Date Rec. : 07 May 2008
LR Report: **CA10060-MAY08**
Reference: Wk#20

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN95/96 WK#20	6: Overall Comp CND2 (-200 mesh) Wk#20
Sample Date & Time			07-May-08	07-May-08
Hum Cell Leachate Volume [mLs]	---	---	872	931
pH [no unit]	09-May-08	14:16	8.64	7.02
Conductivity [uS/cm]	09-May-08	14:16	208	121
Alkalinity [mg/L as CaCO3]	09-May-08	14:16	50	7
Acidity [mg/L as CaCO3]	09-May-08	14:16	< 2	< 2
Sulphate [mg/L]	17-May-08	10:29	45	41
Chloride [mg/L]	17-May-08	10:29	< 0.2	< 0.2
Nitrite (as nitrogen) [mg/L]	17-May-08	10:29	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	17-May-08	10:29	0.82	0.81
Ammonia+Ammonium (N) [mg/L]	08-May-08	15:23	< 0.1	0.1
Cyanide [mg/L]	08-May-08	14:31	< 0.01	0.02
Cyanide WAD [mg/L]	15-May-08	11:16	< 0.01	< 0.01
Free Cyanide [mg/L]	15-May-08	11:16	< 0.01	< 0.01
Cyanate [mg/L]	13-May-08	12:08	< 0.1	< 0.1
Thiocyanate [mg/L]	15-May-08	08:27	< 2	< 2
Mercury [mg/L]	09-May-08	14:40	< 0.0001	< 0.0001
Silver [mg/L]	15-May-08	08:07	0.00002	< 0.00001
Aluminum [mg/L]	15-May-08	08:07	0.0568	0.0112
Arsenic [mg/L]	15-May-08	08:07	0.0002	< 0.0002
Barium [mg/L]	15-May-08	08:07	0.0498	0.0051
Beryllium [mg/L]	15-May-08	08:07	< 0.00002	< 0.00002
Boron [mg/L]	15-May-08	08:07	0.0010	0.0008
Bismuth [mg/L]	15-May-08	08:07	0.00001	< 0.00001
Calcium [mg/L]	15-May-08	08:07	26.1	13.7
Cadmium [mg/L]	15-May-08	08:07	0.000016	0.000006
Cobalt [mg/L]	15-May-08	08:07	0.000303	0.000452
Chromium [mg/L]	15-May-08	08:07	< 0.0005	< 0.0005
Copper [mg/L]	15-May-08	08:07	< 0.0005	0.0023

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Project : CALR-11623-002

LR Report : **CA10060-MAY08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN95/96 WK#20	6: Overall Comp CND2 (-200 mesh) Wk#20
Iron [mg/L]	15-May-08	08:07	< 0.01	< 0.01
Potassium [mg/L]	15-May-08	08:07	5.81	2.28
Lithium [mg/L]	15-May-08	08:07	0.003	0.002
Magnesium [mg/L]	15-May-08	08:07	2.73	1.89
Manganese [mg/L]	15-May-08	08:07	0.0532	0.0319
Molybdenum [mg/L]	15-May-08	08:07	0.0152	0.00299
Sodium [mg/L]	15-May-08	08:07	0.90	2.36
Nickel [mg/L]	15-May-08	08:07	0.0015	0.0003
Lead [mg/L]	15-May-08	08:07	< 0.00002	< 0.00002
Antimony [mg/L]	15-May-08	08:07	0.00118	0.00058
Selenium [mg/L]	15-May-08	08:07	< 0.001	< 0.001
Silica [mg/L]	15-May-08	08:07	1.47	0.18
Tin [mg/L]	15-May-08	08:07	0.00109	0.00033
Strontium [mg/L]	15-May-08	08:07	1.16	0.534
Titanium [mg/L]	15-May-08	08:07	0.0001	0.0001
Thallium [mg/L]	15-May-08	08:07	0.000025	0.000005
Uranium [mg/L]	15-May-08	08:07	0.00145	0.000527
Vanadium [mg/L]	15-May-08	08:07	0.00057	0.00009
Tungsten [mg/L]	15-May-08	08:07	0.00079	0.00021
Yttrium [mg/L]	15-May-08	08:08	0.000010	0.000004
Zinc [mg/L]	15-May-08	08:08	0.003	< 0.001

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, August 28, 2008

Date Rec. : 20 August 2008
LR Report: **CA10427-AUG08**
Reference: Wk#20

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk#20	6: Low Grade Ore Overall Comp -200m Wk#20	7: High Sulphide Ore Overall Comp -200m Wk#20	8: GT Residue Wk#20
Sample Date & Time			20-Aug-08	20-Aug-08	20-Aug-08	20-Aug-08
Hum Cell Leachate Volume [mLs]	---	---	977	978	986	990
pH [no unit]	21-Aug-08	14:24	7.42	7.45	7.29	6.97
Conductivity [uS/cm]	21-Aug-08	14:24	112	72	102	98
Alkalinity [mg/L as CaCO3]	21-Aug-08	14:24	16	14	13	8
Acidity [mg/L as CaCO3]	21-Aug-08	14:24	< 2	< 2	< 2	< 2
Sulphate [mg/L]	26-Aug-08	22:14	18	9.1	17	21
Chloride [mg/L]	26-Aug-08	22:14	< 0.2	< 0.2	< 0.2	< 0.2
Fluoride [mg/L]	22-Aug-08	13:23	< 0.06	< 0.06	< 0.06	< 0.06
Nitrite (as nitrogen) [mg/L]	26-Aug-08	22:14	< 0.06	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	26-Aug-08	22:14	< 0.05	< 0.05	< 0.05	< 0.05
Ammonia+Ammonium (N) [mg/L]	21-Aug-08	14:55	< 0.1	< 0.1	< 0.1	< 0.1
Cyanide [mg/L]	21-Aug-08	13:43	---	---	---	< 0.01
Cyanide WAD [mg/L]	21-Aug-08	13:43	---	---	---	< 0.01
Free Cyanide [mg/L]	21-Aug-08	13:43	---	---	---	< 0.01
Cyanate [mg/L]	27-Aug-08	12:36	---	---	---	< 0.1
Thiocyanate [mg/L]	27-Aug-08	12:22	---	---	---	< 2
Mercury [mg/L]	25-Aug-08	10:19	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	26-Aug-08	09:12	0.00002	0.00004	< 0.00001	< 0.00001
Aluminum [mg/L]	26-Aug-08	09:12	0.0321	0.0226	0.0282	0.0066
Arsenic [mg/L]	26-Aug-08	09:12	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Barium [mg/L]	22-Aug-08	12:38	0.0056	0.0032	0.0034	0.0032
Beryllium [mg/L]	26-Aug-08	09:12	0.00005	0.00005	< 0.00002	< 0.00002
Boron [mg/L]	26-Aug-08	09:12	0.0014	0.0009	0.0009	0.0004
Bismuth [mg/L]	26-Aug-08	09:12	0.00002	0.00004	< 0.00001	< 0.00001
Calcium [mg/L]	22-Aug-08	12:38	9.69	6.88	8.31	8.69
Cadmium [mg/L]	26-Aug-08	09:12	0.000027	0.000047	0.000007	< 0.000003
Cobalt [mg/L]	26-Aug-08	09:12	0.000132	0.000077	0.000040	0.000050
Chromium [mg/L]	26-Aug-08	09:12	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	26-Aug-08	09:12	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Iron [mg/L]	22-Aug-08	12:38	< 0.01	< 0.01	< 0.01	< 0.01

OnLine LIMS

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Project : CALR-11623-002

LR Report : **CA10427-AUG08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk#20	6: Low Grade Ore Overall Comp -200m Wk#20	7: High Sulphide Ore Overall Comp -200m Wk#20	8: GT Residue Wk#20
Potassium [mg/L]	22-Aug-08	12:38	2.57	1.62	2.38	1.44
Lithium [mg/L]	26-Aug-08	09:13	0.002	0.001	0.002	< 0.001
Magnesium [mg/L]	22-Aug-08	12:38	1.37	0.836	1.22	1.04
Manganese [mg/L]	26-Aug-08	09:13	0.0541	0.0349	0.0652	0.0195
Molybdenum [mg/L]	26-Aug-08	09:13	0.00471	0.00108	0.00124	0.00057
Sodium [mg/L]	22-Aug-08	12:38	0.72	0.56	0.86	0.47
Nickel [mg/L]	26-Aug-08	09:13	0.0003	0.0002	0.0002	0.0003
Lead [mg/L]	26-Aug-08	09:13	0.00005	0.00007	0.00003	0.00006
Antimony [mg/L]	26-Aug-08	09:13	0.00072	0.00045	0.00030	0.00020
Selenium [mg/L]	26-Aug-08	09:13	< 0.001	< 0.001	< 0.001	< 0.001
Silica [mg/L]	22-Aug-08	12:38	0.44	0.34	0.23	0.30
Tin [mg/L]	26-Aug-08	09:13	0.00390	0.00163	0.00083	0.00362
Strontium [mg/L]	22-Aug-08	12:38	0.592	0.0896	0.124	0.390
Titanium [mg/L]	26-Aug-08	09:13	0.0001	0.0002	< 0.0001	< 0.0001
Thallium [mg/L]	26-Aug-08	09:13	0.000030	0.000046	0.000009	0.000006
Uranium [mg/L]	26-Aug-08	09:13	0.000848	0.000966	0.000401	0.000485
Vanadium [mg/L]	26-Aug-08	09:13	0.00032	0.00024	0.00011	< 0.00003
Tungsten [mg/L]	26-Aug-08	09:13	0.00023	0.00036	0.00008	0.00007
Yttrium [mg/L]	26-Aug-08	09:13	0.000035	0.000057	0.000008	0.000005
Zinc [mg/L]	26-Aug-08	09:13	< 0.001	< 0.001	< 0.001	0.001

Dianne Griffin
Project Specialist

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Environmental Met
Attn : Barb Bowman

Project : CALR-11623-002

Thursday, August 21, 2008

Date Rec. : 13 August 2008
LR Report: **CA10046-AUG08**
Reference: Wk#21

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk#21	6: Average Waste Overall Comp 1/4" Wk#21	7: High Sulphide Waste Overall Comp 1/4" Wk#21	8: Low Grade Ore Overall Comp 1/4" Wk#21	9: High Sulphide Ore Overall Comp 1/4" Wk#21
Sample Date & Time			13-Aug-08	13-Aug-08	13-Aug-08	13-Aug-08	13-Aug-08
Hum Cell Leachate Volume [mLs]	---	---	907	891	957	894	895
pH [no unit]	15-Aug-08	10:37	7.33	7.48	7.73	7.38	7.33
Conductivity [uS/cm]	19-Aug-08	10:52	28	22	44	19	19
Alkalinity [mg/L as CaCO3]	15-Aug-08	10:37	13	10	18	38	8
Acidity [mg/L as CaCO3]	15-Aug-08	10:37	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	20-Aug-08	16:14	2.0	1.5	3.5	1.1	1.4

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Friday, May 23, 2008

Date Rec. : 14 May 2008
LR Report: **CA10122-MAY08**
Reference: Wk#21

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN95/96 Wk#21	6: Overall Comp CND2 (-200 mesh) Wk#21
Sample Date & Time			14-May-08	14-May-08
Hum Cell Leachate Volume [mLs]	---	---	904	916
pH [no unit]	15-May-08	16:55	7.41	6.90
Conductivity [uS/cm]	20-May-08	10:38	171	117
Alkalinity [mg/L as CaCO3]	20-May-08	10:38	43	5
Acidity [mg/L as CaCO3]	20-May-08	10:38	< 2	< 2
Sulphate [mg/L]	21-May-08	15:33	36	38

Dianne Griffin
Project Specialist

OnLine LIMS

SGS Lakefield Research Limited
P.O. Box 4300 - 185 Concession St.
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Phone: 705-652-2000 FAX: 705-652-6365

Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Wednesday, September 03, 2008

Date Rec. : 27 August 2008
LR Report: **CA10501-AUG08**
Reference: Wk#21

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk#21	6: Low Grade Ore Overall Comp -200m Wk#21	7: High Sulphide Ore Overall Comp -200m Wk#21	8: GT Residue Wk#21
Sample Date & Time			27-Aug-08	27-Aug-08	27-Aug-08	27-Aug-08
Hum Cell Leachate Volume [mLs]	---	---	985	983	991	989
pH [no unit]	02-Sep-08	15:45	7.39	7.40	7.30	6.99
Conductivity [uS/cm]	02-Sep-08	15:45	87	62	70	83
Alkalinity [mg/L as CaCO3]	02-Sep-08	15:45	17	21	11	9
Acidity [mg/L as CaCO3]	02-Sep-08	15:45	< 2	< 2	< 2	< 2
Sulphate [mg/L]	02-Sep-08	13:42	22	12	19	27

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Monday, September 15, 2008

Date Rec. : 03 September 2008
LR Report: **CA10018-SEP08**
Reference: Wk#22

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk#22	6: Low Grade Ore Overall Comp -200m Wk#22	7: High Sulphide Ore Overall Comp -200m Wk#22	8: GT Residue Wk#22
Sample Date & Time			03-Sep-08	03-Sep-08	03-Sep-08	03-Sep-08
Hum Cell Leachate Volume [mLs]	---	---	979	971	981	981
pH [no unit]	05-Sep-08	10:11	7.55	7.55	7.34	7.04
Conductivity [uS/cm]	05-Sep-08	10:11	75	46	106	58
Alkalinity [mg/L as CaCO3]	08-Sep-08	10:25	16	14	13	8
Acidity [mg/L as CaCO3]	08-Sep-08	10:25	< 2	< 2	< 2	< 2
Sulphate [mg/L]	12-Sep-08	16:54	17	6.3	31	16

Dianne Griffin
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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, August 26, 2008

Date Rec. : 20 August 2008
LR Report: **CA10428-AUG08**
Reference: Wk#22

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk#22	6: Average Waste Overall Comp 1/4" Wk#22	7: High Sulphide Waste Overall Comp 1/4" Wk#22	8: Low Grade Ore Overall Comp 1/4" Wk#22	9: High Sulphide Ore Overall Comp 1/4" Wk#22
Sample Date & Time			20-Aug-08	20-Aug-08	20-Aug-08	20-Aug-08	20-Aug-08
Hum Cell Leachate Volume [mLs]	---	---	850	829	975	855	838
pH [no unit]	21-Aug-08	14:23	7.64	7.39	7.62	7.36	7.41
Conductivity [uS/cm]	21-Aug-08	14:23	40	47	58	32	36
Alkalinity [mg/L as CaCO3]	21-Aug-08	14:23	10	9	15	8	10
Acidity [mg/L as CaCO3]	21-Aug-08	14:23	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	26-Aug-08	13:40	2.0	1.7	2.9	1.3	1.3

Dianne Griffin
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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, July 17, 2008

Date Rec. : 21 May 2008
LR Report: **CA10148-MAY08**
Reference: Wk# 22

Copy: #2

CERTIFICATE OF ANALYSIS

Final Report - Revised

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 22	6: Overall Comp CND2 (-200 mesh) Wk# 22
Sample Date & Time			21-May-08	21-May-08
Hum Cell Leachate Volume [mLs]	---	---	918	911
pH [no unit]	26-May-08	12:31	6.85	3.75
Conductivity [uS/cm]	22-May-08	16:28	199	219
Alkalinity [mg/L as CaCO3]	22-May-08	16:28	31	< 2
Acidity [mg/L as CaCO3]	22-May-08	16:28	< 2	15
Sulphate [mg/L]	31-May-08	13:47	35	40

Please note: Due to suspected trace nitric acid contamination during a lab rinsing procedure, analytical results for pH, alkalinity, acidity, conductivity, and SO4 may be unreliable for samples within this batch.

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, July 17, 2008

Date Rec. : 04 June 2008
LR Report: **CA10143-JUN08**
Reference: Wk# 22

Copy: #2

CERTIFICATE OF ANALYSIS

Final Report - Revised

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CND2 (-200 mesh) Wk# 22
Sample Date & Time			21-May-08
Hum Cell Leachate Volume [mLs]	---	---	911
pH [no unit]	13-Jun-08	10:39	3.63
Conductivity [uS/cm]	13-Jun-08	10:39	225
Alkalinity [mg/L as CaCO3]	13-Jun-08	10:39	< 2
Acidity [mg/L as CaCO3]	13-Jun-08	10:39	14

Please note: Due to suspected trace nitric acid contamination during a lab rinsing procedure, analytical results for pH, alkalinity, acidity, conductivity, and SO4 may be unreliable for samples within this batch.

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Wednesday, September 17, 2008

Date Rec. : 10 September 2008
LR Report: **CA10046-SEP08**
Reference: Wk# 23

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 23	6: Low Grade Ore Overall Comp -200m Wk# 23	7: High Sulphide Ore Overall Comp -200m Wk# 23	8: GT Residue Wk# 23
Sample Date & Time			10-Sep-08	10-Sep-08	10-Sep-08	10-Sep-08
Hum Cell Leachate Volume [mLs]	---	---	978	979	970	982
pH [no unit]	12-Sep-08	15:01	7.84	7.76	7.40	7.05
Conductivity [uS/cm]	12-Sep-08	15:01	66	55	89	56
Alkalinity [mg/L as CaCO3]	12-Sep-08	15:01	14	14	12	7
Acidity [mg/L as CaCO3]	12-Sep-08	15:01	< 2	< 2	< 2	< 2
Sulphate [mg/L]	17-Sep-08	12:41	14	9.2	25	15

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Wednesday, September 03, 2008

Date Rec. : 27 August 2008
LR Report: **CA10502-AUG08**
Reference: Wk#23

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk#23	6: Average Waste Overall Comp 1/4" Wk#23	7: High Sulphide Waste Overall Comp 1/4" Wk#23	8: Low Grade Ore Overall Comp 1/4" Wk#23	9: High Sulphide Ore Overall Comp 1/4" Wk#23
Sample Date & Time			27-Aug-08	27-Aug-08	27-Aug-08	27-Aug-08	27-Aug-08
Hum Cell Leachate Volume [mLs]	---	---	904	893	935	919	947
pH [no unit]	02-Sep-08	15:45	7.30	7.16	7.17	7.13	7.35
Conductivity [uS/cm]	02-Sep-08	15:45	29	26	24	23	42
Alkalinity [mg/L as CaCO3]	02-Sep-08	15:45	12	11	9	9	18
Acidity [mg/L as CaCO3]	02-Sep-08	15:45	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	02-Sep-08	13:42	1.8	1.6	1.7	1.2	2.9

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, June 10, 2008

Date Rec. : 28 May 2008
LR Report: **CA10701-MAY08**
Reference: Wk#23

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk#23	6: Overall Comp CND2 (-200 mesh) Wk#23
Sample Date & Time			28-May-08	28-May-08
Hum Cell Leachate Volume [mLs]	---	---	820	817
pH [no unit]	02-Jun-08	11:03	7.42	7.38
Conductivity [uS/cm]	02-Jun-08	11:03	132	99
Alkalinity [mg/L as CaCO3]	02-Jun-08	11:03	16	8
Acidity [mg/L as CaCO3]	02-Jun-08	11:03	< 2	< 2
Sulphate [mg/L]	09-Jun-08	15:36	31	29

Dianne Griffin
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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, June 12, 2008

Date Rec. : 04 June 2008
LR Report: **CA10015-JUN08**
Reference: Wk# 24

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 24	6: Overall Comp CND2 (-200 mesh) Wk# 24
Sample Date & Time			04-June-08	04-June-08
Hum Cell Leachate Volume [mLs]	---	---	876	908
pH [no unit]	07-Jun-08	23:20	7.61	7.23
Conductivity [uS/cm]	07-Jun-08	23:20	117	120
Alkalinity [mg/L as CaCO3]	07-Jun-08	23:20	23	9
Acidity [mg/L as CaCO3]	07-Jun-08	23:20	< 2	< 2
Sulphate [mg/L]	12-Jun-08	15:36	27	36

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Monday, September 15, 2008

Date Rec. : 03 September 2008
LR Report: **CA10019-SEP08**
Reference: Wk#24

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk#24	6: Average Waste Overall Comp 1/4" Wk#24	7: High Sulphide Waste Overall Comp 1/4" Wk#24	8: Low Grade Ore Overall Comp 1/4" Wk#24	9: High Sulphide Ore Overall Comp 1/4" Wk#24
Sample Date & Time			03-Sep-08	03-Sep-08	03-Sep-08	03-Sep-08	03-Sep-08
Hum Cell Leachate Volume [mLs]	---	---	898	901	963	907	891
pH [no unit]	05-Sep-08	10:11	7.41	7.28	7.36	7.31	7.22
Conductivity [uS/cm]	05-Sep-08	10:11	29	28	36	25	22
Alkalinity [mg/L as CaCO3]	10-Sep-08	13:25	11	11	14	10	8
Acidity [mg/L as CaCO3]	10-Sep-08	13:25	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	12-Sep-08	16:54	1.7	1.9	2.6	1.2	1.5

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, September 25, 2008

Date Rec. : 17 September 2008
LR Report: **CA10210-SEP08**
Reference: Wk#24

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk#24	6: Low Grade Ore Overall Comp -200m Wk#24	7: High Sulphide Ore Overall Comp -200m Wk#24	8: GT Residue Wk#24
Sample Date & Time			17-Sep-08	17-Sep-08	17-Sep-08	17-Sep-08
Hum Cell Leachate Volume [mLs]	---	---	982	968	1014	981
pH [no unit]	18-Sep-08	14:11	7.41	7.35	7.34	6.90
Conductivity [uS/cm]	18-Sep-08	14:11	82	48	132	60
Alkalinity [mg/L as CaCO3]	18-Sep-08	14:11	15	14	16	7
Acidity [mg/L as CaCO3]	18-Sep-08	14:11	< 2	< 2	< 2	< 2
Sulphate [mg/L]	25-Sep-08	09:23	18	6.5	39	16

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, September 18, 2008

Date Rec. : 10 September 2008
LR Report: **CA10047-SEP08**
Reference: Wk# 25

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 25	6: Average Waste Overall Comp 1/4 " Wk# 25	7: High Sulphide Waste Overall Comp 1/4" Wk# 25	8: Low Grade Ore Overall Comp 1/4" Wk# 25	9: High Sulphide Ore Overall Comp 1/4" Wk# 25
Sample Date & Time			10-Sep-08	10-Sep-08	10-Sep-08	10-Sep-08	10-Sep-08
Hum Cell Leachate Volume [mLs]	---	---	950	958	988	970	953
pH [no unit]	12-Sep-08	15:01	7.43	7.37	7.40	7.32	7.24
Conductivity [uS/cm]	12-Sep-08	15:01	33	31	40	28	27
Alkalinity [mg/L as CaCO3]	12-Sep-08	15:01	13	12	15	11	11
Acidity [mg/L as CaCO3]	12-Sep-08	15:01	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	12-Sep-08	15:49	2.1	1.7	3.0	1.3	1.7
Chloride [mg/L]	12-Sep-08	15:49	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluoride [mg/L]	11-Sep-08	16:01	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Nitrite (as nitrogen) [mg/L]	12-Sep-08	15:49	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	12-Sep-08	15:49	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Ammonia+Ammonium (N) [mg/L]	15-Sep-08	10:51	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Mercury [mg/L]	14-Sep-08	16:47	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	17-Sep-08	09:29	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Aluminum [mg/L]	17-Sep-08	09:29	0.0437	0.0374	0.0549	0.0446	0.0330
Arsenic [mg/L]	17-Sep-08	09:29	0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Barium [mg/L]	17-Sep-08	14:35	0.0692	0.0494	0.0203	0.0039	0.0275
Beryllium [mg/L]	17-Sep-08	09:29	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Boron [mg/L]	17-Sep-08	09:29	0.0004	0.0003	0.0003	0.0004	0.0003
Bismuth [mg/L]	17-Sep-08	09:29	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Calcium [mg/L]	17-Sep-08	14:35	5.39	4.81	6.65	4.42	4.26
Cadmium [mg/L]	17-Sep-08	09:29	< 0.000003	0.000004	0.000005	< 0.000003	0.000004
Cobalt [mg/L]	17-Sep-08	09:29	0.000059	0.000022	0.000023	0.000018	0.000020
Chromium [mg/L]	17-Sep-08	09:29	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	17-Sep-08	09:29	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Iron [mg/L]	17-Sep-08	14:35	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Potassium [mg/L]	17-Sep-08	14:35	0.93	1.06	1.04	0.95	0.91
Lithium [mg/L]	17-Sep-08	09:29	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Magnesium [mg/L]	17-Sep-08	14:35	0.236	0.204	0.208	0.254	0.159
Manganese [mg/L]	17-Sep-08	09:29	0.0121	0.00983	0.0193	0.0106	0.0148
Molybdenum [mg/L]	17-Sep-08	09:29	0.00063	0.00061	0.00045	0.00052	0.00030

OnLine LIMS

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Project : CALR-11623-002

LR Report : **CA10047-SEP08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 25	6: Average Waste Overall Comp 1/4 " Wk# 25	7: High Sulphide Waste Overall Comp 1/4" Wk# 25	8: Low Grade Ore Overall Comp 1/4" Wk# 25	9: High Sulphide Ore Overall Comp 1/4" Wk# 25
Sodium [mg/L]	17-Sep-08	14:35	0.08	0.08	0.10	0.08	0.05
Nickel [mg/L]	17-Sep-08	09:29	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Lead [mg/L]	17-Sep-08	09:29	0.00002	0.00003	0.00010	0.00005	0.00002
Antimony [mg/L]	17-Sep-08	09:29	0.00065	0.00056	0.00044	0.00055	0.00051
Selenium [mg/L]	17-Sep-08	09:29	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Silica [mg/L]	17-Sep-08	14:34	0.50	0.53	0.54	0.47	0.37
Tin [mg/L]	17-Sep-08	09:29	< 0.00001	0.00066	0.00048	0.00023	0.00004
Strontium [mg/L]	17-Sep-08	14:34	0.466	0.511	0.0628	0.133	0.0955
Titanium [mg/L]	17-Sep-08	09:29	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Thallium [mg/L]	17-Sep-08	09:29	0.000005	0.000002	0.000003	0.000006	< 0.000002
Uranium [mg/L]	17-Sep-08	09:29	0.00157	0.00153	0.00131	0.00184	0.00111
Vanadium [mg/L]	17-Sep-08	09:29	0.00044	0.00037	0.00032	0.00031	0.00018
Tungsten [mg/L]	17-Sep-08	09:29	0.00012	0.00016	0.00017	0.00021	0.00015
Yttrium [mg/L]	17-Sep-08	09:29	0.000007	0.000005	0.000017	0.000004	0.000003
Zinc [mg/L]	17-Sep-08	09:29	< 0.001	< 0.001	0.001	0.001	< 0.001

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Friday, June 20, 2008

Date Rec. : 11 June 2008
LR Report: **CA10048-JUN08**
Reference: Wk#25

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN95/96 Wk#25	6: Overall Comp CND2 (-200 mesh) Wk#25
Sample Date & Time			11-Jun-08	11-Jun-08
Hum Cell Leachate Volume [mLs]	---	---	908	938
pH [no unit]	12-Jun-08	11:16	7.77	7.08
Conductivity [uS/cm]	12-Jun-08	11:16	219	124
Alkalinity [mg/L as CaCO3]	12-Jun-08	11:16	50	10
Acidity [mg/L as CaCO3]	12-Jun-08	11:16	< 2	< 2
Sulphate [mg/L]	20-Jun-08	11:26	53	41
Chloride [mg/L]	20-Jun-08	11:26	< 0.2	< 0.2
Nitrite (as nitrogen) [mg/L]	20-Jun-08	11:26	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	20-Jun-08	11:26	< 0.05	< 0.05
Ammonia+Ammonium (N) [mg/L]	13-Jun-08	15:24	< 0.1	0.1
Cyanide [mg/L]	12-Jun-08	23:16	< 0.01	< 0.01
Cyanide WAD [mg/L]	12-Jun-08	23:16	< 0.01	< 0.01
Free Cyanide [mg/L]	16-Jun-08	15:25	< 0.01	< 0.01
Cyanate [mg/L]	18-Jun-08	16:24	< 0.1	< 0.1
Thiocyanate [mg/L]	18-Jun-08	16:22	< 2	< 2
Mercury [mg/L]	13-Jun-08	09:16	< 0.0001	< 0.0001
Silver [mg/L]	20-Jun-08	13:55	< 0.00001	< 0.00001
Aluminum [mg/L]	20-Jun-08	13:55	0.0710	0.0158
Arsenic [mg/L]	20-Jun-08	13:55	< 0.0002	< 0.0002
Barium [mg/L]	16-Jun-08	08:09	0.0461	0.0055
Beryllium [mg/L]	20-Jun-08	13:55	< 0.00002	< 0.00002
Boron [mg/L]	20-Jun-08	13:55	0.0021	0.0018
Bismuth [mg/L]	20-Jun-08	13:55	< 0.00001	< 0.00001
Calcium [mg/L]	16-Jun-08	08:09	32.3	14.8
Cadmium [mg/L]	20-Jun-08	13:55	0.000007	0.000005
Cobalt [mg/L]	20-Jun-08	13:55	0.000451	0.000386
Chromium [mg/L]	20-Jun-08	13:55	< 0.0005	< 0.0005
Copper [mg/L]	20-Jun-08	13:55	< 0.0005	0.0030

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Project : CALR-11623-002

LR Report : **CA10048-JUN08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN95/96 Wk#25	6: Overall Comp CND2 (-200 mesh) Wk#25
Iron [mg/L]	16-Jun-08	08:09	< 0.01	< 0.01
Potassium [mg/L]	16-Jun-08	08:09	7.07	2.50
Lithium [mg/L]	20-Jun-08	13:55	0.003	0.002
Magnesium [mg/L]	16-Jun-08	08:09	3.53	2.09
Manganese [mg/L]	20-Jun-08	13:55	0.0679	0.0346
Molybdenum [mg/L]	20-Jun-08	13:55	0.0222	0.00415
Sodium [mg/L]	16-Jun-08	08:09	1.05	2.04
Nickel [mg/L]	20-Jun-08	13:55	0.0022	0.0005
Lead [mg/L]	20-Jun-08	13:55	0.00003	0.00003
Antimony [mg/L]	20-Jun-08	13:55	0.00039	0.00022
Selenium [mg/L]	20-Jun-08	13:55	< 0.001	< 0.001
Silica [mg/L]	16-Jun-08	08:09	1.87	0.22
Tin [mg/L]	20-Jun-08	13:55	< 0.00001	< 0.00001
Strontium [mg/L]	16-Jun-08	08:09	1.25	0.554
Titanium [mg/L]	20-Jun-08	13:55	0.0002	0.0001
Thallium [mg/L]	20-Jun-08	13:55	0.000012	< 0.000002
Uranium [mg/L]	20-Jun-08	13:55	0.00125	0.000374
Vanadium [mg/L]	20-Jun-08	13:55	0.00073	0.00010
Tungsten [mg/L]	20-Jun-08	13:55	0.00032	0.00004
Yttrium [mg/L]	20-Jun-08	13:55	0.000011	0.000005
Zinc [mg/L]	20-Jun-08	13:55	0.004	0.002

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Monday, October 06, 2008

Date Rec. : 24 September 2008
LR Report: **CA10437-SEP08**
Reference: Wk# 25

Copy: #2

CERTIFICATE OF ANALYSIS

Final Report - Revised

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 25	6: Low Grade Ore Overall Comp -200m Wk# 25	7: High Sulphide Ore Overall Comp -200m Wk# 25	8: GT Residue Wk# 25
Sample Date & Time			24-Sep-08	24-Sep-08	24-Sep-08	24-Sep-08
Hum Cell Leachate Volume [mLs]	---	---	202	984	992	989
pH [no unit]	26-Sep-08	13:28	7.78	7.56	7.40	7.12
Conductivity [uS/cm]	26-Sep-08	13:28	271	59	88	73
Alkalinity [mg/L as CaCO3]	26-Sep-08	13:28	47	16	15	9
Acidity [mg/L as CaCO3]	26-Sep-08	13:28	< 2	< 2	< 2	< 2
Sulphate [mg/L]	03-Oct-08	08:52	12	10	26	23
Chloride [mg/L]	26-Sep-08	12:58	< 0.2	< 0.2	< 0.2	< 0.2
Fluoride [mg/L]	30-Sep-08	09:35	0.14	< 0.06	0.07	< 0.06
Nitrite (as nitrogen) [mg/L]	26-Sep-08	12:58	< 0.06	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	26-Sep-08	12:58	< 0.05	< 0.05	< 0.05	< 0.05
Ammonia+Ammonium (N) [mg/L]	26-Sep-08	10:27	< 0.1	< 0.1	0.1	< 0.1
Cyanide [mg/L]	25-Sep-08	14:27	---	---	---	< 0.01
Cyanide WAD [mg/L]	25-Sep-08	14:27	---	---	---	< 0.01
Free Cyanide [mg/L]	25-Sep-08	14:27	---	---	---	< 0.02
Cyanate [mg/L]	02-Oct-08	16:22	---	---	---	< 0.1
Thiocyanate [mg/L]	30-Sep-08	09:23	---	---	---	< 2
Mercury [mg/L]	01-Oct-08	09:17	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	01-Oct-08	08:37	< 0.00001	< 0.00001	0.00001	< 0.00001
Aluminum [mg/L]	01-Oct-08	08:37	0.0497	0.0246	0.0197	0.0080
Arsenic [mg/L]	01-Oct-08	08:37	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Barium [mg/L]	02-Oct-08	07:36	0.0004	0.0043	0.0042	0.0039
Beryllium [mg/L]	01-Oct-08	08:37	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Boron [mg/L]	01-Oct-08	08:37	0.0021	0.0008	0.0010	0.0004
Bismuth [mg/L]	01-Oct-08	08:38	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Calcium [mg/L]	02-Oct-08	07:36	8.18	8.45	10.9	9.98
Cadmium [mg/L]	01-Oct-08	08:38	< 0.000003	< 0.000003	0.000004	< 0.000003
Cobalt [mg/L]	01-Oct-08	08:38	0.000024	0.000029	0.000044	0.000059
Chromium [mg/L]	01-Oct-08	08:38	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	01-Oct-08	08:38	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Iron [mg/L]	02-Oct-08	07:36	< 0.01	< 0.01	< 0.01	< 0.01
Potassium [mg/L]	02-Oct-08	07:36	1.79	1.99	3.51	1.65

OnLine LIMS

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Project : CALR-11623-002

LR Report : **CA10437-SEP08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 25	6: Low Grade Ore Overall Comp -200m Wk# 25	7: High Sulphide Ore Overall Comp -200m Wk# 25	8: GT Residue Wk# 25
Lithium [mg/L]	01-Oct-08	08:38	< 0.001	< 0.001	0.001	< 0.001
Magnesium [mg/L]	02-Oct-08	07:36	3.35	1.17	1.69	1.22
Manganese [mg/L]	01-Oct-08	08:38	0.0258	0.0458	0.0778	0.0247
Molybdenum [mg/L]	01-Oct-08	08:38	0.00107	0.00118	0.00167	0.00068
Sodium [mg/L]	02-Oct-08	07:36	0.46	0.64	1.18	0.55
Nickel [mg/L]	01-Oct-08	08:38	0.0002	0.0001	0.0002	0.0002
Lead [mg/L]	01-Oct-08	08:38	0.00003	0.00003	< 0.00002	< 0.00002
Antimony [mg/L]	01-Oct-08	08:38	0.00069	0.00061	0.00053	0.00055
Selenium [mg/L]	01-Oct-08	08:38	< 0.001	< 0.001	< 0.001	< 0.001
Silica [mg/L]	02-Oct-08	07:36	0.10	0.14	0.25	0.31
Tin [mg/L]	01-Oct-08	08:38	0.00295	0.00181	0.00102	0.00374
Strontium [mg/L]	02-Oct-08	07:36	0.0451	0.118	0.171	0.418
Titanium [mg/L]	01-Oct-08	08:38	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Thallium [mg/L]	01-Oct-08	08:38	0.000005	0.000004	0.000007	0.000005
Uranium [mg/L]	01-Oct-08	08:38	0.000049	0.00170	0.000862	0.000723
Vanadium [mg/L]	01-Oct-08	08:38	0.00054	0.00027	0.00011	0.00004
Tungsten [mg/L]	01-Oct-08	08:38	0.00019	0.00039	0.00012	0.00011
Yttrium [mg/L]	01-Oct-08	08:38	0.000016	0.000015	0.000008	0.000005
Zinc [mg/L]	01-Oct-08	08:38	0.002	< 0.001	< 0.001	0.001

Please note: due to a laboratory error the humidity cell volume for Average Grade Ore Overall Comp -200m sample was lower than expected.

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Monday, November 17, 2008

Date Rec. : 17 October 2008
LR Report: **CA10581-OCT08**
Reference: Wk# 25

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	6: Average Grade Ore Overall Comp -200m Wk# 25 Dionex
Sample Date & Time			24-Sep-08
Conductivity [uS/cm]	30-Oct-08	10:32	81
Alkalinity [mg/L as CaCO3]	17-Nov-08	14:53	nss

Please note there was insufficient sample volume to perform the alkalinity reassay.

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, October 09, 2008

Date Rec. : 01 October 2008
LR Report: **CA10058-OCT08**
Reference: Wk# 26

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 26	6: Low Grade Ore Overall Comp -200m Wk# 26	7: High Sulphide Ore Overall Comp -200m Wk# 26	8: GT Residue Wk# 26
Sample Date & Time			01-Oct-08	01-Oct-08	01-Oct-08	01-Oct-08
Hum Cell Leachate Volume [mLs]	---	---	980	978	986	988
pH [no unit]	02-Oct-08	14:51	7.62	7.66	7.51	7.14
Conductivity [uS/cm]	02-Oct-08	14:51	72	39	107	65
Alkalinity [mg/L as CaCO3]	02-Oct-08	14:51	15	14	14	10
Acidity [mg/L as CaCO3]	02-Oct-08	14:51	< 2	< 2	< 2	< 2
Sulphate [mg/L]	08-Oct-08	16:32	18	6.0	34	19

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, June 26, 2008

Date Rec. : 18 June 2008
LR Report: **CA10098-JUN08**
Reference: Wk# 26

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 26	6: Overall Comp CND2 (-200 mesh) Wk# 26
Sample Date & Time			18-Jun-08	18-Jun-08
Hum Cell Leachate Volume [mLs]	---	---	829	922
pH [no unit]	25-Jun-08	11:30	7.83	7.41
Conductivity [uS/cm]	23-Jun-08	12:28	223	65
Alkalinity [mg/L as CaCO3]	23-Jun-08	12:28	61	10
Acidity [mg/L as CaCO3]	23-Jun-08	12:28	< 2	< 2
Sulphate [mg/L]	25-Jun-08	15:48	46	17

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, September 25, 2008

Date Rec. : 17 September 2008
LR Report: **CA10211-SEP08**
Reference: Wk#26

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk#26	6: Average Waste Overall Comp 1/4" Wk#26	7: High Sulphide Waste Overall Comp 1/4" Wk#26	8: Low Grade Ore Overall Comp 1/4" Wk#26	9: High Sulphide Ore Overall Comp 1/4" Wk#26
Sample Date & Time			17-Sep-08	17-Sep-08	17-Sep-08	17-Sep-08	17-Sep-08
Hum Cell Leachate Volume [mLs]	---	---	962	945	963	965	967
pH [no unit]	18-Sep-08	14:12	7.45	7.16	7.53	7.30	7.21
Conductivity [uS/cm]	18-Sep-08	14:12	36	33	48	29	27
Alkalinity [mg/L as CaCO3]	18-Sep-08	14:12	14	12	18	12	11
Acidity [mg/L as CaCO3]	18-Sep-08	14:12	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	25-Sep-08	09:24	2.1	1.7	3.1	1.2	1.5

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, October 23, 2008

Date Rec. : 08 October 2008
LR Report: **CA10104-OCT08**
Reference: Wk# 27

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 27	6: Low Grade Ore Overall Comp -200m Wk# 27	7: High Sulphide Ore Overall Comp -200m Wk# 27	8: GT Residue Wk# 27
Sample Date & Time			08-Oct-08	08-Oct-08	08-Oct-08	08-Oct-08
Hum Cell Leachate Volume [mLs]	---	---	983	977	984	990
pH [no unit]	10-Oct-08	10:17	7.53	7.48	7.42	7.26
Conductivity [uS/cm]	10-Oct-08	10:17	68	44	84	65
Alkalinity [mg/L as CaCO3]	10-Oct-08	10:17	14	13	14	12
Acidity [mg/L as CaCO3]	10-Oct-08	10:17	< 2	< 2	< 2	< 2
Sulphate [mg/L]	14-Oct-08	15:26	14	6.0	22	17

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Monday, July 14, 2008

Date Rec. : 25 June 2008
LR Report: **CA10377-JUN08**
Reference: Wk#27

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN95/96 Wk# 27	6: Overall Comp CND2 (-200 mesh) Wk#27
Sample Date & Time			25-Jun-08	25-Jun-08
Hum Cell Leachate Volume [mLs]	---	---	989	966
pH [no unit]	26-Jun-08	14:32	7.67	7.06
Conductivity [uS/cm]	26-Jun-08	14:32	56	141
Alkalinity [mg/L as CaCO3]	26-Jun-08	14:32	22	11
Acidity [mg/L as CaCO3]	26-Jun-08	14:32	< 2	< 2
Sulphate [mg/L]	11-Jul-08	15:58	7.6	56

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Friday, October 03, 2008

Date Rec. : 24 September 2008
LR Report: **CA10438-SEP08**
Reference: Wk# 27

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 27	6: Average Waste Overall Comp 1/4" Wk# 27	7: High Sulphide Waste Overall Comp 1/4" Wk# 27	8: Low Grade Ore Overall Comp 1/4" Wk# 27	9: High Sulphide Ore Overall Comp 1/4" Wk# 27
Sample Date & Time			24-Sep-08	24-Sep-08	24-Sep-08	24-Sep-08	24-Sep-08
Hum Cell Leachate Volume [mLs]	---	---	911	905	971	928	920
pH [no unit]	26-Sep-08	13:28	7.54	7.39	7.52	7.34	7.26
Conductivity [uS/cm]	26-Sep-08	13:28	30	28	37	23	22
Alkalinity [mg/L as CaCO3]	26-Sep-08	13:28	12	12	15	10	9
Acidity [mg/L as CaCO3]	26-Sep-08	13:28	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	03-Oct-08	09:05	1.8	1.5	2.5	1.1	1.4

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Monday, July 14, 2008

Date Rec. : 02 July 2008
LR Report: **CA10017-JUL08**
Reference: Wk# 28

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 28	6: Overall Comp CND2 (-200 mesh) Wk# 28
Sample Date & Time			02-July-08	02-July-08
Hum Cell Leachate Volume [mLs]	---	---	922	931
pH [no unit]	04-Jul-08	13:13	7.56	7.18
Conductivity [uS/cm]	04-Jul-08	13:13	71	128
Alkalinity [mg/L as CaCO3]	04-Jul-08	13:13	21	10
Acidity [mg/L as CaCO3]	04-Jul-08	13:13	< 2	< 2
Sulphate [mg/L]	14-Jul-08	12:15	12	45

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, October 09, 2008

Date Rec. : 01 October 2008
LR Report: **CA10059-OCT08**
Reference: Wk# 28

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 28	6: Average Waste Overall Comp 1/4" Wk# 28	7: High Sulphide Waste Overall Comp 1/4" Wk# 28	8: Low Grade Ore Overall Comp 1/4" Wk# 28	9: High Sulphide Ore Overall Comp 1/4" Wk# 28
Sample Date & Time			01-Oct-08	01-Oct-08	01-Oct-08	01-Oct-08	01-Oct-08
Hum Cell Leachate Volume [mLs]	---	---	941	927	968	924	930
pH [no unit]	02-Oct-08	14:51	7.48	7.35	7.50	7.31	7.29
Conductivity [uS/cm]	02-Oct-08	14:51	29	26	36	22	21
Alkalinity [mg/L as CaCO3]	02-Oct-08	14:51	12	11	15	9	11
Acidity [mg/L as CaCO3]	02-Oct-08	14:51	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	08-Oct-08	16:32	2.1	1.6	2.8	1.2	1.5

Dianne Griffin
Project Specialist

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0.45um

Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Monday, July 21, 2008

Date Rec. : 09 July 2008
LR Report: **CA10044-JUL08**
Reference: Wk# 29

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 29	6: Overall Comp CND2 (-200 mesh) Wk# 29
Sample Date & Time			09-July-08	09-July-08
Hum Cell Leachate Volume [mLs]	---	---	941	961
pH [no unit]	11-Jul-08	09:22	7.56	7.04
Conductivity [uS/cm]	11-Jul-08	09:22	176	149
Alkalinity [mg/L as CaCO3]	11-Jul-08	09:22	42	12
Acidity [mg/L as CaCO3]	11-Jul-08	09:22	< 2	< 2
Sulphate [mg/L]	21-Jul-08	11:55	38	49

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, October 23, 2008

Date Rec. : 08 October 2008
LR Report: **CA10105-OCT08**
Reference: Wk# 29

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 29	6: Average Waste Overall Comp 1/4" Wk# 29	7: High Sulphide Waste Overall Comp 1/4" Wk# 29	8: Low Grade Ore Overall Comp 1/4" Wk# 29	9: High Sulphide Ore Overall Comp 1/4" Wk# 29
Sample Date & Time			08-Oct-08	08-Oct-08	08-Oct-08	08-Oct-08	08-Oct-08
Hum Cell Leachate Volume [mLs]	---	---	957	931	936	945	968
pH [no unit]	10-Oct-08	10:14	7.43	7.29	7.50	7.27	7.24
Conductivity [uS/cm]	10-Oct-08	10:14	35	27	36	23	23
Alkalinity [mg/L as CaCO3]	10-Oct-08	10:14	14	11	14	13	9
Acidity [mg/L as CaCO3]	10-Oct-08	10:14	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	14-Oct-08	15:27	1.9	1.4	2.4	1.0	1.3

Dianne Griffin
Project Specialist

OnLine LIMS

SGS Lakefield Research Limited
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Wednesday, October 29, 2008

Date Rec. : 22 October 2008
LR Report: **CA10474-OCT08**
Reference: Wk# 29

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200 m WK# 29	6: Low Grade Ore Overall Comp -200m Wk# 29	7: High Sulphide Ore Overall Comp -200m Wk# 29	8: GT Residue Wk# 29
Sample Date & Time			22-Oct-08	22-Oct-08	22-Oct-08	22-Oct-08
Hum Cell Leachate Volume [mLs]	---	---	987	986	992	983
pH [no unit]	27-Oct-08	10:57	7.62	7.59	7.51	7.18
Conductivity [uS/cm]	28-Oct-08	10:16	62	36	76	51
Alkalinity [mg/L as CaCO3]	27-Oct-08	10:57	15	13	13	9
Acidity [mg/L as CaCO3]	27-Oct-08	10:57	< 2	< 2	< 2	< 2
Sulphate [mg/L]	28-Oct-08	13:50	14	5.2	21	14

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Wednesday, August 06, 2008

Date Rec. : 16 July 2008
LR Report: **CA10121-JUL08**
Reference: Wk# 30

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CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 30	6: Overall Comp CND2 (-200 mesh) Wk# 30
Sample Date & Time			16-Jul-08	16-Jul-08
Hum Cell Leachate Volume [mLs]	---	---	928	904
pH [no unit]	17-Jul-08	15:53	7.28	6.84
Conductivity [uS/cm]	17-Jul-08	15:53	134	100
Alkalinity [mg/L as CaCO3]	17-Jul-08	15:53	38	13
Acidity [mg/L as CaCO3]	17-Jul-08	15:53	< 2	< 2
Sulphate [mg/L]	30-Jul-08	13:16	25	31
Chloride [mg/L]	24-Jul-08	16:23	< 0.2	< 0.2
Nitrite (as nitrogen) [mg/L]	24-Jul-08	16:23	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	24-Jul-08	16:23	< 0.05	< 0.05
Ammonia+Ammonium (N) [mg/L]	18-Jul-08	14:39	0.1	0.1
Cyanide [mg/L]	18-Jul-08	16:12	< 0.01	0.01
Cyanide WAD [mg/L]	28-Jul-08	10:47	< 0.01	< 0.01
Free Cyanide [mg/L]	28-Jul-08	10:47	< 0.01	< 0.01
Cyanate [mg/L]	22-Jul-08	09:25	< 0.1	< 0.1
Thiocyanate [mg/L]	24-Jul-08	08:23	< 2	< 2
Mercury [mg/L]	21-Jul-08	09:38	< 0.0001	< 0.0001
Silver [mg/L]	22-Jul-08	13:59	< 0.00001	0.00001
Aluminum [mg/L]	22-Jul-08	13:59	0.0532	0.0171
Arsenic [mg/L]	22-Jul-08	13:59	0.0004	0.0002
Barium [mg/L]	23-Jul-08	08:59	0.0327	0.0039
Beryllium [mg/L]	22-Jul-08	13:59	< 0.00002	< 0.00002
Boron [mg/L]	22-Jul-08	13:59	0.0004	0.0005
Bismuth [mg/L]	22-Jul-08	13:59	< 0.00001	0.00002
Calcium [mg/L]	23-Jul-08	08:59	18.7	11.6
Cadmium [mg/L]	22-Jul-08	13:59	0.000009	0.000020
Cobalt [mg/L]	22-Jul-08	13:59	0.000205	0.000409
Chromium [mg/L]	22-Jul-08	13:59	< 0.0005	< 0.0005
Copper [mg/L]	22-Jul-08	13:59	< 0.0005	0.0034
Iron [mg/L]	23-Jul-08	08:59	< 0.01	0.02
Potassium [mg/L]	23-Jul-08	08:59	4.19	1.94
Lithium [mg/L]	22-Jul-08	13:59	0.002	0.001

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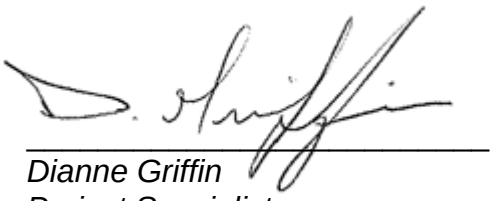
0.45um

Project : CALR-11623-002

LR Report : **CA10121-JUL08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 30	6: Overall Comp CND2 (-200 mesh) Wk# 30
Magnesium [mg/L]	23-Jul-08	08:59	1.97	1.67
Manganese [mg/L]	22-Jul-08	13:59	0.0487	0.0300
Molybdenum [mg/L]	22-Jul-08	13:59	0.0132	0.00290
Sodium [mg/L]	23-Jul-08	08:59	0.61	1.36
Nickel [mg/L]	22-Jul-08	13:59	0.0007	0.0002
Lead [mg/L]	22-Jul-08	13:59	< 0.00002	0.00004
Antimony [mg/L]	22-Jul-08	13:59	0.00047	0.00035
Selenium [mg/L]	22-Jul-08	13:59	< 0.001	< 0.001
Silica [mg/L]	23-Jul-08	08:59	1.07	0.12
Tin [mg/L]	22-Jul-08	13:59	0.00016	0.00004
Strontium [mg/L]	23-Jul-08	08:59	0.697	0.432
Titanium [mg/L]	22-Jul-08	14:00	< 0.0001	< 0.0001
Thallium [mg/L]	22-Jul-08	14:00	0.000014	0.000010
Uranium [mg/L]	22-Jul-08	14:00	0.00118	0.000968
Vanadium [mg/L]	22-Jul-08	14:00	0.00051	0.00006
Tungsten [mg/L]	22-Jul-08	14:00	0.00040	0.00004
Yttrium [mg/L]	22-Jul-08	14:00	0.000004	0.000016
Zinc [mg/L]	22-Jul-08	14:00	0.003	< 0.001



Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, October 23, 2008

Date Rec. : 15 October 2008
LR Report: **CA10271-OCT08**
Reference: Wk# 30

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 30	6: Average Waste Overall Comp 1/4 " Wk# 30	7: High Sulphide Waste Overall Comp 1/4" Wk# 30	8: Low Grade Ore Overall Comp 1/4" Wk# 30	9: High Sulphide Ore Overall Comp 1/4" Wk# 30
Sample Date & Time			15-Oct-08	15-Oct-08	15-Oct-08	15-Oct-08	15-Oct-08
Hum Cell Leachate Volume [mLs]	---	---	896	933	917	946	923
pH [no unit]	21-Oct-08	09:12	7.22	7.31	7.49	7.28	7.27
Conductivity [uS/cm]	21-Oct-08	09:12	29	30	39	26	25
Alkalinity [mg/L as CaCO3]	21-Oct-08	09:12	11	12	15	10	9
Acidity [mg/L as CaCO3]	21-Oct-08	09:12	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	23-Oct-08	12:48	1.4	1.3	2.0	1.0	1.2
Chloride [mg/L]	23-Oct-08	12:48	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluoride [mg/L]	21-Oct-08	11:11	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Nitrite (as nitrogen) [mg/L]	23-Oct-08	12:48	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	23-Oct-08	12:48	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Ammonia+Ammonium (N) [mg/L]	22-Oct-08	13:38	0.2	0.2	0.2	0.2	0.3
Mercury [mg/L]	20-Oct-08	16:23	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	23-Oct-08	11:23	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Aluminum [mg/L]	23-Oct-08	11:23	0.0527	0.0494	0.0754	0.0522	0.0428
Arsenic [mg/L]	23-Oct-08	11:23	0.0005	0.0002	< 0.0002	< 0.0002	< 0.0002
Barium [mg/L]	22-Oct-08	09:55	0.0521	0.0468	0.0200	0.0053	0.0253
Beryllium [mg/L]	23-Oct-08	11:23	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Boron [mg/L]	23-Oct-08	11:23	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Bismuth [mg/L]	23-Oct-08	11:23	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Calcium [mg/L]	22-Oct-08	09:55	4.12	4.43	6.23	3.80	3.66
Cadmium [mg/L]	23-Oct-08	11:23	0.000003	0.000005	0.000006	0.000004	0.000004
Cobalt [mg/L]	23-Oct-08	11:23	0.000057	0.000029	0.000036	0.000024	0.000027
Chromium [mg/L]	23-Oct-08	11:23	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	23-Oct-08	11:23	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Iron [mg/L]	22-Oct-08	09:55	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Potassium [mg/L]	22-Oct-08	09:55	0.81	0.93	1.02	0.79	0.80
Lithium [mg/L]	23-Oct-08	11:23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Magnesium [mg/L]	22-Oct-08	09:55	0.152	0.156	0.160	0.187	0.115
Manganese [mg/L]	23-Oct-08	11:23	0.0108	0.0110	0.0205	0.0118	0.0170
Molybdenum [mg/L]	23-Oct-08	11:23	0.00064	0.00045	0.00027	0.00026	0.00011

OnLine LIMS

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Project : CALR-11623-002

LR Report : **CA10271-OCT08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 30	6: Average Waste Overall Comp 1/4 " Wk# 30	7: High Sulphide Waste Overall Comp 1/4" Wk# 30	8: Low Grade Ore Overall Comp 1/4" Wk# 30	9: High Sulphide Ore Overall Comp 1/4" Wk# 30
Sodium [mg/L]	22-Oct-08	09:55	0.07	0.08	0.12	0.07	0.06
Nickel [mg/L]	23-Oct-08	11:23	0.0001	0.0002	0.0002	< 0.0001	< 0.0001
Lead [mg/L]	23-Oct-08	11:23	< 0.00002	< 0.00002	0.00003	< 0.00002	< 0.00002
Antimony [mg/L]	23-Oct-08	11:23	0.00029	0.00022	0.00020	0.00021	0.00017
Selenium [mg/L]	23-Oct-08	11:23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Silica [mg/L]	22-Oct-08	09:55	0.36	0.46	0.47	0.39	0.28
Tin [mg/L]	23-Oct-08	11:23	0.00002	0.00023	0.00014	0.00008	0.00005
Strontium [mg/L]	22-Oct-08	09:55	0.304	0.424	0.0507	0.0949	0.0666
Titanium [mg/L]	23-Oct-08	11:23	< 0.0001	< 0.0001	0.0001	< 0.0001	< 0.0001
Thallium [mg/L]	23-Oct-08	11:23	0.000004	0.000003	0.000006	< 0.000002	0.000002
Uranium [mg/L]	23-Oct-08	11:23	0.00112	0.00111	0.000960	0.00139	0.000789
Vanadium [mg/L]	23-Oct-08	11:23	0.00043	0.00035	0.00032	0.00028	0.00016
Tungsten [mg/L]	23-Oct-08	11:23	0.00012	0.00015	0.00009	0.00012	0.00008
Yttrium [mg/L]	23-Oct-08	11:23	0.000005	0.000006	0.000008	0.000004	0.000003
Zinc [mg/L]	23-Oct-08	11:23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Dianne Griffin
Project Specialist

OnLine LIMS

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Phone: 705-652-2000 FAX: 705-652-6365

Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Friday, November 07, 2008

Date Rec. : 29 October 2008
LR Report: **CA10683-OCT08**
Reference: Wk# 30

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 30	6: Low Grade Ore Overall Comp -200m Wk# 30	7: High Sulphide Ore Overall Comp -200m Wk# 30	8: GT Residue Wk# 30
Sample Date & Time			29-Oct-08	29-Oct-08	29-Oct-08	29-Oct-08
Hum Cell Leachate Volume [mLs]	---	---	989	987	986	986
pH [no unit]	31-Oct-08	10:17	7.50	7.57	7.47	7.29
Conductivity [uS/cm]	31-Oct-08	10:17	89	67	103	201
Alkalinity [mg/L as CaCO3]	31-Oct-08	10:17	16	17	15	12
Acidity [mg/L as CaCO3]	31-Oct-08	10:17	< 2	< 2	< 2	< 2
Sulphate [mg/L]	06-Nov-08	15:40	19	9.1	25	19
Chloride [mg/L]	06-Nov-08	15:40	< 0.2	< 0.2	< 0.2	< 0.2
Fluoride [mg/L]	05-Nov-08	13:37	< 0.06	< 0.06	0.09	< 0.06
Nitrite (as nitrogen) [mg/L]	06-Nov-08	15:40	< 0.06	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	06-Nov-08	15:40	< 0.05	< 0.05	< 0.05	< 0.05
Ammonia+Ammonium (N) [mg/L]	03-Nov-08	11:53	---	---	---	< 0.1
Cyanide [mg/L]	31-Oct-08	13:28	---	---	---	< 0.01
Cyanide WAD [mg/L]	31-Oct-08	13:29	---	---	---	< 0.01
Free Cyanide [mg/L]	31-Oct-08	13:29	---	---	---	< 0.02
Cyanate [mg/L]	05-Nov-08	20:31	---	---	---	< 0.1
Thiocyanate [mg/L]	04-Nov-08	14:09	---	---	---	< 2
Mercury [mg/L]	04-Nov-08	09:26	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	05-Nov-08	11:29	0.00002	< 0.00001	< 0.00001	< 0.00001
Aluminum [mg/L]	05-Nov-08	11:29	0.0392	0.0444	0.0263	0.0145
Arsenic [mg/L]	05-Nov-08	11:29	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Barium [mg/L]	05-Nov-08	15:27	0.0089	0.0037	0.0066	0.0043
Beryllium [mg/L]	05-Nov-08	11:29	0.00002	< 0.00002	< 0.00002	< 0.00002
Boron [mg/L]	05-Nov-08	11:29	0.0009	0.0006	0.0008	0.0003
Bismuth [mg/L]	05-Nov-08	11:29	0.00003	0.00001	< 0.00001	< 0.00001
Calcium [mg/L]	05-Nov-08	15:27	10.8	8.08	11.7	10.0
Cadmium [mg/L]	05-Nov-08	11:29	< 0.000003	< 0.000003	< 0.000003	< 0.000003
Cobalt [mg/L]	05-Nov-08	11:29	0.000121	0.000033	0.000040	0.000040
Chromium [mg/L]	05-Nov-08	11:29	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	05-Nov-08	11:29	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Iron [mg/L]	05-Nov-08	15:27	< 0.01	< 0.01	< 0.01	< 0.01
Potassium [mg/L]	05-Nov-08	15:27	2.50	1.98	4.04	1.58

OnLine LIMS

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Project : CALR-11623-002

LR Report : **CA10683-OCT08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 30	6: Low Grade Ore Overall Comp -200m Wk# 30	7: High Sulphide Ore Overall Comp -200m Wk# 30	8: GT Residue Wk# 30
Lithium [mg/L]	05-Nov-08	11:29	0.001	0.001	0.002	< 0.001
Magnesium [mg/L]	05-Nov-08	15:27	1.48	1.14	1.60	1.09
Manganese [mg/L]	05-Nov-08	11:29	0.0460	0.0308	0.0717	0.0308
Molybdenum [mg/L]	05-Nov-08	11:29	0.00474	0.00116	0.00167	0.00060
Sodium [mg/L]	05-Nov-08	15:27	0.74	0.61	1.15	0.46
Nickel [mg/L]	05-Nov-08	11:29	0.0002	< 0.0001	< 0.0001	< 0.0001
Lead [mg/L]	05-Nov-08	11:29	0.00007	0.00013	< 0.00002	< 0.00002
Antimony [mg/L]	05-Nov-08	11:29	0.00093	0.00063	0.00058	0.00037
Selenium [mg/L]	05-Nov-08	11:29	< 0.001	< 0.001	< 0.001	< 0.001
Silica [mg/L]	05-Nov-08	15:27	0.53	0.54	0.45	0.35
Tin [mg/L]	05-Nov-08	11:29	0.00274	0.00143	0.00093	0.00297
Strontium [mg/L]	05-Nov-08	15:27	0.757	0.112	0.177	0.362
Titanium [mg/L]	05-Nov-08	11:29	< 0.0001	0.0002	< 0.0001	< 0.0001
Thallium [mg/L]	05-Nov-08	11:29	0.000017	< 0.000002	< 0.000002	< 0.000002
Uranium [mg/L]	05-Nov-08	11:29	0.00117	0.00152	0.000841	0.000618
Vanadium [mg/L]	05-Nov-08	11:29	0.00043	0.00036	0.00015	< 0.00003
Tungsten [mg/L]	05-Nov-08	11:29	0.00023	0.00051	0.00014	0.00011
Yttrium [mg/L]	05-Nov-08	11:29	0.000009	0.000005	< 0.000001	< 0.000001
Zinc [mg/L]	05-Nov-08	11:29	< 0.001	< 0.001	< 0.001	< 0.001

Dianne Griffin
Project Specialist

OnLine LIMS

SGS Lakefield Research Limited
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Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, November 13, 2008

Date Rec. : 05 November 2008
LR Report: **CA10018-NOV08**
Reference: Wk# 31

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 31	6: Low Grade Ore Overall Comp -200m Wk# 31	7: High Sulphide Ore Overall Comp -200m Wk# 31	8: GT Residue Wk# 31
Sample Date & Time			05-Nov-08	05-Nov-08	05-Nov-08	05-Nov-08
Hum Cell Leachate Volume [mLs]	---	---	982	974	957	988
pH [no unit]	07-Nov-08	13:22	7.54	7.64	7.47	7.43
Conductivity [uS/cm]	07-Nov-08	13:22	70	58	61	101
Alkalinity [mg/L as CaCO3]	12-Nov-08	08:49	26	16	11	15
Acidity [mg/L as CaCO3]	12-Nov-08	08:49	< 2	< 2	< 2	< 2
Sulphate [mg/L]	12-Nov-08	19:16	11	6.4	11	23

Dianne Griffin
Project Specialist

OnLine LIMS

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0.45um

Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Wednesday, August 06, 2008

Date Rec. : 23 July 2008
LR Report: **CA10147-JUL08**
Reference: Wk# 31

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN95/96 Wk # 31	6: Overall Comp CND2 (-200 mesh) Wk# 31
Sample Date & Time			23-Jul-08	23-Jul-08
Hum Cell Leachate Volume [mLs]	---	---	895	920
pH [no unit]	25-Jul-08	09:54	7.17	6.81
Conductivity [uS/cm]	25-Jul-08	09:54	117	95
Alkalinity [mg/L as CaCO3]	25-Jul-08	09:54	32	9
Acidity [mg/L as CaCO3]	25-Jul-08	09:54	< 2	< 2
Sulphate [mg/L]	30-Jul-08	12:30	23	30

Dianne Griffin
Project Specialist

OnLine LIMS

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Phone: 705-652-2000 FAX: 705-652-6365

Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Monday, November 03, 2008

Date Rec. : 22 October 2008
LR Report: **CA10475-OCT08**
Reference: Wk# 31

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 31	6: Average Waste Overall Comp 1/4" Wk# 31	7: High Sulphide Waste Overall Comp 1/4" Wk# 31	8: Low Grade Ore Overall Comp 1/4" Wk# 31	9: High Sulphide Ore Overall Comp 1/4" Wk# 31
Sample Date & Time			22-Oct-08	22-Oct-08	22-Oct-08	22-Oct-08	22-Oct-08
Hum Cell Leachate Volume [mLs]	---	---	949	952	940	966	963
pH [no unit]	27-Oct-08	10:57	7.61	7.53	7.55	7.44	7.40
Conductivity [uS/cm]	03-Nov-08	09:52	28	26	34	23	22
Alkalinity [mg/L as CaCO3]	27-Oct-08	10:57	12	12	14	11	10
Acidity [mg/L as CaCO3]	27-Oct-08	10:57	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	28-Oct-08	13:51	1.9	1.5	2.5	1.1	1.4

Dianne Griffin
Project Specialist

OnLine LIMS

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Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, November 20, 2008

Date Rec. : 12 November 2008
LR Report: **CA10055-NOV08**
Reference: Wk# 32

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 32	6: Low Grade Ore Overall Comp -200m Wk# 32	7: High Sulphide Ore Overall Comp -200m Wk# 32	8: GT Residue Wk# 32
Sample Date & Time			12-Nov-08	12-Nov-08	12-Nov-08	12-Nov-08
Hum Cell Leachate Volume [mLs]	---	---	982	983	960	989
pH [no unit]	17-Nov-08	09:30	7.73	7.03	6.40	6.27
Conductivity [uS/cm]	17-Nov-08	09:30	60	44	56	62
Alkalinity [mg/L as CaCO3]	17-Nov-08	09:30	27	13	9	10
Acidity [mg/L as CaCO3]	17-Nov-08	09:30	< 2	< 2	< 2	< 2
Sulphate [mg/L]	19-Nov-08	12:53	13	5.8	15	18

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, August 12, 2008

Date Rec. : 30 July 2008
LR Report: **CA10453-JUL08**
Reference: Wk#32

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk#32	6: Overall Comp CND2 (-200 mesh) Wk#32
Sample Date & Time			30-Jul-08	30-Jul-08
Hum Cell Leachate Volume [mLs]	---	---	890	904
pH [no unit]	01-Aug-08	16:43	7.36	7.09
Conductivity [uS/cm]	01-Aug-08	16:43	80	82
Alkalinity [mg/L as CaCO3]	01-Aug-08	16:43	22	8
Acidity [mg/L as CaCO3]	01-Aug-08	16:43	< 2	< 2
Sulphate [mg/L]	06-Aug-08	16:00	15	25

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, November 04, 2008

Date Rec. : 29 October 2008
LR Report: **CA10684-OCT08**
Reference: Wk# 32

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 32	6: Average Waste Overall Comp 1/4" Wk# 32	7: High Sulphide Waste Overall Comp 1/4" Wk# 32	8: Low Grade Ore Overall Comp 1/4" Wk# 32	9: High Sulphide Ore Overall Comp 1/4" Wk# 32
Sample Date & Time			29-Oct-08	29-Oct-08	29-Oct-08	29-Oct-08	29-Oct-08
Hum Cell Leachate Volume [mLs]	---	---	897	888	940	894	892
pH [no unit]	31-Oct-08	10:17	7.41	7.36	7.49	7.34	7.28
Conductivity [uS/cm]	31-Oct-08	10:17	34	58	39	24	23
Alkalinity [mg/L as CaCO3]	31-Oct-08	10:17	10	10	13	9	8
Acidity [mg/L as CaCO3]	31-Oct-08	10:17	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	04-Nov-08	11:32	1.5	1.4	2.5	1.0	1.2

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Friday, December 12, 2008

Date Rec. : 01 December 2008
LR Report: **CA10072-DEC08**
Reference: Wk# 32

Copy: #2

CERTIFICATE OF ANALYSIS

Final Report - Revised

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: High Sulphide Ore Overall Comp -200m Wk# 32	6: GT Residue Wk# 32
Sample Date & Time			12-Nov-08	12-Nov-08
pH [no unit]	02-Dec-08	13:39	7.27	7.21

Revised project number from CALR11623-001 to CALR11623-002 Dec. 12/08.

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Friday, August 15, 2008

Date Rec. : 06 August 2008
LR Report: **CA10014-AUG08**
Reference: Wk#33

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk#33	6: Overall Comp CND2 (-200 mesh) Wk#33
Sample Date & Time			06-Aug-08	06-Aug-08
Hum Cell Leachate Volume [mLs]	---	---	918	908
pH [no unit]	08-Aug-08	15:59	7.57	7.12
Conductivity [uS/cm]	08-Aug-08	15:59	105	88
Alkalinity [mg/L as CaCO3]	08-Aug-08	15:59	26	7
Acidity [mg/L as CaCO3]	08-Aug-08	15:59	< 2	< 2
Sulphate [mg/L]	15-Aug-08	08:24	24	28

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, November 13, 2008

Date Rec. : 05 November 2008
LR Report: **CA10019-NOV08**
Reference: Wk# 33

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 33	6: Average Waste Overall Comp 1/4" Wk# 33	7: High Sulphide Waste Overall Comp 1/4" Wk# 33	8: Low Grade Ore Overall Comp 1/4" Wk# 33	9: High Sulphide Ore Overall Comp 1/4" Wk# 33
Sample Date & Time			05-Nov-08	05-Nov-08	05-Nov-08	05-Nov-08	05-Nov-08
Hum Cell Leachate Volume [mLs]	---	---	892	909	955	909	850
pH [no unit]	07-Nov-08	13:22	7.50	7.38	7.49	7.37	7.33
Conductivity [uS/cm]	07-Nov-08	13:22	36	34	47	32	29
Alkalinity [mg/L as CaCO3]	07-Nov-08	13:22	32	10	15	10	8
Acidity [mg/L as CaCO3]	07-Nov-08	13:22	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	12-Nov-08	19:16	1.6	1.5	2.8	1.2	1.4

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, November 27, 2008

Date Rec. : 19 November 2008
LR Report: **CA10240-NOV08**
Reference: Wk# 33

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 33	6: Low Grade Ore Overall Comp -200m Wk# 33	7: High Sulphide Ore Overall Comp -200m Wk# 33	8: GT Residue Wk# 33
Sample Date & Time			19-Nov-08	19-Nov-08	19-Nov-08	19-Nov-08
Hum Cell Leachate Volume [mLs]	---	---	984	990	945	986
pH [no unit]	21-Nov-08	08:21	7.80	8.09	7.67	7.34
Conductivity [uS/cm]	21-Nov-08	08:21	54	53	43	64
Alkalinity [mg/L as CaCO3]	21-Nov-08	08:21	13	14	9	11
Acidity [mg/L as CaCO3]	21-Nov-08	08:21	< 2	< 2	< 2	< 2
Sulphate [mg/L]	27-Nov-08	12:23	11	4.4	9.8	17

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Friday, December 12, 2008

Date Rec. : 01 December 2008
LR Report: **CA10073-DEC08**
Reference: Wk# 33

Copy: #2

CERTIFICATE OF ANALYSIS

Final Report - Revised

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Low Grade Ore Overall Comp -200m Wk# 33
Sample Date & Time			19-Nov-08
pH [no unit]	02-Dec-08	13:39	7.87
Conductivity [uS/cm]	02-Dec-08	13:39	42

Revised project number from CALR11623-001 to CALR11623-002 Dec. 12/08.

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, August 28, 2008

Date Rec. : 13 August 2008
LR Report: **CA10044-AUG08**
Reference: Wk#34

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk#34	6: Overall Comp CND2 (-200 mesh) Wk#34
Sample Date & Time			13-Aug-08	13-Aug-08
Hum Cell Leachate Volume [mLs]	---	---	904	911
pH [no unit]	15-Aug-08	10:36	7.45	7.40
Conductivity [uS/cm]	19-Aug-08	10:52	43	80
Alkalinity [mg/L as CaCO3]	15-Aug-08	10:36	10	8
Acidity [mg/L as CaCO3]	15-Aug-08	10:36	< 2	< 2
Sulphate [mg/L]	26-Aug-08	21:40	8.6	26

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, November 20, 2008

Date Rec. : 12 November 2008
LR Report: **CA10056-NOV08**
Reference: Wk# 34

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 34	6: Average Waste Overall Comp 1/4" Wk# 34	7: High Sulphide Waste Overall Comp 1/4" Wk# 34	8: Low Grade Ore Overall Comp 1/4" Wk# 34	9: High Sulphide Ore Overall Comp 1/4" Wk# 34
Sample Date & Time			12-Nov-08	12-Nov-08	12-Nov-08	12-Nov-08	12-Nov-08
Hum Cell Leachate Volume [mLs]	---	---	868	894	960	930	907
pH [no unit]	17-Nov-08	09:28	7.40	7.29	7.48	7.25	7.20
Conductivity [uS/cm]	17-Nov-08	09:28	22	22	32	21	18
Alkalinity [mg/L as CaCO3]	17-Nov-08	09:28	10	10	14	10	10
Acidity [mg/L as CaCO3]	17-Nov-08	09:28	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	19-Nov-08	12:53	1.4	1.4	2.6	1.1	1.3

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, December 09, 2008

Date Rec. : 26 November 2008
LR Report: **CA10417-NOV08**
Reference: Wk# 34

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 34	6: Low Grade Ore Overall Comp -200m Wk# 34	7: High Sulphide Ore Overall Comp -200m Wk# 34	8: GT Residue Wk# 34
Sample Date & Time			26-Nov-08	26-Nov-08	26-Nov-08	26-Nov-08
Hum Cell Leachate Volume [mLs]	---	---	986	990	913	989
pH [no unit]	01-Dec-08	08:12	7.60	7.57	7.36	7.00
Conductivity [uS/cm]	01-Dec-08	08:12	46	37	46	52
Alkalinity [mg/L as CaCO3]	01-Dec-08	08:12	12	13	10	9
Acidity [mg/L as CaCO3]	01-Dec-08	08:12	< 2	< 2	< 2	< 2
Sulphate [mg/L]	08-Dec-08	08:24	8.7	4.5	11	14

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Friday, December 19, 2008

Date Rec. : 03 December 2008
LR Report: **CA10020-DEC08**
Reference: Wk# 35

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 35	6: Low Grade Ore Overall Comp -200m Wk# 35	7: High Sulphide Ore Overall Comp -200 m Wk #35	8: GT Residue Wk# 35
Sample Date & Time			03-Dec-08	03-Dec-08	03-Dec-08	03-Dec-08
Hum Cell Leachate Volume [mLs]	---	---	980	980	937	989
pH [no unit]	05-Dec-08	10:37	7.61	7.77	7.24	7.07
Conductivity [uS/cm]	05-Dec-08	10:37	57	45	63	58
Alkalinity [mg/L as CaCO3]	05-Dec-08	10:37	15	15	11	10
Acidity [mg/L as CaCO3]	05-Dec-08	10:37	< 2	< 2	< 2	< 2
Sulphate [mg/L]	09-Dec-08	15:53	10	5.3	15	14
Chloride [mg/L]	09-Dec-08	15:53	< 0.2	< 0.2	< 0.2	< 0.2
Fluoride [mg/L]	08-Dec-08	09:08	< 0.06	< 0.06	0.08	< 0.06
Nitrite (as nitrogen) [mg/L]	09-Dec-08	15:54	< 0.06	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	09-Dec-08	15:54	< 0.05	< 0.05	< 0.05	< 0.05
Ammonia+Ammonium (N) [mg/L]	08-Dec-08	10:56	---	---	---	< 0.1
Cyanide [mg/L]	08-Dec-08	09:41	---	---	---	< 0.01
Cyanide WAD [mg/L]	08-Dec-08	09:41	---	---	---	< 0.01
Free Cyanide [mg/L]	08-Dec-08	09:41	---	---	---	< 0.01
Cyanate [mg/L]	16-Dec-08	15:48	---	---	---	< 0.1
Thiocyanate [mg/L]	16-Dec-08	14:04	---	---	---	< 2
Mercury [mg/L]	09-Dec-08	08:39	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	08-Dec-08	09:14	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Aluminum [mg/L]	08-Dec-08	09:14	0.207	0.0632	0.0399	0.0176
Arsenic [mg/L]	08-Dec-08	09:14	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Barium [mg/L]	10-Dec-08	09:56	0.0071	0.0023	0.0053	0.0041
Beryllium [mg/L]	08-Dec-08	09:14	0.00002	< 0.00002	< 0.00002	< 0.00002
Boron [mg/L]	08-Dec-08	09:14	0.0006	0.0004	0.0004	0.0002
Bismuth [mg/L]	08-Dec-08	09:14	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Calcium [mg/L]	10-Dec-08	09:56	8.06	6.51	8.42	7.87
Cadmium [mg/L]	08-Dec-08	09:14	0.000004	0.000004	0.000008	< 0.000003
Cobalt [mg/L]	08-Dec-08	09:14	0.00109	0.000182	0.000099	0.000087
Chromium [mg/L]	08-Dec-08	09:14	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	08-Dec-08	09:14	0.0009	< 0.0005	< 0.0005	< 0.0005
Iron [mg/L]	10-Dec-08	09:56	< 0.01	< 0.01	< 0.01	< 0.01
Potassium [mg/L]	10-Dec-08	09:56	1.81	1.41	2.25	1.44

OnLine LIMS

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Project : CALR-11623-002

LR Report : **CA10020-DEC08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 35	6: Low Grade Ore Overall Comp -200m Wk# 35	7: High Sulphide Ore Overall Comp -200 m Wk #35	8: GT Residue Wk# 35
Lithium [mg/L]	08-Dec-08	09:14	0.001	< 0.001	< 0.001	< 0.001
Magnesium [mg/L]	10-Dec-08	09:56	0.818	0.726	0.854	0.907
Manganese [mg/L]	08-Dec-08	09:14	0.0436	0.0330	0.0470	0.0203
Molybdenum [mg/L]	08-Dec-08	09:14	0.00235	0.00062	0.00099	0.00050
Sodium [mg/L]	10-Dec-08	09:56	0.47	0.41	0.57	0.39
Nickel [mg/L]	08-Dec-08	09:14	0.0102	0.0017	0.0009	0.0009
Lead [mg/L]	08-Dec-08	09:14	< 0.00002	0.00003	0.00004	0.00006
Antimony [mg/L]	08-Dec-08	09:14	0.0004	0.0002	0.0002	< 0.0002
Selenium [mg/L]	08-Dec-08	09:14	< 0.001	< 0.001	< 0.001	< 0.001
Silica [mg/L]	10-Dec-08	09:56	0.46	0.43	0.29	0.37
Tin [mg/L]	08-Dec-08	09:14	0.00258	0.00110	0.00054	0.00302
Strontium [mg/L]	10-Dec-08	09:56	0.491	0.0749	0.114	0.285
Titanium [mg/L]	08-Dec-08	09:14	0.0001	< 0.0001	< 0.0001	< 0.0001
Thallium [mg/L]	08-Dec-08	09:14	< 0.000002	< 0.000002	< 0.000002	0.000003
Uranium [mg/L]	08-Dec-08	09:14	0.000659	0.000968	0.000398	0.000451
Vanadium [mg/L]	08-Dec-08	09:14	0.00039	0.00031	0.00015	0.00004
Tungsten [mg/L]	08-Dec-08	09:14	0.00013	0.00032	0.00008	0.00009
Yttrium [mg/L]	08-Dec-08	09:14	0.000176	0.000037	0.000018	0.000012
Zinc [mg/L]	08-Dec-08	09:14	0.002	< 0.001	< 0.001	< 0.001

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, November 25, 2008

Date Rec. : 19 November 2008
LR Report: **CA10241-NOV08**
Reference: Wk# 35

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 35	6: Average Waste Overall Comp 1/4 " Wk# 35	7: High Sulphide Waste Overall Comp 1/4" Wk# 35	8: Low Grade Ore Overall Comp 1/4" Wk# 35	9: High Sulphide Ore Overall Comp 1/4" Wk# 35
Sample Date & Time			19-Nov-08	19-Nov-08	19-Nov-08	19-Nov-08	19-Nov-08
Hum Cell Leachate Volume [mLs]	---	---	940	921	966	936	912
pH [no unit]	21-Nov-08	08:14	7.55	7.60	7.66	7.47	7.34
Conductivity [uS/cm]	21-Nov-08	08:14	26	25	34	20	18
Alkalinity [mg/L as CaCO3]	21-Nov-08	08:14	11	11	14	14	8
Acidity [mg/L as CaCO3]	21-Nov-08	08:14	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	25-Nov-08	13:47	1.8	1.5	2.7	1.1	1.4
Chloride [mg/L]	25-Nov-08	13:47	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluoride [mg/L]	21-Nov-08	08:32	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Nitrite (as nitrogen) [mg/L]	25-Nov-08	13:47	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	25-Nov-08	13:47	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Ammonia+Ammonium (N) [mg/L]	20-Nov-08	15:07	0.1	0.1	< 0.1	< 0.1	< 0.1
Mercury [mg/L]	20-Nov-08	15:41	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	24-Nov-08	14:53	0.00001	0.00001	< 0.00001	< 0.00001	< 0.00001
Aluminum [mg/L]	24-Nov-08	14:53	0.0535	0.0415	0.0558	0.0463	0.0368
Arsenic [mg/L]	24-Nov-08	14:53	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Barium [mg/L]	24-Nov-08	10:55	0.0599	0.0423	0.0209	0.0036	0.0218
Beryllium [mg/L]	24-Nov-08	14:53	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Boron [mg/L]	24-Nov-08	14:53	0.0010	0.0006	0.0004	0.0004	0.0003
Bismuth [mg/L]	24-Nov-08	14:53	0.00002	0.00001	0.00001	0.00001	< 0.00001
Calcium [mg/L]	24-Nov-08	10:54	4.73	4.19	6.30	3.67	3.42
Cadmium [mg/L]	24-Nov-08	14:54	0.000019	0.000014	0.000013	0.000008	0.000006
Cobalt [mg/L]	24-Nov-08	14:54	0.000054	0.000024	0.000022	0.000019	0.000024
Chromium [mg/L]	24-Nov-08	14:54	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	24-Nov-08	14:54	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Iron [mg/L]	24-Nov-08	10:54	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Potassium [mg/L]	24-Nov-08	10:54	0.86	0.83	0.90	0.75	0.77

OnLine LIMS

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Project : CALR-11623-002

LR Report : **CA10241-NOV08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 35	6: Average Waste Overall Comp 1/4 " Wk# 35	7: High Sulphide Waste Overall Comp 1/4" Wk# 35	8: Low Grade Ore Overall Comp 1/4" Wk# 35	9: High Sulphide Ore Overall Comp 1/4" Wk# 35
Lithium [mg/L]	24-Nov-08	14:54	0.001	0.001	< 0.001	0.001	< 0.001
Magnesium [mg/L]	24-Nov-08	10:54	0.171	0.135	0.148	0.170	0.107
Manganese [mg/L]	24-Nov-08	14:54	0.0106	0.00971	0.0228	0.0108	0.0140
Molybdenum [mg/L]	24-Nov-08	14:54	0.00045	0.00049	0.00027	0.00034	0.00019
Sodium [mg/L]	24-Nov-08	10:54	0.08	0.07	0.09	0.07	0.06
Nickel [mg/L]	24-Nov-08	14:54	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Lead [mg/L]	24-Nov-08	14:54	0.00004	0.00044	0.00003	0.00003	< 0.00002
Antimony [mg/L]	24-Nov-08	14:54	0.0003	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Selenium [mg/L]	24-Nov-08	14:54	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Silica [mg/L]	24-Nov-08	10:54	0.43	0.37	0.45	0.32	0.24
Tin [mg/L]	24-Nov-08	14:54	0.00011	0.00022	0.00029	0.00011	0.00004
Strontium [mg/L]	24-Nov-08	10:54	0.326	0.380	0.0487	0.0796	0.0572
Titanium [mg/L]	24-Nov-08	14:54	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Thallium [mg/L]	24-Nov-08	14:54	0.000016	0.000009	0.000008	0.000003	< 0.000002
Uranium [mg/L]	24-Nov-08	14:54	0.00125	0.000981	0.00106	0.00114	0.000629
Vanadium [mg/L]	24-Nov-08	14:54	0.00045	0.00031	0.00027	0.00024	0.00015
Tungsten [mg/L]	24-Nov-08	14:54	0.00004	0.00004	0.00005	0.00007	< 0.00003
Yttrium [mg/L]	24-Nov-08	14:54	0.000019	0.000015	0.000013	0.000011	0.000008
Zinc [mg/L]	24-Nov-08	14:54	< 0.001	< 0.001	< 0.001	0.003	< 0.001

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Friday, December 19, 2008

Date Rec. : 10 December 2008
LR Report: **CA10050-DEC08**
Reference: Wk# 36

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 36	6: Low Grade Ore Overall Comp -200m Wk# 36	7: High Sulphide Ore Overall Comp -200m Wk# 36	8: GT Residue Wk# 36
Sample Date & Time			10-Dec-08	10-Dec-08	10-Dec-08	10-Dec-08
Hum Cell Leachate Volume [mLs]	---	---	983	981	952	974
pH [no unit]	11-Dec-08	14:00	7.54	7.61	7.39	7.19
Conductivity [uS/cm]	11-Dec-08	14:00	57	46	57	58
Alkalinity [mg/L as CaCO3]	11-Dec-08	14:00	14	15	10	8
Acidity [mg/L as CaCO3]	15-Dec-08	10:27	< 2	< 2	< 2	< 2
Sulphate [mg/L]	16-Dec-08	13:54	9.6	5.0	11	12

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, December 09, 2008

Date Rec. : 26 November 2008
LR Report: **CA10418-NOV08**
Reference: Wk# 36

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 36	6: Average Waste Overall Comp 1/4" Wk# 36	7: High Sulphide Waste Overall Comp 1/4" Wk# 36	8: Low Grade Ore Overall Comp 1/4" Wk# 36	9: High Sulphide Ore Overall Comp 1/4" Wk# 36
Sample Date & Time			26-Nov-08	26-Nov-08	26-Nov-08	26-Nov-08	26-Nov-08
Hum Cell Leachate Volume [mLs]	---	---	948	962	1001	972	970
pH [no unit]	01-Dec-08	08:12	7.31	7.23	7.39	7.27	7.12
Conductivity [uS/cm]	01-Dec-08	08:12	26	26	33	24	23
Alkalinity [mg/L as CaCO3]	01-Dec-08	08:12	12	12	14	11	10
Acidity [mg/L as CaCO3]	01-Dec-08	08:12	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	03-Dec-08	14:09	1.5	1.4	2.5	1.1	1.4

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Wednesday, September 03, 2008

Date Rec. : 27 August 2008
LR Report: **CA10500-AUG08**
Reference: Wk#36

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN95/96 Wk#36	6: Overall Comp CND2 (-200 mesh) Wk#36
Sample Date & Time			27-Aug-08	27-Aug-08
Hum Cell Leachate Volume [mLs]	---	---	886	902
pH [no unit]	02-Sep-08	15:43	7.56	7.03
Conductivity [uS/cm]	02-Sep-08	15:43	145	100
Alkalinity [mg/L as CaCO3]	02-Sep-08	15:43	32	8
Acidity [mg/L as CaCO3]	02-Sep-08	15:43	< 2	< 2
Sulphate [mg/L]	02-Sep-08	13:42	40	35

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Monday, September 15, 2008

Date Rec. : 03 September 2008
LR Report: **CA10017-SEP08**
Reference: Wk#37

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN95/96 Wk#37	6: Overall Comp CND2 (-200 mesh) Wk#37
Sample Date & Time			03-Sep-08	03-Sep-08
Hum Cell Leachate Volume [mLs]	---	---	912	918
pH [no unit]	05-Sep-08	10:11	7.65	7.06
Conductivity [uS/cm]	05-Sep-08	10:11	132	101
Alkalinity [mg/L as CaCO3]	08-Sep-08	10:25	38	7
Acidity [mg/L as CaCO3]	08-Sep-08	10:25	< 2	< 2
Sulphate [mg/L]	12-Sep-08	16:54	26	34

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, December 23, 2008

Date Rec. : 03 December 2008
LR Report: **CA10021-DEC08**
Reference: Wk# 37

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 37	6: Average Waste Overall Comp 1/4" Wk# 37	7: High Sulphide Waste Overall Comp 1/4" Wk# 37	8: Low Grade Ore Overall Comp 1/4" Wk# 37	9: High Sulphide Ore Overall Comp 1/4" Wk# 37
Sample Date & Time			03-Dec-08	03-Dec-08	03-Dec-08	03-Dec-08	03-Dec-08
Hum Cell Leachate Volume [mLs]	---	---	909	904	949	923	937
pH [no unit]	05-Dec-08	10:38	7.34	7.21	7.37	7.27	7.18
Conductivity [uS/cm]	05-Dec-08	10:38	25	24	34	22	22
Alkalinity [mg/L as CaCO3]	09-Dec-08	11:14	10	10	13	10	8
Acidity [mg/L as CaCO3]	05-Dec-08	10:38	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	09-Dec-08	15:44	1.3	1.3	2.3	1.0	1.9

Dianne Griffin
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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, January 06, 2009

Date Rec. : 17 December 2008
LR Report: **CA10136-DEC08**
Reference: Wk# 37

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 37	6: Low Grade Ore Overall Comp -200m Wk# 37	7: High Sulphide Ore Overall Comp -200m Wk# 37	8: GT Residue Wk# 37
Sample Date & Time			17-Dec-08	17-Dec-08	17-Dec-08	17-Dec-08
Hum Cell Leachate Volume [mLs]	---	---	982	980	951	989
pH [no unit]	22-Dec-08	09:36	7.78	7.63	7.51	7.26
Conductivity [uS/cm]	18-Dec-08	10:24	66	39	49	53
Alkalinity [mg/L as CaCO3]	22-Dec-08	09:36	17	13	10	8
Acidity [mg/L as CaCO3]	22-Dec-08	09:36	< 2	< 2	< 2	< 2
Sulphate [mg/L]	30-Dec-08	12:00	13	4.2	10	13

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Wednesday, September 17, 2008

Date Rec. : 10 September 2008
LR Report: **CA10045-SEP08**
Reference: Wk# 38

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CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 38	6: Overall Comp CND2 (-200 mesh) Wk# 38
Sample Date & Time			10-Sep-08	10-Sep-08
Hum Cell Leachate Volume [mLs]	---	---	933	938
pH [no unit]	12-Sep-08	15:00	8.08	7.13
Conductivity [uS/cm]	12-Sep-08	15:00	150	97
Alkalinity [mg/L as CaCO3]	12-Sep-08	15:00	49	7
Acidity [mg/L as CaCO3]	12-Sep-08	15:00	< 2	< 2
Sulphate [mg/L]	17-Sep-08	12:40	22	32

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Friday, December 19, 2008

Date Rec. : 10 December 2008
LR Report: **CA10051-DEC08**
Reference: Wk# 38

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CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 38	6: Average Waste Overall Comp 1/4" Wk# 38	7: High Sulphide Waste Overall Comp 1/4" Wk# 38	8: Low Grade Ore Overall Comp 1/4" Wk# 38	9: High Sulphide Ore Overall Comp 1/4" Wk# 38
Sample Date & Time			10-Dec-08	10-Dec-08	10-Dec-08	10-Dec-08	10-Dec-08
Hum Cell Leachate Volume [mLs]	---	---	898	895	949	919	876
pH [no unit]	11-Dec-08	14:00	7.24	7.20	7.41	7.13	7.09
Conductivity [uS/cm]	11-Dec-08	14:00	25	23	36	22	17
Alkalinity [mg/L as CaCO3]	15-Dec-08	10:28	56	53	51	46	7
Acidity [mg/L as CaCO3]	15-Dec-08	10:28	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	16-Dec-08	13:55	1.2	1.1	2.1	1.0	1.1

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Friday, January 09, 2009

Date Rec. : 23 December 2008
LR Report: **CA10277-DEC08**
Reference: Wk# 38

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CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 38	6: Low Grade Ore Overall Comp -200m Wk# 38	7: High Sulphide Ore Overall Comp -200m Wk# 38	8: GT Residue Wk# 38
Sample Date & Time			24-Dec-08	24-Dec-08	24-Dec-08	24-Dec-08
Hum Cell Leachate Volume [mLs]	---	---	925	984	955	989
pH [no unit]	29-Dec-08	09:42	7.61	7.94	7.84	7.33
Conductivity [uS/cm]	29-Dec-08	09:42	44	35	42	56
Alkalinity [mg/L as CaCO3]	29-Dec-08	09:42	12	17	9	10
Acidity [mg/L as CaCO3]	29-Dec-08	09:42	< 2	< 2	< 2	< 2
Sulphate [mg/L]	09-Jan-09	11:10	1.1	3.4	7.8	13

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Wednesday, January 21, 2009

Date Rec. : 13 January 2009
LR Report: **CA10239-JAN09**
Reference: Wk# 38

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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Alkalinity mg/L as CaCO3
3: Analysis Approval Date		16-Jan-09
4: Analysis Approval Time		11:08
5: Average Grade Ore Overall Comp 1/4" Wk# 38	Date:N/A	11
6: Average Waste Overall Comp 1/4" Wk# 38	Date:N/A	9
7: High Sulphide Waste Overall Comp 1/4" Wk# 38	Date:N/A	13
8: Low Grade Ore Overall Comp 1/4" Wk# 38	Date:N/A	10

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Monday, January 26, 2009

Date Rec. : 13 January 2009
LR Report: **CA10241-JAN09**
Reference: Wk# 38

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 38
Sample Date & Time			24-Dec-08
Conductivity [uS/cm]	19-Jan-09	09:53	45
Sulphate [mg/L]	22-Jan-09	13:59	7.0

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Monday, January 05, 2009

Date Rec. : 17 December 2008
LR Report: **CA10137-DEC08**
Reference: Wk# 39

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 39	6: Average Waste Overall Comp 1/4" Wk# 39	7: High Sulphide Waste Overall Comp 1/4" Wk# 39	8: Low Grade Ore Overall Comp 1/4" Wk# 39	9: High Sulphide Ore Overall Comp 1/4" Wk# 39
Sample Date & Time			17-Dec-08	17-Dec-08	17-Dec-08	17-Dec-08	17-Dec-08
Hum Cell Leachate Volume [mLs]	---	---	922	932	968	941	920
pH [no unit]	22-Dec-08	09:32	7.54	7.43	7.64	7.35	7.30
Conductivity [uS/cm]	18-Dec-08	10:24	26	24	34	22	20
Alkalinity [mg/L as CaCO3]	22-Dec-08	09:32	11	10	14	10	8
Acidity [mg/L as CaCO3]	22-Dec-08	09:32	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	23-Dec-08	14:28	1.2	1.2	2.1	0.9	1.1

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, September 25, 2008

Date Rec. : 01 September 2008
LR Report: **CA10209-SEP08**
Reference: Wk#39

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN95/96 Wk#39	6: Overall Comp CND2 (-200 mesh) Wk# 39
Sample Date & Time			17-Sep-08	17-Sep-08
Hum Cell Leachate Volume [mLs]	---	---	923	946
pH [no unit]	18-Sep-08	14:11	7.74	7.06
Conductivity [uS/cm]	18-Sep-08	14:11	105	148
Alkalinity [mg/L as CaCO3]	18-Sep-08	14:11	33	10
Acidity [mg/L as CaCO3]	18-Sep-08	14:11	< 2	< 2
Sulphate [mg/L]	25-Sep-08	09:22	15	51

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Friday, January 09, 2009

Date Rec. : 30 December 2008
LR Report: **CA10512-DEC08**
Reference: Wk# 39

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 39	7: High Sulphide Ore Overall Comp -200m Wk# 39	8: GT Residue Wk# 39
Sample Date & Time			30-Dec-08	30-Dec-08	30-Dec-08
Hum Cell Leachate Volume [mLs]	---	---	983	896	985
pH [no unit]	06-Jan-09	08:31	7.94	7.85	7.14
Conductivity [uS/cm]	06-Jan-09	08:31	47	52	44
Alkalinity [mg/L as CaCO3]	06-Jan-09	08:31	12	10	8
Acidity [mg/L as CaCO3]	06-Jan-09	08:31	< 2	< 2	< 2
Sulphate [mg/L]	09-Jan-09	09:13	7.8	11	12

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Wednesday, January 28, 2009

Date Rec. : 22 January 2009
LR Report: **CA10388-JAN09**
Reference: Wk# 39

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Low Grade Ore Overall Comp -200m Wk# 39
Sample Date & Time			Date:N/A
pH [no unit]	27-Jan-09	09:43	7.49

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Wednesday, January 21, 2009

Date Rec. : 07 January 2009
LR Report: **CA10020-JAN09**
Reference: Wk#40

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk#40	6: Low Grade Ore Overall Comp -200m Wk#40	7: High Sulphide Ore Overall Comp -200m Wk#40	8: GT Residue Wk#40
Sample Date & Time			07-Jan-09	07-Jan-09	07-Jan-09	07-Jan-09
Hum Cell Leachate Volume [mLs]	---	---	987	989	940	921
pH [no unit]	08-Jan-09	09:24	7.83	7.56	7.72	7.11
Conductivity [uS/cm]	08-Jan-09	09:24	47	34	52	43
Alkalinity [mg/L as CaCO3]	08-Jan-09	09:24	13	11	11	8
Acidity [mg/L as CaCO3]	08-Jan-09	09:24	< 2	< 2	< 2	< 2
Sulphate [mg/L]	14-Jan-09	08:40	8.1	3.8	12	10
Chloride [mg/L]	14-Jan-09	08:40	< 0.2	< 0.2	< 0.2	< 0.2
Fluoride [mg/L]	14-Jan-09	07:56	< 0.06	< 0.06	0.06	< 0.06
Nitrite (as nitrogen) [mg/L]	14-Jan-09	08:40	< 0.06	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	21-Jan-09	09:10	< 0.05	< 0.05	< 0.05	< 0.05
Ammonia+Ammonium (N) [mg/L]	08-Jan-09	13:39	---	---	---	< 0.1
Cyanide [mg/L]	09-Jan-09	13:43	---	---	---	< 0.01
Cyanide WAD [mg/L]	09-Jan-09	13:43	---	---	---	< 0.01
Free Cyanide [mg/L]	09-Jan-09	13:43	---	---	---	< 0.02
Cyanate [mg/L]	12-Jan-09	12:41	---	---	---	< 0.1
Thiocyanate [mg/L]	14-Jan-09	14:26	---	---	---	< 2
Mercury [mg/L]	09-Jan-09	13:03	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	12-Jan-09	09:59	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Aluminum [mg/L]	12-Jan-09	09:59	0.0196	0.0163	0.0192	0.0099
Arsenic [mg/L]	12-Jan-09	09:59	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Barium [mg/L]	12-Jan-09	10:16	0.0092	0.0019	0.0041	0.0039
Beryllium [mg/L]	12-Jan-09	09:59	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Boron [mg/L]	12-Jan-09	09:59	0.0003	< 0.0002	< 0.0002	< 0.0002
Bismuth [mg/L]	12-Jan-09	09:59	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Calcium [mg/L]	12-Jan-09	10:16	6.57	4.90	7.48	6.00
Cadmium [mg/L]	12-Jan-09	09:59	< 0.000003	< 0.000003	< 0.000003	< 0.000003
Cobalt [mg/L]	12-Jan-09	09:59	0.000077	0.000024	0.000036	0.000043
Chromium [mg/L]	12-Jan-09	09:59	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	12-Jan-09	09:59	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Iron [mg/L]	12-Jan-09	10:16	< 0.01	< 0.01	< 0.01	< 0.01
Potassium [mg/L]	12-Jan-09	10:16	1.35	1.04	1.77	1.14

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Project : CALR-11623-002

LR Report : **CA10020-JAN09**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk#40	6: Low Grade Ore Overall Comp -200m Wk#40	7: High Sulphide Ore Overall Comp -200m Wk#40	8: GT Residue Wk#40
Lithium [mg/L]	12-Jan-09	09:59	< 0.001	< 0.001	< 0.001	< 0.001
Magnesium [mg/L]	12-Jan-09	10:16	0.641	0.549	0.727	0.729
Manganese [mg/L]	12-Jan-09	10:00	0.0399	0.0274	0.0450	0.0139
Molybdenum [mg/L]	12-Jan-09	10:00	0.00184	0.00038	0.00080	0.00031
Sodium [mg/L]	12-Jan-09	10:16	0.37	0.30	0.44	0.30
Nickel [mg/L]	12-Jan-09	10:00	0.0002	< 0.0001	< 0.0001	0.0001
Lead [mg/L]	12-Jan-09	10:00	0.00002	< 0.00002	< 0.00002	< 0.00002
Antimony [mg/L]	12-Jan-09	10:00	0.0003	< 0.0002	< 0.0002	< 0.0002
Selenium [mg/L]	12-Jan-09	10:00	< 0.001	< 0.001	< 0.001	< 0.001
Silica [mg/L]	12-Jan-09	10:16	0.37	0.33	0.24	0.32
Tin [mg/L]	12-Jan-09	10:00	0.00208	0.00077	0.00039	0.00255
Strontium [mg/L]	12-Jan-09	10:16	0.433	0.0530	0.102	0.214
Titanium [mg/L]	12-Jan-09	10:00	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Thallium [mg/L]	12-Jan-09	10:00	< 0.000002	< 0.000002	0.000003	< 0.000002
Uranium [mg/L]	12-Jan-09	10:00	0.000507	0.00127	0.000319	0.000487
Vanadium [mg/L]	12-Jan-09	10:00	0.00034	0.00023	0.00014	< 0.00003
Tungsten [mg/L]	12-Jan-09	10:00	0.00010	0.00014	< 0.00003	< 0.00003
Yttrium [mg/L]	12-Jan-09	10:00	0.000002	< 0.000001	< 0.000001	< 0.000001
Zinc [mg/L]	12-Jan-09	10:00	< 0.001	< 0.001	< 0.001	0.001

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, January 06, 2009

Date Rec. : 23 December 2008
LR Report: **CA10278-DEC08**
Reference: Wk# 40

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 40	6: Average Waste Overall Comp 1/4 " Wk# 40	7: High Sulphide Waste Overall Comp 1/4" Wk# 40	8: Low Grade Ore Overall Comp 1/4" Wk# 40	9: High Sulphide Ore Overall Comp 1/4" Wk# 40
Sample Date & Time			24-Dec-08	24-Dec-08	24-Dec-08	24-Dec-08	24-Dec-08
Hum Cell Leachate Volume [mLs]	---	---	982	924	918	969	949
pH [no unit]	29-Dec-08	09:42	7.71	7.46	7.59	7.42	7.39
Conductivity [uS/cm]	29-Dec-08	09:42	30	28	36	25	24
Alkalinity [mg/L as CaCO3]	29-Dec-08	09:42	14	14	14	10	9
Acidity [mg/L as CaCO3]	29-Dec-08	09:42	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	06-Jan-09	09:10	7.3	1.1	2.0	0.8	1.0
Chloride [mg/L]	06-Jan-09	09:10	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluoride [mg/L]	30-Dec-08	10:25	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Nitrite (as nitrogen) [mg/L]	06-Jan-09	09:10	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	06-Jan-09	09:10	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Ammonia+Ammonium (N) [mg/L]	30-Dec-08	14:21	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Mercury [mg/L]	29-Dec-08	11:40	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	06-Jan-09	08:49	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Aluminum [mg/L]	06-Jan-09	08:49	0.0193	0.0429	0.0614	0.0471	0.0350
Arsenic [mg/L]	06-Jan-09	08:49	0.0003	0.0004	0.0003	0.0003	0.0003
Barium [mg/L]	30-Dec-08	17:09	0.0080	0.0408	0.0203	0.0042	0.0233
Beryllium [mg/L]	06-Jan-09	08:49	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Boron [mg/L]	06-Jan-09	08:49	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Bismuth [mg/L]	06-Jan-09	08:49	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Calcium [mg/L]	30-Dec-08	17:09	5.94	4.12	5.97	3.80	3.35
Cadmium [mg/L]	06-Jan-09	08:50	< 0.000003	< 0.000003	< 0.000003	< 0.000003	< 0.000003
Cobalt [mg/L]	06-Jan-09	08:50	0.000051	0.000004	< 0.000002	< 0.000002	< 0.000002
Chromium [mg/L]	06-Jan-09	08:50	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	06-Jan-09	08:50	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Iron [mg/L]	30-Dec-08	17:09	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Potassium [mg/L]	30-Dec-08	17:09	1.21	0.78	0.86	0.68	0.68
Lithium [mg/L]	06-Jan-09	08:50	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Magnesium [mg/L]	30-Dec-08	17:09	0.561	0.107	0.119	0.144	0.088
Manganese [mg/L]	06-Jan-09	08:50	0.0394	0.0116	0.0251	0.0138	0.0166
Molybdenum [mg/L]	06-Jan-09	08:50	0.00179	0.00060	0.00031	0.00030	0.00017

OnLine LIMS

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Project : CALR-11623-002

LR Report : **CA10278-DEC08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Ore Grade Overall Comp 1/4" Wk# 40	6: Average Waste Overall Comp 1/4 " Wk# 40	7: High Sulphide Waste Overall Comp 1/4" Wk# 40	8: Low Grade Ore Overall Comp 1/4" Wk# 40	9: High Sulphide Ore Overall Comp 1/4" Wk# 40
Sodium [mg/L]	30-Dec-08	17:09	0.32	0.05	0.06	0.04	0.04
Nickel [mg/L]	06-Jan-09	08:50	0.0002	< 0.0001	< 0.0001	0.0002	< 0.0001
Lead [mg/L]	06-Jan-09	08:50	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Antimony [mg/L]	06-Jan-09	08:50	0.0004	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Selenium [mg/L]	06-Jan-09	08:50	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Silica [mg/L]	30-Dec-08	17:09	0.32	0.34	0.40	0.31	0.22
Tin [mg/L]	06-Jan-09	08:50	0.00206	0.00034	0.00031	0.00023	0.00064
Strontium [mg/L]	30-Dec-08	17:09	0.377	0.332	0.0441	0.0733	0.0524
Titanium [mg/L]	06-Jan-09	08:50	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Thallium [mg/L]	06-Jan-09	08:50	< 0.000002	< 0.000002	< 0.000002	< 0.000002	< 0.000002
Uranium [mg/L]	06-Jan-09	08:50	0.00100	0.000838	0.000904	0.00108	0.000634
Vanadium [mg/L]	06-Jan-09	08:50	0.00021	0.00019	0.00015	0.00013	< 0.00003
Tungsten [mg/L]	06-Jan-09	08:50	0.00032	0.00022	0.00022	0.00022	0.00018
Yttrium [mg/L]	06-Jan-09	08:50	< 0.000001	< 0.000001	< 0.000001	< 0.000001	< 0.000001
Zinc [mg/L]	06-Jan-09	08:50	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Friday, October 03, 2008

Date Rec. : 24 September 2008
LR Report: **CA10436-SEP08**
Reference: Wk# 40

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 40	6: Overall Comp CND2 (-200 mesh) Wk# 40
Sample Date & Time			24-Sep-08	24-Sep-08
Hum Cell Leachate Volume [mLs]	---	---	884	893
pH [no unit]	26-Sep-08	13:26	7.44	7.00
Conductivity [uS/cm]	26-Sep-08	13:26	59	90
Alkalinity [mg/L as CaCO3]	26-Sep-08	13:26	20	8
Acidity [mg/L as CaCO3]	26-Sep-08	13:26	< 2	< 2
Sulphate [mg/L]	26-Sep-08	12:58	32	9.5
Chloride [mg/L]	26-Sep-08	12:58	< 0.2	< 0.2
Nitrite (as nitrogen) [mg/L]	26-Sep-08	12:58	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	26-Sep-08	12:58	< 0.05	< 0.05
Ammonia+Ammonium (N) [mg/L]	26-Sep-08	10:26	< 0.1	0.1
Cyanide [mg/L]	01-Oct-08	08:12	< 0.01	0.01
Cyanide WAD [mg/L]	01-Oct-08	08:12	< 0.01	< 0.01
Free Cyanide [mg/L]	01-Oct-08	08:12	< 0.01	< 0.01
Cyanate [mg/L]	02-Oct-08	16:20	< 0.1	< 0.1
Thiocyanate [mg/L]	30-Sep-08	09:24	< 2	< 2
Mercury [mg/L]	01-Oct-08	09:17	< 0.0001	< 0.0001
Silver [mg/L]	01-Oct-08	08:37	0.00001	0.00003
Aluminum [mg/L]	01-Oct-08	08:37	0.0588	0.0172
Arsenic [mg/L]	01-Oct-08	08:37	< 0.0002	< 0.0002
Barium [mg/L]	02-Oct-08	07:35	0.0274	0.0038
Beryllium [mg/L]	01-Oct-08	08:37	< 0.00002	< 0.00002
Boron [mg/L]	01-Oct-08	08:37	< 0.0002	0.0004
Bismuth [mg/L]	01-Oct-08	08:37	< 0.00001	< 0.00001
Calcium [mg/L]	02-Oct-08	07:35	9.20	11.7
Cadmium [mg/L]	01-Oct-08	08:37	0.000004	0.000004
Cobalt [mg/L]	01-Oct-08	08:37	0.000107	0.000355
Chromium [mg/L]	01-Oct-08	08:37	< 0.0005	< 0.0005
Copper [mg/L]	01-Oct-08	08:37	< 0.0005	0.0017
Iron [mg/L]	02-Oct-08	07:35	< 0.01	< 0.01
Potassium [mg/L]	02-Oct-08	07:35	2.17	1.96
Lithium [mg/L]	01-Oct-08	08:37	< 0.001	< 0.001

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Project : CALR-11623-002

LR Report : **CA10436-SEP08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 40	6: Overall Comp CND2 (-200 mesh) Wk# 40
Magnesium [mg/L]	02-Oct-08	07:35	0.842	1.69
Manganese [mg/L]	01-Oct-08	08:37	0.0234	0.0244
Molybdenum [mg/L]	01-Oct-08	08:37	0.00822	0.00274
Sodium [mg/L]	02-Oct-08	07:35	0.26	1.02
Nickel [mg/L]	01-Oct-08	08:37	0.0012	0.0008
Lead [mg/L]	01-Oct-08	08:37	0.00004	0.00003
Antimony [mg/L]	01-Oct-08	08:37	0.00053	0.00042
Selenium [mg/L]	01-Oct-08	08:37	0.001	< 0.001
Silica [mg/L]	02-Oct-08	07:35	0.35	< 0.03
Tin [mg/L]	01-Oct-08	08:37	0.00006	0.00007
Strontium [mg/L]	02-Oct-08	07:35	0.302	0.423
Titanium [mg/L]	01-Oct-08	08:37	< 0.0001	< 0.0001
Thallium [mg/L]	01-Oct-08	08:37	0.000010	0.000004
Uranium [mg/L]	01-Oct-08	08:37	0.000550	0.000482
Vanadium [mg/L]	01-Oct-08	08:37	0.00067	0.00011
Tungsten [mg/L]	01-Oct-08	08:37	0.00042	0.00010
Yttrium [mg/L]	01-Oct-08	08:37	0.000016	0.000007
Zinc [mg/L]	01-Oct-08	08:37	< 0.001	< 0.001

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Monday, January 26, 2009

Date Rec. : 13 January 2009
LR Report: **CA10242-JAN09**
Reference: Wk# 40

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 40
Sample Date & Time			24-Dec-08
Sulphate [mg/L]	22-Jan-09	13:58	1.1

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, October 23, 2008

Date Rec. : 14 October 2008
LR Report: **CA10432-OCT08**
Reference: Wk# 40

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 40	6: Overall Comp CND2 (-200 mesh) Wk# 40
Sample Date & Time			24-Sep-08	24-Sep-08
Hum Cell Leachate Volume [mLs]	---	---	884	893
Sulphate [mg/L]	20-Oct-08	17:03	8.9	31

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Friday, January 23, 2009

Date Rec. : 14 January 2009
LR Report: **CA10050-JAN09**
Reference: Wk#41

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk#41	6: Low Grade Ore Overall Comp -200m Wk#41	7: High Sulphide Ore Overall Comp -200m Wk#41	8: GT Residue Wk#41
Sample Date & Time			14-Jan-09	14-Jan-09	14-Jan-09	14-Jan-09
Hum Cell Leachate Volume [mLs]	---	---	990	990	923	957
pH [no unit]	16-Jan-09	11:26	7.73	7.73	7.58	7.34
Conductivity [uS/cm]	16-Jan-09	11:26	56	53	53	48
Alkalinity [mg/L as CaCO3]	16-Jan-09	11:26	14	17	11	9
Acidity [mg/L as CaCO3]	16-Jan-09	11:26	< 2	< 2	< 2	< 2
Sulphate [mg/L]	22-Jan-09	14:26	9.9	7.2	12	11

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, October 09, 2008

Date Rec. : 01 October 2008
LR Report: **CA10057-OCT08**
Reference: Wk# 41

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 41	6: Overall Comp CND2 (-200 mesh) Wk# 41
Sample Date & Time			01-Oct-08	01-Oct-08
Hum Cell Leachate Volume [mLs]	---	---	964	991
pH [no unit]	02-Oct-08	14:51	7.82	7.22
Conductivity [uS/cm]	02-Oct-08	14:51	104	124
Alkalinity [mg/L as CaCO3]	02-Oct-08	14:51	92	11
Acidity [mg/L as CaCO3]	02-Oct-08	14:51	< 2	< 2
Sulphate [mg/L]	08-Oct-08	16:32	18	46

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Friday, January 09, 2009

Date Rec. : 30 December 2008
LR Report: **CA10513-DEC08**
Reference: Wk# 41

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 41	6: Average Waste Overall Comp 1/4" Wk# 41	7: High Sulphide Waste Overall Comp 1/4" Wk# 41	8: Low Grade Ore Overall Comp 1/4" Wk# 41	9: High Sulphide Ore Overall Comp 1/4" Wk# 41
Sample Date & Time			30-Dec-08	30-Dec-08	30-Dec-08	30-Dec-08	30-Dec-08
Hum Cell Leachate Volume [mLs]	---	---	900	939	935	953	985
pH [no unit]	06-Jan-09	08:31	7.33	7.28	7.58	7.34	7.19
Conductivity [uS/cm]	06-Jan-09	08:31	23	27	33	23	20
Alkalinity [mg/L as CaCO3]	06-Jan-09	08:31	10	11	15	10	8
Acidity [mg/L as CaCO3]	06-Jan-09	08:31	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	09-Jan-09	09:13	1.2	1.4	2.4	1.0	1.2

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, January 15, 2009

Date Rec. : 07 January 2009
LR Report: **CA10021-JAN09**
Reference: Wk#42

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk#42	6: Average Waste Overall Comp 1/4" Wk#42	7: High Sulphide Waste Overall Comp 1/4" Wk#42	8: Low Grade Ore Overall Comp 1/4" Wk#42	9: High Sulphide Ore Overall Comp 1/4" Wk#42
Sample Date & Time			07-Jan-09	07-Jan-09	07-Jan-09	07-Jan-09	07-Jan-09
Hum Cell Leachate Volume [mLs]	---	---	887	886	961	930	899
pH [no unit]	08-Jan-09	09:25	7.59	7.48	7.67	7.45	7.46
Conductivity [uS/cm]	08-Jan-09	09:25	24	24	34	21	19
Alkalinity [mg/L as CaCO3]	08-Jan-09	09:25	9	9	13	9	7
Acidity [mg/L as CaCO3]	08-Jan-09	09:25	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	15-Jan-09	08:27	1.4	1.5	2.7	1.1	1.2

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, October 23, 2008

Date Rec. : 08 October 2008
LR Report: **CA10103-OCT08**
Reference: Wk# 42

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 42	6: Overall Comp CND2 (-200 mesh) Wk# 42
Sample Date & Time			08-Oct-08	08-Oct-08
Hum Cell Leachate Volume [mLs]	---	---	881	911
pH [no unit]	10-Oct-08	10:16	7.45	7.14
Conductivity [uS/cm]	10-Oct-08	10:16	45	84
Alkalinity [mg/L as CaCO3]	10-Oct-08	10:16	14	7
Acidity [mg/L as CaCO3]	10-Oct-08	10:16	< 2	3
Sulphate [mg/L]	14-Oct-08	15:26	5.6	28

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Friday, January 30, 2009

Date Rec. : 22 January 2009
LR Report: **CA10142-JAN09**
Reference: Wk# 42

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp -200m Wk# 42	6: Low Grad Ore Overall Comp 200 m Wk# 42	7: High Sulphide Ore Overall Comp -200m Wk# 42	8: GT Residue Wk# 42
Sample Date & Time			21-Jan-09	21-Jan-09	21-Jan-09	21-Jan-09
Hum Cell Leachate Volume [mLs]	---	---	981	991	974	911
pH [no unit]	23-Jan-09	08:53	7.71	7.76	7.79	7.38
Conductivity [uS/cm]	22-Jan-09	10:11	51	41	54	29
Alkalinity [mg/L as CaCO3]	22-Jan-09	10:11	15	15	13	6
Acidity [mg/L as CaCO3]	22-Jan-09	10:11	< 2	< 2	< 2	< 2
Sulphate [mg/L]	29-Jan-09	11:15	9.2	4.6	11	5.8

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Friday, January 23, 2009

Date Rec. : 14 January 2009
LR Report: **CA10051-JAN09**
Reference: Wk#43

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk#43	6: Average Waste Overall Comp 1/4" Wk# 43	7: High Sulphide Waste Overall Comp 1/4" Wk# 43	8: Low Grade Ore Overall Comp 1/4" Wk# 43	9: High Sulphide Ore Overall Comp 1/4" Wk# 43
Sample Date & Time			14-Jan-09	14-Jan-09	14-Jan-09	14-Jan-09	14-Jan-09
Hum Cell Leachate Volume [mLs]	---	---	971	899	905	948	871
pH [no unit]	16-Jan-09	11:20	7.50	7.34	7.51	7.36	7.22
Conductivity [uS/cm]	16-Jan-09	11:20	29	22	26	22	17
Alkalinity [mg/L as CaCO3]	16-Jan-09	11:20	13	9	11	10	7
Acidity [mg/L as CaCO3]	19-Jan-09	16:38	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	22-Jan-09	14:19	1.5	1.3	1.9	1.0	1.1

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, October 28, 2008

Date Rec. : 15 October 2008
LR Report: **CA10269-OCT08**
Reference: Wk# 43

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 43	6: Overall Comp CND2 (-200 mesh) Wk# 43
Sample Date & Time			15-Oct-08	15-Oct-08
Hum Cell Leachate Volume [mLs]	---	---	907	898
pH [no unit]	24-Oct-08	09:21	7.68	7.06
Conductivity [uS/cm]	24-Oct-08	09:21	83	88
Alkalinity [mg/L as CaCO3]	24-Oct-08	09:21	35	7
Acidity [mg/L as CaCO3]	24-Oct-08	09:21	< 2	< 2
Sulphate [mg/L]	28-Oct-08	10:01	12	29

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Monday, February 02, 2009

Date Rec. : 21 January 2009
LR Report: **CA10143-JAN09**
Reference: Wk# 44

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Average Grade Ore Overall Comp 1/4" Wk# 44	6: Average Waste Overall Comp 1/4" Wk# 44	7: High Sulphide Waste Overall Comp 1/4" Wk# 44	8: Low Grade Ore Overall Comp 1/4" Wk# 44	9: High Sulphide Ore Overall Comp 1/4 " Wk# 44
Sample Date & Time			21-Jan-09	21-Jan-09	21-Jan-09	21-Jan-09	21-Jan-09
Hum Cell Leachate Volume [mLs]	---	---	938	893	951	958	962
pH [no unit]	22-Jan-09	10:12	7.68	7.53	7.69	7.54	7.53
Conductivity [uS/cm]	22-Jan-09	10:12	28	22	30	25	25
Alkalinity [mg/L as CaCO3]	22-Jan-09	10:12	12	10	13	11	10
Acidity [mg/L as CaCO3]	22-Jan-09	10:12	< 2	< 2	< 2	< 2	< 2
Sulphate [mg/L]	30-Jan-09	12:13	1.3	1.2	2.2	1.0	1.3

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, November 13, 2008

Date Rec. : 22 October 2008
LR Report: **CA10473-OCT08**
Reference: Wk#44

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 44	6: Overall Comp CND2 (-200 mesh) Wk# 44
Sample Date & Time			22-Oct-08	22-Oct-08
Hum Cell Leachate Volume [mLs]	---	---	932	942
pH [no unit]	28-Oct-08	10:04	7.44	6.92
Conductivity [uS/cm]	03-Nov-08	09:52	71	113
Alkalinity [mg/L as CaCO3]	28-Oct-08	10:04	26	9
Acidity [mg/L as CaCO3]	28-Oct-08	10:04	< 2	< 2
Sulphate [mg/L]	12-Nov-08	12:31	10	41

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, November 11, 2008

Date Rec. : 29 October 2008
LR Report: **CA10682-OCT08**
Reference: Wk#45

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 45	6: Overall Comp CND2 (-200 mesh) Wk# 45
Sample Date & Time			29-Oct-08	29-Oct-08
Hum Cell Leachate Volume [mLs]	---	---	848	889
pH [no unit]	31-Oct-08	10:17	7.60	7.19
Conductivity [uS/cm]	31-Oct-08	10:17	74	95
Alkalinity [mg/L as CaCO3]	31-Oct-08	10:17	23	8
Acidity [mg/L as CaCO3]	31-Oct-08	10:17	< 2	< 2
Sulphate [mg/L]	06-Nov-08	15:40	9.4	28
Chloride [mg/L]	06-Nov-08	15:40	< 0.2	< 0.2
Nitrite (as nitrogen) [mg/L]	06-Nov-08	15:40	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	06-Nov-08	15:40	< 0.05	< 0.05
Ammonia+Ammonium (N) [mg/L]	03-Nov-08	11:53	< 0.1	< 0.1
Cyanide [mg/L]	11-Nov-08	08:36	< 0.01	0.04
Cyanide WAD [mg/L]	11-Nov-08	08:36	< 0.01	0.04
Free Cyanide [mg/L]	11-Nov-08	08:36	< 0.02	0.04
Cyanate [mg/L]	05-Nov-08	20:32	< 0.1	< 0.1
Thiocyanate [mg/L]	04-Nov-08	14:09	< 2	< 2
Mercury [mg/L]	04-Nov-08	09:27	< 0.0001	< 0.0001
Silver [mg/L]	05-Nov-08	11:31	< 0.00001	< 0.00001
Aluminum [mg/L]	05-Nov-08	11:31	0.0532	0.0159
Arsenic [mg/L]	05-Nov-08	11:31	< 0.0002	< 0.0002
Barium [mg/L]	05-Nov-08	15:30	0.0331	0.0021
Beryllium [mg/L]	05-Nov-08	11:31	< 0.00002	< 0.00002
Boron [mg/L]	05-Nov-08	11:31	0.0004	0.0004
Bismuth [mg/L]	05-Nov-08	11:31	< 0.00001	< 0.00001
Calcium [mg/L]	05-Nov-08	15:30	9.90	5.06
Cadmium [mg/L]	05-Nov-08	11:31	0.000006	0.000005
Cobalt [mg/L]	05-Nov-08	11:31	0.000087	0.000319
Chromium [mg/L]	05-Nov-08	11:31	< 0.0005	< 0.0005
Copper [mg/L]	05-Nov-08	11:31	< 0.0005	0.0021
Iron [mg/L]	05-Nov-08	15:30	< 0.01	< 0.01

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Project : CALR-11623-002

LR Report : **CA10682-OCT08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 45	6: Overall Comp CND2 (-200 mesh) Wk# 45
Potassium [mg/L]	05-Nov-08	15:30	2.69	0.90
Lithium [mg/L]	05-Nov-08	11:31	< 0.001	< 0.001
Magnesium [mg/L]	05-Nov-08	15:30	0.974	0.685
Manganese [mg/L]	05-Nov-08	11:31	0.0221	0.0230
Molybdenum [mg/L]	05-Nov-08	11:31	0.0109	0.00259
Sodium [mg/L]	05-Nov-08	15:30	0.34	0.37
Nickel [mg/L]	05-Nov-08	11:31	0.0002	< 0.0001
Lead [mg/L]	05-Nov-08	11:31	< 0.00002	0.00004
Antimony [mg/L]	05-Nov-08	11:31	0.00036	0.00028
Selenium [mg/L]	05-Nov-08	11:31	< 0.001	< 0.001
Silica [mg/L]	05-Nov-08	15:30	0.90	0.11
Tin [mg/L]	05-Nov-08	11:31	< 0.00001	< 0.00001
Strontium [mg/L]	05-Nov-08	15:30	0.322	0.190
Titanium [mg/L]	05-Nov-08	11:31	< 0.0001	< 0.0001
Thallium [mg/L]	05-Nov-08	11:31	< 0.000002	< 0.000002
Uranium [mg/L]	05-Nov-08	11:31	0.000533	0.000364
Vanadium [mg/L]	05-Nov-08	11:31	0.00083	0.00013
Tungsten [mg/L]	05-Nov-08	11:31	0.00059	0.00008
Yttrium [mg/L]	05-Nov-08	11:31	< 0.000001	< 0.000001
Zinc [mg/L]	05-Nov-08	11:31	< 0.001	< 0.001

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, November 13, 2008

Date Rec. : 05 November 2008
LR Report: **CA10017-NOV08**
Reference: Wk# 46

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 46	6: Overall Comp CND2 (-200 mesh) Wk# 46
Sample Date & Time			05-Nov-08	05-Nov-08
Hum Cell Leachate Volume [mLs]	---	---	908	900
pH [no unit]	07-Nov-08	13:18	7.94	7.32
Conductivity [uS/cm]	07-Nov-08	13:18	112	90
Alkalinity [mg/L as CaCO3]	07-Nov-08	13:18	36	8
Acidity [mg/L as CaCO3]	07-Nov-08	13:18	< 2	< 2
Sulphate [mg/L]	12-Nov-08	19:17	15	27

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, November 20, 2008

Date Rec. : 12 November 2008
LR Report: **CA10054-NOV08**
Reference: Wk# 47

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 47	6: Overall Comp CND2 (-200 mesh) Wk# 47
Sample Date & Time			12-Nov-08	12-Nov-08
Hum Cell Leachate Volume [mLs]	---	---	865	890
pH [no unit]	17-Nov-08	09:28	7.74	7.13
Conductivity [uS/cm]	17-Nov-08	09:28	55	77
Alkalinity [mg/L as CaCO3]	17-Nov-08	09:28	25	9
Acidity [mg/L as CaCO3]	17-Nov-08	09:28	< 2	< 2
Sulphate [mg/L]	19-Nov-08	12:52	7.9	26

Dianne Griffin
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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, November 27, 2008

Date Rec. : 19 November 2008
LR Report: **CA10239-NOV08**
Reference: Wk# 48

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 48	6: Overall Comp CND2 (-200 mesh) Wk# 48
Sample Date & Time			19-Nov-08	19-Nov-08
Hum Cell Leachate Volume [mLs]	---	---	891	890
pH [no unit]	25-Nov-08	09:00	8.04	7.05
Conductivity [uS/cm]	25-Nov-08	09:00	111	91
Alkalinity [mg/L as CaCO3]	25-Nov-08	09:00	42	8
Acidity [mg/L as CaCO3]	25-Nov-08	09:00	< 2	< 2
Sulphate [mg/L]	27-Nov-08	12:23	13	29

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, December 09, 2008

Date Rec. : 26 November 2008
LR Report: **CA10416-NOV08**
Reference: Wk# 49

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 49	6: Overall Comp CND2 (-200 mesh) Wk# 49
Sample Date & Time			26-Nov-08	26-Nov-08
Hum Cell Leachate Volume [mLs]	---	---	852	886
pH [no unit]	01-Dec-08	10:55	7.35	7.32
Conductivity [uS/cm]	01-Dec-08	10:55	105	66
Alkalinity [mg/L as CaCO3]	01-Dec-08	10:55	8	8
Acidity [mg/L as CaCO3]	01-Dec-08	10:55	< 2	< 2
Sulphate [mg/L]	08-Dec-08	08:24	11	21

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Friday, December 19, 2008

Date Rec. : 03 December 2008
LR Report: **CA10019-DEC08**
Reference: Wk# 50

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 50	6: Overall Comp CND2 (-200 mesh) Wk# 50
Sample Date & Time			03-Dec-08	03-Dec-08
Hum Cell Leachate Volume [mLs]	---	---	861	872
pH [no unit]	05-Dec-08	10:36	7.76	7.61
Conductivity [uS/cm]	05-Dec-08	10:36	103	90
Alkalinity [mg/L as CaCO3]	05-Dec-08	10:36	46	15
Acidity [mg/L as CaCO3]	05-Dec-08	10:36	< 2	< 2
Sulphate [mg/L]	09-Dec-08	15:51	11	26
Chloride [mg/L]	09-Dec-08	15:51	< 0.2	< 0.2
Nitrite (as nitrogen) [mg/L]	09-Dec-08	15:51	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	09-Dec-08	15:51	< 0.05	< 0.05
Ammonia+Ammonium (N) [mg/L]	08-Dec-08	10:56	< 0.1	< 0.1
Cyanide [mg/L]	08-Dec-08	09:41	< 0.01	0.04
Cyanide WAD [mg/L]	10-Dec-08	07:55	< 0.01	< 0.01
Free Cyanide [mg/L]	10-Dec-08	07:55	< 0.01	< 0.01
Cyanate [mg/L]	16-Dec-08	15:49	< 0.1	< 0.1
Thiocyanate [mg/L]	16-Dec-08	14:04	< 2	< 2
Mercury [mg/L]	09-Dec-08	08:39	< 0.0001	< 0.0001
Silver [mg/L]	08-Dec-08	09:15	< 0.00001	0.00001
Aluminum [mg/L]	08-Dec-08	09:15	0.140	0.0307
Arsenic [mg/L]	08-Dec-08	09:15	0.0003	< 0.0002
Barium [mg/L]	10-Dec-08	09:57	0.0684	0.0072
Beryllium [mg/L]	08-Dec-08	09:15	< 0.00002	< 0.00002
Boron [mg/L]	08-Dec-08	09:15	< 0.0002	0.0003
Bismuth [mg/L]	08-Dec-08	09:15	< 0.00001	< 0.00001
Calcium [mg/L]	10-Dec-08	09:57	15.3	11.2
Cadmium [mg/L]	08-Dec-08	09:15	0.000004	0.000003
Cobalt [mg/L]	08-Dec-08	09:15	0.000097	0.000325
Chromium [mg/L]	08-Dec-08	09:15	< 0.0005	< 0.0005
Copper [mg/L]	08-Dec-08	09:15	< 0.0005	0.0025
Iron [mg/L]	10-Dec-08	09:57	< 0.01	0.02

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Project : CALR-11623-002

LR Report : **CA10019-DEC08**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 50	6: Overall Comp CND2 (-200 mesh) Wk# 50
Potassium [mg/L]	10-Dec-08	09:57	4.74	2.16
Lithium [mg/L]	08-Dec-08	09:15	0.001	< 0.001
Magnesium [mg/L]	10-Dec-08	09:57	1.47	1.53
Manganese [mg/L]	08-Dec-08	09:15	0.0229	0.0239
Molybdenum [mg/L]	08-Dec-08	09:15	0.0109	0.00303
Sodium [mg/L]	10-Dec-08	09:57	0.53	0.79
Nickel [mg/L]	08-Dec-08	09:15	0.0004	0.0003
Lead [mg/L]	08-Dec-08	09:15	< 0.00002	< 0.00002
Antimony [mg/L]	08-Dec-08	09:15	0.0003	< 0.0002
Selenium [mg/L]	08-Dec-08	09:15	< 0.001	< 0.001
Silica [mg/L]	10-Dec-08	09:57	2.16	0.32
Tin [mg/L]	08-Dec-08	09:15	0.00003	0.00002
Strontium [mg/L]	10-Dec-08	09:57	0.498	0.395
Titanium [mg/L]	08-Dec-08	09:15	0.0001	< 0.0001
Thallium [mg/L]	08-Dec-08	09:15	0.000011	< 0.000002
Uranium [mg/L]	08-Dec-08	09:15	0.000629	0.000360
Vanadium [mg/L]	08-Dec-08	09:15	0.00274	0.00030
Tungsten [mg/L]	08-Dec-08	09:15	0.00129	0.00013
Yttrium [mg/L]	08-Dec-08	09:15	0.000005	0.000004
Zinc [mg/L]	08-Dec-08	09:15	< 0.001	< 0.001

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Friday, December 19, 2008

Date Rec. : 10 December 2008
LR Report: **CA10049-DEC08**
Reference: Wk# 51

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 51	6: Overall Comp CND2 (-200 mesh) Wk# 51
Sample Date & Time			10-Dec-08	10-Dec-08
Hum Cell Leachate Volume [mLs]	---	---	891	871
pH [no unit]	11-Dec-08	13:58	7.99	8.33
Conductivity [uS/cm]	11-Dec-08	13:58	99	38
Alkalinity [mg/L as CaCO3]	11-Dec-08	13:58	37	8
Acidity [mg/L as CaCO3]	15-Dec-08	10:27	< 2	< 2
Sulphate [mg/L]	16-Dec-08	13:54	10	5.8

Dianne Griffin
Project Specialist

OnLine LIMS

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Phone: 705-652-2000 FAX: 705-652-6365

Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, January 29, 2009

Date Rec. : 13 January 2009
LR Report: **CA10238-JAN09**
Reference: Wk# 51

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CND2 (-200 mesh) Wk# 51
Sample Date & Time			10-Dec-08
pH [no unit]	29-Jan-09	10:17	7.00
Conductivity [uS/cm]	29-Jan-09	10:17	40
Sulphate [mg/L]	22-Jan-09	13:59	5.9

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Monday, January 05, 2009

Date Rec. : 17 December 2008
LR Report: **CA10135-DEC08**
Reference: Wk# 52

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 52	6: Overall Comp CND2 (-200 mesh) Wk# 52
Sample Date & Time			17-Dec-08	17-Dec-08
Hum Cell Leachate Volume [mLs]	---	---	842	888
pH [no unit]	22-Dec-08	09:35	8.06	7.32
Conductivity [uS/cm]	18-Dec-08	10:24	98	109
Alkalinity [mg/L as CaCO3]	22-Dec-08	09:35	37	10
Acidity [mg/L as CaCO3]	22-Dec-08	09:35	< 2	< 2
Sulphate [mg/L]	23-Dec-08	14:26	10	37

Dianne Griffin
Project Specialist

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, January 06, 2009

Date Rec. : 23 December 2008
LR Report: **CA10276-DEC08**
Reference: Wk# 53

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 53	6: Overall Comp CND2 (-200 mesh) Wk# 53
Sample Date & Time			24-Dec-08	24-Dec-08
Hum Cell Leachate Volume [mLs]	---	---	902	896
pH [no unit]	29-Dec-08	09:26	8.20	7.63
Conductivity [uS/cm]	29-Dec-08	09:26	101	84
Alkalinity [mg/L as CaCO3]	29-Dec-08	09:26	40	8
Acidity [mg/L as CaCO3]	29-Dec-08	09:26	< 2	< 2
Sulphate [mg/L]	06-Jan-09	10:36	9.2	28

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Friday, January 09, 2009

Date Rec. : 30 December 2008
LR Report: **CA10511-DEC08**
Reference: Wk# 54

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk# 54	6: Overall Comp CND2 (-200 mesh) Wk# 54
Sample Date & Time			30-Dec-08	30-Dec-08
Hum Cell Leachate Volume [mLs]	---	---	895	913
pH [no unit]	05-Jan-09	10:54	8.25	7.68
Conductivity [uS/cm]	05-Jan-09	10:54	97	92
Alkalinity [mg/L as CaCO3]	05-Jan-09	10:54	39	8
Acidity [mg/L as CaCO3]	05-Jan-09	10:54	< 2	< 2
Sulphate [mg/L]	09-Jan-09	09:13	8.7	29

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Wednesday, January 21, 2009

Date Rec. : 07 January 2009
LR Report: **CA10019-JAN09**
Reference: Wk#55

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN95/96 Wk#55	6: Overall Comp CND2 (-200 mesh) Wk#55
Sample Date & Time			07-Jan-09	07-Jan-09
Hum Cell Leachate Volume [mLs]	---	---	845	850
pH [no unit]	08-Jan-09	09:24	7.93	7.52
Conductivity [uS/cm]	08-Jan-09	09:24	91	86
Alkalinity [mg/L as CaCO3]	08-Jan-09	09:24	35	11
Acidity [mg/L as CaCO3]	08-Jan-09	09:24	< 2	< 2
Sulphate [mg/L]	14-Jan-09	08:39	11	25
Chloride [mg/L]	14-Jan-09	08:39	< 0.2	< 0.2
Nitrite (as nitrogen) [mg/L]	14-Jan-09	08:39	< 0.06	< 0.06
Nitrate (as nitrogen) [mg/L]	21-Jan-09	09:11	< 0.05	< 0.05
Ammonia+Ammonium (N) [mg/L]	08-Jan-09	13:39	< 0.1	< 0.1
Cyanide [mg/L]	09-Jan-09	13:43	< 0.01	0.04
Cyanide WAD [mg/L]	12-Jan-09	14:20	< 0.01	< 0.01
Free Cyanide [mg/L]	12-Jan-09	14:20	< 0.02	< 0.02
Cyanate [mg/L]	12-Jan-09	12:41	< 0.1	< 0.1
Thiocyanate [mg/L]	14-Jan-09	14:26	< 2	< 2
Mercury [mg/L]	13-Jan-09	15:40	< 0.0001	< 0.0001
Silver [mg/L]	12-Jan-09	10:05	0.00002	< 0.00001
Aluminum [mg/L]	12-Jan-09	10:05	0.123	0.0303
Arsenic [mg/L]	12-Jan-09	10:05	< 0.0002	< 0.0002
Barium [mg/L]	12-Jan-09	10:05	0.0812	0.0084
Beryllium [mg/L]	12-Jan-09	10:05	< 0.00002	< 0.00002
Boron [mg/L]	12-Jan-09	10:05	0.0006	0.0006
Bismuth [mg/L]	12-Jan-09	10:05	0.00003	< 0.00001
Calcium [mg/L]	12-Jan-09	10:18	14.5	11.5
Cadmium [mg/L]	12-Jan-09	10:05	0.000012	< 0.000003
Cobalt [mg/L]	12-Jan-09	10:05	0.000116	0.000287
Chromium [mg/L]	12-Jan-09	10:05	< 0.0005	< 0.0005
Copper [mg/L]	12-Jan-09	10:05	< 0.0005	0.0028

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Project : CALR-11623-002

LR Report : **CA10019-JAN09**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN95/96 Wk#55	6: Overall Comp CND2 (-200 mesh) Wk#55
Iron [mg/L]	12-Jan-09	10:18	< 0.01	0.02
Potassium [mg/L]	12-Jan-09	10:17	4.05	2.04
Lithium [mg/L]	12-Jan-09	10:05	< 0.001	< 0.001
Magnesium [mg/L]	12-Jan-09	10:18	1.38	1.51
Manganese [mg/L]	12-Jan-09	10:05	0.0203	0.0233
Molybdenum [mg/L]	12-Jan-09	10:05	0.00794	0.00291
Sodium [mg/L]	12-Jan-09	10:17	0.39	0.66
Nickel [mg/L]	12-Jan-09	10:05	0.0003	0.0002
Lead [mg/L]	12-Jan-09	10:06	0.00004	0.00004
Antimony [mg/L]	12-Jan-09	10:06	0.0002	< 0.0002
Selenium [mg/L]	12-Jan-09	10:06	< 0.001	< 0.001
Silica [mg/L]	12-Jan-09	10:17	1.80	0.33
Tin [mg/L]	12-Jan-09	10:06	0.00006	< 0.00001
Strontium [mg/L]	12-Jan-09	10:17	0.424	0.413
Titanium [mg/L]	12-Jan-09	10:06	0.0001	0.0003
Thallium [mg/L]	12-Jan-09	10:06	0.000030	< 0.000002
Uranium [mg/L]	12-Jan-09	10:06	0.000728	0.000838
Vanadium [mg/L]	12-Jan-09	10:06	0.00238	0.00032
Tungsten [mg/L]	12-Jan-09	10:06	0.00103	0.00006
Yttrium [mg/L]	12-Jan-09	10:06	0.000016	0.000001
Zinc [mg/L]	12-Jan-09	10:06	< 0.001	< 0.001

Dianne Griffin
Project Specialist

OnLine LIMS

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Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Friday, January 23, 2009

Date Rec. : 14 January 2009
LR Report: **CA10049-JAN09**
Reference: Wk#56

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp Wk#56	6: Overall Comp CND2 (-200 mesh) Wk#56
Sample Date & Time			14-Jan-09	14-Jan-09
Hum Cell Leachate Volume [mLs]	---	---	830	859
pH [no unit]	16-Jan-09	11:27	7.98	7.37
Conductivity [uS/cm]	16-Jan-09	11:27	93	105
Alkalinity [mg/L as CaCO3]	16-Jan-09	11:27	36	10
Acidity [mg/L as CaCO3]	16-Jan-09	11:27	< 2	< 2
Sulphate [mg/L]	22-Jan-09	14:24	9.2	34

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Appendix D – Analytical Certificates of Analysis

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Modified ABA (Price 1997)

Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Tuesday, May 06, 2008

Date Rec. : 19 December 2007
LR Report: **CA10401-DEC07**
Reference: CofC:11623-002-1

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Approval Date	4: Analysis Approval Time	5: GR Comp CN73/74	6: Overall Comp CN95/96	7: Overall Comp CND2 (-200 Mesh)
Sample Date & Time					Date:NA	Date:NA	Date:NA
Paste pH [units]	07-Jan-08	10:00	09-Jan-08	10:54	10.03	10.00	9.72
Fizz Rate [---]	07-Jan-08	10:00	09-Jan-08	10:54	2	2	2
Sample [weight(g)]	07-Jan-08	10:00	09-Jan-08	10:54	2.03	2.02	2.00
HCl added [mL]	07-Jan-08	10:00	09-Jan-08	10:54	66.50	49.10	50.00
HCl [Normality]	07-Jan-08	10:00	09-Jan-08	10:54	0.10	0.10	0.10
NaOH [Normality]	07-Jan-08	10:00	09-Jan-08	10:54	0.10	0.10	0.10
NaOH to [pH=8.3 mL]	07-Jan-08	10:00	09-Jan-08	10:54	40.50	23.20	21.10
Final pH [units]	07-Jan-08	10:00	09-Jan-08	10:54	1.72	2.17	2.00
NP [t CaCO3/1000t]	07-Jan-08	10:00	09-Jan-08	10:54	64.0	64.1	72.2
AP [t CaCO3/1000 t]	07-Jan-08	10:00	09-Jan-08	10:54	44.6	39.4	37.0
Net NP [t CaCO3/1000 t]	07-Jan-08	10:00	09-Jan-08	10:54	19.4	24.7	35.2
NP/AP [ratio]	07-Jan-08	10:00	09-Jan-08	10:54	1.44	1.63	1.95
Total Sulphur [%]	03-Jan-08	12:00	07-Jan-08	15:29	1.64	1.60	1.32
Acid Leachable SO4-S [%]	04-Jan-08	08:00	07-Jan-08	15:29	0.22	0.35	0.13
Sulphide-S [%]	04-Jan-08	08:00	07-Jan-08	15:29	1.43	1.26	1.18
Total Carbon [%]	03-Jan-08	12:00	07-Jan-08	15:29	0.634	0.631	0.728
Carbonate [%]	03-Jan-08	11:00	07-Jan-08	15:01	1.17	1.30	1.89

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Modified ABA (Price 1997)

Project : CALR-11623-002

LR Report : **CA10401-DEC07**

*NP (Neutralization Potential)

$$= \frac{50 \times (N \text{ of HCL} \times \text{Total HCL added} - N \text{ NaOH} \times \text{NaOH added})}{\text{Weight of Sample}}$$

*AP (Acid Potential) = % Sulphide Sulphur x 31.25
*Net NP (Net Neutralization Potential) = NP-AP
NP/AP Ratio = NP/AP
*Results expressed as tonnes CaCO3 equivalent/1000 tonnes of material
Samples with a % Sulphide value of <0.01 will be calculated using a 0.01 value.

Sulphur analysis performed following BC ARD Guidelines (Price 1997)

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Project Specialist

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Environmental Met
Attn : Barb Bowman

Modified ABA (Price 1997)

Project : CALR-11623-002

Tuesday, May 06, 2008

Date Rec. : 27 March 2008
LR Report: **CA10485-MAR08**

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Paste pH units	Fizz Rate ---	Sample weight(g)	HCl added mL	HCl Normality	NaOH Normality	NaOH to pH=8.3 mL	Final pH units
3: Analysis Approval Date		10-Apr-08	10-Apr-08	10-Apr-08	10-Apr-08	10-Apr-08	10-Apr-08	10-Apr-08	10-Apr-08
4: Analysis Approval Time		13:29	13:29	13:29	13:29	13:29	13:29	13:29	13:30
5: Average Grade Ore Overall Comp		9.83	3	2.01	30.80	0.10	0.10	10.90	1.82
6: Average Grade Ore Overall Comp dup1		9.81	3	2.04	30.90	0.10	0.10	10.30	1.83
7: Average Grade Ore Overall Comp dup2		9.58	3	2.00	30.90	0.10	0.10	10.80	1.76
8: Average Grade Ore Overall Comp -200m		9.62	3	2.01	37.80	0.10	0.10	10.60	1.81
9: Average Grade Ore Overall Comp -200m dup1		9.53	3	2.04	39.00	0.10	0.10	11.50	1.84
10: Average Grade Ore Overall Comp -200m dup2		9.61	3	2.01	37.20	0.10	0.10	10.20	1.90
11: Average Grade Overall Comp +200m		9.90	3	1.98	28.10	0.10	0.10	12.50	1.61
12: Average Grade Overall Comp +200m dup1		9.88	3	2.01	30.60	0.10	0.10	14.55	1.55

Sample ID	NP t CaCO3/1000 t	AP t CaCO3/1000 t	Net NP t CaCO3/1000 t	NP/AP ratio	Total Sulphur %	Acid Leachable SO4-S %	Sulphide-S %	Total Carbon %	Carbonate %
3: Analysis Approval Date	10-Apr-08	15-Apr-08	15-Apr-08	15-Apr-08	15-Apr-08	15-Apr-08	15-Apr-08	15-Apr-08	10-Apr-08
4: Analysis Approval Time	13:30	15:08	15:08	15:08	12:06	15:08	15:08	12:06	16:51
5: Average Grade Ore Overall Comp	49.5	35.5	14.0	1.40	1.40	0.27	1.14	0.552	2.33
6: Average Grade Ore Overall Comp dup1	50.5	32.2	18.3	1.57	1.33	0.30	1.03	0.558	2.33
7: Average Grade Ore Overall Comp dup2	50.2	34.2	16.0	1.47	1.34	0.24	1.09	0.562	2.31
8: Average Grade Ore Overall Comp -200m	67.7	31.5	36.2	2.15	1.24	0.23	1.01	0.778	3.49
9: Average Grade Ore Overall Comp -200m dup1	67.4	35.6	31.8	1.89	1.19	0.05	1.14	0.769	3.49
10: Average Grade Ore Overall Comp -200m dup2	67.2	27.7	39.5	2.42	1.25	0.36	0.89	0.764	3.23
11: Average Grade Overall Comp +200m	39.4	32.9	6.47	1.20	1.50	0.45	1.05	0.409	1.50
12: Average Grade Overall Comp +200m dup1	39.9	29.0	10.8	1.37	1.47	0.54	0.93	0.420	1.48

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Modified ABA (Price 1997)

Project : CALR-11623-002

LR Report : **CA10485-MAR08**

Sample ID	Sample Date & Time	Paste pH units	Fizz Rate ---	Sample weight(g)	HCl added mL	HCl Normality	NaOH Normality	NaOH to pH=8.3 mL	Final pH units
13: Average Grade Overall Comp +200m dup2		9.98	3	1.97	27.80	0.10	0.10	12.10	1.60
14: Low Grade Ore Overall Comp		10.1	3	1.95	27.60	0.10	0.10	12.80	1.64
15: Low Grade Ore Overall Comp dup1		10.0	3	1.96	27.50	0.10	0.10	12.90	1.63
16: Low Grade Ore Overall Comp dup2		10.0	3	1.98	28.40	0.10	0.10	13.30	1.65
17: Low Grade Ore Overall Comp -200m		9.89	3	2.01	31.80	0.10	0.10	10.40	1.76
18: Low Grade Ore Overall Comp -200m dup1		9.80	3	1.95	31.50	0.10	0.10	10.80	1.74
19: Low Grade Ore Overall Comp -200m dup2		9.81	3	1.97	31.60	0.10	0.10	10.90	1.72
20: High Sulphide Ore Overall Comp		10.0	3	2.03	34.15	0.10	0.10	11.80	1.76
21: High Sulphide Ore Overall Comp dup1		10.0	3	1.96	33.60	0.10	0.10	11.90	1.71
22: High Sulphide Ore Overall Comp dup2		9.97	3	2.02	33.70	0.10	0.10	11.70	1.78
23: High Sulphide Ore Overall Comp -200m		9.78	3	1.96	49.85	0.10	0.10	19.60	1.61
24: High Sulphide Ore Overall Comp -200m dup1		9.76	3	2.02	50.70	0.10	0.10	19.90	1.60
25: High Sulphide Ore Overall Comp -200m dup2		9.77	3	1.97	49.80	0.10	0.10	19.90	1.61
26: Average Grade Ore PO Comp		9.87	3	2.00	32.10	0.10	0.10	11.60	1.71
27: Average Grade Ore PO Comp dup1		9.89	3	1.98	31.70	0.10	0.10	11.40	1.71
28: Average Grade Ore PO Comp dup2		9.88	3	2.00	31.80	0.10	0.10	11.70	1.71
29: Average Grade Ore GR Comp		9.94	3	1.98	31.90	0.10	0.10	11.50	1.80

Sample ID	NP t CaCO3/1000 t	AP t CaCO3/1000 t	Net NP t CaCO3/1000 t	NP/AP ratio	Total Sulphur %	Acid Leachable SO4-S %	Sulphide-S %	Total Carbon %	Carbonate %
13: Average Grade Overall Comp +200m dup2	39.8	34.1	5.68	1.17	1.44	0.35	1.09	0.392	1.44
14: Low Grade Ore Overall Comp	37.9	22.3	15.6	1.70	0.900	0.19	0.71	0.372	1.29
15: Low Grade Ore Overall Comp dup1	37.2	21.5	15.7	1.73	0.959	0.27	0.69	0.370	1.27
16: Low Grade Ore Overall Comp dup2	38.1	20.7	17.4	1.84	0.911	0.25	0.66	0.370	1.27
17: Low Grade Ore Overall Comp -200m	53.2	17.4	35.8	3.06	0.881	0.32	0.56	0.588	2.49
18: Low Grade Ore Overall Comp -200m dup1	53.1	15.7	37.4	3.38	0.851	0.35	0.50	0.587	2.52
19: Low Grade Ore Overall Comp -200m dup2	52.5	18.2	34.3	2.89	0.866	0.28	0.58	0.578	2.51
20: High Sulphide Ore Overall Comp	55.0	50.3	4.70	1.09	2.09	0.48	1.61	0.627	2.16
21: High Sulphide Ore Overall Comp dup1	55.4	55.6	-0.20	1.00	2.10	0.32	1.78	0.613	2.23
22: High Sulphide Ore Overall Comp dup2	54.5	53.1	1.37	1.03	2.11	0.41	1.70	0.626	2.27
23: High Sulphide Ore Overall Comp -200m	77.2	44.6	32.6	1.73	1.65	0.22	1.43	0.919	3.95
24: High Sulphide Ore Overall Comp -200m dup1	76.2	40.6	35.6	1.88	1.68	0.38	1.30	0.904	3.95
25: High Sulphide Ore Overall Comp -200m dup2	75.9	43.7	32.2	1.74	1.61	0.21	1.40	0.910	3.77
26: Average Grade Ore PO Comp	51.2	27.7	23.5	1.85	1.16	0.27	0.89	0.552	1.95
27: Average Grade Ore PO Comp dup1	51.3	26.3	25.0	1.95	1.11	0.26	0.84	0.548	1.83
28: Average Grade Ore PO Comp dup2	50.2	25.3	24.9	1.98	1.07	0.26	0.81	0.551	2.07
29: Average Grade Ore GR Comp	51.5	34.7	16.8	1.48	1.55	0.44	1.11	0.586	2.07

OnLine LIMS

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Modified ABA (Price 1997)

Project : CALR-11623-002

LR Report : **CA10485-MAR08**

Sample ID	Sample Date & Time	Paste pH units	Fizz Rate ---	Sample weight(g)	HCl added mL	HCl Normality	NaOH Normality	NaOH to pH=8.3 mL	Final pH units
30: Average Grade Ore GR Comp dup1		9.95	3	1.98	32.60	0.10	0.10	11.70	1.77
31: Average Grade Ore GR Comp dup2		9.98	3	1.98	31.90	0.10	0.10	11.10	1.83
32: Low Grade Ore PO Comp		10.1	3	1.96	20.00	0.10	0.10	8.90	1.63
33: Low Grade Ore PO Comp dup1		10.2	3	2.00	20.00	0.10	0.10	8.80	1.68
34: Low Grade Ore PO Comp dup2		10.2	3	1.97	20.00	0.10	0.10	8.90	1.67
35: Low Grade Ore GR Comp		9.98	3	1.96	28.60	0.10	0.10	12.55	1.65
36: Low Grade Ore GR Comp dup1		9.95	3	1.96	29.50	0.10	0.10	13.40	1.61
37: Low Grade Ore GR Comp dup2		9.94	3	1.98	29.10	0.10	0.10	13.60	1.69
38: High Sulphide Ore PO Comp		10.0	3	1.97	29.20	0.10	0.10	12.00	1.63
39: High Sulphide Ore PO Comp dup1		10.0	3	2.02	29.05	0.10	0.10	12.40	1.66
40: High Sulphide Ore PO Comp dup2		10.0	3	1.97	28.80	0.10	0.10	11.90	1.63
41: High Sulphide Ore GR Comp		10.0	3	1.97	33.20	0.10	0.10	9.10	1.93
42: High Sulphide Ore GR Comp dup1		9.98	3	2.02	34.30	0.10	0.10	9.60	1.95
43: High Sulphide Ore GR Comp dup2		10.0	3	2.05	33.80	0.10	0.10	9.20	2.01
44: Average Waste PO Comp		10.0	3	1.98	20.00	0.10	0.10	4.90	1.98
45: Average Waste PO Comp dup1		10.1	3	1.96	20.00	0.10	0.10	4.90	1.93
46: Average Waste PO Comp dup2		10.0	3	1.97	20.00	0.10	0.10	5.00	1.86

Sample ID	NP t CaCO3/1000 t	AP t CaCO3/1000 t	Net NP t CaCO3/1000 t	NP/AP ratio	Total Sulphur %	Acid Leachable SO4-S %	Sulphide-S %	Total Carbon %	Carbonate %
30: Average Grade Ore GR Comp dup1	52.8	33.4	19.4	1.58	1.51	0.44	1.07	0.581	2.17
31: Average Grade Ore GR Comp dup2	52.5	40.8	11.7	1.29	1.48	0.18	1.31	0.576	1.98
32: Low Grade Ore PO Comp	28.3	11.1	17.2	2.56	0.380	0.03	0.35	0.292	0.985
33: Low Grade Ore PO Comp dup1	28.0	9.15	18.8	3.06	0.419	0.13	0.29	0.287	0.951
34: Low Grade Ore PO Comp dup2	28.2	9.73	18.5	2.90	0.408	0.10	0.31	0.284	0.971
35: Low Grade Ore GR Comp	40.9	39.1	1.85	1.05	1.28	0.03	1.25	0.434	1.46
36: Low Grade Ore GR Comp dup1	41.1	36.8	4.31	1.12	1.20	0.02	1.18	0.420	1.45
37: Low Grade Ore GR Comp dup2	39.1	33.5	5.59	1.17	1.23	0.16	1.07	0.419	1.45
38: High Sulphide Ore PO Comp	43.7	23.1	20.6	1.89	0.863	0.12	0.74	0.453	1.58
39: High Sulphide Ore PO Comp dup1	41.2	23.2	18.0	1.78	0.909	0.17	0.74	0.460	1.63
40: High Sulphide Ore PO Comp dup2	42.9	23.7	19.2	1.81	0.838	0.08	0.76	0.450	1.68
41: High Sulphide Ore GR Comp	61.2	59.4	1.76	1.03	2.25	0.34	1.90	0.715	2.32
42: High Sulphide Ore GR Comp dup1	61.1	58.0	3.08	1.05	2.30	0.45	1.86	0.716	2.49
43: High Sulphide Ore GR Comp dup2	60.0	61.6	-1.63	0.97	2.19	0.22	1.97	0.714	2.58
44: Average Waste PO Comp	38.1	11.7	26.4	3.26	0.525	0.15	0.37	0.399	1.39
45: Average Waste PO Comp dup1	38.5	8.61	29.9	4.47	0.453	0.18	0.28	0.404	1.53
46: Average Waste PO Comp dup2	38.1	8.87	29.2	4.29	0.474	0.19	0.28	0.399	1.57

SGS Lakefield Research Limited
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Modified ABA (Price 1997)

Project : CALR-11623-002

LR Report : **CA10485-MAR08**

Sample ID	Sample Date & Time	Paste pH units	Fizz Rate ---	Sample weight(g)	HCl added mL	HCl Normality	NaOH Normality	NaOH to pH=8.3 mL	Final pH units
47: Average Waste GR Comp		10.0	3	2.00	27.70	0.10	0.10	13.20	1.48
48: Average Waste GR Comp dup1		9.99	3	2.01	27.60	0.10	0.10	12.90	1.55
49: Average Waste GR Comp dup2		9.97	3	2.01	27.20	0.10	0.10	12.60	1.51
50: Average Waste Overall Comp		10.1	3	2.00	20.00	0.10	0.10	6.30	1.98
51: Average Waste Overall Comp dup1		10.2	3	2.01	20.00	0.10	0.10	6.00	1.99
52: Average Waste Overall Comp dup2		10.2	3	1.98	20.00	0.10	0.10	6.40	1.99
53: High Sulphide Waste PO Comp		10.2	3	1.97	29.95	0.10	0.10	12.95	1.70
54: High Sulphide Waste PO Comp dup1		10.2	3	1.99	30.10	0.10	0.10	12.65	1.70
55: High Sulphide Waste PO Comp dup2		10.2	3	1.97	29.90	0.10	0.10	12.70	1.67
56: High Sulphide Waste GR Comp		10.3	3	2.00	32.20	0.10	0.10	10.50	1.70
57: High Sulphide Waste GR Comp dup1		10.3	3	1.99	32.60	0.10	0.10	10.60	1.76
58: High Sulphide Waste GR Comp dup2		10.3	3	2.02	32.50	0.10	0.10	10.45	1.75
59: High Sulphide Waste Overall Comp		10.3	3	1.96	32.20	0.10	0.10	11.30	1.64
60: High Sulphide Waste Overall Comp dup1		10.3	3	2.02	31.80	0.10	0.10	10.50	1.71
61: High Sulphide Waste Overall Comp dup2		10.3	3	2.01	31.80	0.10	0.10	10.80	1.70

Sample ID	NP t CaCO3/1000 t	AP t CaCO3/1000 t	Net NP t CaCO3/1000 t	NP/AP ratio	Total Sulphur %	Acid Leachable SO4-S %	Sulphide-S %	Total Carbon %	Carbonate %
47: Average Waste GR Comp	36.2	50.2	-14.04	0.72	1.82	0.22	1.61	0.368	1.15
48: Average Waste GR Comp dup1	36.6	52.3	-15.66	0.70	1.80	0.13	1.67	0.367	1.19
49: Average Waste GR Comp dup2	36.3	55.5	-19.18	0.65	1.79	0.02	1.78	0.334	1.17
50: Average Waste Overall Comp	34.2	37.0	-2.85	0.92	1.38	0.20	1.19	0.376	1.23
51: Average Waste Overall Comp dup1	34.8	33.2	1.61	1.05	1.40	0.34	1.06	0.358	1.31
52: Average Waste Overall Comp dup2	34.3	34.4	-0.07	1.00	1.36	0.26	1.10	0.374	1.30
53: High Sulphide Waste PO Comp	43.1	30.7	12.4	1.40	1.29	0.31	0.98	0.456	1.60
54: High Sulphide Waste PO Comp dup1	43.8	28.0	15.8	1.56	1.20	0.31	0.90	0.449	1.64
55: High Sulphide Waste PO Comp dup2	43.7	30.5	13.2	1.43	1.29	0.31	0.98	0.450	1.49
56: High Sulphide Waste GR Comp	54.2	71.1	-16.88	0.76	2.68	0.40	2.27	0.610	2.18
57: High Sulphide Waste GR Comp dup1	55.3	71.4	-16.15	0.77	2.70	0.42	2.29	0.625	2.17
58: High Sulphide Waste GR Comp dup2	54.6	79.7	-25.07	0.69	2.82	0.27	2.55	0.627	2.21
59: High Sulphide Waste Overall Comp	53.3	60.1	-6.78	0.89	2.22	0.30	1.92	0.570	2.06
60: High Sulphide Waste Overall Comp dup1	52.7	53.3	-0.62	0.99	2.04	0.34	1.71	0.571	1.83
61: High Sulphide Waste Overall Comp dup2	52.2	63.0	-10.79	0.83	2.13	0.11	2.02	0.575	2.03

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*NP (Neutralization Potential)

$$= \frac{50 \times (N \text{ of HCL} \times \text{Total HCL added} - N \text{ NaOH} \times \text{NaOH added})}{\text{Weight of Sample}}$$

*AP (Acid Potential) = % Sulphide Sulphur x 31.25
*Net NP (Net Neutralization Potential) = NP-AP
NP/AP Ratio = NP/AP
*Results expressed as tonnes CaCO3 equivalent/1000 tonnes of material
Samples with a % Sulphide value of <0.01 will be calculated using a 0.01 value.

Sulphur analysis performed following BC ARD Guidelines (Price 1997)

Dianne Griffin
Project Specialist

OnLine LIMS

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Modified ABA (Price 1997)

Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Monday, May 05, 2008

Date Rec. : 28 March 2008
LR Report: **CA10518-MAR08**
Reference: 11623-002-5

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: GT Residue	6: GT Residue dup1	7: GT Residue dup2
Sample Date & Time			Date;NA	Date;NA	Date;NA
Paste pH [units]	11-Apr-08	10:20	9.06	9.05	9.02
Fizz Rate [---]	11-Apr-08	10:20	3	3	3
Sample [weight(g)]	11-Apr-08	10:20	1.99	2.02	1.97
HCl added [mL]	11-Apr-08	10:20	28.60	29.50	28.60
HCl [Normality]	11-Apr-08	10:20	0.10	0.10	0.10
NaOH [Normality]	11-Apr-08	10:20	0.10	0.10	0.10
NaOH to [pH=8.3 mL]	11-Apr-08	10:20	11.20	12.30	11.30
Final pH [units]	11-Apr-08	10:20	1.75	1.69	1.70
NP [t CaCO3/1000t]	11-Apr-08	10:20	43.7	42.6	43.9
AP [t CaCO3/1000 t]	11-Apr-08	13:46	41.4	39.4	41.2
Net NP [t CaCO3/1000 t]	11-Apr-08	13:46	2.31	3.20	2.72
NP/AP [ratio]	11-Apr-08	13:46	1.06	1.08	1.07
Total Sulphur [%]	09-Apr-08	08:30	1.39	1.42	1.38
Acid Leachable SO4-S [%]	11-Apr-08	13:46	0.07	0.16	0.06
Sulphide-S [%]	11-Apr-08	13:46	1.32	1.26	1.32
Total Carbon [%]	09-Apr-08	08:30	0.566	0.484	0.484
Carbonate [%]	04-Apr-08	14:23	2.03	2.06	2.06

OnLine LIMS

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Modified ABA (Price 1997)

Project : CALR-11623-002

LR Report : **CA10518-MAR08**

*NP (Neutralization Potential)

$$= \frac{50 \times (N \text{ of HCL} \times \text{Total HCL added} - N \text{ NaOH} \times \text{NaOH added})}{\text{Weight of Sample}}$$

*AP (Acid Potential) = % Sulphide Sulphur x 31.25
*Net NP (Net Neutralization Potential) = NP-AP
NP/AP Ratio = NP/AP
*Results expressed as tonnes CaCO3 equivalent/1000 tonnes of material
Samples with a % Sulphide value of <0.01 will be calculated using a 0.01 value.

Sulphur analysis performed following BC ARD Guidelines (Price 1997)

Dianne Griffin
Project Specialist

OnLine LIMS

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Modified ABA (Price 1997)

Project : CALR-11623-002

Environmental Met
Attn : Barb Bowman

Thursday, May 29, 2008

Date Rec. : 12 May 2008
LR Report: **CA10429-MAY08**
Reference: 11623-002-6

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CERTIFICATE OF ANALYSIS

Final Report - Revised

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: Overall Comp CN95/96	6: Overall Comp CN95/96 Dup.	7: Overall Comp CND2 (-200 Mesh)	8: Overall Comp CND2 (-200 Mesh) Dup.
Sample Date & Time			Date:N/A	Date:N/A	Date:N/A	Date:N/A
Paste pH [units]	23-May-08	08:23	8.60	8.77	8.68	8.64
Fizz Rate [---]	23-May-08	08:23	3	3	3	3
Sample [weight(g)]	23-May-08	08:23	1.99	1.98	1.98	2.00
HCl added [mL]	23-May-08	08:23	33.70	34.35	35.10	34.30
HCl [Normality]	23-May-08	08:23	0.10	0.10	0.10	0.10
NaOH [Normality]	23-May-08	08:23	0.10	0.10	0.10	0.10
NaOH to [pH=8.3 mL]	23-May-08	08:23	12.30	13.60	11.05	10.80
Final pH [units]	23-May-08	08:23	1.30	1.80	1.92	2.00
NP [t CaCO3/1000t]	23-May-08	08:23	53.8	52.4	60.7	58.8
AP [t CaCO3/1000 t]	23-May-08	08:23	49.1	45.4	33.7	37.7
Net NP [t CaCO3/1000 t]	23-May-08	08:23	4.71	6.96	27.0	21.1
NP/AP [ratio]	23-May-08	08:23	1.10	1.15	1.80	1.56
Total Sulphur [%]	14-May-08	14:06	1.92	1.79	1.55	1.60
Acid Leachable SO4-S [%]	15-May-08	08:42	0.35	0.34	0.47	0.40
Sulphide-S [%]	15-May-08	08:42	1.57	1.45	1.08	1.21
Total Carbon [%]	14-May-08	14:06	0.586	0.596	0.734	0.723
Carbonate [%]	14-May-08	13:53	1.82	1.74	2.28	2.23

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Modified ABA (Price 1997)

Project : CALR-11623-002

LR Report : **CA10429-MAY08**

*NP (Neutralization Potential)

$$= \frac{50 \times (\text{N of HCL} \times \text{Total HCL added} - \text{N NaOH} \times \text{NaOH added})}{\text{Weight of Sample}}$$

*AP (Acid Potential) = % Sulphide Sulphur x 31.25
*Net NP (Net Neutralization Potential) = NP-AP
NP/AP Ratio = NP/AP
*Results expressed as tonnes CaCO3 equivalent/1000 tonnes of material
Samples with a % Sulphide value of <0.01 will be calculated using a 0.01 value.

Sulphur analysis performed following BC ARD Guidelines (Price 1997)

Dianne Griffin
Project Specialist

OnLine LIMS

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Environmental Met
Attn : Rob Caldwell

NAG Test

Project : CALR-11623-002

Wednesday, February 04, 2009

Date Rec. : 29 May 2008
LR Report: **CA10884-MAY08**

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample weight(g)	vol H2O2 mL	Final pH units	NaOH Normality	Vol NaOH to PH 4.5 mL	Vol NaOH to PH 7.0 mL	NAG @pH4.5	NAG @pH7.0
1: Analysis Start Date	02-Jun-08	02-Jun-08	02-Jun-08	02-Jun-08	02-Jun-08	02-Jun-08	02-Jun-08	02-Jun-08
2: Analysis Start Time	08:00	08:00	08:00	08:00	08:00	08:00	08:00	08:00
3: Analysis Approval Date	04-Jun-08	04-Jun-08	04-Jun-08	04-Jun-08	04-Jun-08	04-Jun-08	04-Jun-08	04-Jun-08
4: Analysis Approval Time	12:51	12:51	12:51	12:51	12:51	12:51	12:51	12:51
5: Average Grade Ore Overall Comp	1.48	150	10.39	0.10	0.00	0.00	0	0
6: Average Grade Ore Overall Comp dup1	1.49	150	10.50	0.10	0.00	0.00	0	0
7: Average Grade Ore Overall Comp dup2	1.49	150	10.55	0.10	0.00	0.00	0	0
8: Average Grade Ore Overall Comp -200m	1.47	150	10.95	0.10	0.00	0.00	0	0
9: Average Grade Ore Overall Comp -200m dup1	1.49	150	10.84	0.10	0.00	0.00	0	0
10: Average Grade Ore Overall Comp -200m dup2	1.51	150	10.85	0.10	0.00	0.00	0	0
11: Average Grade Overall Comp +200m	1.47	150	3.30	0.10	0.90	2.15	3.00	7.20
12: Average Grade Overall Comp +200m dup1	1.54	150	3.22	0.10	1.05	2.02	3.34	6.40
13: Average Grade Overall Comp +200m dup2	1.54	150	3.41	0.10	0.75	2.00	2.39	6.40
14: Low Grade Ore Overall Comp	1.49	150	9.68	0.10	0.00	0.00	0	0
15: Low Grade Ore Overall Comp dup1	1.50	150	10.28	0.10	0.00	0.00	0	0
16: Low Grade Ore Overall Comp dup2	1.49	150	10.29	0.10	0.00	0.00	0	0
17: Low Grade Ore Overall Comp -200m	1.54	150	10.65	0.10	0.00	0.00	0	0
18: Low Grade Ore Overall Comp -200m dup1	1.47	150	10.55	0.10	0.00	0.00	0	0
19: Low Grade Ore Overall Comp -200m dup2	1.47	150	10.47	0.10	0.00	0.00	0	0
20: High Sulphide Ore Overall Comp	1.53	150	7.85	0.10	0.00	0.00	0	0
21: High Sulphide Ore Overall Comp dup1	1.45	150	8.26	0.10	0.00	0.00	0	0
22: High Sulphide Ore Overall Comp dup2	1.52	150	8.70	0.10	0.00	0.00	0	0

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NAG Test

Project : CALR-11623-002

LR Report : **CA10884-MAY08**

Sample ID	Sample weight(g)	vol H2O2 mL	Final pH units	NaOH Normality	Vol NaOH to PH 4.5 mL	Vol NaOH to PH 7.0 mL	NAG @pH4.5	NAG @pH7.0
23: High Sulphide Ore Overall Comp -200m	1.53	150	10.25	0.10	0.00	0.00	0	0
24: High Sulphide Ore Overall Comp -200m dup1	1.49	150	10.34	0.10	0.00	0.00	0	0
25: High Sulphide Ore Overall Comp -200m dup2	1.52	150	10.69	0.10	0.00	0.00	0	0
26: Average Grade Ore PO Comp	1.52	150	10.68	0.10	0.00	0.00	0	0
27: Average Grade Ore PO Comp dup1	1.46	150	10.59	0.10	0.00	0.00	0	0
28: Average Grade Ore PO Comp dup2	1.54	150	10.43	0.10	0.00	0.00	0	0
29: Average Grade Ore GR Comp	1.51	150	10.42	0.10	0.00	0.00	0	0
30: Average Grade Ore GR Comp dup1	1.48	150	10.23	0.10	0.00	0.00	0	0
31: Average Grade Ore GR Comp dup2	1.48	150	10.48	0.10	0.00	0.00	0	0
32: Low Grade Ore PO Comp	1.47	150	10.19	0.10	0.00	0.00	0	0
33: Low Grade Ore PO Comp dup1	1.54	150	9.65	0.10	0.00	0.00	0	0
34: Low Grade Ore PO Comp dup2	1.51	150	9.83	0.10	0.00	0.00	0	0
35: Low Grade Ore GR Comp	1.54	150	9.84	0.10	0.00	0.00	0	0
36: Low Grade Ore GR Comp dup1	1.49	150	9.52	0.10	0.00	0.00	0	0
37: Low Grade Ore GR Comp dup2	1.52	150	10.02	0.10	0.00	0.00	0	0
38: High Sulphide Ore PO Comp	1.50	150	10.34	0.10	0.00	0.00	0	0
39: High Sulphide Ore PO Comp dup1	1.47	150	10.52	0.10	0.00	0.00	0	0
40: High Sulphide Ore PO Comp dup2	1.48	150	10.26	0.10	0.00	0.00	0	0
41: High Sulphide Ore GR Comp	1.53	150	9.97	0.10	0.00	0.00	0	0
42: High Sulphide Ore GR Comp dup1	1.52	150	10.08	0.10	0.00	0.00	0	0
43: High Sulphide Ore GR Comp dup2	1.55	150	9.89	0.10	0.00	0.00	0	0
44: Average Waste PO Comp	1.53	150	10.10	0.10	0.00	0.00	0	0
45: Average Waste PO Comp dup1	1.53	150	10.27	0.10	0.00	0.00	0	0
46: Average Waste PO Comp dup2	1.53	150	10.37	0.10	0.00	0.00	0	0
47: Average Waste GR Comp	1.48	150	9.01	0.10	0.00	0.00	0	0
48: Average Waste GR Comp dup1	1.47	150	8.84	0.10	0.00	0.00	0	0
49: Average Waste GR Comp dup2	1.46	150	9.39	0.10	0.00	0.00	0	0
50: Average Waste Overall Comp	1.55	150	9.49	0.10	0.00	0.00	0	0
51: Average Waste Overall Comp dup1	1.50	150	9.71	0.10	0.00	0.00	0	0
52: Average Waste Overall Comp dup2	1.46	150	9.51	0.10	0.00	0.00	0	0
53: High Sulphide Waste PO Comp	1.53	150	9.86	0.10	0.00	0.00	0	0
54: High Sulphide Waste PO Comp dup1	1.53	150	10.10	0.10	0.00	0.00	0	0
55: High Sulphide Waste PO Comp dup2	1.54	150	10.01	0.10	0.00	0.00	0	0
56: High Sulphide Waste GR Comp	1.47	150	2.67	0.10	4.80	6.70	16.0	22.3
57: High Sulphide Waste GR Comp dup1	1.52	150	2.54	0.10	4.80	7.00	15.5	22.6

OnLine LIMS

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NAG Test

Project : CALR-11623-002

LR Report : **CA10884-MAY08**

Sample ID	Sample weight(g)	vol H2O2 mL	Final pH units	NaOH Normality	Vol NaOH to PH 4.5 mL	Vol NaOH to PH 7.0 mL	NAG @pH4.5	NAG @pH7.0
58: High Sulphide Waste GR Comp dup2	1.48	150	2.64	0.10	4.65	7.00	15.4	23.2
59: High Sulphide Waste Overall Comp	1.48	150	2.91	0.10	2.20	4.70	7.28	15.6
60: High Sulphide Waste Overall Comp dup1	1.48	150	2.91	0.10	2.70	4.90	8.94	16.2
61: High Sulphide Waste Overall Comp dup2	1.50	150	2.91	0.10	2.90	4.60	9.47	15.0

NAG = (49 x Vol. of base x N of base)/sample weight
kg H2SO4/tonne

Dianne Griffin
Project Specialist

OnLine LIMS

Appendix E – Chain of Custody Forms

SGS Lakefield Research Limited
Environmental Services

Request for Laboratory Services and Chain of Custody Form

No 11623-002-1

P.O. Box 4300, 185 Concession St., Lakefield, ON. K0L 2H0, Phone (705) 652-2038, Fax (705) 652-6441

Report Results to:	**Name:** Barb Bowman
	Company: SGS Lakefield Research Ltd
	Address:
	City
	Province, Postal Code
	Telephone Number: **Fax:**
Send Invoice to:	Name: Rob caldwell
	Company:
	Address:
	City
	Province, Postal Code
	Telephone Number: 2043 Fax:
Chain of Custody	**Sampled by:** Rob Caldwell
	Packed and Shipped by: **Date /Time:**
	Shipment Method and WB#: **Date /Time:**

LRL LIMS No.:
Received by (Date & Time): Dec 19/07
Logged in by (Date):
Lab Batch ID:

Project No.: 11623-002
Plant No.:
Quote No.:
Purchase Order No.:

TAT (Turnaround Time) * Some exceptions apply, please contact lab
Standard [X] RUSH [ ] Specify Date:
Time:

PLEASE CONTACT LAB PRIOR TO SUBMITTING RUSH PROJECTS

Sample condition upon receipt:

Temperature upon receipt: °C

Please specify any guideline or regulation that these samples may apply(i.e. ODWS, PWQO, Reg 558, GCSO, MISA, MMER, CBWA).

Guideline: **Regulation:** **initial:**

HUMIDIY CELL TEST : WEEKLY - pH, acidity, alkalinity, conductivity and SO4. WEEKS 0 through 5 AND WEEKS 10, 15 and 20: Anions (Cl, F, NO2 and NO3), NH3+NH4, CNT, CNWAD, CNF, CNO, CNS, dissolved metals (Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Li, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Si, Sn, Sr, Ti, Tl, U, V, W, Y and Zn.

Analysis Requested (X) as Required
(Enter an "X" in the boxes to indicate which request(s) apply to each sample)

	Sample Matrix*	Sample Identifier	No. Bottles	Date Sampled	Time Sampled	Modified ABA	Humidity Cell					
1		GR Comp CN73/74				X	X					
2		Overall Comp CN95/96				X	X					
3		Overall comp CND2 (-200 mesh)				X	X					
4												
5												
6												
7												
8												
9												
10												

* Matrix Codes: GW-ground water, SW-surface water, RES -Residential Water, EFF -Effluent, PROC -Process Water, SOIL -Soil, SED-Sediment, SWAB-Swabs, FILT-Filters

* Regulated Water Codes: GRW-ground raw water, SRW-surface raw water, TDW-Treated Drinking Water, DDW-Distribution Drinking Water

Work Authorized by(Client or representative signature must accompany request): **Date:** Dec. 18, 2007

Part No. CofC-2(Email/Fax Copy)

Mar 10302. R08

SGS Lakefield Research Limited
Environmental Services

Request for Laboratory Services and Chain of Custody Form

No 11623-002-2

P.O. Box 4300, 185 Concession St., Lakefield, ON. K0L 2H0, Phone (705) 652-2038, Fax (705) 652-6441

Report Results to:	Name: Barb Bowman	LRL LIMS No.:
	Company: SGS Lakefield Research Ltd	Received by (Date & Time): Mar 03 /17/08
	Address:	Logged in by (Date):
	City	Lab Batch ID:
	Province, Postal Code	Project No.: 11623-002
	Telephone Number: Fax:	Plant No.:
Send Invoice to:	Name: Rob caldwell	Quote No.:
	Company:	Purchase Order No.:
	Address:	TAT (Turnaround Time) * Some exceptions apply, please contact lab
	City	Standard [X] RUSH [ ] Specify Date:
	Province, Postal Code	Time:
	Telephone Number: 2043 Fax:	**PLEASE CONTACT LAB PRIOR TO SUBMITTING RUSH PROJECTS**
Chain of Custody	Sampled by: Rob Caldwell	Sample condition upon receipt:
	Packed and Shipped by: Date /Time:	
	Shipment Method and WB#: Date /Time:	Temperature upon receipt: °C

Please specify any guideline or regulation that these samples may apply(I.e. ODWS, PWQO, Reg 558, GCSO, MISA, MMER, CBWA).

Guideline: **Regulation:** **initial:**

HUMIDIY CELL TEST : WEEKLY - pH, acidity, alkalinity, conductivity and SO4. WEEKS 0 through 5 AND WEEKS 10, 15 and 20: Anions (Cl, F, NO2 and NO3), NH3+NH4, dissolved metals (Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Li, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Si, Sn, Sr, Ti, Tl, U, V, W, Y and Zn.

Analysis Requested (X) as Required

(Enter an "X" in the boxes to indicate which request(s) apply to each sample)

	Sample Matrix*	Sample Identifier	No. Bottles	Date Sampled	Time Sampled	Humidity Cell						
1		Average Grade Overall Comp -1/4 inch				X						
2		Average Waste Overall Comp -1/4 inch				X						
3		High Sulphide Waste Overall Comp -1/4 inch				X						
4		Low Grade Ore Overall Comp -1/4 inch				X						
5		High Sulphide Ore Overall Comp -1/4 inch				X						
6												
7												
8												
9												
10												

* **Matrix Codes:** GW-ground water, SW-surface water, RES -Residential Water, EFF -Effluent, PROC -Process Water, SOIL -Soil, SED-Sediment, SWAB-Swabs, FILT-Filters

* **Regulated Water Codes:** GRW-ground raw water, SRW-surface raw water, TDW-Treated Drinking Water, DDW-Distribution Drinking Water

Work Authorized by(Client or representative signature must accompany request): **Date: Mar. 17, 2008**

Part No. CofC-2(Email/Fax Copy)

SGS Lakefield Research Limited
Environmental Services

Request for Laboratory Services and Chain of Custody Form

No 11623-002-4

P.O. Box 4300, 185 Concession St., Lakefield, ON. K0L 2H0, Phone (705) 652-2038, Fax (705) 652-6441

Report Results to:	Name: Barb Bowman	LRL LIMS No.: Mar 10485 R09 ABA
	Company: SGS Lakefield Research Ltd	Received by (Date & Time): Mar 10486 R08 NAG
	Address:	Logged in by (Date):
	City	Lab Batch ID: JB Mar 26/08
	Province, Postal Code	Project No.: 11623-002
	Telephone Number: Fax:	Plant No.:
Send Invoice to:	Name: Rob caldwell	Quote No.:
	Company:	Purchase Order No.:
	Address:	TAT (Turnaround Time) * Some exceptions apply, please contact lab
	City	Standard X RUSH Specify Date:
	Province, Postal Code	Time:
	Telephone Number: 2043 Fax:	**PLEASE CONTACT LAB PRIOR TO SUBMITTING RUSH PROJECTS**
Chain of Custody	Sampled by: Rob Caldwell	Sample condition upon receipt:
	Packed and Shipped by: Date /Time:	
	Shipment Method and WB#: Date /Time:	

Please specify any guideline or regulation that these samples may apply(I.e. ODWS, PWQO, Reg 558, GCSO, MISA, MMER, CBWA).

Guideline: **Regulation:** **initial:**

Temperature upon receipt: °C

Analysis Requested (X) as Required

(Enter an "X" in the boxes to indicate which request(s) apply to each sample)

	Sample Matrix*	Sample Identifier	No. Bottles	Date Sampled	Time Sampled	Mod ABA	Mod ABA DUP2	Mod ABA DUP2	NAG	NAG DUP1	NAG DUP2	
1		Average Grade Ore Overall Comp				X	X	X	X	X	X	
2		Average Grade Ore Overall Comp -200m				X	X	X	X	X	X	
3		Average Grade Overall Comp +200m				X	X	X	X	X	X	
4		Low Grade Ore Overall Comp				X	X	X	X	X	X	
5		Low Grade Ore Overall Comp -200m				X	X	X	X	X	X	
6		High Sulphide Ore Overall Comp				X	X	X	X	X	X	
7		High Sulphide Ore Overall Comp -200m				X	X	X	X	X	X	
8		Average Grade Ore PO Comp				X	X	X	X	X	X	
9		Average Grade Ore GR Comp				X	X	X	X	X	X	
10		Low Grade Ore PO Comp				X	X	X	X	X	X	

* **Matrix Codes:** **GW**-ground water, **SW**-surface water, **RES** -Residential Water, **EFF** -Effluent, **PROC** -Process Water, **SOIL** -Soil, **SED**-Sediment, **SWAB**-Swabs, **FILT**-Filters

* **Regulated Water Codes:** **GRW**-ground raw water, **SRW**-surface raw water, **TDW**-Treated Drinking Water, **DDW**-Distribution Drinking Water

Work Authorized by(Client or representative signature must accompany request): **Date:** Mar. 26, 2008

Part No. CofC-2(Email/Fax Copy)

SGS Lakefield Research Limited
Environmental Services

Request for Laboratory Services and Chain of Custody Form

No 11623-002-4

P.O. Box 4300, 185 Concession St., Lakefield, ON. K0L 2H0, Phone (705) 652-2038, Fax (705) 652-6441

Report Results to:	**Name:** Barb Bowman	LRL LIMS No.:
	Company: SGS Lakefield Research Ltd	Received by (Date & Time):
	Address:	Logged in by (Date):
	City	Lab Batch ID:
	Province, Postal Code	**Project No.:** 11623-002
	Telephone Number: **Fax:**	**Plant No.:**
Send Invoice to:	Name: Rob caldwell	**Quote No.:**
	Company:	**Purchase Order No.:**
	Address:	TAT (Turnaround Time) * Some exceptions apply, please contact lab
	City	Standard [X] RUSH [ ] Specify Date:
	Province, Postal Code	Time:
	Telephone Number: 2043 Fax:	**PLEASE CONTACT LAB PRIOR TO SUBMITTING RUSH PROJECTS**
Chain of Custody	**Sampled by:** Rob Caldwell	Sample condition upon receipt:
	Packed and Shipped by: **Date /Time:**	
	Shipment Method and WB#: **Date /Time:**	

Please specify any guideline or regulation that these samples may apply(I.e. ODWS, PWQO, Reg 558, GCSO, MISA, MMER, CBWA).

Guideline: **Regulation:** **initial:**

Temperature upon receipt: °C

Analysis Requested (X) as Required

(Enter an "X" in the boxes to indicate which request(s) apply to each sample)

	Sample Matrix*	Sample Identifier	No. Bottles	Date Sampled	Time Sampled	Mod ABA	Mod ABA DUP2	Mod ABA DUP2	NAG	NAG DUP1	NAG DUP2	
1		Low Grade Ore GR Comp				X	X	X	X	X	X	
2		High Sulphide Ore PO Comp				X	X	X	X	X	X	
3		High Sulphide Ore GR Comp				X	X	X	X	X	X	
4		Average Waste PO Comp				X	X	X	X	X	X	
5		Average Waste GR Comp				X	X	X	X	X	X	
6		Average Waste Overall Comp				X	X	X	X	X	X	
7		High Sulphide Waste PO Comp				X	X	X	X	X	X	
8		High Sulphide Waste GR Comp				X	X	X	X	X	X	
9		High Sulphide Waste Overall Comp				X	X	X	X	X	X	
10												

* **Matrix Codes:** **GW**-ground water, **SW**-surface water, **RES** -Residential Water, **EFF** -Effluent, **PROC**-Process Water, **SOIL** -Soil, **SED**-Sediment, **SWAB**-Swabs, **FILT**-Filters

* **Regulated Water Codes:** **GRW**-ground raw water, **SRW**-surface raw water, **TDW**-Treated Drinking Water, DDW-Distribution Drinking Water

Work Authorized by(Client or representative signature must accompany request): **Date:** Mar. 26, 2008

Part No. CofC-2(Email/Fax Copy)

SGS Lakefield Research Limited
Environmental Services

Request for Laboratory Services and Chain of Custody Form

No 11623-002-5

P.O. Box 4300, 185 Concession St., Lakefield, ON. K0L 2H0, Phone (705) 652-2038, Fax (705) 652-6441

Report Results to:	Name: Barb Bowman	LRL LIMS No.: Mar 27 R08
	Company: SGS Lakefield Research Ltd	Received by (Date & Time):
	Address:	Logged in by (Date):
	City	Lab Batch ID:
	Province, Postal Code	Project No.: 11623-002
	Telephone Number: 2524 Fax:	Plant No.:
Send Invoice to:	Name: Rob Caldwell	Quote No.:
	Company:	Purchase Order No.:
	Address:	TAT (Turnaround Time) * Some exceptions apply, please contact lab
	City	Standard [X] RUSH [ ] Specify Date:
	Province, Postal Code	Time:
	Telephone Number: 2043 Fax:	**PLEASE CONTACT LAB PRIOR TO SUBMITTING RUSH PROJECTS**
Chain of Custody	Sampled by: B. Bowman	Sample condition upon receipt:
	Packed and Shipped by: Date /Time:	
	Shipment Method and WB#: Date /Time:	

Please specify any guideline or regulation that these samples may apply(I.e. ODWS, PWQO, Reg 558, GCSO, MISA, MMER, CBWA).

Guideline: _____ **Regulation:** _____ **initial:** _____

Temperature upon receipt: _____ °C

HUMIDIY CELL TEST : WEEKLY - pH, acidity, alkalinity, conductivity and SO4. WEEKS 0 through 5 AND WEEKS 10, 15 and 20: Anions (Cl, F, NO2 and NO3), NH3+NH4, dissolved metals (Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Li, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Si, Sn, Sr, Ti, Tl, U, V, W, Y and Zn.

As per 10359-MAR08

Analysis Requested (X) as Required

(Enter an "X" in the boxes to indicate which request(s) apply to each sample)

	Sample Matrix*	Sample Identifier	No. Bottles	Date Sampled	Time Sampled	Humidity Cell 10S17	Mod ABA 10S18	Mod ABA DUP1	Mod ABA DUP2	NAG 10S19	NAG DUP1	NAG DUP2
1		Average Grade Ore Overall Comp -200m				X						
2		Low Grade Ore Overall Comp -200m				X						
3		High Sulphide Ore Overall Comp -200m				X						
4		GT Residue				X	X	X	X	X	X	X
5												
6												
7												
8												
9												
10												

* **Matrix Codes:** GW-ground water, SW-surface water, RES -Residential Water, EFF -Effluent, PROC -Process Water, SOIL -Soil, SED-Sediment, SWAB-Swabs, FILT-Filters

* **Regulated Water Codes:** GRW-ground raw water, SRW-surface raw water, TDW-Treated Drinking Water, DDW-Distribution Drinking Water

Work Authorized by(Client or representative signature must accompany request): _____ **Date: Mar. 27, 2008**

Part No. CofC-2(Email/Fax Copy)

SGS Lakefield Research Limited
Environmental Services

Request for Laboratory Services and Chain of Custody Form

No 11623-002-6

P.O. Box 4300, 185 Concession St., Lakefield, ON. K0L 2H0, Phone (705) 652-2038, Fax (705) 652-6441

Report Results to:	Name: Barb Bowman	LRL LIMS No.: May 10 07 R08
	Company: SGS Lakefield Research Ltd	Received by (Date & Time):
	Address:	Logged in by (Date): May 12
	City	Lab Batch ID:
	Province, Postal Code	Project No.: 11623-002
	Telephone Number: Fax:	Plant No.:
Send Invoice to:	Name: Rob caldwell	Quote No.:
	Company:	Purchase Order No.:
	Address:	TAT (Turnaround Time) * Some exceptions apply, please contact lab
	City	Standard [X] RUSH [ ] Specify Date:
	Province, Postal Code	Time:
	Telephone Number: 2043 Fax:	PLEASE CONTACT LAB PRIOR TO SUBMITTING RUSH PROJECTS
Chain of Custody	Sampled by: Rob Caldwell	Sample condition upon receipt:
	Packed and Shipped by: Date /Time:	
	Shipment Method and WB#: Date /Time:	

Please specify any guideline or regulation that these samples may apply(i.e. ODWS, PWQO, Reg 558, GCSO, MISA, MMER, CBWA).

Guideline: Regulation: initial:

Temperature upon receipt: °C

Analysis Requested (X) as Required

(Enter an "X" in the boxes to indicate which request(s) apply to each sample)

	Sample Matrix*	Sample Identifier	No. Bottles	Date Sampled	Time Sampled	Mod ABA 1	Mod ABA DUP	NAG	NAG 1	NAG DUP		
1		Overall Comp CN95/96				X	X	X	X	X		
2		Overall comp CND2 (-200 mesh)				X	X	X	X	X		
3						✓		✓		✓		
4												
5						25						
6									20			
7												
8												
9												
10												

* Matrix Codes: GW-ground water, SW-surface water, RES-Residential Water, EFF-Effluent, PROC-Process Water, SOIL-Soil, SED-Sediment, SWAB-Swabs, FILT-Filters

* Regulated Water Codes: GRW-ground raw water, SRW-surface raw water, TDW-Treated Drinking Water, DDW-Distribution Drinking Water

Work Authorized by(Client or representative signature must accompany request): Date: May 12, 2008

Part No. CofC-2(Email/Fax Copy)

Appendix F – Qualifications and Limitations

QUALIFICATIONS AND LIMITATIONS

Limited Warranty

In performing work on behalf of a client, SGS Lakefield Research Limited relies on its client to provide instructions on the scope of its retainer and, on that basis, SGS Lakefield Research Limited determines the precise nature of the work to be performed. SGS Lakefield Research Limited undertakes all work in accordance with applicable accepted industry practices and standards. Unless required under local laws, other than as expressly stated herein, no other warranties or conditions, either expressed or implied, are made regarding the services, work or reports provided.

Reliance on Materials and Information

The findings and results presented in reports prepared by SGS Lakefield Research Limited are based on the materials and information provided by the client to SGS Lakefield Research Limited and on the facts, conditions and circumstances encountered by SGS Lakefield Research Limited during the performance of the work requested by the client. In formulating its findings and results into a report, SGS Lakefield Research Limited assumes that the information and materials provided by the client or obtained by SGS Lakefield Research Limited from the client or otherwise are factual, accurate and represent a true depiction of the circumstances that exist. SGS Lakefield Research Limited relies on its client to inform SGS Lakefield Research Limited if there are changes to any such information and materials. SGS Lakefield Research Limited does not review, analyze or attempt to verify the accuracy or completeness of the information or materials provided, or circumstances encountered, other than in accordance with applicable accepted industry practice. SGS Lakefield Research Limited will not be responsible for matters arising from incomplete, incorrect or misleading information or from facts or circumstances that are not fully disclosed to or that are concealed from SGS Lakefield Research Limited during the provision of services, work or reports.

Facts, conditions, information and circumstances may vary with time and locations and SGS Lakefield Research Limited's work is based on a review of such matters as they existed at the particular time and location indicated in its reports. No assurance is made by SGS Lakefield Research Limited that the facts, conditions, information, circumstances or any underlying assumptions made by SGS Lakefield Research Limited in connection with the work performed will not change after the work is completed and a report is submitted. If any such changes occur or additional information is obtained, SGS Lakefield Research Limited should be advised and requested to consider if the changes or additional information affect its findings or results.

When preparing reports, SGS Lakefield Research Limited considers applicable legislation, regulations, governmental guidelines and policies to the extent they are within its knowledge, but SGS Lakefield Research Limited is not qualified to advise with respect to legal matters. The presentation of information regarding applicable legislation, regulations, governmental guidelines and policies is for information only and is not intended to and should not be interpreted as constituting a legal opinion concerning the work completed or conditions outlined in a report. All legal matters should be reviewed and considered by an appropriately qualified legal practitioner.

Site Assessments

A site assessment is created using data and information collected during the investigation of a site and based on conditions encountered at the time and particular locations at which fieldwork is conducted. The information, sample results and data collected represent the conditions only at the specific times at which and at those specific locations from which the information, samples and data were obtained and the information, sample results and data may vary at other locations and times. To the extent that SGS Lakefield Research Limited's work or report considers any locations or times other than those from which information, sample results and data was specifically received, the work or report is based on a reasonable extrapolation from such information, sample results and data but the actual conditions encountered may vary from those extrapolations.

Only conditions at the site and locations chosen for study by the client are evaluated; no adjacent or other properties are evaluated unless specifically requested by the client. Any physical or other aspects of the site chosen for study by the client, or any other matter not specifically addressed in a report prepared by SGS Lakefield Research Limited, are beyond the scope of the work performed by SGS Lakefield Research Limited and such matters have not been investigated or addressed.

No Reliance

SGS Lakefield Research Limited's services, work and reports are provided solely for the exclusive use of the client which has retained the services of SGS Lakefield Research Limited and to which its reports are addressed. SGS Lakefield Research Limited is not responsible for the use of its work or reports by any other party, or for the reliance on, or for any decision which is made by any party using the services or work performed by or a report prepared by SGS Lakefield Research Limited without SGS Lakefield Research Limited's express written consent. Any party that relies on services or work performed by SGS Lakefield Research Limited or a report prepared by SGS Lakefield Research Limited without SGS Lakefield Research Limited's express written consent, does so at its own risk. No report of SGS Lakefield Research Limited may be disclosed or referred to in any public document without SGS Lakefield Research Limited's express prior written consent. SGS Lakefield Research Limited specifically disclaims any liability or responsibility to any such party for any loss, damage, expense, fine, penalty or other such thing which may arise or result from the use of any information, recommendation or other matter arising from the services, work or reports provided by SGS Lakefield Research Limited.

Limitation of Liability

SGS Lakefield Research Limited is not responsible for any lost revenues, lost profits, cost of capital, or any special, indirect, consequential or punitive damages suffered by the client or any other party in reliance on any SGS Lakefield Research Limited work or report. SGS Lakefield Research Limited's total liability and responsibility to the client or any other person for any and all losses, costs, expenses, damages, claims, causes of action or other liability whatsoever which do or may result or arise from or be in relation to SGS Lakefield Research Limited's services, work (or failure to perform services or work) or reports shall be limited to the invoiced charges for the work performed by SGS Lakefield Research Limited.

Fiscal Allowances in Canada for Organizations Conducting Experimental Research

SGS Lakefield Research Limited may apply to CCRA (Canada Customs and Revenue Agency) for fiscal allowances permitted to Canadian laboratories undertaking accreditable experimental research and development within Canada. The high success rate of SGS Lakefield Research Limited in meeting the technological objectives of its clients and in providing quality experimental work and results requires it to undertake internal experimental research. This is done to perfect its technological approaches and methodology, as well as overcome unanticipated or unavoidable technical challenges that occur in the course of much work undertaken for its clients.

It is implicit in this contract that the experimental work performed by SGS Lakefield Research Limited may sometimes be cited, in an anonymous manner, for the purpose of requesting fiscal credits for risks assumed by SGS Lakefield Research Limited in the course of performing services for its clients.

Notwithstanding the presence of an obligatory agreement of confidentiality between CCRA and SGS Lakefield Research Limited, any information used by the latter to support claims for the assumption of risk in experimental research, will be presented in an anonymous form. For example, no mention will be made of the names of companies, ore bodies or proprietary processes in these claims. Throughout this process, SGS Lakefield Research Limited will fully respect the trust and the agreements of confidentiality that exist with all of its clients.