

Humidity Cell Termination Report for the Copper Flat Project, New Mexico

Report Prepared for

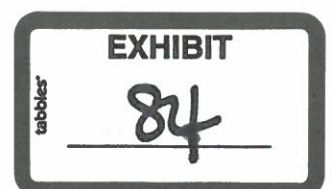
THEMAC Resources Group Ltd.



Report Prepared by



SRK Consulting (U.S.), Inc.
SRK Project Number 191000.03
February 2014



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THEMAC Resources Group Ltd.

2424 Louisiana Blvd, NE, Suite 301
Albuquerque, NM 87110

SRK Consulting (U.S.), Inc.

5250 Neil Road
Suite 300
Reno, NV 89502
e-mail: reno@srk.com
website: www.srk.com

Tel: (775) 828-6800
Fax: (775) 828-6820

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Authors:

Ruth Warrender, PhD, CGeol.
Senior Consultant (Geochemistry)

Amy Prestia, MSc, P.G.
Senior Consultant (Geochemistry)

Peer Reviewed by:

Eur. Geol. Rob Bowell, PhD, CChem, CGeol.
Corporate Consultant (Geochemistry)

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- Appendix A: Humidity Cell Test Results
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- Appendix C: Termination Test Results

1 Introduction

SRK Consulting, Inc. (SRK) has undertaken a geochemical characterization study to assess the Acid Rock Drainage and Metal Leaching (ARDML) potential of the Copper Flat project, New Mexico. The results of the characterization program and subsequent numerical predictions are provided in the *Geochemical Characterization Report for the Copper Flat Project* (SRK, 2013a) and *Predictive Geochemical Modeling of Pit Lake Water Quality at the Copper Flat Project, New Mexico* (SRK, 2013b) report, prepared by SRK Consulting, Inc. As part of the characterization study, a kinetic testwork program was undertaken on 23 samples of waste rock/ore and nine samples of tailings material to determine the long-term leaching behavior of these materials. The cells were operated between 28 and 122 weeks and have now been terminated. This report presents the final results of the humidity cell testwork and termination testing and serves as an addendum to the main geochemical characterization report (SRK, 2013a).

2 Methodology

2.1 Sample Selection

Kinetic testing is necessary for the Copper Flat Project in order to assess the long-term weathering rates of sulfide minerals and to determine potential release rates for metal(loid)s, salts such as sulfate and changes in pH, particularly for those material types that demonstrated an uncertain potential for acid generation in the static Acid Base Accounting (ABA) and Net Acid Generation (NAG) tests (SRK, 2013a). The results of static geochemical testwork were used to select a sub-set of 23 waste rock and ore samples for kinetic testing. These samples were collected from coarse rejects and exploration core and from the existing waste rock dumps/pit walls on site and are considered representative of the range of geochemical behavior observed for the primary material types on site. Kinetic testing was also undertaken on nine samples of tailings material generated by the metallurgical testwork program. These nine tailings samples are representative of the different ore streams that will be generated during various stages of mine life. Tailings samples subjected to cyclone separation were not submitted for kinetic testing because these samples show a similar range in behavior to the lithology specific metallurgical tailings samples from the static test data (i.e., non-acid forming with low levels of metal(loid) release).

A full list of the waste rock, tailings and ore samples selected for kinetic testing is provided in Table 2-1 along with selected static testwork results.

Table 2-1: Samples Selected for Kinetic Testing

Material type	Primary lithology	Sample ID	Sulfide sulfur (wt%)	NNP (kg CaCO ₃ eq/t)	NPR	NAG pH	Total NAG (kg H ₂ SO ₄ eq/t)	Week terminated	Post-HCT mineralogy
Andesite	Andesite	SRK 0864	0.01	24.4	81.3	8.29	0	44	
	Andesite	SRK 0866	0.29	12.5	2.37	3.23	4.9	44	
Sulfide ore	Biotite breccia	604811	1.15	-3.9	0.89	8.42	0	44	
	Quartz Feldspar Breccia	604767	2.13	-49.9	0.25	3.21	17.3	86	x
	Biotite Breccia	604862	1.16	3.5	1.10	8.28	0	44	
	Biotite Breccia	604867	2.34	-46.2	0.37	4.24	0	44	
	Quartz Feldspar Breccia	604787	0.97	-0.2	0.99	8.00	0	56	
	Biotite Breccia	604854	1.4	-20.6	0.53	5.08	0	44	
	Quartz Monzonite	604562	1.53	-31.6	0.34	7.75	0	44	
	Quartz Monzonite	604669	0.63	-16.5	0.16	4.08	0	61	
	Quartz Monzonite	604656	0.59	33.4	2.82	8.20	0	44	
	Biotite Breccia	605033	0.9	1.1	1.04	8.30	0	44	
	Quartz Monzonite	604606	0.67	2.7	1.13	9.60	0	44	
	Quartz Monzonite	604653	0.77	2.3	1.10	8.38	0	44	
Sulfide waste	Quartz Monzonite	604673	0.41	-5.9	0.54	3.66	5.29	122	x
	Quartz Monzonite	605153	0.49	26.7	2.75	8.56	0	44	
	Coarse Crystalline Porphyry	CF-11-02, 367-408	0.63	-6.7	0.74	2.78	14.0	60	
Transitional ore	Biotite Breccia	SRK 0854	0.88	-21.5	0.22	3.77	11.0	96	x
	Quartz Monzonite	SRK 0867	0.77	-17.7	0.27	4.35	0	52	x
Transitional waste	Biotite Breccia	SRK 0872	1.05	-13.0	0.60	3.14	8.82	96	x
	Quartz Monzonite	604569	1.05	-14.8	0.55	8.33	0	44	
	Quartz Monzonite	SRK 0858	0.62	-15.3	0.21	3.15	9.22	61	x
	Coarse Crystalline Porphyry	CF-11-02, 0-27	1.4	-16.3	0.58	3.28	9.24	60	x
Tailings*	-	Cu. Ro. Tails	0.61	13.4	1.70	9.23	0	28	
	-	CF-11-02 (227-367)	0.03	20.0	34.3	-	-	52	
	-	CF-11-02 (52-117)	0.04	23.8	27.4	-	-	42	
	-	K-Spar Breccia 5+ Comp	0.19	26.4	4.26	-	-	52	
	-	Biotite Breccia 5+ Comp	0.14	24.6	4.90	-	-	42	
	-	Quartz Monzonite 5+ Comp	0.02	24.4	28.1	-	-	42	
	-	K-Spar Breccia 0-5 Comp	0.53	6.9	1.31	-	-	52	
	-	Quartz Monzonite 0-5 Comp	0.41	13.1	1.74	-	-	52	
	-	Biotite Breccia 0-5 Comp	0.39	13.4	1.77	-	-	52	

Indicates Potentially Acid Forming (PAF) characteristics

* HCTs were not run on the cyclone tailings as these showed the same geochemical behavior to the other tailings samples tested from the static test data.

2.2 Kinetic Testwork Methods

The kinetic testing method selected for this Project is the standard humidity cell test (HCT) procedure designed to simulate water-rock interactions in order to evaluate the rate of sulfide mineral oxidation and thereby predict acid generation and metals mobility (ASTM D-5744-96). Under ASTM methodology, the test follows a seven-day cycle and typically runs for a minimum of 20 weeks, unless uncertain chemistry requires that it be run longer to achieve steady state conditions. During the seven-day cycle, water is trickled over the rock. After draining, dry air is circulated through the cell for 3 days followed by humidified air at 25°C for 3 days. On the seventh day, the sample is rinsed with distilled water and the extracted solution is collected for analysis following filtration at 0.45 µm. Key parameters including pH, alkalinity, acidity, electrical conductivity, iron and sulfate are measured on a weekly basis by McClelland Laboratories. For the first four weeks of testing, metals are measured on a weekly basis at WETLAB, after which the frequency of metals analysis is reduced to every fourth week. Leachate chemistry data collected during the HCT test are frequently compared with applicable water quality standards. However, it is recognized that the test results are not directly comparable to water quality standards due to the increase in surface area by crushing and the artificial control on weathering through a seven-day wet-dry cycle rinsing of the samples. The rate of water application relative to the surface area/mass ratio of rock vastly exceeds the actual precipitation rate that would be expected at the site, and the laboratory temperature conditions do not represent normal field variations. These variables accelerate the weathering process and therefore provide a conservative view of field scale leaching conditions.

The HCT results provide an estimate of the rate of leaching of constituents from a material and reflect accelerated weathering of mine material being exposed to alternating cycles of wetting and drying. The changes in these reaction rates through the course of the test can be used to estimate whether the sample will be net acid generating or net acid neutralizing, and what constituents will be mobilized from the material under long-term weathering and oxidation conditions. As such, HCT results can be used to refine predictions based on static test data.

The HCTs are executed until the majority of the mineral reactions that can be predicted from mineralogy or static testing have been observed. This is the point at which the leach rates are relatively constant and long term reaction rates can be defined. It does not equate to complete oxidation of sulfides within the cell. This endpoint is assessed by monitoring the release rates of key constituents such as pH, sulfate, acidity, alkalinity and iron as well as dissolved metals and metalloids. It is common practice to terminate cells when the release rates for these leachate parameters become relatively constant with time and there is no substantial change in the calculated release rate. For practical purposes this is taken as steady state element release. The ASTM Procedure for humidity cell tests (ASTM, 1996) calls for a minimum test duration of 20 weeks. However, there is no technical basis for this recommendation and in most cases with sulfide bearing materials, 20 weeks is insufficient to allow complete reaction of the sample material. Essentially, there is no established criteria for the termination of kinetic tests, rather the point at which HCTs should be terminated is project specific and will be determined by the physical and chemical characteristics of the samples and the objectives of the test (Mills, 1998). As such, some of the Copper Flat HCTs were run in excess of 120 weeks to confirm the long-term potential for acid generation and metal(loid) release.

2.3 Termination Testwork Methods

Following completion of the HCTs, termination testing was conducted on the test residues including multi-element analysis, ABA and NAG to define the geochemical processes that occurred as the materials were exposed to oxygen and water. Mineralogical analysis was also undertaken on seven samples of post-HCT material and one sample of pre-leach material to assess the speciation and textures of the sulfide minerals in the samples, and what influence this may have had on the test conditions in particular for those samples predicted to be acid generating from the ABA and NAG testwork that did maintained neutral conditions in the HCT. The samples selected for mineralogical analysis are detailed in Table 2-2.

The testwork methods are detailed in the SRK geochemical characterization report (SRK, 2013a) and include:

- Mineralogical analysis – using optical microscopy, scanning electron microscopy (SEM) and X-Ray Diffraction (XRD) analysis.
- Acid Base Accounting – using the Nevada modified Sobek method with sulfur speciation by hot water, hydrochloric acid and nitric acid extraction.
- Net Acid Generating testing – reports the final NAG pH and NAG value after a two-stage hydrogen peroxide digest.
- Multi-element analysis – using four-acid digest and ICP analysis to determine the total metal and metalloid chemistry for 48 elements (ALS Chemex Method ME-MS61).

Table 2-2: Samples submitted for mineralogical analysis

Sample ID	Details	Material type	Sample selection rationale
SRK 0854	HCT residue	Transitional ore	Mineralized material from the Sternberg lode, which developed moderately acidic pH conditions (pH 5) during the HCT program.
SRK 0858	HCT residue	Transitional waste	The only cell in the HCT program that developed truly PAF conditions. HCT results confirmed that active sulfide weathering was occurring in this cell.
SRK 0867	HCT residue	Transitional ore	Pre-HCT mineralogical data available. Included for comparison purposes.
SRK 0872	HCT residue	Transitional waste	Predicted PAF by ABA/NAG testwork, but neutral in HCT. Mineralogy required to confirm why no acid generation occurring.
604767	HCT residue	Sulfide ore	Predicted PAF by ABA/NAG testwork, but neutral in HCT. Mineralogy required to confirm why no acid generation occurring.
604673	HCT residue	Sulfide waste	Predicted PAF by ABA/NAG testwork, but truly acidic conditions did not develop in the HCT (although pH did decline over course of testwork).
CF-02 (0-27)	HCT residue	Transitional waste	Predicted PAF by ABA/NAG testwork, but neutral in HCT. Mineralogy required to confirm why no acid generation occurring.
CF-11-02 (0-27)	Original (pre-leach) sample	Transitional waste	Pre-HCT leached material for sample CF-02 0-27

2.4 Quality Control

Both McClelland and WETLAB laboratories operate internal QA/QC procedures to ensure adequate data quality. This includes the analysis of certified reference materials in addition to analytical blanks and duplicates. However, SRK also applies a number of QA/QC checks on the received data, including the calculation of ion balances to determine the balance of cations and anions in the generated solutions. A comparison of pH measurements from both McClelland and WETLAB is also carried out to assess data quality. The results of the quality control exercise are summarized in Figure 2-1 to Figure 2-2 and show generally good data quality, with ion balances almost uniformly within $\pm 10\%$ and good correlations between laboratory measurements. For pH, there is a slight difference in reported values between the two labs (Figure 2-2). This is only observed above pH 7.5 and shows a slight negative bias in the calibrated meters at McClelland Laboratories versus measurements for the same solutions at WETLAB. This is not considered significant since the WETLAB data were used in numerical predictions (SRK, 2013a; 2013b).

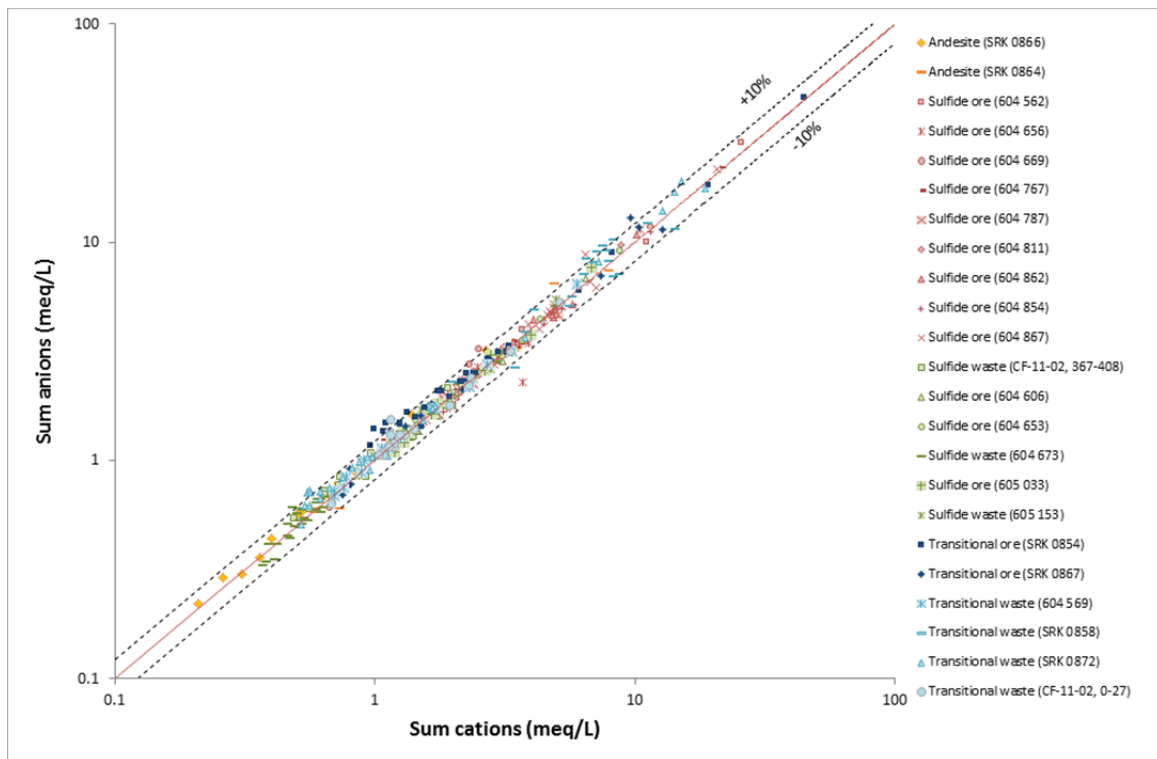


Figure 2-1: Ion balance plot for the HCT leachates

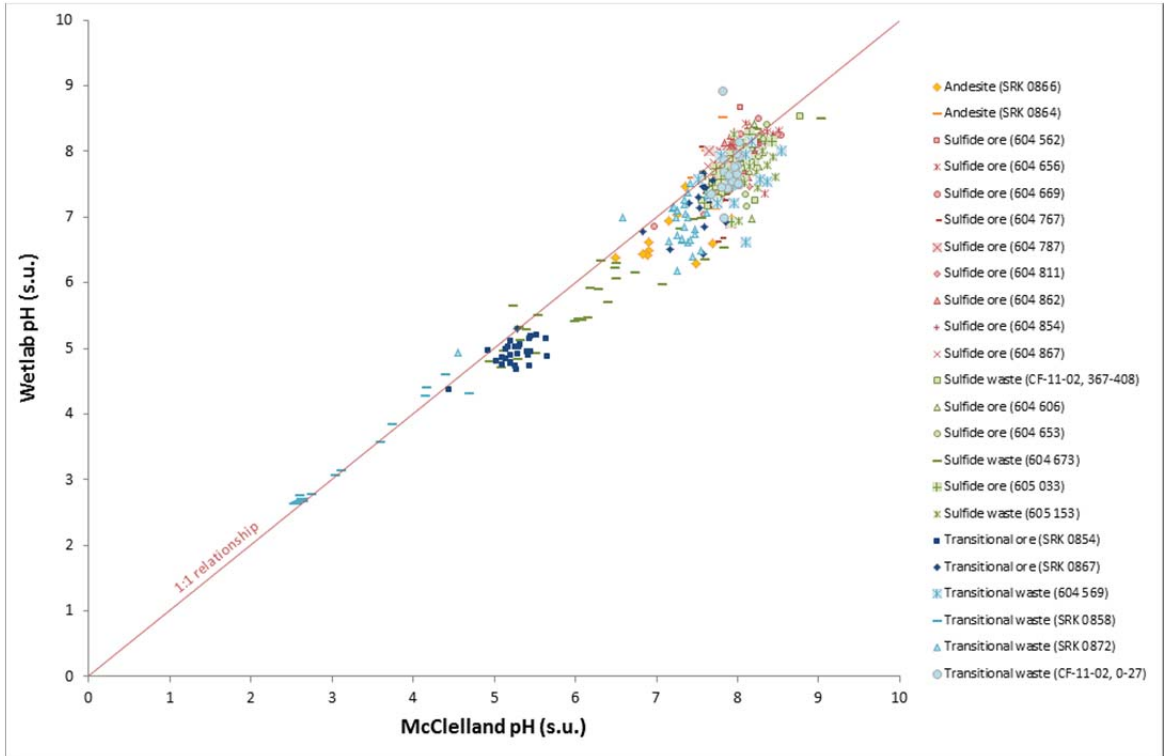


Figure 2-2: Scatter plot comparing McClelland pH and WETLAB pH for the HCT leachates

3 Kinetic Testwork Results

3.1.1 Waste Rock and Ore Samples

Humidity cell testing was carried out on 23 samples of waste rock and low grade ore. Thirteen of the cells reached steady state conditions and were terminated at week 44 and the remaining cells were terminated between week 52 and week 122. Time series plots of elemental release from the waste rock and ore samples are presented in Figure 3-1 to Figure 3-15. Laboratory reports were provided in the *Geochemical Characterization Report for the Copper Flat Project* (SRK, 2013a) for the test results available at that time. Laboratory reports for samples that continued after completion of the 2013 report are provided in Appendix A.

The trends of effluent pH for each of the cells are presented in Figure 3-1. This demonstrates that the majority of the cells produced circum-neutral to moderately alkaline pH leachates (pH 7 to 9) throughout the course of the testwork. Furthermore, the effluent pH was stable for most cells throughout the testwork period, indicating no onset of sulfide oxidation. Only two cells (SRK 0858 [transitional waste] and SRK 0854 [transitional ore]) produced acidic leachates (pH 2.5 to 5) from week zero onwards, which likely reflects the fact that material in these cells is from surface grab samples that were noted as having secondary copper sulfate salts on the material surface. These salts are readily-soluble and flushing during the leach cycle may generate acidic leachates and result in elevated sulfate and metals release. Indeed Figure 3-7 and Figure 3-8 show that cell SRK 0854 (transitional ore collected from the Sternberg lode) has particularly elevated sulfate and copper release at week zero, with up to 1,043 mg/kg and 376 mg/kg release, respectively. The Sternberg lode was a small mine that yielded 200 tons of copper ore between 1911 and 1934 (Raugust, 2003). Observations made during the field sampling program show that material within the Sternberg lode has significant chalcantite ($\text{Cu}^{2+}\text{SO}_4 \cdot 5\text{H}_2\text{O}$) and other secondary sulfate salts on the surface of the rock. Dissolution of this mineral during the HCT leach cycles is likely responsible for the low pH and elevated metals concentrations observed in the initial leachates from this cell. However, this sample is representative of material that will make up only a minor proportion of the overall waste rock.

The only other cell that showed an indication of active sulfide oxidation during the humidity cell testwork was cell 604673 (sulfide waste), which showed declining pH throughout the 122 weeks of testing from pH 8.30 at week zero to pH 4.94 at week 122. This was accompanied by increasing copper, uranium and zinc release from week 45 onwards, with these parameters being mobilized under the more acidic conditions. Despite the development of acidic conditions after continued testing, sulfide oxidation in this cell can be said to be slow, with effluent pH remaining above 5 s.u. through week 120. These slow rates of acid generation are supported by the behavior of many of the other HCT cells, where acidic conditions were not realized despite sulfide sulfur contents up to 2.34 wt% and predicted potentially acid forming (PAF) characteristics based on the ABA and NAG testwork results.

The leachates from most cells show elevated electrical conductivity (EC) during the first five weeks of testing, which corresponds to an initial flush of sulfate from the cells. However, iron release was below analytical detection limits for the majority of samples (Figure 3-4), indicating that the initial flush in sulfate concentrations is not related to sulfide oxidation but rather to the flushing of readily-soluble sulfate salts from the material surface. In contrast, the increase in effluent iron and sulfate concentrations in cell SRK 0858 (transitional waste) after week nine indicates the onset of sulfide

oxidation in this cell. This is supported by the corresponding drop in pH and increase in effluent metal concentrations.

The iron speciation of the humidity cell effluents is shown in Figure 3-5 and Figure 3-6, which demonstrates that the solutions are typically characterized by a mixed valence (i.e. $\text{Fe}^{2+}/\text{Fe}^{3+}$) iron chemistry. The effluent Eh of the humidity cells is illustrated in Figure 3-3 and shows oxidizing conditions in all cells, with effluent Eh typically between 150 and 300 mV. Cells SRK 0854 (transitional ore) and SRK 0858 (transitional waste) show higher effluent Eh between 350 and 600 mV that can be related to sulfide oxidation reactions. This results in the generation of more oxidized species such as ferric iron and reflects the onset of sulfide oxidation in cell SRK 0858.

Metal release from the drill core samples was generally low throughout the testwork period, with many parameters being consistently at or near analytical detection limits in the leachates including aluminum, antimony, arsenic, cadmium, chromium, copper, iron, lead, mercury, nickel and thallium. Metal release from the grab samples (i.e., transitional material collected from the existing waste rock dumps and pit walls) was higher, with detectable release of zinc, copper, manganese and molybdenum, particularly in the first 5 weeks of testwork. Again, this likely represents the flushing of soluble secondary salts from the material surface, which lowers the pH and increases the solubility of base metal ions. This is supported by the Ficklin plot presented in Figure 3-15, which shows that leachates from the majority of cells can be classed as near-neutral, low-metal waters based on effluent pH greater than 5.5 s.u. and Ficklin metal concentrations less than 1 mg/L. However, leachates from cells SRK 0854 (transitional ore) and SRK 0858 (transitional waste) can be classed as acid, high-metal waters based on Ficklin with total divalent metal concentrations up to 837 mg/L (Figure 3-12). Cell SRK 0858 generally exhibited the highest levels of reactivity, with the lowest effluent pH (<3 s.u.) and elevated release of iron, sulfate, aluminum, copper, molybdenum and zinc under these more acidic conditions.

Several of the sulfide ore samples showed elevated uranium and selenium release, particularly during the first ten weeks of testing. Uranium concentrations in the HCT leachates reached a maximum of 0.23 mg/L for cell 604767 (sulfide ore) in weeks 1 and 2, which is above the NMWQCC Human Health Groundwater Standard of 0.03 mg/L. However, uranium release in all cells fell below the NMWQCC groundwater standard by week 40. Similarly, selenium release reached a maximum of 0.04 mg/L in cell 604562 (sulfide ore) during the initial weeks of testing, which is close to the NMWQCC groundwater standard of 0.05 mg/L.

The Piper plot presented in Figure 3-16 shows that the leachates from most cells can be classed as either calcium + sulfate ($\text{Ca} + \text{SO}_4$) or calcium + bicarbonate ($\text{Ca} + \text{HCO}_3$) type waters, with calcium representing the major cation in solution and either sulfate or bicarbonate the major anion. The anion dominance reflects sulfide reactivity rather than sulfide abundance.

Figure 3-13 shows there has been a depletion of neutralizing potential (NP) in the HCT cells over the course of the testwork period. The consumption of NP was slow in the majority of cells, with samples still having over 80% of the initial NP remaining at week 40 (or over 70% of NP remaining at week 86/95/122 for the continued cells). This indicates that significant buffering was still available when the cells were terminated and/or that acid generation is limited or occurs at a slow rate. Only four cells (SRK 0867, SRK 0854, SRK 0858 and 604669) showed more rapid consumption of NP throughout the testwork, with cell SRK 0858 (transitional waste) showing complete consumption of NP by week 29, cell 604669 (sulfide ore) showing consumption of NP by week 50 and cell SRK 0858 (transitional ore) showing complete consumption of NP by week 82. The more rapid consumption of NP in these

cells is related to the lower initial NP available (less than 6 kg CaCO₃ eq/ton) in these samples as well as the consumption of available NP through the buffering of acid. These results indicate abundant buffering exists in wallrock and waste rock at Copper Flat for the majority of rock types for a prolonged period of weathering. The slow rate of NP consumption in the HCTs further demonstrates low potential for acid generation with stable sulfides showing resistance to weathering in all samples except SRK 0858 that consumed 50% of the initial sulfide by week 60 (Figure 3-11).

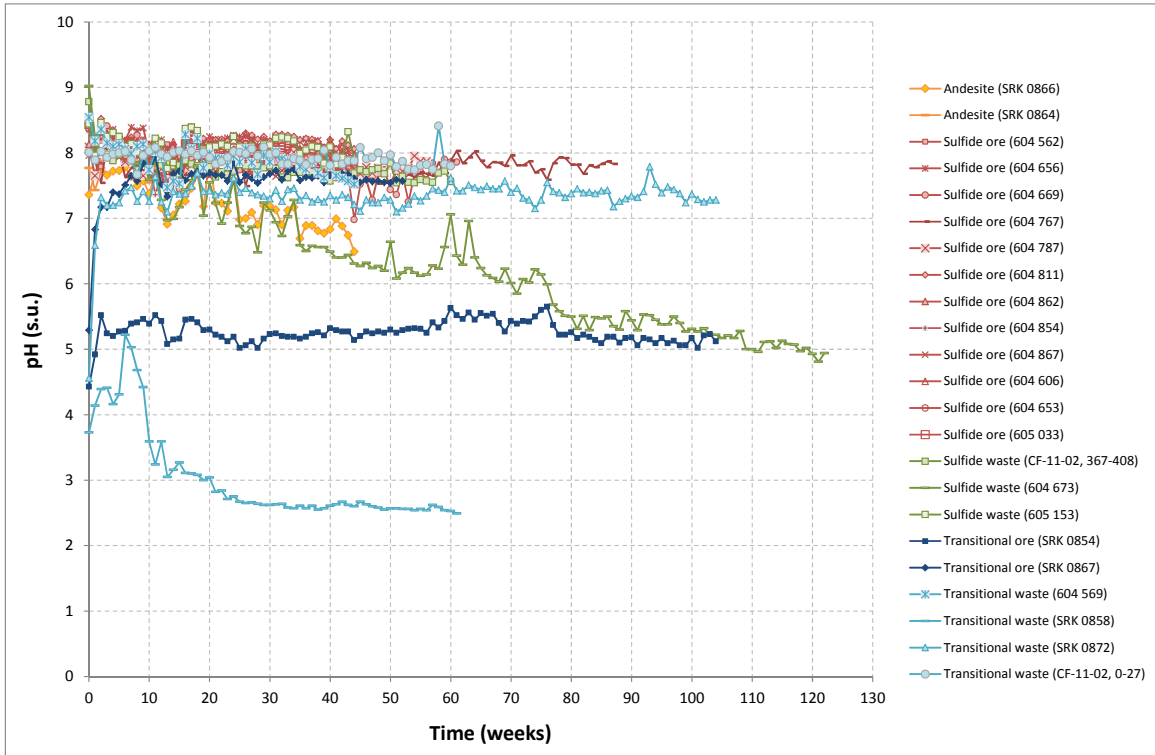


Figure 3-1: Waste Rock/Ore HCT Effluent pH

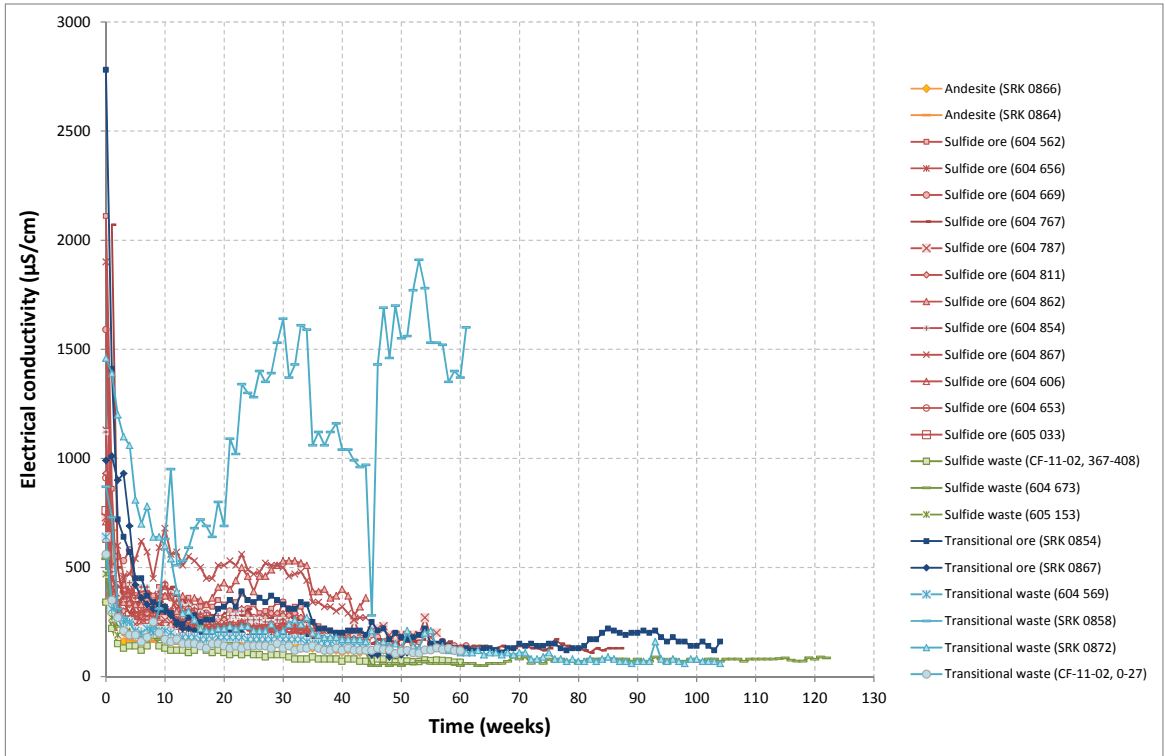


Figure 3-2: Waste Rock/Ore HCT Effluent Electrical Conductivity



Figure 3-3: Waste Rock/Ore HCT Effluent Eh

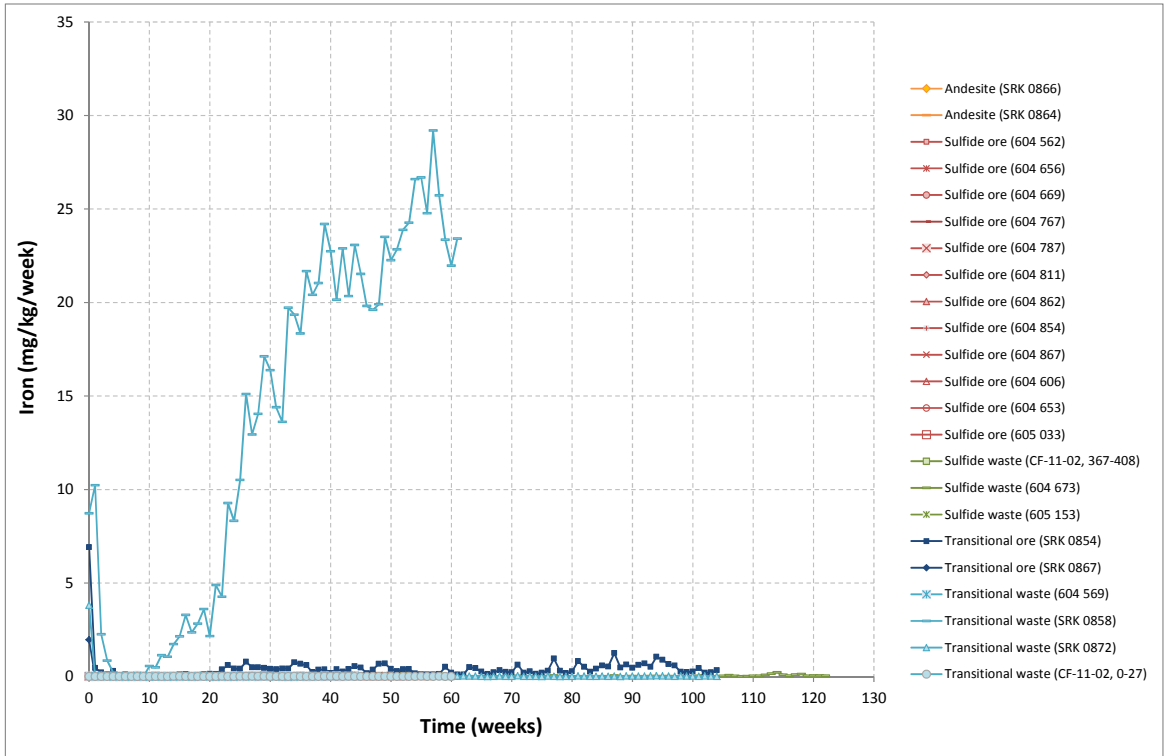


Figure 3-4: Waste Rock/Ore HCT Effluent Iron

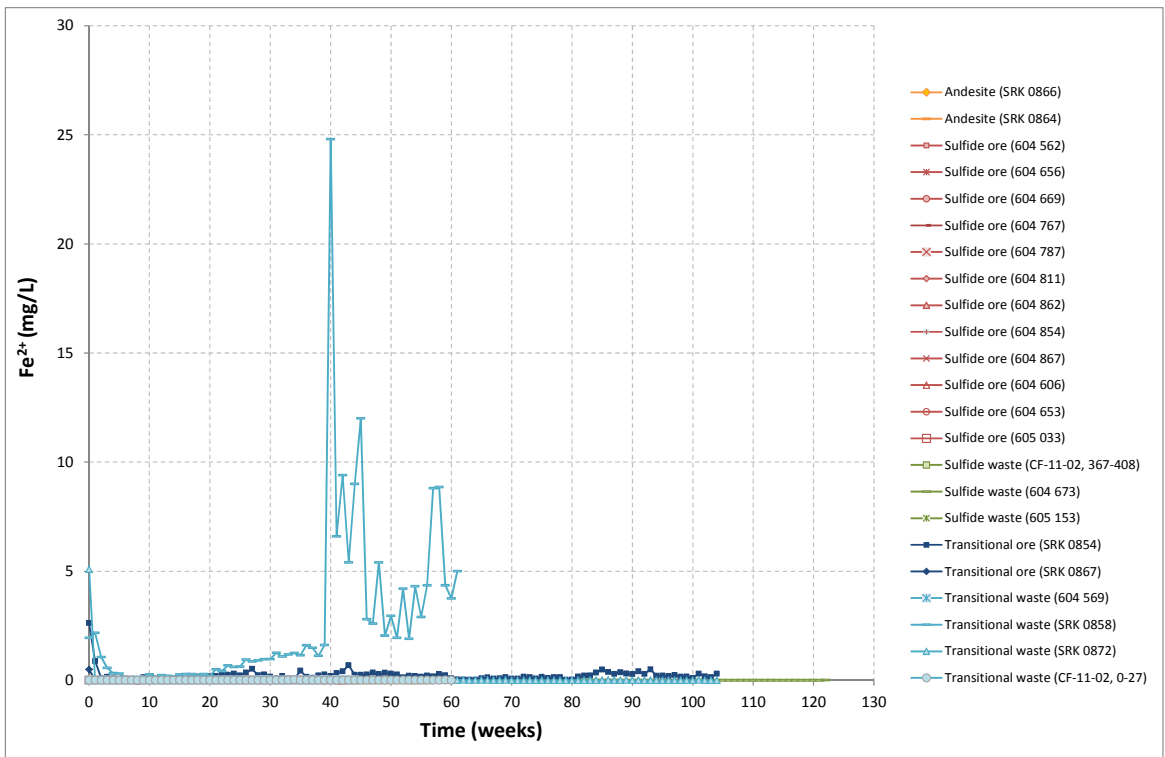


Figure 3-5: Waste Rock/Ore HCT Effluent Fe²⁺ (in mg/L)

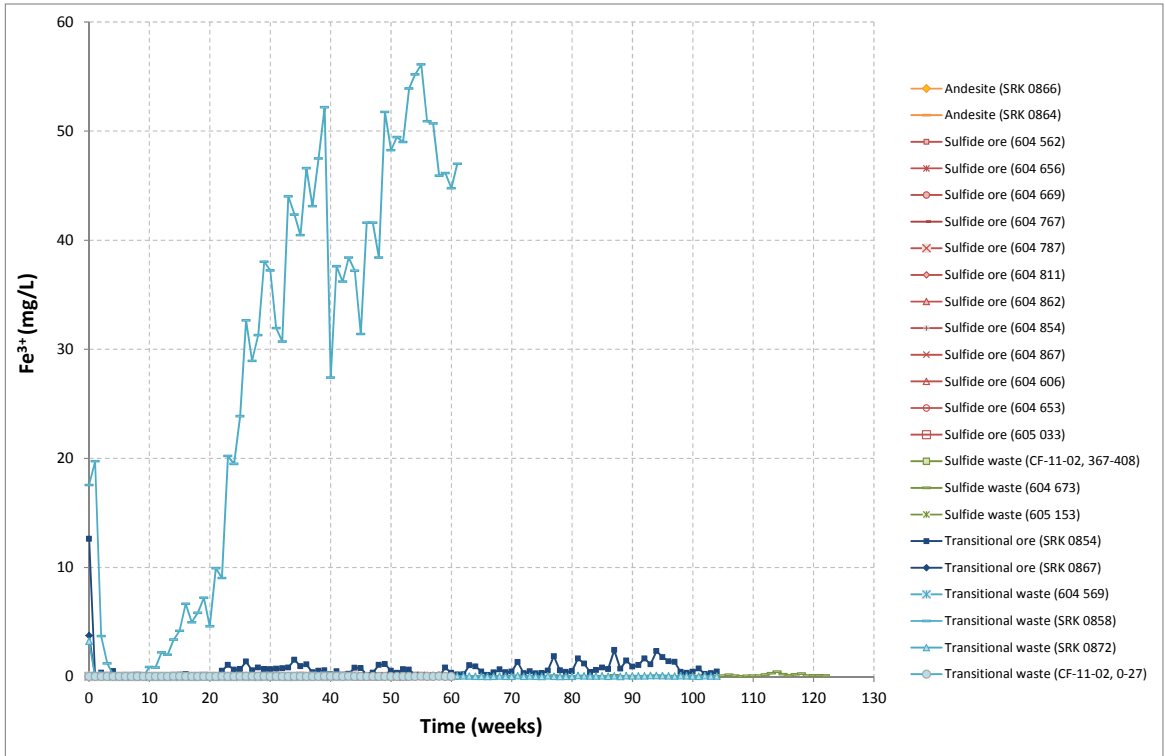


Figure 3-6: Waste Rock/Ore HCT Effluent Fe³⁺ (in mg/L)

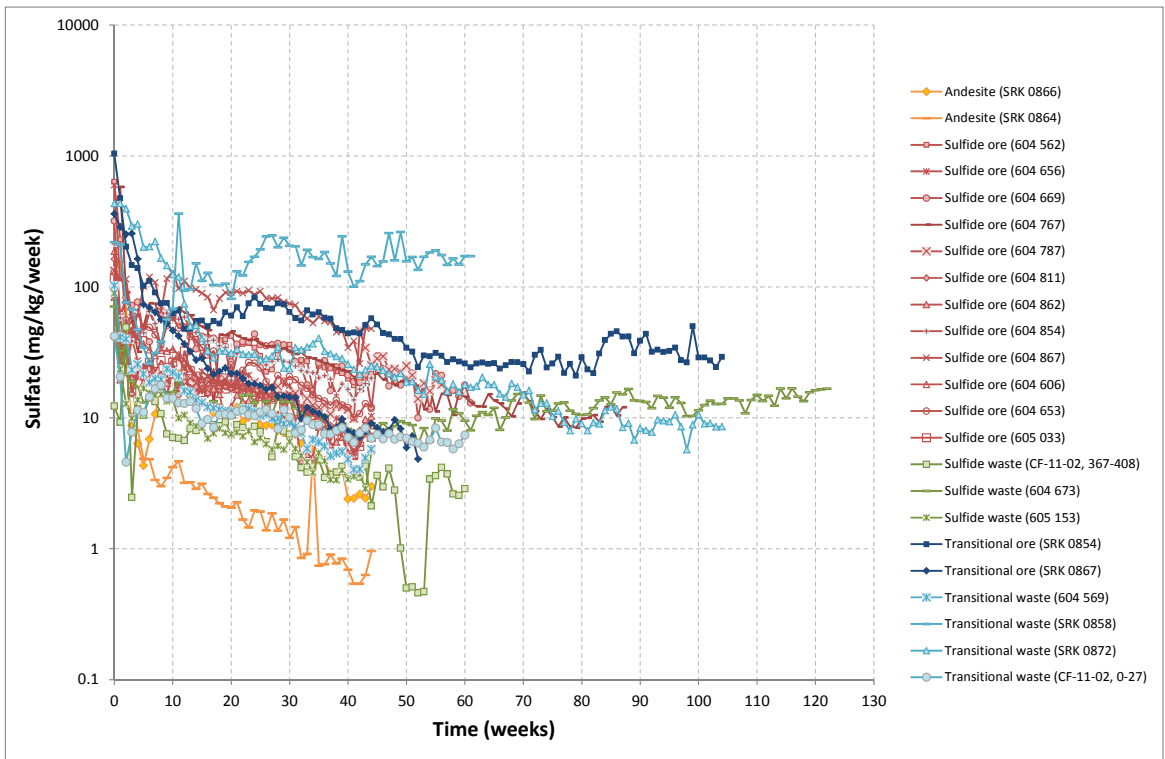


Figure 3-7: Waste Rock/Ore HCT Effluent Sulfate

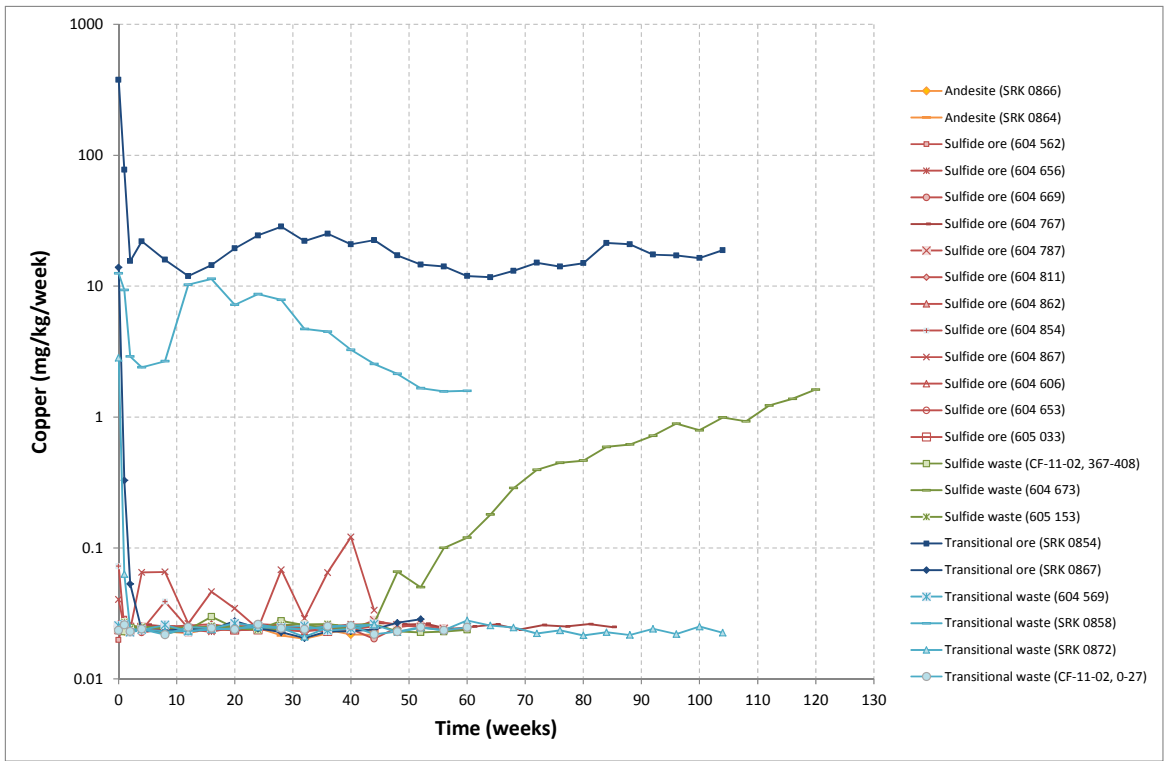


Figure 3-8: Waste Rock/Ore HCT Effluent Copper

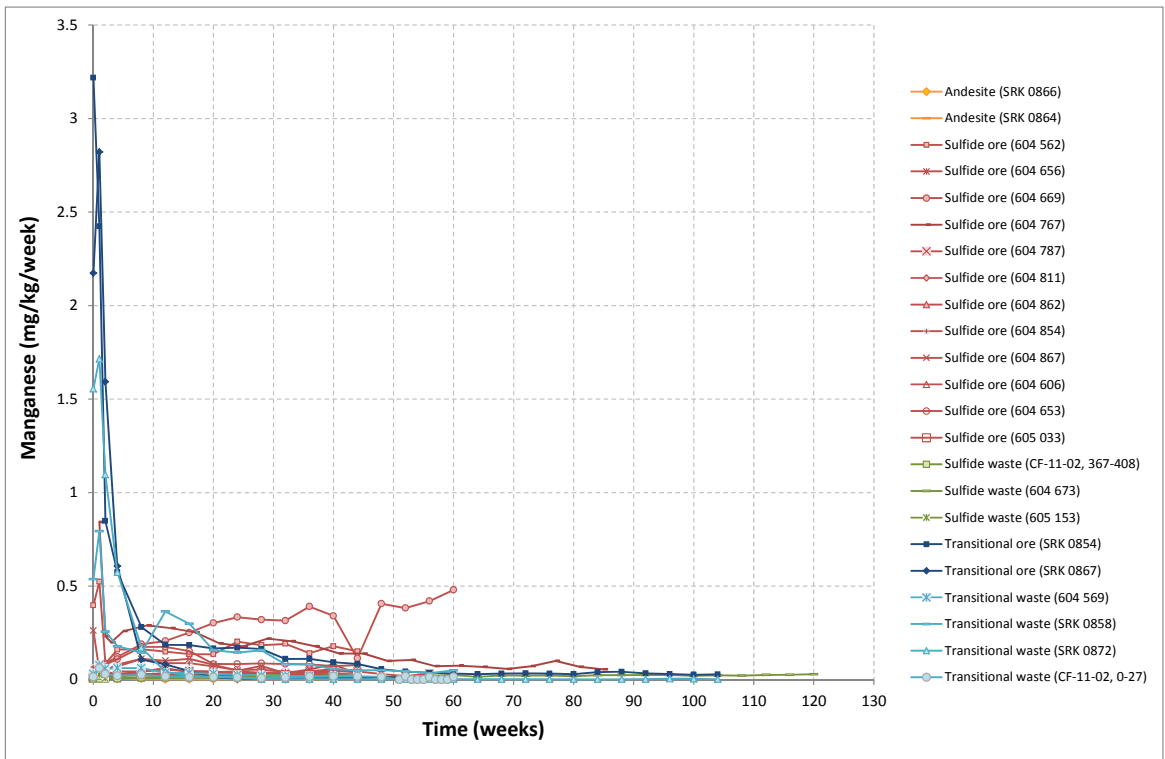


Figure 3-9: Waste Rock/Ore HCT Effluent Manganese

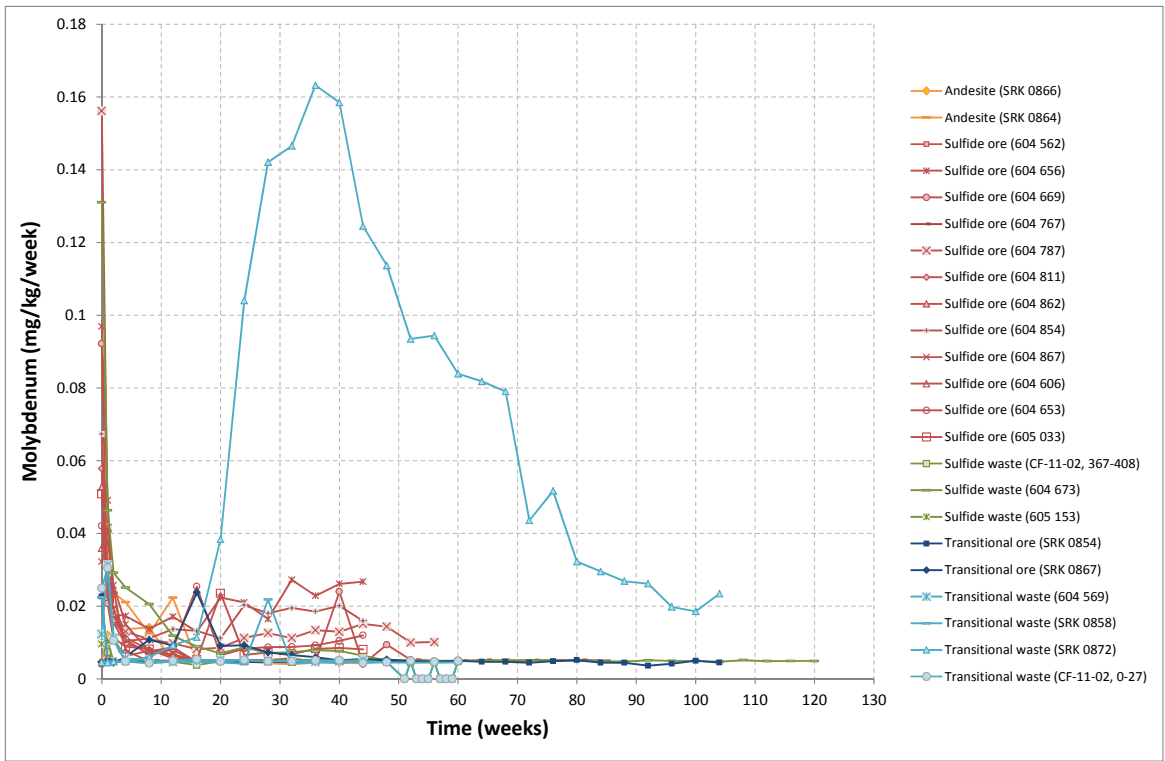


Figure 3-10: Waste Rock/Ore HCT Effluent Molybdenum

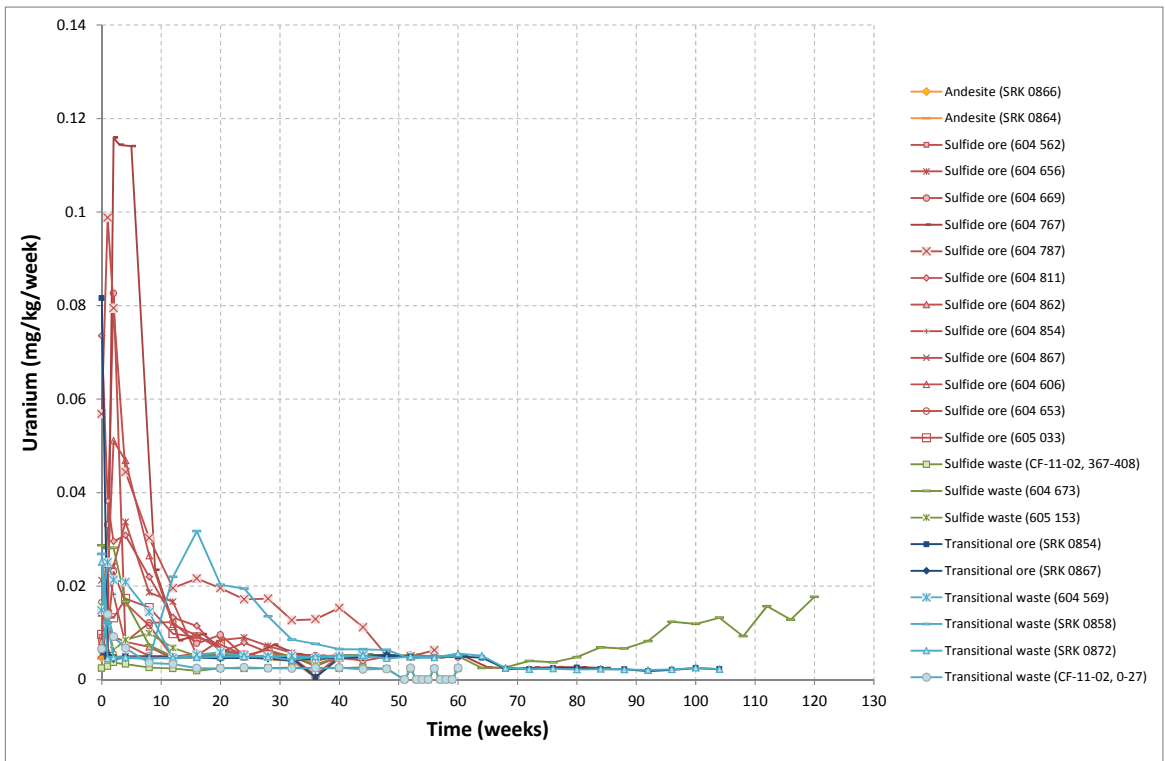


Figure 3-11: Waste Rock/Ore HCT Effluent Uranium

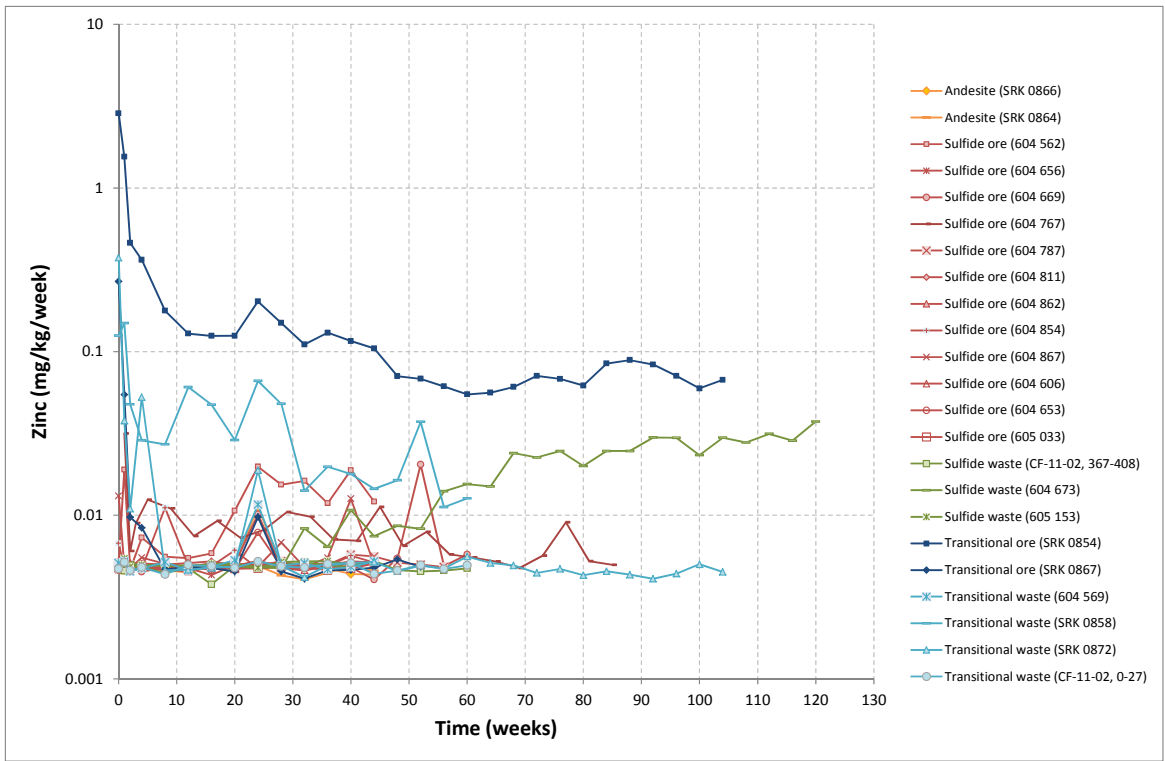


Figure 3-12: Waste Rock/Ore HCT Effluent Zinc

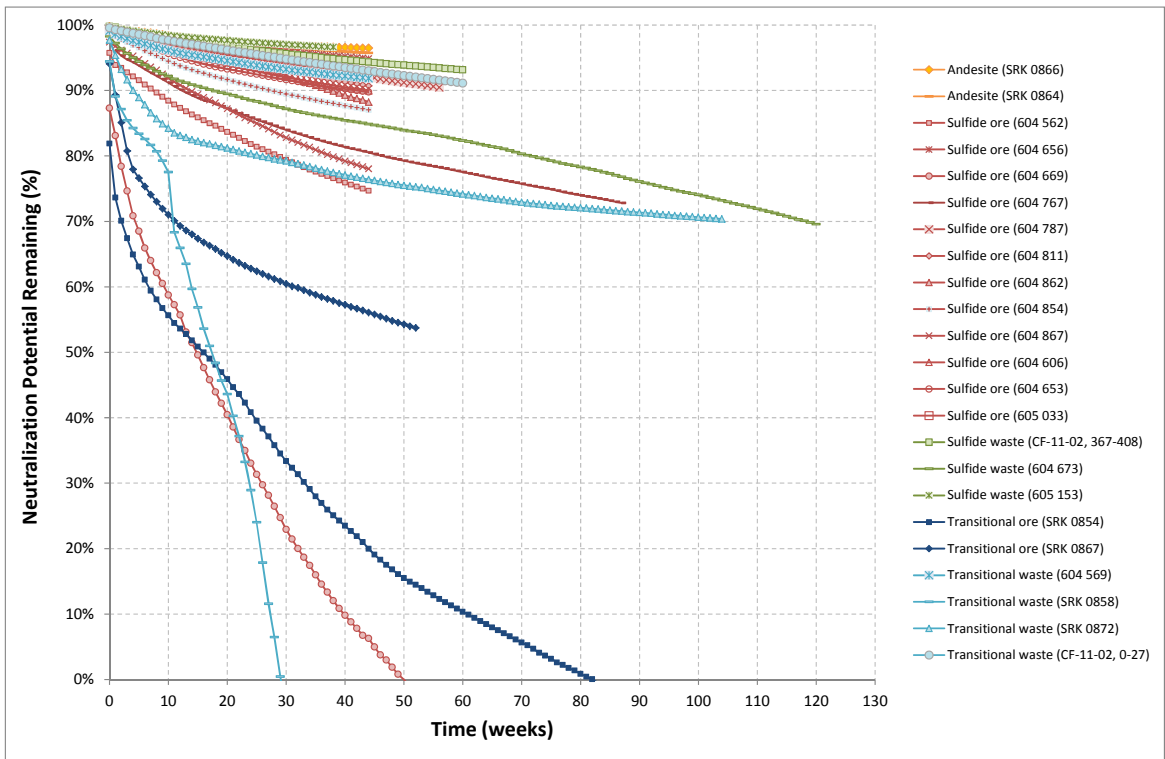


Figure 3-13: Waste Rock/Ore HCT Neutralization Potential Remaining

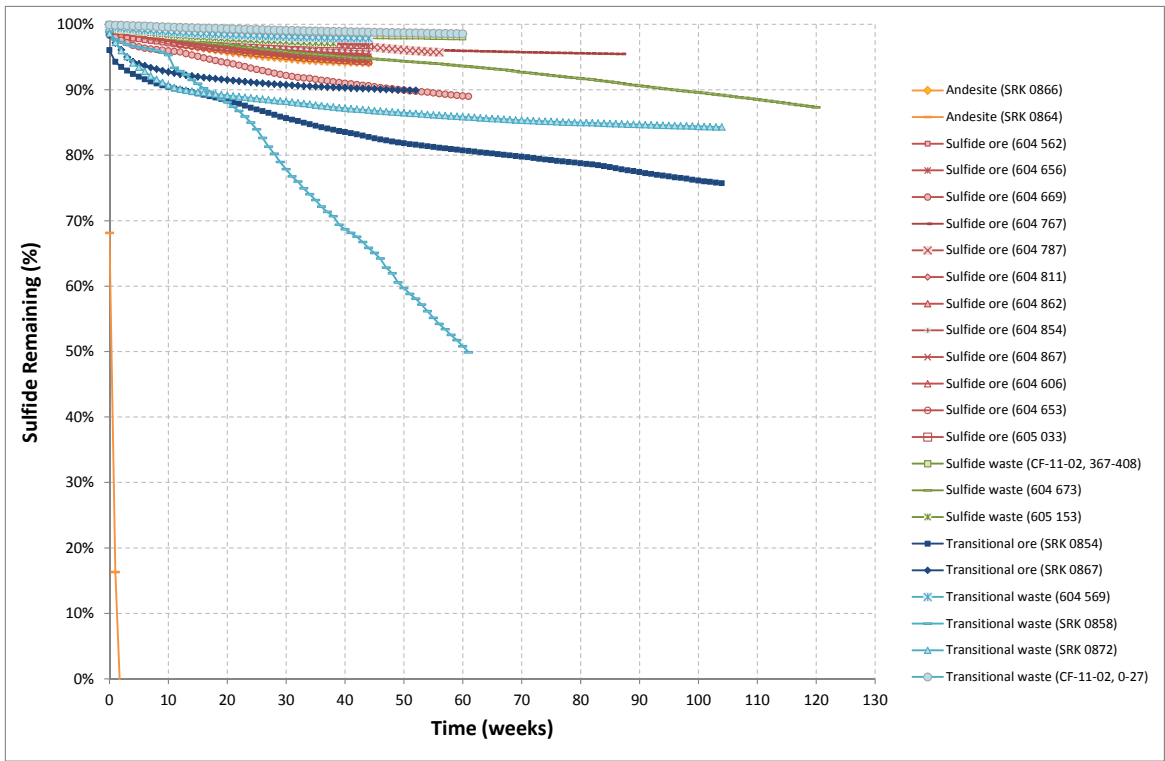


Figure 3-14: Waste Rock/Ore HCT Sulfide Remaining

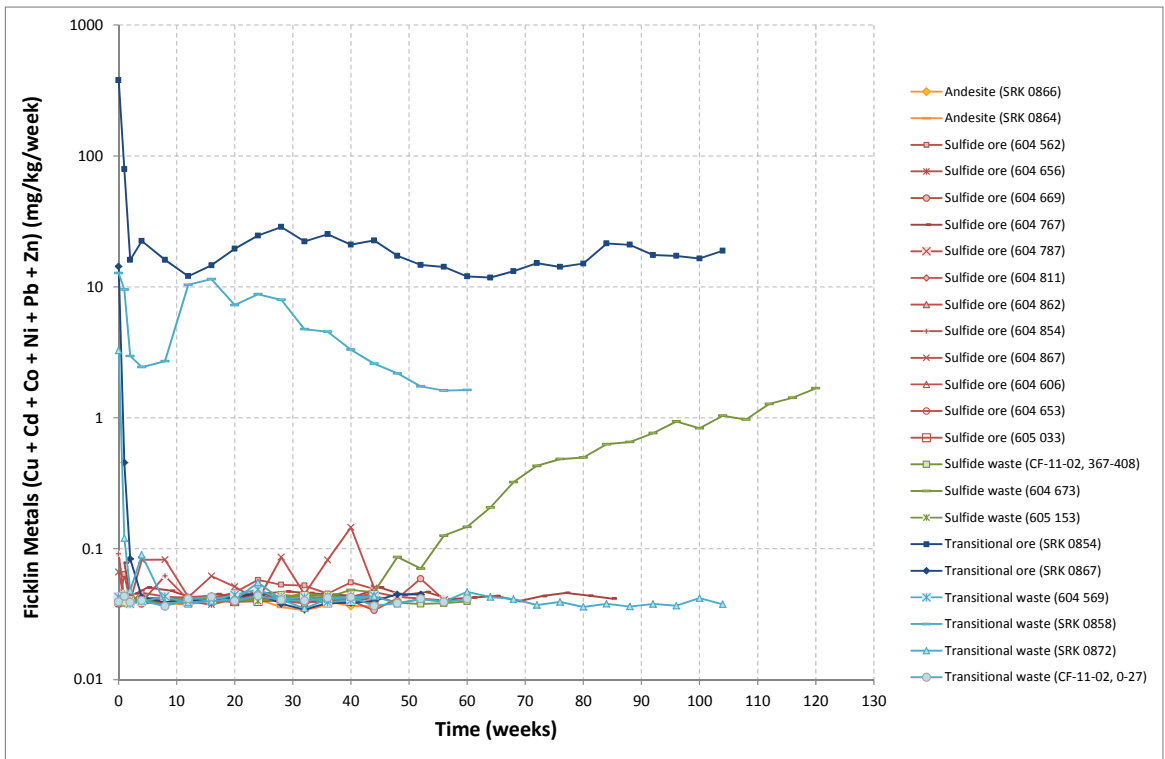


Figure 3-15: Waste Rock/Ore HCT pH vs. Ficklin Metal Release

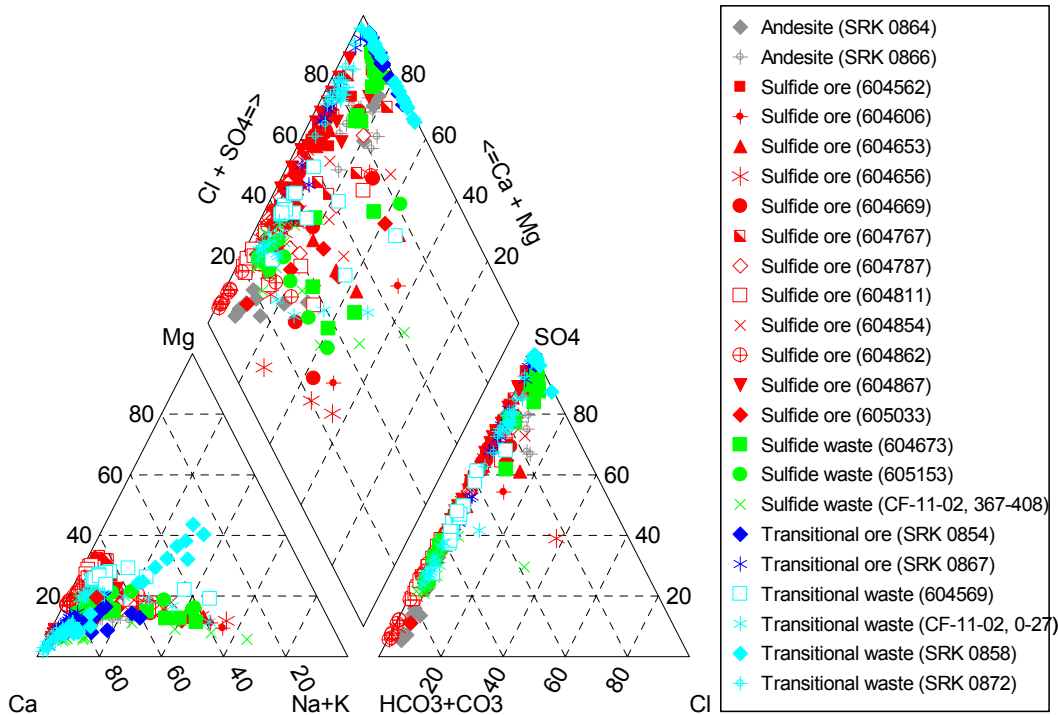


Figure 3-16: Piper Plot showing HCT Major Ion Chemistry

3.1.2 Tailings Samples

Humidity cell testing was carried out on nine samples of tailings material, including eight samples of flotation tailings and one sample of Cu. Ro. tailings. The Cu. Ro. tailings cell stabilized by week 28 and was terminated, but the flotation tailings samples were continued and were terminated between week 42 and week 52 when the effluent chemistry had stabilized and the test program had met the required objectives. The trends in effluent chemistry for the cells are presented in Figure 3-17 to Figure 3-28.

Effluent pH for all tailings cells was circum-neutral throughout the course of the testwork (Figure 3-17) and the cells generally showed low levels of metal(loid) release. The Cu. Ro. tailings sample showed effluent HCT chemistry that was generally consistent with the flotation tailings. Many parameters were consistently below analytical detection limits in the tailings cell leachates, including antimony, arsenic, cadmium, chromium, cobalt, copper, lead, nickel, selenium, thallium and zinc, indicating that these parameters are unlikely to be mobilized from the tailings material. The cells showed an initial flush of sulfate of up to 76 mg/kg/week, which likely relates to the release of soluble sulfate salts from the material surface. However, sulfate release from all cells declined to less than 20 mg/kg/week after 30 weeks of testing and effluent iron concentrations were also low (typically <0.02 mg/kg/week), indicating that no active sulfide oxidation is occurring in the cells (Figure 3-20, Figure 3-21).

Several of the cells showed an initial flush in effluent uranium during the first 20 weeks of testing, with release rates of up to 0.06 mg/kg/week from the K-spar breccia 5+ comp. flotation tailings sample (Figure 3-25). However, release rates from all cells declined to <0.02 mg/kg/week and

stabilized after week 20. A spurious iron result was reported by the laboratory in week 40 for cell Quartz Monzonite 5+ Composite Flotation tailings (Figure 3-16). This result is either a laboratory error or due to flushing of iron hydroxide particles into the analyzed lixiviant for that cell. Either way it is not interpreted as a trend and does not affect the overall assessment of the HCT chemistry.

The tailings cells all had greater than 70% of the initial neutralization potential remaining after 52 weeks of testing (Figure 3-26). In addition, the rate of sulfide consumption was greater than that of NP depletion (Figure 3-27), indicating that acidic conditions are unlikely to develop.

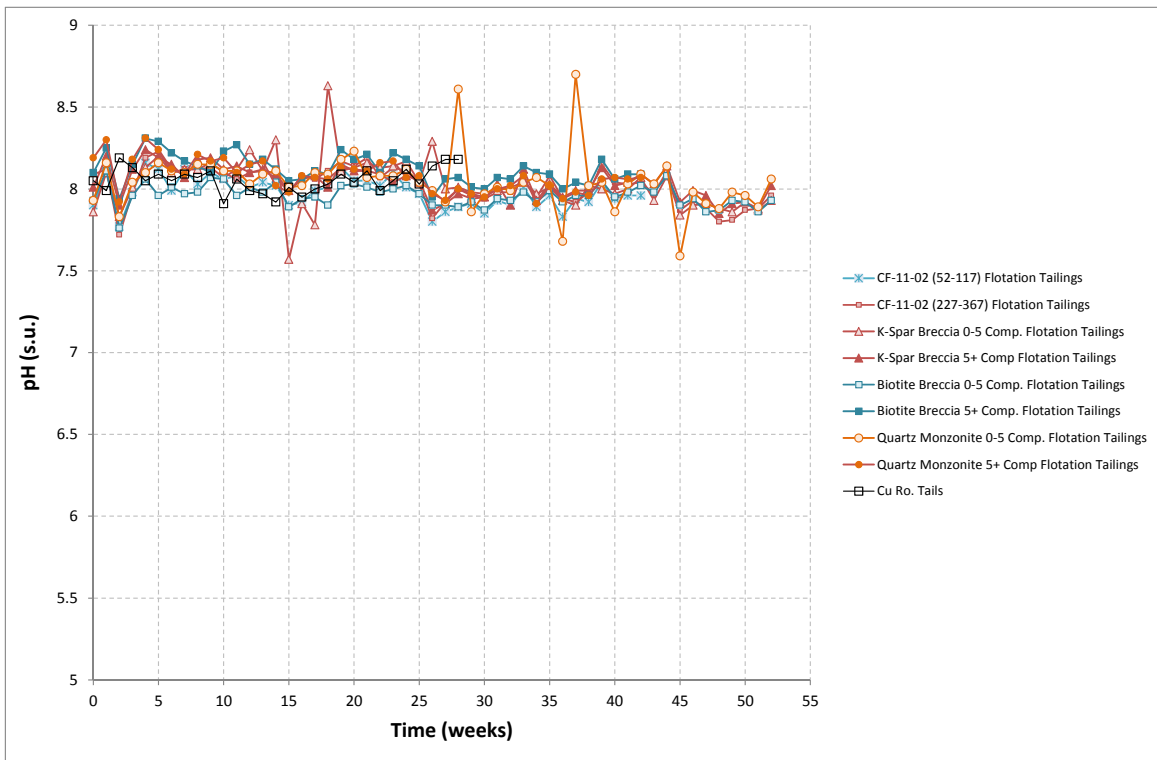


Figure 3-17: Tailings HCT Effluent pH

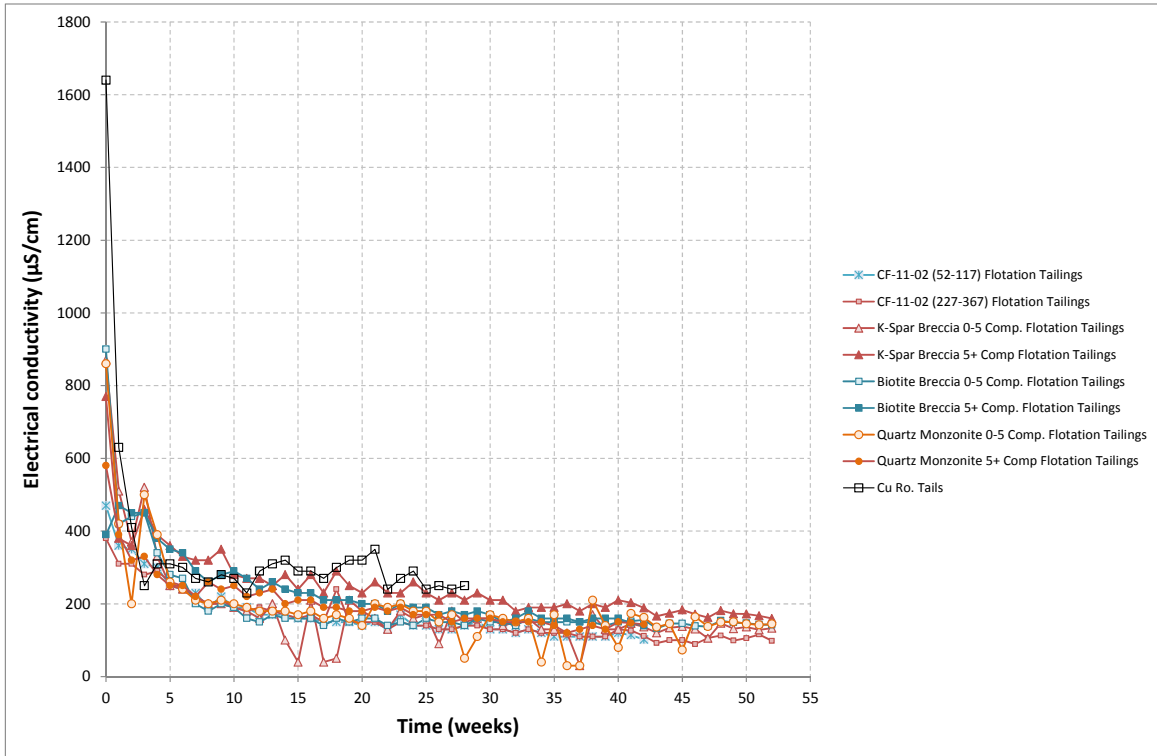


Figure 3-18: Tailings HCT Effluent EC

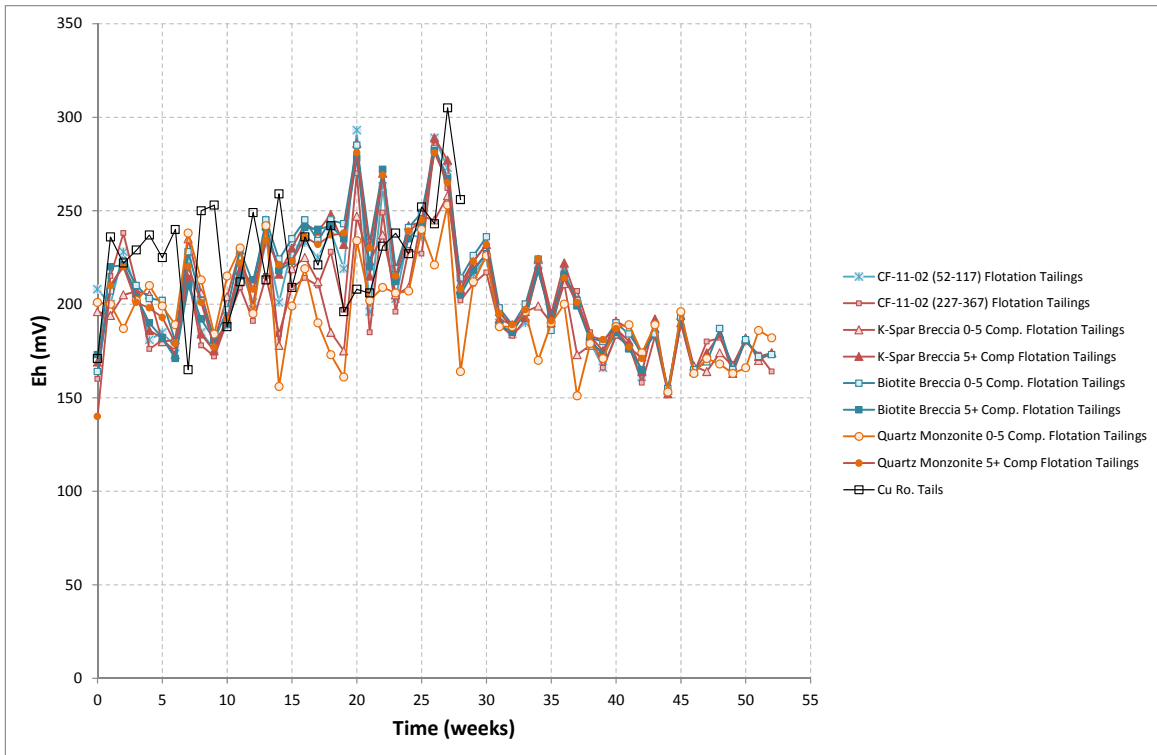


Figure 3-19: Tailings HCT Effluent Eh

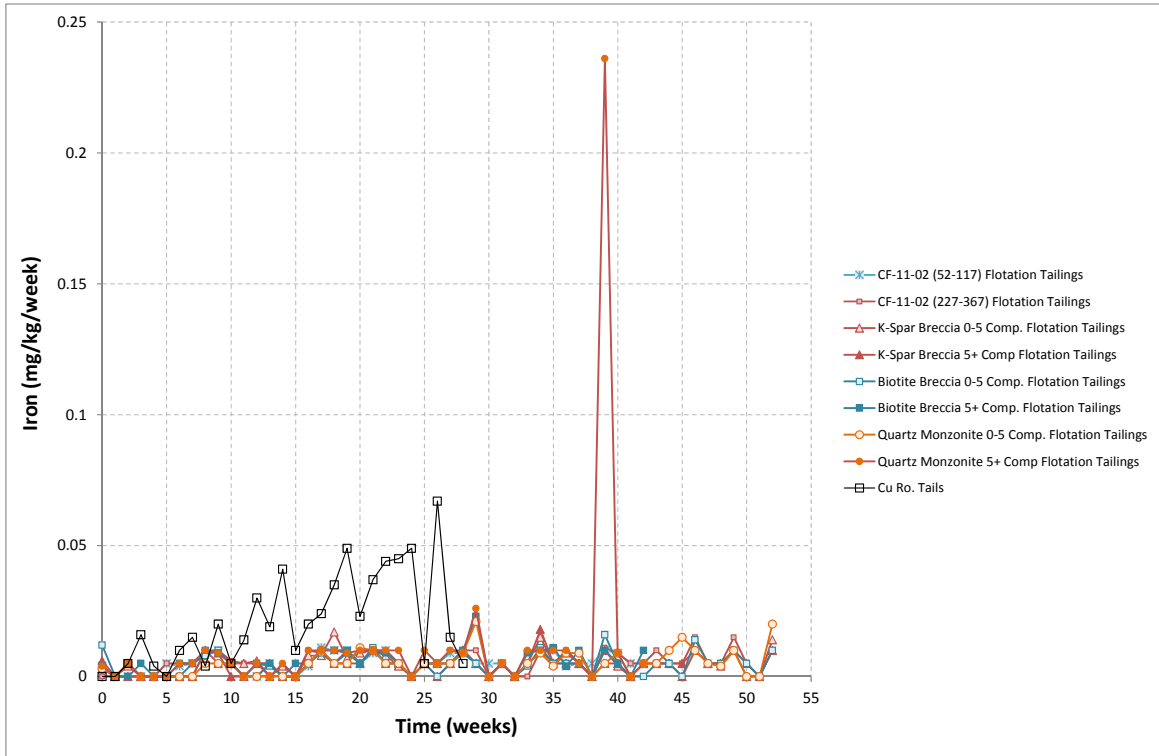


Figure 3-20: Tailings HCT Effluent Iron

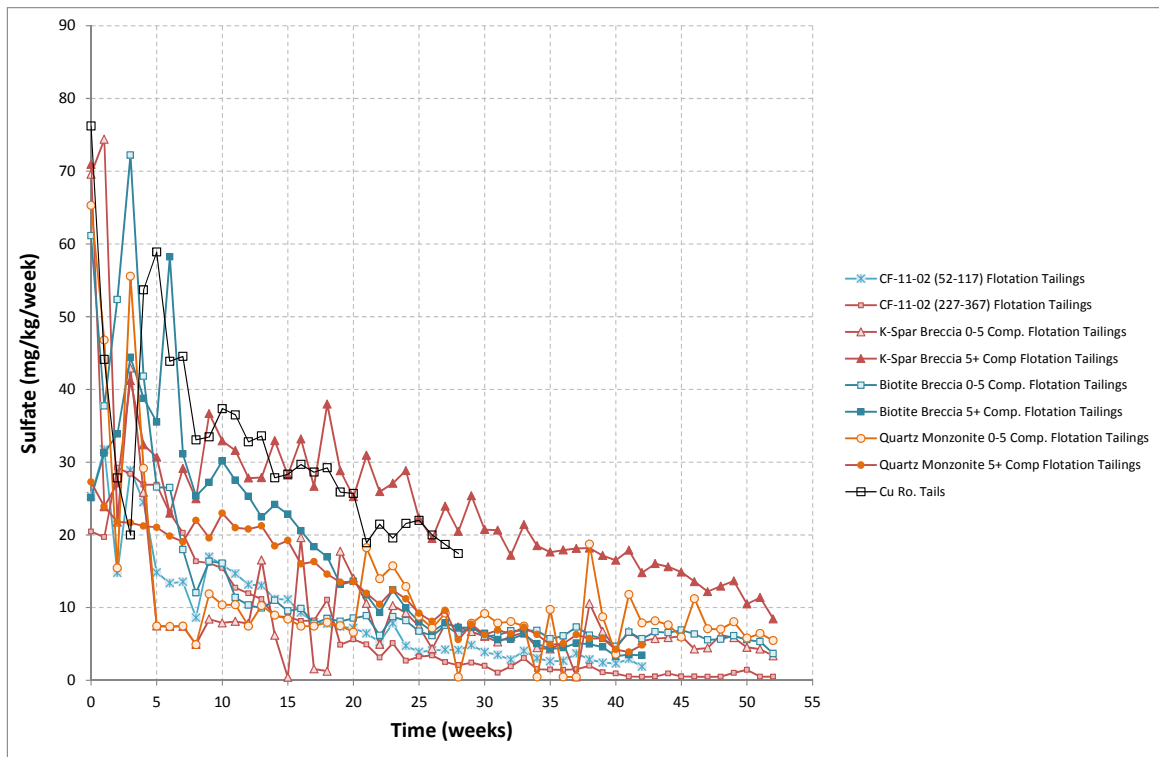


Figure 3-21: Tailings HCT Effluent Sulfate

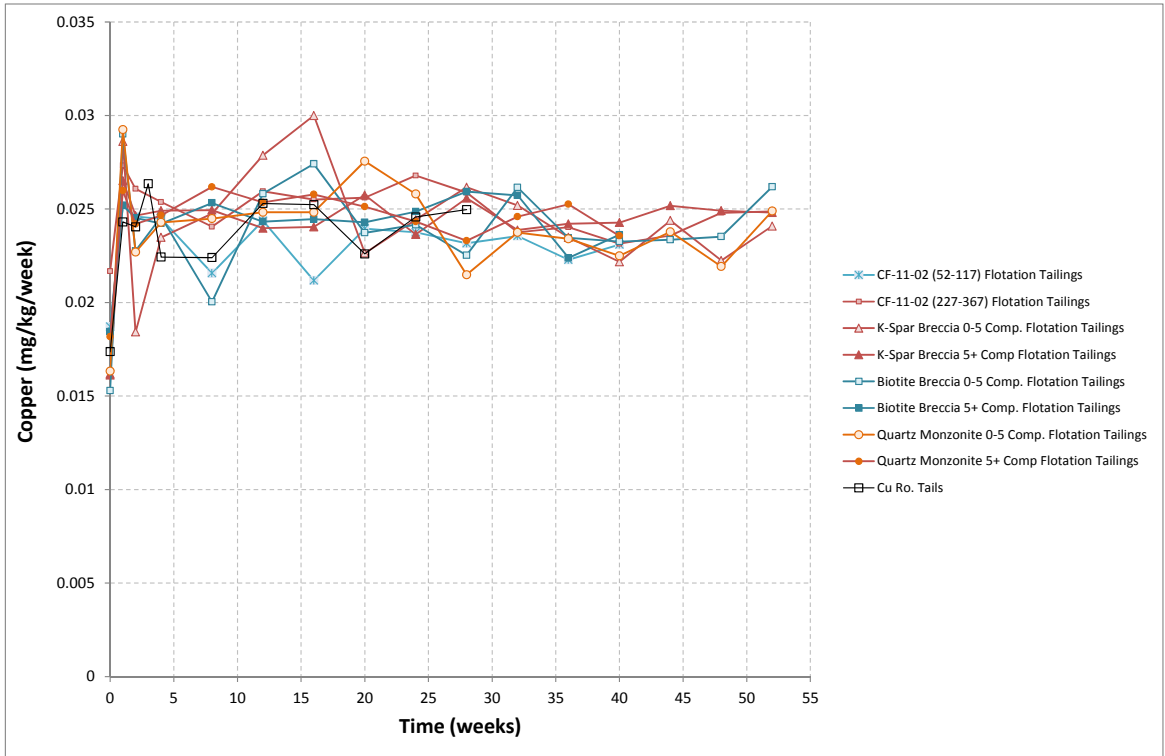


Figure 3-22: Tailings HCT Effluent Copper

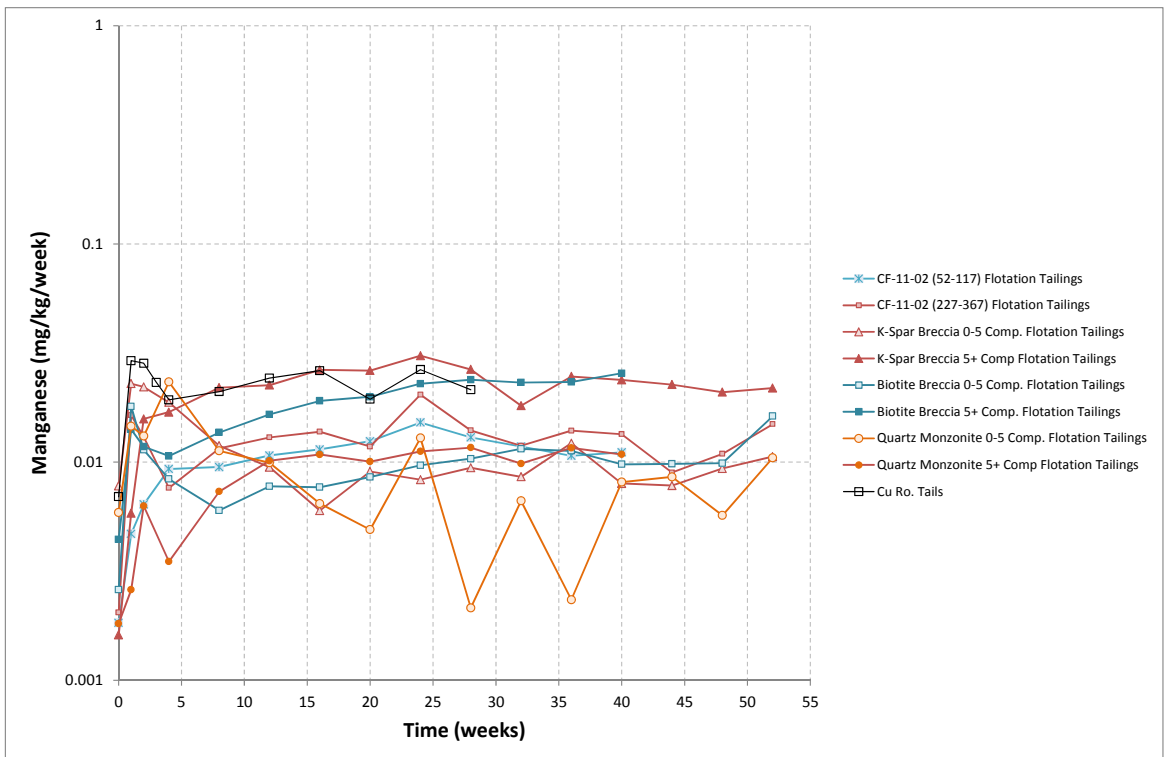


Figure 3-23: Tailings HCT Effluent Manganese

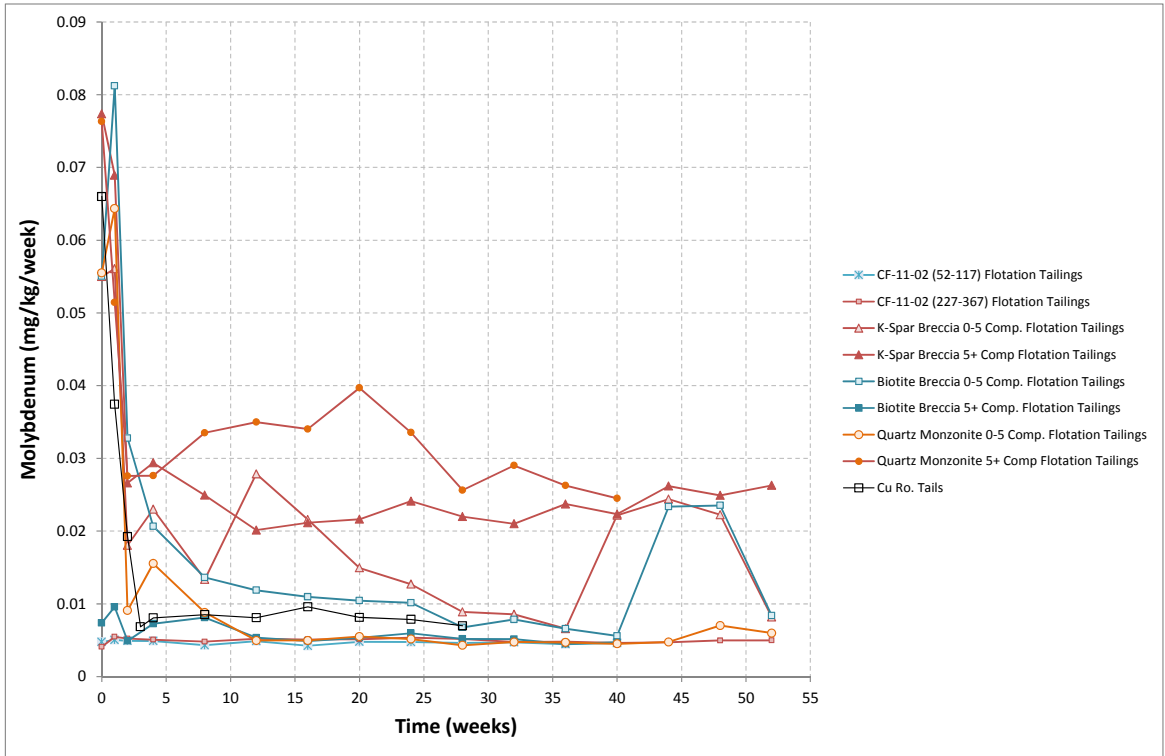


Figure 3-24: Tailings HCT Effluent Molybdenum

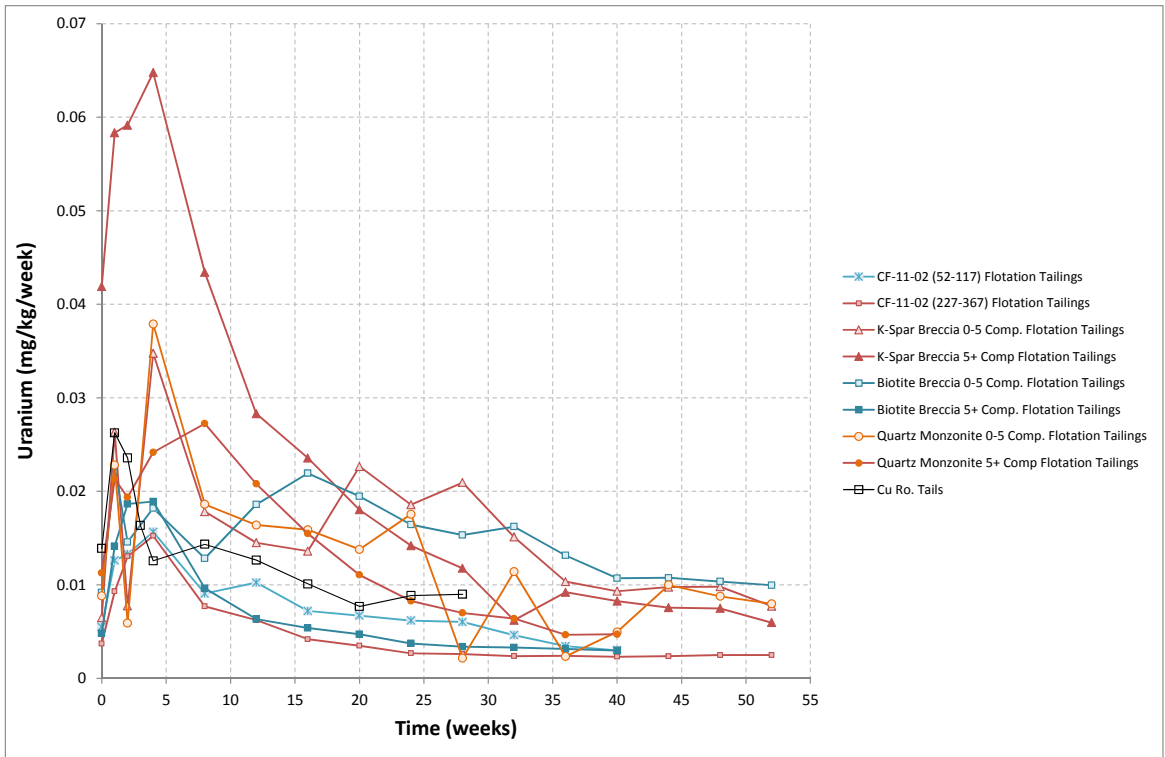


Figure 3-25: Tailings HCT Effluent Uranium

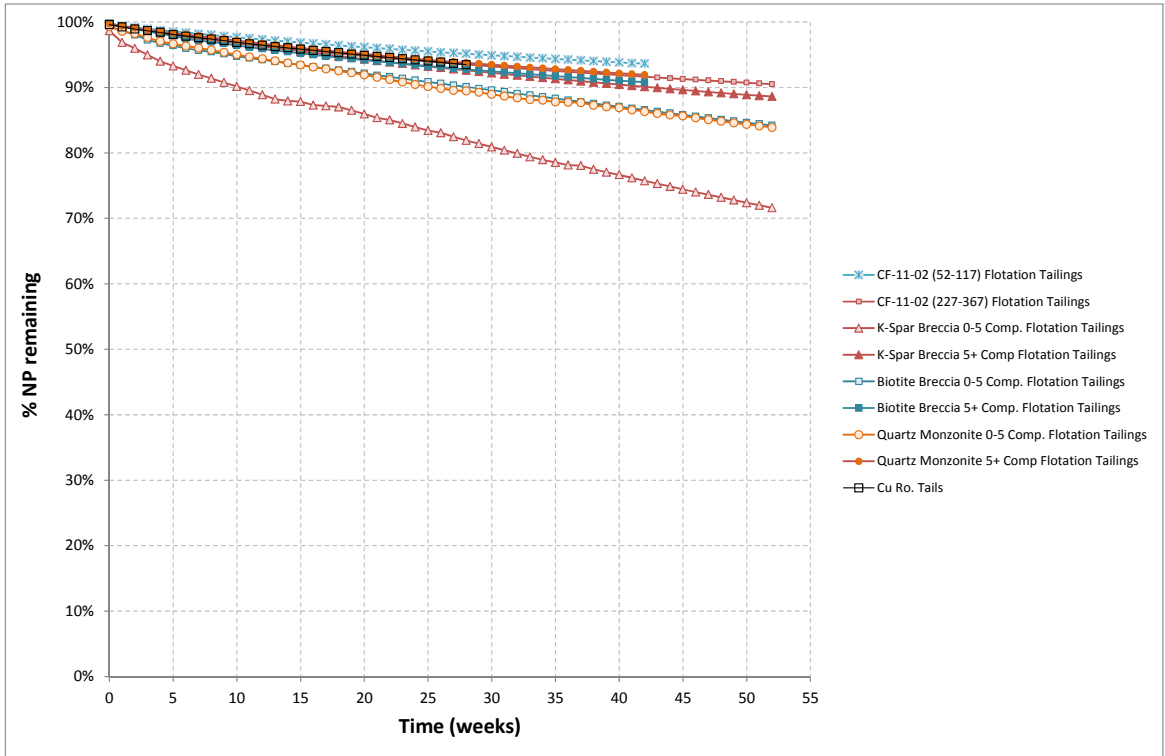


Figure 3-26: Tailings HCT Neutralization Potential Remaining

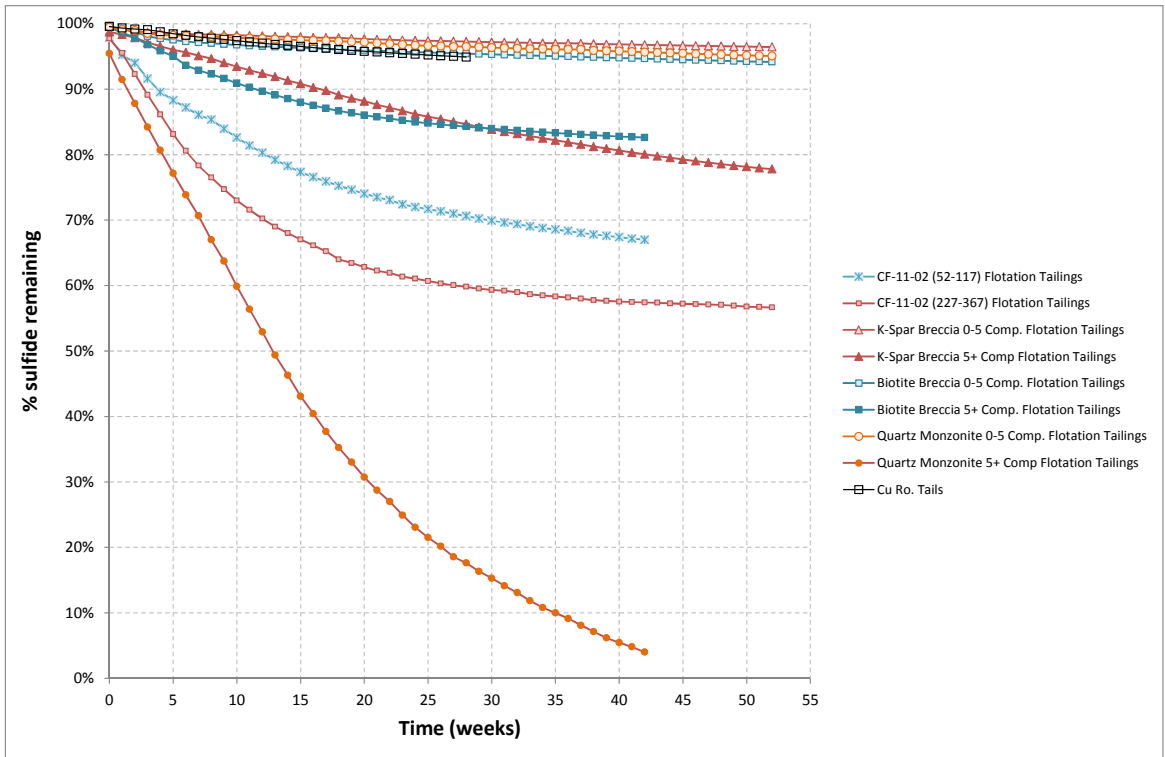


Figure 3-27: Tailings HCT Sulfide Remaining

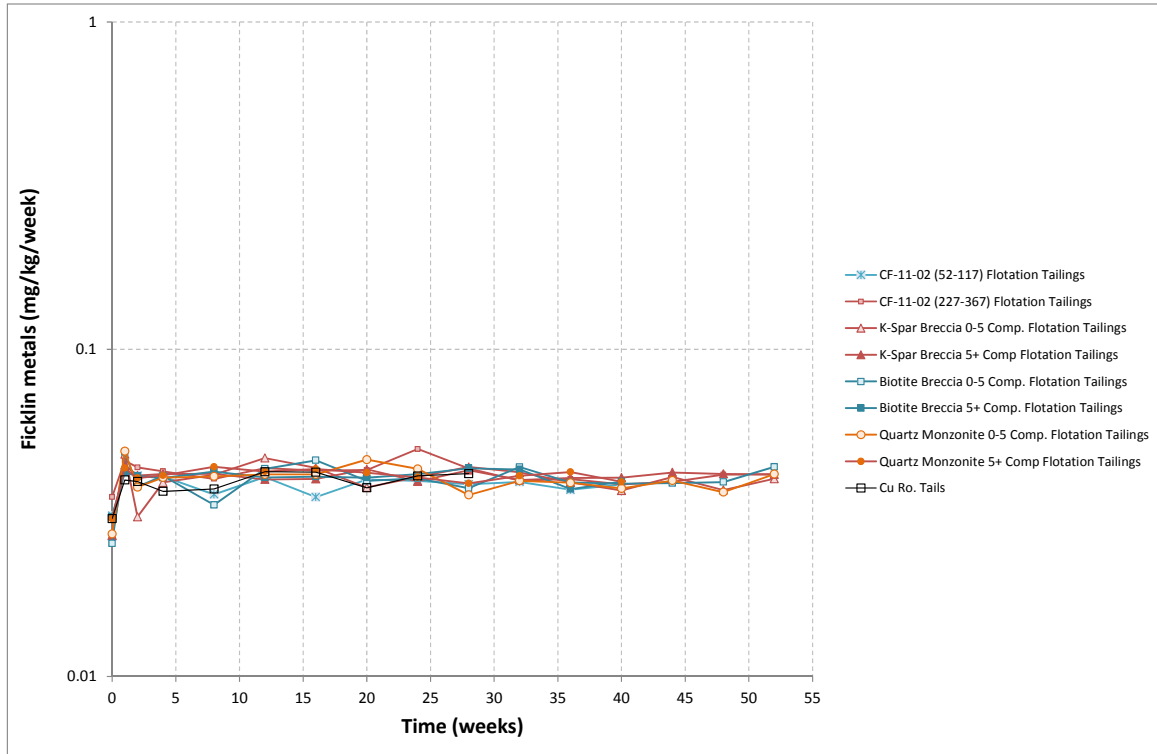


Figure 3-28: Tailings HCT Effluent Ficklin Metals

3.2 Comparison of Static and Kinetic Testwork Results

A comparison of the static test results with the corresponding HCT results provides an indication of the effectiveness of the static tests in predicting longer term behavior (Table 3-1, Figure 3-29 and Figure 3-30). As shown in Table 3-1, the results of the HCT tests for the waste rock samples are not consistent with the prediction of acid generation based on ABA results. However, the correlation between the HCT results and the acid generation prediction from the NAG results shows a slightly better correlation and suggests the NAG test is more effective in predicting the acid generating potential of the Copper Flat material types. However, despite the better correlation there are still a few samples that are predicted to be acid generating from the NAG test that did not develop acidic conditions in the HCT, despite the testwork continuing for up to 122 weeks in some cases. Therefore, the ABA and NAG test over-predict the acid generating potential of the Copper Flat materials in some cases.

The discrepancy between ABA, NAG and HCT results for the waste rock samples suggests that there may be some silicate buffering capacity in the Copper Flat material types and/or encapsulation of sulfide minerals in non-reactive minerals such as quartz and thus limiting reactivity. Although silicate buffering potential is unlikely to be of high magnitude, it may modify/buffer pH if present (Nesbit and Jambor, 2008) especially if the rate of acid generation is slow. The presence of chlorite-clinocllore, amphiboles and Ca-rich feldspars would likely be the source of this buffering as indicated by the relative reaction of these minerals. The poor correlation between the sulfide sulfur content of the Copper Flat materials and the final HCT pH (Figure 3-29) confirms the generally low reactivity of the waste rock and ore material, with high sulfide samples showing near-neutral pH after prolonged testing. The tailings samples show a good correlation between the acid generation predictions based on ABA and HCT results, with all tailings showing non-acid forming characteristics.

Table 3-1: Comparison of HCT results with static testwork results

Material type	Primary lithology	Cell ID	Acid Generation Prediction*			Post-HCT mineralogy
			ABA	NAG	HCT	
Andesite	Andesite	SRK 0864	NAF	NAF	NAF	
	Andesite	SRK 0866	NAF	PAF	NAF	
Sulfide waste	Coarse Crystalline Porphyry	CF-11-02 (367-408)	PAF	PAF	NAF	
	Quartz Monzonite	604673	PAF	PAF	PAF	x
	Quartz Monzonite	605153	NAF	NAF	NAF	
Sulfide ore	Biotite Breccia	604811	PAF	NAF	NAF	
	Biotite Breccia	604862	NAF	NAF	NAF	
	Biotite Breccia	604867	PAF	NAF	NAF	
	Biotite Breccia	604854	PAF	NAF	NAF	
	Quartz Feldspar Breccia	604767	PAF	PAF	NAF	x
	Quartz Feldspar Breccia	604787	PAF	NAF	NAF	
	Quartz Monzonite	604562	PAF	NAF	NAF	
	Quartz Monzonite	604606	NAF	NAF	NAF	
	Quartz Monzonite	604669	PAF	NAF	NAF	
	Quartz Monzonite	604653	NAF	NAF	NAF	
	Quartz Monzonite	604656	NAF	NAF	NAF	
	Biotite Breccia	605033	NAF	NAF	NAF	
Transitional waste	Biotite Breccia	SRK 0872	PAF	PAF	NAF	x
	Quartz Monzonite	604569	PAF	NAF	NAF	
	Quartz Monzonite	SRK 0858	PAF	PAF	PAF	x
	Coarse Crystalline Porphyry	CF-11-02 (0-27)	PAF	PAF	NAF	x
Transitional ore	Biotite Breccia	SRK 0854	PAF	PAF	PAF	x
	Quartz Monzonite	SRK 0867	PAF	NAF	NAF	x
Tailings	CF-11-02 (52-117) flotation tailings		NAF	-	NAF	
	CF-11-02 (227-367) flotation tailings		NAF	-	NAF	
	K-spar Breccia 0-5 comp. flotation tailings		NAF	-	NAF	
	K-spar Breccia 5+ comp. flotation tailings		NAF	-	NAF	
	Biotite Breccia 0-5 comp. flotation tailings		NAF	-	NAF	
	Biotite Breccia 5+ comp. flotation tailings		NAF	-	NAF	
	Quartz Monzonite 0-5 comp. flotation tailings		NAF	-	NAF	
	Quartz Monzonite 5+ comp. flotation tailings		NAF	-	NAF	
	Cu Ro. tailings		NAF	-	NAF	

* **PAF** = Potentially Acid Forming; **NAF** = Non-Acid Forming

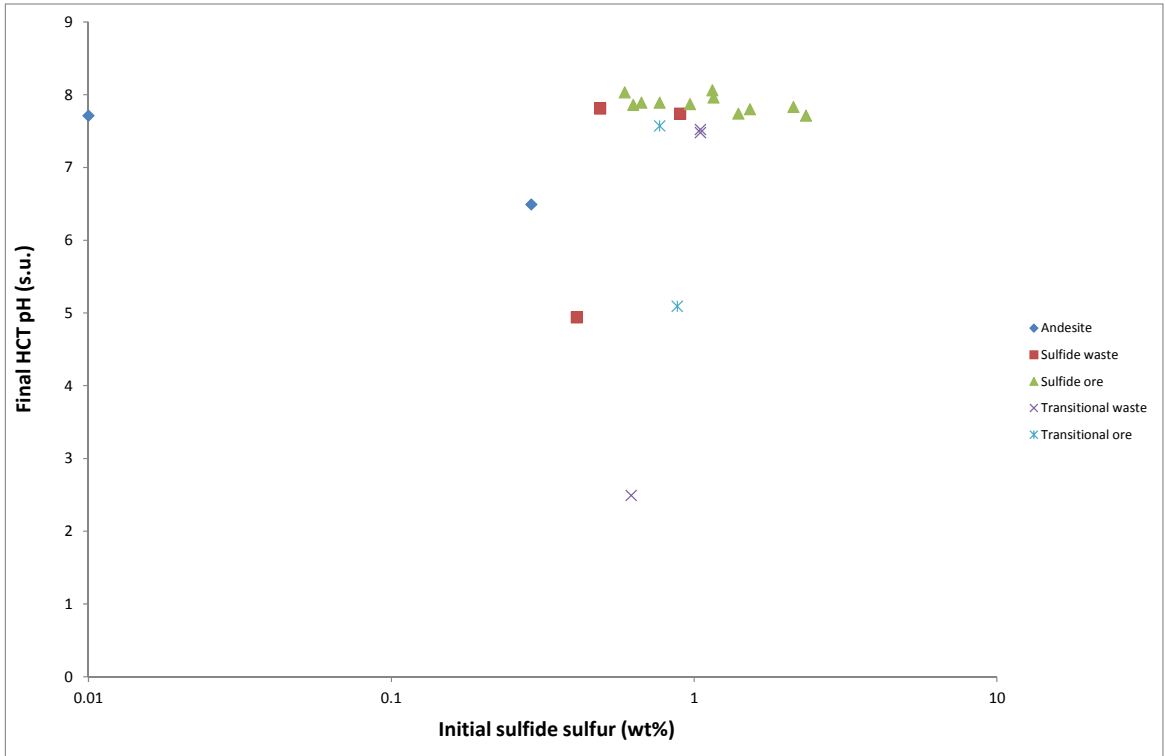


Figure 3-29: Sulfide sulfur vs. Final HCT pH

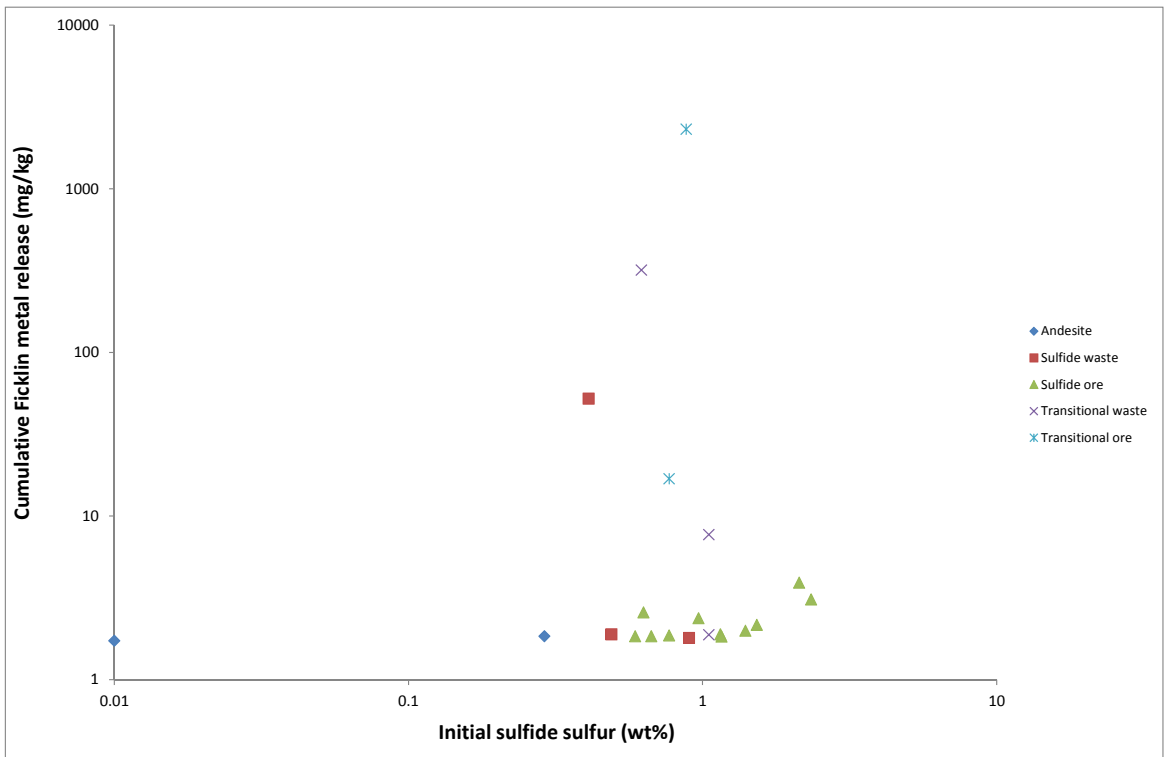


Figure 3-30: Sulfide sulfur vs. HCT Cumulative Ficklin Metal Release

4 Termination Testwork Results

The samples underwent geochemical characterization both before and after the humidity cell testwork. This included ABA and NAG testing and multi-element assay on both the initial (i.e., pre-leach) sample and the residual (i.e., post-leach) HCT material to allow the geochemical properties of the samples to be determined and interpreted along with the evolution of the leachate during the HCT.

Mineralogical analysis was also undertaken on seven of the post-HCT leached materials to assist in interpretation of the HCT results, in particular to assess why several of the samples that were predicted to be PAF by the static testwork results did not achieve acidic conditions in the HCT. Post-HCT mineralogical analysis included optical microscopy, SEM and XRD analysis.

The results of the termination testwork are detailed in the following sections.

4.1 Mineralogy

Mineralogical analysis was carried out on seven of the HCT residues and on one sample of pre-leach material to determine the mineralogical controls on acid generation and metal(loid) release, and in particular to understand why acid conditions did not develop in some of the cells despite elevated sulfide content and prolonged testing. The results are summarized in the following section and in Table 4-1. A full mineralogical report is provided in Appendix B, which includes detailed descriptions and photomicrographs of the samples.

The main sulfide minerals observed include pyrite (FeS_2) and chalcopyrite (CuFeS_2), which were present in all eight samples submitted for testing (Table 4-1). Galena (PbS) was also observed in two of the samples, and molybdenite was observed in three of the samples. Covellite (CuS) was observed in both the pre- and post-leach material for sample CF-11-02 (0-27ft).

There were two clear textural patterns for the occurrence of chalcopyrite and pyrite. Chalcopyrite tended to be fine-grained and encapsulated within quartz-feldspar composite particles (Figure 4-1). The only exceptions to this were samples SRK 0854 which produced acidic conditions during the HCT and the pre-leach sample for CF-11-02 (0-27ft). This indicates that the textural occurrence of chalcopyrite in cell SRK 0854 (i.e., liberated grains) likely contributed to its breakdown and subsequent acid generation in this cell. Pyrite within the samples was typically found to occur as either fine-grained crystals encapsulated in quartz-feldspar composite particles (Figure 4-2) or as medium- to coarse-grained euhedral crystals that are liberated (Figure 4-3). In general, all medium-/coarse-grained liberated examples of pyrite showed partial fracturing, occasionally to the point of disaggregation (i.e., fractures were connected and the grains were beginning to crumble). However, comparison with the pre-leach material demonstrates that the pyrite frequently exhibited this fractured texture *prior* to the humidity cell test, indicating that the fracturing and disaggregation observed in the post-HCT samples may not relate to breakdown of the sulfides during the test, but rather that this is a pre-existing texture. Furthermore, comparison with the humidity cell results demonstrates that this textural occurrence of pyrite only occasionally led to acid-generation (for example in cells SRK 0858 and SRK 0854), and that sulfate release from the humidity cells was typically slow, with low effluent concentrations. Sulfate rims around the pyrite grains (indicative of pyrite oxidation) were typically only observed in samples that developed acid conditions during the HCT (i.e., SRK 0854, SRK 0858 and 604673) as shown in Figure 4-4. Although, jarosite and

schwertmannite were present in association with sulfide grains for a few samples (SRK 0867, SRK 0872 and CF-11-02 (0-27)) this association did not lead to acid generation in these cells.

Identifying potential mineralogical controls that could account for the lack of acid generation in several of the humidity cells is complex but can be related to three factors including:

1. The nature of the sulfides as medium- to coarse- or well-crystallized grains, meaning they are thermodynamically stable and difficult to weather;
2. The inclusion of many of the finer-grained sulfides (particularly chalcopyrite) in non-reactive silicate gangue;
3. The presence of acid buffering silicate minerals, especially chlorite group minerals and also to a limited extent, the small amounts of calcite concentrations present in the samples.

These factors are discussed in more detail below.

Sulfide Mineral Texture

Some of the pyrite in the post-HCT samples is present as medium-grained, well-crystallized and liberated crystals, which show evidence of fracturing and partial disaggregation. Although this textural occurrence suggests that the pyrite grains are available for weathering/oxidation reactions, acidic conditions were not realized in the majority of cells despite prolonged testing. It is possible that the medium- to coarse-grained and equigranular nature of the pyrite in the Copper Flat material means it is more likely to be thermodynamically stable and difficult to weather. Reasons for slow pyrite weathering have also been the topic of recent research and some have suggested that it may also relate to the trace element content of the pyrite, with the presence of cobalt and nickel slowing the rate of reaction (Lehner et al. 2007; Lehner and Savage, 2008; Parbhaker-Fox et al., 2013). Furthermore, there is little evidence of significant sulfide weathering in the majority of samples and products of sulfide oxidation such as jarosite and schwertmannite are generally absent. This demonstrates that the lack of acid generation may be explained by the stability of the sulfides rather than by significant neutralization in the cells.

Inclusion of Sulfides in Non-reactive Silicate Gangue

Encapsulation of chalcopyrite within a silicate gangue (quartz-feldspar) was common within the Copper Flat samples. Encapsulation of pyrite was also observed, however to a lesser extent than chalcopyrite. This textural occurrence limits the availability of these sulfide minerals for oxidation/weathering reactions, thus reducing the potential for acid generation. The only post-leach sample in which chalcopyrite occurred as medium-grained and liberated crystals was sample SRK 0854, which was one of the only cells to produce acidic conditions during the HCT. This supports the assumption that the textural occurrence of chalcopyrite in cell SRK 0854 likely contributed to its breakdown and subsequent acid generation in this cell.

Presence of Buffering Silicate Minerals

Although the occurrence of acid buffering carbonate minerals in the samples was found to be limited, the presence of silicate minerals such as phlogopite and clinocllore were more abundant and may offer some silicate buffering potential. Carbonate minerals in the form of calcite or ankerite were only observed in four of the eight cells at proportions of generally less than one percent (1%) by area (Table 4-1). In general the carbonates were very fine-grained and frequently encapsulated within quartz-feldspar composites (Figure 4-5), indicating they may not be available to contribute to acid buffering reactions, or at least slow to react and their proportions are too low to account for significant acid neutralization in the cells. The ABA testwork results (SRK, 2012) are consistent with these observations and demonstrate that carbonate proportions are considerably lower than the sulfide proportions. The encapsulation of carbonates may also account for the fact that generally greater than 70% of the original neutralization potential was remaining in the cells at the end of the humidity cell testwork period (Figure 3-13).

Despite the limited presence of carbonate minerals in the samples, the silicate minerals phlogopite and/or chlinocllore were observed in all eight samples submitted for testing. These minerals are known to offer some buffering capacity and may be one of the reasons why acidic conditions were not achieved in the majority of the Copper Flat humidity cells.

4.1.1 Additional Mineralogical Observations

For the three cells that showed evidence of acid generation during the HCT program (SRK 0854, SRK 0858 and 604673), there is a correlation between acid generation and copper release from these cells (Table 4-2). This may relate to the proportion of liberated chalcopyrite or copper sulfate minerals present in the initial (i.e., pre-leach) samples. Coarse liberated chalcopyrite grains were observed in cell SRK 0854 which presented the greatest copper release during the HCT. Similarly, the presence of copper sulfate minerals such as brochantite have been previously identified from grab sample assessment as being a likely component of the transitional samples. Although copper sulfate minerals were not identified in the current mineralogical assessment, this likely relates to the flushing of these minerals (i.e., consumption) during the HCT testwork. Therefore the breakdown of these copper sulfate minerals may be driving the observed acid generation in these cells and the apparent slow reactivity of the pyrite grains may lead to increased or eventual initiation of acid generation over much longer timescales.

Table 4-1: Summary of Post-HCT Mineralogy

		SRK Sample ID	SRK 0854	SRK 0858	SRK 0867	SRK 0872	604673	604767	CF-11-02 (0-27) (Post HCT)	CF-11-02 (0-27) (Pre HCT)
		HCT Behaviour	PAF	PAF	NAF	NAF	PAF	NAF	NAF	NAF
		Lithology → Ideal chemistry ↓	Transitional Ore	Transitional Waste	Transitional Ore	Transitional Waste	Sulfide Waste	Sulfide Ore	Transitional Waste	Transitional Waste
	Quartz	SiO ₂	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
	Thorite	(Th,U)SiO ₄			X					
	Titanite	CaTi(SiO ₄)O			X	X				
	Magnetite	Fe ₃ O ₄	X			X				
	Fluorite	CaF ₂						X		
	Zircon	ZrSiO ₄							X	
	Rutile	TiO ₂	X	X		X	X	X	X	X
Clay Minerals	Kaolinite	AlSi ₂ O ₅ (OH) ₄		XX	XX	XX		XX		
	Illite	K _{0.65} Al ₂ [(Si,Al) ₄ O ₁₀](OH) ₂	XXX	XX	XXX	XXX	XX	XXX	XXX	XXX
	Clinochlore	(Mg,Fe ²⁺) ₅ Al(AlSi ₃ O ₁₀)(OH) ₈	XX			X	XX	X	XX	XX
	Phlogopite	KMg ₃ (AlSi ₃ O ₁₀)(OH,F) ₂		X	X	X		X	X	X
Feldspars	Albite	NaAlSi ₃ O ₈	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
	Orthoclase	(K,Na)AlSi ₃ O ₈	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Phosphates & Sulfates	Monazite	(Ce,La,Nd,Th)(PO ₄)			X					
	Jarosite	KFe ³⁺ ₃ (SO ₄) ₂ (OH) ₆		X	X					
	Schwertmannite	Fe ₈ O ₈ (OH) ₆ (SO ₄).nH ₂ O	X	X		X	X		X	X
	Fluorapatite	Ca ₅ (PO ₄) ₃ F	X	X		X		X	X	X
	Baryte	BaSO ₄				X		X		
Carbonates	Ankerite	Ca(Fe ²⁺ ,Mg)(CO ₃) ₂						X		X
	Calcite	CaCO ₃			X				X	
Sulfides	Covellite	CuS							X	X
	Chalcopyrite	CuFeS ₂	X	X	X	X	X	X	X	X
	Galena	PbS	X					X		
	Molybdenite	MoS	X				X	X		
	Pyrite	FeS ₂	X	X	X	X	X	X	X	X
X	Trace Minerals (<1% by area)									
XX	Minor Minerals (1-10% by area)									
XXX	Major Minerals (> 10% by area)									

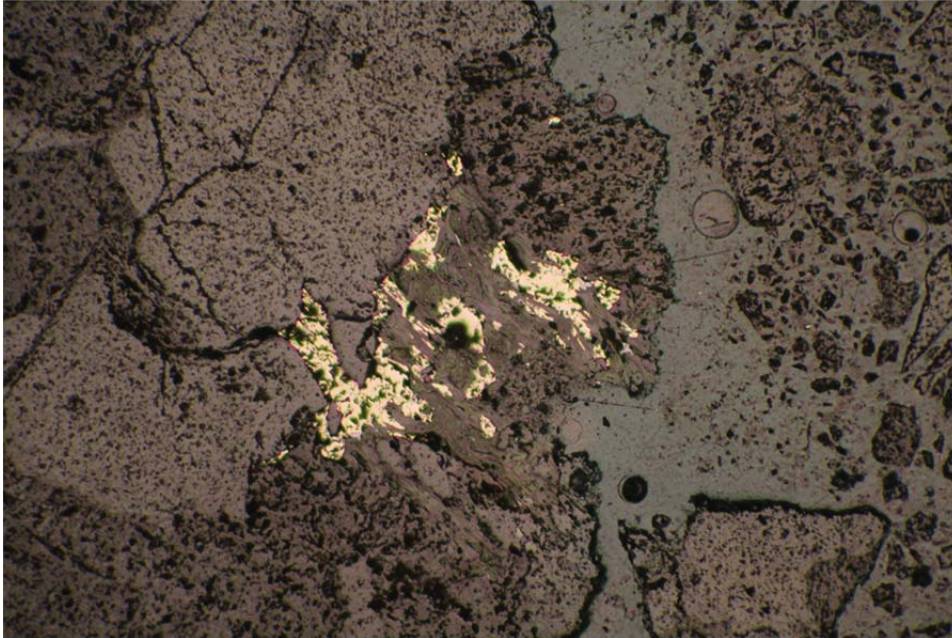


Figure 4-1: Fine-grained chalcopyrite included within quartz-feldspar grains in sample 604673

Reflected Light Image (x5 magnification). This is typical of much of the copper-sulfide mineralization within this sample.

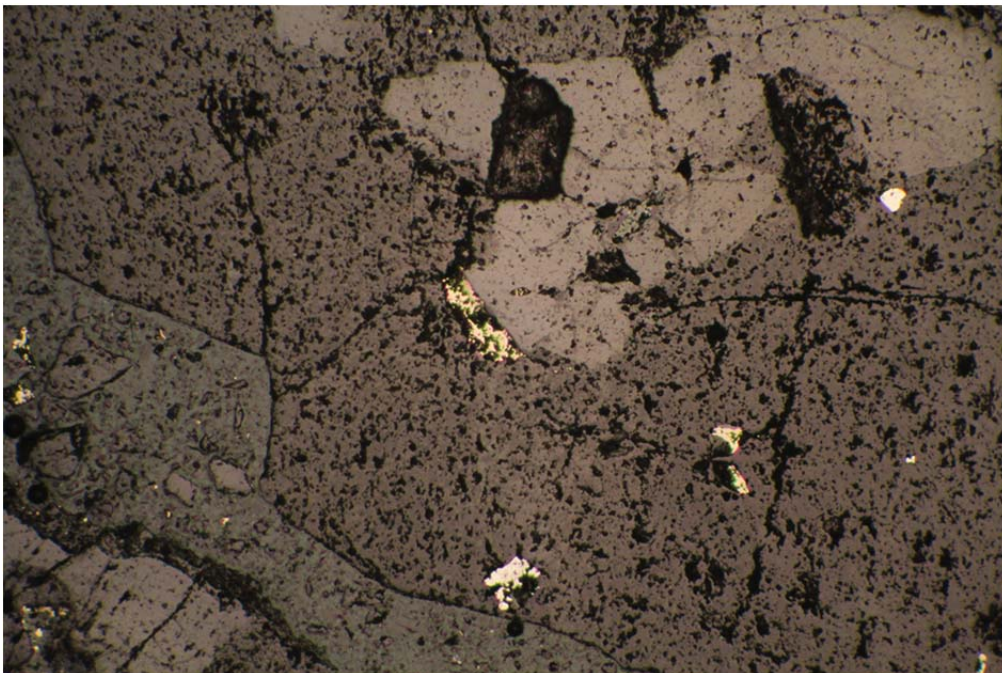


Figure 4-2: Inclusions of fine-grained sulfides with quartz-feldspar composite particles in sample 604767

Reflected Light Image (x5 magnification)

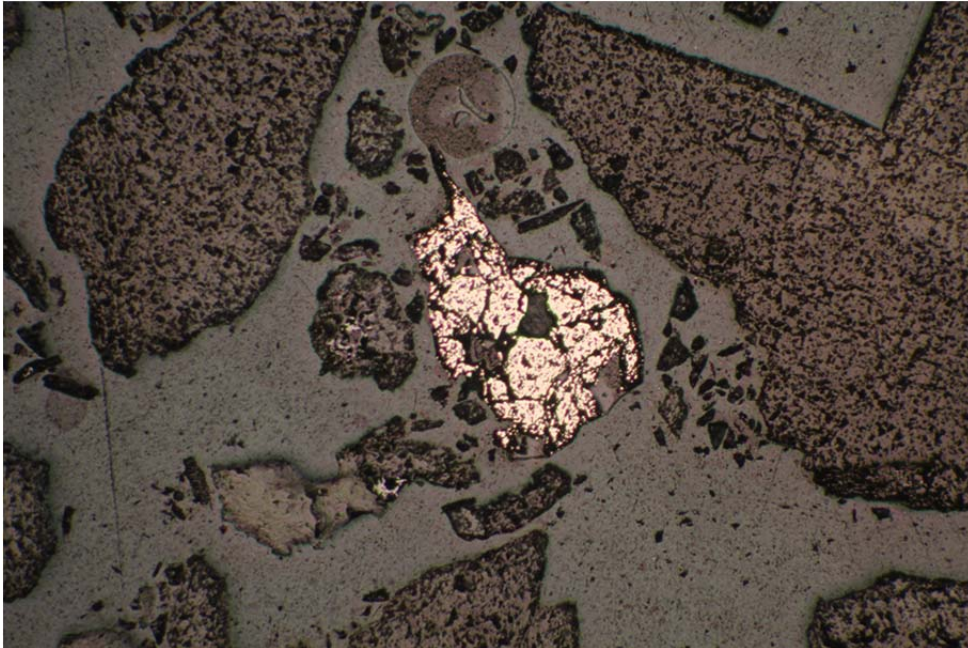


Figure 4-3: Coarse-grained liberated pyrite in sample SRK 0858

Reflected light image (x5 magnification). Coarse liberated pyrite grain showing a high degree of internal fracturing and granulation.

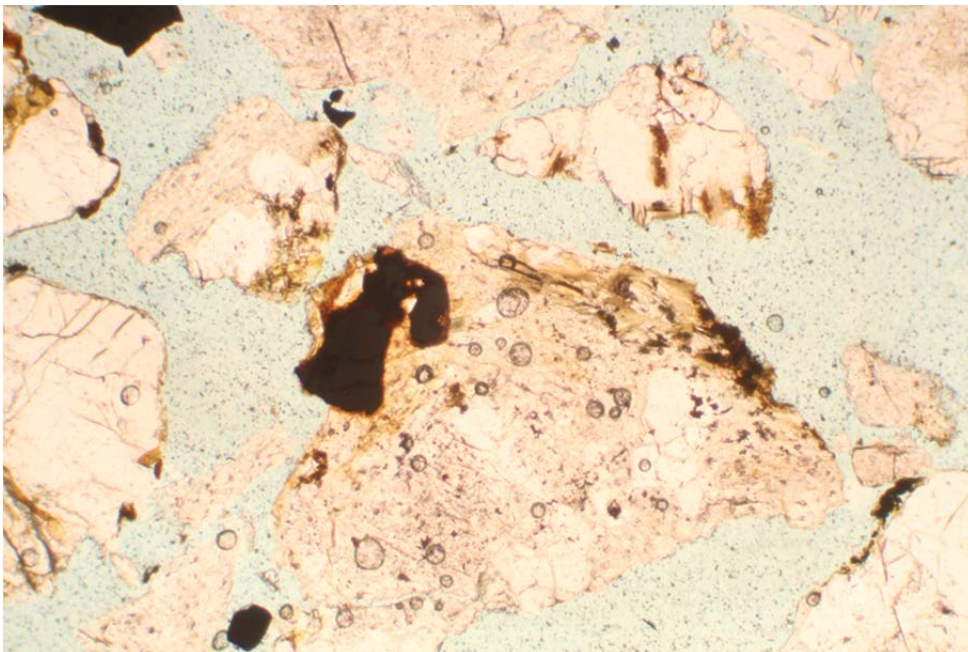


Figure 4-4: Sulfide weathering in sample SRK 0854

Plane Polarized Image (x5 magnification). Particles of quartz and feldspar with sulfide inclusions. Just to the left of the center of the field of view is an opaque pyrite grain showing brown sulfate weathering around the edges, indicating that sulfide breakdown was beginning to occur within the cell.

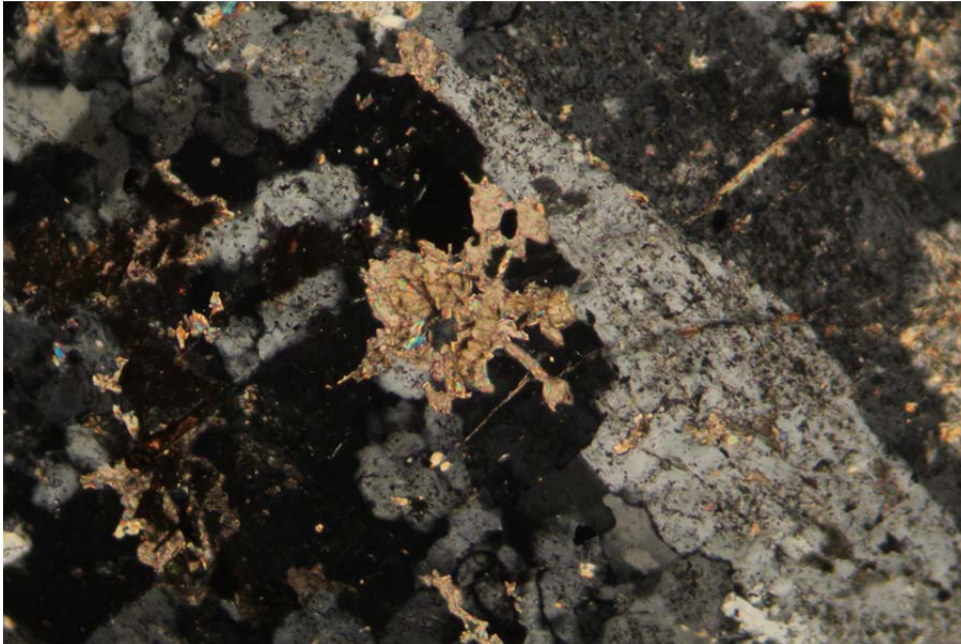
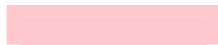


Figure 4-5: Fine-grained calcite included within a composite particle of quartz and feldspar in sample SRK 0867

Cross Polarized Image (x10 magnification)

Table 4-2: Mineralogy sample HCT copper release

Material type	Sample ID	Final HCT pH	Head Copper Assay (mg/kg)	Residue Copper Assay (mg/kg)	Cumulative Copper Release During HCT (mg/kg)	% of Copper Assay Mobilized During HCT
Sulfide Ore	604 767	7.83	5,972	5,970	2	0.04%
Sulfide Waste	604 673	4.94	1,198	1,150	48	4.04%
Transitional Ore	SRK 0854	5.12	9,780	7,490	2,290	23.4%
	SRK 0867	7.57	2,415	2,400	15	0.64%
Transitional Waste	SRK 0858	2.49	562	249	313	55.7%
	SRK 0872	7.28	875	870	5	0.61%
	CF-11-02 (0-27)	7.80	1,371	1,370	1	0.11%



Indicates acidic conditions achieved in HCT testwork

4.2 Acid Base Accounting

The pre-and post-leach ABA results for the waste rock, ore and tailings samples are summarized in Table 4-3. This shows that typically less than 10 percent of the original sulfur content was mobilized from the Copper Flat materials during the humidity cell testwork. The generally low sulfur mobilization reflects the slow weathering rates of the Copper Flat materials (consistent with Figure 3-14). The only exceptions include the samples of andesite and tailings material that were characterized by low initial sulfur contents as well as the samples that generated acidic conditions during the HCT. For example the sample that produced the most strongly acidic conditions (SRK 0858) showed the highest levels of sulfur mobilization during the humidity cell test, with 25% of the original sulfur content being released. Laboratory reports for the termination tests are provided in Appendix C.

The post-leach HCT results also demonstrate that there has been loss of inorganic carbon (i.e., neutralization potential) from the samples during the humidity cell test, due to consumption of neutralizing minerals through dissolution reactions. However, in most cases less than 30% of the initial NP was consumed during the test, indicating that acid neutralizing potential still exists in the samples. This is consistent with the calculated consumption of NP during the humidity cell test shown in Figure 3-13.

The paste pH for most samples did not change significantly between the initial and residual samples. The exceptions are cell 604673 (sulfide waste) and SRK 0858 (transitional waste), which produced considerably more acidic paste pH values in the post-leach material. The lower paste pH observed for these humidity cell residues relates to the development of acidic conditions in these cells.

Table 4-3: Pre- and Post-HCT ABA Results

Material type	Sample ID	Total sulfur (wt%)			Total inorganic carbon (wt%)			Paste pH (s.u.)	
		Head assay*	Residue assay	% mobilized during HCT	Head assay†	Residue assay	% consumed during HCT	Initial	Residue
Andesite	SRK 0864	0.03	0.01	61%	0.03	0.27	16%	7.59	8.19
	SRK 0866	0.25	0.23	7%	0.25	0.18	24%	7.70	8.04
Sulfide ore	604 562	1.77	1.69	4%	1.77	0.40	40%	7.97	7.84
	604 606	0.92	0.89	3%	0.92	0.24	32%	7.98	8.10
	604 653	1.00	0.96	4%	1.00	0.25	38%	8.09	8.01
	604 656	0.78	0.75	3%	0.78	0.62	15%	7.93	7.62
	604 669	0.88	0.82	6%	0.88	0.04	85%	8.07	7.51
	604 767	2.71	2.62	3%	2.71	0.19	63%	7.88	7.68
	604 787	1.37	1.33	3%	1.37	0.37	29%	8.02	7.75
	604 811	1.49	1.46	2%	1.49	0.35	24%	7.93	7.79
	604 854	1.80	1.74	3%	1.80	0.27	42%	8.15	8.03
	604 862	1.54	1.51	2%	1.54	0.44	23%	8.04	7.64
	604 867	2.88	2.74	5%	2.88	0.28	61%	8.03	7.66
605 033	1.26	1.23	2%	1.26	0.30	26%	8.17	8.05	
Sulfide waste	604 673	0.52	0.47	10%	0.52	0.01	93%	8.10	5.39
	605 153	0.61	0.59	3%	0.61	0.46	11%	8.60	8.11
	CF-11-02 (367-408)	1.11	1.10	1%	1.11	0.21	20%	8.49	8.34
Transitional ore	SRK 0854	1.17	0.95	19%	1.17	0.02	97%	4.80	5.45
	SRK 0867	1.04	0.96	8%	1.04	0.08	76%	6.46	7.57
Transitional waste	604 569	1.25	1.23	2%	1.25	0.20	28%	8.30	8.19
	SRK 0858	1.13	0.85	25%	1.13	0.00	100%	4.91	3.95
	SRK 0872	1.69	1.52	10%	1.69	0.02	97%	6.29	7.37
	CF-11-02 (0-27)	1.75	1.73	1%	1.75	0.26	23%	8.07	8.11
Tailings	CF-11-02 (227-367) Flotation Tailings	0.05	0.04	26%	0.05	0.26	19%	8.50	8.38
	CF-11-02 (52-117) Flotation Tailings	0.07	0.05	24%	0.07	0.29	16%	8.37	8.28
	K-Spar Breccia 5+ Comp. Flotation Tailings	0.40	0.36	10%	0.40	0.42	26%	8.28	8.09
	Biotite Breccia 5+ Comp. Flotation Tailings	0.26	0.24	8%	0.26	0.37	20%	8.49	8.39
	Quartz Monzonite 5+ Comp. Flotation Tailings	0.09	0.07	20%	0.09	0.32	19%	8.33	8.34
	Biotite Breccia 0-5 Comp. Flotation Tailings	1.09	1.07	2%	1.09	0.41	18%	8.00	8.14
	K-Spar Breccia 0-5 Comp. Flotation Tailings	1.02	1.00	2%	1.02	0.37	17%	8.07	8.11
	Quartz Monzonite 0-5 Comp. Flotation Tailings	0.78	0.76	2%	0.78	0.38	17%	7.89	8.00
	Cu Ro. Tail	0.80	0.77	4%	0.80	0.40	19%	8.12	8.09

* Reconstituted head assay for sulfur calculated from HCT residue sulfur plus cumulative sulfur release during HCT

† Reconstituted head assay for inorganic carbon calculated from residue carbon plus cumulative alkalinity release during HCT

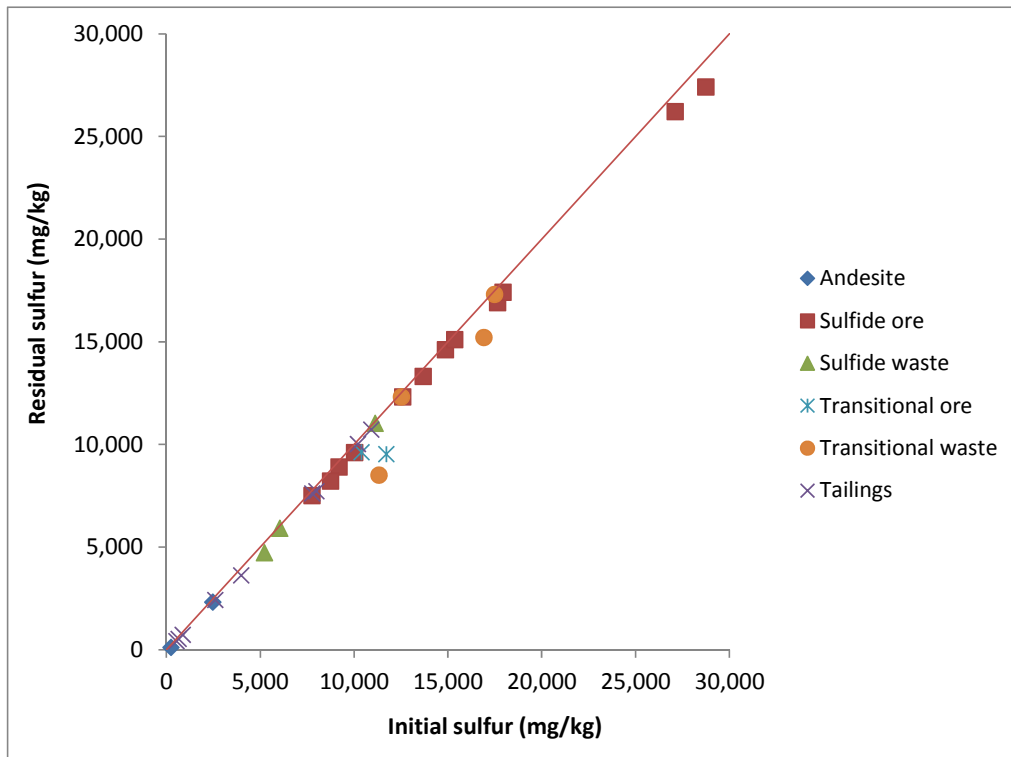


Figure 4-6: Scatter Plot of Initial vs. Residue Sulfur

4.3 Net Acid Generation

The pre- and post-leach NAG results for the waste rock, ore and tailings samples are summarized in Table 4-4. This demonstrates that there has been little change in NAG pH and NAG value between the pre- and post-HCT leached material. This supports the observation that the NAG test results are a better prediction of acid generation for the Copper Flat materials than the ABA testwork (see Section 3.2). Laboratory reports for the termination tests are provided in Appendix C.

Table 4-4: Pre- and Post-HCT NAG Results

Material type	Sample ID	NAG pH		NAG value (kg H ₂ SO ₄ eq/t)	
		Initial	Residue	Initial	Residue
Andesite	SRK 0864	8.29	7.04	0	0
	SRK 0866	3.23	3.83	4.9	5.7
Sulfide ore	604 562	7.75	8.10	0	0
	604 606	9.60	8.13	0	0
	604 653	8.38	8.17	0	0
	604 656	8.20	7.97	0	0
	604 669	4.08	2.95	0	10.3
	604 767	3.21	2.63	17.3	17.5
	604 787	8.00	4.96	0	0
	604 811	8.42	7.94	0	0
	604 854	5.08	5.66	0	0
	604 862	8.28	7.78	0	0
	604 867	4.24	4.21	0	0
605 033	8.30	8.04	0	0	
Sulfide waste	604 673	3.66	2.78	5.29	9.7
	605 153	8.56	7.97	0	0
	CF-11-02 (367-408)	2.78	2.85	14.0	12.4
Transitional ore	SRK 0854	3.77	4.01	11.0	0
	SRK 0867	4.35	2.81	0	11.6
Transitional waste	604 569	8.33	8.01	0	0
	SRK 0858	3.15	2.59	9.22	16.3
	SRK 0872	3.14	2.82	8.82	25.4
	CF-11-02 (0-27)	3.28	2.69	9.24	17.1
Tailings	Cu Ro. Tail	9.23	9.88	0	0

 Indicates PAF characteristics

4.4 Multi Element Analysis

The head and residue assays for the HCT samples are summarized in Table 4-5 to Table 4-8, which show the amount of leaching during the humidity cell test for key parameters relating to ARDML. Laboratory reports for the termination tests are provided in Appendix C.

The most significant metal(loid) release was generally observed from the sulfide ore and waste samples, which relates to both the higher initial trace elemental content of this material and also the marginally greater reactivity from these samples during the humidity cell test. In contrast, copper, molybdenum and manganese generally showed the highest mobilization from the transitional materials, which relates to the flushing of readily-soluble surficial salts from the surface of the transitional materials during the test. For example typically less than 1% of the initial copper inventory was leached from the sulfide samples during the humidity cell test compared to up to 56% from the transitional material.

There was generally minimal difference between the head and residue assays for the andesite material and tailings samples (Table 4-5 to Table 4-8), which relates to the generally low reactivity of these materials and also the low levels of metal(loid) release observed during the humidity cell test. The exceptions are molybdenum and sulfur, where a greater proportion of the initial inventory was leached but the initial (i.e., head assay) concentrations were much lower than the other material types.

Table 4-5: Pre- and Post-HCT Multi-Element Results (Arsenic, Cadmium and Chromium)

Material type	Sample ID	As				Cd				Cr			
		Head assay* (mg/kg)	Residue assay (mg/kg)	Cum. release during HCT (mg/kg)	% mobilized during HCT	Head assay* (mg/kg)	Residue assay (mg/kg)	Cum. release during HCT (mg/kg)	% mobilized during HCT	Head assay* (mg/kg)	Residue assay (mg/kg)	Cum. release during HCT (mg/kg)	% mobilized during HCT
Andesite	SRK 0864	0.9	0.8	0.10	11%	3.18	3.16	0.02	1%	47.1	47.0	0.10	0.2%
	SRK 0866	1.0	0.9	0.11	11%	0.07	0.05	0.02	30%	14.1	14.0	0.11	1%
Sulfide ore	604 562	1.0	0.9	0.11	11%	5.38	5.36	0.02	0.4%	7.11	7.00	0.11	2%
	604 606	0.6	0.5	0.11	18%	0.14	0.12	0.02	16%	6.11	6.00	0.11	2%
	604 653	0.6	0.5	0.11	18%	0.23	0.21	0.02	10%	7.11	7.00	0.11	2%
	604 656	0.5	0.4	0.11	22%	0.04	0.02	0.02	52%	6.11	6.00	0.11	2%
	604 669	2.0	1.9	0.15	7%	0.97	0.94	0.03	3%	2.15	2.00	0.15	7%
	604 767	15.5	15.3	0.23	1%	2.84	2.80	0.04	2%	2.22	2.00	0.22	10%
	604 787	9.0	8.9	0.14	2%	1.25	1.22	0.03	2%	1.14	1.00	0.14	12%
	604 811	8.5	8.4	0.12	1%	1.15	1.13	0.02	2%	7.11	7.00	0.11	2%
	604 854	18.0	17.9	0.11	0.6%	1.81	1.79	0.02	1%	4.11	4.00	0.11	3%
	604 862	11.1	11.0	0.11	1%	0.46	0.44	0.02	5%	3.11	3.00	0.11	4%
	604 867	1.7	1.6	0.11	7%	1.42	1.40	0.02	2%	6.11	6.00	0.11	2%
605 033	4.9	4.8	0.11	2%	0.98	0.96	0.02	2%	7.11	7.00	0.11	2%	
Sulfide waste	604 673	1.5	1.0	0.46	32%	0.20	0.11	0.09	44%	1.31	1.00	0.31	23%
	605 153	0.6	0.5	0.12	19%	1.12	1.10	0.02	2%	8.11	8.00	0.11	1%
	CF-11-02 (367-408)	2.0	1.8	0.15	8%	0.27	0.24	0.03	11%	1.14	1.00	0.14	13%
Transitional ore	SRK 0854	4.4	4.1	0.30	7%	0.73	0.50	0.23	32%	4.26	4.00	0.26	6%
	SRK 0867	5.2	5.1	0.12	2%	0.43	0.40	0.03	8%	6.12	6.00	0.12	2%
Transitional waste	604 569	0.9	0.8	0.12	13%	0.21	0.19	0.02	10%	6.11	6.00	0.11	2%
	SRK 0858	1.3	1.2	0.15	11%	0.17	0.04	0.13	77%	2.46	2.00	0.46	19%
	SRK 0872	2.7	2.4	0.29	11%	0.31	0.24	0.07	22%	4.25	4.00	0.25	6%
	CF-11-02 (0-27)	3.8	3.6	0.17	4%	0.35	0.31	0.04	11%	1.15	1.00	0.15	13%
Tailings	CF-11-02 (227-367) Flot. Tails	1.6	1.4	0.16	10%	0.19	0.16	0.03	14%	8.13	8.00	0.13	2%
	CF-11-02 (52-117) Flot. Tails	0.6	0.5	0.10	17%	0.15	0.13	0.02	13%	9.09	9.00	0.09	1%
	K-Spar Breccia 5+ Comp. Flot. Tails	2.3	2.2	0.14	6%	0.58	0.55	0.03	5%	15.1	15.0	0.13	1%
	Biotite Breccia 5+ Comp. Flot. Tails	1.3	1.2	0.10	8%	0.33	0.31	0.02	6%	7.10	7.00	0.10	1%
	Quartz Monzonite 5+ Comp. Flot. Tails	0.3	0.2	0.10	34%	0.14	0.12	0.02	14%	10.1	10.0	0.10	1%
	Biotite Breccia 0-5 Comp. Flot. Tailings	8.0	7.9	0.14	2%	0.78	0.75	0.03	3%	280	280	0.13	0.05%
	K-Spar Breccia 0-5 Comp. Flot. Tails	6.8	6.7	0.13	2%	0.60	0.57	0.03	4%	284	284	0.13	0.04%
	Quartz Monzonite 0-5 Comp. Flot. Tails	3.3	3.2	0.14	4%	0.80	0.77	0.03	3%	269	269	0.13	0.05%
Cu Ro. Tail	5.3	5.2	0.07	1%	0.80	0.79	0.01	2%	17.1	17.0	0.07	0.40%	

* Reconstituted head calculated from residue assay plus cumulative metal release during HCT

Table 4-6: Pre- and Post-HCT Multi-Element Results (Copper, Iron and Manganese)

Material type	Sample ID	Cu				Fe				Mn			
		Head assay* (mg/kg)	Residue assay (mg/kg)	Cum. release during HCT (mg/kg)	% mobilized during HCT	Head assay* (mg/kg)	Residue assay (mg/kg)	Cum. release during HCT (mg/kg)	% mobilized during HCT	Head assay* (mg/kg)	Residue assay (mg/kg)	Cum. release during HCT (mg/kg)	% mobilized during HCT
Andesite	SRK 0864	541	540	1.03	0.2%	61,000	61,000	0.29	0.0005%	1150	1150	0.2	0.02%
	SRK 0866	177	176	1.09	0.6%	58,200	58,200	0.25	0.0004%	776	776	0.3	0.03%
Sulfide ore	604 562	5,371	5,370	1.11	0.02%	30,100	30,100	0.28	0.0009%	658	650	7.8	1%
	604 606	1,606	1,605	1.10	0.1%	19,400	19,400	0.23	0.001%	178	177	1.0	0.5%
	604 653	2,091	2,090	1.11	0.1%	32,700	32,700	0.25	0.0008%	537	532	4.7	0.9%
	604 656	2,261	2,260	1.11	0.05%	23,500	23,500	0.22	0.0009%	656	654	1.8	0.3%
	604 669	3,261	3,260	1.49	0.05%	16,601	16,600	0.52	0.003%	337	319	17.9	5.3%
	604 767	5,972	5,970	2.19	0.04%	36,201	36,200	0.52	0.001%	320	306	13.6	4.3%
	604 787	5,961	5,960	1.42	0.02%	31,000	31,000	0.36	0.001%	271	269	2.2	0.8%
	604 811	2,581	2,580	1.13	0.04%	27,000	27,000	0.23	0.0008%	257	256	0.9	0.4%
	604 854	4,491	4,490	1.21	0.03%	27,700	27,700	0.27	0.001%	231	228	2.9	1%
	604 862	5,141	5,140	1.10	0.02%	125,500	125,500	0.28	0.0002%	748	747	1.1	0.1%
604 867	14,302	14,300	2.30	0.02%	109,500	109,500	0.22	0.0002%	551	548	3.5	0.6%	
605 033	2,081	2,080	1.08	0.1%	48,300	48,300	0.22	0.0004%	471	470	1.3	0.3%	
Sulfide waste	604 673	1,198	1,150	48.4	4.0%	8,201	8,200	1.09	0.01%	33	31	2.4	7%
	605 153	614	613	1.13	0.2%	23,700	23,700	0.27	0.001%	895	894	0.7	0.08%
	CF-11-02 (367-408)	1,472	1,470	1.50	0.1%	31,500	31,500	0.43	0.001%	370	369	0.6	0.2%
Transitional ore	SRK 0854	9,780	7,490	2,290	23%	20,121	20,100	21.1	0.10%	79	62	17.3	22%
	SRK 0867	2,415	2,400	15.5	0.6%	21,202	21,200	1.89	0.009%	177	166	11.2	6%
Transitional waste	604 569	1,481	1,480	1.11	0.1%	29,000	29,000	0.30	0.001%	368	366	1.6	0.4%
	SRK 0858	562	249	313	56%	23,286	22,500	786	3%	88	79	9.2	10%
	SRK 0872	875	870	5.35	0.6%	22,704	22,700	3.84	0.02%	120	112	8.4	7%
	CF-11-02 (0-27)	1,371	1,370	1.47	0.1%	33,801	33,800	0.55	0.002%	287	286	1.0	0.4%
Tailings	CF-11-02 (227-367) Flot. Tails	274	273	1.32	0.5%	26,001	26,000	0.84	0.003%	360	359	0.7	0.2%
	CF-11-02 (52-117) Flot. Tails	270	269	0.95	0.4%	26,600	26,600	0.31	0.001%	355	355	0.4	0.1%
	K-Spar Breccia 5+ Comp. Flot. Tails	882	881	1.30	0.1%	13,900	13,900	0.26	0.002%	215	214	1.2	0.6%
	Biotite Breccia 5+ Comp. Flot. Tails	748	747	1.00	0.1%	20,500	20,500	0.40	0.002%	399	398	0.8	0.2%
	Quartz Monzonite 5+ Comp. Flot. Tails	397	396	1.01	0.3%	15,100	15,100	0.26	0.002%	231	231	0.4	0.2%
	Biotite Breccia 0-5 Comp. Flot. Tails	181	180	1.27	0.7%	31,900	31,900	0.42	0.001%	392	391	0.5	0.1%
	K-Spar Breccia 0-5 Comp. Flot. Tails	217	216	1.29	0.6%	24,600	24,600	0.44	0.002%	282	281	0.6	0.2%
	Quartz Monzonite 0-5 Comp. Flot. Tails	193	192	1.27	0.7%	21,400	21,400	0.44	0.002%	299	299	0.5	0.2%
	Cu Ro. Tail	741	740	0.69	0.1%	25,200	25,200	0.14	0.0005%	455	454	0.7	0.1%

* Reconstituted head calculated from residue assay plus cumulative metal release during HCT

Table 4-7: Pre- and Post-HCT Multi-Element Results (Molybdenum, Nickel and Lead)

Material type	Sample ID	Mo				Ni				Pb			
		Head assay* (mg/kg)	Residue assay (mg/kg)	Cum. release during HCT (mg/kg)	% mobilized during HCT	Head assay* (mg/kg)	Residue assay (mg/kg)	Cum. release during HCT (mg/kg)	% mobilized during HCT	Head assay* (mg/kg)	Residue assay (mg/kg)	Cum. release during HCT (mg/kg)	% mobilized during HCT
Andesite	SRK 0864	2.2	1.8	0.43	20%	25.8	25.6	0.21	1%	10.3	10.2	0.05	0.5%
	SRK 0866	3.0	2.7	0.30	10%	7.52	7.3	0.22	3%	6.95	6.90	0.05	0.8%
Sulfide ore	604 562	18.7	18.5	0.22	1%	2.12	1.9	0.22	10%	416	416	0.07	0.02%
	604 606	11.4	11.1	0.34	3%	1.72	1.5	0.22	13%	17.1	17.0	0.06	0.3%
	604 653	51.9	51.4	0.53	1%	2.12	1.9	0.22	10%	21.5	21.4	0.06	0.3%
	604 656	445	444	1.01	0.2%	1.72	1.5	0.22	13%	14.6	14.5	0.06	0.4%
	604 669	88.1	87.6	0.54	1%	1.50	1.2	0.30	20%	112	112	0.07	0.1%
	604 767	26.6	26.1	0.47	2%	4.34	3.9	0.44	10%	101	101	0.11	0.1%
	604 787	136	135	0.85	1%	2.68	2.4	0.28	11%	67.6	67.5	0.07	0.1%
	604 811	97.4	97.0	0.35	0.4%	4.03	3.8	0.23	6%	51.0	50.9	0.06	0.1%
	604 854	474	473	0.78	0.2%	4.02	3.8	0.22	6%	32.9	32.8	0.06	0.2%
	604 862	558	558	0.35	0.1%	9.72	9.5	0.22	2%	9.85	9.80	0.05	0.6%
604 867	496	496	0.38	0.1%	12.4	12.2	0.22	2%	10.2	10.1	0.06	0.5%	
605 033	59.1	58.6	0.46	1%	4.72	4.5	0.22	5%	39.8	39.7	0.05	0.1%	
Sulfide waste	604 673	156	155	1.07	1%	1.61	1.0	0.61	38%	21.6	21.3	0.29	1%
	605 153	21.9	21.7	0.24	1%	3.43	3.2	0.23	7%	28.3	28.2	0.06	0.2%
	CF-11-02 (367-408)	5.0	4.8	0.30	6%	3.79	3.5	0.29	8%	18.3	18.2	0.07	0.4%
Transitional ore	SRK 0854	622	621	0.51	0.1%	3.99	3.3	0.69	17%	72.1	71.8	0.34	0.5%
	SRK 0867	66.5	66.1	0.44	1%	6.80	6.4	0.40	6%	29.9	29.8	0.06	0.2%
Transitional waste	604 569	4.7	4.5	0.27	6%	1.92	1.7	0.22	12%	21.5	21.4	0.06	0.3%
	SRK 0858	6.3	5.9	0.37	6%	1.38	1.0	0.38	28%	15.6	15.4	0.15	1%
	SRK 0872	19.2	12.3	6.88	36%	2.30	1.8	0.50	22%	35.2	35.1	0.12	0.4%
	CF-11-02 (0-27)	3.0	2.6	0.35	12%	2.59	2.3	0.29	11%	21.5	21.4	0.07	0.3%
Tailings	CF-11-02 (227-367) Flot. Tails	3.2	2.9	0.26	8%	3.86	3.6	0.26	7%	24.2	24.1	0.07	0.3%
	CF-11-02 (52-117) Flot. Tails	3.1	2.9	0.19	6%	3.89	3.7	0.19	5%	16.7	16.7	0.05	0.3%
	K-Spar Breccia 5+ Comp. Flot. Tails	51.1	49.8	1.35	3%	6.06	5.8	0.26	4%	62.3	62.2	0.06	0.1%
	Biotite Breccia 5+ Comp. Flot. Tails	14.4	14.2	0.24	2%	5.60	5.4	0.20	4%	15.2	15.1	0.05	0.3%
	Quartz Monzonite 5+ Comp. Flot. Tails	36.4	35.1	1.34	4%	5.90	5.7	0.20	3%	12.7	12.6	0.05	0.4%
	Biotite Breccia 0-5 Comp. Flot. Tails	38.1	37.3	0.80	2%	182	182	0.25	0.1%	34.6	34.5	0.06	0.2%
	K-Spar Breccia 0-5 Comp. Flot. Tails	33.1	32.1	0.97	3%	197	197	0.25	0.1%	29.1	29.0	0.06	0.2%
	Quartz Monzonite 0-5 Comp. Flot. Tails	28.3	27.9	0.43	2%	175	175	0.25	0.1%	33.2	33.1	0.06	0.2%
	Cu Ro. Tail	17.6	17.3	0.34	2%	13.14	13.0	0.14	1%	57.5	57.5	0.03	0.1%

* Reconstituted head calculated from residue assay plus cumulative metal release during HCT

Table 4-8: Pre- and Post-HCT Multi-Element Results (Sulfur, Uranium and Zinc)

Material type	Sample ID	S				U				Zn			
		Head assay* (mg/kg)	Residue assay (mg/kg)	Cum. release during HCT (mg/kg)	% mobilized during HCT	Head assay* (mg/kg)	Residue assay (mg/kg)	Cum. release during HCT (mg/kg)	% mobilized during HCT	Head assay* (mg/kg)	Residue assay (mg/kg)	Cum. release during HCT (mg/kg)	% mobilized during HCT
Andesite	SRK 0864	255	100	155	61%	2.39	2.20	0.19	8%	131	131	0.21	0.2%
	SRK 0866	2,479	2,300	179	7%	1.62	1.40	0.22	13%	47.2	47.0	0.24	1%
Sulfide ore	604 562	17,662	16,900	762	4%	4.43	4.20	0.23	5%	687	686	0.52	0.1%
	604 606	9,205	8,900	305	3%	8.81	8.20	0.61	7%	25.2	25.0	0.22	1%
	604 653	10,041	9,600	441	4%	5.04	4.70	0.34	7%	56.2	56.0	0.23	0.4%
	604 656	7,762	7,500	262	3%	5.13	4.60	0.53	10%	49.2	49.0	0.22	0.4%
	604 669	8,752	8,200	552	6%	7.69	7.10	0.59	8%	112	112	0.38	0.3%
	604 767	27,128	26,200	928	3%	15.0	13.80	1.16	8%	310	309	0.69	0.2%
	604 787	13,690	13,300	390	3%	10.3	9.10	1.21	12%	155	155	0.29	0.2%
	604 811	14,877	14,600	277	2%	5.50	4.90	0.60	11%	159	159	0.23	0.1%
	604 854	17,953	17,400	553	3%	3.97	3.70	0.27	7%	234	234	0.25	0.1%
	604 862	15,366	15,100	266	2%	5.65	5.40	0.25	4%	123	123	0.22	0.2%
604 867	28,750	27,400	1,350	5%	3.88	3.70	0.18	5%	202	202	0.27	0.1%	
605 033	12,604	12,300	304	2%	6.18	5.80	0.38	6%	135	135	0.22	0.2%	
Sulfide waste	604 673	5,229	4,700	529	10%	8.68	7.70	0.98	11%	14.0	12.0	2.03	14%
	605 153	6,055	5,900	155	3%	3.48	3.20	0.28	8%	192	192	0.23	0.1%
	CF-11-02 (367-408)	11,139	11,000	139	1%	5.85	5.70	0.15	3%	42.3	42.0	0.29	1%
Transitional ore	SRK 0854	11,729	9,500	2,229	19%	4.17	3.70	0.47	11%	70.9	55.0	15.88	22%
	SRK 0867	10,404	9,600	804	8%	5.55	5.30	0.25	5%	73.6	73.0	0.60	1%
Transitional waste	604 569	12,529	12,300	229	2%	6.87	6.50	0.37	5%	36.2	36.0	0.25	1%
	SRK 0858	11,334	8,500	2,834	25%	5.00	4.30	0.70	14%	20.1	18.0	2.13	11%
	SRK 0872	16,927	15,200	1,727	10%	4.43	4.00	0.43	10%	33.1	32.0	1.11	3%
	CF-11-02 (0-27)	17,499	17,300	199	1%	5.10	4.90	0.20	4%	46.3	46.0	0.29	1%
Tailings	CF-11-02 (227-367) Flot. Tails	540	400	140	26%	4.94	4.70	0.24	5%	41.3	41.0	0.28	1%
	CF-11-02 (52-117) Flot. Tails	655	500	155	24%	5.11	4.80	0.31	6%	35.2	35.0	0.19	1%
	K-Spar Breccia 5+ Comp. Flot. Tails	3,994	3,600	394	10%	7.24	6.10	1.14	16%	77.3	77.0	0.26	0.3%
	Biotite Breccia 5+ Comp. Flot. Tails	2,617	2,400	217	8%	5.48	5.20	0.28	5%	54.2	54.0	0.20	0.4%
	Quartz Monzonite 5+ Comp. Flot. Tails	880	700	180	20%	5.96	5.40	0.56	9%	30.2	30.0	0.20	1%
	Biotite Breccia 0-5 Comp. Flot. Tails	10,928	10,700	228	2%	6.30	5.50	0.80	13%	103	103	0.25	0.2%
	K-Spar Breccia 0-5 Comp. Flot. Tails	10,214	10,000	214	2%	5.82	5.00	0.82	14%	78.3	78.0	0.25	0.3%
	Quartz Monzonite 0-5 Comp. Flot. Tails	7,782	7,600	182	2%	5.96	5.30	0.66	11%	97.3	97.0	0.25	0.3%
	Cu Ro. Tail	7,998	7,700	298	4%	6.35	6.00	0.35	6%	117	117	0.14	0.1%

* Reconstituted head calculated from residue assay plus cumulative metal release during HCT

5 Conclusions

A kinetic testwork program has been undertaken as part of ARDML assessment for Copper Flat project, New Mexico, and has included the testing of 23 samples of waste rock/ore and nine samples of tailings material to determine the long-term leaching behavior of these materials. The cells were operated between 28 and 122 weeks and have now been terminated.

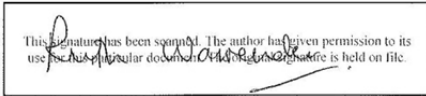
The majority of waste rock and ore cells produced circum-neutral to moderately alkaline pH leachates (pH 7 to 9) throughout the course of the humidity cell testwork and effluent pH was generally stable, indicating no onset of sulfide oxidation. Only two out of 23 waste rock cells produced acidic leachates (pH 2.5 to 5) from week zero onwards. These were samples of transitional (i.e., mixed sulfide/oxide) material that had secondary copper sulfate salts on the material surface. One sample of sulfide waste also showed declining pH and increasing effluent metal concentrations from week 45 onwards. These results are broadly consistent with previous geochemical studies at Copper Flat (Raugust, 2003).

The tailings cells produced circum-neutral leachates throughout the course of the testwork and showed generally showed low levels of metal(loid) release. The tailings cells all had greater than 70% of the initial neutralization potential remaining after 52 weeks of testing and the rate of sulfide consumption was greater than that of NP depletion, indicating that acidic conditions are unlikely to develop in the tailings impoundment.

Metal release from the samples was generally low and the consumption of NP was slow in the majority of cells, with samples still having over 70% of the initial NP remaining at termination. This indicates that significant buffering was still available when the cells were terminated and/or that acid generation is limited or occurs at a slow rate. Importantly, some of the HCTs for this project have been run appreciably longer than the typical regulatory requirement of 20 to 40 weeks in order to confirm long-term geochemical behavior of the material. Even with this continued testing, acidic conditions were not realized in the cells despite sulfide sulfur contents up to 2.34 wt% and predicted potentially acid forming (PAF) characteristics based on the ABA and NAG testwork results. The consumption of sulfide is also low and shows the sulfides are stable under the aggressive weathering conditions likely due to the coarse crystalline nature of the sulfides and partial encapsulation of sulfides in non-reactive silicates. This confirms the generally low reactivity of the Copper Flat materials.

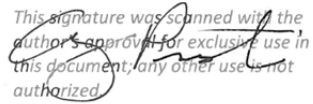
Mineralogical analysis was undertaken on seven of the humidity cell residues to assess speciation and textures of the sulfide minerals, and in particular to determine what influence these textures may have on the development of acid generation during the HCT program. The results indicate that the lack of acid generation in some of the cells may relate to a combination of factors, including: (i) the occurrence of sulfides as medium to coarse or well-crystallized grains, meaning they are thermodynamically stable and difficult to weather; (ii) the encapsulation of the finer-grained sulfides (particularly chalcopyrite) in non-reactive silicate gangue; and (iii) the presence of acid buffering silicate minerals such as chlorite group minerals. The final results of the humidity cell testing presented herein do not change the conclusions provided in the geochemical characterization report (SRK, 2013a) and an update to the geochemical models is not necessary to include the additional HCT data collected since the characterization and modeling reports were finalized.

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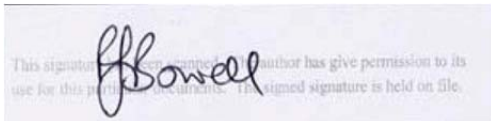
Ruth Warrender PhD, CGeol
Senior Consultant (Geochemistry)



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Amy Prestia, M.Sc., P.G.
Senior Consultant (Geochemistry)

Reviewed by



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Eur. Geol. Rob Bowell PhD CChem CGeol
Corporate Consultant (Geochemistry)

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Appendix A – Humidity Cell Test Results

McClelland Reports

Table 22 . - Humidity Cell Analytical Results, CF-11-02 (0-27)

(1.5315 Kg)

Week	Vol. L	Effluent pH	Redox, mV (vs Ag/AgCl)	Conductivity $\mu\text{S}/\text{cm}^1$	Total Fe		Fe^{2+} mg/l	Fe^{3+} mg/l	$\text{SO}_4=$		Acidity, CaCO_3 Equivalents		Alkalinity, CaCO_3 Equivalents	
					mg/l	mg/kg			Cum. mg/kg	mg/l	mg/kg	Cum. mg/kg	mg/l	mg/kg

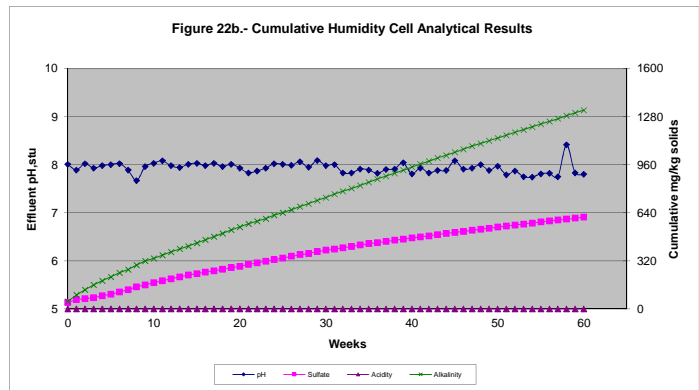
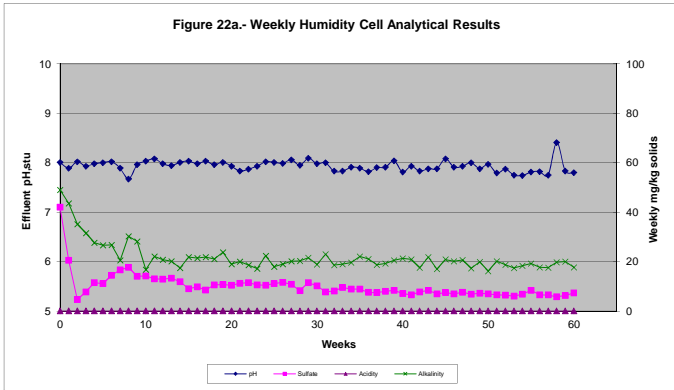


Table 23 . - Humidity Cell Analytical Results, CF-11-02 (367-408)

(1.5063 Kg)

Week	Vol. L	Effluent pH	Redox, mV (vs Ag/AgCl)	Conductivity $\mu\text{S}/\text{cm}^1$	Total Fe		Fe^{2+} mg/l	Fe^{3+} mg/l	$\text{SO}_4=$		Acidity, CaCO_3 Equivalents		Alkalinity, CaCO_3 Equivalents	
					mg/l	mg/kg			Cum. mg/kg	mg/l	mg/kg	Cum. mg/kg	mg/l	mg/kg

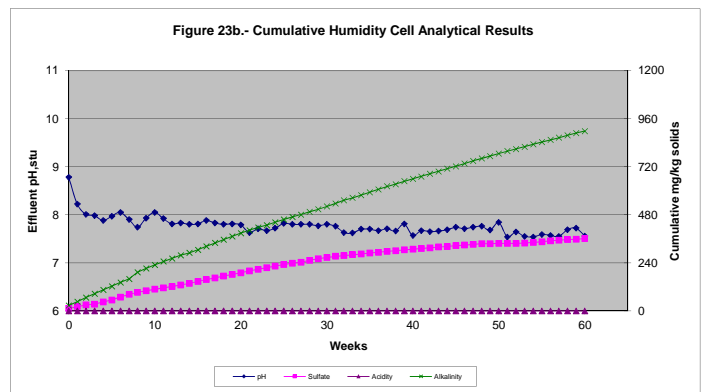
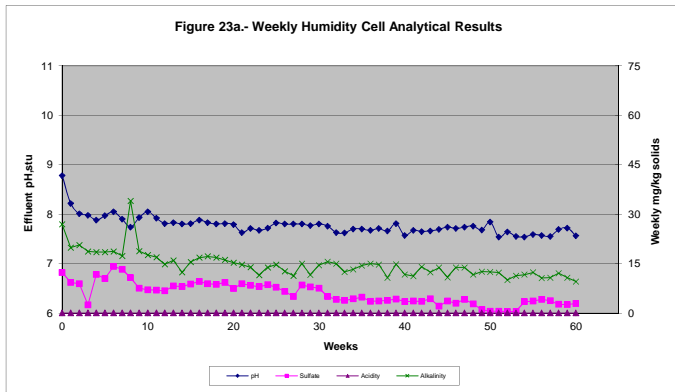


Table 25 - Humidity Cell Analytical Results, CF-11-02 (52-117) Flotation Tailings (1.5346 Kg)

Week	Vol. L	Effluent pH	Redox, mV (vs Ag/AgCl)	Conductivity $\mu\text{S}/\text{cm}^1$	Total Fe					$\text{SO}_4=$			Acidity, CaCO_3 Equivalents			Alkalinity, CaCO_3 Equivalents		
					mg/l	mg/kg	Cum. mg/kg	Fe^{2+} mg/l	Fe^{3+} mg/l	mg/l	mg/kg	Cum. mg/kg	mg/l	mg/kg	Cum. mg/kg	mg/l	mg/kg	Cum. mg/kg
0	0.563	7.90	208	470	0.01	0.004	0.004	0.00	0.01	69.0	25.31	25.31	0	0.00	0.00	102	37.42	37.42
1	0.773	8.10	200	360	0.00	0.000	0.004	0.00	0.00	63.0	31.73	57.04	0	0.00	0.00	89	44.83	82.25
2	0.755	7.77	228	350	0.00	0.000	0.004	0.00	0.00	30.0	14.76	71.80	0	0.00	0.00	77	37.88	120.13
3	0.682	7.98	207	310	0.00	0.000	0.004	0.00	0.00	65.0	28.89	100.69	0	0.00	0.00	53	23.55	143.68
4	0.751	8.16	181	300	0.00	0.000	0.004	0.00	0.00	50.0	24.47	125.16	0	0.00	0.00	63	30.83	174.51
5	0.758	8.12	185	250	0.01	0.005	0.009	0.00	0.01	30.0	14.82	139.98	0	0.00	0.00	61	30.13	204.64
6	0.683	7.99	177	240	0.01	0.004	0.013	0.00	0.01	30.0	13.35	153.33	0	0.00	0.00	52	23.14	227.78
7	0.831	8.12	225	230	0.01	0.005	0.018	0.00	0.01	25.0	13.54	166.87	0	0.00	0.00	63	34.12	261.90
8	0.662	8.03	185	190	0.02	0.009	0.027	0.00	0.02	20.0	8.63	175.50	0	0.00	0.00	47	20.27	282.17
9	0.744	8.10	176	220	0.02	0.010	0.037	0.00	0.02	35.0	16.97	192.47	0	0.00	0.00	59	28.60	310.77
10	0.761	8.06	193	190	0.01	0.005	0.042	0.00	0.01	32.0	15.87	208.34	0	0.00	0.00	56	27.77	338.54
11	0.725	8.08	219	190	0.00	0.000	0.042	0.00	0.00	31.0	14.65	222.99	0	0.00	0.00	56	26.46	365.00
12	0.748	8.01	201	170	0.00	0.000	0.042	0.00	0.00	27.0	13.16	236.15	0	0.00	0.00	53	25.83	390.83
13	0.714	8.04	234	170	0.01	0.005	0.047	0.00	0.01	28.0	13.03	249.18	0	0.00	0.00	53	24.66	415.49
14	0.746	8.02	201	170	0.00	0.000	0.047	0.00	0.00	23.0	11.18	260.36	0	0.00	0.00	56	27.22	442.71
15	0.775	7.90	230	160	0.00	0.000	0.047	0.00	0.00	22.0	11.11	271.47	0	0.00	0.00	53	26.77	469.48
16	0.650	7.92	233	160	0.01	0.004	0.051	0.00	0.01	22.0	9.32	280.79	0	0.00	0.00	49	20.75	490.23
17	0.815	7.99	225	150	0.02	0.011	0.062	0.00	0.02	15.0	7.97	288.76	0	0.00	0.00	51	27.09	517.32
18	0.746	8.01	239	150	0.02	0.010	0.072	0.00	0.02	16.0	7.78	296.54	0	0.00	0.00	51	24.79	542.11
19	0.753	8.13	219	150	0.02	0.010	0.082	0.00	0.02	15.0	7.36	303.90	0	0.00	0.00	50	24.53	566.64
20	0.735	8.05	293	140	0.01	0.005	0.087	0.00	0.01	15.0	7.18	311.08	0	0.00	0.00	50	23.95	590.59
21	0.707	8.05	196	150	0.02	0.009	0.096	0.00	0.02	14.0	6.45	317.53	0	0.00	0.00	52	23.96	614.55
22	0.734	8.02	263	130	0.02	0.010	0.106	0.00	0.02	11.0	5.26	322.79	0	0.00	0.00	52	24.87	639.42
23	0.751	8.10	203	170	0.01	0.005	0.111	0.00	0.01	16.0	7.83	330.62	0	0.00	0.00	57	27.89	667.31
24	0.729	8.01	237	140	0.00	0.000	0.111	0.00	0.00	10.0	4.75	335.37	0	0.00	0.00	55	26.13	693.44
25	0.749	7.97	236	140	0.01	0.005	0.116	0.00	0.01	8.0	3.90	339.27	0	0.00	0.00	51	24.89	718.33
26	0.784	7.80	289	130	0.01	0.005	0.121	0.00	0.01	8.0	4.09	343.36	0	0.00	0.00	49	25.03	743.36
27	0.717	7.86	273	130	0.02	0.009	0.130	0.00	0.02	9.0	4.21	347.57	0	0.00	0.00	46	21.49	764.85
28	0.711	7.89	207	140	0.02	0.009	0.139	0.02	0.00	9.0	4.17	351.74	0	0.00	0.00	50	23.17	788.02
29	0.743	7.91	216	150	0.01	0.005	0.144	0.01	0.00	10.0	4.84	356.58	0	0.00	0.00	52	25.18	813.20
30	0.746	7.85	225	130	0.01	0.005	0.149	0.00	0.01	8.0	3.89	360.47	0	0.00	0.00	47	22.85	836.05
31	0.764	7.93	190	130	0.01	0.005	0.154	0.00	0.01	7.0	3.48	363.95	0	0.00	0.00	52	25.89	861.94
32	0.723	7.90	184	120	0.00	0.000	0.154	0.00	0.00	6.0	2.83	366.78	0	0.00	0.00	47	22.14	884.08
33	0.775	8.01	190	130	0.01	0.005	0.159	0.00	0.01	8.0	4.04	370.82	0	0.00	0.00	50	25.25	909.33
34	0.665	7.89	221	120	0.02	0.009	0.168	0.00	0.02	7.0	3.03	373.85	0	0.00	0.00	48	20.80	930.13
35	0.802	7.96	193	110	0.02	0.010	0.178	0.00	0.02	5.0	2.61	376.46	0	0.00	0.00	43	22.47	952.60
36	0.684	7.83	218	110	0.01	0.004	0.182	0.00	0.01	6.0	2.67	379.13	0	0.00	0.00	45	20.06	972.66
37	0.808	7.94	200	110	0.01	0.005	0.187	0.00	0.01	7.0	3.69	382.82	0	0.00	0.00	47	24.75	997.41
38	0.735	7.92	180	110	0.01	0.005	0.192	0.00	0.01	6.0	2.87	385.69	0	0.00	0.00	46	22.03	1019.44
39	0.743	8.04	166	110	0.02	0.010	0.202	0.01	0.01	5.0	2.42	388.11	0	0.00	0.00	45	21.79	1041.23
40	0.709	7.94	184	120	0.02	0.009	0.211	0.00	0.02	5.0	2.31	390.42	0	0.00	0.00	46	21.25	1062.48
41	0.753	7.96	177	114	0.01	0.005	0.216	0.00	0.01	6.0	2.94	393.36	0	0.00	0.00	43	21.10	1083.58
42	0.716	7.96	161	102	0.01	0.005	0.221	0.00	0.01	4.0	1.87	395.23	0	0.00	0.00	39	18.20	1101.78

¹⁾ Conductivity originally reported in mS/cm. Reported in $\mu\text{S}/\text{cm}$ after week 41.
Testing terminated after week 42

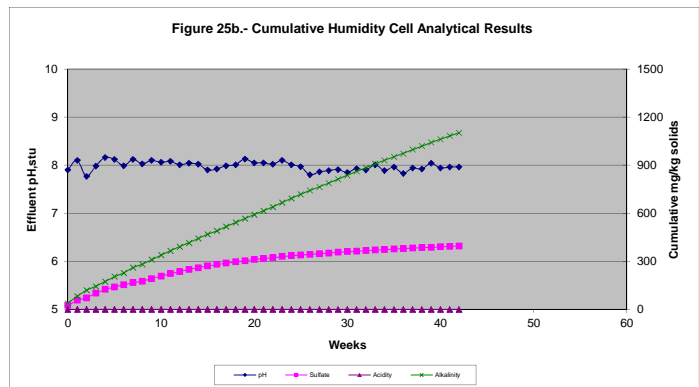
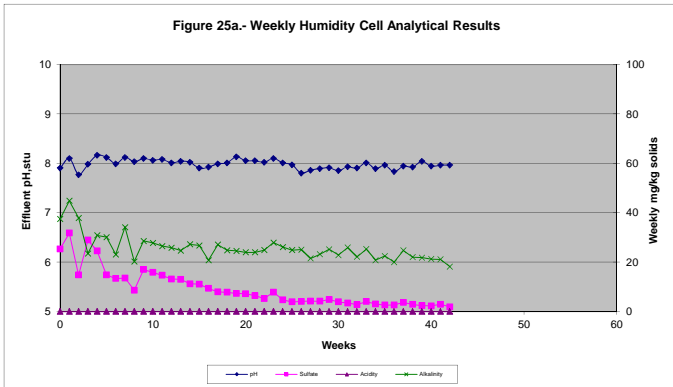


Table 27 - Humidity Cell Analytical Results, Biotite Breccia 5+ Comp. Flotation Tailings (1.4964 Kg)

Week	Vol. L	Effluent pH	Redox, mV (vs Ag/AgCl)	Conductivity $\mu\text{S}/\text{cm}^1$	Total Fe					SO ₄ =			Acidity, CaCO ₃ Equivalents			Alkalinity, CaCO ₃ Equivalents		
					mg/l	mg/kg	Cum. mg/kg	Fe ²⁺ mg/l	Fe ³⁺ mg/l	mg/l	mg/kg	Cum. mg/kg	mg/l	mg/kg	Cum. mg/kg	mg/l	mg/kg	Cum. mg/kg
0	0.552	8.10	173	390	0.01	0.004	0.004	0.00	0.01	68.0	25.08	25.08	0	0.00	0.00	71	26.19	26.19
1	0.754	8.25	220	470	0.00	0.000	0.004	0.00	0.00	62.0	31.24	56.32	0	0.00	0.00	135	68.02	94.21
2	0.734	7.94	221	450	0.00	0.000	0.004	0.00	0.00	69.0	33.85	90.17	0	0.00	0.00	136	66.71	160.92
3	0.755	8.15	204	450	0.01	0.005	0.009	0.00	0.01	88.0	44.40	134.57	0	0.00	0.00	116	58.53	219.45
4	0.725	8.31	190	380	0.00	0.000	0.009	0.00	0.00	80.0	38.76	173.33	0	0.00	0.00	81	39.24	258.69
5	0.718	8.29	182	350	0.00	0.000	0.009	0.00	0.00	74.0	35.51	208.84	0	0.00	0.00	97	46.54	305.23
6	0.764	8.22	171	340	0.01	0.005	0.014	0.00	0.01	114.0	58.20	267.04	0	0.00	0.00	88	44.93	350.16
7	0.751	8.17	210	290	0.01	0.005	0.019	0.00	0.01	62.0	31.12	298.16	0	0.00	0.00	69	34.63	384.79
8	0.758	8.14	192	260	0.02	0.010	0.029	0.00	0.02	50.0	25.33	323.49	0	0.00	0.00	62	31.41	416.20
9	0.646	8.10	181	280	0.02	0.009	0.038	0.00	0.02	63.0	27.20	350.69	0	0.00	0.00	60	25.90	442.10
10	0.752	8.23	189	290	0.01	0.005	0.043	0.00	0.01	60.0	30.15	380.84	0	0.00	0.00	78	39.20	481.30
11	0.762	8.27	215	270	0.00	0.000	0.043	0.00	0.00	54.0	27.50	408.34	0	0.00	0.00	82	41.76	523.06
12	0.728	8.15	213	240	0.00	0.000	0.043	0.00	0.00	52.0	25.30	433.64	0	0.00	0.00	65	31.62	554.68
13	0.730	8.18	241	260	0.01	0.005	0.048	0.00	0.01	46.0	22.44	456.08	0	0.00	0.00	72	35.12	589.80
14	0.723	8.12	218	240	0.00	0.000	0.048	0.00	0.00	50.0	24.16	480.24	0	0.00	0.00	67	32.37	622.17
15	0.743	8.05	223	230	0.01	0.005	0.053	0.01	0.00	46.0	22.84	503.08	0	0.00	0.00	72	35.75	657.92
16	0.732	8.06	241	230	0.01	0.005	0.058	0.00	0.01	42.0	20.55	523.63	0	0.00	0.00	67	32.77	690.69
17	0.743	8.11	240	210	0.02	0.010	0.068	0.00	0.02	37.0	18.37	542.00	0	0.00	0.00	66	32.77	723.46
18	0.725	8.09	242	210	0.02	0.010	0.078	0.00	0.02	35.0	16.96	558.96	0	0.00	0.00	66	31.98	755.44
19	0.730	8.24	235	210	0.02	0.010	0.088	0.00	0.02	27.0	13.17	572.13	0	0.00	0.00	68	33.17	788.61
20	0.727	8.18	278	200	0.01	0.005	0.093	0.00	0.01	28.0	13.60	585.73	0	0.00	0.00	68	33.04	821.65
21	0.763	8.21	220	200	0.02	0.010	0.103	0.00	0.02	23.0	11.73	597.46	0	0.00	0.00	72	36.71	858.36
22	0.697	8.10	272	180	0.02	0.009	0.112	0.00	0.02	20.0	9.32	606.78	0	0.00	0.00	66	30.74	889.10
23	0.743	8.22	212	200	0.01	0.005	0.117	0.00	0.01	25.0	12.41	619.19	0	0.00	0.00	73	36.25	925.35
24	0.744	8.18	235	190	0.00	0.000	0.117	0.00	0.00	20.0	9.94	629.13	0	0.00	0.00	71	35.30	960.65
25	0.751	8.14	243	190	0.01	0.005	0.122	0.00	0.01	16.0	8.03	637.16	0	0.00	0.00	70	35.13	995.78
26	0.716	7.95	282	170	0.01	0.005	0.127	0.00	0.01	14.0	6.70	643.86	0	0.00	0.00	64	30.62	1026.40
27	0.737	8.06	267	180	0.01	0.005	0.132	0.00	0.01	16.0	7.88	651.74	0	0.00	0.00	65	32.01	1058.41
28	0.776	8.07	205	170	0.02	0.010	0.142	0.02	0.00	14.0	7.26	659.00	0	0.00	0.00	67	34.74	1093.15
29	0.678	8.01	218	180	0.05	0.023	0.165	0.00	0.05	16.0	7.25	666.25	0	0.00	0.00	65	29.45	1122.60
30	0.743	8.00	227	170	0.00	0.000	0.165	0.00	0.00	13.0	6.45	672.70	0	0.00	0.00	63	31.28	1153.88
31	0.756	8.07	189	150	0.01	0.005	0.170	0.00	0.01	11.0	5.56	678.26	0	0.00	0.00	61	30.82	1184.70
32	0.770	8.06	185	160	0.00	0.000	0.170	0.00	0.00	11.0	5.66	683.92	0	0.00	0.00	62	31.90	1216.60
33	0.679	8.14	196	180	0.02	0.009	0.179	0.00	0.02	14.0	6.35	690.27	0	0.00	0.00	64	29.04	1245.64
34	0.751	8.10	218	160	0.02	0.010	0.189	0.00	0.02	10.0	5.02	695.29	0	0.00	0.00	61	30.61	1276.25
35	0.805	8.09	193	160	0.02	0.011	0.200	0.00	0.02	8.0	4.30	699.59	0	0.00	0.00	56	30.13	1306.38
36	0.670	8.00	216	160	0.01	0.004	0.204	0.00	0.01	10.0	4.48	704.07	0	0.00	0.00	62	27.76	1334.14
37	0.764	8.04	199	150	0.02	0.010	0.214	0.00	0.02	10.0	5.11	709.18	0	0.00	0.00	59	30.12	1364.26
38	0.744	8.02	181	160	0.00	0.000	0.214	0.00	0.00	10.0	4.97	714.15	0	0.00	0.00	57	28.34	1392.60
39	0.761	8.18	173	160	0.02	0.010	0.224	0.00	0.02	9.0	4.58	718.73	0	0.00	0.00	56	28.48	1421.08
40	0.707	8.06	185	160	0.01	0.005	0.229	0.00	0.01	7.0	3.31	722.04	0	0.00	0.00	62	29.29	1450.37
41	0.753	8.09	176	148	0.00	0.000	0.229	0.00	0.00	7.0	3.52	725.56	0	0.00	0.00	56	28.18	1478.55
42	0.734	8.09	165	140	0.02	0.010	0.239	0.00	0.02	7.0	3.43	728.99	0	0.00	0.00	53	26.00	1504.55

¹⁾ Conductivity originally reported in mS/cm. Reported in $\mu\text{S}/\text{cm}$ after week 41.
Testing terminated after week 42.

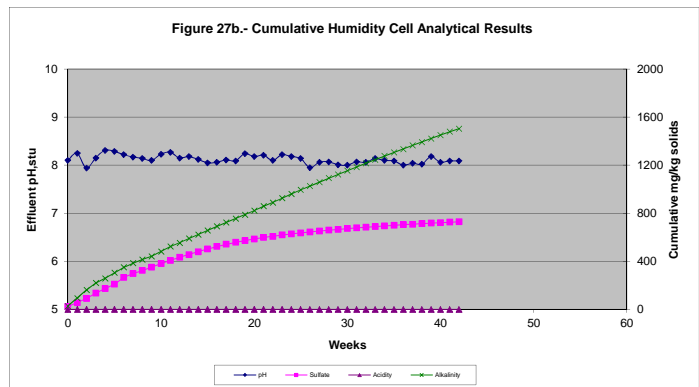
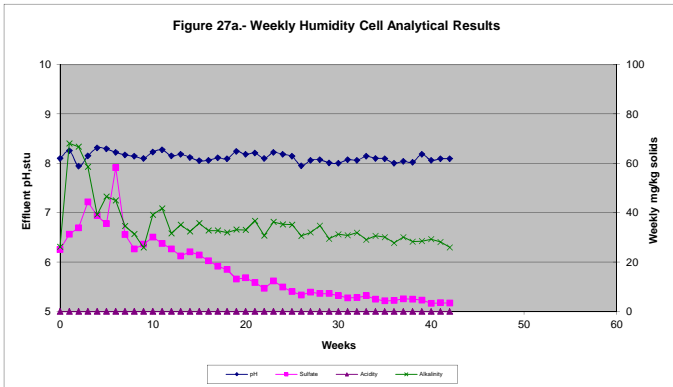


Table 28 . - Humidity Cell Analytical Results, Quartz Monzonite 5+ Comp Flotation Tailings (1.5106 Kg)

Week	Vol. L	Effluent pH	Redox, mV (vs Ag/AgCl)	Conductivity $\mu\text{S}/\text{cm}^1$	Total Fe					SO ₄ =			Acidity, CaCO ₃ Equivalents			Alkalinity, CaCO ₃ Equivalents		
					mg/l	mg/kg	Cum. mg/kg	Fe ²⁺ mg/l	Fe ³⁺ mg/l	mg/l	mg/kg	Cum. mg/kg	mg/l	mg/kg	Cum. mg/kg	mg/l	mg/kg	Cum. mg/kg
0	0.549	8.19	140	580	0.01	0.004	0.004	0.00	0.01	75.0	27.26	27.26	0	0.00	0.00	124	45.07	45.07
1	0.785	8.30	210	390	0.00	0.000	0.004	0.00	0.00	46.0	23.90	51.16	0	0.00	0.00	120	62.36	107.43
2	0.731	7.92	220	320	0.01	0.005	0.009	0.00	0.01	45.0	21.78	72.94	0	0.00	0.00	96	46.46	153.89
3	0.761	8.18	201	330	0.00	0.000	0.009	0.00	0.00	43.0	21.66	94.60	0	0.00	0.00	97	48.87	202.76
4	0.745	8.31	198	280	0.00	0.000	0.009	0.00	0.00	43.0	21.21	115.81	0	0.00	0.00	71	35.02	237.78
5	0.756	8.24	193	250	0.00	0.000	0.009	0.00	0.00	42.0	21.02	136.83	0	0.00	0.00	72	36.03	273.81
6	0.749	8.12	179	250	0.01	0.005	0.014	0.00	0.01	40.0	19.83	156.66	0	0.00	0.00	64	31.73	305.54
7	0.702	8.09	220	220	0.01	0.005	0.019	0.00	0.01	41.0	19.05	175.71	0	0.00	0.00	59	27.42	332.96
8	0.791	8.21	201	260	0.02	0.010	0.029	0.00	0.02	42.0	21.99	197.70	0	0.00	0.00	81	42.41	375.37
9	0.704	8.17	177	240	0.02	0.009	0.038	0.00	0.02	42.0	19.57	217.27	0	0.00	0.00	65	30.29	405.66
10	0.789	8.19	192	250	0.01	0.005	0.043	0.00	0.01	44.0	22.98	240.25	0	0.00	0.00	79	41.26	446.92
11	0.704	8.10	222	220	0.00	0.000	0.043	0.00	0.00	45.0	20.97	261.22	0	0.00	0.00	62	28.89	475.81
12	0.766	8.15	208	230	0.01	0.005	0.048	0.00	0.01	41.0	20.79	282.01	0	0.00	0.00	71	36.00	511.81
13	0.782	8.17	234	240	0.00	0.000	0.048	0.00	0.00	41.0	21.22	303.23	0	0.00	0.00	73	37.79	549.60
14	0.680	8.02	221	200	0.01	0.005	0.053	0.00	0.01	41.0	18.46	321.69	0	0.00	0.00	57	25.66	575.26
15	0.726	7.98	223	210	0.00	0.000	0.053	0.00	0.00	40.0	19.22	340.91	0	0.00	0.00	66	31.72	606.98
16	0.779	8.08	236	210	0.02	0.010	0.063	0.00	0.02	31.0	15.99	356.90	0	0.00	0.00	70	36.10	643.08
17	0.770	8.07	232	190	0.02	0.010	0.073	0.00	0.02	32.0	16.31	373.21	0	0.00	0.00	62	31.60	674.68
18	0.760	8.06	237	190	0.02	0.010	0.083	0.00	0.02	29.0	14.59	387.80	0	0.00	0.00	59	29.68	704.36
19	0.702	8.13	238	180	0.02	0.009	0.092	0.00	0.02	29.0	13.48	401.28	0	0.00	0.00	57	26.49	730.85
20	0.759	8.12	281	180	0.02	0.010	0.102	0.00	0.02	27.0	13.57	414.85	0	0.00	0.00	61	30.65	761.50
21	0.722	8.11	230	190	0.02	0.010	0.112	0.00	0.02	25.0	11.95	426.80	0	0.00	0.00	64	30.59	792.09
22	0.752	8.16	269	180	0.02	0.010	0.122	0.00	0.02	21.0	10.45	437.25	0	0.00	0.00	67	33.35	825.44
23	0.750	8.17	215	190	0.02	0.010	0.132	0.00	0.02	25.0	12.41	449.66	0	0.00	0.00	68	33.76	859.20
24	0.735	8.07	239	170	0.00	0.000	0.132	0.00	0.00	23.0	11.19	460.85	0	0.00	0.00	60	29.19	888.39
25	0.773	8.08	245	170	0.02	0.010	0.142	0.00	0.02	18.0	9.21	470.06	0	0.00	0.00	63	32.24	920.63
26	0.764	7.97	281	170	0.01	0.005	0.147	0.00	0.01	16.0	8.09	478.15	0	0.00	0.00	60	30.35	950.98
27	0.726	7.93	265	150	0.02	0.010	0.157	0.00	0.02	20.0	9.61	487.76	0	0.00	0.00	56	26.91	977.89
28	0.704	8.00	208	160	0.02	0.009	0.166	0.02	0.00	12.0	5.59	493.35	0	0.00	0.00	60	27.96	1005.85
29	0.775	7.97	223	160	0.05	0.026	0.192	0.00	0.05	15.0	7.70	501.05	0	0.00	0.00	57	29.24	1035.09
30	0.727	7.95	232	160	0.00	0.000	0.192	0.00	0.00	13.0	6.26	507.31	0	0.00	0.00	59	28.39	1063.48
31	0.746	8.00	195	150	0.01	0.005	0.197	0.00	0.01	14.0	6.91	514.22	0	0.00	0.00	55	27.16	1090.64
32	0.743	8.02	189	150	0.00	0.000	0.197	0.00	0.00	13.0	6.39	520.61	0	0.00	0.00	54	26.56	1117.20
33	0.735	8.08	197	150	0.02	0.010	0.207	0.00	0.02	15.0	7.30	527.91	0	0.00	0.00	55	26.76	1143.96
34	0.732	7.91	224	150	0.02	0.010	0.217	0.00	0.02	13.0	6.30	534.21	0	0.00	0.00	55	26.65	1170.61
35	0.742	8.02	191	140	0.02	0.010	0.227	0.00	0.02	10.0	4.91	539.12	0	0.00	0.00	52	25.54	1196.15
36	0.763	7.94	214	120	0.02	0.010	0.237	0.00	0.02	10.0	5.05	544.17	0	0.00	0.00	47	23.74	1219.89
37	0.729	7.98	201	130	0.01	0.005	0.242	0.00	0.01	13.0	6.27	550.44	0	0.00	0.00	51	24.61	1244.50
38	0.721	7.96	183	140	0.00	0.000	0.242	0.00	0.00	12.0	5.73	556.17	0	0.00	0.00	51	24.34	1268.84
39	0.792	8.06	181	130	0.05	0.026	0.268	0.03	0.02	11.0	5.77	561.94	0	0.00	0.00	50	26.21	1295.05
40	0.712	8.07	187	150	0.02	0.009	0.277	0.00	0.02	9.0	4.24	566.18	0	0.00	0.00	58	27.34	1322.39
41	0.734	8.06	177	147	0.00	0.000	0.277	0.00	0.00	8.0	3.89	570.07	0	0.00	0.00	54	26.24	1348.63
42	0.732	8.07	171	144	0.01	0.005	0.282	0.00	0.01	10.0	4.85	574.92	0	0.00	0.00	53	25.68	1374.31

¹⁾ Conductivity originally reported in mS/cm. Reported in $\mu\text{S}/\text{cm}$ after week 41.
Testing terminated after week 42.

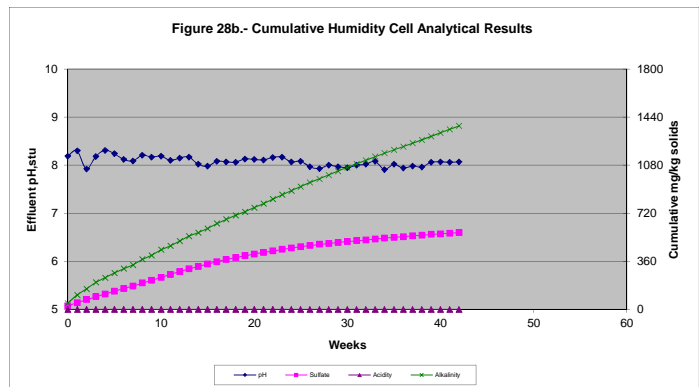
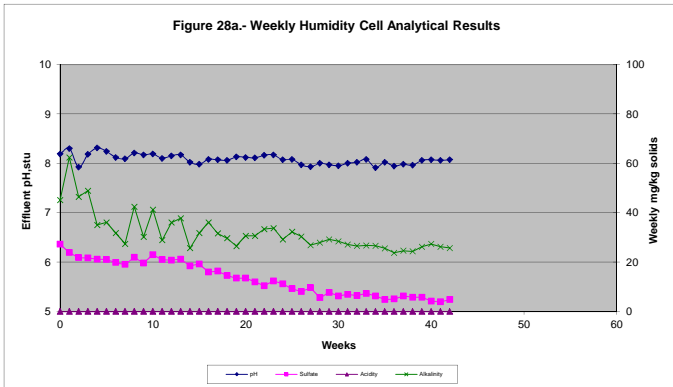


Table 29 - Humidity Cell Analytical Results, Biotite Breccia 0-5 Comp. Flotation Tailings (1.5047 Kg)

Week	Vol. L	Effluent pH	Redox, mV (vs Ag/AgCl)	Conductivity $\mu\text{S}/\text{cm}^1$	Total Fe					SO ₄ =			Acidity, CaCO ₃ Equivalents			Alkalinity, CaCO ₃ Equivalents		
					mg/l	mg/kg	Cum. mg/kg	Fe ²⁺ mg/l	Fe ³⁺ mg/l	mg/l	mg/kg	Cum. mg/kg	mg/l	mg/kg	Cum. mg/kg	mg/l	mg/kg	Cum. mg/kg
0	0.460	7.93	164	900	0.04	0.012	0.012	0.00	0.04	200.0	61.14	61.14	0	0.00	0.00	86	26.29	26.29
1	0.873	8.11	207	420	0.00	0.000	0.012	0.00	0.00	65.0	37.71	98.85	0	0.00	0.00	82	47.57	73.86
2	0.685	7.76	223	440	0.01	0.005	0.017	0.00	0.01	115.0	52.35	151.20	0	0.00	0.00	77	35.05	108.91
3	0.776	7.96	210	450	0.00	0.000	0.017	0.00	0.00	140.0	72.20	223.40	0	0.00	0.00	54	27.85	136.76
4	0.740	8.06	203	340	0.00	0.000	0.017	0.00	0.00	85.0	41.80	265.20	0	0.00	0.00	45	22.13	158.89
5	0.666	7.96	202	280	0.00	0.000	0.017	0.00	0.00	60.0	26.56	291.76	0	0.00	0.00	47	20.80	179.69
6	0.797	8.01	180	270	0.00	0.000	0.017	0.00	0.00	50.0	26.48	318.24	0	0.00	0.00	52	27.54	207.23
7	0.773	7.97	228	200	0.01	0.005	0.022	0.00	0.01	35.0	17.98	336.22	0	0.00	0.00	47	24.15	231.38
8	0.603	7.98	202	180	0.02	0.008	0.030	0.00	0.02	30.0	12.02	348.24	0	0.00	0.00	44	17.63	249.01
9	0.724	8.07	181	200	0.02	0.010	0.040	0.00	0.02	34.0	16.36	364.60	0	0.00	0.00	52	25.02	274.03
10	0.807	8.06	197	190	0.01	0.005	0.045	0.00	0.01	30.0	16.09	380.69	0	0.00	0.00	58	31.11	305.14
11	0.713	7.96	229	160	0.00	0.000	0.045	0.00	0.00	24.0	11.37	392.06	0	0.00	0.00	50	23.69	328.83
12	0.777	8.01	211	150	0.01	0.005	0.050	0.00	0.01	20.0	10.33	402.39	0	0.00	0.00	49	25.30	354.13
13	0.649	7.98	245	170	0.01	0.004	0.054	0.00	0.01	23.0	9.92	412.31	0	0.00	0.00	52	22.43	376.56
14	0.752	8.04	224	160	0.00	0.000	0.054	0.00	0.00	22.0	10.99	423.30	0	0.00	0.00	55	27.49	404.05
15	0.683	7.89	235	160	0.00	0.000	0.054	0.00	0.00	21.0	9.53	432.83	0	0.00	0.00	55	24.97	429.02
16	0.825	7.94	245	160	0.01	0.005	0.059	0.00	0.01	18.0	9.87	442.70	0	0.00	0.00	55	30.16	459.18
17	0.692	7.95	234	140	0.02	0.009	0.068	0.00	0.02	17.0	7.82	450.52	0	0.00	0.00	49	22.53	481.71
18	0.752	7.90	245	160	0.01	0.005	0.073	0.00	0.01	17.0	8.50	459.02	0	0.00	0.00	52	25.99	507.70
19	0.677	8.02	243	150	0.02	0.009	0.082	0.00	0.02	18.0	8.10	467.12	0	0.00	0.00	52	23.40	531.10
20	0.714	8.03	285	160	0.01	0.005	0.087	0.00	0.01	18.0	8.54	475.66	0	0.00	0.00	56	26.57	557.67
21	0.835	8.01	233	160	0.02	0.011	0.098	0.00	0.02	16.0	8.88	484.54	0	0.00	0.00	57	31.63	589.30
22	0.713	7.98	272	140	0.01	0.005	0.103	0.00	0.01	13.0	6.16	490.70	0	0.00	0.00	50	23.69	612.99
23	0.692	8.00	219	150	0.01	0.005	0.108	0.00	0.01	19.0	8.74	499.44	0	0.00	0.00	53	24.37	637.36
24	0.727	8.02	241	140	0.00	0.000	0.108	0.00	0.00	17.0	8.21	507.65	0	0.00	0.00	53	25.61	662.97
25	0.724	7.97	249	160	0.01	0.005	0.113	0.00	0.01	14.0	6.74	514.39	0	0.00	0.00	57	27.43	690.40
26	0.710	7.90	283	150	0.00	0.000	0.113	0.00	0.00	13.0	6.13	520.52	0	0.00	0.00	55	25.95	716.35
27	0.811	7.90	268	150	0.01	0.005	0.118	0.00	0.01	14.0	7.55	528.07	0	0.00	0.00	56	30.18	746.53
28	0.678	7.89	214	140	0.02	0.009	0.127	0.02	0.00	14.0	6.31	534.38	0	0.00	0.00	52	23.43	769.96
29	0.792	7.92	226	160	0.01	0.005	0.132	0.00	0.01	14.0	7.37	541.75	0	0.00	0.00	57	30.00	799.96
30	0.698	7.87	236	150	0.00	0.000	0.132	0.00	0.00	13.0	6.03	547.78	0	0.00	0.00	53	24.59	824.55
31	0.720	7.94	198	150	0.01	0.005	0.137	0.00	0.01	13.0	6.22	554.00	0	0.00	0.00	57	27.27	851.82
32	0.787	7.93	189	140	0.00	0.000	0.137	0.00	0.00	13.0	6.80	560.80	0	0.00	0.00	56	29.29	881.11
33	0.640	7.98	200	160	0.01	0.004	0.141	0.00	0.01	16.0	6.81	567.61	0	0.00	0.00	58	24.67	905.78
34	0.793	7.92	224	150	0.02	0.011	0.152	0.00	0.02	13.0	6.85	574.46	0	0.00	0.00	56	29.51	935.29
35	0.780	7.99	186	150	0.01	0.005	0.157	0.00	0.01	11.0	5.70	580.16	0	0.00	0.00	56	29.03	964.32
36	0.706	7.92	215	150	0.01	0.005	0.162	0.00	0.01	13.0	6.10	586.26	0	0.00	0.00	56	26.28	990.60
37	0.734	7.96	202	150	0.01	0.005	0.167	0.00	0.01	15.0	7.32	593.58	0	0.00	0.00	57	27.80	1018.40
38	0.778	7.96	182	150	0.00	0.000	0.167	0.00	0.00	12.0	6.20	599.78	0	0.00	0.00	55	28.44	1046.84
39	0.784	8.05	180	140	0.03	0.016	0.183	0.00	0.03	11.0	5.73	605.51	0	0.00	0.00	54	28.14	1074.98
40	0.700	7.95	190	150	0.01	0.005	0.188	0.00	0.01	10.0	4.65	610.16	0	0.00	0.00	53	24.66	1099.64
41	0.765	7.98	184	152	0.00	0.000	0.188	0.00	0.00	13.0	6.61	616.77	0	0.00	0.00	55	27.96	1127.60
42	0.660	8.02	174	156	0.00	0.000	0.188	0.00	0.00	13.0	5.70	622.47	0	0.00	0.00	55	24.12	1151.72
43	0.772	7.98	184	132	0.01	0.005	0.193	0.00	0.01	13.0	6.67	629.14	0	0.00	0.00	53	27.19	1178.91
44	0.703	8.08	155	146	0.01	0.005	0.198	0.00	0.01	14.0	6.54	635.68	0	0.00	0.00	54	25.23	1204.14
45	0.800	7.90	193	146	0.00	0.000	0.198	0.00	0.00	13.0	6.91	642.59	0	0.00	0.00	53	28.18	1232.32
46	0.684	7.94	165	139	0.03	0.014	0.212	0.00	0.03	14.0	6.36	648.95	0	0.00	0.00	51	23.18	1255.50
47	0.759	7.86	169	138	0.01	0.005	0.217	0.00	0.01	11.0	5.55	654.50	0	0.00	0.00	54	27.24	1282.74
48	0.708	7.87	187	154	0.01	0.005	0.222	0.00	0.01	12.0	5.65	660.15	0	0.00	0.00	53	24.94	1307.68
49	0.769	7.93	165	149	0.02	0.010	0.232	0.00	0.02	12.0	6.13	666.28	0	0.00	0.00	54	27.60	1335.28
50	0.761	7.92	181	147	0.01	0.005	0.237	0.00	0.01	11.0	5.56	671.84	0	0.00	0.00	51	25.79	1361.07
51	0.667	7.86	172	143	0.00	0.000	0.237	0.00	0.00	12.0	5.32	677.16	0	0.00	0.00	49	21.72	1382.79
52	0.788	7.93	173	142	0.02	0.010	0.247	0.00	0.02	7.0	3.67	680.83	0	0.00	0.00	52	27.23	1410.02

¹⁾ Conductivity originally reported in mS/cm. Reported in $\mu\text{S}/\text{cm}$ after week 40.

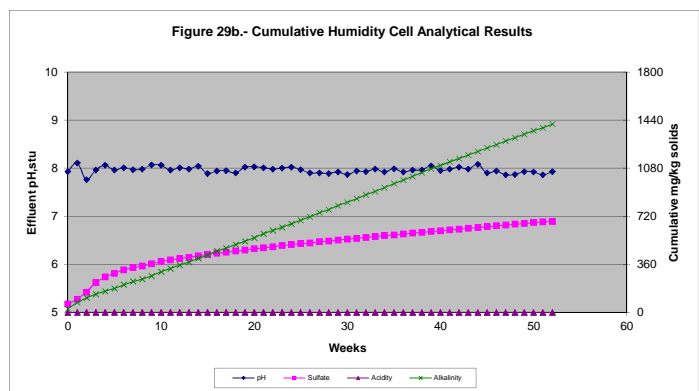
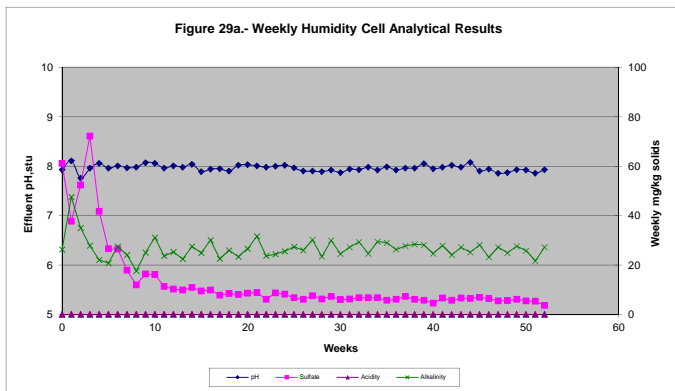


Table 30 - Humidity Cell Analytical Results, K-Spar Breccia 0-5 Comp. Flotation Tailings (1.4926 Kg)

Week	Vol. L	Effluent pH	Redox, mV (vs Ag/AgCl)	Conductivity $\mu\text{S}/\text{cm}^1$	Total Fe			Fe^{2+} mg/l	Fe^{3+} mg/l	$\text{SO}_4^{=}$			Acidity, CaCO_3 Equivalents			Alkalinity, CaCO_3 Equivalents		
					mg/l	mg/kg	Cum. mg/kg			mg/l	mg/kg	Cum. mg/kg	mg/l	mg/kg	Cum. mg/kg	mg/l	mg/kg	Cum. mg/kg
0	0.483	7.86	196	870	0.01	0.003	0.003	0.00	0.01	215.0	69.57	69.57	0	0.00	0.00	63	20.39	20.39
1	0.854	8.10	194	510	0.00	0.000	0.003	0.00	0.00	130.0	74.38	143.95	0	0.00	0.00	80	45.77	66.16
2	0.550	7.83	205	370	0.01	0.004	0.007	0.00	0.01	59.0	21.74	165.69	0	0.00	0.00	105	38.69	104.85
3	0.610	8.01	207	520	0.00	0.000	0.007	0.00	0.00	105.0	42.91	208.60	0	0.00	0.00	62	25.34	130.19
4	0.701	8.13	205	330	0.00	0.000	0.007	0.00	0.00	55.0	25.83	234.43	0	0.00	0.00	85	39.92	170.11
5	0.744	8.20	180	250	0.00	0.000	0.007	0.00	0.00	15.0	7.48	241.91	0	0.00	0.00	83	41.37	211.48
6	0.737	8.10	181	240	0.00	0.000	0.007	0.00	0.00	15.0	7.41	249.32	0	0.00	0.00	77	38.02	249.50
7	0.739	8.12	235	220	0.00	0.000	0.007	0.00	0.00	15.0	7.43	256.75	0	0.00	0.00	74	36.64	286.14
8	0.739	8.12	206	200	0.02	0.010	0.017	0.00	0.02	10.0	4.95	261.70	0	0.00	0.00	72	35.65	321.79
9	0.738	8.13	181	200	0.01	0.005	0.022	0.00	0.01	17.0	8.41	270.11	0	0.00	0.00	70	34.61	356.40
10	0.737	8.07	204	190	0.01	0.005	0.027	0.00	0.01	16.0	7.90	278.01	0	0.00	0.00	68	33.58	389.98
11	0.755	8.12	229	180	0.01	0.005	0.032	0.00	0.01	16.0	8.09	286.10	0	0.00	0.00	68	34.40	424.38
12	0.832	8.24	199	160	0.01	0.006	0.038	0.00	0.01	14.0	7.80	293.90	0	0.00	0.00	64	35.67	460.05
13	0.726	8.11	245	200	0.00	0.000	0.038	0.00	0.00	34.0	16.54	310.44	0	0.00	0.00	61	29.67	489.72
14	0.616	8.30	178	100	0.01	0.004	0.042	0.00	0.01	15.0	6.19	316.63	0	0.00	0.00	30	12.38	502.10
15	0.619	7.57	219	40.0	0.00	0.000	0.042	0.00	0.00	1.0	0.41	317.04	0	0.00	0.00	16	6.64	508.74
16	0.597	7.91	225	210	0.02	0.008	0.050	0.00	0.02	49.0	19.60	336.64	0	0.00	0.00	43	17.20	525.94
17	0.583	7.78	212	40.0	0.02	0.008	0.058	0.00	0.02	4.0	1.56	338.20	0	0.00	0.00	19	7.42	533.36
18	0.628	8.63	185	50.0	0.04	0.017	0.075	0.01	0.03	3.0	1.26	339.46	0	0.00	0.00	22	9.26	542.62
19	0.540	8.11	175	210	0.02	0.007	0.082	0.00	0.02	49.0	17.73	357.19	0	0.00	0.00	45	16.28	558.90
20	0.676	8.13	247	180	0.02	0.009	0.091	0.00	0.02	31.0	14.04	371.23	0	0.00	0.00	55	24.91	583.81
21	0.752	8.16	223	160	0.02	0.010	0.101	0.00	0.02	21.0	10.58	381.81	0	0.00	0.00	54	27.21	611.02
22	0.615	8.13	237	130	0.02	0.008	0.109	0.00	0.02	12.0	4.94	386.75	0	0.00	0.00	45	18.54	629.56
23	0.666	8.14	205	180	0.01	0.004	0.113	0.00	0.01	23.0	10.26	397.01	0	0.00	0.00	59	26.33	655.89
24	0.729	8.17	209	160	0.00	0.000	0.113	0.00	0.00	19.0	9.28	406.29	0	0.00	0.00	57	27.84	683.73
25	0.738	8.04	247	170	0.01	0.005	0.118	0.00	0.01	15.0	7.42	413.71	0	0.00	0.00	61	30.16	713.89
26	0.719	8.29	245	90.0	0.01	0.005	0.123	0.00	0.01	9.0	4.34	418.05	0	0.00	0.00	37	17.82	731.71
27	0.774	8.00	258	180	0.01	0.005	0.128	0.00	0.01	15.0	7.78	425.83	0	0.00	0.00	66	34.22	765.93
28	0.781	8.01	211	150	0.02	0.010	0.138	0.02	0.00	14.0	7.33	433.16	0	0.00	0.00	60	31.39	797.32
29	0.712	7.98	223	160	0.01	0.005	0.143	0.00	0.01	14.0	6.68	439.84	0	0.00	0.00	57	27.19	824.51
30	0.751	7.97	232	160	0.00	0.000	0.143	0.00	0.00	12.0	6.04	445.88	0	0.00	0.00	59	29.69	854.20
31	0.714	7.99	196	140	0.01	0.005	0.148	0.00	0.01	11.0	5.26	451.14	0	0.00	0.00	56	26.79	880.99
32	0.752	8.01	187	150	0.00	0.000	0.148	0.00	0.00	12.0	6.05	457.19	0	0.00	0.00	56	28.21	909.20
33	0.754	8.04	196	160	0.01	0.005	0.153	0.00	0.01	13.0	6.57	463.76	0	0.00	0.00	59	29.80	939.00
34	0.742	7.97	199	130	0.03	0.015	0.168	0.00	0.03	9.0	4.47	468.23	0	0.00	0.00	50	24.86	963.86
35	0.713	8.01	190	130	0.01	0.005	0.173	0.00	0.01	9.0	4.30	472.53	0	0.00	0.00	51	24.36	988.22
36	0.701	7.93	211	120	0.02	0.009	0.182	0.00	0.02	11.0	5.17	477.70	0	0.00	0.00	46	21.60	1009.82
37	0.680	7.90	173	30.0	0.01	0.005	0.187	0.00	0.01	1.0	0.46	478.16	0	0.00	0.00	13	5.92	1015.74
38	0.750	8.02	178	170	0.00	0.000	0.187	0.00	0.00	21.0	10.55	488.71	0	0.00	0.00	56	28.14	1043.88
39	0.770	8.00	175	130	0.02	0.010	0.197	0.00	0.02	13.0	6.71	495.42	0	0.00	0.00	46	23.73	1067.61
40	0.662	7.97	191	130	0.01	0.004	0.201	0.00	0.01	10.0	4.44	499.86	0	0.00	0.00	48	21.29	1088.90
41	0.768	8.00	187	146	0.00	0.000	0.201	0.00	0.00	13.0	6.69	506.55	0	0.00	0.00	53	27.27	1116.17
42	0.734	8.07	172	137	0.01	0.005	0.206	0.00	0.01	11.0	5.41	511.96	0	0.00	0.00	50	24.59	1140.76
43	0.714	7.93	187	120	0.01	0.005	0.211	0.00	0.01	12.0	5.74	517.70	0	0.00	0.00	48	22.96	1163.72
44	0.728	8.08	154	134	0.01	0.005	0.216	0.00	0.01	12.0	5.85	523.55	0	0.00	0.00	51	24.87	1188.59
45	0.757	7.84	194	138	0.00	0.000	0.216	0.00	0.00	12.0	6.09	529.64	0	0.00	0.00	50	25.36	1213.95
46	0.712	7.90	167	131	0.02	0.010	0.226	0.00	0.02	9.0	4.29	533.93	0	0.00	0.00	49	23.37	1237.32
47	0.736	7.91	164	105	0.01	0.005	0.231	0.00	0.01	9.0	4.44	538.37	0	0.00	0.00	42	20.71	1258.03
48	0.664	7.88	174	147	0.01	0.004	0.235	0.00	0.01	14.0	6.23	544.60	0	0.00	0.00	50	22.24	1280.27
49	0.728	7.86	167	132	0.02	0.010	0.245	0.00	0.02	12.0	5.85	550.45	0	0.00	0.00	47	22.92	1303.19
50	0.752	7.92	182	136	0.00	0.000	0.245	0.00	0.00	9.0	4.53	554.98	0	0.00	0.00	48	24.18	1327.37
51	0.712	7.87	170	129	0.00	0.000	0.245	0.00	0.00	9.0	4.29	559.27	0	0.00	0.00	46	21.94	1349.31
52	0.719	7.93	174	133	0.03	0.014	0.259	0.00	0.03	7.0	3.37	562.64	0	0.00	0.00	49	23.60	1372.91

¹⁾ Conductivity originally reported in mS/cm. Reported in $\mu\text{S}/\text{cm}$ after week 40.

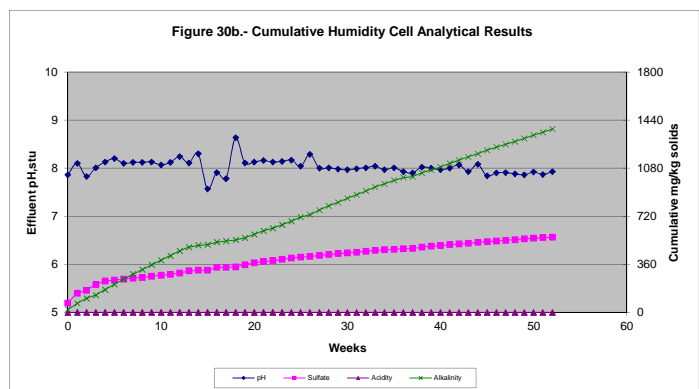
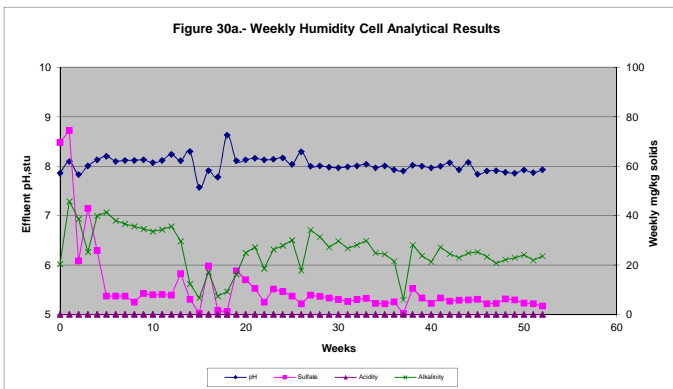
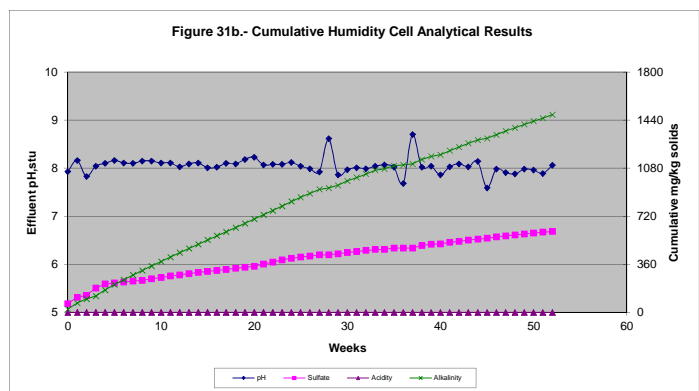
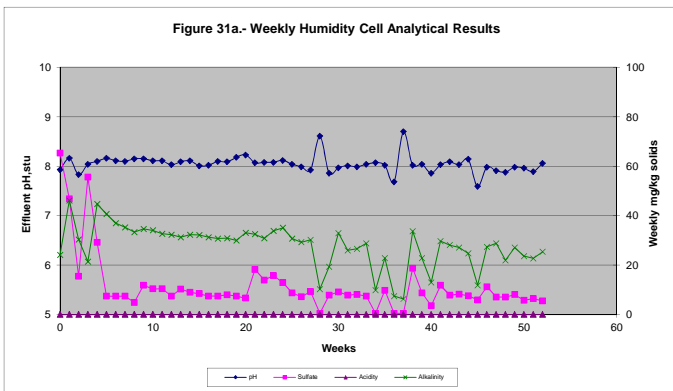


Table 31 - Humidity Cell Analytical Results, Quartz Monzonite 0-5 Comp. Flotation Tailings (1.4823 Kg)

Week	Vol. L	Effluent pH	Redox, mV (vs Ag/AgCl)	Conductivity $\mu\text{S}/\text{cm}^1$	Total Fe					$\text{SO}_4=$			Acidity, CaCO_3 Equivalents			Alkalinity, CaCO_3 Equivalents			
					mg/l		mg/kg		Cum. mg/kg	Fe^{2+} mg/l	Fe^{3+} mg/l	mg/l		mg/kg		mg/l		mg/kg	
					mg/l	mg/kg	mg/kg	mg/l	mg/l	mg/l	mg/kg	mg/kg	mg/kg	mg/l	mg/kg	mg/kg	mg/l	mg/kg	mg/kg
0	0.484	7.93	201	860	0.01	0.003	0.003	0.00	0.01	200.0	65.30	65.30	0	0.00	0.00	74	24.16	24.16	
1	0.867	8.16	200	420	0.00	0.000	0.003	0.00	0.00	80.0	46.79	112.09	0	0.00	0.00	79	46.21	70.37	
2	0.673	7.83	187	200	0.01	0.005	0.008	0.00	0.01	34.0	15.44	127.53	0	0.00	0.00	67	30.42	100.79	
3	0.549	8.04	202	500	0.00	0.000	0.008	0.00	0.00	150.0	55.56	183.09	0	0.00	0.00	58	21.48	122.27	
4	0.720	8.10	210	390	0.00	0.000	0.008	0.00	0.00	60.0	29.14	212.23	0	0.00	0.00	92	44.69	166.96	
5	0.735	8.16	199	260	0.00	0.000	0.008	0.00	0.00	15.0	7.44	219.67	0	0.00	0.00	82	40.66	207.62	
6	0.730	8.11	189	240	0.00	0.000	0.008	0.00	0.00	15.0	7.39	227.06	0	0.00	0.00	75	36.94	244.56	
7	0.736	8.10	238	210	0.00	0.000	0.008	0.00	0.00	15.0	7.45	234.51	0	0.00	0.00	71	35.25	279.81	
8	0.726	8.15	213	200	0.01	0.005	0.013	0.00	0.01	10.0	4.90	239.41	0	0.00	0.00	68	33.30	313.11	
9	0.734	8.15	184	210	0.01	0.005	0.018	0.00	0.01	24.0	11.88	251.29	0	0.00	0.00	70	34.66	347.77	
10	0.732	8.11	215	200	0.01	0.005	0.023	0.00	0.01	21.0	10.37	261.66	0	0.00	0.00	69	34.07	381.84	
11	0.734	8.11	230	190	0.00	0.000	0.023	0.00	0.00	21.0	10.40	272.06	0	0.00	0.00	66	32.68	414.52	
12	0.736	8.03	195	180	0.00	0.000	0.023	0.00	0.00	15.0	7.45	279.51	0	0.00	0.00	65	32.27	446.79	
13	0.725	8.09	242	180	0.00	0.000	0.023	0.00	0.00	21.0	10.27	289.78	0	0.00	0.00	64	31.30	478.09	
14	0.737	8.11	156	180	0.00	0.000	0.023	0.00	0.00	18.0	8.95	298.73	0	0.00	0.00	65	32.32	510.41	
15	0.734	8.01	199	170	0.00	0.000	0.023	0.00	0.00	17.0	8.42	307.15	0	0.00	0.00	65	32.19	542.60	
16	0.736	8.02	219	180	0.01	0.005	0.028	0.00	0.01	15.0	7.45	314.60	0	0.00	0.00	63	31.28	573.88	
17	0.735	8.10	190	160	0.02	0.010	0.038	0.00	0.02	15.0	7.44	322.04	0	0.00	0.00	62	30.74	604.62	
18	0.739	8.09	173	170	0.01	0.005	0.043	0.00	0.01	16.0	7.98	330.02	0	0.00	0.00	62	30.91	635.53	
19	0.741	8.18	161	160	0.01	0.005	0.048	0.00	0.01	15.0	7.50	337.52	0	0.00	0.00	60	29.99	665.52	
20	0.817	8.23	234	140	0.02	0.011	0.059	0.00	0.02	12.0	6.61	344.13	0	0.00	0.00	60	33.07	698.59	
21	0.730	8.07	202	200	0.02	0.010	0.069	0.00	0.02	37.0	18.22	362.35	0	0.00	0.00	66	32.50	731.09	
22	0.714	8.08	209	190	0.01	0.005	0.074	0.00	0.01	29.0	13.97	376.32	0	0.00	0.00	64	30.83	761.92	
23	0.728	8.08	206	200	0.01	0.005	0.079	0.00	0.01	32.0	15.72	392.04	0	0.00	0.00	69	33.89	795.81	
24	0.765	8.12	207	180	0.00	0.000	0.079	0.00	0.00	25.0	12.90	404.94	0	0.00	0.00	68	35.09	830.90	
25	0.724	8.04	240	180	0.01	0.005	0.084	0.00	0.01	18.0	8.79	413.73	0	0.00	0.00	63	30.77	861.67	
26	0.761	7.99	221	150	0.01	0.005	0.089	0.00	0.01	14.0	7.19	420.92	0	0.00	0.00	57	29.26	890.93	
27	0.761	7.92	253	170	0.01	0.005	0.094	0.00	0.01	18.0	9.24	430.16	0	0.00	0.00	59	30.29	921.22	
28	0.637	8.61	164	50.0	0.02	0.009	0.103	0.02	0.00	1.0	0.43	430.59	0	0.00	0.00	24	10.31	931.53	
29	0.775	7.86	212	110	0.04	0.021	0.124	0.00	0.04	15.0	7.84	438.43	0	0.00	0.00	37	19.34	950.87	
30	0.800	7.97	226	170	0.00	0.000	0.124	0.00	0.00	17.0	9.17	447.60	0	0.00	0.00	61	32.92	983.79	
31	0.686	8.01	188	160	0.01	0.005	0.129	0.00	0.01	17.0	7.87	455.47	0	0.00	0.00	56	25.92	1009.71	
32	0.704	7.99	188	150	0.00	0.000	0.129	0.00	0.00	17.0	8.07	463.54	0	0.00	0.00	56	26.60	1036.31	
33	0.736	8.04	196	160	0.01	0.005	0.134	0.00	0.01	15.0	7.45	470.99	0	0.00	0.00	58	28.80	1065.11	
34	0.699	8.07	170	40.0	0.02	0.009	0.143	0.00	0.02	1.0	0.47	471.46	0	0.00	0.00	21	9.90	1075.01	
35	0.628	8.02	190	170	0.01	0.004	0.147	0.00	0.01	23.0	9.74	481.20	0	0.00	0.00	54	22.88	1097.89	
36	0.694	7.68	200	30.0	0.02	0.009	0.156	0.00	0.02	1.0	0.47	481.67	0	0.00	0.00	16	7.49	1105.38	
37	0.668	8.70	151	30.0	0.02	0.009	0.165	0.00	0.02	1.0	0.45	482.12	0	0.00	0.00	14	6.31	1111.69	
38	0.793	8.02	179	210	0.00	0.000	0.165	0.00	0.00	35.0	18.72	500.84	0	0.00	0.00	63	33.70	1145.39	
39	0.719	8.04	171	140	0.01	0.005	0.170	0.00	0.01	18.0	8.73	509.57	0	0.00	0.00	47	22.80	1168.19	
40	0.667	7.86	188	80.0	0.02	0.009	0.179	0.00	0.02	8.0	3.60	513.17	0	0.00	0.00	29	13.05	1181.24	
41	0.760	8.03	189	174	0.00	0.000	0.179	0.00	0.00	23.0	11.79	524.96	0	0.00	0.00	58	29.74	1210.98	
42	0.731	8.09	174	163	0.01	0.005	0.184	0.00	0.01	16.0	7.89	532.85	0	0.00	0.00	57	28.11	1239.09	
43	0.758	8.03	189	136	0.01	0.005	0.189	0.00	0.01	16.0	8.18	541.03	0	0.00	0.00	53	27.10	1266.19	
44	0.705	8.14	153	146	0.02	0.010	0.199	0.00	0.02	16.0	7.61	548.64	0	0.00	0.00	52	24.73	1290.92	
45	0.734	7.59	196	73.3	0.03	0.015	0.214	0.00	0.03	12.0	5.94	554.58	0	0.00	0.00	24	11.88	1302.80	
46	0.724	7.98	163	164	0.02	0.010	0.224	0.00	0.02	23.0	11.23	565.81	0	0.00	0.00	56	27.35	1330.15	
47	0.807	7.91	171	138	0.01	0.005	0.229	0.00	0.01	13.0	7.08	572.89	0	0.00	0.00	53	28.85	1359.00	
48	0.650	7.88	168	150	0.01	0.004	0.233	0.00	0.01	16.0	7.02	579.91	0	0.00	0.00	50	21.93	1380.93	
49	0.745	7.98	163	151	0.02	0.010	0.243	0.00	0.02	16.0	8.04	587.95	0	0.00	0.00	54	27.14	1408.07	
50	0.716	7.96	166	145	0.00	0.000	0.243	0.00	0.00	12.0	5.80	593.75	0	0.00	0.00	49	23.67	1431.74	
51	0.732	7.89	186	142	0.00	0.000	0.243	0.00	0.00	13.0	6.42	600.17	0	0.00	0.00	46	22.72	1454.46	
52	0.738	8.06	182	145	0.04	0.020	0.263	0.00	0.04	11.0	5.48	605.65	0	0.00	0.00	51	25.39	1479.85	

¹⁾ Conductivity originally reported in mS/cm. Reported in $\mu\text{S}/\text{cm}$ after week 40.



**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project, Sample 604 673**

Analysis, mg/L	Extract Week							
	Week 0	Week 1	Week 2	Week 4	Week 8	Week 12	Week 16	Week 20
Alkalinity, CaCO ₃	76	70	67	52	31	8.0	6.1	4.7
CO ₃ , CaCO ₃	5.9	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HCO ₃	81	82	82	64	38	9.8	7.4	5.7
Aluminum	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045
Antimony	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Arsenic	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Barium	<0.010	0.019	0.029	0.049	0.059	0.038	0.034	0.035
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Boron	0.11	0.13	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Cadmium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	52	25	20	21	18	12	9.3	7.0
Chloride	17	1.5	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoride	3.2	2.0	1.6	1.1	0.54	0.34	0.32	0.33
Gallium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Lead	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Lithium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	7.6	4.0	3.2	3.3	2.4	1.5	1.2	0.95
Manganese	<0.0050	0.010	0.014	0.020	0.016	0.017	0.033	0.019
Mercury	0.00032	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Molybdenum	0.26	0.094	0.057	0.051	0.042	0.024	0.018	0.014
Nickel	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate as N	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nitrite as N	0.20	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
pH, stu	8.50	8.33	7.98	7.85	6.52	6.82	6.96	6.98
Phosphorus	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Potassium	19	16	12	12	6.4	3.2	2.4	2.1
Scandium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Selenium	0.010	0.0062	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	29	21	12	4.7	1.5	0.84	0.71	0.66
Strontium	0.38	0.23	0.19	0.19	0.16	0.10	<0.10	<0.10
Sulfate	140	60	38	32	31	31	26	20
Thallium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tin	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total Dissolved Solids	350	190	140	150	110	56	48	62
Uranium	0.057	0.057	0.055	0.034	0.015	<0.010	<0.010	<0.010
Vanadium	0.017	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Zinc	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cations, meq/L	4.97	2.90	2.09	1.83	1.33	0.84	0.66	0.51
Anions, meq/L	5.09	2.81	2.22	1.77	1.30	0.82	0.68	0.53
Balance, %	1.2	1.6	3.0	1.6	1.1	1.0	1.7	1.6
WET Lab Report #	1101435	1102063	1102168	1102331	1103402	1104345	1105313	1106342

**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project, Sample 604 673**

Analysis, mg/L	Extract Week							
	Week 24	Week 28	Week 32	Week 36	Week 40	Week 44	Week 48	Week 52
Alkalinity, CaCO ₃	2.0	1.5	<1.0	1.0	1.1	1.4	<1.0	<1.0
CO ₃ , CaCO ₃	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HCO ₃	2.4	1.8	<1.0	1.3	1.3	1.7	<1.0	<1.0
Aluminum	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045
Antimony	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Arsenic	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Barium	0.048	0.041	0.048	0.050	0.047	0.048	0.047	0.044
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Boron	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Cadmium	<0.0010	<0.0050	<0.0050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	8.3	8.8	7.4	6.7	6.6	5.3	5.6	5.5
Chloride	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.13	0.097
Fluoride	0.43	0.55	0.55	0.51	0.49	0.40	0.40	0.41
Gallium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Lead	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Lithium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	1.1	1.2	1.0	0.98	0.89	0.74	0.78	0.79
Manganese	0.024	0.061	0.044	0.037	0.050	0.024	0.028	0.025
Mercury	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Molybdenum	0.018	0.015	0.015	0.016	0.015	0.012	<0.010	<0.010
Nickel	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate as N	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nitrite as N	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
pH, stu	6.35	6.22	6.14	6.06	6.29	6.33	5.89	5.92
Phosphorus	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Potassium	2.2	1.9	1.8	1.5	1.5	1.2	1.4	1.2
Scandium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Selenium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	0.73	0.74	0.55	<0.50	0.59	0.52	0.51	<0.50
Strontium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sulfate	28	29	23	22	19	14	16	15
Thallium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tin	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total Dissolved Solids	29	51	47	38	40	28	62	32
Uranium	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vanadium	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Zinc	0.010	<0.010	0.017	0.013	0.021	0.014	0.017	0.016
Cations, meq/L	0.59	0.62	0.52	0.46	0.47	0.38	0.41	0.37
Anions, meq/L	0.64	0.66	0.51	0.51	0.44	0.34	0.35	0.33
Balance, %	4.1	3.2	1.5	5.3	2.9	5.5	7.0	5.7
WET Lab Report #	1107281	1108216	1109159	1110123	1111082	1112047	1112489	1201427

**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project, Sample 604 673**

Analysis, mg/L	Extract Week							
	Week 56	Week 60	Week 64	Week 68	Week 72	Week 76	Week 80	Week 84
Alkalinity, CaCO ₃	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CO ₃ , CaCO ₃	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HCO ₃	1.2	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aluminum	<0.045	<0.045	0.053	0.079	0.13	0.15	0.14	0.16
Antimony	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Arsenic	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.040	<0.0050
Barium	0.054	0.054	0.054	0.077	0.068	0.068	0.059	0.070
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Boron	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Cadmium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0012
Calcium	6.1	5.7	5.6	7.6	7.4	7.3	6.3	7.3
Chloride	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	0.20	0.24	0.36	0.55	0.77	0.87	0.93	1.2
Fluoride	0.32	0.37	0.31	0.31	0.39	0.52	0.54	0.40
Gallium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	0.018	0.017
Lead	<0.0025	<0.0025	<0.0025	<0.0025	0.0034	<0.0025	<0.0025	0.0027
Lithium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	0.92	0.83	0.81	1.1	1.0	1.0	0.90	1.0
Manganese	0.042	0.050	0.031	0.042	0.041	0.044	0.037	0.048
Mercury	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Molybdenum	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nickel	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate as N	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nitrite as N	<0.025	<0.025	<0.030	<0.030	<0.030	<0.025	<0.025	<0.025
pH, stu	5.46	5.96	5.70	5.44	5.42	5.41	4.92	5.17
Phosphorus	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Potassium	1.2	0.92	0.90	1.1	<2.5	0.93	0.86	0.68
Scandium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Selenium	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.040	<0.0050
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.53	<0.50
Strontium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sulfate	18	18	22 ¹⁾	25	23	27	28	28
Thallium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tin	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total Dissolved Solids	35	43	18	55	35	52	58	51
Uranium	<0.010	<0.010	<0.0050	<0.0050	0.0078	0.0072	0.0096	0.014
Vanadium	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Zinc	0.028	0.031	0.030	0.046	0.044	0.048	0.040	0.050
Cations, meq/L	0.42	0.39	0.39	0.53	0.49	0.52	0.48	0.52
Anions, meq/L	0.41	0.41	0.41	0.54	0.50	0.59	0.61	0.60
Balance, %	<1.0	3.0	2.9	<1.0	<1.0	6.5	12	7.1
WET Lab Report #	1202374	1203479	1204385	1205361	1206343	1207261	1208181	1209076

1) Sulfate calculated from total sulfur result. The original sulfate analysis was higher than TDS result.

**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project, Sample 604 673**

Analysis, mg/L	Extract Week							
	Week 88	Week 92	Week 96	Week 100	Week 104	Week 108	Week 112	Week 116
Alkalinity, CaCO ₃	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CO ₃ , CaCO ₃	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HCO ₃	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aluminum	0.16	0.18	0.20	0.17	0.19	0.16	0.19	0.19
Antimony	<0.0025	<0.010	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Arsenic	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.015
Barium	0.12	0.068	0.080	0.065	0.075	0.063	0.068	0.065
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	<0.0010	0.0010	<0.0010
Bismuth	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Boron	<0.10	<0.10	<0.10	<0.10	<0.100	<0.100	<0.10	<0.10
Cadmium	<0.0010	<0.0010	<0.0010	<0.0010	0.0014	<0.0010	<0.0050	<0.0010
Calcium	8.4	6.7	7.7	6.0	7.2	6.2	7.2	7.0
Chloride	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	1.3	1.4	1.8	1.6	2.1	1.8	2.5	2.8
Fluoride	0.36	0.48	0.27	0.24	0.17	0.22	0.24	0.18
Gallium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	0.020	0.020	0.017	0.027	<0.010	<0.010	0.042	0.064
Lead	0.0026	0.0054	0.013	0.0091	0.011	0.0074	0.015	0.011
Lithium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	1.1	0.92	1.0	0.81	0.94	0.83	0.97	0.96
Manganese	0.051	0.048	0.051	0.041	0.050	0.041	0.052	0.053
Mercury	<0.00010	<0.0005	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Molybdenum	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nickel	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate as N	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nitrite as N	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
pH, stu	5.31	5.49	5.29	5.11	5.64	4.83	4.95	4.71
Phosphorus	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Potassium	1.0	0.84	0.88	0.82	0.82	0.72	0.72	0.71
Scandium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.100	<0.100	<0.100
Selenium	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.025
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	<0.50	<0.50	0.99	<0.50	<0.50	0.94	0.52	0.58
Strontium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sulfate	31	26	27	21	25	23	30	28
Thallium	<0.0010	<0.0050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tin	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total Dissolved Solids	63	34	65	74	48	32	60	59
Uranium	0.014	0.016	0.025	0.024	0.028	0.018	0.032	0.026
Vanadium	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Zinc	0.052	0.058	0.060	0.047	0.063	0.054	0.064	0.058
Cations, meq/L	0.60	0.50	0.62	0.46	0.55	0.51	0.59	0.59
Anions, meq/L	0.66	0.57	0.58	0.45	0.53	0.49	0.64	0.59
Balance, %	5.2	6.2	3.3	1.2	1.8	2.4	4.2	<1.0
WET Lab Report #	1210131	1211013	1211513	1212496	1301374	1302356	1303419	1304347

**Table . - Profile II Analytical Results, HC Extracts,
 Copper Flat Project, Sample 604 673**

Analysis, mg/L	Extract Week	
	Week 120	
Alkalinity, CaCO ₃	<1.0	
CO ₃ , CaCO ₃	<1.0	
HCO ₃	<1.0	
Aluminum	0.20	
Antimony	<0.010	
Arsenic	<0.010	
Barium	0.071	
Beryllium	0.0010	
Bismuth	<0.10	
Boron	<0.10	
Cadmium	0.0014	
Calcium	7.7	
Chloride	<1.00	
Chromium	<0.0050	
Cobalt	<0.010	
Copper	3.3	
Fluoride	0.18	
Gallium	<0.10	
Iron	0.065	
Lead	0.017	
Lithium	<0.10	
Magnesium	1.0	
Manganese	0.059	
Mercury	<0.0002	
Molybdenum	<0.010	
Nickel	<0.010	
Nitrate as N	<0.10	
Nitrite as N	<0.025	
pH, stu	4.79	
Phosphorus	<0.50	
Potassium	1.0	
Scandium	<0.100	
Selenium	<0.010	
Silver	<0.0050	
Sodium	<0.50	
Strontium	<0.10	
Sulfate	29	
Thallium	<0.0020	
Tin	<0.10	
Titanium	<0.10	
Total Dissolved Solids	66	
Uranium	0.036	
Vanadium	<0.010	
Zinc	0.076	
Cations, meq/L	0.63	
Anions, meq/L	0.61	
Balance, %	1.0	
WET Lab Report #	1305351	

**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project, Sample CF-11-02 (0-27)**

Analysis, mg/L	Extract Week							
	Week 0	Week 1	Week 2	Week 4	Week 8	Week 12	Week 16	Week 20
Alkalinity, CaCO ₃	110	92	76	64	78	43	44	39
CO ₃ , CaCO ₃	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HCO ₃	140	110	92	78	96	52	53	47
Aluminum	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	0.048	0.049
Antimony	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Arsenic	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010
Barium	<0.010	<0.010	0.010	0.012	0.010	<0.010	<0.010	<0.010
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Boron	<0.10	<0.10	<0.10	<0.10	0.20	<0.10	<0.10	<0.10
Cadmium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0050	<0.0010
Calcium	40	32	25	24	32	20	16	19
Chloride	20	1.7	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoride	8.6	4.4	2.5	1.8	0.86	0.93	1.2	1.2
Gallium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	<0.010	<0.010	<0.010	<0.010	<0.050	<0.050	<0.050	<0.010
Lead	<0.0025	0.0028	0.0036	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Lithium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	7.1	6.7	5.2	4.6	5.9	3.7	2.9	3.2
Manganese	0.031	0.12	0.064	0.043	0.061	0.035	0.028	0.028
Mercury	0.00037	0.00036	0.00032	0.00017	<0.00010	<0.00010	<0.00010	<0.00010
Molybdenum	0.053	0.059	0.023	<0.010	<0.010	<0.010	0.011	<0.010
Nickel	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate as N	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nitrite as N	0.059	<0.030	<0.030	<0.030	<0.025	<0.025	<0.025	<0.025
pH, stu	8.16	7.45	7.93	7.97	7.35	7.79	7.67	7.55
Phosphorus	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Potassium	18	15	11	8.9	7.0	3.5	2.4	2.2
Scandium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Selenium	0.0099	0.011	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	48	18	7.4	2.8	1.6	0.72	0.62	0.53
Strontium	0.38	0.33	0.26	0.20	0.30	0.18	0.14	0.16
Sulfate	98	54	28	20	37	24	21	23
Thallium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tin	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total Dissolved Solids	350	210	170	130	180	120	91	80
Uranium	0.014	0.027	0.020	0.014	0.0082	0.0067	<0.0050	<0.0050
Vanadium	<0.010	<0.010	<0.010	<0.010	0.011	<0.010	<0.010	<0.010
Zinc	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cations, meq/L	5.13	3.32	2.28	1.93	2.33	1.42	1.13	1.30
Anions, meq/L	5.35	3.21	2.22	1.79	2.39	1.40	1.37	1.31
Balance, %	2.1	1.7	1.3	3.7	1.2	<1.0	9.5	<1.0
WET Lab Report #	1205220	1205362	1205478	1206157	1207066	1208040	1208599	1209549

**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project, Sample CF-11-02 (0-27)**

Analysis, mg/L	Extract Week							
	Week 24	Week 28	Week 32	Week 36	Week 40	Week 44	Week 48	Week 52
Alkalinity, CaCO ₃	44	38	44	43	61	40	38	39
CO ₃ , CaCO ₃	<1.0	<1.0	<1.0	<1.0	15	<1.0	<1.0	<1.0
HCO ₃	53	46	54	52	44	49	46	47
Aluminum	0.050	0.052	0.058	<0.045	0.048	0.052	0.060	0.054
Antimony	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Arsenic	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Barium	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Boron	<0.10	<0.10	<0.100	<0.100	<0.100	<0.100	<0.10	<0.10
Cadmium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	18	16	17	18	17	17	16	16
Chloride	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoride	1.0	0.91	0.97	0.86	0.98	0.91	0.94	0.85
Gallium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	<0.010	<0.010	0.013	0.015	0.010	<0.010	0.013	0.014
Lead	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Lithium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	3.2	2.9	3.0	3.0	2.8	2.6	2.6	2.6
Manganese	0.023	0.017	0.026	0.032	0.037	0.041	0.032	0.035
Mercury	<0.00010	<0.00010	<0.00010	<0.00010	0.00011	<0.00010	<0.00010	<0.00010
Molybdenum	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nickel	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate as N	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nitrite as N	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
pH, stu	7.50	7.77	7.89	7.70	8.93	7.65	7.52	7.44
Phosphorus	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Potassium	2.0	2.2	1.6	1.3	1.2	1.3	1.4	1.3
Scandium	<0.10	<0.1000	<0.10	<0.10	<0.10	<0.10	<0.100	<0.100
Selenium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	0.70	1.8	<0.50	<0.50	0.69	0.55	<0.50	0.60
Strontium	0.15	0.14	0.14	0.14	0.13	0.12	0.13	0.13
Sulfate	19	17	18	15	13	15	14	12
Thallium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tin	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total Dissolved Solids	83	84	58	84	75	82	60	64
Uranium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Vanadium	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Zinc	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cations, meq/L	1.25	1.18	1.14	1.18	1.15	1.13	1.06	1.08
Anions, meq/L	1.32	1.16	1.31	1.21	1.54	1.16	1.09	1.06
Balance, %	2.6	<1.0	6.8	1.2	15	1.6	1.8	<1.0
WET Lab Report #	1210537	1211395	1212419	1301263	1302236	1303281	1304219	1305198

**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project, Sample CF-11-02 (0-27)**

Analysis, mg/L	Extract Week	
	Week 56	Week 60
Alkalinity, CaCO ₃	21	36
CO ₃ , CaCO ₃	<1.0	<1.0
HCO ₃	25	44
Aluminum	0.13	0.060
Antimony	<0.0025	<0.0025
Arsenic	<0.0050	<0.0050
Barium	<0.010	<0.010
Beryllium	<0.0010	<0.0010
Bismuth	<0.10	<0.10
Boron	<0.10	<0.10
Cadmium	<0.0010	<0.0010
Calcium	13	16
Chloride	<1.00	<1.00
Chromium	<0.0050	<0.0050
Cobalt	<0.010	<0.010
Copper	<0.050	<0.050
Fluoride	0.79	0.87
Gallium	<0.10	<0.10
Iron	<0.010	0.012
Lead	<0.0025	<0.0025
Lithium	<0.10	<0.10
Magnesium	<0.50	2.4
Manganese	0.028	0.029
Mercury	<0.00010	<0.00010
Molybdenum	<0.010	<0.010
Nickel	<0.010	<0.010
Nitrate as N	<0.10	<0.10
Nitrite as N	<0.025	<0.025
pH, stu	6.99	7.47
Phosphorus	<0.50	<0.50
Potassium	0.50	0.87
Scandium	<0.100	<0.100
Selenium	<0.0050	<0.0050
Silver	<0.0050	<0.0050
Sodium	<0.50	<0.50
Strontium	<0.10	0.12
Sulfate	9.0	14
Thallium	<0.0010	<0.0010
Tin	<0.10	<0.10
Titanium	<0.10	<0.10
Total Dissolved Solids	42	70
Uranium	<0.0050	<0.0050
Vanadium	<0.010	<0.010
Zinc	<0.010	<0.010
Cations, meq/L	0.68	1.03
Anions, meq/L	0.64	1.06
Balance, %	2.9	1.5
WET Lab Report #	1306122	1307113

*Test Terminated after week 60.

**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project, Sample CF-11-02 (367-408)**

Analysis, mg/L	Extract Week							
	Week 0	Week 1	Week 2	Week 4	Week 8	Week 12	Week 16	Week 20
Alkalinity, CaCO ₃	59	46	42	40	84	33	36	30
CO ₃ , CaCO ₃	2.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HCO ₃	66	56	51	49	100	40	44	36
Aluminum	0.078	0.090	0.088	0.099	0.13	0.089	0.074	0.11
Antimony	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Arsenic	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010
Barium	<0.010	0.011	0.012	0.014	0.017	<0.010	0.015	<0.010
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Boron	<0.10	<0.10	<0.10	<0.10	0.22	<0.10	<0.10	<0.10
Cadmium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	18	16	14	18	29	15	20	16
Chloride	32	3.4	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.079	<0.050
Fluoride	3.3	1.7	1.2	1.2	0.75	0.87	1.9	1.1
Gallium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010
Lead	<0.0025	0.0027	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Lithium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	2.1	1.9	1.5	1.9	2.7	1.3	1.5	0.94
Manganese	<0.0050	<0.0050	0.0071	0.0086	0.020	0.019	0.023	0.020
Mercury	0.00041	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Molybdenum	0.020	0.016	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nickel	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate as N	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nitrite as N	0.044	<0.030	<0.030	<0.030	<0.025	<0.025	0.11	<0.025
pH, stu	8.53	7.25	7.83	7.60	7.45	7.36	7.40	7.50
Phosphorus	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Potassium	12	10	8.0	8.1	6.1	2.9	2.8	1.7
Scandium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Selenium	<0.0050	0.0054	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	38	18	7.8	3.3	1.7	0.78	0.83	<0.50
Strontium	0.29	0.24	0.20	0.23	0.38	0.18	0.23	0.17
Sulfate	40	32	18	20	22	18	24	17
Thallium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tin	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total Dissolved Solids	210	150	96	96	180	80	90	62
Uranium	<0.0050	0.0062	0.0075	0.0069	0.0058	<0.0050	<0.0050	<0.0050
Vanadium	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Zinc	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cations, meq/L	3.04	2	1.38	1.42	1.91	0.97	1.24	0.93
Anions, meq/L	3.09	1.77	1.27	1.28	2.14	1.08	1.32	1.00
Balance, %	<1.0	6.2	3.9	5.0	5.5	5.0	3.1	3.6
WET Lab Report #	1205220	1205362	1205478	1206157	1207066	1208040	1208599	1209549

**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project, Sample CF-11-02 (367-408)**

Analysis, mg/L	Extract Week							
	Week 24	Week 28	Week 32	Week 36	Week 40	Week 44	Week 48	Week 52
Alkalinity, CaCO ₃	29	23	30	28	25	25	23	20
CO ₃ , CaCO ₃	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HCO ₃	36	28	37	34	31	31	28	25
Aluminum	0.10	0.14	0.12	0.084	0.12	0.15	0.14	0.12
Antimony	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Arsenic	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Barium	0.049	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Boron	<0.10	<0.10	<0.100	<0.100	<0.100	<0.100	<0.10	<0.10
Cadmium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	16	15	13	14	12	12	13	11
Chloride	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	<0.050	0.056	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoride	1.0	1.0	0.97	0.91	0.91	0.89	0.86	0.71
Gallium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	<0.010	0.033	0.010	<0.010	<0.010	0.015	<0.010	0.016
Lead	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Lithium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	0.83	0.69	0.53	<0.50	<0.50	<0.50	<0.50	<0.50
Manganese	0.022	0.022	0.022	0.021	0.023	0.029	0.024	0.028
Mercury	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Molybdenum	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nickel	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate as N	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nitrite as N	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
pH, stu	7.69	7.54	7.40	7.41	7.61	7.52	7.28	7.16
Phosphorus	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Potassium	1.4	1.8	1.1	0.85	<2.5	0.85	0.83	<2.5
Scandium	<0.10	<0.1000	<0.10	<0.10	<0.10	<0.10	<0.100	<0.100
Selenium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	0.58	1.4	<0.50	<0.50	0.51	<0.50	<0.50	<0.50
Strontium	0.15	0.15	0.12	0.12	<0.10	<0.10	<0.10	<0.10
Sulfate	17	16	8.7	7.8	8.1	6.8	7.5	7.5
Thallium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tin	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total Dissolved Solids	63	89	45	48	45	54	51	45
Uranium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Vanadium	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Zinc	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cations, meq/L	0.94	0.93	0.74	0.73	0.64	0.64	0.69	0.56
Anions, meq/L	1.00	0.84	0.84	0.77	0.72	0.70	0.66	0.60
Balance, %	2.9	4.9	6.6	2.5	6.6	4.3	1.9	3.4
WET Lab Report #	1210537	1211395	1212419	1301263	1302236	1303281	1304219	1305198

**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project, Sample CF-11-02 (367-408)**

Analysis, mg/L	Extract Week	
	Week 56	Week 60
Alkalinity, CaCO ₃	39	18
CO ₃ , CaCO ₃	<1.0	<1.0
HCO ₃	47	22
Aluminum	<0.045	0.13
Antimony	<0.0025	<0.0025
Arsenic	<0.0050	<0.0050
Barium	<0.010	<0.010
Beryllium	<0.0010	<0.0010
Bismuth	<0.10	<0.10
Boron	<0.10	<0.10
Cadmium	<0.0010	<0.0010
Calcium	20	9.6
Chloride	<1.00	<1.00
Chromium	<0.0050	<0.0050
Cobalt	<0.010	<0.010
Copper	<0.050	<0.050
Fluoride	0.94	0.71
Gallium	<0.10	<0.10
Iron	<0.010	<0.010
Lead	<0.0025	<0.0025
Lithium	<0.10	<0.10
Magnesium	3.1	<0.50
Manganese	0.035	0.023
Mercury	<0.00010	<0.00010
Molybdenum	<0.010	<0.010
Nickel	<0.010	<0.010
Nitrate as N	<0.10	<0.10
Nitrite as N	<0.025	<0.025
pH, stu	7.64	7.25
Phosphorus	<0.50	<0.50
Potassium	0.91	<0.50
Scandium	<0.100	<0.100
Selenium	<0.0050	<0.0050
Silver	<0.0050	<0.0050
Sodium	<0.50	<0.50
Strontium	0.16	<0.10
Sulfate	17	6.8
Thallium	<0.0010	<0.0010
Tin	<0.10	<0.10
Titanium	<0.10	<0.10
Total Dissolved Solids	64	48
Uranium	<0.0050	<0.0050
Vanadium	<0.010	<0.010
Zinc	<0.010	<0.010
Cations, meq/L	1.28	0.49
Anions, meq/L	1.17	0.54
Balance, %	4.2	4.4
WET Lab Report #	1306122	1307113

*Test Terminated after week 60.

**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project Flotation Tailings, Sample CF-11-02 (227-367)**

Analysis, mg/L	Extract Week							
	Week 0	Week 1	Week 2	Week 4	Week 8	Week 12	Week 16	Week 20
Alkalinity, CaCO ₃	100	110	94	71	54	62	59	57
CO ₃ , CaCO ₃	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HCO ₃	120	130	110	87	66	76	72	69
Aluminum	<0.22	0.069	<0.045	0.064	0.073	0.055	0.076	0.070
Antimony	<0.0025	<0.0025	<0.0025	<0.0025	<0.0050	<0.0025	<0.0050	<0.0025
Arsenic	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.010	<0.0050
Barium	0.022	0.049	0.068	0.083	0.049	0.055	0.044	0.044
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Boron	<0.10	<0.10	0.14	<0.10	<0.10	<0.10	<0.10	<0.10
Cadmium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	22	23	30	30	22	23	20	19
Chloride	5.3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	0.053	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoride	3.5	1.8	1.5	1.6	1.6	1.6	1.5	1.5
Gallium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	<0.010	0.027	<0.010	<0.010	<0.050	<0.050	0.021	0.017
Lead	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Lithium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	4.4	5.3	6.8	7.2	5.0	4.9	3.9	3.7
Manganese	<0.0050	0.030	<0.025	0.015	0.024	0.025	0.027	0.023
Mercury	0.0003	<0.00010	<0.00010	0.00016	<0.00010	<0.00010	0.0012	<0.00010
Molybdenum	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nickel	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate as N	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nitrite as N	0.069	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
pH, stu	7.78	7.78	7.60	7.61	7.66	7.75	7.81	7.75
Phosphorus	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Potassium	22	17	16	12	7.5	6.0	4.8	4.3
Scandium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Selenium	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.010	<0.0050
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	28	15	7.9	3.9	2.0	1.5	1.2	1.0
Strontium	0.22	0.24	0.30	0.29	0.22	0.21	0.20	0.18
Sulfate	46	33	51	49	35	24	17	12
Thallium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tin	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total Dissolved Solids	250	180	190	160	110	120	100	92
Uranium	0.0091	0.017	0.025	0.030	0.016	0.012	0.0082	0.0068
Vanadium	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Zinc	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cations, meq/L	3.24	2.68	2.81	2.57	1.80	1.78	1.50	1.42
Anions, meq/L	3.26	2.91	2.94	2.53	1.89	1.83	1.61	1.46
Balance, %	<1.0	4.1	2.3	<1.0	2.6	1.5	3.5	1.5
WET Lab Report #	1206505	1206646	1207080	1207417	1208332	1209232	1210284	1211156

**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project Flotation Tailings, Sample CF-11-02 (227-367)**

Analysis, mg/L	Extract Week							
	Week 24	Week 28	Week 32	Week 36	Week 40	Week 44	Week 48	Week 52
Alkalinity, CaCO ₃	58	58	53	54	56	43	47	43
CO ₃ , CaCO ₃	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HCO ₃	71	71	64	65	69	52	58	52
Aluminum	0.070	0.062	0.062	0.066	0.075	0.091	0.16	0.15
Antimony	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Arsenic	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0079
Barium	0.049	0.047	0.042	0.043	0.044	0.031	0.033	0.032
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Boron	<0.10	<0.100	<0.100	<0.100	<0.10	<0.10	<0.10	<0.10
Cadmium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	18	18	18	18	18	15	16	16
Chloride	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoride	1.1	1.1	1.1	1.0	1.1	0.94	0.96	0.85
Gallium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	0.054	<0.010	0.013	<0.010	0.018	<0.050	0.092	0.028
Lead	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Lithium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	3.4	3.1	2.9	2.6	2.7	2.0	2.1	1.9
Manganese	0.038	0.027	0.025	0.029	0.029	0.019	0.022	0.030
Mercury	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Molybdenum	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nickel	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate as N	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nitrite as N	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
pH, stu	7.85	7.84	7.75	7.80	7.77	7.70	7.86	7.78
Phosphorus	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Potassium	3.8	3.3	2.9	2.7	2.7	2.2	2.1	2.1
Scandium	<0.10	<0.10	<0.10	<0.10	<0.100	<0.100	<0.100	<0.100
Selenium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	0.94	1.2	0.74	<0.50	1.6	<0.50	0.58	0.61
Strontium	0.19	0.17	0.16	0.16	0.16	0.12	0.14	0.13
Sulfate	8.4	6.9	5.9	5.4	4.3	3.7	3.5	3.1
Thallium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tin	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total Dissolved Solids	86	77	80	67	76	57	69	63
Uranium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Vanadium	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Zinc	0.019	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cations, meq/L	1.33	1.30	1.25	1.19	1.27	0.98	1.07	1.05
Anions, meq/L	1.40	1.37	1.23	1.23	1.28	0.98	1.07	0.96
Balance, %	2.5	2.5	<1.0	1.7	<1.0	<1.0	<1.0	4.6
WET Lab Report #	1212123	1301048	1301483	1302487	1303567	1304490	1305511	1306471

**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project Flotation Tailings, Sample CF-11-02 (52-117)**

Analysis, mg/L	Extract Week							
	Week 0	Week 1	Week 2	Week 4	Week 8	Week 12	Week 16	Week 20
Alkalinity, CaCO ₃	110	98	83	65	48	53	49	48
CO ₃ , CaCO ₃	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HCO ₃	130	120	100	79	58	64	59	58
Aluminum	0.055	0.083	<0.045	0.067	<0.20	0.045	0.055	0.054
Antimony	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Arsenic	0.0056	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Barium	<0.010	0.013	0.017	0.015	0.010	0.019	<0.010	<0.010
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Boron	<0.10	<0.10	0.13	<0.10	<0.10	<0.10	<0.10	<0.10
Cadmium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	24	26	32	31	22	23	20	19
Chloride	9.5	1.4	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	0.051	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoride	3.9	1.9	1.6	1.6	1.3	1.3	1.3	1.2
Gallium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	<0.010	0.042	<0.010	0.013	<0.050	<0.010	0.018	0.014
Lead	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Lithium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	4.0	4.8	5.8	5.6	3.5	3.4	2.8	2.5
Manganese	<0.0050	0.0093	0.013	0.019	0.022	0.022	0.027	0.026
Mercury	0.00027	0.00021	0.00017	<0.0002	<0.00010	<0.00010	0.00026	<0.00010
Molybdenum	0.013	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nickel	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate as N	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nitrite as N	0.064	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
pH, stu	7.84	7.79	7.54	7.43	7.67	7.71	7.78	7.69
Phosphorus	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Potassium	29	24	21	15	8.1	6.0	4.9	4.2
Scandium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Selenium	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	36	21	9.6	4.3	1.8	1.4	1.2	0.94
Strontium	0.24	0.24	0.29	0.27	0.18	0.17	0.16	0.14
Sulfate	67	58	72	59	36	25	22	16
Thallium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tin	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total Dissolved Solids	300	200	210	170	120	89	92	89
Uranium	0.015	0.025	0.027	0.032	0.021	0.021	0.017	0.014
Vanadium	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Zinc	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cations, meq/L	3.84	3.23	3.03	2.59	1.67	1.65	1.41	1.31
Anions, meq/L	4.00	3.31	3.22	2.61	1.77	1.64	1.49	1.35
Balance, %	2.0	1.3	3.1	<1.0	2.8	<1.0	2.7	1.4
WET Lab Report #	1206505	1206646	1207080	1207417	1208332	1209232	1210284	1211156

**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project Flotation Tailings, Sample CF-11-02 (52-117)**

Analysis, mg/L	Extract Week				
	Week 24	Week 28	Week 32	Week 36	Week 40*
Alkalinity, CaCO ₃	55	50	48	45	46
CO ₃ , CaCO ₃	<1.0	<1.0	<1.0	<1.0	<1.0
HCO ₃	67	61	59	55	57
Aluminum	0.054	0.048	0.050	0.054	0.056
Antimony	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Arsenic	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Barium	0.011	<0.010	<0.010	<0.010	<0.010
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth	<0.10	<0.10	<0.10	<0.10	<0.10
Boron	<0.10	<0.100	<0.100	<0.100	<0.10
Cadmium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	20	18	18	17	18
Chloride	<1.00	<1.00	<1.00	<1.00	<1.00
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoride	1.0	0.92	0.95	0.82	0.85
Gallium	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	0.012	<0.010	0.012	<0.010	0.013
Lead	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Lithium	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	2.4	2.0	1.8	1.5	1.5
Manganese	0.032	0.028	0.025	0.024	0.024
Mercury	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Molybdenum	<0.010	<0.010	<0.010	<0.010	<0.010
Nickel	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate as N	<1.0	<1.0	<1.0	<1.0	<1.0
Nitrite as N	<0.025	<0.025	<0.025	<0.025	<0.025
pH, stu	7.74	7.77	7.74	7.75	7.66
Phosphorus	<0.50	<0.50	<0.50	<0.50	<0.50
Potassium	3.8	3.0	2.9	2.6	2.4
Scandium	<0.10	<0.10	<0.10	<0.10	<0.100
Selenium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	1.0	0.98	0.76	<0.50	1.4
Strontium	0.16	0.13	0.12	0.12	0.12
Sulfate	12	10	7.4	7.6	6.6
Thallium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tin	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	<0.10	<0.10	<0.10	<0.10	<0.10
Total Dissolved Solids	100	86	68	59	68
Uranium	0.013	0.013	0.0098	0.0077	0.0065
Vanadium	<0.010	<0.010	<0.010	<0.010	<0.010
Zinc	<0.010	<0.010	<0.010	<0.010	<0.010
Cations, meq/L	1.34	1.19	1.16	1.05	1.15
Anions, meq/L	1.40	1.26	1.17	1.10	1.12
Balance, %	2.1	2.8	<1.0	2.7	1.6
WET Lab Report #	1212123	1301048	1301483	1302487	1303567

*Testing terminated after week 40

**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project Flotation Tailings, Sample K-Spar Breccia 5+ Comp**

Analysis, mg/L	Extract Week							
	Week 0	Week 1	Week 2	Week 4	Week 8	Week 12	Week 16	Week 20
Alkalinity, CaCO ₃	120	120	120	96	79	70	68	63
CO ₃ , CaCO ₃	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HCO ₃	150	140	140	120	96	85	83	76
Aluminum	<0.045	<0.045	<0.045	0.050	<0.045	<0.045	<0.045	<0.045
Antimony	0.0033	<0.0025	<0.0025	<0.0025	<0.0025	<0.0050	<0.0025	<0.0025
Arsenic	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.010	<0.0050	<0.0050
Barium	0.013	0.082	0.10	0.083	0.061	0.076	0.080	0.078
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Boron	<0.10	<0.10	0.11	<0.10	<0.10	<0.10	<0.10	<0.10
Cadmium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	56	27	31	41	39	38	38	33
Chloride	11	1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoride	3.3	2.2	1.6	1.5	1.4	1.3	1.3	1.3
Gallium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.011
Lead	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Lithium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	15	7.7	8.6	11	8.0	6.5	5.5	4.3
Manganese	<0.0050	0.011	0.032	0.034	0.044	0.047	0.055	0.051
Mercury	<0.00011	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.0005	<0.00010
Molybdenum	0.24	0.13	0.054	0.059	0.050	0.042	0.044	0.042
Nickel	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate as N	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nitrite as N	<0.25	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
pH, stu	7.94	8.03	7.89	7.78	7.88	7.84	7.95	7.80
Phosphorus	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Potassium	36	23	22	16	7.4	4.8	4.2	3.6
Scandium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Selenium	0.0091	<0.0050	<0.010	<0.0050	<0.0050	<0.010	<0.0050	<0.0050
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	42	20	8.4	2.5	1.4	1.2	2.2	0.98
Strontium	2.2	1.0	1.2	1.5	1.2	1.0	1.0	0.74
Sulfate	210	52	52	72	70	56	58	45
Thallium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tin	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total Dissolved Solids	520	210	200	220	200	170	160	140
Uranium	0.13	0.11	0.12	0.13	0.087	0.059	0.049	0.035
Vanadium	0.026	<0.050	0.011	0.014	<0.010	<0.010	<0.010	<0.010
Zinc	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cations, meq/L	6.78	3.44	3.18	3.48	2.86	2.61	2.55	2.14
Anions, meq/L	7.31	3.52	3.46	3.54	3.10	2.63	2.64	2.25
Balance, %	3.8	1.2	4.2	<1.0	4.2	<1.0	1.6	2.6
WET Lab Report #	1206505	1206646	1207080	1207417	1208332	1209232	1210284	1211156

**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project Flotation Tailings, Sample K-Spar Breccia 5+ Comp**

Analysis, mg/L	Extract Week							
	Week 24	Week 28	Week 32	Week 36	Week 40	Week 44	Week 48	Week 52
Alkalinity, CaCO ₃	65	60	50	57	58	55	56	51
CO ₃ , CaCO ₃	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HCO ₃	79	73	61	70	70	67	68	62
Aluminum	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045
Antimony	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Arsenic	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0054
Barium	0.091	0.090	0.078	0.11	0.12	0.14	0.16	0.16
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Boron	<0.10	<0.100	<0.100	<0.100	<0.10	<0.10	<0.10	<0.10
Cadmium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	36	31	28	32	31	29	28	26
Chloride	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoride	1.2	1.1	1.1	1.1	1.2	1.3	1.3	1.4
Gallium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Lead	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Lithium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	4.3	3.2	2.6	2.7	2.5	2.1	1.9	1.7
Manganese	0.065	0.052	0.038	0.051	0.049	0.045	0.042	0.044
Mercury	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Molybdenum	0.051	0.043	0.044	0.049	0.046	0.052	0.050	0.053
Nickel	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate as N	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nitrite as N	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
pH, stu	7.84	7.86	7.75	7.85	7.79	7.90	7.87	7.98
Phosphorus	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Potassium	3.4	2.7	2.4	2.6	2.5	2.3	2.3	2.3
Scandium	<0.10	<0.10	<0.10	<0.10	<0.100	<0.100	<0.100	<0.100
Selenium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	1.0	1.1	0.84	<0.50	1.6	0.78	0.82	0.72
Strontium	0.90	0.66	0.55	0.62	0.57	0.50	0.49	0.45
Sulfate	55	37	30	34	33	24	22	19
Thallium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tin	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total Dissolved Solids	170	140	86	100	120	110	110	98
Uranium	0.030	0.023	0.013	0.019	0.017	0.015	0.015	0.012
Vanadium	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Zinc	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cations, meq/L	2.28	1.93	1.71	1.89	1.89	1.71	1.65	1.53
Anions, meq/L	2.50	2.02	1.68	1.91	1.90	1.67	1.64	1.49
Balance, %	4.6	2.4	<1.0	<1.0	<1.0	1.4	<1.0	1.4
WET Lab Report #	1212123	1301048	1301483	1302487	1303567	1304490	1305511	1306471

**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project Flotation Tailings, Sample Biotite Breccia 5+ Comp**

Analysis, mg/L	Extract Week							
	Week 0	Week 1	Week 2	Week 4	Week 8	Week 12	Week 16	Week 20
Alkalinity, CaCO ₃	72	150	150	86	63	64	66	67
CO ₃ , CaCO ₃	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HCO ₃	87	180	180	100	77	78	81	82
Aluminum	0.098	<0.045	<0.045	0.065	0.057	<0.045	0.050	0.047
Antimony	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Arsenic	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Barium	0.038	0.032	0.076	0.067	0.066	0.069	0.078	0.082
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Boron	<0.10	<0.10	0.11	<0.10	<0.10	<0.10	<0.10	<0.10
Cadmium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	21	25	36	35	27	29	27	26
Chloride	12	2.4	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoride	2.6	3.2	2.2	2.3	1.9	1.8	1.8	1.9
Gallium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	0.036	<0.010	<0.010	<0.010	<0.050	<0.010	0.014	<0.010
Lead	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Lithium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	4.6	8.2	12	11	7.8	7.8	6.3	5.8
Manganese	0.012	0.028	0.024	0.022	0.027	0.034	0.039	0.041
Mercury	<0.00011	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00012	<0.00010
Molybdenum	0.020	0.019	<0.010	0.015	0.016	0.011	0.010	0.011
Nickel	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate as N	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nitrite as N	0.071	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
pH, stu	7.74	8.05	7.97	7.78	7.87	7.83	7.96	7.89
Phosphorus	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Potassium	32	42	36	20	8.4	6.0	4.8	4.2
Scandium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Selenium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	24	24	9.9	3.1	1.5	1.1	1.7	0.87
Strontium	0.42	0.61	0.89	0.73	0.52	0.51	0.46	0.38
Sulfate	62	55	65	72	53	47	35	27
Thallium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tin	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total Dissolved Solids	240	250	260	190	150	120	130	120
Uranium	0.013	0.028	0.038	0.039	0.019	0.013	0.011	0.0097
Vanadium	<0.010	0.012	0.013	0.016	<0.010	<0.010	<0.010	<0.010
Zinc	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cations, meq/L	3.30	4.04	4.14	3.31	2.28	2.29	2.07	1.93
Anions, meq/L	3.19	4.33	4.42	3.26	2.47	2.35	2.15	2.01
Balance, %	1.7	3.5	3.3	<1.0	4.0	1.3	1.9	2.0
WET Lab Report #	1206505	1206646	1207080	1207417	1208332	1209232	1210284	1211156

**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project Flotation Tailings, Sample Biotite Breccia 5+ Comp**

Analysis, mg/L	Extract Week				
	Week 24	Week 28	Week 32	Week 36	Week 40*
Alkalinity, CaCO ₃	70	69	62	62	63
CO ₃ , CaCO ₃	<1.0	<1.0	<1.0	<1.0	<1.0
HCO ₃	86	84	76	76	77
Aluminum	0.049	0.048	<0.045	<0.045	<0.045
Antimony	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Arsenic	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Barium	0.080	0.068	0.073	0.073	0.072
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth	<0.10	<0.10	<0.10	<0.10	<0.10
Boron	<0.10	<0.100	<0.100	<0.100	<0.10
Cadmium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	24	23	23	22	22
Chloride	<1.00	<1.00	<1.00	<1.00	<1.00
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoride	1.5	1.5	1.5	1.4	1.5
Gallium	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	0.012	0.016	<0.050	<0.010	<0.010
Lead	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Lithium	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	5.1	4.5	4.1	3.6	3.6
Manganese	0.046	0.046	0.045	0.052	0.054
Mercury	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Molybdenum	0.012	<0.010	<0.010	<0.010	<0.010
Nickel	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate as N	<1.0	<1.0	<1.0	<1.0	<1.0
Nitrite as N	<0.025	<0.025	<0.025	<0.025	<0.025
pH, stu	7.92	7.93	7.89	7.90	7.86
Phosphorus	<0.50	<0.50	<0.50	<0.50	<0.50
Potassium	3.7	2.9	2.7	2.5	2.3
Scandium	<0.10	<0.10	<0.10	<0.10	<0.100
Selenium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	0.84	0.85	0.61	<0.50	1.3
Strontium	0.41	0.31	0.28	0.26	0.24
Sulfate	18	13	11	10	8.6
Thallium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tin	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	<0.10	<0.10	<0.10	<0.10	<0.10
Total Dissolved Solids	110	100	98	90	96
Uranium	0.0075	0.0065	0.0064	0.0070	0.0063
Vanadium	<0.010	<0.010	<0.010	<0.010	<0.010
Zinc	<0.010	<0.010	<0.010	<0.010	<0.010
Cations, meq/L	1.76	1.64	1.58	1.46	1.51
Anions, meq/L	1.86	1.73	1.55	1.53	1.52
Balance, %	3.0	2.7	<1.0	2.3	<1.0
WET Lab Report #	1212123	1301048	1301483	1302487	1303567

*Testing terminated after week 40

**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project Flotation Tailings, Sample Quartz Monzonite 5+ Comp**

Analysis, mg/L	Extract Week							
	Week 0	Week 1	Week 2	Week 4	Week 8	Week 12	Week 16	Week 20
Alkalinity, CaCO ₃	130	130	100	76	82	71	70	60
CO ₃ , CaCO ₃	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HCO ₃	160	160	130	92	100	86	85	73
Aluminum	0.057	<0.045	<0.045	0.073	<0.045	<0.045	<0.045	<0.045
Antimony	0.0037	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Arsenic	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Barium	<0.010	0.062	0.087	0.10	0.11	0.12	0.11	0.099
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Boron	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Cadmium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	32	20	21	23	27	28	26	23
Chloride	11	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoride	5.0	2.5	2.1	2.0	1.7	1.5	1.6	1.6
Gallium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.011
Lead	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Lithium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	7.8	5.2	5.5	6.2	6.7	7.1	6.1	5.3
Manganese	<0.0050	<0.0050	0.013	0.0071	0.014	0.020	0.021	0.020
Mercury	0.00014	0.00016	0.00033	0.00045	<0.00010	<0.00010	0.00015	<0.00010
Molybdenum	0.21	0.099	0.057	0.056	0.064	0.069	0.066	0.079
Nickel	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate as N	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nitrite as N	0.066	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
pH, stu	8.00	8.11	7.78	7.74	7.96	7.89	8.00	7.82
Phosphorus	0.54	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Potassium	39	27	25	20	11	7.0	5.3	4.1
Scandium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Selenium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	55	30	16	4.8	2.3	1.7	2.0	1.2
Strontium	1.1	0.71	0.78	0.82	0.91	0.91	0.83	0.64
Sulfate	92	40	41	40	39	36	27	26
Thallium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tin	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total Dissolved Solids	370	200	180	150	160	120	120	120
Uranium	0.031	0.041	0.040	0.049	0.052	0.041	0.030	0.022
Vanadium	0.012	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Zinc	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cations, meq/L	5.64	3.42	2.84	2.39	2.28	2.24	2.02	1.74
Anions, meq/L	5.11	3.59	3.09	2.45	2.54	2.24	2.04	1.82
Balance, %	4.9	2.4	4.4	1.2	5.4	<1.0	<1.0	2.2
WET Lab Report #	1206505	1206646	1207080	1207417	1208332	1209232	1210284	1211156

**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project Flotation Tailings, Sample Quartz Monzonite 5+ Comp**

Analysis, mg/L	Extract Week				
	Week 24	Week 28	Week 32	Week 36	Week 40*
Alkalinity, CaCO ₃	60	62	55	47	59
CO ₃ , CaCO ₃	<1.0	<1.0	<1.0	<1.0	<1.0
HCO ₃	73	75	67	58	72
Aluminum	<0.045	<0.045	<0.045	<0.045	<0.045
Antimony	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Arsenic	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Barium	0.11	0.11	0.11	0.10	0.13
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth	<0.10	<0.10	<0.10	<0.10	<0.10
Boron	<0.10	<0.100	<0.100	<0.100	<0.10
Cadmium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	21	21	20	17	21
Chloride	<1.00	<1.00	<1.00	<1.00	<1.00
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoride	1.2	1.1	1.2	0.87	1.2
Gallium	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	<0.010	<0.010	<0.010	<0.010	<0.050
Lead	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Lithium	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	4.7	4.4	4.0	3.0	3.6
Manganese	0.023	0.025	0.020	0.023	0.023
Mercury	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Molybdenum	0.069	0.055	0.059	0.052	0.052
Nickel	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate as N	<1.0	<1.0	<1.0	<1.0	<1.0
Nitrite as N	<0.025	<0.025	<0.025	<0.025	<0.025
pH, stu	7.83	7.89	7.84	7.80	7.90
Phosphorus	<0.50	<0.50	<0.50	<0.50	<0.50
Potassium	3.4	2.8	2.5	2.2	2.3
Scandium	<0.10	<0.10	<0.10	<0.10	<0.100
Selenium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	1.1	1.2	0.91	<0.50	1.4
Strontium	0.70	0.57	0.52	0.43	0.48
Sulfate	20	15	13	11	10
Thallium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tin	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	<0.10	<0.10	<0.10	<0.10	<0.10
Total Dissolved Solids	110	94	86	77	90
Uranium	0.017	0.015	0.013	0.0092	0.010
Vanadium	<0.010	<0.010	<0.010	<0.010	<0.010
Zinc	<0.010	<0.010	<0.010	<0.010	<0.010
Cations, meq/L	1.57	1.53	1.43	1.15	1.46
Anions, meq/L	1.68	1.60	1.43	1.23	1.45
Balance, %	3.3	2.1	<1.0	3.1	<1.0
WET Lab Report #	1212123	1301048	1301483	1302487	1303567

*Testing terminated after week 40

**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project Flotation Tailings, Sample Biotite Breccia (0-5) Comp**

Analysis, mg/L	Extract Week							
	Week 0	Week 1	Week 2	Week 4	Week 8	Week 12	Week 16	Week 20
Alkalinity, CaCO ₃	91	90	85	46	45	49	55	55
CO ₃ , CaCO ₃	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HCO ₃	110	110	100	56	54	59	67	67
Aluminum	0.048	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045
Antimony	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Arsenic	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Barium	0.018	0.016	0.038	0.032	0.030	0.047	0.063	0.079
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Boron	<0.10	<0.10	0.13	<0.10	<0.10	<0.10	<0.10	<0.10
Cadmium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	72	31	47	37	22	20	20	21
Chloride	45	6.4	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoride	2.5	1.9	1.4	1.4	1.7	1.7	1.7	1.8
Gallium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	0.013	0.014	<0.010	<0.010	<0.050	<0.010	<0.010	0.019
Lead	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Lithium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	7.9	4.7	7.5	6.3	4.0	4.2	4.1	4.3
Manganese	0.0085	0.031	0.025	0.017	0.015	0.015	0.014	0.018
Mercury	0.00011	<0.00010	0.00011	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Molybdenum	0.18	0.14	0.072	0.042	0.034	0.023	0.020	0.022
Nickel	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate as N	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nitrite as N	0.30	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
pH, stu	7.75	7.76	7.64	7.27	7.61	7.70	7.87	7.78
Phosphorus	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Potassium	29	17	18	9.6	5.0	3.6	3.1	2.6
Scandium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Selenium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	72	29	12	3.5	1.6	1.0	1.2	0.71
Strontium	1.3	0.51	0.83	0.61	0.36	0.34	0.34	0.31
Sulfate	200	72	110	86	36	20	18	18
Thallium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tin	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total Dissolved Solids	610	220	300	160	110	75	83	98
Uranium	0.030	0.039	0.032	0.037	0.032	0.036	0.040	0.041
Vanadium	0.013	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010
Zinc	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cations, meq/L	8.12	3.63	3.95	2.76	1.62	1.48	1.47	1.50
Anions, meq/L	7.45	3.58	4.00	2.78	1.72	1.47	1.56	1.57
Balance, %	4.3	<1.0	<1.0	<1.0	3.0	<1.0	3.1	2.2
WET Lab Report #	1206505	1206646	1207080	1207417	1208332	1209232	1210284	1211156

**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project Flotation Tailings, Sample Biotite Breccia (0-5) Comp**

Analysis, mg/L	Extract Week							
	Week 24	Week 28	Week 32	Week 36	Week 40	Week 44	Week 48	Week 52
Alkalinity, CaCO ₃	53	54	56	57	54	54	56	54
CO ₃ , CaCO ₃	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HCO ₃	65	65	69	69	65	66	68	66
Aluminum	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045
Antimony	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Arsenic	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050
Barium	0.071	0.076	0.092	0.097	0.099	0.10	0.11	0.12
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Boron	<0.10	<0.100	<0.100	<0.100	<0.10	<0.10	<0.10	<0.10
Cadmium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	19	19	21	20	20	20	21	22
Chloride	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoride	1.5	1.4	1.6	1.4	1.4	1.2	1.4	1.5
Gallium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	0.011	0.010	<0.010	<0.010	<0.010	<0.050	<0.010	0.018
Lead	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Lithium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	4.0	4.0	4.3	3.8	3.8	3.9	4.0	4.1
Manganese	0.020	0.023	0.022	0.024	0.021	0.021	0.021	0.031
Mercury	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Molybdenum	0.021	0.015	0.015	0.014	0.012	<0.050	<0.050	0.016
Nickel	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate as N	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nitrite as N	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
pH, stu	7.81	7.81	7.83	7.85	7.76	7.88	7.86	8.01
Phosphorus	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Potassium	2.3	1.8	1.8	1.7	1.5	1.5	1.4	1.5
Scandium	<0.10	<0.10	<0.10	<0.10	<0.100	<0.100	<0.100	<0.100
Selenium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	0.67	0.72	0.52	<0.50	<2.5	<0.50	<0.50	0.68
Strontium	0.29	0.27	0.30	0.29	0.26	0.27	0.26	0.27
Sulfate	15	13	13	13	12	11	12	10
Thallium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tin	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total Dissolved Solids	84	88	98	90	80	77	78	76
Uranium	0.034	0.034	0.031	0.028	0.023	0.023	0.022	0.019
Vanadium	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Zinc	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cations, meq/L	1.37	1.36	1.47	1.36	1.35	1.36	1.41	1.51
Anions, meq/L	1.46	1.41	1.49	1.48	1.39	1.37	1.44	1.37
Balance, %	3.2	1.9	<1.0	4.2	1.4	<1.0	<1.0	4.7
WET Lab Report #	1212123	1301048	1301483	1302487	1303567	1304490	1305511	1306471

**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project Flotation Tailings, Sample K-spar Breccia (0-5) Comp**

Analysis, mg/L	Extract Week							
	Week 0	Week 1	Week 2	Week 4	Week 8	Week 12	Week 16	Week 20
Alkalinity, CaCO ₃	66	88	110	94	73	60	42	53
CO ₃ , CaCO ₃	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HCO ₃	80	110	140	110	89	73	51	65
Aluminum	<0.045	<0.045	<0.045	<0.045	<0.045	0.10	<0.045	<0.045
Antimony	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Arsenic	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Barium	0.012	0.091	0.097	0.045	0.089	0.21	0.096	0.073
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Boron	<0.10	<0.10	0.20	<0.10	<0.10	<0.10	<0.10	<0.10
Cadmium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	68	44	37	40	24	21	25	24
Chloride	34	8.5	1.2	<1.00	<1.00	<1.00	<1.00	<1.00
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.075	<0.050
Fluoride	1.8	1.7	1.1	2.0	2.0	1.6	1.6	1.6
Gallium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	<0.010	<0.010	0.012	<0.010	0.011	0.020	0.010	0.017
Lead	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Lithium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	8.7	6.6	6.0	7.2	4.2	3.8	4.6	4.6
Manganese	0.024	0.040	0.060	0.040	0.024	0.017	0.015	0.020
Mercury	<0.00010	<0.00010	<0.00010	0.00012	<0.00010	<0.00010	<0.00010	<0.00010
Molybdenum	0.17	0.098	0.049	0.049	0.027	<0.050	0.054	0.033
Nickel	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate as N	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nitrite as N	<0.25	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
pH, stu	7.58	7.75	7.82	7.75	7.84	7.95	7.79	7.79
Phosphorus	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Potassium	24	16	14	12	5.6	3.4	3.2	3.2
Scandium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Selenium	0.0054	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	68	33	15	6.8	2.0	2.2	2.7	1.2
Strontium	1.5	0.92	0.80	0.88	0.51	0.45	0.51	0.43
Sulfate	220	110	60	61	21	15	44	30
Thallium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tin	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total Dissolved Solids	580	310	280	170	110	100	130	130
Uranium	0.020	0.046	0.021	0.074	0.036	0.026	0.034	0.050
Vanadium	0.015	<0.010	<0.010	0.010	<0.010	<0.010	<0.010	<0.010
Zinc	<0.010	<0.010	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cations, meq/L	7.68	4.58	3.35	3.19	1.77	1.56	1.83	1.71
Anions, meq/L	6.95	4.42	3.64	3.18	2.00	1.59	1.84	1.77
Balance, %	5.0	1.8	4.0	<1.0	6.0	1.2	<1.0	1.8
WET Lab Report #	1206505	1206646	1207080	1207417	1208332	1209232	1210284	1211156

**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project Flotation Tailings, Sample K-spar Breccia (0-5) Comp**

Analysis, mg/L	Extract Week							
	Week 24	Week 28	Week 32	Week 36	Week 40	Week 44	Week 48	Week 52
Alkalinity, CaCO ₃	56	61	57	46	49	51	52	51
CO ₃ , CaCO ₃	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HCO ₃	68	75	70	56	60	62	63	63
Aluminum	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045
Antimony	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Arsenic	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050
Barium	0.083	0.10	0.13	0.12	0.10	0.12	0.13	0.14
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Boron	<0.10	<0.100	<0.100	<0.100	<0.10	<0.10	<0.10	<0.10
Cadmium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	20	20	20	17	18	18	19	20
Chloride	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoride	1.4	1.3	1.4	1.0	1.2	1.6	1.4	1.2
Gallium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	0.012	<0.010	<0.010	<0.010	<0.050	<0.050	<0.010	<0.010
Lead	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Lithium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	4.3	4.2	4.2	2.9	3.6	3.6	3.9	4.0
Manganese	0.017	0.018	0.017	0.026	0.018	0.016	0.013	0.022
Mercury	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Molybdenum	0.026	0.017	0.017	0.014	<0.050	<0.050	0.016	0.017
Nickel	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate as N	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nitrite as N	0.13	0.092	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
pH, stu	7.78	7.90	7.87	7.82	7.75	7.83	7.84	7.99
Phosphorus	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Potassium	3.0	2.3	2.1	1.4	1.6	1.5	1.4	1.5
Scandium	<0.10	<0.10	<0.10	<0.10	<0.100	<0.100	<0.100	<0.100
Selenium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	0.95	0.80	0.63	<0.50	1.1	<0.50	0.51	<0.50
Strontium	0.41	0.44	0.39	0.29	0.32	0.33	0.33	0.34
Sulfate	17	13	12	11	11	12	12	9.7
Thallium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tin	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total Dissolved Solids	94	98	96	71	78	61	85	77
Uranium	0.038	0.040	0.030	0.022	0.021	0.020	0.020	0.016
Vanadium	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Zinc	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cations, meq/L	1.47	1.44	1.43	1.12	1.28	1.23	1.33	1.37
Anions, meq/L	1.54	1.57	1.47	1.20	1.28	1.35	1.36	1.30
Balance, %	2.4	4.3	1.6	3.3	<1.0	4.5	1.1	2.6
WET Lab Report #	1212123	1301048	1301483	1302487	1303567	1304490	1305511	1306471

**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project Flotation Tailings, Sample Quartz Monzonite (0-5) Comp**

Analysis, mg/L	Extract Week							
	Week 0	Week 1	Week 2	Week 4	Week 8	Week 12	Week 16	Week 20
Alkalinity, CaCO ₃	77	84	71	96	69	66	63	53
CO ₃ , CaCO ₃	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HCO ₃	94	100	87	120	84	80	77	65
Aluminum	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045
Antimony	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Arsenic	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Barium	0.012	0.022	0.031	0.040	0.091	0.12	0.12	0.11
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Boron	<0.10	<0.10	0.21	<0.10	<0.10	<0.10	<0.10	<0.10
Cadmium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	70	32	27	43	25	24	23	20
Chloride	39	7.2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoride	1.9	1.5	0.45	1.9	1.8	1.8	1.7	1.6
Gallium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	<0.010	<0.050	0.020	<0.010	<0.050	<0.010	<0.010	0.016
Lead	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Lithium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	7.2	4.3	2.6	6.9	4.0	4.1	4.0	3.6
Manganese	0.018	0.025	0.029	0.048	0.023	0.020	0.013	0.0089
Mercury	0.00012	<0.00010	<0.00010	0.00021	<0.00010	<0.00010	<0.00010	<0.00010
Molybdenum	0.17	0.11	0.020	0.032	0.018	<0.010	<0.010	<0.010
Nickel	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate as N	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nitrite as N	<0.25	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
pH, stu	7.71	7.76	7.69	7.73	7.88	7.83	7.94	7.71
Phosphorus	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Potassium	26	15	4.3	13	6.3	4.3	3.4	2.8
Scandium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Selenium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	73	30	4.9	8.1	2.0	1.4	1.4	0.91
Strontium	1.1	0.55	0.35	0.74	0.42	0.42	0.40	0.30
Sulfate	220	83	29	68	23	18	16	13
Thallium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tin	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total Dissolved Solids	600	260	190	220	120	120	100	110
Uranium	0.027	0.039	0.013	0.078	0.038	0.033	0.032	0.025
Vanadium	0.011	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Zinc	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cations, meq/L	7.93	3.64	1.89	3.40	1.83	1.71	1.63	1.41
Anions, meq/L	7.32	3.65	2.05	3.48	1.95	1.78	1.68	1.42
Balance, %	4.0	<1.0	4.2	1.2	3.3	2.1	1.8	<1.0
WET Lab Report #	1206505	1206646	1207080	1207417	1208332	1209232	1210284	1211156

**Table . - Profile II Analytical Results, HC Extracts,
Copper Flat Project Flotation Tailings, Sample Quartz Monzonite (0-5) Comp**

Analysis, mg/L	Extract Week							
	Week 24	Week 28	Week 32	Week 36	Week 40	Week 44	Week 48	Week 52
Alkalinity, CaCO ₃	68	18	55	13	29	52	57	52
CO ₃ , CaCO ₃	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6.7	<1.0
HCO ₃	83	22	67	16	35	64	56	64
Aluminum	<0.045	0.11	<0.045	0.051	<0.045	<0.045	<0.045	<0.045
Antimony	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Arsenic	<0.0050	0.0060	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Barium	0.16	0.056	0.088	0.016	0.14	0.098	0.094	0.11
Beryllium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Boron	<0.10	<0.100	<0.100	<0.100	<0.10	<0.10	<0.10	<0.10
Cadmium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	26	6.5	22	4.7	11	20	20	22
Chloride	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chromium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoride	1.3	0.22	1.4	<0.10	0.55	1.2	1.2	1.1
Gallium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Iron	0.010	0.018	0.022	0.011	0.023	<0.010	<0.010	<0.010
Lead	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Lithium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	4.7	0.86	4.3	<0.50	1.8	4.2	4.2	4.7
Manganese	0.025	<0.0050	0.014	<0.0050	0.018	0.018	0.014	0.021
Mercury	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Molybdenum	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	0.012
Nickel	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate as N	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nitrite as N	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
pH, stu	7.88	7.48	7.84	7.49	7.56	7.87	8.73	8.02
Phosphorus	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Potassium	2.5	<0.50	2.0	<0.50	<0.50	1.5	1.4	1.3
Scandium	<0.10	<0.10	<0.10	<0.10	<0.100	<0.100	<0.100	<0.100
Selenium	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	0.87	1.7	0.74	<0.50	2.2	0.53	0.61	0.52
Strontium	0.38	<0.10	0.32	<0.10	0.12	0.28	0.26	0.28
Sulfate	21	4.2	15	<1.0	9.9	14	14	13
Thallium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tin	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total Dissolved Solids	100	45	96	26	56	73	81	81
Uranium	0.034	<0.0050	0.024	<0.0050	0.011	0.021	0.019	0.016
Vanadium	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Zinc	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cations, meq/L	1.79	0.48	1.54	0.24	0.79	1.41	1.41	1.54
Anions, meq/L	1.87	0.46	1.48	0.26	0.81	1.40	1.50	1.38
Balance, %	2.2	2.4	1.7	4.3	<1.0	<1.0	3.1	5.6
WET Lab Report #	1212123	1301048	1301483	1302487	1303567	1304490	1305511	1306471

WetLab Reports

Specializing in Soil, Hazardous Waste and Water Analysis.

12/10/2012

McClelland Laboratory
1016 Greg Street
Sparks, NV 89431
Attn: Mike Medina

OrderID: 1211513

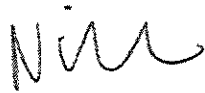
Dear: Mike Medina

This is to transmit the attached analytical report. The analytical data and information contained therein was generated using specified or selected methods contained in references, such as Standard Methods for the Examination of Water and Wastewater, 18th & 19th editions, Methods for Determination of Organic Compounds in Drinking Water, EPA-600/4-79-020, and Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW846) Third Edition.

The samples were received by WETLAB-Western Environmental Testing Laboratory in good condition on 11/29/2012. Additional comments are located on page 2 of this report.

If you should have any questions or comments regarding this report, please do not hesitate to call.

Sincerely,

for 
Andy Smith
Laboratory Manager

Western Environmental Testing Laboratory

Report Comments

McClelland Laboratory - 1211513

General Comments

None

Specific Comments

The matrix spike/matrix spike duplicate (MS/MSD) values for the analysis of Fluoride on sample 1211513-001 were outside laboratory acceptance criteria; however, the relative percent difference (RPD) value was acceptable, indicating probable matrix interference. The reported result should be considered an estimate.

Data Qualifier Legend

- B -- Blank contamination; Analyte detected above the method reporting limit in an associated blank
- HT -- Sample held beyond the accepted holding time
- J -- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
- M -- Reported value is estimated; The sample matrix interfered with the analysis
- N -- There was insufficient sample available to perform a spike and/or duplicate on this analytical batch.
- NC -- Not calculated due to matrix interference
- Q -- Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
- S -- Surrogate recovery was outside of laboratory acceptance limits due to matrix interference. The associated blank and LCS surrogate recovery was within acceptance limits.
- SC -- Spike recovery not calculated. Sample concentration >4X the spike amount; therefore, the spike could not be adequately recovered.

Western Environmental Testing Laboratory Analytical Report

McClelland Laboratory

1016 Greg Street

Sparks, NV 89431

Attn: Mike Medina

Phone: (775) 356-1300 Fax: (775) 356-8917

PO/Project: 3438 Wk:96

Date Printed: 12/10/2012

OrderID: 1211513

Customer Sample ID: 604 673 WK:96

Collect Date/Time: 11/29/2012 09:00

WETLAB Sample ID: 1211513-001

Receive Date: 11/29/2012 16:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	5.29	pH Units		11/29/2012
Trace Metals Digestion	EPA 200.2	Complete			12/3/2012
Bicarbonate (HCO ₃)	SM 2320B	<1.0	mg/L	1.0	11/29/2012
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	11/29/2012
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	11/29/2012
Total Alkalinity	SM 2320B	<1.0	mg/L as CaCO ₃	1.0	11/29/2012
Chloride	EPA 300.0	<1.00	mg/L	1.00	11/30/2012
Fluoride	EPA 300.0	0.27 M	mg/L	0.10	11/30/2012
Sulfate	EPA 300.0	27	mg/L	1.0	11/30/2012
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	11/30/2012
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	11/30/2012
Total Dissolved Solids (TDS)	SM 2540C	65	mg/L	10	12/4/2012
Aluminum	EPA 200.7	0.20	mg/L	0.045	12/5/2012
Barium	EPA 200.7	0.080	mg/L	0.010	12/5/2012
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	12/5/2012
Bismuth	EPA 200.7	<0.10	mg/L	0.10	12/5/2012
Boron	EPA 200.7	<0.10	mg/L	0.10	12/5/2012
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	12/5/2012
Calcium	EPA 200.7	7.7	mg/L	0.50	12/5/2012
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	12/5/2012
Cobalt	EPA 200.7	<0.010	mg/L	0.010	12/5/2012
Copper	EPA 200.7	1.8	mg/L	0.050	12/5/2012
Gallium	EPA 200.7	<0.10	mg/L	0.10	12/5/2012
Iron	EPA 200.7	0.017	mg/L	0.010	12/5/2012
Lithium	EPA 200.7	<0.10	mg/L	0.10	12/5/2012
Magnesium	EPA 200.7	1.0	mg/L	0.50	12/5/2012
Manganese	EPA 200.7	0.051	mg/L	0.0050	12/5/2012
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	12/5/2012

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Customer Sample ID: 604 673 WK:96

Collect Date/Time: 11/29/2012 09:00

WETLAB Sample ID: 1211513-001

Receive Date: 11/29/2012 16:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Nickel	EPA 200.7	<0.010	mg/L	0.010	12/5/2012
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	12/5/2012
Potassium	EPA 200.7	0.88	mg/L	0.50	12/5/2012
Scandium	EPA 200.7	<0.10	mg/L	0.10	12/5/2012
Silver	EPA 200.7	<0.0050	mg/L	0.0050	12/5/2012
Sodium	EPA 200.7	0.99	mg/L	0.50	12/5/2012
Strontium	EPA 200.7	<0.10	mg/L	0.10	12/5/2012
Tin	EPA 200.7	<0.10	mg/L	0.10	12/5/2012
Titanium	EPA 200.7	<0.10	mg/L	0.10	12/5/2012
Vanadium	EPA 200.7	<0.010	mg/L	0.010	12/5/2012
Zinc	EPA 200.7	0.060	mg/L	0.010	12/5/2012
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	12/5/2012
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	12/5/2012
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	12/5/2012
Lead	EPA 200.8	0.013	mg/L	0.0025	12/5/2012
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	12/5/2012
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	12/5/2012
Uranium	EPA 200.8	0.025	mg/L	0.0050	12/5/2012
Anions	Calculation	0.58	meq/L	0.10	
Cations	Calculation	0.62	meq/L	0.10	
Error	Calculation	3.3	%	1.0	

Customer Sample ID: SRK 0854 WK:96

Collect Date/Time: 11/29/2012 09:00

WETLAB Sample ID: 1211513-002

Receive Date: 11/29/2012 16:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	4.86	pH Units		11/29/2012
Trace Metals Digestion	EPA 200.2	Complete			12/3/2012
Bicarbonate (HCO ₃)	SM 2320B	<1.0	mg/L	1.0	11/29/2012
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	11/29/2012
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	11/29/2012
Total Alkalinity	SM 2320B	<1.0	mg/L as CaCO ₃	1.0	11/29/2012
Chloride	EPA 300.0	<1.00	mg/L	1.00	11/30/2012
Fluoride	EPA 300.0	0.21	mg/L	0.10	11/30/2012
Sulfate	EPA 300.0	84	mg/L	1.0	11/30/2012
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	11/30/2012
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	11/30/2012
Total Dissolved Solids (TDS)	SM 2540C	130	mg/L	10	12/4/2012

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Customer Sample ID: SRK 0854 WK:96

Collect Date/Time: 11/29/2012 09:00

WETLAB Sample ID: 1211513-002

Receive Date: 11/29/2012 16:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Aluminum	EPA 200.7	0.073	mg/L	0.045	12/5/2012
Barium	EPA 200.7	0.027	mg/L	0.010	12/5/2012
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	12/5/2012
Bismuth	EPA 200.7	0.11	mg/L	0.10	12/5/2012
Boron	EPA 200.7	<0.10	mg/L	0.10	12/5/2012
Cadmium	EPA 200.7	0.0012	mg/L	0.0010	12/5/2012
Calcium	EPA 200.7	3.6	mg/L	0.50	12/5/2012
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	12/5/2012
Cobalt	EPA 200.7	<0.010	mg/L	0.010	12/5/2012
Copper	EPA 200.7	41	mg/L	0.050	12/5/2012
Gallium	EPA 200.7	<0.10	mg/L	0.10	12/5/2012
Iron	EPA 200.7	<0.010	mg/L	0.010	12/5/2012
Lithium	EPA 200.7	<0.10	mg/L	0.10	12/5/2012
Magnesium	EPA 200.7	<0.50	mg/L	0.50	12/5/2012
Manganese	EPA 200.7	0.072	mg/L	0.0050	12/5/2012
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	12/5/2012
Nickel	EPA 200.7	<0.010	mg/L	0.010	12/5/2012
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	12/5/2012
Potassium	EPA 200.7	1.2	mg/L	0.50	12/5/2012
Scandium	EPA 200.7	<0.10	mg/L	0.10	12/5/2012
Silver	EPA 200.7	<0.0050	mg/L	0.0050	12/5/2012
Sodium	EPA 200.7	0.84	mg/L	0.50	12/5/2012
Strontium	EPA 200.7	<0.10	mg/L	0.10	12/5/2012
Tin	EPA 200.7	<0.10	mg/L	0.10	12/5/2012
Titanium	EPA 200.7	<0.10	mg/L	0.10	12/5/2012
Vanadium	EPA 200.7	<0.010	mg/L	0.010	12/5/2012
Zinc	EPA 200.7	0.17	mg/L	0.010	12/5/2012
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	12/5/2012
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	12/5/2012
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	12/5/2012
Lead	EPA 200.8	0.0097	mg/L	0.0025	12/5/2012
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	12/5/2012
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	12/5/2012
Uranium	EPA 200.8	<0.0050	mg/L	0.0050	12/5/2012
Anions	Calculation	1.76	meq/L	0.10	
Cations	Calculation	1.55	meq/L	0.10	
Error	Calculation	6.2	%	1.0	

Customer Sample ID: SRK 0872 WK:96

Collect Date/Time: 11/29/2012 09:00

WETLAB Sample ID: 1211513-003

Receive Date: 11/29/2012 16:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	6.74	pH Units		11/29/2012
Trace Metals Digestion	EPA 200.2	Complete			12/3/2012
Bicarbonate (HCO ₃)	SM 2320B	7.2	mg/L	1.0	11/29/2012
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	11/29/2012
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	11/29/2012
Total Alkalinity	SM 2320B	5.9	mg/L as CaCO ₃	1.0	11/29/2012
Chloride	EPA 300.0	<1.00	mg/L	1.00	11/30/2012
Fluoride	EPA 300.0	0.62	mg/L	0.10	11/30/2012
Sulfate	EPA 300.0	23	mg/L	1.0	11/30/2012
Nitrate Nitrogen	EPA 300.0	1.1	mg/L	1.0	11/30/2012
Nitrite Nitrogen	EPA 300.0	0.080	mg/L	0.025	11/30/2012
Total Dissolved Solids (TDS)	SM 2540C	74	mg/L	10	12/4/2012
Aluminum	EPA 200.7	<0.045	mg/L	0.045	12/5/2012
Barium	EPA 200.7	0.042	mg/L	0.010	12/5/2012
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	12/5/2012
Bismuth	EPA 200.7	<0.10	mg/L	0.10	12/5/2012
Boron	EPA 200.7	<0.10	mg/L	0.10	12/5/2012
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	12/5/2012
Calcium	EPA 200.7	10	mg/L	0.50	12/5/2012
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	12/5/2012
Cobalt	EPA 200.7	<0.010	mg/L	0.010	12/5/2012
Copper	EPA 200.7	<0.050	mg/L	0.050	12/5/2012
Gallium	EPA 200.7	<0.10	mg/L	0.10	12/5/2012
Iron	EPA 200.7	0.032	mg/L	0.010	12/5/2012
Lithium	EPA 200.7	<0.10	mg/L	0.10	12/5/2012
Magnesium	EPA 200.7	0.82	mg/L	0.50	12/5/2012
Manganese	EPA 200.7	0.012	mg/L	0.0050	12/5/2012
Molybdenum	EPA 200.7	0.045	mg/L	0.010	12/5/2012
Nickel	EPA 200.7	<0.010	mg/L	0.010	12/5/2012
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	12/5/2012
Potassium	EPA 200.7	<0.50	mg/L	0.50	12/5/2012
Scandium	EPA 200.7	<0.10	mg/L	0.10	12/5/2012
Silver	EPA 200.7	<0.0050	mg/L	0.0050	12/5/2012
Sodium	EPA 200.7	<0.50	mg/L	0.50	12/5/2012
Strontium	EPA 200.7	<0.10	mg/L	0.10	12/5/2012
Tin	EPA 200.7	<0.10	mg/L	0.10	12/5/2012
Titanium	EPA 200.7	<0.10	mg/L	0.10	12/5/2012
Vanadium	EPA 200.7	<0.010	mg/L	0.010	12/5/2012
Zinc	EPA 200.7	<0.010	mg/L	0.010	12/5/2012

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Customer Sample ID: SRK 0872 WK:96

Collect Date/Time: 11/29/2012 09:00

WETLAB Sample ID: 1211513-003

Receive Date: 11/29/2012 16:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	12/5/2012
Antimony	EPA 200.8	0.0029	mg/L	0.0025	12/5/2012
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	12/5/2012
Lead	EPA 200.8	<0.0025	mg/L	0.0025	12/5/2012
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	12/5/2012
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	12/5/2012
Uranium	EPA 200.8	<0.0050	mg/L	0.0050	12/5/2012
Anions	Calculation	0.71	meq/L	0.10	
Cations	Calculation	0.57	meq/L	0.10	
Error	Calculation	11	%	1.0	

Western Environmental Testing Laboratory QC Report

QCBatchID	QCType	Parameter	Method	Result	Units
QC12110975	Blank 1	Fluoride	EPA 300.0	<0.10	mg/L
QC12110975	Blank 2	Fluoride	EPA 300.0	<0.10	mg/L
QC12110976	Blank 1	Chloride	EPA 300.0	<1.0	mg/L
QC12110976	Blank 2	Chloride	EPA 300.0	<1.0	mg/L
QC12110977	Blank 1	Sulfate	EPA 300.0	<1.0	mg/L
QC12110977	Blank 2	Sulfate	EPA 300.0	<1.0	mg/L
QC12120040	Blank 1	Fluoride	EPA 300.0	<0.10	mg/L
QC12120040	Blank 2	Fluoride	EPA 300.0	<0.10	mg/L
QC12120041	Blank 1	Chloride	EPA 300.0	<1.0	mg/L
QC12120041	Blank 2	Chloride	EPA 300.0	<1.0	mg/L
QC12120043	Blank 1	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC12120043	Blank 2	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC12120043	Blank 3	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC12120044	Blank 1	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC12120044	Blank 2	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC12120044	Blank 3	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC12120045	Blank 1	Sulfate	EPA 300.0	<1.0	mg/L
QC12120045	Blank 2	Sulfate	EPA 300.0	<1.0	mg/L
QC12120110	Blank 1	Mercury	EPA 200.8	<0.00010	mg/L
		Antimony	EPA 200.8	<0.0025	mg/L
		Arsenic	EPA 200.8	<0.0050	mg/L
		Lead	EPA 200.8	<0.0025	mg/L
		Selenium	EPA 200.8	<0.0050	mg/L
		Thallium	EPA 200.8	<0.0010	mg/L
		Uranium	EPA 200.8	<0.0050	mg/L
QC12120111	Blank 1	Mercury	EPA 200.8	<0.00010	mg/L
		Antimony	EPA 200.8	<0.0025	mg/L
		Arsenic	EPA 200.8	<0.0050	mg/L
		Lead	EPA 200.8	<0.0025	mg/L
		Selenium	EPA 200.8	<0.0050	mg/L
		Thallium	EPA 200.8	<0.0010	mg/L
		Uranium	EPA 200.8	<0.0050	mg/L
QC12120177	Blank 1	Aluminum	EPA 200.7	<0.045	mg/L
		Barium	EPA 200.7	<0.010	mg/L
		Beryllium	EPA 200.7	<0.0010	mg/L
		Bismuth	EPA 200.7	<0.10	mg/L
		Boron	EPA 200.7	<0.10	mg/L
		Cadmium	EPA 200.7	<0.0010	mg/L
		Calcium	EPA 200.7	<0.50	mg/L
		Chromium	EPA 200.7	<0.0050	mg/L
		Cobalt	EPA 200.7	<0.010	mg/L
		Copper	EPA 200.7	<0.050	mg/L
		Gallium	EPA 200.7	<0.10	mg/L
		Iron	EPA 200.7	<0.010	mg/L
		Lithium	EPA 200.7	<0.10	mg/L
		Magnesium	EPA 200.7	<0.50	mg/L
		Manganese	EPA 200.7	<0.0050	mg/L

QCBatchID	QCType	Parameter	Method	Result	Units
		Molybdenum	EPA 200.7	<0.010	mg/L
		Nickel	EPA 200.7	<0.010	mg/L
		Phosphorus	EPA 200.7	<0.50	mg/L
		Potassium	EPA 200.7	<0.50	mg/L
		Scandium	EPA 200.7	<0.10	mg/L
		Silver	EPA 200.7	<0.0050	mg/L
		Sodium	EPA 200.7	<0.50	mg/L
		Strontium	EPA 200.7	<0.10	mg/L
		Tin	EPA 200.7	<0.10	mg/L
		Titanium	EPA 200.7	<0.10	mg/L
		Vanadium	EPA 200.7	<0.010	mg/L
		Zinc	EPA 200.7	<0.010	mg/L
QC12120178	Blank 1	Aluminum	EPA 200.7	<0.045	mg/L
		Barium	EPA 200.7	<0.010	mg/L
		Beryllium	EPA 200.7	<0.0010	mg/L
		Bismuth	EPA 200.7	<0.10	mg/L
		Boron	EPA 200.7	<0.100	mg/L
		Cadmium	EPA 200.7	<0.0010	mg/L
		Calcium	EPA 200.7	<0.50	mg/L
		Chromium	EPA 200.7	<0.0050	mg/L
		Cobalt	EPA 200.7	<0.010	mg/L
		Copper	EPA 200.7	<0.050	mg/L
		Gallium	EPA 200.7	<0.10	mg/L
		Iron	EPA 200.7	<0.010	mg/L
		Lithium	EPA 200.7	<0.10	mg/L
		Magnesium	EPA 200.7	<0.50	mg/L
		Manganese	EPA 200.7	<0.0050	mg/L
		Molybdenum	EPA 200.7	<0.010	mg/L
		Nickel	EPA 200.7	<0.010	mg/L
		Phosphorus	EPA 200.7	<0.50	mg/L
		Potassium	EPA 200.7	<0.50	mg/L
		Scandium	EPA 200.7	<0.10	mg/L
		Silver	EPA 200.7	<0.0050	mg/L
		Sodium	EPA 200.7	<0.50	mg/L
		Strontium	EPA 200.7	<0.10	mg/L
		Tin	EPA 200.7	<0.10	mg/L
		Titanium	EPA 200.7	<0.10	mg/L
		Vanadium	EPA 200.7	<0.010	mg/L
		Zinc	EPA 200.7	<0.010	mg/L
QC12120191	Blank 1	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L
QC12120191	Blank 2	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC12110944	LCS 1	pH	SM 4500-H+ B	6.99	7.00	100	pH Units
QC12110944	LCS 2	pH	SM 4500-H+ B	7.00	7.00	100	pH Units
QC12110944	LCS 3	pH	SM 4500-H+ B	7.00	7.00	100	pH Units
QC12110945	LCS 1	Total Alkalinity	SM 2320B	99.1	100	99	mg/L
QC12110945	LCS 2	Total Alkalinity	SM 2320B	99.4	100	99	mg/L
QC12110945	LCS 3	Total Alkalinity	SM 2320B	99.4	100	99	mg/L
QC12110945	LCS 4	Total Alkalinity	SM 2320B	99.2	100	99	mg/L
QC12110975	LCS 1	Fluoride	EPA 300.0	1.88	2.00	94	mg/L
QC12110976	LCS 1	Chloride	EPA 300.0	10.9	10.0	109	mg/L
QC12110977	LCS 1	Sulfate	EPA 300.0	23.9	25.0	96	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC12120040	LCS 1	Fluoride	EPA 300.0	1.88	2.00	94	mg/L
QC12120041	LCS 1	Chloride	EPA 300.0	10.9	10.0	109	mg/L
QC12120043	LCS 1	Nitrite Nitrogen	EPA 300.0	0.540	0.500	108	mg/L
QC12120044	LCS 1	Nitrate Nitrogen	EPA 300.0	1.94	2.00	97	mg/L
QC12120045	LCS 1	Sulfate	EPA 300.0	23.9	25.0	96	mg/L
QC12120110	LCS 1	Mercury	EPA 200.8	0.000928	0.001	93	mg/L
		Antimony	EPA 200.8	0.0093	0.010	93	mg/L
		Arsenic	EPA 200.8	0.0490	0.050	98	mg/L
		Lead	EPA 200.8	0.0100	0.010	100	mg/L
		Selenium	EPA 200.8	0.0437	0.050	87	mg/L
		Thallium	EPA 200.8	0.0098	0.010	98	mg/L
		Uranium	EPA 200.8	0.0098	0.010	98	mg/L
QC12120111	LCS 1	Mercury	EPA 200.8	0.000965	0.001	96	mg/L
		Antimony	EPA 200.8	0.0098	0.010	98	mg/L
		Arsenic	EPA 200.8	0.0499	0.050	100	mg/L
		Lead	EPA 200.8	0.0097	0.010	97	mg/L
		Selenium	EPA 200.8	0.0471	0.050	94	mg/L
		Thallium	EPA 200.8	0.0096	0.010	96	mg/L
		Uranium	EPA 200.8	0.0095	0.010	95	mg/L
QC12120177	LCS 1	Aluminum	EPA 200.7	0.943	1.00	94	mg/L
		Barium	EPA 200.7	0.946	1.00	95	mg/L
		Beryllium	EPA 200.7	0.961	1.00	96	mg/L
		Bismuth	EPA 200.7	0.980	1.00	98	mg/L
		Boron	EPA 200.7	0.909	1.00	91	mg/L
		Cadmium	EPA 200.7	0.958	1.00	96	mg/L
		Calcium	EPA 200.7	9.57	10.0	96	mg/L
		Chromium	EPA 200.7	0.934	1.00	93	mg/L
		Cobalt	EPA 200.7	0.940	1.00	94	mg/L
		Copper	EPA 200.7	4.57	5.00	91	mg/L
		Gallium	EPA 200.7	0.946	1.00	95	mg/L
		Iron	EPA 200.7	0.940	1.00	94	mg/L
		Lithium	EPA 200.7	0.948	1.00	95	mg/L
		Magnesium	EPA 200.7	9.30	10.0	93	mg/L
		Manganese	EPA 200.7	0.937	1.00	94	mg/L
		Molybdenum	EPA 200.7	0.945	1.00	94	mg/L
		Nickel	EPA 200.7	4.70	5.00	94	mg/L
		Phosphorus	EPA 200.7	4.78	5.00	96	mg/L
		Potassium	EPA 200.7	9.51	10.0	95	mg/L
		Scandium	EPA 200.7	0.942	1.00	94	mg/L
		Silver	EPA 200.7	0.084	0.090	94	mg/L
		Sodium	EPA 200.7	9.64	10.0	96	mg/L
		Strontium	EPA 200.7	0.962	1.00	96	mg/L
		Tin	EPA 200.7	0.941	1.00	94	mg/L
		Titanium	EPA 200.7	0.953	1.00	95	mg/L
		Vanadium	EPA 200.7	0.931	1.00	93	mg/L
		Zinc	EPA 200.7	0.958	1.00	96	mg/L
QC12120178	LCS 1	Aluminum	EPA 200.7	0.940	1.00	94	mg/L
		Barium	EPA 200.7	0.944	1.00	94	mg/L
		Beryllium	EPA 200.7	0.954	1.00	95	mg/L
		Bismuth	EPA 200.7	0.980	1.00	98	mg/L
		Boron	EPA 200.7	0.920	1.00	92	mg/L
		Cadmium	EPA 200.7	0.951	1.00	95	mg/L
		Calcium	EPA 200.7	9.55	10.0	96	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
		Chromium	EPA 200.7	0.934	1.00	93	mg/L
		Cobalt	EPA 200.7	0.944	1.00	94	mg/L
		Copper	EPA 200.7	4.54	5.00	91	mg/L
		Gallium	EPA 200.7	0.950	1.00	95	mg/L
		Iron	EPA 200.7	0.933	1.00	93	mg/L
		Lithium	EPA 200.7	0.959	1.00	96	mg/L
		Magnesium	EPA 200.7	9.21	10.0	92	mg/L
		Manganese	EPA 200.7	0.931	1.00	93	mg/L
		Molybdenum	EPA 200.7	0.953	1.00	95	mg/L
		Nickel	EPA 200.7	4.72	5.00	94	mg/L
		Phosphorus	EPA 200.7	4.82	5.00	96	mg/L
		Potassium	EPA 200.7	9.53	10.0	95	mg/L
		Scandium	EPA 200.7	0.943	1.00	94	mg/L
		Silver	EPA 200.7	0.085	0.090	95	mg/L
		Sodium	EPA 200.7	9.66	10.0	97	mg/L
		Strontium	EPA 200.7	1.01	1.00	101	mg/L
		Tin	EPA 200.7	0.940	1.00	94	mg/L
		Titanium	EPA 200.7	0.951	1.00	95	mg/L
		Vanadium	EPA 200.7	0.935	1.00	94	mg/L
		Zinc	EPA 200.7	0.958	1.00	96	mg/L
QC12120191	LCS 1	Total Dissolved Solids (TDS)	SM 2540C	151	150	100	mg/L
QC12120191	LCS 2	Total Dissolved Solids (TDS)	SM 2540C	151	150	100	mg/L

QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD
QC12110944	Duplicate	pH	SM 4500-H+ B	1211498-001	6.86	6.86	pH Units	<1%
QC12110944	Duplicate	pH	SM 4500-H+ B	1211498-008	7.89	7.88	pH Units	<1%
QC12110944	Duplicate	pH	SM 4500-H+ B	1211503-009	7.34	7.34	pH Units	<1%
QC12110944	Duplicate	pH	SM 4500-H+ B	1211512-002	7.55	7.62	pH Units	1 %
QC12110944	Duplicate	pH	SM 4500-H+ B	1211514-001	5.82	5.77	pH Units	1 %
QC12110945	Duplicate	Bicarbonate (HCO3)	SM 2320B	1211498-001	436	456	mg/L	4 %
		Carbonate (CO3)	SM 2320B	1211498-001	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1211498-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1211498-001	358	374	mg/L as CaCO3	4 %
QC12110945	Duplicate	Bicarbonate (HCO3)	SM 2320B	1211498-008	263	262	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1211498-008	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1211498-008	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1211498-008	216	215	mg/L as CaCO3	<1%
QC12110945	Duplicate	Bicarbonate (HCO3)	SM 2320B	1211503-009	150	152	mg/L	1 %
		Carbonate (CO3)	SM 2320B	1211503-009	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1211503-009	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1211503-009	123	124	mg/L as CaCO3	1 %
QC12110945	Duplicate	Bicarbonate (HCO3)	SM 2320B	1211512-002	64.8	62.8	mg/L	3 %
		Carbonate (CO3)	SM 2320B	1211512-002	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1211512-002	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1211512-002	53.1	51.5	mg/L as CaCO3	3 %
QC12110945	Duplicate	Bicarbonate (HCO3)	SM 2320B	1211514-001	<1.000	<1.000	mg/L	17 %
		Carbonate (CO3)	SM 2320B	1211514-001	<1.000	<1.000	mg/L	<1%

QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD
		Hydroxide (OH)	SM 2320B	1211514-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1211514-001	<1.000	<1.000	mg/L as CaCO3	17 %
QC12120191	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1211512-001	2638	2618	mg/L	1 %
QC12120191	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1212008-002	39.0	32.0	mg/L	20 %
QC12120191	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1212009-002	40.0	32.0	mg/L	22 %
QC12120191	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1211530-001	213	203	mg/L	5 %

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC12110975	MS 1	Fluoride	EPA 300.0	1211513-001	0.266	M 2.68	2.81	2.00	mg/L	NC	NC	NC
QC12110976	MS 1	Chloride	EPA 300.0	1211513-001	<1.000	5.27	5.50	5.00	mg/L	104	109	4 %
QC12110977	MS 1	Sulfate	EPA 300.0	1211513-001	27.0	37.8	39.3	10.0	mg/L	108	124	4 %
QC12120040	MS 1	Fluoride	EPA 300.0	1211515-001	<0.100	1.76	1.88	2.00	mg/L	87	93	7 %
QC12120041	MS 1	Chloride	EPA 300.0	1211515-001	<1.000	4.99	5.15	5.00	mg/L	99	102	3 %
QC12120043	MS 1	Nitrite Nitrogen	EPA 300.0	1211513-001	<0.025	0.513	0.524	0.500	mg/L	103	105	2 %
QC12120043	MS 2	Nitrite Nitrogen	EPA 300.0	1211515-001	<0.025	0.476	0.497	0.500	mg/L	95	99	4 %
QC12120044	MS 1	Nitrate Nitrogen	EPA 300.0	1211513-001	<1.000	1.86	1.93	2.00	mg/L	93	96	4 %
QC12120044	MS 2	Nitrate Nitrogen	EPA 300.0	1211515-001	<1.000	1.93	2.01	2.00	mg/L	95	99	4 %
QC12120045	MS 1	Sulfate	EPA 300.0	1211515-001	2.05	11.6	12.0	10.0	mg/L	95	100	3 %
QC12120110	MS 1	Mercury	EPA 200.8	1211512-001	<0.00010	0.000903	0.000902	0.001	mg/L	82	81	<1%
		Antimony	EPA 200.8	1211512-001	0.0053	0.0147	0.0147	0.010	mg/L	94	94	<1%
		Arsenic	EPA 200.8	1211512-001	0.0178	0.0763	0.0757	0.050	mg/L	117	116	1 %
		Lead	EPA 200.8	1211512-001	0.0053	0.0137	0.0140	0.010	mg/L	84	87	2 %
		Selenium	EPA 200.8	1211512-001	0.1580	0.2185	0.2157	0.050	mg/L	121	115	1 %
		Thallium	EPA 200.8	1211512-001	<0.0010	0.0083	0.0084	0.010	mg/L	83	83	1 %
		Uranium	EPA 200.8	1211512-001	0.0104	0.0194	0.0195	0.010	mg/L	90	91	1 %
QC12120111	MS 1	Mercury	EPA 200.8	1211521-001	<0.00010	0.000906	0.000949	0.001	mg/L	89	93	5 %
		Antimony	EPA 200.8	1211521-001	<0.0025	0.0094	0.0094	0.010	mg/L	94	95	<1%
		Arsenic	EPA 200.8	1211521-001	<0.0050	0.0532	0.0535	0.050	mg/L	105	106	1 %
		Lead	EPA 200.8	1211521-001	<0.0025	0.0097	0.0097	0.010	mg/L	96	95	<1%
		Selenium	EPA 200.8	1211521-001	<0.0050	0.0468	0.0463	0.050	mg/L	93	92	1 %
		Thallium	EPA 200.8	1211521-001	<0.0010	0.0094	0.0094	0.010	mg/L	94	95	<1%
		Uranium	EPA 200.8	1211521-001	<0.0050	0.0108	0.0107	0.010	mg/L	98	96	1 %
QC12120177	MS 1	Aluminum	EPA 200.7	1211512-001	62.4	SC 63.9	64.0	1.00	mg/L	NC	NC	NC
		Barium	EPA 200.7	1211512-001	0.011	0.870	0.858	1.00	mg/L	86	85	1 %
		Beryllium	EPA 200.7	1211512-001	0.003	0.892	0.896	1.00	mg/L	89	89	<1%
		Bismuth	EPA 200.7	1211512-001	<0.100	0.945	0.946	1.00	mg/L	94	95	<1%
		Boron	EPA 200.7	1211512-001	0.163	1.07	1.05	1.00	mg/L	91	89	2 %
		Cadmium	EPA 200.7	1211512-001	0.057	0.938	0.928	1.00	mg/L	88	87	1 %
		Calcium	EPA 200.7	1211512-001	483	496	493	10.0	mg/L	130	100	1 %
		Chromium	EPA 200.7	1211512-001	0.007	0.863	0.856	1.00	mg/L	86	85	1 %
		Cobalt	EPA 200.7	1211512-001	0.405	1.26	1.25	1.00	mg/L	86	84	1 %
		Copper	EPA 200.7	1211512-001	11.8	17.1	17.1	5.00	mg/L	106	106	<1%
		Gallium	EPA 200.7	1211512-001	<0.100	0.966	0.956	1.00	mg/L	96	95	1 %
		Iron	EPA 200.7	1211512-001	2.67	3.65	3.65	1.00	mg/L	98	98	<1%
		Lithium	EPA 200.7	1211512-001	<0.100	1.05	1.05	1.00	mg/L	99	99	<1%
		Magnesium	EPA 200.7	1211512-001	17.8	27.0	27.0	10.0	mg/L	92	92	<1%
		Manganese	EPA 200.7	1211512-001	2.61	3.50	3.52	1.00	mg/L	89	91	1 %
		Molybdenum	EPA 200.7	1211512-001	<0.010	0.868	0.877	1.00	mg/L	88	89	1 %
		Nickel	EPA 200.7	1211512-001	0.291	4.60	4.55	5.00	mg/L	86	85	1 %
		Phosphorus	EPA 200.7	1211512-001	<0.500	4.84	4.88	5.00	mg/L	95	96	1 %

QC Batch ID	QC Type	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC12120178	MS 1	Potassium	EPA 200.7	1211512-001	2.58	12.6	12.7	10.0	mg/L	100	101	1 %
		Scandium	EPA 200.7	1211512-001	<0.100	0.898	0.903	1.00	mg/L	90	90	1 %
		Silver	EPA 200.7	1211512-001	<0.005	0.082	0.083	0.090	mg/L	92	93	1 %
		Sodium	EPA 200.7	1211512-001	27.4	37.0	37.3	10.0	mg/L	96	99	1 %
		Strontium	EPA 200.7	1211512-001	0.913	1.85	1.87	1.00	mg/L	94	96	1 %
		Tin	EPA 200.7	1211512-001	<0.100	0.828	0.836	1.00	mg/L	88	89	1 %
		Titanium	EPA 200.7	1211512-001	<0.100	0.921	0.924	1.00	mg/L	92	93	<1%
		Vanadium	EPA 200.7	1211512-001	0.013	0.908	0.898	1.00	mg/L	90	89	1 %
		Zinc	EPA 200.7	1211512-001	10.6	11.3	11.1	1.00	mg/L	70	50	2 %
		Aluminum	EPA 200.7	1211521-001	0.067	1.03	1.04	1.00	mg/L	96	97	1 %
		Barium	EPA 200.7	1211521-001	0.028	0.962	0.964	1.00	mg/L	93	94	<1%
		Beryllium	EPA 200.7	1211521-001	<0.001	0.953	0.954	1.00	mg/L	95	95	<1%
		Bismuth	EPA 200.7	1211521-001	<0.100	0.957	0.964	1.00	mg/L	95	96	1 %
		Boron	EPA 200.7	1211521-001	<0.100	0.948	0.955	1.00	mg/L	92	93	1 %
		Cadmium	EPA 200.7	1211521-001	<0.001	0.939	0.940	1.00	mg/L	94	94	<1%
		Calcium	EPA 200.7	1211521-001	13.5	23.6	23.4	10.0	mg/L	101	99	1 %
		Chromium	EPA 200.7	1211521-001	<0.005	0.922	0.926	1.00	mg/L	92	93	<1%
		Cobalt	EPA 200.7	1211521-001	<0.010	0.923	0.926	1.00	mg/L	92	93	<1%
		Copper	EPA 200.7	1211521-001	<0.050	4.51	4.50	5.00	mg/L	90	90	<1%
		Gallium	EPA 200.7	1211521-001	<0.100	0.962	0.968	1.00	mg/L	96	97	1 %
		Iron	EPA 200.7	1211521-001	0.505	1.46	1.46	1.00	mg/L	96	96	<1%
		Lithium	EPA 200.7	1211521-001	<0.100	0.931	0.930	1.00	mg/L	93	93	<1%
		Magnesium	EPA 200.7	1211521-001	3.21	12.2	12.3	10.0	mg/L	90	91	1 %
		Manganese	EPA 200.7	1211521-001	0.070	0.982	0.983	1.00	mg/L	91	91	<1%
		Molybdenum	EPA 200.7	1211521-001	<0.010	0.951	0.957	1.00	mg/L	94	95	1 %
		Nickel	EPA 200.7	1211521-001	<0.010	4.60	4.61	5.00	mg/L	92	92	<1%
		Phosphorus	EPA 200.7	1211521-001	<0.500	4.89	4.89	5.00	mg/L	96	96	<1%
		Potassium	EPA 200.7	1211521-001	2.03	11.7	11.6	10.0	mg/L	97	96	1 %
		Scandium	EPA 200.7	1211521-001	<0.100	0.940	0.942	1.00	mg/L	94	94	<1%
		Silver	EPA 200.7	1211521-001	<0.005	0.084	0.084	0.090	mg/L	93	93	<1%
		Sodium	EPA 200.7	1211521-001	17.1	26.5	26.1	10.0	mg/L	94	90	2 %
		Strontium	EPA 200.7	1211521-001	0.145	1.15	1.16	1.00	mg/L	100	101	1 %
		Tin	EPA 200.7	1211521-001	<0.100	0.920	0.930	1.00	mg/L	93	94	1 %
Titanium	EPA 200.7	1211521-001	<0.100	0.964	0.974	1.00	mg/L	96	97	1 %		
Vanadium	EPA 200.7	1211521-001	<0.010	0.938	0.943	1.00	mg/L	93	94	1 %		
Zinc	EPA 200.7	1211521-001	0.011	0.960	0.961	1.00	mg/L	95	95	<1%		



WETLAB

WESTERN ENVIRONMENTAL TESTING LABORATORY

Specializing in Soil, Hazardous Waste and Water Analysis.

475 E. Greg Street #119 | Sparks, Nevada 89431

tel (775) 355-0202 | fax (775) 355-0817 | www.WETLaboratory.com

Lab Number 1211513

Report

Due Date: 12/17/12

Page 1 of 1

Client McClelland Laboratories, Inc.

Address 1016 Greg Street

City, State & Zip Sparks, NV 89431

Contact Mike Medina

Phone 775-356-1300

Collector's Name Robert

Fax 775-356-8917

Project Name

P.O. Number

Project Number 3438

Email mli@mettest.com

Turnaround Time
Standard 5 Day Other

Billing Address (if different than Client Address):

Company _____

Address _____

City, State & Zip _____

Contact _____

Phone _____

Fax _____

Email _____

Additional Information

Fax Results	Y	N	To: Client	Billing
Email Results	Y	N	To: Client	Billing
Compliance Monitoring	Y	N		
Fax Results to State EPA	Y	N		

Sample Type Codes

DW = Drinking Water	SD = Solid
WW = Wastewater	SO = Soil
SW = Surface Water	HW = Hazardous Waste
MW = Monitoring Well	OTHER:

NO OF CONTAINERS

Analyses Requested

Profile II w/o Wad

Uranium

SAMPLE ID/LOCATION	DATE	TIME	TYPE	NO OF CONTAINERS	Profile II w/o Wad	Uranium	Spl. No.
604 673	Wk:96	11/29/12	9:00	WW	2	X X	1
SRK 0854	↓	↓	↓	↓	↓	↓	2
SRK 0872	↓	↓	↓	↓	↓	↓	3

Instructions/Comments/Special Requirements: _____ 1211 5 _____ 513 3 _____

SAMPLE RECEIPT	DATE	TIME	Samples Relinquished By	Samples Received By
Temperature 18.4°C	12/17/12	4:10 P	<i>[Signature]</i>	<i>[Signature]</i>
Custody Seals Intact? Y N <u>None</u>				
Number of Containers 6				

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.

To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.



WETLAB

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tel (775) 355-0202 | fax (775) 355-0817 | www.WETLaboratory.com

Lab Number 1211513

Report

Due Date: 12/13/12

Page 1 of 1

Client McClelland Laboratories, Inc.

Address 1016 Greg Street

City, State & Zip Sparks, NV 89431

Contact Mike Medina

Phone 775-356-1300

Fax 775-356-8917

P.O. Number

Collector's Name Robert

Project Name

Project Number 3438

Email mli@mettest.com

Turnaround Time
Standard _____ 5-Day _____ Other _____

Billing Address (if different than Client Address):

Company _____

Address _____

City, State & Zip _____

Contact _____

Phone _____

Fax _____

Email _____

Additional Information

Fax Results	Y	N	To: Client	Billing
Email Results	Y	N	To: Client	Billing
Compliance Monitoring	Y	N		
Fax Results to State EPA	Y	N		

Sample Type Codes

DW = Drinking Water	SD = Solid
WW = Wastewater	SO = Soil
SW = Surface Water	HW = Hazardous Waste
MW = Monitoring Well	OTHER: _____

SAMPLE ID/LOCATION	DATE	TIME	NO OF CONTAINERS	SAMPLE TYPE	Analyses Requested		Spl. No.
					Profile II w/o Wad	Uranium	
604 673	11/29/12	9:00	2	WW	X	X	1
SRK 0854	↓	↓	↓	↓	↓	↓	2
SRK 0872	↓	↓	↓	↓	↓	↓	3

Instructions/Comments/Special Requirements: _____

1211 \ 5
513 3

SAMPLE RECEIPT	DATE	TIME	Samples Relinquished By	Samples Received By
Temperature <u>18.4°C</u>	<u>12/28/12</u>	<u>9:10</u>	<i>[Signature]</i>	<i>[Signature]</i>
Custody Seals Intact? Y N <u>None</u>				
Number of Containers <u>6</u>				

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.

To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.

Specializing in Soil, Hazardous Waste and Water Analysis.

12/28/2012

McClelland Laboratory
1016 Greg Street
Sparks, NV 89431
Attn: Mike Medina

OrderID: 1212123

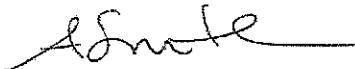
Dear: Mike Medina

This is to transmit the attached analytical report. The analytical data and information contained therein was generated using specified or selected methods contained in references, such as Standard Methods for the Examination of Water and Wastewater, 18th & 19th editions, Methods for Determination of Organic Compounds in Drinking Water, EPA-600/4-79-020, and Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW846) Third Edition.

The samples were received by WETLAB-Western Environmental Testing Laboratory in good condition on 12/6/2012. Additional comments are located on page 2 of this report.

If you should have any questions or comments regarding this report, please do not hesitate to call.

Sincerely,



Andy Smith
QA Manager

SPARKS

475 E. Greg Street, Suite 119
Sparks, Nevada 89431
tel [775] 355-0202
fax [775] 355-0817

ELKO

1084 Lamoille Hwy.
Elko, Nevada 89801
tel [775] 777-9933
fax [775] 777-9933

LAS VEGAS

3230 Polaris Ave., Suite 4
Las Vegas, Nevada 89102
tel [702] 475-8899
fax [702] 776-6152

Western Environmental Testing Laboratory

Report Comments

McClelland Laboratory - 1212123

General Comments

None

Specific Comments

Due to a laboratory oversight the analysis for Total Dissolved Solids (TDS) on samples 1212123-006 and 007 was performed past the EPA recommended holding time. We apologize for any inconvenience this may have caused.

Data Qualifier Legend

- B -- Blank contamination; Analyte detected above the method reporting limit in an associated blank
- HT -- Sample held beyond the accepted holding time
- J -- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
- M -- Reported value is estimated; The sample matrix interfered with the analysis
- N -- There was insufficient sample available to perform a spike and/or duplicate on this analytical batch.
- NC -- Not calculated due to matrix interference
- Q -- Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
- S -- Surrogate recovery was outside of laboratory acceptance limits due to matrix interference. The associated blank and LCS surrogate recovery was within acceptance limits.
- SC -- Spike recovery not calculated. Sample concentration >4X the spike amount; therefore, the spike could not be adequately recovered.

Western Environmental Testing Laboratory

Analytical Report

McClelland Laboratory

1016 Greg Street

Sparks, NV 89431

Attn: Mike Medina

Phone: (775) 356-1300 Fax: (775) 356-8917

PO\Project: 3438 Wk: 24

Date Printed: 12/28/2012

OrderID: 1212123

Customer Sample ID: CF-11-02 (227-367) WK:24

Collect Date/Time: 12/6/2012 09:00

WETLAB Sample ID: 1212123-001

Receive Date: 12/6/2012 15:05

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.85	pH Units		12/6/2012
Trace Metals Digestion	EPA 200.2	Complete			12/11/2012
Bicarbonate (HCO ₃)	SM 2320B	71	mg/L	1.0	12/6/2012
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	12/6/2012
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	12/6/2012
Total Alkalinity	SM 2320B	58	mg/L as CaCO ₃	1.0	12/6/2012
Chloride	EPA 300.0	<1.00	mg/L	1.00	12/7/2012
Fluoride	EPA 300.0	1.1	mg/L	0.10	12/7/2012
Sulfate	EPA 300.0	8.4	mg/L	1.0	12/7/2012
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	12/7/2012
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	12/7/2012
Total Dissolved Solids (TDS)	SM 2540C	86	mg/L	10	12/11/2012
Aluminum	EPA 200.7	0.070	mg/L	0.045	12/11/2012
Barium	EPA 200.7	0.049	mg/L	0.010	12/11/2012
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	12/11/2012
Bismuth	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Boron	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	12/11/2012
Calcium	EPA 200.7	18	mg/L	0.50	12/11/2012
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	12/11/2012
Cobalt	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Copper	EPA 200.7	<0.050	mg/L	0.050	12/11/2012
Gallium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Iron	EPA 200.7	0.054	mg/L	0.010	12/11/2012
Lithium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Magnesium	EPA 200.7	3.4	mg/L	0.50	12/11/2012
Manganese	EPA 200.7	0.038	mg/L	0.0050	12/11/2012

Page 3 of 20

Customer Sample ID: CF-11-02 (227-367) WK:24

Collect Date/Time: 12/6/2012 09:00

WETLAB Sample ID: 1212123-001

Receive Date: 12/6/2012 15:05

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Nickel	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	12/11/2012
Potassium	EPA 200.7	3.8	mg/L	0.50	12/11/2012
Scandium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Silver	EPA 200.7	<0.005	mg/L	0.005	12/11/2012
Sodium	EPA 200.7	0.94	mg/L	0.50	12/11/2012
Strontium	EPA 200.7	0.19	mg/L	0.10	12/11/2012
Tin	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Titanium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Vanadium	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Zinc	EPA 200.7	0.019	mg/L	0.010	12/11/2012
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	12/12/2012
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	12/12/2012
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	12/12/2012
Lead	EPA 200.8	<0.0025	mg/L	0.0025	12/12/2012
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	12/12/2012
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	12/12/2012
Uranium	EPA 200.8	<0.0050	mg/L	0.0050	12/12/2012
Anions	Calculation	1.40	meq/L	0.10	
Cations	Calculation	1.33	meq/L	0.10	
Error	Calculation	2.5	%	1.0	

Customer Sample ID: CF-11-02 (52-117) WK:24

Collect Date/Time: 12/6/2012 09:00

WETLAB Sample ID: 1212123-002

Receive Date: 12/6/2012 15:05

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.74	pH Units		12/6/2012
Trace Metals Digestion	EPA 200.2	Complete			12/11/2012
Bicarbonate (HCO3)	SM 2320B	67	mg/L	1.0	12/6/2012
Carbonate (CO3)	SM 2320B	<1.0	mg/L	1.0	12/6/2012
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	12/6/2012
Total Alkalinity	SM 2320B	55	mg/L as CaCO3	1.0	12/6/2012
Chloride	EPA 300.0	<1.00	mg/L	1.00	12/7/2012
Fluoride	EPA 300.0	1.0	mg/L	0.10	12/7/2012
Sulfate	EPA 300.0	12	mg/L	1.0	12/7/2012
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	12/7/2012
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	12/7/2012

Page 4 of 20

Customer Sample ID: CF-11-02 (52-117) WK:24

Collect Date/Time: 12/6/2012 09:00

WETLAB Sample ID: 1212123-002

Receive Date: 12/6/2012 15:05

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Total Dissolved Solids (TDS)	SM 2540C	100	mg/L	10	12/11/2012
Aluminum	EPA 200.7	0.054	mg/L	0.045	12/11/2012
Barium	EPA 200.7	0.011	mg/L	0.010	12/11/2012
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	12/11/2012
Bismuth	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Boron	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	12/11/2012
Calcium	EPA 200.7	20	mg/L	0.50	12/11/2012
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	12/11/2012
Cobalt	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Copper	EPA 200.7	<0.050	mg/L	0.050	12/11/2012
Gallium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Iron	EPA 200.7	0.012	mg/L	0.010	12/11/2012
Lithium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Magnesium	EPA 200.7	2.4	mg/L	0.50	12/11/2012
Manganese	EPA 200.7	0.032	mg/L	0.0050	12/11/2012
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Nickel	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	12/11/2012
Potassium	EPA 200.7	3.8	mg/L	0.50	12/11/2012
Scandium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Silver	EPA 200.7	<0.005	mg/L	0.005	12/11/2012
Sodium	EPA 200.7	1.0	mg/L	0.50	12/11/2012
Strontium	EPA 200.7	0.16	mg/L	0.10	12/11/2012
Tin	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Titanium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Vanadium	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Zinc	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	12/12/2012
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	12/12/2012
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	12/12/2012
Lead	EPA 200.8	<0.0025	mg/L	0.0025	12/12/2012
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	12/12/2012
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	12/12/2012
Uranium	EPA 200.8	0.013	mg/L	0.0050	12/12/2012
Anions	Calculation	1.40	meq/L	0.10	
Cations	Calculation	1.34	meq/L	0.10	
Error	Calculation	2.1	%	1.0	

Customer Sample ID: K-Spar Breccia 5+ Comp WK:24

Collect Date/Time: 12/6/2012 09:00

WETLAB Sample ID: 1212123-003

Receive Date: 12/6/2012 15:05

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.84	pH Units		12/6/2012
Trace Metals Digestion	EPA 200.2	Complete			12/11/2012
Bicarbonate (HCO ₃)	SM 2320B	79	mg/L	1.0	12/6/2012
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	12/6/2012
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	12/6/2012
Total Alkalinity	SM 2320B	65	mg/L as CaCO ₃	1.0	12/6/2012
Chloride	EPA 300.0	<1.00	mg/L	1.00	12/7/2012
Fluoride	EPA 300.0	1.2	mg/L	0.10	12/7/2012
Sulfate	EPA 300.0	55	mg/L	1.0	12/7/2012
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	12/7/2012
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	12/7/2012
Total Dissolved Solids (TDS)	SM 2540C	170	mg/L	10	12/11/2012
Aluminum	EPA 200.7	<0.045	mg/L	0.045	12/11/2012
Barium	EPA 200.7	0.091	mg/L	0.010	12/11/2012
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	12/11/2012
Bismuth	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Boron	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	12/11/2012
Calcium	EPA 200.7	36	mg/L	0.50	12/11/2012
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	12/11/2012
Cobalt	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Copper	EPA 200.7	<0.050	mg/L	0.050	12/11/2012
Gallium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Iron	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Lithium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Magnesium	EPA 200.7	4.3	mg/L	0.50	12/11/2012
Manganese	EPA 200.7	0.065	mg/L	0.0050	12/11/2012
Molybdenum	EPA 200.7	0.051	mg/L	0.010	12/11/2012
Nickel	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	12/11/2012
Potassium	EPA 200.7	3.4	mg/L	0.50	12/11/2012
Scandium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Silver	EPA 200.7	<0.005	mg/L	0.005	12/11/2012
Sodium	EPA 200.7	1.0	mg/L	0.50	12/11/2012
Strontium	EPA 200.7	0.90	mg/L	0.10	12/11/2012
Tin	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Titanium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Vanadium	EPA 200.7	<0.010	mg/L	0.010	12/11/2012

Customer Sample ID: K-Spar Breccia 5+ Comp WK:24

Collect Date/Time: 12/6/2012 09:00

WETLAB Sample ID: 1212123-003

Receive Date: 12/6/2012 15:05

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Zinc	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	12/12/2012
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	12/12/2012
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	12/12/2012
Lead	EPA 200.8	<0.0025	mg/L	0.0025	12/12/2012
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	12/12/2012
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	12/12/2012
Uranium	EPA 200.8	0.030	mg/L	0.0050	12/12/2012
Anions	Calculation	2.50	meq/L	0.10	
Cations	Calculation	2.28	meq/L	0.10	
Error	Calculation	4.6	%	1.0	

Customer Sample ID: Biotite Breccia 5+ Comp WK:24

Collect Date/Time: 12/6/2012 09:00

WETLAB Sample ID: 1212123-004

Receive Date: 12/6/2012 15:05

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.92	pH Units		12/6/2012
Trace Metals Digestion	EPA 200.2	Complete			12/11/2012
Bicarbonate (HCO ₃)	SM 2320B	86	mg/L	1.0	12/6/2012
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	12/6/2012
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	12/6/2012
Total Alkalinity	SM 2320B	70	mg/L as CaCO ₃	1.0	12/6/2012
Chloride	EPA 300.0	<1.00	mg/L	1.00	12/7/2012
Fluoride	EPA 300.0	1.5	mg/L	0.10	12/7/2012
Sulfate	EPA 300.0	18	mg/L	1.0	12/7/2012
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	12/7/2012
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	12/7/2012
Total Dissolved Solids (TDS)	SM 2540C	110	mg/L	10	12/11/2012
Aluminum	EPA 200.7	0.049	mg/L	0.045	12/11/2012
Barium	EPA 200.7	0.080	mg/L	0.010	12/11/2012
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	12/11/2012
Bismuth	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Boron	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	12/11/2012
Calcium	EPA 200.7	24	mg/L	0.50	12/11/2012
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	12/11/2012
Cobalt	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Copper	EPA 200.7	<0.050	mg/L	0.050	12/11/2012

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Customer Sample ID: Biotite Breccia 5+ Comp WK:24

Collect Date/Time: 12/6/2012 09:00

WETLAB Sample ID: 1212123-004

Receive Date: 12/6/2012 15:05

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Gallium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Iron	EPA 200.7	0.012	mg/L	0.010	12/11/2012
Lithium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Magnesium	EPA 200.7	5.1	mg/L	0.50	12/11/2012
Manganese	EPA 200.7	0.046	mg/L	0.0050	12/11/2012
Molybdenum	EPA 200.7	0.012	mg/L	0.010	12/11/2012
Nickel	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	12/11/2012
Potassium	EPA 200.7	3.7	mg/L	0.50	12/11/2012
Scandium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Silver	EPA 200.7	<0.005	mg/L	0.005	12/11/2012
Sodium	EPA 200.7	0.84	mg/L	0.50	12/11/2012
Strontium	EPA 200.7	0.41	mg/L	0.10	12/11/2012
Tin	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Titanium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Vanadium	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Zinc	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	12/12/2012
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	12/12/2012
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	12/12/2012
Lead	EPA 200.8	<0.0025	mg/L	0.0025	12/12/2012
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	12/12/2012
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	12/12/2012
Uranium	EPA 200.8	0.0075	mg/L	0.0050	12/12/2012
Anions	Calculation	1.86	meq/L	0.10	
Cations	Calculation	1.76	meq/L	0.10	
Error	Calculation	3.0	%	1.0	

Customer Sample ID: Quartz Monzonite 5+ Comp WK:24

Collect Date/Time: 12/6/2012 09:00

WETLAB Sample ID: 1212123-005

Receive Date: 12/6/2012 15:05

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.83	pH Units		12/6/2012
Trace Metals Digestion	EPA 200.2	Complete			12/11/2012
Bicarbonate (HCO3)	SM 2320B	73	mg/L	1.0	12/6/2012
Carbonate (CO3)	SM 2320B	<1.0	mg/L	1.0	12/6/2012
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	12/6/2012
Total Alkalinity	SM 2320B	60	mg/L as CaCO3	1.0	12/6/2012

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Customer Sample ID: Quartz Monzonite 5+ Comp WK:24

Collect Date/Time: 12/6/2012 09:00

WETLAB Sample ID: 1212123-005

Receive Date: 12/6/2012 15:05

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Chloride	EPA 300.0	<1.00	mg/L	1.00	12/7/2012
Fluoride	EPA 300.0	1.2	mg/L	0.10	12/7/2012
Sulfate	EPA 300.0	20	mg/L	1.0	12/7/2012
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	12/7/2012
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	12/7/2012
Total Dissolved Solids (TDS)	SM 2540C	110	mg/L	10	12/11/2012
Aluminum	EPA 200.7	<0.045	mg/L	0.045	12/11/2012
Barium	EPA 200.7	0.11	mg/L	0.010	12/11/2012
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	12/11/2012
Bismuth	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Boron	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	12/11/2012
Calcium	EPA 200.7	21	mg/L	0.50	12/11/2012
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	12/11/2012
Cobalt	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Copper	EPA 200.7	<0.050	mg/L	0.050	12/11/2012
Gallium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Iron	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Lithium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Magnesium	EPA 200.7	4.7	mg/L	0.50	12/11/2012
Manganese	EPA 200.7	0.023	mg/L	0.0050	12/11/2012
Molybdenum	EPA 200.7	0.069	mg/L	0.010	12/11/2012
Nickel	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	12/11/2012
Potassium	EPA 200.7	3.4	mg/L	0.50	12/11/2012
Scandium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Silver	EPA 200.7	<0.005	mg/L	0.005	12/11/2012
Sodium	EPA 200.7	1.1	mg/L	0.50	12/11/2012
Strontium	EPA 200.7	0.70	mg/L	0.10	12/11/2012
Tin	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Titanium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Vanadium	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Zinc	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	12/12/2012
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	12/12/2012
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	12/12/2012
Lead	EPA 200.8	<0.0025	mg/L	0.0025	12/12/2012
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	12/12/2012

Customer Sample ID: Quartz Monzonite 5+ Comp WK:24

Collect Date/Time: 12/6/2012 09:00

WETLAB Sample ID: 1212123-005

Receive Date: 12/6/2012 15:05

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	12/12/2012
Uranium	EPA 200.8	0.017	mg/L	0.0050	12/12/2012
Anions	Calculation	1.68	meq/L	0.10	
Cations	Calculation	1.57	meq/L	0.10	
Error	Calculation	3.3	%	1.0	

Customer Sample ID: Biotite Breccia 0-5 Comp WK:24

Collect Date/Time: 12/6/2012 09:00

WETLAB Sample ID: 1212123-006

Receive Date: 12/6/2012 15:05

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.81	pH Units		12/6/2012
Trace Metals Digestion	EPA 200.2	Complete			12/11/2012
Bicarbonate (HCO ₃)	SM 2320B	65	mg/L	1.0	12/6/2012
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	12/6/2012
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	12/6/2012
Total Alkalinity	SM 2320B	53	mg/L as CaCO ₃	1.0	12/6/2012
Chloride	EPA 300.0	<1.00	mg/L	1.00	12/7/2012
Fluoride	EPA 300.0	1.5	mg/L	0.10	12/7/2012
Sulfate	EPA 300.0	15	mg/L	1.0	12/7/2012
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	12/7/2012
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	12/7/2012
Total Dissolved Solids (TDS)	SM 2540C	84	HT mg/L	10	12/26/2012
Aluminum	EPA 200.7	<0.045	mg/L	0.045	12/11/2012
Barium	EPA 200.7	0.071	mg/L	0.010	12/11/2012
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	12/11/2012
Bismuth	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Boron	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	12/11/2012
Calcium	EPA 200.7	19	mg/L	0.50	12/11/2012
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	12/11/2012
Cobalt	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Copper	EPA 200.7	<0.050	mg/L	0.050	12/11/2012
Gallium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Iron	EPA 200.7	0.011	mg/L	0.010	12/11/2012
Lithium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Magnesium	EPA 200.7	4.0	mg/L	0.50	12/11/2012
Manganese	EPA 200.7	0.020	mg/L	0.0050	12/11/2012
Molybdenum	EPA 200.7	0.021	mg/L	0.010	12/11/2012

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Customer Sample ID: Biotite Breccia 0-5 Comp WK:24

Collect Date/Time: 12/6/2012 09:00

WETLAB Sample ID: 1212123-006

Receive Date: 12/6/2012 15:05

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Nickel	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	12/11/2012
Potassium	EPA 200.7	2.3	mg/L	0.50	12/11/2012
Scandium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Silver	EPA 200.7	<0.005	mg/L	0.005	12/11/2012
Sodium	EPA 200.7	0.67	mg/L	0.50	12/11/2012
Strontium	EPA 200.7	0.29	mg/L	0.10	12/12/2012
Tin	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Titanium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Vanadium	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Zinc	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	12/12/2012
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	12/12/2012
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	12/12/2012
Lead	EPA 200.8	<0.0025	mg/L	0.0025	12/12/2012
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	12/12/2012
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	12/12/2012
Uranium	EPA 200.8	0.034	mg/L	0.0050	12/12/2012
Anions	Calculation	1.46	meq/L	0.10	
Cations	Calculation	1.37	meq/L	0.10	
Error	Calculation	3.2	%	1.0	

Customer Sample ID: K-Spar Breccia 0-5 Comp WK:24

Collect Date/Time: 12/6/2012 09:00

WETLAB Sample ID: 1212123-007

Receive Date: 12/6/2012 15:05

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.78	pH Units		12/6/2012
Trace Metals Digestion	EPA 200.2	Complete			12/11/2012
Bicarbonate (HCO ₃)	SM 2320B	68	mg/L	1.0	12/6/2012
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	12/6/2012
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	12/6/2012
Total Alkalinity	SM 2320B	56	mg/L as CaCO ₃	1.0	12/6/2012
Chloride	EPA 300.0	<1.00	mg/L	1.00	12/7/2012
Fluoride	EPA 300.0	1.4	mg/L	0.10	12/7/2012
Sulfate	EPA 300.0	17	mg/L	1.0	12/7/2012
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	12/7/2012
Nitrite Nitrogen	EPA 300.0	0.13	mg/L	0.025	12/7/2012
Total Dissolved Solids (TDS)	SM 2540C	94	HT mg/L	10	12/26/2012

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Customer Sample ID: K-Spar Breccia 0-5 Comp WK:24

Collect Date/Time: 12/6/2012 09:00

WETLAB Sample ID: 1212123-007

Receive Date: 12/6/2012 15:05

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Aluminum	EPA 200.7	<0.045	mg/L	0.045	12/11/2012
Barium	EPA 200.7	0.083	mg/L	0.010	12/11/2012
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	12/11/2012
Bismuth	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Boron	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	12/11/2012
Calcium	EPA 200.7	20	mg/L	0.50	12/11/2012
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	12/11/2012
Cobalt	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Copper	EPA 200.7	<0.050	mg/L	0.050	12/11/2012
Gallium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Iron	EPA 200.7	0.012	mg/L	0.010	12/11/2012
Lithium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Magnesium	EPA 200.7	4.3	mg/L	0.50	12/11/2012
Manganese	EPA 200.7	0.017	mg/L	0.0050	12/11/2012
Molybdenum	EPA 200.7	0.026	mg/L	0.010	12/11/2012
Nickel	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	12/11/2012
Potassium	EPA 200.7	3.0	mg/L	0.50	12/11/2012
Scandium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Silver	EPA 200.7	<0.005	mg/L	0.005	12/11/2012
Sodium	EPA 200.7	0.95	mg/L	0.50	12/11/2012
Strontium	EPA 200.7	0.41	mg/L	0.10	12/12/2012
Tin	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Titanium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Vanadium	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Zinc	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	12/12/2012
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	12/12/2012
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	12/12/2012
Lead	EPA 200.8	<0.0025	mg/L	0.0025	12/12/2012
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	12/12/2012
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	12/12/2012
Uranium	EPA 200.8	0.038	mg/L	0.0050	12/12/2012
Anions	Calculation	1.54	meq/L	0.10	
Cations	Calculation	1.47	meq/L	0.10	
Error	Calculation	2.4	%	1.0	

Customer Sample ID: Quartz Monzonite 0-5 Comp WK:24

Collect Date/Time: 12/6/2012 09:00

WETLAB Sample ID: 1212123-008

Receive Date: 12/6/2012 15:05

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.88	pH Units		12/6/2012
Trace Metals Digestion	EPA 200.2	Complete			12/11/2012
Bicarbonate (HCO ₃)	SM 2320B	83	mg/L	1.0	12/6/2012
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	12/6/2012
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	12/6/2012
Total Alkalinity	SM 2320B	68	mg/L as CaCO ₃	1.0	12/6/2012
Chloride	EPA 300.0	<1.00	mg/L	1.00	12/7/2012
Fluoride	EPA 300.0	1.3	mg/L	0.10	12/7/2012
Sulfate	EPA 300.0	21	mg/L	1.0	12/7/2012
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	12/7/2012
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	12/7/2012
Total Dissolved Solids (TDS)	SM 2540C	100	mg/L	10	12/20/2012
Aluminum	EPA 200.7	<0.045	mg/L	0.045	12/11/2012
Barium	EPA 200.7	0.16	mg/L	0.010	12/11/2012
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	12/11/2012
Bismuth	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Boron	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	12/11/2012
Calcium	EPA 200.7	26	mg/L	0.50	12/11/2012
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	12/11/2012
Cobalt	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Copper	EPA 200.7	<0.050	mg/L	0.050	12/11/2012
Gallium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Iron	EPA 200.7	0.010	mg/L	0.010	12/11/2012
Lithium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Magnesium	EPA 200.7	4.7	mg/L	0.50	12/11/2012
Manganese	EPA 200.7	0.025	mg/L	0.0050	12/11/2012
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	12/12/2012
Nickel	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	12/11/2012
Potassium	EPA 200.7	2.5	mg/L	0.50	12/11/2012
Scandium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Silver	EPA 200.7	<0.005	mg/L	0.005	12/11/2012
Sodium	EPA 200.7	0.87	mg/L	0.50	12/11/2012
Strontium	EPA 200.7	0.38	mg/L	0.10	12/12/2012
Tin	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Titanium	EPA 200.7	<0.10	mg/L	0.10	12/11/2012
Vanadium	EPA 200.7	<0.010	mg/L	0.010	12/11/2012

Customer Sample ID: Quartz Monzonite 0-5 Comp WK:24

Collect Date/Time: 12/6/2012 09:00

WETLAB Sample ID: 1212123-008

Receive Date: 12/6/2012 15:05

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Zinc	EPA 200.7	<0.010	mg/L	0.010	12/11/2012
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	12/12/2012
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	12/12/2012
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	12/12/2012
Lead	EPA 200.8	<0.0025	mg/L	0.0025	12/12/2012
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	12/12/2012
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	12/12/2012
Uranium	EPA 200.8	0.034	mg/L	0.0050	12/12/2012
Anions	Calculation	1.87	meq/L	0.10	
Cations	Calculation	1.79	meq/L	0.10	
Error	Calculation	2.2	%	1.0	

Western Environmental Testing Laboratory QC Report

QCBatchID	QCType	Parameter	Method	Result	Units
QC12120272	Blank 1	Fluoride	EPA 300.0	<0.10	mg/L
QC12120272	Blank 2	Fluoride	EPA 300.0	<0.10	mg/L
QC12120272	Blank 3	Fluoride	EPA 300.0	<0.10	mg/L
QC12120279	Blank 1	Chloride	EPA 300.0	<1.0	mg/L
QC12120279	Blank 2	Chloride	EPA 300.0	<1.0	mg/L
QC12120279	Blank 3	Chloride	EPA 300.0	<1.0	mg/L
QC12120284	Blank 1	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC12120284	Blank 2	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC12120284	Blank 3	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC12120289	Blank 1	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC12120289	Blank 2	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC12120289	Blank 3	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC12120294	Blank 1	Sulfate	EPA 300.0	<1.0	mg/L
QC12120294	Blank 2	Sulfate	EPA 300.0	<1.0	mg/L
QC12120294	Blank 3	Sulfate	EPA 300.0	<1.0	mg/L
QC12120379	Blank 1	Aluminum	EPA 200.7	<0.045	mg/L
		Barium	EPA 200.7	<0.010	mg/L
		Beryllium	EPA 200.7	<0.0010	mg/L
		Bismuth	EPA 200.7	<0.10	mg/L
		Boron	EPA 200.7	<0.10	mg/L
		Cadmium	EPA 200.7	<0.0010	mg/L
		Calcium	EPA 200.7	<0.50	mg/L
		Chromium	EPA 200.7	<0.0050	mg/L
		Cobalt	EPA 200.7	<0.010	mg/L
		Copper	EPA 200.7	<0.050	mg/L
		Gallium	EPA 200.7	<0.10	mg/L
		Iron	EPA 200.7	<0.010	mg/L
		Lithium	EPA 200.7	<0.10	mg/L
		Magnesium	EPA 200.7	<0.50	mg/L
		Manganese	EPA 200.7	<0.0050	mg/L
		Molybdenum	EPA 200.7	<0.010	mg/L
		Nickel	EPA 200.7	<0.010	mg/L
		Phosphorus	EPA 200.7	<0.50	mg/L
		Potassium	EPA 200.7	<0.50	mg/L
		Scandium	EPA 200.7	<0.10	mg/L
		Silver	EPA 200.7	<0.0050	mg/L
		Sodium	EPA 200.7	<0.50	mg/L
		Strontium	EPA 200.7	<0.10	mg/L
		Tin	EPA 200.7	<0.10	mg/L
		Titanium	EPA 200.7	<0.10	mg/L
		Vanadium	EPA 200.7	<0.010	mg/L
		Zinc	EPA 200.7	<0.010	mg/L
QC12120381	Blank 1	Aluminum, Dissolved	EPA 200.7	<0.045	mg/L
		Barium, Dissolved	EPA 200.7	<0.010	mg/L
		Beryllium, Dissolved	EPA 200.7	<0.0010	mg/L
		Bismuth, Dissolved	EPA 200.7	<0.10	mg/L
		Boron, Dissolved	EPA 200.7	<0.10	mg/L

QCBatchID	QCType	Parameter	Method	Result	Units
		Cadmium, Dissolved	EPA 200.7	<0.0010	mg/L
		Calcium, Dissolved	EPA 200.7	<0.50	mg/L
		Chromium, Dissolved	EPA 200.7	<0.0050	mg/L
		Cobalt, Dissolved	EPA 200.7	<0.010	mg/L
		Copper, Dissolved	EPA 200.7	<0.050	mg/L
		Gallium, Dissolved	EPA 200.7	<0.10	mg/L
		Iron, Dissolved	EPA 200.7	<0.010	mg/L
		Lithium, Dissolved	EPA 200.7	<0.10	mg/L
		Magnesium, Dissolved	EPA 200.7	<0.50	mg/L
		Manganese, Dissolved	EPA 200.7	<0.0050	mg/L
		Molybdenum, Dissolved	EPA 200.7	<0.010	mg/L
		Nickel, Dissolved	EPA 200.7	<0.010	mg/L
		Phosphorus, Dissolved	EPA 200.7	<0.50	mg/L
		Potassium, Dissolved	EPA 200.7	<0.50	mg/L
		Scandium, Dissolved	EPA 200.7	<0.10	mg/L
		Silver, Dissolved	EPA 200.7	<0.0050	mg/L
		Sodium, Dissolved	EPA 200.7	<0.50	mg/L
		Strontium, Dissolved	EPA 200.7	<0.10	mg/L
		Tin, Dissolved	EPA 200.7	<0.10	mg/L
		Titanium, Dissolved	EPA 200.7	<0.10	mg/L
		Vanadium, Dissolved	EPA 200.7	<0.010	mg/L
		Zinc, Dissolved	EPA 200.7	<0.010	mg/L
QC12120428	Blank 1	Mercury	EPA 200.8	<0.00010	mg/L
		Antimony	EPA 200.8	<0.0025	mg/L
		Arsenic	EPA 200.8	<0.0050	mg/L
		Lead	EPA 200.8	<0.0025	mg/L
		Selenium	EPA 200.8	<0.0050	mg/L
		Thallium	EPA 200.8	<0.0010	mg/L
		Uranium	EPA 200.8	<0.0050	mg/L
QC12120429	Blank 1	Uranium, Dissolved	EPA 200.8	<0.0050	mg/L
		Mercury, Dissolved	EPA 200.8	<0.00010	mg/L
		Antimony, Dissolved	EPA 200.8	<0.0025	mg/L
		Arsenic, Dissolved	EPA 200.8	<0.0050	mg/L
		Lead, Dissolved	EPA 200.8	<0.0025	mg/L
		Selenium, Dissolved	EPA 200.8	<0.0050	mg/L
		Thallium, Dissolved	EPA 200.8	<0.0010	mg/L
QC12120479	Blank 1	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L
QC12120479	Blank 2	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L
QC12120749	Blank 1	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC12120231	LCS 1	pH	SM 4500-H+ B	7.01	7.00	100	pH Units
QC12120231	LCS 2	pH	SM 4500-H+ B	7.00	7.00	100	pH Units
QC12120231	LCS 3	pH	SM 4500-H+ B	7.00	7.00	100	pH Units
QC12120231	LCS 4	pH	SM 4500-H+ B	7.00	7.00	100	pH Units
QC12120237	LCS 1	Total Alkalinity	SM 2320B	100.0	100	100	mg/L
QC12120237	LCS 2	Total Alkalinity	SM 2320B	99.8	100	100	mg/L
QC12120237	LCS 3	Total Alkalinity	SM 2320B	99.6	100	100	mg/L
QC12120237	LCS 4	Total Alkalinity	SM 2320B	99.7	100	100	mg/L
QC12120237	LCS 5	Total Alkalinity	SM 2320B	100	100	100	mg/L
QC12120272	LCS 1	Fluoride	EPA 300.0	1.85	2.00	93	mg/L
QC12120279	LCS 1	Chloride	EPA 300.0	10.2	10.0	102	mg/L
QC12120284	LCS 1	Nitrite Nitrogen	EPA 300.0	0.542	0.500	108	mg/L

QCBatchID - QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC12120289 LCS 1	Nitrate Nitrogen	EPA 300.0	1.97	2.00	98	mg/L
QC12120289 LCS 2	Nitrate Nitrogen	EPA 300.0		2.00		mg/L
QC12120294 LCS 1	Sulfate	EPA 300.0	24.0	25.0	96	mg/L
QC12120379 LCS 1	Aluminum	EPA 200.7	0.977	1.00	98	mg/L
	Barium	EPA 200.7	0.965	1.00	96	mg/L
	Beryllium	EPA 200.7	0.967	1.00	97	mg/L
	Bismuth	EPA 200.7	1.00	1.00	100	mg/L
	Boron	EPA 200.7	0.936	1.00	94	mg/L
	Cadmium	EPA 200.7	0.967	1.00	97	mg/L
	Calcium	EPA 200.7	9.64	10.0	96	mg/L
	Chromium	EPA 200.7	0.957	1.00	96	mg/L
	Cobalt	EPA 200.7	0.964	1.00	96	mg/L
	Copper	EPA 200.7	4.76	5.00	95	mg/L
	Gallium	EPA 200.7	0.969	1.00	97	mg/L
	Iron	EPA 200.7	0.971	1.00	97	mg/L
	Lithium	EPA 200.7	0.977	1.00	98	mg/L
	Magnesium	EPA 200.7	9.54	10.0	95	mg/L
	Manganese	EPA 200.7	0.961	1.00	96	mg/L
	Molybdenum	EPA 200.7	0.966	1.00	97	mg/L
	Nickel	EPA 200.7	4.82	5.00	96	mg/L
	Phosphorus	EPA 200.7	4.79	5.00	96	mg/L
	Potassium	EPA 200.7	9.69	10.0	97	mg/L
	Scandium	EPA 200.7	0.969	1.00	97	mg/L
	Silver	EPA 200.7	0.088	0.090	98	mg/L
	Sodium	EPA 200.7	9.47	10.0	95	mg/L
	Strontium	EPA 200.7	1.03	1.00	103	mg/L
	Tin	EPA 200.7	0.945	1.00	94	mg/L
	Titanium	EPA 200.7	0.986	1.00	99	mg/L
	Vanadium	EPA 200.7	0.964	1.00	96	mg/L
	Zinc	EPA 200.7	0.957	1.00	96	mg/L
QC12120381 LCS 1	Aluminum, Dissolved	EPA 200.7	0.992	1.00	99	mg/L
	Barium, Dissolved	EPA 200.7	0.971	1.00	97	mg/L
	Beryllium, Dissolved	EPA 200.7	0.961	1.00	96	mg/L
	Bismuth, Dissolved	EPA 200.7	0.992	1.00	99	mg/L
	Boron, Dissolved	EPA 200.7	0.937	1.00	94	mg/L
	Cadmium, Dissolved	EPA 200.7	0.962	1.00	96	mg/L
	Calcium, Dissolved	EPA 200.7	9.54	10.0	95	mg/L
	Chromium, Dissolved	EPA 200.7	0.962	1.00	96	mg/L
	Cobalt, Dissolved	EPA 200.7	0.959	1.00	96	mg/L
	Copper, Dissolved	EPA 200.7	4.75	5.00	95	mg/L
	Gallium, Dissolved	EPA 200.7	0.974	1.00	97	mg/L
	Iron, Dissolved	EPA 200.7	0.973	1.00	97	mg/L
	Lithium, Dissolved	EPA 200.7	0.980	1.00	98	mg/L
	Magnesium, Dissolved	EPA 200.7	9.64	10.0	96	mg/L
	Manganese, Dissolved	EPA 200.7	0.954	1.00	95	mg/L
	Molybdenum, Dissolved	EPA 200.7	0.981	1.00	98	mg/L
	Nickel, Dissolved	EPA 200.7	4.83	5.00	97	mg/L
	Phosphorus, Dissolved	EPA 200.7	4.73	5.00	95	mg/L
	Potassium, Dissolved	EPA 200.7	9.83	10.0	98	mg/L
	Scandium, Dissolved	EPA 200.7	0.978	1.00	98	mg/L
	Silver, Dissolved	EPA 200.7	0.088	0.090	98	mg/L
	Sodium, Dissolved	EPA 200.7	9.09	10.0	91	mg/L
	Strontium, Dissolved	EPA 200.7	1.06	1.00	106	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC12120428	LCS 1	Tin, Dissolved	EPA 200.7	0.951	1.00	95	mg/L
		Titanium, Dissolved	EPA 200.7	1.01	1.00	101	mg/L
		Vanadium, Dissolved	EPA 200.7	0.974	1.00	97	mg/L
		Zinc, Dissolved	EPA 200.7	0.945	1.00	94	mg/L
		Mercury	EPA 200.8	0.000900	0.001	90	mg/L
		Antimony	EPA 200.8	0.0093	0.010	92	mg/L
		Arsenic	EPA 200.8	0.0492	0.050	98	mg/L
		Lead	EPA 200.8	0.0091	0.010	91	mg/L
		Selenium	EPA 200.8	0.0460	0.050	92	mg/L
		Thallium	EPA 200.8	0.0091	0.010	91	mg/L
		Uranium	EPA 200.8	0.0088	0.010	88	mg/L
QC12120429	LCS 1	Uranium, Dissolved	EPA 200.8	0.0094	0.010	94	mg/L
		Mercury, Dissolved	EPA 200.8	0.000957	0.001	96	mg/L
		Antimony, Dissolved	EPA 200.8	0.0094	0.010	94	mg/L
		Arsenic, Dissolved	EPA 200.8	0.0474	0.050	95	mg/L
		Lead, Dissolved	EPA 200.8	0.0094	0.010	94	mg/L
		Selenium, Dissolved	EPA 200.8	0.0442	0.050	88	mg/L
		Thallium, Dissolved	EPA 200.8	0.0093	0.010	93	mg/L
QC12120479	LCS 1	Total Dissolved Solids (TDS)	SM 2540C	143	150	95	mg/L
QC12120479	LCS 2	Total Dissolved Solids (TDS)	SM 2540C	143	150	95	mg/L
QC12120749	LCS 1	Total Dissolved Solids (TDS)	SM 2540C	148	150	99	mg/L

QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD
QC12120231	Duplicate	pH	SM 4500-H+ B	1212098-001	5.77	5.75	pH Units	<1%
QC12120231	Duplicate	pH	SM 4500-H+ B	1212101-001	7.68	7.66	pH Units	<1%
QC12120231	Duplicate	pH	SM 4500-H+ B	1212110-003	11.3	11.3	pH Units	1 %
QC12120231	Duplicate	pH	SM 4500-H+ B	1212122-001	7.66	7.64	pH Units	<1%
QC12120231	Duplicate	pH	SM 4500-H+ B	1212123-007	7.78	7.83	pH Units	1 %
QC12120231	Duplicate	pH	SM 4500-H+ B	1212130-001	7.65	7.66	pH Units	<1%
QC12120231	Duplicate	pH	SM 4500-H+ B	1212130-007	8.12	8.14	pH Units	<1%
QC12120237	Duplicate	Bicarbonate (HCO3)	SM 2320B	1212098-001	5.49	5.28	mg/L	4 %
		Carbonate (CO3)	SM 2320B	1212098-001	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1212098-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1212098-001	4.50	4.33	mg/L as CaCO3	4 %
QC12120237	Duplicate	Bicarbonate (HCO3)	SM 2320B	1212101-001	208	207	mg/L	1 %
		Carbonate (CO3)	SM 2320B	1212101-001	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1212101-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1212101-001	171	169	mg/L as CaCO3	1 %
QC12120237	Duplicate	Bicarbonate (HCO3)	SM 2320B	1212110-003	<1.000	<1.000	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1212110-003	60.1	62.1	mg/L	3 %
		Hydroxide (OH)	SM 2320B	1212110-003	57.3	60.4	mg/L	5 %
		Total Alkalinity	SM 2320B	1212110-003	268	281	mg/L as CaCO3	5 %
QC12120237	Duplicate	Bicarbonate (HCO3)	SM 2320B	1212122-001	50.3	48.2	mg/L	4 %
		Carbonate (CO3)	SM 2320B	1212122-001	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1212122-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1212122-001	41.3	39.6	mg/L as CaCO3	4 %

QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD
QC12120237	Duplicate	Bicarbonate (HCO3)	SM 2320B	1212123-007	68.2	68.3	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1212123-007	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1212123-007	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1212123-007	55.9	56.0	mg/L as CaCO3	<1%
QC12120237	Duplicate	Bicarbonate (HCO3)	SM 2320B	1212130-001	126	125	mg/L	1%
		Carbonate (CO3)	SM 2320B	1212130-001	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1212130-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1212130-001	103	103	mg/L as CaCO3	1%
QC12120237	Duplicate	Bicarbonate (HCO3)	SM 2320B	1212130-007	133	133	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1212130-007	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1212130-007	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1212130-007	109	109	mg/L as CaCO3	<1%
QC12120479	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1212022-001	1940	1990	mg/L	3%
QC12120479	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1212109-003	402	407	mg/L	1%
QC12120479	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1212145-003	781	845	Q mg/L	8%
QC12120479	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1212152-005	300	286	mg/L	5%
QC12120749	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1212319-001	1408	1442	mg/L	2%

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC12120272	MS 1	Fluoride	EPA 300.0	1212122-001	<0.100	1.78	1.81	2.00	mg/L	88	89	2%
QC12120272	MS 2	Fluoride	EPA 300.0	1212137-001	0.916	M 2.44	2.49	2.00	mg/L	NC	NC	NC
QC12120279	MS 1	Chloride	EPA 300.0	1212122-001	<1.000	5.14	5.29	5.00	mg/L	102	105	3%
QC12120279	MS 2	Chloride	EPA 300.0	1212137-001	2.57	7.29	7.42	5.00	mg/L	94	97	2%
QC12120284	MS 1	Nitrite Nitrogen	EPA 300.0	1212122-001	<0.025	0.540	0.557	0.500	mg/L	108	111	3%
QC12120284	MS 2	Nitrite Nitrogen	EPA 300.0	1212137-001	0.064	0.526	0.540	0.500	mg/L	92	95	3%
QC12120289	MS 1	Nitrate Nitrogen	EPA 300.0	1212122-001	<1.000	1.88	1.94	2.00	mg/L	93	96	3%
QC12120289	MS 2	Nitrate Nitrogen	EPA 300.0	1212137-001	<1.000	1.82	1.88	2.00	mg/L	89	91	3%
QC12120294	MS 1	Sulfate	EPA 300.0	1212122-001	4.62	14.4	14.6	10.0	mg/L	97	100	1%
QC12120294	MS 2	Sulfate	EPA 300.0	1212137-001	1.09	10.6	10.8	10.0	mg/L	95	98	2%
QC12120379	MS 1	Aluminum	EPA 200.7	1212110-003	1.47	M 3.24	3.25	1.00	mg/L	NC	NC	NC
		Barium	EPA 200.7	1212110-003	0.190	1.14	0.981	1.00	mg/L	95	79	15%
		Beryllium	EPA 200.7	1212110-003	<0.001	0.970	0.975	1.00	mg/L	97	97	1%
		Bismuth	EPA 200.7	1212110-003	<0.100	0.963	0.975	1.00	mg/L	97	98	1%
		Boron	EPA 200.7	1212110-003	0.123	1.12	1.13	1.00	mg/L	100	101	1%
		Cadmium	EPA 200.7	1212110-003	<0.001	0.939	0.949	1.00	mg/L	94	95	1%
		Calcium	EPA 200.7	1212110-003	66.1	74.8	76.5	10.0	mg/L	87	104	2%
		Chromium	EPA 200.7	1212110-003	<0.005	0.934	0.943	1.00	mg/L	93	94	1%
		Cobalt	EPA 200.7	1212110-003	<0.010	0.942	0.954	1.00	mg/L	94	95	1%
		Copper	EPA 200.7	1212110-003	<0.050	5.04	5.11	5.00	mg/L	100	102	1%
		Gallium	EPA 200.7	1212110-003	<0.100	0.957	0.967	1.00	mg/L	95	96	1%
		Iron	EPA 200.7	1212110-003	1.44	2.65	2.66	1.00	mg/L	121	122	<1%
		Lithium	EPA 200.7	1212110-003	<0.100	1.00	1.01	1.00	mg/L	93	94	1%
		Magnesium	EPA 200.7	1212110-003	0.628	10.2	10.2	10.0	mg/L	96	96	<1%
		Manganese	EPA 200.7	1212110-003	0.024	0.951	0.963	1.00	mg/L	93	94	1%
		Molybdenum	EPA 200.7	1212110-003	0.074	1.05	1.07	1.00	mg/L	98	100	2%
		Nickel	EPA 200.7	1212110-003	<0.010	4.70	4.74	5.00	mg/L	94	95	1%
		Phosphorus	EPA 200.7	1212110-003	<0.500	5.13	5.15	5.00	mg/L	99	99	<1%

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC12120381	MS 1	Potassium	EPA 200.7	1212110-003	12.9	22.6	23.0	10.0	mg/L	97	101	2 %
		Scandium	EPA 200.7	1212110-003	<0.100	0.983	0.993	1.00	mg/L	98	99	1 %
		Silver	EPA 200.7	1212110-003	<0.005	0.089	0.088	0.090	mg/L	99	98	1 %
		Sodium	EPA 200.7	1212110-003	125	133	135	10.0	mg/L	80	100	1 %
		Strontium	EPA 200.7	1212110-003	2.76	3.76	3.87	1.00	mg/L	100	111	3 %
		Tin	EPA 200.7	1212110-003	<0.100	0.916	0.935	1.00	mg/L	95	97	2 %
		Titanium	EPA 200.7	1212110-003	<0.100	1.02	1.04	1.00	mg/L	101	103	2 %
		Vanadium	EPA 200.7	1212110-003	0.029	1.02	0.976	1.00	mg/L	99	95	4 %
		Zinc	EPA 200.7	1212110-003	<0.010	0.970	0.976	1.00	mg/L	97	97	1 %
		Aluminum, Dissolved	EPA 200.7	1212133-001	<0.045	1.02	1.02	1.00	mg/L	102	102	<1%
		Barium, Dissolved	EPA 200.7	1212133-001	0.089	1.05	1.04	1.00	mg/L	96	95	1 %
		Beryllium, Dissolved	EPA 200.7	1212133-001	<0.001	0.963	0.960	1.00	mg/L	96	96	<1%
		Bismuth, Dissolved	EPA 200.7	1212133-001	<0.100	0.975	0.975	1.00	mg/L	98	98	<1%
		Boron, Dissolved	EPA 200.7	1212133-001	0.231	1.21	1.20	1.00	mg/L	98	97	1 %
		Cadmium, Dissolved	EPA 200.7	1212133-001	<0.001	0.945	0.942	1.00	mg/L	95	94	<1%
		Calcium, Dissolved	EPA 200.7	1212133-001	35.9	46.0	45.0	10.0	mg/L	101	91	2 %
		Chromium, Dissolved	EPA 200.7	1212133-001	<0.005	0.936	0.935	1.00	mg/L	94	93	<1%
		Cobalt, Dissolved	EPA 200.7	1212133-001	<0.010	0.945	0.940	1.00	mg/L	94	94	1 %
		Copper, Dissolved	EPA 200.7	1212133-001	<0.050	5.00	4.99	5.00	mg/L	100	100	<1%
		Gallium, Dissolved	EPA 200.7	1212133-001	<0.100	0.970	0.968	1.00	mg/L	97	96	<1%
		Iron, Dissolved	EPA 200.7	1212133-001	<0.010	0.972	0.961	1.00	mg/L	97	96	1 %
Lithium, Dissolved	EPA 200.7	1212133-001	<0.100	0.953	0.956	1.00	mg/L	94	94	<1%		
Magnesium, Dissolved	EPA 200.7	1212133-001	9.63	19.1	18.8	10.0	mg/L	95	92	2 %		
Manganese, Dissolved	EPA 200.7	1212133-001	<0.005	0.930	0.926	1.00	mg/L	94	93	<1%		
Molybdenum, Dissolved	EPA 200.7	1212133-001	<0.010	0.971	0.974	1.00	mg/L	97	97	<1%		
Nickel, Dissolved	EPA 200.7	1212133-001	<0.010	4.69	4.68	5.00	mg/L	94	94	<1%		
Phosphorus, Dissolved	EPA 200.7	1212133-001	<0.500	4.97	4.96	5.00	mg/L	98	98	<1%		
Potassium, Dissolved	EPA 200.7	1212133-001	4.23	13.9	13.8	10.0	mg/L	97	96	1 %		
Scandium, Dissolved	EPA 200.7	1212133-001	<0.100	0.981	0.980	1.00	mg/L	NC	NC	NC		
Silver, Dissolved	EPA 200.7	1212133-001	<0.005	0.089	0.089	0.090	mg/L	98	98	<1%		
Sodium, Dissolved	EPA 200.7	1212133-001	80.7	89.8	87.7	10.0	mg/L	91	70	2 %		
Strontium, Dissolved	EPA 200.7	1212133-001	0.323	1.40	1.40	1.00	mg/L	108	108	<1%		
Tin, Dissolved	EPA 200.7	1212133-001	<0.100	0.910	0.915	1.00	mg/L	94	94	1 %		
Titanium, Dissolved	EPA 200.7	1212133-001	<0.100	0.989	0.990	1.00	mg/L	99	99	<1%		
Vanadium, Dissolved	EPA 200.7	1212133-001	<0.010	0.998	0.997	1.00	mg/L	99	99	<1%		
Zinc, Dissolved	EPA 200.7	1212133-001	<0.010	0.951	0.948	1.00	mg/L	95	95	<1%		
QC12120428	MS 1	Mercury	EPA 200.8	1212110-003	<0.00010	0.000909	0.000862	0.001	mg/L	84	80	5 %
		Antimony	EPA 200.8	1212110-003	<0.0025	0.0102	0.0103	0.010	mg/L	89	90	1 %
		Arsenic	EPA 200.8	1212110-003	0.0143	0.0633	0.0642	0.050	mg/L	98	100	1 %
		Lead	EPA 200.8	1212110-003	0.0037	0.0122	0.0123	0.010	mg/L	85	85	1 %
		Selenium	EPA 200.8	1212110-003	<0.0050	0.0425	0.0430	0.050	mg/L	82	83	1 %
		Thallium	EPA 200.8	1212110-003	<0.0010	0.0083	0.0083	0.010	mg/L	82	83	<1%
		Uranium	EPA 200.8	1212110-003	<0.0050	0.0091	0.0091	0.010	mg/L	91	91	<1%
		QC12120429	MS 1	Uranium, Dissolved	EPA 200.8	1212133-001	<0.0050	0.0099	0.0098	0.010	mg/L	97
Mercury, Dissolved	EPA 200.8			1212133-001	<0.00010	0.000882	0.000893	0.001	mg/L	87	88	1 %
Antimony, Dissolved	EPA 200.8			1212133-001	<0.0025	0.0098	0.0098	0.010	mg/L	95	95	<1%
Arsenic, Dissolved	EPA 200.8			1212133-001	<0.0050	0.0493	0.0494	0.050	mg/L	98	98	<1%
Lead, Dissolved	EPA 200.8			1212133-001	<0.0025	0.0092	0.0091	0.010	mg/L	92	91	1 %
Selenium, Dissolved	EPA 200.8			1212133-001	<0.0050	0.0441	0.0450	0.050	mg/L	85	87	2 %
Thallium, Dissolved	EPA 200.8			1212133-001	<0.0010	0.0088	0.0087	0.010	mg/L	87	87	1 %



WETLAB
WESTERN ENVIRONMENTAL
TESTING LABORATORY

Specializing in Soil, Hazardous Waste and Water Analysis.

475 E. Greg Street #119 | Sparks, Nevada 89431
tel (775) 355-0202 | fax (775) 355-0817 | www.WETLaboratory.com

Lab Number 1212123

Report

Due Date: 12/20/12

Page 1 of 1

Client McClelland Laboratories, Inc.

Address 1016 Greg Street

City, State & Zip Sparks, NV 89431

Contact Mike Medina

Phone 775-356-1300

Collector's Name Robert

Fax 775-356-8917

Project Name

P.O. Number

Project Number 3438

Email mli@mettest.com

Turnaround Time

Standard _____ Day _____ Other _____

Billing Address (if different than Client Address):

Company _____

Address _____

City, State & Zip _____

Contact _____

Phone _____

Fax _____

Email _____

Additional Information

Fax Results	Y	N	To: Client	Billing
Email Results	Y	N	To: Client	Billing
Compliance Monitoring	Y	N		
Fax Results to State EPA	Y	N		

Sample Type Codes

DW = Drinking Water	SD = Solid
WW = Wastewater	SO = Soil
SW = Surface Water	HW = Hazardous Waste
MW = Monitoring Well	OTHER _____

NO OF SAMPLES

Analyses Requested

SAMPLE ID/LOCATION	DATE	TIME	M	P	S	C	O	N	S	U	Analyses Requested		Spl. No.
											Profile II w/o Wat	Uranium	
CF-11-02 (227-367)	Wk:24	12/06/12	9:00	ww	2	X	X						1
CF-11-02 (52-117)													2
K-Spar Breccia 5+ Comp													3
Biotite Breccia 5+ Comp													4
Quartz Monzonite 5+ Comp													5
Biotite Breccia 0-5 Comp													6
K-Spar Breccia 0-5 Comp													7
Quartz Monzonite 0-5 Comp	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	8

1212 58
123 8

Instructions/Comments/Special Requirements:

SAMPLE RECEIPT	DATE	TIME	Samples Relinquished By	Samples Received By
Temperature <u>19.8°C</u>	<u>12/10/12</u>	<u>3:05 p</u>		
Custody Seals Intact? Y N <u>None</u>				
Number of Containers <u>16</u>				

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.

To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.



WETLAB

WESTERN ENVIRONMENTAL TESTING LABORATORY *Specializing in Soil, Hazardous Waste and Water Analysis.*

475 E. Greg Street #119 | Sparks, Nevada 89431
tel [775] 355-0202 | fax [775] 355-0817 | www.WETLaboratory.com

Lab Number 1212123

Report
Due Date: 12/20/12

Page 1 of 1

Client McClelland Laboratories, Inc.		Turnaround Time Standard _____ E-Day _____ Other _____	
Address 1016 Greg Street		Billing Address (if different than Client Address):	
City, State & Zip Sparks, NV 89431		Company _____	
Contact Mike Medina		Address _____	
Phone 775-356-1300	Collector's Name Robert	City, State & Zip _____	
Fax 775-356-8917	Project Name _____	Contact _____	
P.O. Number _____	Project Number 3438	Phone _____	
Email mli@mettest.com		Fax _____	
		Email _____	

Additional Information						Analyses Requested												
Fax Results	Y	N	To: Client	Billing														
Email Results	Y	N	To: Client	Billing														
Compliance Monitoring		Y	N															
Fax Results to State EPA		Y	N															
Sample Type Codes						Profile II w/o Wat	Uranium											
DW = Drinking Water		SD = Solid																
WW = Wastewater		SO = Soil																
SW = Surface Water		HW = Hazardous Waste																
MW = Monitoring Well		OTHER:																
SAMPLE ID/LOCATION	DATE	TIME	Wk	TIME	Wk												Spl. No.	
CF-11-02 (227-367)	12/06/12	9:00	Wk:24			WW	2	X	X									1
CF-11-02 (52-117)																		2
K-Spar Breccia 5+ Comp																		3
Biotite Breccia 5+ Comp																		4
Quartz Monzonite 5+ Comp																		5
Biotite Breccia 0-5 Comp																		6
K-Spar Breccia 0-5 Comp																		7
Quartz Monzonite 0-5 Comp																		8

Instructions/Comments/Special Requirements:

SAMPLE RECEIPT	DATE	TIME	Samples Relinquished By	Samples Received By
Temperature 19.8°C	12/6/12	3:05 p	[Signature]	[Signature]
Custody Seals Intact? Y N None				
Number of Containers 16				

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.

To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.

Specializing in Soil, Hazardous Waste and Water Analysis.

1/15/2013

McClelland Laboratory
1016 Greg Street
Sparks, NV 89431
Attn: Mike Medina

OrderID: 1212419

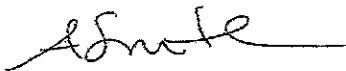
Dear: Mike Medina

This is to transmit the attached analytical report. The analytical data and information contained therein was generated using specified or selected methods contained in references, such as Standard Methods for the Examination of Water and Wastewater, 18th & 19th editions, Methods for Determination of Organic Compounds in Drinking Water, EPA-600/4-79-020, and Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW846) Third Edition.

The samples were received by WETLAB-Western Environmental Testing Laboratory in good condition on 12/20/2012. Additional comments are located on page 2 of this report.

If you should have any questions or comments regarding this report, please do not hesitate to call.

Sincerely,



Andy Smith
QA Manager

Western Environmental Testing Laboratory

Report Comments

McClelland Laboratory - 1212419

General Comments

None

Specific Comments

The matrix spike/matrix spike duplicate (MS/MSD) values for the analysis of Fluoride on sample 1212419-002 were outside laboratory acceptance criteria; however, the relative percent difference (RPD) value was acceptable, indicating probable matrix interference. The reported result should be considered an estimate.

Data Qualifier Legend

- B -- Blank contamination; Analyte detected above the method reporting limit in an associated blank
- HT -- Sample held beyond the accepted holding time
- J -- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
- M -- Reported value is estimated; The sample matrix interfered with the analysis
- N -- There was insufficient sample available to perform a spike and/or duplicate on this analytical batch.
- NC -- Not calculated due to matrix interference
- Q -- Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
- S -- Surrogate recovery was outside of laboratory acceptance limits due to matrix interference. The associated blank and LCS surrogate recovery was within acceptance limits.
- SC -- Spike recovery not calculated. Sample concentration >4X the spike amount; therefore, the spike could not be adequately recovered.

Western Environmental Testing Laboratory Analytical Report

McClelland Laboratory
1016 Greg Street
Sparks, NV 89431
Attn: Mike Medina
Phone: (775) 356-1300 Fax: (775) 356-8917
PO\Project: 3438 Wk: 32

Date Printed: 1/15/2013
OrderID: 1212419

Customer Sample ID: CF-11-02 (0-27) Wk:32

Collect Date/Time: 12/20/2012 09:00

WETLAB Sample ID: 1212419-001

Receive Date: 12/20/2012 14:20

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.89	pH Units		12/20/2012
Trace Metals Digestion	EPA 200.2	Complete			12/27/2012
Bicarbonate (HCO ₃)	SM 2320B	54	mg/L	1.0	12/20/2012
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	12/20/2012
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	12/20/2012
Total Alkalinity	SM 2320B	44	mg/L as CaCO ₃	1.0	12/20/2012
Chloride	EPA 300.0	<1.00	mg/L	1.00	12/21/2012
Fluoride	EPA 300.0	0.97	mg/L	0.10	12/21/2012
Sulfate	EPA 300.0	18	mg/L	1.0	12/21/2012
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	12/21/2012
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	12/21/2012
Total Dissolved Solids (TDS)	SM 2540C	58	mg/L	10	12/26/2012
Aluminum	EPA 200.7	0.058	mg/L	0.045	1/4/2013
Barium	EPA 200.7	<0.010	mg/L	0.010	1/4/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	1/4/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	1/4/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	1/4/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	1/4/2013
Calcium	EPA 200.7	17	mg/L	0.50	1/4/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	1/4/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	1/4/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	1/4/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	1/4/2013
Iron	EPA 200.7	0.013	mg/L	0.010	1/4/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	1/4/2013
Magnesium	EPA 200.7	3.0	mg/L	0.50	1/4/2013
Manganese	EPA 200.7	0.026	mg/L	0.0050	1/4/2013

Page 3 of 9

Customer Sample ID: CF-11-02 (0-27) Wk:32

Collect Date/Time: 12/20/2012 09:00

WETLAB Sample ID: 1212419-001

Receive Date: 12/20/2012 14:20

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	1/4/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	1/4/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	1/4/2013
Potassium	EPA 200.7	1.6	mg/L	0.50	1/4/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	1/4/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	1/4/2013
Sodium	EPA 200.7	<0.50	mg/L	0.50	1/4/2013
Strontium	EPA 200.7	0.14	mg/L	0.10	1/4/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	1/4/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	1/4/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	1/4/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	1/4/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	12/28/2012
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	12/28/2012
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	12/28/2012
Lead	EPA 200.8	<0.0025	mg/L	0.0025	12/28/2012
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	12/28/2012
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	12/28/2012
Uranium	EPA 200.8	<0.0050	mg/L	0.0050	12/28/2012
Anions	Calculation	1.31	meq/L	0.10	
Cations	Calculation	1.14	meq/L	0.10	
Error	Calculation	6.8	%	1.0	

Customer Sample ID: CF-11-02 (367-408) Wk: 32

Collect Date/Time: 12/20/2012 09:00

WETLAB Sample ID: 1212419-002

Receive Date: 12/20/2012 14:20

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.40	pH Units		12/20/2012
Trace Metals Digestion	EPA 200.2	Complete			12/27/2012
Bicarbonate (HCO3)	SM 2320B	37	mg/L	1.0	12/20/2012
Carbonate (CO3)	SM 2320B	<1.0	mg/L	1.0	12/20/2012
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	12/20/2012
Total Alkalinity	SM 2320B	30	mg/L as CaCO3	1.0	12/20/2012
Chloride	EPA 300.0	<1.00	mg/L	1.00	12/21/2012
Fluoride	EPA 300.0	0.97	M mg/L	0.10	12/21/2012
Sulfate	EPA 300.0	8.7	mg/L	1.0	12/21/2012
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	12/21/2012
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	12/21/2012

Page 4 of 9

Customer Sample ID: CF-11-02 (367-408) Wk: 32

Collect Date/Time: 12/20/2012 09:00

WETLAB Sample ID: 1212419-002

Receive Date: 12/20/2012 14:20

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Total Dissolved Solids (TDS)	SM 2540C	45	mg/L	10	12/26/2012
Aluminum	EPA 200.7	0.12	mg/L	0.045	1/4/2013
Barium	EPA 200.7	<0.010	mg/L	0.010	1/4/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	1/4/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	1/4/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	1/4/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	1/4/2013
Calcium	EPA 200.7	13	mg/L	0.50	1/4/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	1/4/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	1/4/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	1/4/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	1/4/2013
Iron	EPA 200.7	0.010	mg/L	0.010	1/4/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	1/4/2013
Magnesium	EPA 200.7	0.53	mg/L	0.50	1/4/2013
Manganese	EPA 200.7	0.022	mg/L	0.0050	1/4/2013
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	1/4/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	1/4/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	1/4/2013
Potassium	EPA 200.7	1.1	mg/L	0.50	1/4/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	1/4/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	1/4/2013
Sodium	EPA 200.7	<0.50	mg/L	0.50	1/4/2013
Strontium	EPA 200.7	0.12	mg/L	0.10	1/4/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	1/4/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	1/4/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	1/4/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	1/4/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	12/28/2012
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	12/28/2012
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	12/28/2012
Lead	EPA 200.8	<0.0025	mg/L	0.0025	12/28/2012
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	12/28/2012
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	12/28/2012
Uranium	EPA 200.8	<0.0050	mg/L	0.0050	12/28/2012
Anions	Calculation	0.84	meq/L	0.10	
Cations	Calculation	0.74	meq/L	0.10	
Error	Calculation	6.6	%	1.0	

Western Environmental Testing Laboratory QC Report

QCBatchID	QCType	Parameter	Method	Result	Units
QC12120770	Blank 1	Fluoride	EPA 300.0	<0.10	mg/L
QC12120770	Blank 2	Fluoride	EPA 300.0	<0.10	mg/L
QC12120770	Blank 3	Fluoride	EPA 300.0	<0.10	mg/L
QC12120772	Blank 1	Fluoride	EPA 300.0	<0.10	mg/L
QC12120772	Blank 2	Fluoride	EPA 300.0	<0.10	mg/L
QC12120772	Blank 3	Fluoride	EPA 300.0	<0.10	mg/L
QC12120776	Blank 1	Chloride	EPA 300.0	<1.0	mg/L
QC12120776	Blank 2	Chloride	EPA 300.0	<1.0	mg/L
QC12120776	Blank 3	Chloride	EPA 300.0	<1.0	mg/L
QC12120779	Blank 1	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC12120779	Blank 2	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC12120779	Blank 3	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC12120780	Blank 1	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC12120780	Blank 2	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC12120780	Blank 3	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC12120784	Blank 1	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC12120784	Blank 2	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC12120784	Blank 3	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC12120786	Blank 1	Sulfate	EPA 300.0	<1.0	mg/L
QC12120786	Blank 2	Sulfate	EPA 300.0	<1.0	mg/L
QC12120786	Blank 3	Sulfate	EPA 300.0	<1.0	mg/L
QC12120787	Blank 1	Sulfate	EPA 300.0	<1.0	mg/L
QC12120787	Blank 2	Sulfate	EPA 300.0	<1.0	mg/L
QC12120787	Blank 3	Sulfate	EPA 300.0	<1.0	mg/L
QC12120885	Blank 1	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L
QC12120885	Blank 2	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L
QC13010002	Blank 1	Mercury	EPA 200.8	<0.00010	mg/L
		Antimony	EPA 200.8	<0.0025	mg/L
		Arsenic	EPA 200.8	<0.0050	mg/L
		Lead	EPA 200.8	<0.0025	mg/L
		Selenium	EPA 200.8	<0.0050	mg/L
		Thallium	EPA 200.8	<0.0010	mg/L
		Uranium	EPA 200.8	<0.0050	mg/L
QC13010090	Blank 1	Aluminum	EPA 200.7	<0.045	mg/L
		Barium	EPA 200.7	<0.010	mg/L
		Beryllium	EPA 200.7	<0.0010	mg/L
		Bismuth	EPA 200.7	<0.10	mg/L
		Boron	EPA 200.7	<0.10	mg/L
		Cadmium	EPA 200.7	<0.0010	mg/L
		Calcium	EPA 200.7	<0.50	mg/L
		Chromium	EPA 200.7	<0.0050	mg/L
		Cobalt	EPA 200.7	<0.010	mg/L
		Copper	EPA 200.7	<0.050	mg/L
		Gallium	EPA 200.7	<0.10	mg/L
		Iron	EPA 200.7	<0.010	mg/L
		Lithium	EPA 200.7	<0.10	mg/L
		Magnesium	EPA 200.7	<0.50	mg/L

QCBatchID	QCType	Parameter	Method	Result	Units
		Manganese	EPA 200.7	<0.0050	mg/L
		Molybdenum	EPA 200.7	<0.010	mg/L
		Nickel	EPA 200.7	<0.010	mg/L
		Phosphorus	EPA 200.7	<0.50	mg/L
		Potassium	EPA 200.7	<0.50	mg/L
		Scandium	EPA 200.7	<0.10	mg/L
		Silver	EPA 200.7	<0.0050	mg/L
		Sodium	EPA 200.7	<0.50	mg/L
		Strontium	EPA 200.7	<0.10	mg/L
		Tin	EPA 200.7	<0.10	mg/L
		Titanium	EPA 200.7	<0.10	mg/L
		Vanadium	EPA 200.7	<0.010	mg/L
		Zinc	EPA 200.7	<0.010	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC12120743	LCS 1	pH	SM 4500-H+ B	7.00	7.00	100	pH Units
QC12120743	LCS 2	pH	SM 4500-H+ B	7.01	7.00	100	pH Units
QC12120743	LCS 3	pH	SM 4500-H+ B	7.01	7.00	100	pH Units
QC12120746	LCS 1	Total Alkalinity	SM 2320B	99.4	100	99	mg/L
QC12120746	LCS 2	Total Alkalinity	SM 2320B	99.1	100	99	mg/L
QC12120746	LCS 3	Total Alkalinity	SM 2320B	99.4	100	99	mg/L
QC12120746	LCS 4	Total Alkalinity	SM 2320B	99.7	100	100	mg/L
QC12120770	LCS 1	Fluoride	EPA 300.0	1.83	2.00	91	mg/L
QC12120772	LCS 1	Fluoride	EPA 300.0	1.83	2.00	91	mg/L
QC12120776	LCS 1	Chloride	EPA 300.0	10.2	10.0	102	mg/L
QC12120779	LCS 1	Nitrite Nitrogen	EPA 300.0	0.536	0.500	107	mg/L
QC12120780	LCS 1	Nitrite Nitrogen	EPA 300.0	0.536	0.500	107	mg/L
QC12120784	LCS 1	Nitrate Nitrogen	EPA 300.0	1.97	2.00	98	mg/L
QC12120786	LCS 1	Sulfate	EPA 300.0	24.0	25.0	96	mg/L
QC12120787	LCS 1	Sulfate	EPA 300.0	24.0	25.0	96	mg/L
QC12120885	LCS 1	Total Dissolved Solids (TDS)	SM 2540C	139	150	92	mg/L
QC12120885	LCS 2	Total Dissolved Solids (TDS)	SM 2540C	140	150	93	mg/L
QC13010002	LCS 1	Mercury	EPA 200.8	0.000920	0.001	92	mg/L
		Antimony	EPA 200.8	0.0092	0.010	92	mg/L
		Arsenic	EPA 200.8	0.0483	0.050	96	mg/L
		Lead	EPA 200.8	0.0097	0.010	97	mg/L
		Selenium	EPA 200.8	0.0446	0.050	89	mg/L
		Thallium	EPA 200.8	0.0093	0.010	93	mg/L
		Uranium	EPA 200.8	0.0093	0.010	93	mg/L
QC13010090	LCS 1	Aluminum	EPA 200.7	0.915	1.00	92	mg/L
		Barium	EPA 200.7	0.926	1.00	93	mg/L
		Beryllium	EPA 200.7	0.973	1.00	97	mg/L
		Bismuth	EPA 200.7	0.974	1.00	97	mg/L
		Boron	EPA 200.7	0.881	1.00	88	mg/L
		Cadmium	EPA 200.7	0.936	1.00	94	mg/L
		Calcium	EPA 200.7	9.62	10.0	96	mg/L
		Chromium	EPA 200.7	0.920	1.00	92	mg/L
		Cobalt	EPA 200.7	0.937	1.00	94	mg/L
		Copper	EPA 200.7	4.62	5.00	92	mg/L
		Gallium	EPA 200.7	0.943	1.00	94	mg/L
		Iron	EPA 200.7	0.941	1.00	94	mg/L
		Lithium	EPA 200.7	0.943	1.00	94	mg/L
		Magnesium	EPA 200.7	9.11	10.0	91	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
		Manganese	EPA 200.7	0.942	1.00	94	mg/L
		Molybdenum	EPA 200.7	0.916	1.00	92	mg/L
		Nickel	EPA 200.7	4.61	5.00	92	mg/L
		Phosphorus	EPA 200.7	4.61	5.00	92	mg/L
		Potassium	EPA 200.7	9.60	10.0	96	mg/L
		Scandium	EPA 200.7	0.941	1.00	94	mg/L
		Silver	EPA 200.7	0.083	0.090	92	mg/L
		Sodium	EPA 200.7	10.1	10.0	101	mg/L
		Strontium	EPA 200.7	0.986	1.00	99	mg/L
		Tin	EPA 200.7	0.909	1.00	91	mg/L
		Titanium	EPA 200.7	0.963	1.00	96	mg/L
		Vanadium	EPA 200.7	0.919	1.00	92	mg/L
		Zinc	EPA 200.7	0.929	1.00	93	mg/L

QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD
QC12120743	Duplicate	pH	SM 4500-H+ B	1212414-001	6.83	6.90	pH Units	1 %
QC12120743	Duplicate	pH	SM 4500-H+ B	1212415-002	7.43	7.41	pH Units	<1%
QC12120743	Duplicate	pH	SM 4500-H+ B	1212414-004	7.47	7.52	pH Units	1 %
QC12120743	Duplicate	pH	SM 4500-H+ B	1212419-002	7.40	7.36	pH Units	1 %
QC12120743	Duplicate	pH	SM 4500-H+ B	1212401-003	7.04	7.04	pH Units	<1%
QC12120746	Duplicate	Bicarbonate (HCO3)	SM 2320B	1212414-001	20.1	18.8	mg/L	7 %
		Carbonate (CO3)	SM 2320B	1212414-001	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1212414-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1212414-001	16.4	15.4	mg/L as CaCO3	7 %
QC12120746	Duplicate	Bicarbonate (HCO3)	SM 2320B	1212415-002	38.9	37.8	mg/L	3 %
		Carbonate (CO3)	SM 2320B	1212415-002	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1212415-002	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1212415-002	31.9	31.0	mg/L as CaCO3	3 %
QC12120746	Duplicate	Bicarbonate (HCO3)	SM 2320B	1212414-004	43.1	43.4	mg/L	1 %
		Carbonate (CO3)	SM 2320B	1212414-004	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1212414-004	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1212414-004	35.4	35.6	mg/L as CaCO3	1 %
QC12120746	Duplicate	Bicarbonate (HCO3)	SM 2320B	1212419-002	37.0	35.2	mg/L	5 %
		Carbonate (CO3)	SM 2320B	1212419-002	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1212419-002	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1212419-002	30.3	28.8	mg/L as CaCO3	5 %
QC12120746	Duplicate	Bicarbonate (HCO3)	SM 2320B	1212401-003	488	488	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1212401-003	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1212401-003	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1212401-003	400	400	mg/L as CaCO3	<1%
QC12120885	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1212415-001	10.0	10.0	mg/L	<1%
QC12120885	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1212444-001	21.0	21.0	mg/L	<1%
QC12120885	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1212446-009	595	594	mg/L	<1%
QC12120885	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1212450-002	678	670	mg/L	1 %

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC12120770	MS 1	Fluoride	EPA 300.0	1212414-001	0.208	1.80	1.87	2.00	mg/L	87	91	4 %
QC12120770	MS 2	Fluoride	EPA 300.0	1212414-010	<0.100	1.84	1.90	2.00	mg/L	89	92	3 %
QC12120772	MS 1	Fluoride	EPA 300.0	1212419-002	0.969	M 2.56	2.62	2.00	mg/L	NC	NC	NC
QC12120772	MS 2	Fluoride	EPA 300.0	1212446-001	10.1	M 17.5	17.7	2.00	mg/L	NC	NC	NC
QC12120776	MS 1	Chloride	EPA 300.0	1212419-001	<1.000	5.33	5.54	5.00	mg/L	105	109	4 %
QC12120776	MS 2	Chloride	EPA 300.0	1212446-001	17.1	43.1	43.1	5.00	mg/L	104	104	<1%
QC12120779	MS 1	Nitrite Nitrogen	EPA 300.0	1212414-004	<0.025	0.551	0.577	0.500	mg/L	107	112	5 %
QC12120779	MS 2	Nitrite Nitrogen	EPA 300.0	1212414-010	<0.025	0.566	0.588	0.500	mg/L	110	114	4 %
QC12120780	MS 1	Nitrite Nitrogen	EPA 300.0	1212419-002	<0.025	0.539	0.568	0.500	mg/L	105	110	5 %
QC12120780	MS 2	Nitrite Nitrogen	EPA 300.0	1212446-001	<0.125	2.79	2.80	0.500	mg/L	112	112	<1%
QC12120784	MS 1	Nitrate Nitrogen	EPA 300.0	1212419-002	<1.000	2.06	2.15	2.00	mg/L	102	106	4 %
QC12120784	MS 2	Nitrate Nitrogen	EPA 300.0	1212446-001	<1.000	10.3	10.4	2.00	mg/L	103	104	1 %
QC12120786	MS 1	Sulfate	EPA 300.0	1212414-004	14.0	23.8	24.3	10.0	mg/L	98	102	2 %
QC12120786	MS 2	Sulfate	EPA 300.0	1212414-010	18.2	27.9	28.2	10.0	mg/L	97	100	1 %
QC12120787	MS 1	Sulfate	EPA 300.0	1212419-002	8.73	18.7	19.1	10.0	mg/L	100	103	2 %
QC12120787	MS 2	Sulfate	EPA 300.0	1212446-001	41.6	92.2	92.2	10.0	mg/L	101	101	<1%
QC13010002	MS 1	Mercury	EPA 200.8	1212438-002	<0.00010	0.000870	0.000879	0.001	mg/L	87	88	1 %
		Antimony	EPA 200.8	1212438-002	<0.0025	0.0093	0.0091	0.010	mg/L	93	90	2 %
		Arsenic	EPA 200.8	1212438-002	<0.0030	0.0542	0.0530	0.050	mg/L	105	103	2 %
		Lead	EPA 200.8	1212438-002	<0.0025	0.0091	0.0089	0.010	mg/L	91	89	2 %
		Selenium	EPA 200.8	1212438-002	<0.0050	0.0510	0.0505	0.050	mg/L	95	94	1 %
		Thallium	EPA 200.8	1212438-002	<0.0010	0.0087	0.0086	0.010	mg/L	87	86	1 %
		Uranium	EPA 200.8	1212438-002	0.0163	0.0259	0.0254	0.010	mg/L	96	90	2 %
QC13010090	MS 1	Aluminum	EPA 200.7	1212438-002	<0.045	0.920	0.902	1.00	mg/L	91	89	2 %
		Barium	EPA 200.7	1212438-002	0.046	0.931	0.909	1.00	mg/L	88	86	2 %
		Beryllium	EPA 200.7	1212438-002	<0.001	0.958	0.918	1.00	mg/L	96	92	4 %
		Bismuth	EPA 200.7	1212438-002	<0.100	0.910	0.889	1.00	mg/L	92	90	2 %
		Boron	EPA 200.7	1212438-002	<0.100	0.942	0.922	1.00	mg/L	92	90	2 %
		Cadmium	EPA 200.7	1212438-002	<0.001	0.879	0.858	1.00	mg/L	88	86	2 %
		Calcium	EPA 200.7	1212438-002	58.8	67.2	67.8	10.0	mg/L	84	90	1 %
		Chromium	EPA 200.7	1212438-002	<0.005	0.890	0.870	1.00	mg/L	89	87	2 %
		Cobalt	EPA 200.7	1212438-002	<0.010	0.838	0.818	1.00	mg/L	84	82	2 %
		Copper	EPA 200.7	1212438-002	<0.050	4.49	4.39	5.00	mg/L	90	88	2 %
		Gallium	EPA 200.7	1212438-002	<0.100	0.965	0.943	1.00	mg/L	96	94	2 %
		Iron	EPA 200.7	1212438-002	<0.010	0.930	0.925	1.00	mg/L	93	92	1 %
		Lithium	EPA 200.7	1212438-002	<0.100	0.935	0.941	1.00	mg/L	93	94	1 %
		Magnesium	EPA 200.7	1212438-002	27.9	35.1	35.5	10.0	mg/L	72	76	1 %
		Manganese	EPA 200.7	1212438-002	<0.005	0.876	0.854	1.00	mg/L	89	87	3 %
		Molybdenum	EPA 200.7	1212438-002	<0.010	0.910	0.883	1.00	mg/L	91	88	3 %
		Nickel	EPA 200.7	1212438-002	<0.010	4.10	4.00	5.00	mg/L	82	80	2 %
		Phosphorus	EPA 200.7	1212438-002	<0.500	4.66	4.51	5.00	mg/L	92	89	3 %
		Potassium	EPA 200.7	1212438-002	4.14	13.9	13.9	10.0	mg/L	98	98	<1%
		Scandium	EPA 200.7	1212438-002	<0.100	0.935	0.899	1.00	mg/L	93	90	4 %
		Silver	EPA 200.7	1212438-002	<0.005	0.083	0.080	0.090	mg/L	93	90	4 %
		Sodium	EPA 200.7	1212438-002	21.3	31.2	31.6	10.0	mg/L	99	103	1 %
		Strontium	EPA 200.7	1212438-002	0.545	1.53	1.54	1.00	mg/L	98	100	1 %
		Tin	EPA 200.7	1212438-002	<0.100	0.881	0.854	1.00	mg/L	91	89	3 %
		Titanium	EPA 200.7	1212438-002	<0.100	0.975	0.974	1.00	mg/L	98	97	<1%
		Vanadium	EPA 200.7	1212438-002	0.037	0.948	0.925	1.00	mg/L	91	89	2 %
		Zinc	EPA 200.7	1212438-002	<0.010	0.853	0.826	1.00	mg/L	85	82	3 %



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Lab Number 1212419

Report

Due Date:

1/9/13

Page 1 of 1

Client McClelland Laboratories, Inc.

Address 1016 Greg Street

City, State & Zip Sparks, NV 89431

Contact Mike Medina

Phone 775-356-1300

Collector's Name Robert

Fax 775-356-8917

Project Name

P.O. Number

Project Number 3438

Email mli@mettest.com

Turnaround Time	
Standard	_____
Expedited	_____

Billing Address (if different than Client Address):

Company _____

Address _____

City, State & Zip _____

Contact _____

Phone _____

Fax _____

Email _____

Additional Information			
Fax Results	<u>Y</u>	<u>N</u>	To: Client Billing
Email Results	<u>Y</u>	<u>N</u>	To: Client Billing
Compliance Monitoring	<u>Y</u>	<u>N</u>	
Fax Results to State EPA	<u>Y</u>	<u>N</u>	

Sample Type Codes	
DW = Drinking Water	SD = Solid
WW = Wastewater	SO = Soil
SW = Surface Water	HW = Hazardous Waste
MW = Monitoring Well	OTHER: _____

SAMPLE ID / LOCATION	DATE	TIME	NO. OF SAMPLES	TYPE	ANALYSES REQUESTED		Sp. No.
					Profile II w/o Wad	Uranium	
CF-11-02 (0-27)	Wk:32	12/20/12	9:00	WW 2	X	X	1
CF-11-02 (367-408)	↓	↓	↓	↓	↓	↓	2

1212-419-5
2

Instructions/Comments/Special Requirements:

SAMPLE RECEIPT	DATE	TIME	Samples Rejected/By	Samples Accepted/By
Temperature <u>20.2 °C</u>	<u>12-20-12</u>	<u>14:20</u>	<u>[Signature]</u>	<u>[Signature]</u>
Custody Seals Intact? <u>Y</u> <u>N</u> <u>None</u>				
Number of Containers <u>4</u>				

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.

To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.



WETLAB

WESTERN ENVIRONMENTAL TESTING LABORATORY

Specializing in Soil, Hazardous Waste and Water Analysis.

475 E. Greg Street #119 | Sparks, Nevada 89431

tel (775) 355-0202 | fax (775) 355-0817 | www.WETLaboratory.com

Lab Number 1212419

Report

Due Date: 1/9/13

Page 1 of 1

Client McClelland Laboratories, Inc.

Address 1016 Greg Street

City, State & Zip Sparks, NV 89431

Contact Mike Medina

Phone 775-356-1300

Collector's Name Robert

Fax 775-356-8917

Project Name

P.O. Number

Project Number 3438

Email mli@mettest.com

Turnaround Time

Standard _____ Day _____ Other _____

Billing Address (if different than Client Address):

Company _____

Address _____

City, State & Zip _____

Contact _____

Phone _____

Fax _____

Email _____

Additional Information

Fax Results	Y	N	To: Client	Billing
Email Results	Y	N	To: Client	Billing
Compliance Monitoring	Y	N		
Fax Results to State EPA	Y	N		

Sample Type Codes

DW = Drinking Water	SD = Solid
WW = Wastewater	SO = Soil
SW = Surface Water	HW = Hazardous Waste
MW = Monitoring Well	OTHER: _____

SAMPLE ID/LOCATION	Wk	DATE	TIME					Analyses Requested		Spl. No.
								Profile II w/o Wad	Uranium	
CF-11-02 (0-27)	Wk:32	12/20/12	9:00	WW	2	X	X			1
CF-11-02 (367-408)	↓	↓	↓	↓	↓	↓	↓			2

1212419 5
419 2

Instructions/Comments/Special Requirements:

SAMPLE RECEIPT	DATE	TIME	Samples Relinquished By	Samples Received By
Temperature <u>20.2</u> °C	<u>12-20-12</u>	<u>14:20</u>		
Custody Seals Intact? Y N None				
Number of Containers <u>4</u>				

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.

To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.

Specializing in Soil, Hazardous Waste and Water Analysis.

1/9/2013

McClelland Laboratory
1016 Greg Street
Sparks, NV 89431
Attn: Mike Medina

OrderID: 1212496

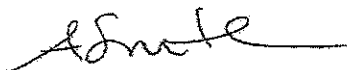
Dear: Mike Medina

This is to transmit the attached analytical report. The analytical data and information contained therein was generated using specified or selected methods contained in references, such as Standard Methods for the Examination of Water and Wastewater, 18th & 19th editions, Methods for Determination of Organic Compounds in Drinking Water, EPA-600/4-79-020, and Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW846) Third Edition.

The samples were received by WETLAB-Western Environmental Testing Laboratory in good condition on 12/27/2012. Additional comments are located on page 2 of this report.

If you should have any questions or comments regarding this report, please do not hesitate to call.

Sincerely,



Andy Smith
QA Manager

Western Environmental Testing Laboratory

Report Comments

McClelland Laboratory - 1212496

General Comments

None

Specific Comments

The matrix spike/matrix spike duplicate (MS/MSD) values for the analysis of Sulfate on sample 1212496-003 were outside laboratory acceptance criteria; however, the relative percent difference (RPD) value was acceptable, indicating probable matrix interference. The reported result should be considered an estimate.

Data Qualifier Legend

- B -- Blank contamination; Analyte detected above the method reporting limit in an associated blank
- HT -- Sample held beyond the accepted holding time
- J -- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
- M -- Reported value is estimated; The sample matrix interfered with the analysis
- N -- There was insufficient sample available to perform a spike and/or duplicate on this analytical batch.
- NC -- Not calculated due to matrix interference
- Q -- Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
- S -- Surrogate recovery was outside of laboratory acceptance limits due to matrix interference. The associated blank and LCS surrogate recovery was within acceptance limits.
- SC -- Spike recovery not calculated. Sample concentration >4X the spike amount; therefore, the spike could not be adequately recovered.

Western Environmental Testing Laboratory Analytical Report

McClelland Laboratory

1016 Greg Street

Sparks, NV 89431

Attn: Mike Medina

Phone: (775) 356-1300 Fax: (775) 356-8917

PO/Project: 3438 WK:100

Date Printed: 1/9/2013

OrderID: 1212496

Customer Sample ID: 604 673 Wk: 100

Collect Date/Time: 12/27/2012 09:00

WETLAB Sample ID: 1212496-001

Receive Date: 12/27/2012 15:25

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	5.11	pH Units		12/27/2012
Trace Metals Digestion	EPA 200.2	Complete			1/2/2013
Bicarbonate (HCO ₃)	SM 2320B	<1.0	mg/L	1.0	12/27/2012
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	12/27/2012
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	12/27/2012
Total Alkalinity	SM 2320B	<1.0	mg/L as CaCO ₃	1.0	12/27/2012
Chloride	EPA 300.0	<1.00	mg/L	1.00	12/28/2012
Fluoride	EPA 300.0	0.24	mg/L	0.10	12/28/2012
Sulfate	EPA 300.0	21	mg/L	1.0	12/28/2012
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	12/28/2012
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	12/28/2012
Total Dissolved Solids (TDS)	SM 2540C	74	mg/L	10	1/2/2013
Aluminum	EPA 200.7	0.17	mg/L	0.045	1/7/2013
Barium	EPA 200.7	0.065	mg/L	0.010	1/7/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	1/7/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	1/7/2013
Boron	EPA 200.7	<0.10	mg/L	0.10	1/7/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	1/7/2013
Calcium	EPA 200.7	6.0	mg/L	0.50	1/7/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	1/7/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	1/7/2013
Copper	EPA 200.7	1.6	mg/L	0.050	1/7/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	1/7/2013
Iron	EPA 200.7	0.027	mg/L	0.010	1/7/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	1/7/2013
Magnesium	EPA 200.7	0.81	mg/L	0.50	1/7/2013
Manganese	EPA 200.7	0.041	mg/L	0.0050	1/7/2013

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Customer Sample ID: 604 673 Wk: 100

Collect Date/Time: 12/27/2012 09:00

WETLAB Sample ID: 1212496-001

Receive Date: 12/27/2012 15:25

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	1/7/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	1/7/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	1/7/2013
Potassium	EPA 200.7	0.82	mg/L	0.50	1/7/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	1/7/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	1/7/2013
Sodium	EPA 200.7	<0.50	mg/L	0.50	1/7/2013
Strontium	EPA 200.7	<0.10	mg/L	0.10	1/7/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	1/7/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	1/7/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	1/7/2013
Zinc	EPA 200.7	0.047	mg/L	0.010	1/7/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	1/2/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	1/2/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	1/2/2013
Lead	EPA 200.8	0.0091	mg/L	0.0025	1/2/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	1/2/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	1/2/2013
Uranium	EPA 200.8	0.024	mg/L	0.0050	1/2/2013
Anions	Calculation	0.45	meq/L	0.10	
Cations	Calculation	0.46	meq/L	0.10	
Error	Calculation	1.2	%	1.0	

Customer Sample ID: SRK 0854 Wk: 100

Collect Date/Time: 12/27/2012 09:00

WETLAB Sample ID: 1212496-002

Receive Date: 12/27/2012 15:25

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	4.93	pH Units		12/27/2012
Trace Metals Digestion	EPA 200.2	Complete			1/2/2013
Bicarbonate (HCO ₃)	SM 2320B	<1.0	mg/L	1.0	12/27/2012
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	12/27/2012
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	12/27/2012
Total Alkalinity	SM 2320B	<1.0	mg/L as CaCO ₃	1.0	12/27/2012
Chloride	EPA 300.0	<1.00	mg/L	1.00	12/28/2012
Fluoride	EPA 300.0	0.14	mg/L	0.10	12/28/2012
Sulfate	EPA 300.0	59	mg/L	1.0	12/28/2012
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	12/28/2012
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	12/28/2012

Page 4 of 11

Customer Sample ID: SRK 0854 Wk: 100

Collect Date/Time: 12/27/2012 09:00

WETLAB Sample ID: 1212496-002

Receive Date: 12/27/2012 15:25

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Total Dissolved Solids (TDS)	SM 2540C	130	mg/L	10	1/2/2013
Aluminum	EPA 200.7	0.045	mg/L	0.045	1/7/2013
Barium	EPA 200.7	0.032	mg/L	0.010	1/7/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	1/7/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	1/7/2013
Boron	EPA 200.7	<0.10	mg/L	0.10	1/7/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	1/7/2013
Calcium	EPA 200.7	2.5	mg/L	0.50	1/7/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	1/7/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	1/7/2013
Copper	EPA 200.7	33	mg/L	0.050	1/7/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	1/7/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	1/7/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	1/7/2013
Magnesium	EPA 200.7	<0.50	mg/L	0.50	1/7/2013
Manganese	EPA 200.7	0.053	mg/L	0.0050	1/7/2013
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	1/7/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	1/7/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	1/7/2013
Potassium	EPA 200.7	0.70	mg/L	0.50	1/7/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	1/7/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	1/7/2013
Sodium	EPA 200.7	<0.50	mg/L	0.50	1/7/2013
Strontium	EPA 200.7	<0.10	mg/L	0.10	1/7/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	1/7/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	1/7/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	1/7/2013
Zinc	EPA 200.7	0.12	mg/L	0.010	1/7/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	1/2/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	1/2/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	1/2/2013
Lead	EPA 200.8	0.0073	mg/L	0.0025	1/2/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	1/2/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	1/2/2013
Uranium	EPA 200.8	<0.0050	mg/L	0.0050	1/2/2013
Anions	Calculation	1.24	meq/L	0.10	
Cations	Calculation	1.19	meq/L	0.10	
Error	Calculation	1.8	%	1.0	

Customer Sample ID: SRK 0872 Wk: 100

Collect Date/Time: 12/27/2012 09:00

WETLAB Sample ID: 1212496-003

Receive Date: 12/27/2012 15:25

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.03	pH Units		12/27/2012
Trace Metals Digestion	EPA 200.2	Complete			1/2/2013
Bicarbonate (HCO ₃)	SM 2320B	11	mg/L	1.0	12/27/2012
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	12/27/2012
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	12/27/2012
Total Alkalinity	SM 2320B	8.8	mg/L as CaCO ₃	1.0	12/27/2012
Chloride	EPA 300.0	<1.00	mg/L	1.00	12/28/2012
Fluoride	EPA 300.0	0.51	mg/L	0.10	12/28/2012
Sulfate	EPA 300.0	21 M	mg/L	1.0	12/28/2012
Nitrate Nitrogen	EPA 300.0	1.0	mg/L	1.0	12/28/2012
Nitrite Nitrogen	EPA 300.0	0.051	mg/L	0.025	12/28/2012
Total Dissolved Solids (TDS)	SM 2540C	78	mg/L	10	1/2/2013
Aluminum	EPA 200.7	<0.045	mg/L	0.045	1/7/2013
Barium	EPA 200.7	0.024	mg/L	0.010	1/7/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	1/7/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	1/7/2013
Boron	EPA 200.7	<0.10	mg/L	0.10	1/7/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	1/7/2013
Calcium	EPA 200.7	11	mg/L	0.50	1/7/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	1/7/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	1/7/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	1/7/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	1/7/2013
Iron	EPA 200.7	0.030	mg/L	0.010	1/7/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	1/7/2013
Magnesium	EPA 200.7	0.89	mg/L	0.50	1/7/2013
Manganese	EPA 200.7	0.0091	mg/L	0.0050	1/7/2013
Molybdenum	EPA 200.7	0.037	mg/L	0.010	1/7/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	1/7/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	1/7/2013
Potassium	EPA 200.7	<0.50	mg/L	0.50	1/7/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	1/7/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	1/7/2013
Sodium	EPA 200.7	<0.50	mg/L	0.50	1/7/2013
Strontium	EPA 200.7	<0.10	mg/L	0.10	1/7/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	1/7/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	1/7/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	1/7/2013

Page 6 of 11

Customer Sample ID: SRK 0872 Wk: 100

Collect Date/Time: 12/27/2012 09:00

WETLAB Sample ID: 1212496-003

Receive Date: 12/27/2012 15:25

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Zinc	EPA 200.7	<0.010	mg/L	0.010	1/7/2013
Mercury	EPA 200.8	0.00016	mg/L	0.00010	1/2/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	1/2/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	1/2/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	1/2/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	1/2/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	1/2/2013
Uranium	EPA 200.8	<0.0050	mg/L	0.0050	1/2/2013
Anions	Calculation	0.72	meq/L	0.10	
Cations	Calculation	0.62	meq/L	0.10	
Error	Calculation	6.8	%	1.0	

Western Environmental Testing Laboratory QC Report

QCBatchID	QCType	Parameter	Method	Result	Units
QC13010012	Blank 1	Fluoride	EPA 300.0	<0.10	mg/L
QC13010012	Blank 2	Fluoride	EPA 300.0	<0.10	mg/L
QC13010012	Blank 3	Fluoride	EPA 300.0	<0.10	mg/L
QC13010014	Blank 1	Chloride	EPA 300.0	<1.0	mg/L
QC13010014	Blank 2	Chloride	EPA 300.0	<1.0	mg/L
QC13010014	Blank 3	Chloride	EPA 300.0	<1.0	mg/L
QC13010016	Blank 1	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13010016	Blank 2	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13010016	Blank 3	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13010017	Blank 1	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13010017	Blank 2	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13010017	Blank 3	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13010018	Blank 1	Sulfate	EPA 300.0	<1.0	mg/L
QC13010018	Blank 2	Sulfate	EPA 300.0	<1.0	mg/L
QC13010018	Blank 3	Sulfate	EPA 300.0	<1.0	mg/L
QC13010052	Blank 1	Uranium, Dissolved	EPA 200.8	<0.0050	mg/L
		Mercury, Dissolved	EPA 200.8	<0.00010	mg/L
		Antimony, Dissolved	EPA 200.8	<0.0025	mg/L
		Arsenic, Dissolved	EPA 200.8	<0.0050	mg/L
		Lead, Dissolved	EPA 200.8	<0.0025	mg/L
		Selenium, Dissolved	EPA 200.8	<0.0050	mg/L
		Thallium, Dissolved	EPA 200.8	<0.0010	mg/L
QC13010119	Blank 1	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L
QC13010119	Blank 2	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L
QC13010186	Blank 1	Aluminum, Dissolved	EPA 200.7	<0.045	mg/L
		Barium, Dissolved	EPA 200.7	<0.010	mg/L
		Beryllium, Dissolved	EPA 200.7	<0.0010	mg/L
		Bismuth, Dissolved	EPA 200.7	<0.10	mg/L
		Boron, Dissolved	EPA 200.7	<0.10	mg/L
		Cadmium, Dissolved	EPA 200.7	<0.0010	mg/L
		Calcium, Dissolved	EPA 200.7	<0.50	mg/L
		Chromium, Dissolved	EPA 200.7	<0.0050	mg/L
		Cobalt, Dissolved	EPA 200.7	<0.010	mg/L
		Copper, Dissolved	EPA 200.7	<0.050	mg/L
		Gallium, Dissolved	EPA 200.7	<0.10	mg/L
		Iron, Dissolved	EPA 200.7	<0.010	mg/L
		Lithium, Dissolved	EPA 200.7	<0.10	mg/L
		Magnesium, Dissolved	EPA 200.7	<0.50	mg/L
		Manganese, Dissolved	EPA 200.7	<0.0050	mg/L
		Molybdenum, Dissolved	EPA 200.7	<0.010	mg/L
		Nickel, Dissolved	EPA 200.7	<0.010	mg/L
		Phosphorus, Dissolved	EPA 200.7	<0.50	mg/L
		Potassium, Dissolved	EPA 200.7	<0.50	mg/L
		Scandium, Dissolved	EPA 200.7	<0.10	mg/L
		Silver, Dissolved	EPA 200.7	<0.0050	mg/L
		Sodium, Dissolved	EPA 200.7	<0.50	mg/L
		Strontium, Dissolved	EPA 200.7	<0.10	mg/L

QCBatchID	QCType	Parameter	Method	Result	Units
		Tin, Dissolved	EPA 200.7	<0.10	mg/L
		Titanium, Dissolved	EPA 200.7	<0.10	mg/L
		Vanadium, Dissolved	EPA 200.7	<0.010	mg/L
		Zinc, Dissolved	EPA 200.7	<0.010	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC12120862	LCS 1	pH	SM 4500-H+ B	7.01	7.00	100	pH Units
QC12120872	LCS 1	Total Alkalinity	SM 2320B	99.6	100	100	mg/L
QC12120872	LCS 2	Total Alkalinity	SM 2320B	99.0	100	99	mg/L
QC13010012	LCS 1	Fluoride	EPA 300.0	1.93	2.00	96	mg/L
QC13010014	LCS 1	Chloride	EPA 300.0	10.2	10.0	102	mg/L
QC13010016	LCS 1	Nitrite Nitrogen	EPA 300.0	0.550	0.500	110	mg/L
QC13010017	LCS 1	Nitrate Nitrogen	EPA 300.0	1.97	2.00	98	mg/L
QC13010018	LCS 1	Sulfate	EPA 300.0	24.0	25.0	96	mg/L
QC13010052	LCS 1	Uranium, Dissolved	EPA 200.8	0.0099	0.010	99	mg/L
		Mercury, Dissolved	EPA 200.8	0.000982	0.001	98	mg/L
		Antimony, Dissolved	EPA 200.8	0.0094	0.010	94	mg/L
		Arsenic, Dissolved	EPA 200.8	0.0497	0.050	99	mg/L
		Lead, Dissolved	EPA 200.8	0.0100	0.010	100	mg/L
		Selenium, Dissolved	EPA 200.8	0.0460	0.050	92	mg/L
		Thallium, Dissolved	EPA 200.8	0.0100	0.010	100	mg/L
QC13010119	LCS 1	Total Dissolved Solids (TDS)	SM 2540C	161	150	108	mg/L
QC13010119	LCS 2	Total Dissolved Solids (TDS)	SM 2540C	163	150	108	mg/L
QC13010186	LCS 1	Aluminum, Dissolved	EPA 200.7	1.13	1.00	113	mg/L
		Barium, Dissolved	EPA 200.7	1.08	1.00	108	mg/L
		Beryllium, Dissolved	EPA 200.7	0.993	1.00	99	mg/L
		Bismuth, Dissolved	EPA 200.7	1.04	1.00	104	mg/L
		Boron, Dissolved	EPA 200.7	1.00	1.00	100	mg/L
		Cadmium, Dissolved	EPA 200.7	1.15	1.00	115	mg/L
		Calcium, Dissolved	EPA 200.7	9.98	10.0	100	mg/L
		Chromium, Dissolved	EPA 200.7	1.05	1.00	105	mg/L
		Cobalt, Dissolved	EPA 200.7	1.10	1.00	110	mg/L
		Copper, Dissolved	EPA 200.7	4.73	5.00	95	mg/L
		Gallium, Dissolved	EPA 200.7	1.09	1.00	109	mg/L
		Iron, Dissolved	EPA 200.7	0.985	1.00	98	mg/L
		Lithium, Dissolved	EPA 200.7	0.851	1.00	85	mg/L
		Magnesium, Dissolved	EPA 200.7	10.1	10.0	101	mg/L
		Manganese, Dissolved	EPA 200.7	1.05	1.00	105	mg/L
		Molybdenum, Dissolved	EPA 200.7	1.04	1.00	104	mg/L
		Nickel, Dissolved	EPA 200.7	5.50	5.00	110	mg/L
		Phosphorus, Dissolved	EPA 200.7	4.81	5.00	96	mg/L
		Potassium, Dissolved	EPA 200.7	9.98	10.0	100	mg/L
		Scandium, Dissolved	EPA 200.7	0.959	1.00	96	mg/L
		Silver, Dissolved	EPA 200.7	0.090	0.090	100	mg/L
		Sodium, Dissolved	EPA 200.7	9.18	10.0	92	mg/L
		Strontium, Dissolved	EPA 200.7	0.892	1.00	89	mg/L
		Tin, Dissolved	EPA 200.7	1.14	1.00	114	mg/L
		Titanium, Dissolved	EPA 200.7	0.937	1.00	94	mg/L
		Vanadium, Dissolved	EPA 200.7	1.01	1.00	101	mg/L
		Zinc, Dissolved	EPA 200.7	0.954	1.00	95	mg/L

QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD
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QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD
QC12120862	Duplicate	pH	SM 4500-H+ B	1212494-001	5.09	5.09	pH Units	<1%
QC12120872	Duplicate	Bicarbonate (HCO3)	SM 2320B	1212494-001	<1.000	<1.000	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1212494-001	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1212494-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1212494-001	<1.000	<1.000	mg/L as CaCO3	<1%
QC13010119	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1212487-002	888	856	mg/L	4 %
QC13010119	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1212521-001	679	671	mg/L	1 %
QC13010119	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1212526-004	611	603	mg/L	1 %

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC13010012	MS 1	Fluoride	EPA 300.0	1212496-003	0.510	2.21	2.16	2.00	mg/L	85	82	2 %
QC13010012	MS 2	Fluoride	EPA 300.0	1212518-003	2.03	45.3	45.6	2.00	mg/L	87	87	1 %
QC13010014	MS 1	Chloride	EPA 300.0	1212496-003	<1.000	5.17	5.33	5.00	mg/L	103	106	3 %
QC13010014	MS 2	Chloride	EPA 300.0	1212521-001	<10.00	61.8	62.9	5.00	mg/L	107	109	2 %
QC13010016	MS 1	Nitrite Nitrogen	EPA 300.0	1212496-003	0.051	0.604	0.615	0.500	mg/L	111	113	2 %
QC13010016	MS 2	Nitrite Nitrogen	EPA 300.0	1212521-001	<0.250	5.69	5.91	0.500	mg/L	110	115	4 %
QC13010017	MS 1	Nitrate Nitrogen	EPA 300.0	1212496-003	1.00	3.03	3.03	2.00	mg/L	102	102	<1%
QC13010017	MS 2	Nitrate Nitrogen	EPA 300.0	1212521-001	<1.000	20.7	21.2	2.00	mg/L	102	104	2 %
QC13010018	MS 1	Sulfate	EPA 300.0	1212496-003	20.5	M 27.7	27.8	10.0	mg/L	NC	NC	NC
QC13010018	MS 2	Sulfate	EPA 300.0	1212521-001	430	534	539	10.0	mg/L	104	109	1 %
QC13010052	MS 1	Uranium, Dissolved	EPA 200.8	1212514-001	<0.0050	0.0112	0.0111	0.010	mg/L	100	99	1 %
		Mercury, Dissolved	EPA 200.8	1212514-001	<0.00010	0.001039	0.001027	0.001	mg/L	101	100	1 %
		Antimony, Dissolved	EPA 200.8	1212514-001	<0.0025	0.0096	0.0096	0.010	mg/L	90	91	<1%
		Arsenic, Dissolved	EPA 200.8	1212514-001	<0.0050	0.0530	0.0534	0.050	mg/L	101	102	1 %
		Lead, Dissolved	EPA 200.8	1212514-001	<0.0025	0.0100	0.0098	0.010	mg/L	100	98	2 %
		Selenium, Dissolved	EPA 200.8	1212514-001	<0.0050	0.0465	0.0473	0.050	mg/L	93	95	2 %
		Thallium, Dissolved	EPA 200.8	1212514-001	<0.0010	0.0099	0.0099	0.010	mg/L	97	97	<1%
QC13010186	MS 1	Aluminum, Dissolved	EPA 200.7	1212514-001	<0.045	0.956	0.993	1.00	mg/L	95	99	4 %
		Barium, Dissolved	EPA 200.7	1212514-001	0.066	0.974	0.986	1.00	mg/L	91	92	1 %
		Beryllium, Dissolved	EPA 200.7	1212514-001	<0.001	0.940	0.936	1.00	mg/L	94	94	<1%
		Bismuth, Dissolved	EPA 200.7	1212514-001	<0.100	0.922	0.935	1.00	mg/L	94	95	1 %
		Boron, Dissolved	EPA 200.7	1212514-001	<0.100	0.988	1.00	1.00	mg/L	94	95	1 %
		Cadmium, Dissolved	EPA 200.7	1212514-001	<0.001	0.890	0.898	1.00	mg/L	89	90	1 %
		Calcium, Dissolved	EPA 200.7	1212514-001	40.1	47.9	47.3	10.0	mg/L	78	72	1 %
		Chromium, Dissolved	EPA 200.7	1212514-001	<0.005	0.926	0.939	1.00	mg/L	93	94	1 %
		Cobalt, Dissolved	EPA 200.7	1212514-001	<0.010	0.867	0.873	1.00	mg/L	87	87	1 %
		Copper, Dissolved	EPA 200.7	1212514-001	<0.050	4.61	4.68	5.00	mg/L	92	94	2 %
		Gallium, Dissolved	EPA 200.7	1212514-001	<0.100	1.01	1.02	1.00	mg/L	101	102	1 %
		Iron, Dissolved	EPA 200.7	1212514-001	0.012	0.937	0.939	1.00	mg/L	93	93	<1%
		Lithium, Dissolved	EPA 200.7	1212514-001	<0.100	1.01	1.01	1.00	mg/L	100	100	<1%
		Magnesium, Dissolved	EPA 200.7	1212514-001	14.1	21.9	21.8	10.0	mg/L	78	77	<1%
		Manganese, Dissolved	EPA 200.7	1212514-001	<0.005	0.909	0.923	1.00	mg/L	92	93	2 %
		Molybdenum, Dissolved	EPA 200.7	1212514-001	<0.010	0.929	0.943	1.00	mg/L	93	94	1 %
		Nickel, Dissolved	EPA 200.7	1212514-001	<0.010	4.36	4.40	5.00	mg/L	87	88	1 %
		Phosphorus, Dissolved	EPA 200.7	1212514-001	<0.500	4.74	4.78	5.00	mg/L	94	95	1 %
		Potassium, Dissolved	EPA 200.7	1212514-001	1.70	11.8	11.9	10.0	mg/L	101	102	1 %
		Scandium, Dissolved	EPA 200.7	1212514-001	<0.100	0.952	0.953	1.00	mg/L	95	95	<1%
		Silver, Dissolved	EPA 200.7	1212514-001	<0.005	0.089	0.090	0.090	mg/L	100	101	1 %
		Sodium, Dissolved	EPA 200.7	1212514-001	8.50	17.6	17.6	10.0	mg/L	91	91	<1%

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
		Strontium, Dissolved	EPA 200.7	1212514-001	0.148	1.06	1.07	1.00	mg/L	91	92	1 %
		Tin, Dissolved	EPA 200.7	1212514-001	<0.100	0.889	0.905	1.00	mg/L	91	93	2 %
		Titanium, Dissolved	EPA 200.7	1212514-001	<0.100	0.965	0.970	1.00	mg/L	97	97	1 %
		Vanadium, Dissolved	EPA 200.7	1212514-001	0.023	0.961	0.971	1.00	mg/L	94	95	1 %
		Zinc, Dissolved	EPA 200.7	1212514-001	<0.010	0.863	0.870	1.00	mg/L	86	87	1 %



WETLAB

WESTERN ENVIRONMENTAL TESTING LABORATORY

Specializing in Soil, Hazardous Waste and Water Analysis.

475 E. Greg Street #119 | Sparks, Nevada 89431

tel [775] 355-0202 | fax [775] 355-0817 | www.WETLaboratory.com

Lab Number 1212496

Report

Due Date:

1/14/13

Page 1

of 1

Client McClelland Laboratories, Inc.

Address 1016 Greg Street

City, State & Zip Sparks, NV 89431

Contact Mike Medina

Phone 775-356-1300

Collector's Name Robert

Fax 775-356-8917

Project Name

P.O. Number

Project Number 3438

Email mli@mettest.com

Turnaround time
 Day _____ Other _____

Billing Address (if different than Client Address):
 Company _____
 Address _____
 City, State & Zip _____
 Contact _____
 Phone _____
 Fax _____
 Email _____

Additional Information			
Fax Results	Y	N	To: Client Billing
Email Results	Y	N	To: Client Billing
Compliance Monitoring	Y	N	
Fax Results to State EPA	Y	N	

Sample Type Codes			
DW = Drinking Water	SD = Solid		
WW = Wastewater	SO = Soil		
SW = Surface Water	HW = Hazardous Waste		
MW = Monitoring Well	OTHER: _____		

SAMPLE ID/LOCATION		DATE/TIME		S	S	S	Analyses Requested		Spl. No.
							Profile II w/o Wad	Uranium	
604 673	Wk:100	12/27/12	9:00	WW	2	X	X		1
SRK 0854	↓	↓	↓	↓	↓	↓	↓		2
SRK 0872	↓	↓	↓	↓	↓	↓	↓		3

1212 5
496 3

Instructions/Comments/Special Requirements:

SAMPLE RECEIPT	DATE	TIME	Samples Relinquished By	Samples Received By
Temperature 10.5°C	12/27/12	3:25p		
Custody Seals Intact? Y N None				
Number of Containers 6				

WETLAB'S Standard Terms and Conditions apply unless written agreement specify otherwise. Payment terms are Net 30.

To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.



Specializing in Soil, Hazardous Waste and Water Analysis.

1/18/2013

McClelland Laboratory
1016 Greg Street
Sparks, NV 89431
Attn: Mike Medina

OrderID: 1301048

Dear: Mike Medina

This is to transmit the attached analytical report. The analytical data and information contained therein was generated using specified or selected methods contained in references, such as Standard Methods for the Examination of Water and Wastewater, 18th & 19th editions, Methods for Determination of Organic Compounds in Drinking Water, EPA-600/4-79-020, and Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW846) Third Edition.

The samples were received by WETLAB-Western Environmental Testing Laboratory in good condition on 1/3/2013. Additional comments are located on page 2 of this report.

If you should have any questions or comments regarding this report, please do not hesitate to call.

Sincerely,

Andy Smith
QA Manager

Western Environmental Testing Laboratory

Report Comments

McClelland Laboratory - 1301048

General Comments

None

Specific Comments

The matrix spike/matrix spike duplicate (MS/MSD) values for the analysis of Fluoride on sample 1301048-001 were outside laboratory acceptance criteria; however, the relative percent difference (RPD) value was acceptable, indicating probable matrix interference. The reported result should be considered an estimate.

Due to a laboratory reanalysis requirement the analysis for Total Dissolved Solids (TDS) on sample 1301048-001 was performed past the EPA recommended holding time. We apologize for any inconvenience this may have caused.

Data Qualifier Legend

- B -- Blank contamination; Analyte detected above the method reporting limit in an associated blank
- HT -- Sample held beyond the accepted holding time
- J -- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
- M -- Reported value is estimated; The sample matrix interfered with the analysis
- N -- There was insufficient sample available to perform a spike and/or duplicate on this analytical batch.
- NC -- Not calculated due to matrix interference
- Q -- Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
- S -- Surrogate recovery was outside of laboratory acceptance limits due to matrix interference. The associated blank and LCS surrogate recovery was within acceptance limits.
- SC -- Spike recovery not calculated. Sample concentration >4X the spike amount; therefore, the spike could not be adequately recovered.

Western Environmental Testing Laboratory Analytical Report

McClelland Laboratory

1016 Greg Street

Sparks, NV 89431

Attn: Mike Medina

Phone: (775) 356-1300 Fax: (775) 356-8917

PO/Project: 3438 WK:28

Date Printed: 1/18/2013

OrderID: 1301048

Customer Sample ID: CF-11-02 (227-367) Wk:28

Collect Date/Time: 1/3/2013 09:00

WETLAB Sample ID: 1301048-001

Receive Date: 1/3/2013 16:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.84	pH Units		1/3/2013
Trace Metals Digestion	EPA 200.2	Complete			1/4/2013
Bicarbonate (HCO ₃)	SM 2320B	71	mg/L	1.0	1/3/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	1/3/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	1/3/2013
Total Alkalinity	SM 2320B	58	mg/L as CaCO ₃	1.0	1/3/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	1/4/2013
Fluoride	EPA 300.0	1.1	M mg/L	0.10	1/4/2013
Sulfate	EPA 300.0	6.9	mg/L	1.0	1/4/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	1/4/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	1/4/2013
Total Dissolved Solids (TDS)	SM 2540C	77	HT mg/L	10	1/16/2013
Aluminum	EPA 200.7	0.062	mg/L	0.045	1/8/2013
Barium	EPA 200.7	0.047	mg/L	0.010	1/8/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	1/8/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	1/8/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	1/8/2013
Calcium	EPA 200.7	18	mg/L	0.50	1/8/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	1/8/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	1/8/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Magnesium	EPA 200.7	3.1	mg/L	0.50	1/8/2013
Manganese	EPA 200.7	0.027	mg/L	0.0050	1/8/2013

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Customer Sample ID: CF-11-02 (227-367) Wk:28

Collect Date/Time: 1/3/2013 09:00

WETLAB Sample ID: 1301048-001

Receive Date: 1/3/2013 16:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	1/8/2013
Potassium	EPA 200.7	3.3	mg/L	0.50	1/8/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	1/8/2013
Sodium	EPA 200.7	1.2	mg/L	0.50	1/8/2013
Strontium	EPA 200.7	0.17	mg/L	0.10	1/8/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	1/8/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	1/8/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	1/8/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	1/8/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	1/8/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	1/8/2013
Uranium	EPA 200.8	<0.0050	mg/L	0.0050	1/8/2013
Anions	Calculation	1.37	meq/L	0.10	
Cations	Calculation	1.30	meq/L	0.10	
Error	Calculation	2.5	%	1.0	

Customer Sample ID: CF-11-02 (52-117) Wk:28

Collect Date/Time: 1/3/2013 09:00

WETLAB Sample ID: 1301048-002

Receive Date: 1/3/2013 16:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.77	pH Units		1/3/2013
Trace Metals Digestion	EPA 200.2	Complete			1/4/2013
Bicarbonate (HCO ₃)	SM 2320B	61	mg/L	1.0	1/3/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	1/3/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	1/3/2013
Total Alkalinity	SM 2320B	50	mg/L as CaCO ₃	1.0	1/3/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	1/4/2013
Fluoride	EPA 300.0	0.92	mg/L	0.10	1/4/2013
Sulfate	EPA 300.0	10	mg/L	1.0	1/4/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	1/4/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	1/4/2013

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Customer Sample ID: CF-11-02 (52-117) Wk:28

Collect Date/Time: 1/3/2013 09:00

WETLAB Sample ID: 1301048-002

Receive Date: 1/3/2013 16:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Total Dissolved Solids (TDS)	SM 2540C	86	mg/L	10	1/8/2013
Aluminum	EPA 200.7	0.048	mg/L	0.045	1/8/2013
Barium	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	1/8/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	1/8/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	1/8/2013
Calcium	EPA 200.7	18	mg/L	0.50	1/8/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	1/8/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	1/8/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Magnesium	EPA 200.7	2.0	mg/L	0.50	1/8/2013
Manganese	EPA 200.7	0.028	mg/L	0.0050	1/8/2013
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	1/8/2013
Potassium	EPA 200.7	3.0	mg/L	0.50	1/8/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	1/8/2013
Sodium	EPA 200.7	0.98	mg/L	0.50	1/8/2013
Strontium	EPA 200.7	0.13	mg/L	0.10	1/8/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	1/8/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	1/8/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	1/8/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	1/8/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	1/8/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	1/8/2013
Uranium	EPA 200.8	0.013	mg/L	0.0050	1/8/2013
Anions	Calculation	1.26	meq/L	0.10	
Cations	Calculation	1.19	meq/L	0.10	
Error	Calculation	2.8	%	1.0	

Customer Sample ID: K-Spar Breccia 5+ Comp Wk:28

Collect Date/Time: 1/3/2013 09:00

WETLAB Sample ID: 1301048-003

Receive Date: 1/3/2013 16:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.86	pH Units		1/3/2013
Trace Metals Digestion	EPA 200.2	Complete			1/4/2013
Bicarbonate (HCO ₃)	SM 2320B	73	mg/L	1.0	1/3/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	1/3/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	1/3/2013
Total Alkalinity	SM 2320B	60	mg/L as CaCO ₃	1.0	1/3/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	1/4/2013
Fluoride	EPA 300.0	1.1	mg/L	0.10	1/4/2013
Sulfate	EPA 300.0	37	mg/L	1.0	1/4/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	1/4/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	1/4/2013
Total Dissolved Solids (TDS)	SM 2540C	140	mg/L	10	1/8/2013
Aluminum	EPA 200.7	<0.045	mg/L	0.045	1/8/2013
Barium	EPA 200.7	0.090	mg/L	0.010	1/8/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	1/8/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	1/8/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	1/8/2013
Calcium	EPA 200.7	31	mg/L	0.50	1/8/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	1/8/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	1/8/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Magnesium	EPA 200.7	3.2	mg/L	0.50	1/8/2013
Manganese	EPA 200.7	0.052	mg/L	0.0050	1/8/2013
Molybdenum	EPA 200.7	0.043	mg/L	0.010	1/8/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	1/8/2013
Potassium	EPA 200.7	2.7	mg/L	0.50	1/8/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	1/8/2013
Sodium	EPA 200.7	1.1	mg/L	0.50	1/8/2013
Strontium	EPA 200.7	0.66	mg/L	0.10	1/8/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	1/8/2013

Customer Sample ID: K-Spar Breccia 5+ Comp Wk:28

Collect Date/Time: 1/3/2013 09:00

WETLAB Sample ID: 1301048-003

Receive Date: 1/3/2013 16:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Zinc	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	1/8/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	1/8/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	1/8/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	1/8/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	1/8/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	1/8/2013
Uranium	EPA 200.8	0.023	mg/L	0.0050	1/8/2013
Anions	Calculation	2.02	meq/L	0.10	
Cations	Calculation	1.93	meq/L	0.10	
Error	Calculation	2.4	%	1.0	

Customer Sample ID: Biotite Breccia 5+ Comp Wk:28

Collect Date/Time: 1/3/2013 09:00

WETLAB Sample ID: 1301048-004

Receive Date: 1/3/2013 16:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.93	pH Units		1/3/2013
Trace Metals Digestion	EPA 200.2	Complete			1/4/2013
Bicarbonate (HCO ₃)	SM 2320B	84	mg/L	1.0	1/3/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	1/3/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	1/3/2013
Total Alkalinity	SM 2320B	69	mg/L as CaCO ₃	1.0	1/3/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	1/4/2013
Fluoride	EPA 300.0	1.5	mg/L	0.10	1/4/2013
Sulfate	EPA 300.0	13	mg/L	1.0	1/4/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	1/4/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	1/4/2013
Total Dissolved Solids (TDS)	SM 2540C	100	mg/L	10	1/8/2013
Aluminum	EPA 200.7	0.048	mg/L	0.045	1/8/2013
Barium	EPA 200.7	0.068	mg/L	0.010	1/8/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	1/8/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	1/8/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	1/8/2013
Calcium	EPA 200.7	23	mg/L	0.50	1/8/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	1/8/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	1/8/2013

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Customer Sample ID: Biotite Breccia 5+ Comp Wk:28

Collect Date/Time: 1/3/2013 09:00

WETLAB Sample ID: 1301048-004

Receive Date: 1/3/2013 16:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Gallium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Iron	EPA 200.7	0.016	mg/L	0.010	1/8/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Magnesium	EPA 200.7	4.5	mg/L	0.50	1/8/2013
Manganese	EPA 200.7	0.046	mg/L	0.0050	1/8/2013
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	1/8/2013
Potassium	EPA 200.7	2.9	mg/L	0.50	1/8/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	1/8/2013
Sodium	EPA 200.7	0.85	mg/L	0.50	1/8/2013
Strontium	EPA 200.7	0.31	mg/L	0.10	1/8/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	1/8/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	1/8/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	1/8/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	1/8/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	1/8/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	1/8/2013
Uranium	EPA 200.8	0.0065	mg/L	0.0050	1/8/2013
Anions	Calculation	1.73	meq/L	0.10	
Cations	Calculation	1.64	meq/L	0.10	
Error	Calculation	2.7	%	1.0	

Customer Sample ID: Quartz Monzonite 5+ Comp Wk:28

Collect Date/Time: 1/3/2013 09:00

WETLAB Sample ID: 1301048-005

Receive Date: 1/3/2013 16:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.89	pH Units		1/3/2013
Trace Metals Digestion	EPA 200.2	Complete			1/4/2013
Bicarbonate (HCO ₃)	SM 2320B	75	mg/L	1.0	1/3/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	1/3/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	1/3/2013
Total Alkalinity	SM 2320B	62	mg/L as CaCO ₃	1.0	1/3/2013

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Customer Sample ID: Quartz Monzonite 5+ Comp Wk:28

Collect Date/Time: 1/3/2013 09:00

WETLAB Sample ID: 1301048-005

Receive Date: 1/3/2013 16:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Chloride	EPA 300.0	<1.00	mg/L	1.00	1/4/2013
Fluoride	EPA 300.0	1.1	mg/L	0.10	1/4/2013
Sulfate	EPA 300.0	15	mg/L	1.0	1/4/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	1/4/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	1/4/2013
Total Dissolved Solids (TDS)	SM 2540C	94	mg/L	10	1/8/2013
Aluminum	EPA 200.7	<0.045	mg/L	0.045	1/8/2013
Barium	EPA 200.7	0.11	mg/L	0.010	1/8/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	1/8/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	1/8/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	1/8/2013
Calcium	EPA 200.7	21	mg/L	0.50	1/8/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	1/8/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	1/8/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Magnesium	EPA 200.7	4.4	mg/L	0.50	1/8/2013
Manganese	EPA 200.7	0.025	mg/L	0.0050	1/8/2013
Molybdenum	EPA 200.7	0.055	mg/L	0.010	1/8/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	1/8/2013
Potassium	EPA 200.7	2.8	mg/L	0.50	1/8/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	1/8/2013
Sodium	EPA 200.7	1.2	mg/L	0.50	1/8/2013
Strontium	EPA 200.7	0.57	mg/L	0.10	1/8/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	1/8/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	1/8/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	1/8/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	1/8/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	1/8/2013

Customer Sample ID: Quartz Monzonite 5+ Comp Wk:28

Collect Date/Time: 1/3/2013 09:00

WETLAB Sample ID: 1301048-005

Receive Date: 1/3/2013 16:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	1/8/2013
Uranium	EPA 200.8	0.015	mg/L	0.0050	1/8/2013
Anions	Calculation	1.60	meq/L	0.10	
Cations	Calculation	1.53	meq/L	0.10	
Error	Calculation	2.1	%	1.0	

Customer Sample ID: Biotite Breccia 0-5 Comp Wk:28

Collect Date/Time: 1/3/2013 09:00

WETLAB Sample ID: 1301048-006

Receive Date: 1/3/2013 16:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.81	pH Units		1/3/2013
Trace Metals Digestion	EPA 200.2	Complete			1/4/2013
Bicarbonate (HCO ₃)	SM 2320B	65	mg/L	1.0	1/3/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	1/3/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	1/3/2013
Total Alkalinity	SM 2320B	54	mg/L as CaCO ₃	1.0	1/3/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	1/4/2013
Fluoride	EPA 300.0	1.4	mg/L	0.10	1/4/2013
Sulfate	EPA 300.0	13	mg/L	1.0	1/4/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	1/4/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	1/4/2013
Total Dissolved Solids (TDS)	SM 2540C	88	mg/L	10	1/8/2013
Aluminum	EPA 200.7	<0.045	mg/L	0.045	1/8/2013
Barium	EPA 200.7	0.076	mg/L	0.010	1/8/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	1/8/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	1/8/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	1/8/2013
Calcium	EPA 200.7	19	mg/L	0.50	1/8/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	1/8/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	1/8/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Iron	EPA 200.7	0.010	mg/L	0.010	1/8/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Magnesium	EPA 200.7	4.0	mg/L	0.50	1/8/2013
Manganese	EPA 200.7	0.023	mg/L	0.0050	1/8/2013
Molybdenum	EPA 200.7	0.015	mg/L	0.010	1/8/2013

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Customer Sample ID: Biotite Breccia 0-5 Comp Wk:28

Collect Date/Time: 1/3/2013 09:00

WETLAB Sample ID: 1301048-006

Receive Date: 1/3/2013 16:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Nickel	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	1/8/2013
Potassium	EPA 200.7	1.8	mg/L	0.50	1/8/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	1/8/2013
Sodium	EPA 200.7	0.72	mg/L	0.50	1/8/2013
Strontium	EPA 200.7	0.27	mg/L	0.10	1/8/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	1/8/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	1/8/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	1/8/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	1/8/2013
Seelenium	EPA 200.8	<0.0050	mg/L	0.0050	1/8/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	1/8/2013
Uranium	EPA 200.8	0.034	mg/L	0.0050	1/8/2013
Anions	Calculation	1.41	meq/L	0.10	
Cations	Calculation	1.36	meq/L	0.10	
Error	Calculation	1.9	%	1.0	

Customer Sample ID: K-Spar Breccia 0-5 Comp Wk:28

Collect Date/Time: 1/3/2013 09:00

WETLAB Sample ID: 1301048-007

Receive Date: 1/3/2013 16:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.90	pH Units		1/3/2013
Trace Metals Digestion	EPA 200.2	Complete			1/4/2013
Bicarbonate (HCO ₃)	SM 2320B	75	mg/L	1.0	1/3/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	1/3/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	1/3/2013
Total Alkalinity	SM 2320B	61	mg/L as CaCO ₃	1.0	1/3/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	1/4/2013
Fluoride	EPA 300.0	1.3	mg/L	0.10	1/4/2013
Sulfate	EPA 300.0	13	mg/L	1.0	1/4/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	1/4/2013
Nitrite Nitrogen	EPA 300.0	0.092	mg/L	0.025	1/4/2013
Total Dissolved Solids (TDS)	SM 2540C	98	mg/L	10	1/8/2013

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Customer Sample ID: K-Spar Breccia 0-5 Comp Wk:28

Collect Date/Time: 1/3/2013 09:00

WETLAB Sample ID: 1301048-007

Receive Date: 1/3/2013 16:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Aluminum	EPA 200.7	<0.045	mg/L	0.045	1/8/2013
Barium	EPA 200.7	0.10	mg/L	0.010	1/8/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	1/8/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	1/8/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	1/8/2013
Calcium	EPA 200.7	20	mg/L	0.50	1/8/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	1/8/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	1/8/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Magnesium	EPA 200.7	4.2	mg/L	0.50	1/8/2013
Manganese	EPA 200.7	0.018	mg/L	0.0050	1/8/2013
Molybdenum	EPA 200.7	0.017	mg/L	0.010	1/8/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	1/8/2013
Potassium	EPA 200.7	2.3	mg/L	0.50	1/8/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	1/8/2013
Sodium	EPA 200.7	0.80	mg/L	0.50	1/8/2013
Strontium	EPA 200.7	0.44	mg/L	0.10	1/8/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	1/8/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	1/8/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	1/8/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	1/8/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	1/8/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	1/8/2013
Uranium	EPA 200.8	0.040	mg/L	0.0050	1/8/2013
Anions	Calculation	1.57	meq/L	0.10	
Cations	Calculation	1.44	meq/L	0.10	
Error	Calculation	4.3	%	1.0	

Customer Sample ID: Quartz Monzonite 0-5 Comp Wk:28

Collect Date/Time: 1/3/2013 09:00

WETLAB Sample ID: 1301048-008

Receive Date: 1/3/2013 16:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.48	pH Units		1/3/2013
Trace Metals Digestion	EPA 200.2	Complete			1/4/2013
Bicarbonate (HCO ₃)	SM 2320B	22	mg/L	1.0	1/3/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	1/3/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	1/3/2013
Total Alkalinity	SM 2320B	18	mg/L as CaCO ₃	1.0	1/3/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	1/4/2013
Fluoride	EPA 300.0	0.22	mg/L	0.10	1/4/2013
Sulfate	EPA 300.0	4.2	mg/L	1.0	1/4/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	1/4/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	1/4/2013
Total Dissolved Solids (TDS)	SM 2540C	45	mg/L	10	1/8/2013
Aluminum	EPA 200.7	0.11	mg/L	0.045	1/8/2013
Barium	EPA 200.7	0.056	mg/L	0.010	1/8/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	1/8/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	1/8/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	1/8/2013
Calcium	EPA 200.7	6.5	mg/L	0.50	1/8/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	1/8/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	1/8/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Iron	EPA 200.7	0.018	mg/L	0.010	1/8/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Magnesium	EPA 200.7	0.86	mg/L	0.50	1/8/2013
Manganese	EPA 200.7	<0.0050	mg/L	0.0050	1/8/2013
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	1/8/2013
Potassium	EPA 200.7	<0.50	mg/L	0.50	1/8/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	1/8/2013
Sodium	EPA 200.7	1.7	mg/L	0.50	1/8/2013
Strontium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	1/8/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	1/8/2013

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Customer Sample ID: Quartz Monzonite 0-5 Comp Wk:28

Collect Date/Time: 1/3/2013 09:00

WETLAB Sample ID: 1301048-008

Receive Date: 1/3/2013 16:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Zinc	EPA 200.7	<0.010	mg/L	0.010	1/8/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	1/8/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	1/8/2013
Arsenic	EPA 200.8	0.0060	mg/L	0.0050	1/8/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	1/8/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	1/8/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	1/8/2013
Uranium	EPA 200.8	<0.0050	mg/L	0.0050	1/8/2013
Anions	Calculation	0.46	meq/L	0.10	
Cations	Calculation	0.48	meq/L	0.10	
Error	Calculation	2.4	%	1.0	

Western Environmental Testing Laboratory

QC Report

QCBatchID	QCType	Parameter	Method	Result	Units
QC13010154	Blank 1	Fluoride	EPA 300.0	<0.10	mg/L
QC13010154	Blank 2	Fluoride	EPA 300.0	<0.10	mg/L
QC13010154	Blank 3	Fluoride	EPA 300.0	<0.10	mg/L
QC13010158	Blank 1	Chloride	EPA 300.0	<1.0	mg/L
QC13010158	Blank 2	Chloride	EPA 300.0	<1.0	mg/L
QC13010158	Blank 3	Chloride	EPA 300.0	<1.0	mg/L
QC13010162	Blank 1	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13010162	Blank 2	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13010162	Blank 3	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13010167	Blank 1	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13010167	Blank 2	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13010167	Blank 3	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13010171	Blank 1	Sulfate	EPA 300.0	<1.0	mg/L
QC13010171	Blank 2	Sulfate	EPA 300.0	<1.0	mg/L
QC13010171	Blank 3	Sulfate	EPA 300.0	<1.0	mg/L
QC13010195	Blank 1	Mercury	EPA 200.8	<0.00010	mg/L
		Antimony	EPA 200.8	<0.0025	mg/L
		Arsenic	EPA 200.8	<0.0050	mg/L
		Lead	EPA 200.8	<0.0025	mg/L
		Selenium	EPA 200.8	<0.0050	mg/L
		Thallium	EPA 200.8	<0.0010	mg/L
		Uranium	EPA 200.8	<0.0050	mg/L
QC13010196	Blank 1	Mercury	EPA 200.8	<0.00010	mg/L
		Antimony	EPA 200.8	<0.0025	mg/L
		Arsenic	EPA 200.8	<0.0050	mg/L
		Lead	EPA 200.8	<0.0025	mg/L
		Selenium	EPA 200.8	<0.0050	mg/L
		Thallium	EPA 200.8	<0.0010	mg/L
		Uranium	EPA 200.8	<0.0050	mg/L
QC13010216	Blank 1	Aluminum	EPA 200.7	<0.045	mg/L
		Barium	EPA 200.7	<0.010	mg/L
		Beryllium	EPA 200.7	<0.0010	mg/L
		Bismuth	EPA 200.7	<0.10	mg/L
		Boron	EPA 200.7	<0.100	mg/L
		Cadmium	EPA 200.7	<0.0010	mg/L
		Calcium	EPA 200.7	<0.50	mg/L
		Chromium	EPA 200.7	<0.0050	mg/L
		Cobalt	EPA 200.7	<0.010	mg/L
		Copper	EPA 200.7	<0.050	mg/L
		Gallium	EPA 200.7	<0.10	mg/L
		Iron	EPA 200.7	<0.010	mg/L
		Lithium	EPA 200.7	<0.10	mg/L
		Magnesium	EPA 200.7	<0.50	mg/L
		Manganese	EPA 200.7	<0.0050	mg/L
		Molybdenum	EPA 200.7	<0.010	mg/L
		Nickel	EPA 200.7	<0.010	mg/L
		Phosphorus	EPA 200.7	<0.50	mg/L

QCBatchID	QCType	Parameter	Method	Result	Units
		Potassium	EPA 200.7	<0.50	mg/L
		Scandium	EPA 200.7	<0.10	mg/L
		Silver	EPA 200.7	<0.0050	mg/L
		Sodium	EPA 200.7	<0.50	mg/L
		Strontium	EPA 200.7	<0.10	mg/L
		Tin	EPA 200.7	<0.10	mg/L
		Titanium	EPA 200.7	<0.10	mg/L
		Vanadium	EPA 200.7	<0.010	mg/L
		Zinc	EPA 200.7	<0.010	mg/L
QC13010218	Blank 1	Aluminum	EPA 200.7	<0.045	mg/L
		Barium	EPA 200.7	<0.010	mg/L
		Beryllium	EPA 200.7	<0.0010	mg/L
		Bismuth	EPA 200.7	<0.10	mg/L
		Boron	EPA 200.7	<0.10	mg/L
		Cadmium	EPA 200.7	<0.0010	mg/L
		Calcium	EPA 200.7	<0.50	mg/L
		Chromium	EPA 200.7	<0.0050	mg/L
		Cobalt	EPA 200.7	<0.010	mg/L
		Copper	EPA 200.7	<0.050	mg/L
		Gallium	EPA 200.7	<0.10	mg/L
		Iron	EPA 200.7	<0.010	mg/L
		Lithium	EPA 200.7	<0.10	mg/L
		Magnesium	EPA 200.7	<0.50	mg/L
		Manganese	EPA 200.7	<0.0050	mg/L
		Molybdenum	EPA 200.7	<0.010	mg/L
		Nickel	EPA 200.7	<0.010	mg/L
		Phosphorus	EPA 200.7	<0.50	mg/L
		Potassium	EPA 200.7	<0.50	mg/L
		Scandium	EPA 200.7	<0.10	mg/L
		Silver	EPA 200.7	<0.0050	mg/L
		Sodium	EPA 200.7	<0.50	mg/L
		Strontium	EPA 200.7	<0.10	mg/L
		Tin	EPA 200.7	<0.10	mg/L
		Titanium	EPA 200.7	<0.10	mg/L
		Vanadium	EPA 200.7	<0.010	mg/L
		Zinc	EPA 200.7	<0.010	mg/L
QC13010309	Blank 1	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L
QC13010309	Blank 2	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L
QC13010309	Blank 3	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L
QC13010390	Blank 1	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L
QC13010390	Blank 2	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC13010108	LCS 1	pH	SM 4500-H+ B	7.01	7.00	100	pH Units
QC13010108	LCS 2	pH	SM 4500-H+ B	7.01	7.00	100	pH Units
QC13010108	LCS 3	pH	SM 4500-H+ B	7.01	7.00	100	pH Units
QC13010108	LCS 4	pH	SM 4500-H+ B	7.01	7.00	100	pH Units
QC13010110	LCS 1	Total Alkalinity	SM 2320B	99.4	100	99	mg/L
QC13010110	LCS 2	Total Alkalinity	SM 2320B	99.6	100	100	mg/L
QC13010110	LCS 3	Total Alkalinity	SM 2320B	99.6	100	100	mg/L
QC13010110	LCS 4	Total Alkalinity	SM 2320B	99.8	100	100	mg/L
QC13010110	LCS 5	Total Alkalinity	SM 2320B	101	100	101	mg/L
QC13010154	LCS 1	Fluoride	EPA 300.0	1.95	2.00	98	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC13010158	LCS 1	Chloride	EPA 300.0	9.81	10.0	98	mg/L
QC13010162	LCS 1	Nitrite Nitrogen	EPA 300.0	0.545	0.500	109	mg/L
QC13010167	LCS 1	Nitrate Nitrogen	EPA 300.0	1.89	2.00	95	mg/L
QC13010171	LCS 1	Sulfate	EPA 300.0	23.6	25.0	94	mg/L
QC13010195	LCS 1	Mercury	EPA 200.8	0.000978	0.001	98	mg/L
		Antimony	EPA 200.8	0.0095	0.010	95	mg/L
		Arsenic	EPA 200.8	0.0487	0.050	97	mg/L
		Lead	EPA 200.8	0.0093	0.010	93	mg/L
		Selenium	EPA 200.8	0.0444	0.050	89	mg/L
		Thallium	EPA 200.8	0.0093	0.010	93	mg/L
		Uranium	EPA 200.8	0.0091	0.010	91	mg/L
QC13010196	LCS 1	Mercury	EPA 200.8	0.000972	0.001	97	mg/L
		Antimony	EPA 200.8	0.0092	0.010	92	mg/L
		Arsenic	EPA 200.8	0.0495	0.050	99	mg/L
		Lead	EPA 200.8	0.0098	0.010	98	mg/L
		Selenium	EPA 200.8	0.0451	0.050	90	mg/L
		Thallium	EPA 200.8	0.0097	0.010	96	mg/L
		Uranium	EPA 200.8	0.0097	0.010	97	mg/L
QC13010216	LCS 1	Aluminum	EPA 200.7	0.954	1.00	95	mg/L
		Barium	EPA 200.7	0.973	1.00	97	mg/L
		Beryllium	EPA 200.7	0.975	1.00	98	mg/L
		Bismuth	EPA 200.7	0.995	1.00	100	mg/L
		Boron	EPA 200.7	0.940	1.00	94	mg/L
		Cadmium	EPA 200.7	0.985	1.00	98	mg/L
		Calcium	EPA 200.7	9.78	10.0	98	mg/L
		Chromium	EPA 200.7	0.964	1.00	96	mg/L
		Cobalt	EPA 200.7	0.979	1.00	98	mg/L
		Copper	EPA 200.7	4.69	5.00	94	mg/L
		Gallium	EPA 200.7	0.970	1.00	97	mg/L
		Iron	EPA 200.7	0.955	1.00	96	mg/L
		Lithium	EPA 200.7	0.945	1.00	94	mg/L
		Magnesium	EPA 200.7	9.33	10.0	93	mg/L
		Manganese	EPA 200.7	0.976	1.00	98	mg/L
		Molybdenum	EPA 200.7	0.955	1.00	96	mg/L
		Nickel	EPA 200.7	4.87	5.00	97	mg/L
		Phosphorus	EPA 200.7	4.89	5.00	98	mg/L
		Potassium	EPA 200.7	9.54	10.0	95	mg/L
		Scandium	EPA 200.7	0.957	1.00	96	mg/L
		Silver	EPA 200.7	0.087	0.090	97	mg/L
		Sodium	EPA 200.7	9.96	10.0	100	mg/L
		Strontium	EPA 200.7	1.00	1.00	100	mg/L
		Tin	EPA 200.7	0.929	1.00	93	mg/L
		Titanium	EPA 200.7	0.954	1.00	95	mg/L
		Vanadium	EPA 200.7	0.970	1.00	97	mg/L
		Zinc	EPA 200.7	0.980	1.00	98	mg/L
QC13010218	LCS 1	Aluminum	EPA 200.7	0.953	1.00	95	mg/L
		Barium	EPA 200.7	0.978	1.00	98	mg/L
		Beryllium	EPA 200.7	0.988	1.00	99	mg/L
		Bismuth	EPA 200.7	0.995	1.00	100	mg/L
		Boron	EPA 200.7	0.943	1.00	94	mg/L
		Cadmium	EPA 200.7	1.00	1.00	100	mg/L
		Calcium	EPA 200.7	9.90	10.0	99	mg/L
		Chromium	EPA 200.7	0.971	1.00	97	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
		Cobalt	EPA 200.7	0.984	1.00	98	mg/L
		Copper	EPA 200.7	4.66	5.00	93	mg/L
		Gallium	EPA 200.7	0.967	1.00	97	mg/L
		Iron	EPA 200.7	0.962	1.00	96	mg/L
		Lithium	EPA 200.7	0.949	1.00	95	mg/L
		Magnesium	EPA 200.7	9.55	10.0	96	mg/L
		Manganese	EPA 200.7	0.990	1.00	99	mg/L
		Molybdenum	EPA 200.7	0.956	1.00	96	mg/L
		Nickel	EPA 200.7	4.91	5.00	98	mg/L
		Phosphorus	EPA 200.7	4.99	5.00	100	mg/L
		Potassium	EPA 200.7	9.56	10.0	96	mg/L
		Scandium	EPA 200.7	0.958	1.00	96	mg/L
		Silver	EPA 200.7	0.087	0.090	97	mg/L
		Sodium	EPA 200.7	9.35	10.0	94	mg/L
		Strontium	EPA 200.7	0.933	1.00	93	mg/L
		Tin	EPA 200.7	0.965	1.00	96	mg/L
		Titanium	EPA 200.7	0.972	1.00	97	mg/L
		Vanadium	EPA 200.7	0.970	1.00	97	mg/L
		Zinc	EPA 200.7	1.00	1.00	100	mg/L
QC13010309	LCS 1	Total Dissolved Solids (TDS)	SM 2540C	157	150	105	mg/L
QC13010309	LCS 2	Total Dissolved Solids (TDS)	SM 2540C	157	150	105	mg/L
QC13010309	LCS 3	Total Dissolved Solids (TDS)	SM 2540C	149	150	100	mg/L
QC13010390	LCS 1	Total Dissolved Solids (TDS)	SM 2540C	159	150	106	mg/L
QC13010390	LCS 2	Total Dissolved Solids (TDS)	SM 2540C	157	150	105	mg/L

QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD
QC13010108	Duplicate	pH	SM 4500-H+ B	1301018-001	8.10	8.13	pH Units	<1%
QC13010108	Duplicate	pH	SM 4500-H+ B	1301018-002	7.83	7.86	pH Units	<1%
QC13010108	Duplicate	pH	SM 4500-H+ B	1301018-003	8.00	8.01	pH Units	<1%
QC13010108	Duplicate	pH	SM 4500-H+ B	1301044-001	6.44	6.40	pH Units	1 %
QC13010108	Duplicate	pH	SM 4500-H+ B	1301044-008	6.16	6.15	pH Units	<1%
QC13010108	Duplicate	pH	SM 4500-H+ B	1301047-001	7.62	7.64	pH Units	<1%
QC13010108	Duplicate	pH	SM 4500-H+ B	1301052-001	7.85	7.86	pH Units	<1%
QC13010110	Duplicate	Bicarbonate (HCO3)	SM 2320B	1301018-001	234	235	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1301018-001	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1301018-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1301018-001	192	192	mg/L as CaCO3	<1%
QC13010110	Duplicate	Bicarbonate (HCO3)	SM 2320B	1301018-002	153	152	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1301018-002	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1301018-002	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1301018-002	125	125	mg/L as CaCO3	<1%
QC13010110	Duplicate	Bicarbonate (HCO3)	SM 2320B	1301018-003	185	186	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1301018-003	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1301018-003	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1301018-003	152	152	mg/L as CaCO3	<1%
QC13010110	Duplicate	Bicarbonate (HCO3)	SM 2320B	1301044-001	21.4	20.3	mg/L	5 %
		Carbonate (CO3)	SM 2320B	1301044-001	<1.000	<1.000	mg/L	<1%

QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD
QC13010110	Duplicate	Hydroxide (OH)	SM 2320B	1301044-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1301044-001	17.5	16.6	mg/L as CaCO3	5 %
		Bicarbonate (HCO3)	SM 2320B	1301044-008	23.7	23.6	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1301044-008	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1301044-008	<1.000	<1.000	mg/L	<1%
QC13010110	Duplicate	Total Alkalinity	SM 2320B	1301044-008	19.4	19.4	mg/L as CaCO3	<1%
		Bicarbonate (HCO3)	SM 2320B	1301047-001	40.6	38.9	mg/L	4 %
		Carbonate (CO3)	SM 2320B	1301047-001	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1301047-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1301047-001	33.2	31.9	mg/L as CaCO3	4 %
QC13010110	Duplicate	Bicarbonate (HCO3)	SM 2320B	1301052-001	118	118	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1301052-001	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1301052-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1301052-001	96.9	96.9	mg/L as CaCO3	<1%
QC13010309	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1301047-001	54.0	58.0	mg/L	7 %
QC13010309	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1301078-003	802	808	mg/L	1 %
QC13010309	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1301090-001	33.0	32.0	mg/L	3 %
QC13010309	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1301090-011	47.0	37.0	mg/L	24 %
QC13010309	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1212510-001		2220	mg/L	<1%
QC13010390	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1301093-001	630	628	mg/L	<1%
QC13010390	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1301121-003	267	552	mg/L	%
QC13010390	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1301048-001	77.0	56.0	HT mg/L	<1%

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC13010154	MS 1	Fluoride	EPA 300.0	1301048-001	1.09	M 2.52	2.55	2.00	mg/L	NC	NC	NC
QC13010154	MS 2	Fluoride	EPA 300.0	1301047-001	<0.100	1.68	1.70	2.00	mg/L	82	83	1 %
QC13010158	MS 1	Chloride	EPA 300.0	1301044-001	1.22	6.61	6.84	5.00	mg/L	108	112	3 %
QC13010158	MS 2	Chloride	EPA 300.0	1301048-001	<1.000	5.18	5.30	5.00	mg/L	103	106	2 %
QC13010162	MS 1	Nitrite Nitrogen	EPA 300.0	1301044-001	<0.025	0.594	0.618	0.500	mg/L	119	124	4 %
QC13010162	MS 2	Nitrite Nitrogen	EPA 300.0	1301048-001	<0.025	0.569	0.580	0.500	mg/L	110	112	2 %
QC13010167	MS 1	Nitrate Nitrogen	EPA 300.0	1301044-001	<1.000	2.29	2.38	2.00	mg/L	107	112	4 %
QC13010167	MS 2	Nitrate Nitrogen	EPA 300.0	1301048-001	<1.000	2.01	2.07	2.00	mg/L	99	102	3 %
QC13010171	MS 1	Sulfate	EPA 300.0	1301044-001	1.23	11.8	12.2	10.0	mg/L	106	110	3 %
QC13010171	MS 2	Sulfate	EPA 300.0	1301048-001	6.88	16.8	17.1	10.0	mg/L	100	102	2 %
QC13010195	MS 1	Mercury	EPA 200.8	1301046-003	<0.00100	0.001920	0.001880	0.001	mg/L	97	93	2 %
		Antimony	EPA 200.8	1301046-003	1.3582	SC 1.3182	1.3619	0.010	mg/L	NC	NC	NC
		Arsenic	EPA 200.8	1301046-003	3.7847	SC 3.7367	3.8235	0.050	mg/L	NC	NC	NC
		Lead	EPA 200.8	1301046-003	<0.0100	0.0125	0.0127	0.010	mg/L	99	101	2 %
		Selenium	EPA 200.8	1301046-003	0.3284	SC 0.3997	0.3995	0.050	mg/L	NC	NC	NC
		Thallium	EPA 200.8	1301046-003	<0.0100	0.0101	0.0102	0.010	mg/L	103	104	1 %
		Uranium	EPA 200.8	1301046-003	<0.0100	<0.0100	<0.0100	0.010	mg/L	104	105	#Erro
QC13010196	MS 1	Mercury	EPA 200.8	1301044-011	<0.00010	0.000959	0.000990	0.001	mg/L	95	98	3 %
		Antimony	EPA 200.8	1301044-011	<0.0025	0.0091	0.0092	0.010	mg/L	91	91	1 %
		Arsenic	EPA 200.8	1301044-011	<0.0050	0.0500	0.0504	0.050	mg/L	100	101	1 %
		Lead	EPA 200.8	1301044-011	<0.0025	0.0099	0.0101	0.010	mg/L	98	101	2 %
		Selenium	EPA 200.8	1301044-011	<0.0050	0.0452	0.0453	0.050	mg/L	90	91	<1%

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD		
QC13010216	MS 1	Thallium	EPA 200.8	1301044-011	<0.0010	0.0096	0.0098	0.010	mg/L	96	98	2 %		
		Uranium	EPA 200.8	1301044-011	<0.0050	0.0098	0.0100	0.010	mg/L	98	100	2 %		
		Aluminum	EPA 200.7	1301046-003	1.04	2.27	2.24	1.00	mg/L	123	120	1 %		
		Barium	EPA 200.7	1301046-003	0.018	0.982	0.977	1.00	mg/L	96	96	1 %		
		Beryllium	EPA 200.7	1301046-003	<0.001	0.975	0.974	1.00	mg/L	97	97	<1%		
		Bismuth	EPA 200.7	1301046-003	<0.100	0.996	1.01	1.00	mg/L	99	101	1 %		
		Boron	EPA 200.7	1301046-003	<0.100	1.05	1.06	1.00	mg/L	98	99	1 %		
		Cadmium	EPA 200.7	1301046-003	<0.001	0.940	0.935	1.00	mg/L	94	93	1 %		
		Calcium	EPA 200.7	1301046-003	9.17	18.7	18.9	10.0	mg/L	95	97	1 %		
		Chromium	EPA 200.7	1301046-003	<0.005	0.953	0.948	1.00	mg/L	95	95	1 %		
		Cobalt	EPA 200.7	1301046-003	0.014	0.965	0.961	1.00	mg/L	95	95	<1%		
		Copper	EPA 200.7	1301046-003	0.079	5.26	5.27	5.00	mg/L	104	104	<1%		
		Gallium	EPA 200.7	1301046-003	<0.100	1.02	1.02	1.00	mg/L	102	102	<1%		
		Iron	EPA 200.7	1301046-003	0.326	1.32	1.31	1.00	mg/L	99	98	1 %		
		Lithium	EPA 200.7	1301046-003	<0.100	0.968	0.969	1.00	mg/L	97	97	<1%		
		Magnesium	EPA 200.7	1301046-003	<0.500	9.53	9.51	10.0	mg/L	94	94	<1%		
		Manganese	EPA 200.7	1301046-003	0.018	0.986	0.983	1.00	mg/L	97	97	<1%		
		Molybdenum	EPA 200.7	1301046-003	0.155	1.09	1.10	1.00	mg/L	94	94	1 %		
		QC13010218	MS 1	Nickel	EPA 200.7	1301046-003	0.015	4.76	4.73	5.00	mg/L	95	94	1 %
				Phosphorus	EPA 200.7	1301046-003	<0.500	5.04	5.08	5.00	mg/L	98	99	1 %
Potassium	EPA 200.7			1301046-003	2.67	12.5	12.3	10.0	mg/L	98	96	2 %		
Scandium	EPA 200.7			1301046-003	<0.100	0.957	0.955	1.00	mg/L	96	96	<1%		
Silver	EPA 200.7			1301046-003	<0.005	0.090	0.092	0.090	mg/L	100	101	2 %		
Sodium	EPA 200.7			1301046-003	134	145	145	10.0	mg/L	110	110	<1%		
Strontium	EPA 200.7			1301046-003	<0.100	1.00	1.01	1.00	mg/L	98	99	1 %		
Tin	EPA 200.7			1301046-003	<0.100	0.934	0.941	1.00	mg/L	95	95	1 %		
Titanium	EPA 200.7			1301046-003	<0.100	0.979	0.982	1.00	mg/L	98	98	<1%		
Vanadium	EPA 200.7			1301046-003	0.048	1.02	1.02	1.00	mg/L	97	97	<1%		
Zinc	EPA 200.7			1301046-003	0.040	1.02	1.03	1.00	mg/L	98	99	1 %		
Aluminum	EPA 200.7			1301044-012	<0.045	0.985	0.988	1.00	mg/L	98	98	<1%		
Barium	EPA 200.7			1301044-012	0.026	0.988	0.993	1.00	mg/L	96	97	1 %		
Beryllium	EPA 200.7			1301044-012	<0.001	0.968	0.975	1.00	mg/L	97	97	1 %		
Bismuth	EPA 200.7			1301044-012	<0.100	0.975	0.982	1.00	mg/L	98	98	1 %		
Boron	EPA 200.7			1301044-012	<0.100	0.983	1.00	1.00	mg/L	96	98	2 %		
Cadmium	EPA 200.7			1301044-012	<0.001	0.952	0.960	1.00	mg/L	95	96	1 %		
Calcium	EPA 200.7			1301044-012	13.3	22.9	23.3	10.0	mg/L	96	100	2 %		
Chromium	EPA 200.7			1301044-012	<0.005	0.952	0.957	1.00	mg/L	95	96	1 %		
Cobalt	EPA 200.7			1301044-012	<0.010	0.941	0.951	1.00	mg/L	94	95	1 %		
Copper	EPA 200.7	1301044-012	<0.050	4.79	4.80	5.00	mg/L	96	96	<1%				
Gallium	EPA 200.7	1301044-012	<0.100	0.988	0.991	1.00	mg/L	99	99	<1%				
Iron	EPA 200.7	1301044-012	0.011	0.970	0.969	1.00	mg/L	96	96	<1%				
Lithium	EPA 200.7	1301044-012	<0.100	0.953	0.963	1.00	mg/L	95	96	1 %				
Magnesium	EPA 200.7	1301044-012	7.25	16.5	16.5	10.0	mg/L	92	92	<1%				
Manganese	EPA 200.7	1301044-012	0.005	0.966	0.973	1.00	mg/L	96	97	1 %				
Molybdenum	EPA 200.7	1301044-012	<0.010	0.938	0.943	1.00	mg/L	94	94	1 %				
Nickel	EPA 200.7	1301044-012	<0.010	4.71	4.73	5.00	mg/L	94	95	<1%				
Phosphorus	EPA 200.7	1301044-012	<0.500	4.83	4.88	5.00	mg/L	95	96	1 %				
Potassium	EPA 200.7	1301044-012	6.15	15.7	15.8	10.0	mg/L	95	96	1 %				
Scandium	EPA 200.7	1301044-012	<0.100	0.965	0.967	1.00	mg/L	96	97	<1%				
Silver	EPA 200.7	1301044-012	<0.005	0.088	0.088	0.090	mg/L	98	98	<1%				
Sodium	EPA 200.7	1301044-012	17.2	26.9	27.4	10.0	mg/L	97	102	2 %				
Strontium	EPA 200.7	1301044-012	0.113	1.11	1.13	1.00	mg/L	100	102	2 %				

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
		Tin	EPA 200.7	1301044-012	<0.100	0.903	0.906	1.00	mg/L	92	92	<1%
		Titanium	EPA 200.7	1301044-012	<0.100	0.974	0.972	1.00	mg/L	97	97	<1%
		Vanadium	EPA 200.7	1301044-012	<0.010	0.974	0.978	1.00	mg/L	97	97	<1%
		Zinc	EPA 200.7	1301044-012	<0.010	0.949	0.951	1.00	mg/L	95	95	<1%



WETLAB

WESTERN ENVIRONMENTAL TESTING LABORATORY *Specializing in Soil, Hazardous Waste and Water Analysis.*
 475 E. Greg Street #119 | Sparks, Nevada 89431
 tel (775) 355-0202 | fax (775) 355-0817 | www.WETLaboratory.com

Lab Number 1301048
 Report
 Due Date: 1/17/13
 Page 1 of 1

Client McClelland Laboratories, Inc.
 Address 1016 Greg Street
 City, State & Zip Sparks, NV 89431
 Contact Mike Medina
 Phone 775-356-1300 Collector's Name Robert
 Fax 775-356-8917 Project Name
 P.O. Number Project Number 3438

Turnaround Time
 Standard _____ 5-Day _____ Other _____
 Billing Address (if different than Client Address):
 Company _____
 Address _____
 City, State & Zip _____
 Contact _____
 Phone _____
 Fax _____
 Email _____

Email mli@mettest.com

Additional Information

Fax Results	Y	N	To: Client	Billing
Email Results	Y	N	To: Client	Billing
Compliance Monitoring	Y	N		
Fax Results to State EPA	Y	N		

Sample Type Codes

DW = Drinking Water	SD = Solid
WW = Wastewater	SO = Soil
SW = Surface Water	HW = Hazardous Waste
MW = Monitoring Well	OTHER: _____

SAMPLE ID/LOCATION	DATE	TIME	NO OF	S	Analyses Requested		Spl. No.
					Profile II w/o Wad	Uranium	
CF-11-02 (227-367) Wk:28	01/03/13	9:00	2	ww	X	X	1
CF-11-02 (52-117)							2
K-Spar Breccia 5+ Comp							3
Biotite Breccia 5+ Comp							4
Quartz Monzonite 5+ Comp							5
Biotite Breccia 0-5 Comp							6
K-Spar Breccia 0-5 Comp							7
Quartz Monzonite 0-5 Comp	↓	↓	↓	↓	↓	↓	8

Instructions/Comments/Special Requirements: 1301 1
048 1

SAMPLE RECEIPT	DATE	TIME	Samples Relinquished By	Samples Received By
Temperature <u>10.3°C</u>	<u>1/13</u>	<u>16:10</u>	<i>[Signature]</i>	<i>[Signature]</i>
Custody Seals Intact? Y N <u>None</u>				
Number of Containers <u>16</u>				

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.

To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.



WETLAB

WESTERN ENVIRONMENTAL TESTING LABORATORY *Specializing in Soil, Hazardous Waste and Water Analysis.*

475 E. Greg Street #119 | Sparks, Nevada 89431
tel (775) 355-0202 | fax (775) 355-0817 | www.WETLaboratory.com

Lab Number 1301048

Report

Due Date: 1/17/13

Page 1 of 1

Client **McClelland Laboratories, Inc.**

Address 1016 Greg Street

City, State & Zip Sparks, NV 89431

Contact Mike Medina

Phone 775-356-1300

Collector's Name Robert

Fax 775-356-8917

Project Name

P.O. Number

Project Number 3438

Email mli@mettest.com

Additional Information

Fax Results Y N To: Client Billing
Email Results Y N To: Client Billing
Compliance Monitoring Y N
Fax Results to State EPA Y N

Sample Type Codes

DW = Drinking Water SD = Solid
WW = Wastewater SO = Soil
SW = Surface Water HW = Hazardous Waste
MW = Monitoring Well OTHER:

Turnaround Time

Standard 5-Day Other

Billing Address (if different than Client Address):

Company _____
Address _____
City, State & Zip _____
Contact _____
Phone _____
Fax _____
Email _____

Analyses Requested

NO OF
S
M
A
S

Profile II w/o Wad	Uranium	Analyses Requested										Spl. No.
X	X											1
												2
												3
												4
												5
												6
												7
												8

Instructions/Comments/Special Requirements:

1301 \ 1
048 \ 1

SAMPLE RECEIPT

DATE TIME

Samples Relinquished By

Samples Received By

Temperature 18.3 °C

1/31/13 16:10

Custody Seals Intact? Y N None

Number of Containers 16

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.

To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.

Specializing in Soil, Hazardous Waste and Water Analysis.

1/29/2013

McClelland Laboratory
1016 Greg Street
Sparks, NV 89431
Attn: Mike Medina

OrderID: 1301263

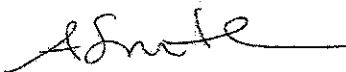
Dear: Mike Medina

This is to transmit the attached analytical report. The analytical data and information contained therein was generated using specified or selected methods contained in references, such as Standard Methods for the Examination of Water and Wastewater, 18th & 19th editions, Methods for Determination of Organic Compounds in Drinking Water, EPA-600/4-79-020, and Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW846) Third Edition.

The samples were received by WETLAB-Western Environmental Testing Laboratory in good condition on 1/17/2013. Additional comments are located on page 2 of this report.

If you should have any questions or comments regarding this report, please do not hesitate to call.

Sincerely,



Andy Smith
QA Manager

Western Environmental Testing Laboratory

Report Comments

McClelland Laboratory - 1301263

General Comments

None

Specific Comments

None

Data Qualifier Legend

- B -- Blank contamination; Analyte detected above the method reporting limit in an associated blank
- HT -- Sample held beyond the accepted holding time
- J -- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
- M -- Reported value is estimated; The sample matrix interfered with the analysis
- N -- There was insufficient sample available to perform a spike and/or duplicate on this analytical batch.
- NC -- Not calculated due to matrix interference
- Q -- Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
- S -- Surrogate recovery was outside of laboratory acceptance limits due to matrix interference. The associated blank and LCS surrogate recovery was within acceptance limits.
- SC -- Spike recovery not calculated. Sample concentration >4X the spike amount; therefore, the spike could not be adequately recovered.

Western Environmental Testing Laboratory Analytical Report

McClelland Laboratory
1016 Greg Street
Sparks, NV 89431
Attn: Mike Medina
Phone: (775) 356-1300 Fax: (775) 356-8917
PO/Project: 3438 Wk:36

Date Printed: 1/29/2013
OrderID: 1301263

Customer Sample ID: CF-11-02 (0-27) WK:36
WETLAB Sample ID: 1301263-001

Collect Date/Time: 1/17/2013 09:00
Receive Date: 1/17/2013 14:40

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.70	pH Units		1/17/2013
Trace Metals Digestion	EPA 200.2	Complete			1/21/2013
Bicarbonate (HCO ₃)	SM 2320B	52	mg/L	1.0	1/17/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	1/17/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	1/17/2013
Total Alkalinity	SM 2320B	43	mg/L as CaCO ₃	1.0	1/17/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	1/18/2013
Fluoride	EPA 300.0	0.86	mg/L	0.10	1/18/2013
Sulfate	EPA 300.0	15	mg/L	1.0	1/18/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	1/18/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	1/18/2013
Total Dissolved Solids (TDS)	SM 2540C	84	mg/L	10	1/21/2013
Aluminum	EPA 200.7	<0.045	mg/L	0.045	1/22/2013
Barium	EPA 200.7	<0.010	mg/L	0.010	1/22/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	1/22/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	1/22/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	1/22/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	1/22/2013
Calcium	EPA 200.7	18	mg/L	0.50	1/22/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	1/22/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	1/22/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	1/22/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	1/22/2013
Iron	EPA 200.7	0.015	mg/L	0.010	1/22/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	1/22/2013
Magnesium	EPA 200.7	3.0	mg/L	0.50	1/22/2013
Manganese	EPA 200.7	0.032	mg/L	0.0050	1/22/2013

Page 3 of 9

Customer Sample ID: CF-11-02 (0-27) WK:36

Collect Date/Time: 1/17/2013 09:00

WETLAB Sample ID: 1301263-001

Receive Date: 1/17/2013 14:40

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	1/22/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	1/22/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	1/22/2013
Potassium	EPA 200.7	1.3	mg/L	0.50	1/22/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	1/22/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	1/22/2013
Sodium	EPA 200.7	<0.50	mg/L	0.50	1/22/2013
Strontium	EPA 200.7	0.14	mg/L	0.10	1/22/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	1/22/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	1/22/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	1/22/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	1/22/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	1/22/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	1/22/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	1/22/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	1/22/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	1/22/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	1/22/2013
Uranium	EPA 200.8	<0.0050	mg/L	0.0050	1/22/2013
Anions	Calculation	1.21	meq/L	0.10	
Cations	Calculation	1.18	meq/L	0.10	
Error	Calculation	1.2	%	1.0	

Customer Sample ID: CF-11-02 (367-408) WK:36

Collect Date/Time: 1/17/2013 09:00

WETLAB Sample ID: 1301263-002

Receive Date: 1/17/2013 14:40

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.41	pH Units		1/17/2013
Trace Metals Digestion	EPA 200.2	Complete			1/21/2013
Bicarbonate (HCO ₃)	SM 2320B	34	mg/L	1.0	1/17/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	1/17/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	1/17/2013
Total Alkalinity	SM 2320B	28	mg/L as CaCO ₃	1.0	1/17/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	1/18/2013
Fluoride	EPA 300.0	0.91	mg/L	0.10	1/18/2013
Sulfate	EPA 300.0	7.8	mg/L	1.0	1/18/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	1/18/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	1/18/2013

Page 4 of 9

Customer Sample ID: CF-11-02 (367-408) WK:36

Collect Date/Time: 1/17/2013 09:00

WETLAB Sample ID: 1301263-002

Receive Date: 1/17/2013 14:40

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Total Dissolved Solids (TDS)	SM 2540C	48	mg/L	10	1/21/2013
Aluminum	EPA 200.7	0.084	mg/L	0.045	1/22/2013
Barium	EPA 200.7	<0.010	mg/L	0.010	1/22/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	1/22/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	1/22/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	1/22/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	1/22/2013
Calcium	EPA 200.7	14	mg/L	0.50	1/22/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	1/22/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	1/22/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	1/22/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	1/22/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	1/22/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	1/22/2013
Magnesium	EPA 200.7	<0.50	mg/L	0.50	1/22/2013
Manganese	EPA 200.7	0.021	mg/L	0.0050	1/22/2013
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	1/22/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	1/22/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	1/22/2013
Potassium	EPA 200.7	0.85	mg/L	0.50	1/22/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	1/22/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	1/22/2013
Sodium	EPA 200.7	<0.50	mg/L	0.50	1/22/2013
Strontium	EPA 200.7	0.12	mg/L	0.10	1/22/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	1/22/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	1/22/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	1/22/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	1/22/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	1/22/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	1/22/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	1/22/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	1/22/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	1/22/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	1/22/2013
Uranium	EPA 200.8	<0.0050	mg/L	0.0050	1/22/2013
Anions	Calculation	0.77	meq/L	0.10	
Cations	Calculation	0.73	meq/L	0.10	
Error	Calculation	2.5	%	1.0	

Western Environmental Testing Laboratory QC Report

QCBatchID	QCType	Parameter	Method	Result	Units
QC13010575	Blank 1	Fluoride	EPA 300.0	<0.10	mg/L
QC13010575	Blank 2	Fluoride	EPA 300.0	<0.10	mg/L
QC13010575	Blank 3	Fluoride	EPA 300.0	<0.10	mg/L
QC13010579	Blank 1	Chloride	EPA 300.0	<1.0	mg/L
QC13010579	Blank 2	Chloride	EPA 300.0	<1.0	mg/L
QC13010579	Blank 3	Chloride	EPA 300.0	<1.0	mg/L
QC13010583	Blank 1	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13010583	Blank 2	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13010583	Blank 3	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13010589	Blank 1	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13010589	Blank 2	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13010589	Blank 3	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13010592	Blank 1	Sulfate	EPA 300.0	<1.0	mg/L
QC13010592	Blank 2	Sulfate	EPA 300.0	<1.0	mg/L
QC13010592	Blank 3	Sulfate	EPA 300.0	<1.0	mg/L
QC13010661	Blank 1	Uranium, Dissolved	EPA 200.8	<0.0050	mg/L
		Mercury, Dissolved	EPA 200.8	<0.00010	mg/L
		Antimony, Dissolved	EPA 200.8	<0.0025	mg/L
		Arsenic, Dissolved	EPA 200.8	<0.0050	mg/L
		Lead, Dissolved	EPA 200.8	<0.0025	mg/L
		Selenium, Dissolved	EPA 200.8	<0.0050	mg/L
		Thallium, Dissolved	EPA 200.8	<0.0010	mg/L
QC13010677	Blank 1	Aluminum, Dissolved	EPA 200.7	<0.045	mg/L
		Barium, Dissolved	EPA 200.7	<0.010	mg/L
		Beryllium, Dissolved	EPA 200.7	<0.0010	mg/L
		Bismuth, Dissolved	EPA 200.7	<0.10	mg/L
		Boron, Dissolved	EPA 200.7	<0.10	mg/L
		Cadmium, Dissolved	EPA 200.7	<0.0010	mg/L
		Calcium, Dissolved	EPA 200.7	<0.50	mg/L
		Chromium, Dissolved	EPA 200.7	<0.0050	mg/L
		Cobalt, Dissolved	EPA 200.7	<0.010	mg/L
		Copper, Dissolved	EPA 200.7	<0.050	mg/L
		Gallium, Dissolved	EPA 200.7	<0.10	mg/L
		Iron, Dissolved	EPA 200.7	<0.010	mg/L
		Lithium, Dissolved	EPA 200.7	<0.10	mg/L
		Magnesium, Dissolved	EPA 200.7	<0.50	mg/L
		Manganese, Dissolved	EPA 200.7	<0.0050	mg/L
		Molybdenum, Dissolved	EPA 200.7	<0.010	mg/L
		Nickel, Dissolved	EPA 200.7	<0.010	mg/L
		Phosphorus, Dissolved	EPA 200.7	<0.50	mg/L
		Potassium, Dissolved	EPA 200.7	<0.50	mg/L
		Scandium, Dissolved	EPA 200.7	<0.10	mg/L
		Silver, Dissolved	EPA 200.7	<0.0050	mg/L
		Sodium, Dissolved	EPA 200.7	<0.50	mg/L
		Strontium, Dissolved	EPA 200.7	<0.10	mg/L
		Tin, Dissolved	EPA 200.7	<0.10	mg/L
		Titanium, Dissolved	EPA 200.7	<0.10	mg/L

QCBatchID	QCType	Parameter	Method	Result	Units
		Vanadium, Dissolved	EPA 200.7	<0.010	mg/L
		Zinc, Dissolved	EPA 200.7	<0.010	mg/L
QC13010685	Blank 1	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L
QC13010685	Blank 2	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC13010543	LCS 1	pH	SM 4500-H+ B	7.01	7.00	100	pH Units
QC13010543	LCS 2	pH	SM 4500-H+ B	7.01	7.00	100	pH Units
QC13010544	LCS 1	Total Alkalinity	SM 2320B	96.9	100	97	mg/L
QC13010544	LCS 2	Total Alkalinity	SM 2320B	99.5	100	100	mg/L
QC13010544	LCS 3	Total Alkalinity	SM 2320B	100	100	100	mg/L
QC13010575	LCS 1	Fluoride	EPA 300.0	1.97	2.00	98	mg/L
QC13010579	LCS 1	Chloride	EPA 300.0	10.2	10.0	102	mg/L
QC13010583	LCS 1	Nitrite Nitrogen	EPA 300.0	0.542	0.500	108	mg/L
QC13010589	LCS 1	Nitrate Nitrogen	EPA 300.0	1.97	2.00	99	mg/L
QC13010592	LCS 1	Sulfate	EPA 300.0	24.3	25.0	97	mg/L
QC13010661	LCS 1	Uranium, Dissolved	EPA 200.8	0.0099	0.010	99	mg/L
		Mercury, Dissolved	EPA 200.8	0.001001	0.001	100	mg/L
		Antimony, Dissolved	EPA 200.8	0.0093	0.010	93	mg/L
		Arsenic, Dissolved	EPA 200.8	0.0483	0.050	96	mg/L
		Lead, Dissolved	EPA 200.8	0.0099	0.010	99	mg/L
		Selenium, Dissolved	EPA 200.8	0.0466	0.050	93	mg/L
		Thallium, Dissolved	EPA 200.8	0.0099	0.010	99	mg/L
QC13010677	LCS 1	Aluminum, Dissolved	EPA 200.7	0.981	1.00	98	mg/L
		Barium, Dissolved	EPA 200.7	0.998	1.00	100	mg/L
		Beryllium, Dissolved	EPA 200.7	1.01	1.00	101	mg/L
		Bismuth, Dissolved	EPA 200.7	1.04	1.00	104	mg/L
		Boron, Dissolved	EPA 200.7	0.962	1.00	96	mg/L
		Cadmium, Dissolved	EPA 200.7	1.02	1.00	102	mg/L
		Calcium, Dissolved	EPA 200.7	10.1	10.0	101	mg/L
		Chromium, Dissolved	EPA 200.7	0.989	1.00	99	mg/L
		Cobalt, Dissolved	EPA 200.7	1.00	1.00	100	mg/L
		Copper, Dissolved	EPA 200.7	4.78	5.00	96	mg/L
		Gallium, Dissolved	EPA 200.7	0.991	1.00	99	mg/L
		Iron, Dissolved	EPA 200.7	0.992	1.00	99	mg/L
		Lithium, Dissolved	EPA 200.7	0.970	1.00	97	mg/L
		Magnesium, Dissolved	EPA 200.7	10.1	10.0	101	mg/L
		Manganese, Dissolved	EPA 200.7	0.997	1.00	100	mg/L
		Molybdenum, Dissolved	EPA 200.7	0.992	1.00	99	mg/L
		Nickel, Dissolved	EPA 200.7	5.00	5.00	100	mg/L
		Phosphorus, Dissolved	EPA 200.7	5.20	5.00	104	mg/L
		Potassium, Dissolved	EPA 200.7	9.80	10.0	98	mg/L
		Scandium, Dissolved	EPA 200.7	0.981	1.00	98	mg/L
		Silver, Dissolved	EPA 200.7	0.089	0.090	99	mg/L
		Sodium, Dissolved	EPA 200.7	9.69	10.0	97	mg/L
		Strontium, Dissolved	EPA 200.7	0.971	1.00	97	mg/L
		Tin, Dissolved	EPA 200.7	1.00	1.00	100	mg/L
		Titanium, Dissolved	EPA 200.7	0.996	1.00	100	mg/L
		Vanadium, Dissolved	EPA 200.7	0.983	1.00	98	mg/L
		Zinc, Dissolved	EPA 200.7	1.03	1.00	103	mg/L
QC13010685	LCS 1	Total Dissolved Solids (TDS)	SM 2540C	144	150	96	mg/L
QC13010685	LCS 2	Total Dissolved Solids (TDS)	SM 2540C	149	150	100	mg/L

Duplicate Sample Duplicate

QCBatchID	QCType	Parameter	Method	Sample	Result	Result	Units	RPD
QC13010543	Duplicate	pH	SM 4500-H+ B	1301254-001	8.55	8.64	pH Units	1 %
QC13010543	Duplicate	pH	SM 4500-H+ B	1301254-011	7.50	7.48	pH Units	<1%
QC13010543	Duplicate	pH	SM 4500-H+ B	1301264-001	4.22	4.20	pH Units	<1%
QC13010544	Duplicate	Bicarbonate (HCO3)	SM 2320B	1301254-001	28.8	27.7	mg/L	4 %
		Carbonate (CO3)	SM 2320B	1301254-001	2.49	2.88	mg/L	15 %
		Hydroxide (OH)	SM 2320B	1301254-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1301254-001	27.8	27.5	mg/L as CaCO3	1 %
QC13010544	Duplicate	Bicarbonate (HCO3)	SM 2320B	1301254-011	20.2	18.9	mg/L	7 %
		Carbonate (CO3)	SM 2320B	1301254-011	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1301254-011	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1301254-011	16.6	15.5	mg/L as CaCO3	7 %
QC13010544	Duplicate	Bicarbonate (HCO3)	SM 2320B	1301270-001	116	116	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1301270-001	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1301270-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1301270-001	95.5	95.1	mg/L as CaCO3	<1%
QC13010685	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1301240-002	58.0	48.0	mg/L	19 %
QC13010685	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1301240-012	79.0	79.0	mg/L	<1%
QC13010685	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1301288-003	2088	2096	mg/L	<1%
QC13010685	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1301235-001		1160	mg/L	<1%

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC13010575	MS 1	Fluoride	EPA 300.0	1301274-001	1.32	18.1	17.7	2.00	mg/L	84	82	2 %
QC13010575	MS 2	Fluoride	EPA 300.0	1301289-001	<0.500	8.70	8.69	2.00	mg/L	82	82	<1%
QC13010579	MS 1	Chloride	EPA 300.0	1301263-001	<1.000	5.32	5.49	5.00	mg/L	105	109	3 %
QC13010579	MS 2	Chloride	EPA 300.0	1301274-001	92.0	148	144	5.00	mg/L	111	104	3 %
QC13010583	MS 1	Nitrite Nitrogen	EPA 300.0	1301263-002	<0.025	0.585	0.600	0.500	mg/L	114	117	3 %
QC13010583	MS 2	Nitrite Nitrogen	EPA 300.0	1301283-001	<0.125	2.94	2.90	0.500	mg/L	118	116	1 %
QC13010589	MS 1	Nitrate Nitrogen	EPA 300.0	1301263-002	<1.000	2.37	2.47	2.00	mg/L	98	103	4 %
QC13010589	MS 2	Nitrate Nitrogen	EPA 300.0	1301283-001	<1.000	10.8	10.6	2.00	mg/L	104	103	2 %
QC13010592	MS 1	Sulfate	EPA 300.0	1301263-002	7.81	17.7	18.1	10.0	mg/L	99	102	2 %
QC13010592	MS 2	Sulfate	EPA 300.0	1301274-001	482	587	572	10.0	mg/L	105	90	3 %
QC13010661	MS 1	Uranium, Dissolved	EPA 200.8	1301266-001	<0.0050	0.0098	0.0099	0.010	mg/L	98	99	1 %
		Mercury, Dissolved	EPA 200.8	1301266-001	<0.00010	0.000838	0.000847	0.001	mg/L	84	85	1 %
		Antimony, Dissolved	EPA 200.8	1301266-001	<0.0025	0.0088	0.0089	0.010	mg/L	88	89	1 %
		Arsenic, Dissolved	EPA 200.8	1301266-001	0.0054	0.0552	0.0542	0.050	mg/L	100	98	2 %
		Lead, Dissolved	EPA 200.8	1301266-001	<0.0025	0.0095	0.0095	0.010	mg/L	95	95	<1%
		Selenium, Dissolved	EPA 200.8	1301266-001	<0.0050	0.0441	0.0429	0.050	mg/L	88	86	3 %
		Thallium, Dissolved	EPA 200.8	1301266-001	<0.0010	0.0100	0.0100	0.010	mg/L	92	92	<1%
QC13010677	MS 1	Aluminum, Dissolved	EPA 200.7	1301266-001	<0.045	1.02	0.975	1.00	mg/L	101	96	5 %
		Barium, Dissolved	EPA 200.7	1301266-001	0.042	1.03	1.01	1.00	mg/L	99	97	2 %
		Beryllium, Dissolved	EPA 200.7	1301266-001	<0.001	0.995	0.988	1.00	mg/L	100	99	1 %
		Bismuth, Dissolved	EPA 200.7	1301266-001	<0.100	0.982	0.980	1.00	mg/L	99	99	<1%
		Boron, Dissolved	EPA 200.7	1301266-001	0.140	1.14	1.13	1.00	mg/L	100	99	1 %
		Cadmium, Dissolved	EPA 200.7	1301266-001	<0.001	1.00	0.978	1.00	mg/L	100	98	2 %
		Calcium, Dissolved	EPA 200.7	1301266-001	48.4	57.1	58.3	10.0	mg/L	87	99	2 %
		Chromium, Dissolved	EPA 200.7	1301266-001	<0.005	0.971	0.955	1.00	mg/L	97	95	2 %
		Cobalt, Dissolved	EPA 200.7	1301266-001	<0.010	0.962	0.950	1.00	mg/L	96	95	1 %
		Copper, Dissolved	EPA 200.7	1301266-001	<0.050	4.70	4.61	5.00	mg/L	94	92	2 %

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
		Gallium, Dissolved	EPA 200.7	1301266-001	<0.100	1.00	0.992	1.00	mg/L	100	99	1 %
		Iron, Dissolved	EPA 200.7	1301266-001	2.47	3.53	3.56	1.00	mg/L	106	109	1 %
		Lithium, Dissolved	EPA 200.7	1301266-001	<0.100	0.933	0.930	1.00	mg/L	93	92	<1%
		Magnesium, Dissolved	EPA 200.7	1301266-001	18.1	26.9	27.0	10.0	mg/L	88	89	<1%
		Manganese, Dissolved	EPA 200.7	1301266-001	0.185	1.16	1.14	1.00	mg/L	97	95	2 %
		Molybdenum, Dissolved	EPA 200.7	1301266-001	<0.010	0.996	0.993	1.00	mg/L	99	99	<1%
		Nickel, Dissolved	EPA 200.7	1301266-001	<0.010	4.81	4.72	5.00	mg/L	96	94	2 %
		Phosphorus, Dissolved	EPA 200.7	1301266-001	<0.500	5.37	5.37	5.00	mg/L	105	105	<1%
		Potassium, Dissolved	EPA 200.7	1301266-001	9.02	18.8	18.9	10.0	mg/L	98	99	1 %
		Scandium, Dissolved	EPA 200.7	1301266-001	<0.100	0.981	0.976	1.00	mg/L	98	98	1 %
		Silver, Dissolved	EPA 200.7	1301266-001	<0.005	0.088	0.088	0.090	mg/L	98	98	<1%
		Sodium, Dissolved	EPA 200.7	1301266-001	34.5	43.3	43.8	10.0	mg/L	88	93	1 %
		Strontium, Dissolved	EPA 200.7	1301266-001	0.258	1.22	1.22	1.00	mg/L	96	96	<1%
		Tin, Dissolved	EPA 200.7	1301266-001	<0.100	0.977	0.978	1.00	mg/L	100	100	<1%
		Titanium, Dissolved	EPA 200.7	1301266-001	<0.100	0.993	0.991	1.00	mg/L	99	99	<1%
		Vanadium, Dissolved	EPA 200.7	1301266-001	0.017	1.02	1.01	1.00	mg/L	100	99	1 %
		Zinc, Dissolved	EPA 200.7	1301266-001	0.066	1.08	1.06	1.00	mg/L	101	99	2 %



WETLAB

WESTERN ENVIRONMENTAL
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Specializing in Soil, Hazardous Waste and Water Analysis.

475 E. Greg Street #119 | Sparks, Nevada 89431

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Lab Number 1301263

Report
Due Date: 1/31/13

Page 1 of 1

Client **McClelland Laboratories, Inc.**

Address **1016 Greg Street**

City, State & Zip **Sparks, NV 89431**

Contact **Mike Medina**

Phone **775-356-1300** Collector's Name **Robert**

Fax **775-356-8917** Project Name _____

P.O. Number _____ Project Number **3438**

Email **mli@mettest.com**

Billing Address (if different than Client Address):

Company _____

Address _____

City, State & Zip _____

Contact _____

Phone _____

Fax _____

Email _____

Additional Information:

Fax Results	<input checked="" type="checkbox"/>	<input type="checkbox"/>	To: Client	Billing
Email Results	<input checked="" type="checkbox"/>	<input type="checkbox"/>	To: Client	Billing
Compliance Monitoring	<input type="checkbox"/>	<input type="checkbox"/>	Y	N
Fax Results to State EPA	<input type="checkbox"/>	<input type="checkbox"/>	Y	N

Sample Type Codes:

DW = Drinking Water	SD = Solid
WW = Wastewater	SO = Soil
SW = Surface Water	HW = Hazardous Waste
MW = Monitoring Well	OTHER: _____

SAMPLE ID	LOCATION	DATE	TIME				Analyses Requested		Spt. No.
							Profile II w/o Wat	Uranium	
CF-11-02 (0-27)	Wk:36	01/17/13	9:00	WW	2	X	X		1
CF-11-02 (367-408)	↓	↓	↓	↓	↓	↓	↓		2

1301 \ 1
263 2

Instructions/Comments/Special Requirements: _____

SAMPLE RECEIPT	DATE	TIME	Sample Requested By	Samples Received By
Temperature <u>18.9 °C</u>	<u>1/17/13</u>	<u>1440</u>	<u>Dee Ellis</u>	<u>MJ</u>
Custody Seals Intact? Y <input type="checkbox"/> N <input checked="" type="checkbox"/> (None)				
Number of Containers <u>4</u>				

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.

To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.



Specializing in Soil, Hazardous Waste and Water Analysis.

2/7/2013

McClelland Laboratory
1016 Greg Street
Sparks, NV 89431
Attn: Mike Medina

OrderID: 1301374

Dear: Mike Medina

This is to transmit the attached analytical report. The analytical data and information contained therein was generated using specified or selected methods contained in references, such as Standard Methods for the Examination of Water and Wastewater, 18th & 19th editions, Methods for Determination of Organic Compounds in Drinking Water, EPA-600/4-79-020, and Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW846) Third Edition.

The samples were received by WETLAB-Western Environmental Testing Laboratory in good condition on 1/24/2013. Additional comments are located on page 2 of this report.

If you should have any questions or comments regarding this report, please do not hesitate to call.

Sincerely,

Andy Smith
QA Manager

Western Environmental Testing Laboratory

Report Comments

McClelland Laboratory - 1301374

General Comments

None

Specific Comments

Due to a laboratory reanalysis requirement the analysis for Total Dissolved Solids (TDS) on sample 1301374-001 was performed past the EPA recommended holding time. We apologize for any inconvenience this may have caused.

Data Qualifier Legend

- B -- Blank contamination; Analyte detected above the method reporting limit in an associated blank
- HT -- Sample held beyond the accepted holding time
- J -- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
- M -- Reported value is estimated; The sample matrix interfered with the analysis
- N -- There was insufficient sample available to perform a spike and/or duplicate on this analytical batch.
- NC -- Not calculated due to matrix interference
- Q -- Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
- S -- Surrogate recovery was outside of laboratory acceptance limits due to matrix interference. The associated blank and LCS surrogate recovery was within acceptance limits.
- SC -- Spike recovery not calculated. Sample concentration >4X the spike amount; therefore, the spike could not be adequately recovered.

Western Environmental Testing Laboratory Analytical Report

McClelland Laboratory

1016 Greg Street

Sparks, NV 89431

Attn: Mike Medina

Phone: (775) 356-1300 Fax: (775) 356-8917

PO\Project: 3438 Wk:104

Date Printed: 2/7/2013

OrderID: 1301374

Customer Sample ID: 604 673 Wk: 104

Collect Date/Time: 1/24/2013 09:00

WETLAB Sample ID: 1301374-001

Receive Date: 1/24/2013 14:35

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	5.64	pH Units		1/24/2013
Trace Metals Digestion	EPA 200.2	Complete			1/28/2013
Bicarbonate (HCO ₃)	SM 2320B	<1.0	mg/L	1.0	1/24/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	1/24/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	1/24/2013
Total Alkalinity	SM 2320B	<1.0	mg/L as CaCO ₃	1.0	1/24/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	1/25/2013
Fluoride	EPA 300.0	0.17	mg/L	0.10	1/25/2013
Sulfate	EPA 300.0	25	mg/L	1.0	1/25/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	1/25/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	1/25/2013
Total Dissolved Solids (TDS)	SM 2540C	48	HT mg/L	10	2/5/2013
Aluminum	EPA 200.7	0.19	mg/L	0.045	1/29/2013
Barium	EPA 200.7	0.075	mg/L	0.010	1/29/2013
Beryllium	EPA 200.7	0.0010	mg/L	0.0010	1/29/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	1/29/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	1/29/2013
Cadmium	EPA 200.7	0.0014	mg/L	0.0010	1/29/2013
Calcium	EPA 200.7	7.2	mg/L	0.50	1/29/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	1/29/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	1/29/2013
Copper	EPA 200.7	2.1	mg/L	0.050	1/29/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	1/29/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	1/29/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	1/29/2013
Magnesium	EPA 200.7	0.94	mg/L	0.50	1/29/2013
Manganese	EPA 200.7	0.050	mg/L	0.0050	1/29/2013

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Customer Sample ID: 604 673 Wk: 104

Collect Date/Time: 1/24/2013 09:00

WETLAB Sample ID: 1301374-001

Receive Date: 1/24/2013 14:35

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	1/29/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	1/29/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	1/29/2013
Potassium	EPA 200.7	0.82	mg/L	0.50	1/29/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	1/29/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	1/29/2013
Sodium	EPA 200.7	<0.50	mg/L	0.50	1/30/2013
Strontium	EPA 200.7	<0.10	mg/L	0.10	1/29/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	1/29/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	1/29/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	1/29/2013
Zinc	EPA 200.7	0.063	mg/L	0.010	1/29/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	1/28/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	1/28/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	1/28/2013
Lead	EPA 200.8	0.011	mg/L	0.0025	1/29/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	1/28/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	1/29/2013
Uranium	EPA 200.8	0.028	mg/L	0.0050	1/29/2013
Anions	Calculation	0.53	meq/L	0.10	
Cations	Calculation	0.55	meq/L	0.10	
Error	Calculation	1.8	%	1.0	

Customer Sample ID: SRK 0854 Wk: 104

Collect Date/Time: 1/24/2013 09:00

WETLAB Sample ID: 1301374-002

Receive Date: 1/24/2013 14:35

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	5.08	pH Units		1/24/2013
Trace Metals Digestion	EPA 200.2	Complete			1/28/2013
Bicarbonate (HCO ₃)	SM 2320B	<1.0	mg/L	1.0	1/24/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	1/24/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	1/24/2013
Total Alkalinity	SM 2320B	<1.0	mg/L as CaCO ₃	1.0	1/24/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	1/25/2013
Fluoride	EPA 300.0	0.10	mg/L	0.10	1/25/2013
Sulfate	EPA 300.0	69	mg/L	1.0	1/25/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	1/25/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	1/25/2013

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Customer Sample ID: SRK 0854 Wk: 104

Collect Date/Time: 1/24/2013 09:00

WETLAB Sample ID: 1301374-002

Receive Date: 1/24/2013 14:35

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Total Dissolved Solids (TDS)	SM 2540C	140	mg/L	10	1/29/2013
Aluminum	EPA 200.7	0.053	mg/L	0.045	1/29/2013
Barium	EPA 200.7	0.033	mg/L	0.010	1/29/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	1/29/2013
Bismuth	EPA 200.7	0.12	mg/L	0.10	1/29/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	1/29/2013
Cadmium	EPA 200.7	0.0012	mg/L	0.0010	1/30/2013
Calcium	EPA 200.7	2.9	mg/L	0.50	1/29/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	1/29/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	1/29/2013
Copper	EPA 200.7	42	mg/L	0.050	1/29/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	1/29/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	1/29/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	1/29/2013
Magnesium	EPA 200.7	<0.50	mg/L	0.50	1/29/2013
Manganese	EPA 200.7	0.062	mg/L	0.0050	1/29/2013
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	1/29/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	1/29/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	1/29/2013
Potassium	EPA 200.7	0.65	mg/L	0.50	1/29/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	1/29/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	1/29/2013
Sodium	EPA 200.7	<0.50	mg/L	0.50	1/30/2013
Strontium	EPA 200.7	<0.10	mg/L	0.10	1/29/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	1/29/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	1/29/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	1/29/2013
Zinc	EPA 200.7	0.15	mg/L	0.010	1/29/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	1/28/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	1/28/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	1/28/2013
Lead	EPA 200.8	0.012	mg/L	0.0025	1/30/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	1/28/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	1/30/2013
Uranium	EPA 200.8	<0.0050	mg/L	0.0050	1/30/2013
Anions	Calculation	1.44	meq/L	0.10	
Cations	Calculation	1.50	meq/L	0.10	
Error	Calculation	1.8	%	1.0	

Customer Sample ID: SRK 0872 Wk: 104

Collect Date/Time: 1/24/2013 09:00

WETLAB Sample ID: 1301374-003

Receive Date: 1/24/2013 14:35

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	6.87	pH Units		1/24/2013
Trace Metals Digestion	EPA 200.2	Complete			1/28/2013
Bicarbonate (HCO ₃)	SM 2320B	6.8	mg/L	1.0	1/24/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	1/24/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	1/24/2013
Total Alkalinity	SM 2320B	5.6	mg/L as CaCO ₃	1.0	1/24/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	1/25/2013
Fluoride	EPA 300.0	0.40	mg/L	0.10	1/25/2013
Sulfate	EPA 300.0	18	mg/L	1.0	1/25/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	1/25/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	1/25/2013
Total Dissolved Solids (TDS)	SM 2540C	73	mg/L	10	1/29/2013
Aluminum	EPA 200.7	<0.045	mg/L	0.045	1/29/2013
Barium	EPA 200.7	0.020	mg/L	0.010	1/29/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	1/29/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	1/29/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	1/29/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	1/29/2013
Calcium	EPA 200.7	9.1	mg/L	0.50	1/29/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	1/29/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	1/29/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	1/29/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	1/29/2013
Iron	EPA 200.7	0.025	mg/L	0.010	1/29/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	1/29/2013
Magnesium	EPA 200.7	0.74	mg/L	0.50	1/29/2013
Manganese	EPA 200.7	<0.0050	mg/L	0.0050	1/29/2013
Molybdenum	EPA 200.7	0.052	mg/L	0.010	1/29/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	1/29/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	1/29/2013
Potassium	EPA 200.7	<0.50	mg/L	0.50	1/29/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	1/29/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	1/29/2013
Sodium	EPA 200.7	<0.50	mg/L	0.50	1/29/2013
Strontium	EPA 200.7	<0.10	mg/L	0.10	1/29/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	1/29/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	1/29/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	1/29/2013

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Customer Sample ID: SRK 0872 Wk: 104

Collect Date/Time: 1/24/2013 09:00

WETLAB Sample ID: 1301374-003

Receive Date: 1/24/2013 14:35

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Zinc	EPA 200.7	<0.010	mg/L	0.010	1/29/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	1/28/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	1/28/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	1/28/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	1/29/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	1/28/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	1/29/2013
Uranium	EPA 200.8	<0.0050	mg/L	0.0050	1/29/2013
Anions	Calculation	0.51	meq/L	0.10	
Cations	Calculation	0.52	meq/L	0.10	
Error	Calculation	<1.0	%	1.0	

Western Environmental Testing Laboratory QC Report

QC Batch ID	QC Type	Parameter	Method	Result	Units
QC13010811	Blank 1	Uranium, Dissolved	EPA 200.8	<0.0050	mg/L
		Mercury, Dissolved	EPA 200.8	<0.00010	mg/L
		Antimony, Dissolved	EPA 200.8	<0.0025	mg/L
		Arsenic, Dissolved	EPA 200.8	<0.0050	mg/L
		Lead, Dissolved	EPA 200.8	<0.0025	mg/L
		Selenium, Dissolved	EPA 200.8	<0.0050	mg/L
		Thallium, Dissolved	EPA 200.8	<0.0010	mg/L
QC13010817	Blank 1	Fluoride	EPA 300.0	<0.10	mg/L
QC13010817	Blank 2	Fluoride	EPA 300.0	<0.10	mg/L
QC13010817	Blank 3	Fluoride	EPA 300.0	<0.10	mg/L
QC13010818	Blank 1	Chloride	EPA 300.0	<1.0	mg/L
QC13010818	Blank 2	Chloride	EPA 300.0	<1.0	mg/L
QC13010818	Blank 3	Chloride	EPA 300.0	<1.0	mg/L
QC13010819	Blank 1	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13010819	Blank 2	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13010819	Blank 3	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13010820	Blank 1	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13010820	Blank 2	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13010820	Blank 3	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13010821	Blank 1	Sulfate	EPA 300.0	<1.0	mg/L
QC13010821	Blank 2	Sulfate	EPA 300.0	<1.0	mg/L
QC13010821	Blank 3	Sulfate	EPA 300.0	<1.0	mg/L
QC13010864	Blank 1	Aluminum, Dissolved	EPA 200.7	<0.045	mg/L
		Barium, Dissolved	EPA 200.7	<0.010	mg/L
		Beryllium, Dissolved	EPA 200.7	<0.0010	mg/L
		Bismuth, Dissolved	EPA 200.7	<0.10	mg/L
		Boron, Dissolved	EPA 200.7	<0.10	mg/L
		Cadmium, Dissolved	EPA 200.7	<0.0010	mg/L
		Calcium, Dissolved	EPA 200.7	<0.50	mg/L
		Chromium, Dissolved	EPA 200.7	<0.0050	mg/L
		Cobalt, Dissolved	EPA 200.7	<0.010	mg/L
		Copper, Dissolved	EPA 200.7	<0.050	mg/L
		Gallium, Dissolved	EPA 200.7	<0.10	mg/L
		Iron, Dissolved	EPA 200.7	<0.010	mg/L
		Lithium, Dissolved	EPA 200.7	<0.10	mg/L
		Magnesium, Dissolved	EPA 200.7	<0.50	mg/L
		Manganese, Dissolved	EPA 200.7	<0.0050	mg/L
		Molybdenum, Dissolved	EPA 200.7	<0.010	mg/L
		Nickel, Dissolved	EPA 200.7	<0.010	mg/L
		Phosphorus, Dissolved	EPA 200.7	<0.50	mg/L
		Potassium, Dissolved	EPA 200.7	<0.50	mg/L
		Scandium, Dissolved	EPA 200.7	<0.10	mg/L
Silver, Dissolved	EPA 200.7	<0.0050	mg/L		
Sodium, Dissolved	EPA 200.7	<0.50	mg/L		
Strontium, Dissolved	EPA 200.7	<0.10	mg/L		
Tin, Dissolved	EPA 200.7	<0.10	mg/L		
Titanium, Dissolved	EPA 200.7	<0.10	mg/L		

QCBatchID	QCType	Parameter	Method	Result	Units
		Vanadium, Dissolved	EPA 200.7	<0.010	mg/L
		Zinc, Dissolved	EPA 200.7	<0.010	mg/L
QC13010922	Blank 1	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC13010754	LCS 1	pH	SM 4500-H+ B	6.99	7.00	100	pH Units
QC13010754	LCS 2	pH	SM 4500-H+ B	6.99	7.00	100	pH Units
QC13010756	LCS 1	Total Alkalinity	SM 2320B	98.0	100	98	mg/L
QC13010756	LCS 2	Total Alkalinity	SM 2320B	99.3	100	99	mg/L
QC13010756	LCS 3	Total Alkalinity	SM 2320B	99.7	100	100	mg/L
QC13010811	LCS 1	Uranium, Dissolved	EPA 200.8	0.0095	0.010	95	mg/L
		Mercury, Dissolved	EPA 200.8	0.000953	0.001	95	mg/L
		Antimony, Dissolved	EPA 200.8	0.0090	0.010	90	mg/L
		Arsenic, Dissolved	EPA 200.8	0.0501	0.050	100	mg/L
		Lead, Dissolved	EPA 200.8	0.0097	0.010	97	mg/L
		Selenium, Dissolved	EPA 200.8	0.0465	0.050	93	mg/L
		Thallium, Dissolved	EPA 200.8	0.0096	0.010	96	mg/L
QC13010817	LCS 1	Fluoride	EPA 300.0	1.99	2.00	99	mg/L
QC13010818	LCS 1	Chloride	EPA 300.0	9.56	10.0	96	mg/L
QC13010819	LCS 1	Nitrite Nitrogen	EPA 300.0	0.518	0.500	104	mg/L
QC13010820	LCS 1	Nitrate Nitrogen	EPA 300.0	1.83	2.00	92	mg/L
QC13010821	LCS 1	Sulfate	EPA 300.0	23.0	25.0	92	mg/L
QC13010864	LCS 1	Aluminum, Dissolved	EPA 200.7	0.999	1.00	100	mg/L
		Barium, Dissolved	EPA 200.7	0.981	1.00	98	mg/L
		Beryllium, Dissolved	EPA 200.7	1.02	1.00	102	mg/L
		Bismuth, Dissolved	EPA 200.7	1.03	1.00	103	mg/L
		Boron, Dissolved	EPA 200.7	0.951	1.00	95	mg/L
		Cadmium, Dissolved	EPA 200.7	1.01	1.00	101	mg/L
		Calcium, Dissolved	EPA 200.7	9.97	10.0	100	mg/L
		Chromium, Dissolved	EPA 200.7	0.975	1.00	98	mg/L
		Cobalt, Dissolved	EPA 200.7	0.985	1.00	98	mg/L
		Copper, Dissolved	EPA 200.7	4.83	5.00	97	mg/L
		Gallium, Dissolved	EPA 200.7	1.00	1.00	100	mg/L
		Iron, Dissolved	EPA 200.7	0.963	1.00	96	mg/L
		Lithium, Dissolved	EPA 200.7	0.980	1.00	98	mg/L
		Magnesium, Dissolved	EPA 200.7	9.45	10.0	94	mg/L
		Manganese, Dissolved	EPA 200.7	1.02	1.00	102	mg/L
		Molybdenum, Dissolved	EPA 200.7	0.927	1.00	93	mg/L
		Nickel, Dissolved	EPA 200.7	4.88	5.00	98	mg/L
		Phosphorus, Dissolved	EPA 200.7	4.80	5.00	96	mg/L
		Potassium, Dissolved	EPA 200.7	10.0	10.0	100	mg/L
		Scandium, Dissolved	EPA 200.7	0.958	1.00	96	mg/L
		Silver, Dissolved	EPA 200.7	0.089	0.090	98	mg/L
		Sodium, Dissolved	EPA 200.7	9.35	10.0	94	mg/L
		Strontium, Dissolved	EPA 200.7	0.988	1.00	99	mg/L
		Tin, Dissolved	EPA 200.7	0.963	1.00	96	mg/L
		Titanium, Dissolved	EPA 200.7	0.990	1.00	99	mg/L
		Vanadium, Dissolved	EPA 200.7	0.970	1.00	97	mg/L
		Zinc, Dissolved	EPA 200.7	0.964	1.00	96	mg/L
QC13010922	LCS 1	Total Dissolved Solids (TDS)	SM 2540C	157	150	105	mg/L

QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD
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QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD
QC13010754	Duplicate	pH	SM 4500-H+ B	1301365-002	8.47	8.40	pH Units	1 %
QC13010754	Duplicate	pH	SM 4500-H+ B	1301360-001	7.96	7.92	pH Units	1 %
QC13010754	Duplicate	pH	SM 4500-H+ B	1301381-001	8.40	8.42	pH Units	<1%
QC13010756	Duplicate	Bicarbonate (HCO3)	SM 2320B	1301365-002	33.0	33.0	Q mg/L	<1%
		Carbonate (CO3)	SM 2320B	1301365-002	3.49	1.99	Q mg/L	55 %
		Hydroxide (OH)	SM 2320B	1301365-002	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1301365-002	31.7	30.4	mg/L as CaCO3	4 %
QC13010756	Duplicate	Bicarbonate (HCO3)	SM 2320B	1301360-001	346	392	mg/L	12 %
		Carbonate (CO3)	SM 2320B	1301360-001	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1301360-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1301360-001	284	321	mg/L as CaCO3	12 %
QC13010756	Duplicate	Bicarbonate (HCO3)	SM 2320B	1301381-001	195	194	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1301381-001	2.53	3.19	mg/L	23 %
		Hydroxide (OH)	SM 2320B	1301381-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1301381-001	164	165	mg/L as CaCO3	<1%
QC13010922	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1301372-001	10.0	23.0	HT mg/L	4 %
QC13010922	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1301411-001	208	208	mg/L	<1%

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC13010811	MS 1	Uranium, Dissolved	EPA 200.8	1301381-001	<0.0050	0.0129	0.0130	0.010	mg/L	98	99	1 %
		Mercury, Dissolved	EPA 200.8	1301381-001	<0.00010	0.000937	0.000967	0.001	mg/L	87	90	3 %
		Antimony, Dissolved	EPA 200.8	1301381-001	0.0066	0.0155	0.0154	0.010	mg/L	89	88	1 %
		Arsenic, Dissolved	EPA 200.8	1301381-001	0.0264	0.0632	0.0629	0.050	mg/L	74	73	<1%
		Lead, Dissolved	EPA 200.8	1301381-001	<0.0025	0.0095	0.0095	0.010	mg/L	95	95	<1%
		Selenium, Dissolved	EPA 200.8	1301381-001	<0.0050	M 0.0339	0.0341	0.050	mg/L	NC	NC	NC
		Thallium, Dissolved	EPA 200.8	1301381-001	<0.0010	0.0090	0.0092	0.010	mg/L	90	92	2 %
QC13010817	MS 1	Fluoride	EPA 300.0	1301372-001	<0.100	1.95	2.06	2.00	mg/L	100	106	5 %
QC13010817	MS 2	Fluoride	EPA 300.0	1301398-006	0.477	2.26	2.28	2.00	mg/L	89	90	1 %
QC13010818	MS 1	Chloride	EPA 300.0	1301372-001	<1.000	5.05	5.24	5.00	mg/L	100	104	4 %
QC13010818	MS 2	Chloride	EPA 300.0	1301398-006	<1.000	4.97	5.03	5.00	mg/L	98	99	1 %
QC13010819	MS 1	Nitrite Nitrogen	EPA 300.0	1301372-001	<0.025	0.534	0.551	0.500	mg/L	107	110	3 %
QC13010819	MS 2	Nitrite Nitrogen	EPA 300.0	1301398-006	<0.025	0.495	0.505	0.500	mg/L	98	100	2 %
QC13010820	MS 1	Nitrate Nitrogen	EPA 300.0	1301372-001	<1.000	2.02	2.08	2.00	mg/L	97	100	3 %
QC13010820	MS 2	Nitrate Nitrogen	EPA 300.0	1301398-006	<1.000	2.06	2.08	2.00	mg/L	101	102	1 %
QC13010821	MS 1	Sulfate	EPA 300.0	1301372-001	1.98	11.8	12.2	10.0	mg/L	98	103	3 %
QC13010821	MS 2	Sulfate	EPA 300.0	1301398-006	9.34	18.7	18.9	10.0	mg/L	94	95	1 %
QC13010864	MS 1	Aluminum, Dissolved	EPA 200.7	1301381-001	<0.045	1.05	1.02	1.00	mg/L	104	101	3 %
		Barium, Dissolved	EPA 200.7	1301381-001	<0.010	0.972	0.972	1.00	mg/L	97	97	<1%
		Beryllium, Dissolved	EPA 200.7	1301381-001	<0.001	1.02	1.02	1.00	mg/L	102	102	<1%
		Bismuth, Dissolved	EPA 200.7	1301381-001	<0.100	1.02	1.03	1.00	mg/L	101	102	1 %
		Boron, Dissolved	EPA 200.7	1301381-001	0.315	1.32	1.32	1.00	mg/L	101	101	<1%
		Cadmium, Dissolved	EPA 200.7	1301381-001	<0.001	0.978	0.980	1.00	mg/L	98	98	<1%
		Calcium, Dissolved	EPA 200.7	1301381-001	4.88	14.5	14.7	10.0	mg/L	96	98	1 %
		Chromium, Dissolved	EPA 200.7	1301381-001	<0.005	0.939	0.942	1.00	mg/L	94	94	<1%
		Cobalt, Dissolved	EPA 200.7	1301381-001	<0.010	0.959	0.966	1.00	mg/L	96	97	1 %
		Copper, Dissolved	EPA 200.7	1301381-001	<0.050	5.12	5.12	5.00	mg/L	102	102	<1%
		Gallium, Dissolved	EPA 200.7	1301381-001	<0.100	0.988	0.991	1.00	mg/L	99	99	<1%

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
		Iron, Dissolved	EPA 200.7	1301381-001	<0.010	0.959	0.960	1.00	mg/L	95	95	<1%
		Lithium, Dissolved	EPA 200.7	1301381-001	0.464	1.39	1.40	1.00	mg/L	93	94	1%
		Magnesium, Dissolved	EPA 200.7	1301381-001	<0.500	9.49	9.58	10.0	mg/L	94	95	1%
		Manganese, Dissolved	EPA 200.7	1301381-001	<0.005	1.01	1.01	1.00	mg/L	101	101	<1%
		Molybdenum, Dissolved	EPA 200.7	1301381-001	<0.010	0.921	0.925	1.00	mg/L	91	92	<1%
		Nickel, Dissolved	EPA 200.7	1301381-001	<0.010	4.71	4.74	5.00	mg/L	94	95	1%
		Phosphorus, Dissolved	EPA 200.7	1301381-001	<0.500	4.78	4.83	5.00	mg/L	95	96	1%
		Potassium, Dissolved	EPA 200.7	1301381-001	2.25	11.9	11.9	10.0	mg/L	96	96	<1%
		Scandium, Dissolved	EPA 200.7	1301381-001	<0.100	0.950	0.955	1.00	mg/L	95	95	1%
		Silver, Dissolved	EPA 200.7	1301381-001	<0.005	0.088	0.088	0.090	mg/L	97	98	<1%
		Sodium, Dissolved	EPA 200.7	1301381-001	116	SC 119	121	10.0	mg/L	NC	NC	NC
		Strontium, Dissolved	EPA 200.7	1301381-001	<0.100	1.00	1.00	1.00	mg/L	97	97	<1%
		Tin, Dissolved	EPA 200.7	1301381-001	<0.100	0.958	0.961	1.00	mg/L	96	97	<1%
		Titanium, Dissolved	EPA 200.7	1301381-001	<0.100	0.996	0.994	1.00	mg/L	99	99	<1%
		Vanadium, Dissolved	EPA 200.7	1301381-001	<0.010	0.959	0.963	1.00	mg/L	96	96	<1%
		Zinc, Dissolved	EPA 200.7	1301381-001	<0.010	0.980	0.992	1.00	mg/L	98	99	1%



WETLAB

WESTERN ENVIRONMENTAL TESTING LABORATORY *Specializing in Soil, Hazardous Waste and Water Analysis.*

475 E. Greg Street #115 | Sparks, Nevada 89431
tel (775) 355-0202 | fax (775) 355-0817 | www.WETLaboratory.com

Lab Number 1501374

Report

Due Date: 2/7/13

Page 1 of 1

Client McClelland Laboratories, Inc.

Address 1016 Greg Street

City, State & Zip Sparks, NV 89431

Contact Mike Medina

Phone 775-356-1300

Collector's Name Robert

Fax 775-356-8917

Project Name

P.O. Number

Project Number 3438

Email mli@mettest.com

Billing Address (if different than Client Address):

Company _____

Address _____

City, State & Zip _____

Contact _____

Phone _____

Fax _____

Email _____

Additional Information

Fax Results	Y	N	To: Client	Billing
Email Results	Y	N	To: Client	Billing
Compliance Monitoring	Y	N		
Fax Results to State EPA	Y	N		

Sample Type Codes

DW = Drinking Water	SD = Solid
WW = Wastewater	SO = Soil
SW = Surface Water	HW = Hazardous Waste
MW = Monitoring Well	OTHER: _____

Analyses Requested

NO	Profile II w/o Wad	Uranium	Analyses Requested								Spl. No.	
			1	2	3	4	5	6	7	8		
	X	X										1
												2
												3

1301 5
374 3

SAMPLE ID/LOCATION DATE TIME

SAMPLE ID/LOCATION	DATE	TIME	W	2	X	X
604 673	01/24/13	9:00	WW	2	X	X
SRK 0854						
SRK 0872						

Instructions/Comments/Special Requirements:

SAMPLE RECEIPT		DATE	TIME	Sample Received By	Sample Received By
Temperature	20 °C	1/24/13	2:35p	Neil	[Signature]
Custody Seals Intact?	Y N None				
Number of Containers	6				

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.

To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.



Specializing in Soil, Hazardous Waste and Water Analysis.

2/19/2013

McClelland Laboratory
1016 Greg Street
Sparks, NV 89431
Attn: Mike Medina

OrderID: 1301483

Dear: Mike Medina

This is to transmit the attached analytical report. The analytical data and information contained therein was generated using specified or selected methods contained in references, such as Standard Methods for the Examination of Water and Wastewater, 18th & 19th editions, Methods for Determination of Organic Compounds in Drinking Water, EPA-600/4-79-020, and Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW846) Third Edition.

The samples were received by WETLAB-Western Environmental Testing Laboratory in good condition on 1/31/2013. Additional comments are located on page 2 of this report.

If you should have any questions or comments regarding this report, please do not hesitate to call.

Sincerely,

Andy Smith
QA Manager

Western Environmental Testing Laboratory

Report Comments

McClelland Laboratory - 1301483

General Comments

None

Specific Comments

Due to the sample matrix it was necessary to analyze the following at a dilution:

1301483-004 Iron

The reporting limits have been adjusted accordingly.

Due to a laboratory reanalysis requirements the analysis for Total Dissolved Solids (TDS) on samples 1301483-001 and 007 was performed past the EPA recommended holding time. We apologize for any inconvenience this may have caused.

Data Qualifier Legend

- B -- Blank contamination; Analyte detected above the method reporting limit in an associated blank
- D -- Reporting limit is elevated due to required sample dilution
- HT -- Sample analyzed beyond the accepted holding time
- J -- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
- M -- Reported value is estimated; The sample matrix interfered with the analysis
- N -- There was insufficient sample available to perform a spike and/or duplicate on this analytical batch.
- NC -- Not calculated due to matrix interference
- Q -- Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
- S -- Surrogate recovery was outside of laboratory acceptance limits due to matrix interference. The associated blank and LCS surrogate recovery was within acceptance limits.
- SC -- Spike recovery not calculated. Sample concentration >4X the spike amount; therefore, the spike could not be adequately recovered.

Page 2 of 20

Western Environmental Testing Laboratory Analytical Report

McClelland Laboratory
 1016 Greg Street
 Sparks, NV 89431
 Attn: Mike Medina
 Phone: (775) 356-1300 Fax: (775) 356-8917
 PO\Project: 3438 Wk: 32

Date Printed: 2/19/2013
 OrderID: 1301483

Customer Sample ID: CF-11-02 (227-367) Wk: 32
 WETLAB Sample ID: 1301483-001

Collect Date/Time: 1/31/2013 09:00
 Receive Date: 1/31/2013 14:20

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.75	pH Units		1/31/2013
Trace Metals Digestion	EPA 200.2	Complete			2/5/2013
Bicarbonate (HCO ₃)	SM 2320B	64	mg/L	1.0	1/31/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	1/31/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	1/31/2013
Total Alkalinity	SM 2320B	53	mg/L as CaCO ₃	1.0	1/31/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	2/1/2013
Fluoride	EPA 300.0	1.1	mg/L	0.10	2/1/2013
Sulfate	EPA 300.0	5.9	mg/L	1.0	2/1/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	2/1/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	2/1/2013
Total Dissolved Solids (TDS)	SM 2540C	80	HT mg/L	10	2/14/2013
Aluminum	EPA 200.7	0.062	mg/L	0.045	2/6/2013
Barium	EPA 200.7	0.042	mg/L	0.010	2/6/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	2/6/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	2/6/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	2/6/2013
Calcium	EPA 200.7	18	mg/L	0.50	2/6/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	2/6/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	2/6/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Iron	EPA 200.7	0.013	mg/L	0.010	2/6/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Magnesium	EPA 200.7	2.9	mg/L	0.50	2/6/2013
Manganese	EPA 200.7	0.025	mg/L	0.0050	2/6/2013

Customer Sample ID: CF-11-02 (227-367) Wk: 32

Collect Date/Time: 1/31/2013 09:00

WETLAB Sample ID: 1301483-001

Receive Date: 1/31/2013 14:20

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	2/6/2013
Potassium	EPA 200.7	2.9	mg/L	0.50	2/6/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	2/6/2013
Sodium	EPA 200.7	0.74	mg/L	0.50	2/6/2013
Strontium	EPA 200.7	0.16	mg/L	0.10	2/6/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	2/6/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	2/6/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	2/6/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	2/6/2013
Seelenium	EPA 200.8	<0.0050	mg/L	0.0050	2/6/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	2/6/2013
Uranium	EPA 200.8	<0.0050	mg/L	0.0050	2/6/2013
Anions	Calculation	1.23	meq/L	0.10	
Cations	Calculation	1.25	meq/L	0.10	
Error	Calculation	<1.0	%	1.0	

Customer Sample ID: CF-11-02 (52-117) Wk: 32

Collect Date/Time: 1/31/2013 09:00

WETLAB Sample ID: 1301483-002

Receive Date: 1/31/2013 14:20

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.74	pH Units		1/31/2013
Trace Metals Digestion	EPA 200.2	Complete			2/5/2013
Bicarbonate (HCO3)	SM 2320B	59	mg/L	1.0	1/31/2013
Carbonate (CO3)	SM 2320B	<1.0	mg/L	1.0	1/31/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	1/31/2013
Total Alkalinity	SM 2320B	48	mg/L as CaCO3	1.0	1/31/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	2/1/2013
Fluoride	EPA 300.0	0.95	mg/L	0.10	2/1/2013
Sulfate	EPA 300.0	7.4	mg/L	1.0	2/1/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	2/1/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	2/1/2013

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Customer Sample ID: CF-11-02 (52-117) Wk: 32

Collect Date/Time: 1/31/2013 09:00

WETLAB Sample ID: 1301483-002

Receive Date: 1/31/2013 14:20

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Total Dissolved Solids (TDS)	SM 2540C	68	mg/L	10	2/5/2013
Aluminum	EPA 200.7	0.050	mg/L	0.045	2/6/2013
Barium	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	2/6/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	2/6/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	2/6/2013
Calcium	EPA 200.7	18	mg/L	0.50	2/6/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	2/6/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	2/6/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Iron	EPA 200.7	0.012	mg/L	0.010	2/6/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Magnesium	EPA 200.7	1.8	mg/L	0.50	2/6/2013
Manganese	EPA 200.7	0.025	mg/L	0.0050	2/6/2013
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	2/6/2013
Potassium	EPA 200.7	2.9	mg/L	0.50	2/6/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	2/6/2013
Sodium	EPA 200.7	0.76	mg/L	0.50	2/6/2013
Strontium	EPA 200.7	0.12	mg/L	0.10	2/6/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	2/6/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	2/6/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	2/6/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	2/6/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	2/6/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	2/6/2013
Uranium	EPA 200.8	0.0098	mg/L	0.0050	2/6/2013
Anions	Calculation	1.17	meq/L	0.10	
Cations	Calculation	1.16	meq/L	0.10	
Error	Calculation	<1.0	%	1.0	

Customer Sample ID: K-Spar Breccia 5+ Comp Wk: 32

Collect Date/Time: 1/31/2013 09:00

WETLAB Sample ID: 1301483-003

Receive Date: 1/31/2013 14:20

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.75	pH Units		1/31/2013
Trace Metals Digestion	EPA 200.2	Complete			2/5/2013
Bicarbonate (HCO ₃)	SM 2320B	61	mg/L	1.0	1/31/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	1/31/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	1/31/2013
Total Alkalinity	SM 2320B	50	mg/L as CaCO ₃	1.0	1/31/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	2/1/2013
Fluoride	EPA 300.0	1.1	mg/L	0.10	2/1/2013
Sulfate	EPA 300.0	30	mg/L	1.0	2/1/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	2/1/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	2/1/2013
Total Dissolved Solids (TDS)	SM 2540C	86	mg/L	10	2/5/2013
Aluminum	EPA 200.7	<0.045	mg/L	0.045	2/6/2013
Barium	EPA 200.7	0.078	mg/L	0.010	2/6/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	2/6/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	2/6/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	2/6/2013
Calcium	EPA 200.7	28	mg/L	0.50	2/6/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	2/6/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	2/6/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Magnesium	EPA 200.7	2.6	mg/L	0.50	2/6/2013
Manganese	EPA 200.7	0.038	mg/L	0.0050	2/6/2013
Molybdenum	EPA 200.7	0.044	mg/L	0.010	2/6/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	2/6/2013
Potassium	EPA 200.7	2.4	mg/L	0.50	2/6/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	2/6/2013
Sodium	EPA 200.7	0.84	mg/L	0.50	2/6/2013
Strontium	EPA 200.7	0.55	mg/L	0.10	2/6/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	2/6/2013

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Customer Sample ID: K-Spar Breccia 5+ Comp Wk: 32

Collect Date/Time: 1/31/2013 09:00

WETLAB Sample ID: 1301483-003

Receive Date: 1/31/2013 14:20

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Zinc	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	2/6/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	2/6/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	2/6/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	2/6/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	2/6/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	2/6/2013
Uranium	EPA 200.8	0.013	mg/L	0.0050	2/6/2013
Anions	Calculation	1.68	meq/L	0.10	
Cations	Calculation	1.71	meq/L	0.10	
Error	Calculation	<1.0	%	1.0	

Customer Sample ID: Biotite Breccia 5+ Comp Wk: 32

Collect Date/Time: 1/31/2013 09:00

WETLAB Sample ID: 1301483-004

Receive Date: 1/31/2013 14:20

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.89	pH Units		1/31/2013
Trace Metals Digestion	EPA 200.2	Complete			2/5/2013
Bicarbonate (HCO ₃)	SM 2320B	76	mg/L	1.0	1/31/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	1/31/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	1/31/2013
Total Alkalinity	SM 2320B	62	mg/L as CaCO ₃	1.0	1/31/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	2/1/2013
Fluoride	EPA 300.0	1.5	mg/L	0.10	2/1/2013
Sulfate	EPA 300.0	11	mg/L	1.0	2/1/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	2/1/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	2/1/2013
Total Dissolved Solids (TDS)	SM 2540C	98	mg/L	10	2/5/2013
Aluminum	EPA 200.7	<0.045	mg/L	0.045	2/6/2013
Barium	EPA 200.7	0.073	mg/L	0.010	2/6/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	2/6/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	2/6/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	2/6/2013
Calcium	EPA 200.7	23	mg/L	0.50	2/6/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	2/6/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	2/6/2013

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Customer Sample ID: Biotite Breccia 5+ Comp Wk: 32

Collect Date/Time: 1/31/2013 09:00

WETLAB Sample ID: 1301483-004

Receive Date: 1/31/2013 14:20

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Gallium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Iron	EPA 200.7	<0.050	mg/L	0.050	2/6/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Magnesium	EPA 200.7	4.1	mg/L	0.50	2/6/2013
Manganese	EPA 200.7	0.045	mg/L	0.0050	2/6/2013
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	2/6/2013
Potassium	EPA 200.7	2.7	mg/L	0.50	2/6/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	2/6/2013
Sodium	EPA 200.7	0.61	mg/L	0.50	2/6/2013
Strontium	EPA 200.7	0.28	mg/L	0.10	2/6/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	2/6/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	2/6/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	2/6/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	2/6/2013
Seelenium	EPA 200.8	<0.0050	mg/L	0.0050	2/6/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	2/6/2013
Uranium	EPA 200.8	0.0064	mg/L	0.0050	2/6/2013
Anions	Calculation	1.55	meq/L	0.10	
Cations	Calculation	1.58	meq/L	0.10	
Error	Calculation	<1.0	%	1.0	

Customer Sample ID: Quartz Monozonite 5+ Comp Wk: 32

Collect Date/Time: 1/31/2013 09:00

WETLAB Sample ID: 1301483-005

Receive Date: 1/31/2013 14:20

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.84	pH Units		1/31/2013
Trace Metals Digestion	EPA 200.2	Complete			2/5/2013
Bicarbonate (HCO3)	SM 2320B	67	mg/L	1.0	1/31/2013
Carbonate (CO3)	SM 2320B	<1.0	mg/L	1.0	1/31/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	1/31/2013
Total Alkalinity	SM 2320B	55	mg/L as CaCO3	1.0	1/31/2013

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Customer Sample ID: Quartz Monozonite 5+ Comp Wk: 32

Collect Date/Time: 1/31/2013 09:00

WETLAB Sample ID: 1301483-005

Receive Date: 1/31/2013 14:20

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Chloride	EPA 300.0	<1.00	mg/L	1.00	2/1/2013
Fluoride	EPA 300.0	1.2	mg/L	0.10	2/1/2013
Sulfate	EPA 300.0	13	mg/L	1.0	2/1/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	2/1/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	2/1/2013
Total Dissolved Solids (TDS)	SM 2540C	86	mg/L	10	2/5/2013
Aluminum	EPA 200.7	<0.045	mg/L	0.045	2/6/2013
Barium	EPA 200.7	0.11	mg/L	0.010	2/6/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	2/6/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	2/6/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	2/6/2013
Calcium	EPA 200.7	20	mg/L	0.50	2/6/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	2/6/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	2/6/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Magnesium	EPA 200.7	4.0	mg/L	0.50	2/6/2013
Manganese	EPA 200.7	0.020	mg/L	0.0050	2/6/2013
Molybdenum	EPA 200.7	0.059	mg/L	0.010	2/6/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	2/6/2013
Potassium	EPA 200.7	2.5	mg/L	0.50	2/6/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	2/6/2013
Sodium	EPA 200.7	0.91	mg/L	0.50	2/6/2013
Strontium	EPA 200.7	0.52	mg/L	0.10	2/6/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	2/6/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	2/6/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	2/6/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	2/6/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	2/6/2013

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Customer Sample ID: Quartz Monozonite 5+ Comp Wk: 32

Collect Date/Time: 1/31/2013 09:00

WETLAB Sample ID: 1301483-005

Receive Date: 1/31/2013 14:20

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	2/6/2013
Uranium	EPA 200.8	0.013	mg/L	0.0050	2/6/2013
Anions	Calculation	1.43	meq/L	0.10	
Cations	Calculation	1.43	meq/L	0.10	
Error	Calculation	<1.0	%	1.0	

Customer Sample ID: Biotite Breccia 0-5 Comp Wk: 32

Collect Date/Time: 1/31/2013 09:00

WETLAB Sample ID: 1301483-006

Receive Date: 1/31/2013 14:20

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.83	pH Units		1/31/2013
Trace Metals Digestion	EPA 200.2	Complete			2/5/2013
Bicarbonate (HCO ₃)	SM 2320B	69	mg/L	1.0	1/31/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	1/31/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	1/31/2013
Total Alkalinity	SM 2320B	56	mg/L as CaCO ₃	1.0	1/31/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	2/1/2013
Fluoride	EPA 300.0	1.6	mg/L	0.10	2/1/2013
Sulfate	EPA 300.0	13	mg/L	1.0	2/1/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	2/1/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	2/1/2013
Total Dissolved Solids (TDS)	SM 2540C	98	mg/L	10	2/5/2013
Aluminum	EPA 200.7	<0.045	mg/L	0.045	2/6/2013
Barium	EPA 200.7	0.092	mg/L	0.010	2/6/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	2/6/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	2/6/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	2/6/2013
Calcium	EPA 200.7	21	mg/L	0.50	2/6/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	2/6/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	2/6/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Magnesium	EPA 200.7	4.3	mg/L	0.50	2/6/2013
Manganese	EPA 200.7	0.022	mg/L	0.0050	2/6/2013
Molybdenum	EPA 200.7	0.015	mg/L	0.010	2/6/2013

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Customer Sample ID: Biotite Breccia 0-5 Comp Wk: 32

Collect Date/Time: 1/31/2013 09:00

WETLAB Sample ID: 1301483-006

Receive Date: 1/31/2013 14:20

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Nickel	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	2/6/2013
Potassium	EPA 200.7	1.8	mg/L	0.50	2/6/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	2/6/2013
Sodium	EPA 200.7	0.52	mg/L	0.50	2/6/2013
Strontium	EPA 200.7	0.30	mg/L	0.10	2/6/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	2/6/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	2/6/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	2/6/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	2/6/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	2/6/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	2/6/2013
Uranium	EPA 200.8	0.031	mg/L	0.0050	2/6/2013
Anions	Calculation	1.49	meq/L	0.10	
Cations	Calculation	1.47	meq/L	0.10	
Error	Calculation	<1.0	%	1.0	

Customer Sample ID: K-Spar Breccia 0-5 Comp Wk: 32

Collect Date/Time: 1/31/2013 09:00

WETLAB Sample ID: 1301483-007

Receive Date: 1/31/2013 14:20

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.87	pH Units		1/31/2013
Trace Metals Digestion	EPA 200.2	Complete			2/5/2013
Bicarbonate (HCO3)	SM 2320B	70	mg/L	1.0	1/31/2013
Carbonate (CO3)	SM 2320B	<1.0	mg/L	1.0	1/31/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	1/31/2013
Total Alkalinity	SM 2320B	57	mg/L as CaCO3	1.0	1/31/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	2/1/2013
Fluoride	EPA 300.0	1.4	mg/L	0.10	2/1/2013
Sulfate	EPA 300.0	12	mg/L	1.0	2/1/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	2/1/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	2/1/2013
Total Dissolved Solids (TDS)	SM 2540C	96	HT mg/L	10	2/14/2013

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Customer Sample ID: K-Spar Breccia 0-5 Comp Wk: 32

Collect Date/Time: 1/31/2013 09:00

WETLAB Sample ID: 1301483-007

Receive Date: 1/31/2013 14:20

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Aluminum	EPA 200.7	<0.045	mg/L	0.045	2/6/2013
Barium	EPA 200.7	0.13	mg/L	0.010	2/6/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	2/6/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	2/6/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	2/6/2013
Calcium	EPA 200.7	20	mg/L	0.50	2/6/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	2/6/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	2/6/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Magnesium	EPA 200.7	4.2	mg/L	0.50	2/6/2013
Manganese	EPA 200.7	0.017	mg/L	0.0050	2/6/2013
Molybdenum	EPA 200.7	0.017	mg/L	0.010	2/6/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	2/6/2013
Potassium	EPA 200.7	2.1	mg/L	0.50	2/6/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	2/6/2013
Sodium	EPA 200.7	0.63	mg/L	0.50	2/6/2013
Strontium	EPA 200.7	0.39	mg/L	0.10	2/6/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	2/6/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	2/6/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	2/6/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	2/6/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	2/6/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	2/6/2013
Uranium	EPA 200.8	0.030	mg/L	0.0050	2/6/2013
Anions	Calculation	1.47	meq/L	0.10	
Cations	Calculation	1.43	meq/L	0.10	
Error	Calculation	1.6	%	1.0	

Customer Sample ID: Quartz Monzonite 0-5 Comp Wk: 32

Collect Date/Time: 1/31/2013 09:00

WETLAB Sample ID: 1301483-008

Receive Date: 1/31/2013 14:20

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.84	pH Units		1/31/2013
Trace Metals Digestion	EPA 200.2	Complete			2/5/2013
Bicarbonate (HCO ₃)	SM 2320B	67	mg/L	1.0	1/31/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	1/31/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	1/31/2013
Total Alkalinity	SM 2320B	55	mg/L as CaCO ₃	1.0	1/31/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	2/1/2013
Fluoride	EPA 300.0	1.4	mg/L	0.10	2/1/2013
Sulfate	EPA 300.0	15	mg/L	1.0	2/1/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	2/1/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	2/1/2013
Total Dissolved Solids (TDS)	SM 2540C	96	mg/L	10	2/5/2013
Aluminum	EPA 200.7	<0.045	mg/L	0.045	2/6/2013
Barium	EPA 200.7	0.088	mg/L	0.010	2/6/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	2/6/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	2/6/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	2/6/2013
Calcium	EPA 200.7	22	mg/L	0.50	2/6/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	2/6/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	2/6/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Iron	EPA 200.7	0.022	mg/L	0.010	2/6/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Magnesium	EPA 200.7	4.3	mg/L	0.50	2/6/2013
Manganese	EPA 200.7	0.014	mg/L	0.0050	2/6/2013
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	2/6/2013
Potassium	EPA 200.7	2.0	mg/L	0.50	2/6/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	2/6/2013
Sodium	EPA 200.7	0.74	mg/L	0.50	2/6/2013
Strontium	EPA 200.7	0.32	mg/L	0.10	2/6/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	2/6/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	2/6/2013

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Customer Sample ID: Quartz Monzonite 0-5 Comp Wk: 32

Collect Date/Time: 1/31/2013 09:00

WETLAB Sample ID: 1301483-008

Receive Date: 1/31/2013 14:20

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Zinc	EPA 200.7	<0.010	mg/L	0.010	2/6/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	2/6/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	2/6/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	2/6/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	2/6/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	2/6/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	2/6/2013
Uranium	EPA 200.8	0.024	mg/L	0.0050	2/6/2013
Anions	Calculation	1.48	meq/L	0.10	
Cations	Calculation	1.54	meq/L	0.10	
Error	Calculation	1.7	%	1.0	

Western Environmental Testing Laboratory QC Report

QCBatchID	QCType	Parameter	Method	Result	Units
QC13020049	Blank 1	Fluoride	EPA 300.0	<0.10	mg/L
QC13020049	Blank 2	Fluoride	EPA 300.0	<0.10	mg/L
QC13020050	Blank 1	Chloride	EPA 300.0	<1.0	mg/L
QC13020050	Blank 2	Chloride	EPA 300.0	<1.0	mg/L
QC13020051	Blank 1	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13020051	Blank 2	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13020053	Blank 1	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13020053	Blank 2	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13020055	Blank 1	Sulfate	EPA 300.0	<1.0	mg/L
QC13020055	Blank 2	Sulfate	EPA 300.0	<1.0	mg/L
QC13020123	Blank 1	Aluminum, Dissolved	EPA 200.7	<0.045	mg/L
		Barium, Dissolved	EPA 200.7	<0.010	mg/L
		Beryllium, Dissolved	EPA 200.7	<0.0010	mg/L
		Bismuth, Dissolved	EPA 200.7	<0.10	mg/L
		Boron, Dissolved	EPA 200.7	<0.10	mg/L
		Cadmium, Dissolved	EPA 200.7	<0.0010	mg/L
		Calcium, Dissolved	EPA 200.7	<0.50	mg/L
		Chromium, Dissolved	EPA 200.7	<0.0050	mg/L
		Cobalt, Dissolved	EPA 200.7	<0.010	mg/L
		Copper, Dissolved	EPA 200.7	<0.050	mg/L
		Gallium, Dissolved	EPA 200.7	<0.10	mg/L
		Iron, Dissolved	EPA 200.7	<0.010	mg/L
		Lithium, Dissolved	EPA 200.7	<0.10	mg/L
		Magnesium, Dissolved	EPA 200.7	<0.50	mg/L
		Manganese, Dissolved	EPA 200.7	<0.0050	mg/L
		Molybdenum, Dissolved	EPA 200.7	<0.010	mg/L
		Nickel, Dissolved	EPA 200.7	<0.010	mg/L
		Phosphorus, Dissolved	EPA 200.7	<0.50	mg/L
		Potassium, Dissolved	EPA 200.7	<0.50	mg/L
		Scandium, Dissolved	EPA 200.7	<0.10	mg/L
		Silver, Dissolved	EPA 200.7	<0.0050	mg/L
		Sodium, Dissolved	EPA 200.7	<0.50	mg/L
		Strontium, Dissolved	EPA 200.7	<0.10	mg/L
		Tin, Dissolved	EPA 200.7	<0.10	mg/L
		Titanium, Dissolved	EPA 200.7	<0.10	mg/L
		Vanadium, Dissolved	EPA 200.7	<0.010	mg/L
		Zinc, Dissolved	EPA 200.7	<0.010	mg/L
QC13020129	Blank 1	Aluminum, Dissolved	EPA 200.7	<0.045	mg/L
		Barium, Dissolved	EPA 200.7	<0.010	mg/L
		Beryllium, Dissolved	EPA 200.7	<0.0010	mg/L
		Bismuth, Dissolved	EPA 200.7	<0.10	mg/L
		Boron, Dissolved	EPA 200.7	<0.10	mg/L
		Cadmium, Dissolved	EPA 200.7	<0.0010	mg/L
		Calcium, Dissolved	EPA 200.7	<0.50	mg/L
		Chromium, Dissolved	EPA 200.7	<0.0050	mg/L
		Cobalt, Dissolved	EPA 200.7	<0.010	mg/L
		Copper, Dissolved	EPA 200.7	<0.050	mg/L

QCBatchID	QCType	Parameter	Method	Result	Units
		Gallium, Dissolved	EPA 200.7	<0.10	mg/L
		Iron, Dissolved	EPA 200.7	<0.010	mg/L
		Lithium, Dissolved	EPA 200.7	<0.10	mg/L
		Magnesium, Dissolved	EPA 200.7	<0.50	mg/L
		Manganese, Dissolved	EPA 200.7	<0.0050	mg/L
		Molybdenum, Dissolved	EPA 200.7	<0.010	mg/L
		Nickel, Dissolved	EPA 200.7	<0.010	mg/L
		Phosphorus, Dissolved	EPA 200.7	<0.50	mg/L
		Potassium, Dissolved	EPA 200.7	<0.50	mg/L
		Scandium, Dissolved	EPA 200.7	<0.10	mg/L
		Silver, Dissolved	EPA 200.7	<0.0050	mg/L
		Sodium, Dissolved	EPA 200.7	<0.50	mg/L
		Strontium, Dissolved	EPA 200.7	<0.10	mg/L
		Tin, Dissolved	EPA 200.7	<0.10	mg/L
		Titanium, Dissolved	EPA 200.7	<0.10	mg/L
		Vanadium, Dissolved	EPA 200.7	<0.010	mg/L
		Zinc, Dissolved	EPA 200.7	<0.010	mg/L
QC13020140	Blank 1	Uranium, Dissolved	EPA 200.8	<0.0050	mg/L
		Mercury, Dissolved	EPA 200.8	<0.00010	mg/L
		Antimony, Dissolved	EPA 200.8	<0.0025	mg/L
		Arsenic, Dissolved	EPA 200.8	<0.0050	mg/L
		Lead, Dissolved	EPA 200.8	<0.0025	mg/L
		Selenium, Dissolved	EPA 200.8	<0.0050	mg/L
		Thallium, Dissolved	EPA 200.8	<0.0010	mg/L
QC13020141	Blank 1	Uranium, Dissolved	EPA 200.8	<0.0050	mg/L
		Mercury, Dissolved	EPA 200.8	<0.00010	mg/L
		Antimony, Dissolved	EPA 200.8	<0.0025	mg/L
		Arsenic, Dissolved	EPA 200.8	<0.0050	mg/L
		Lead, Dissolved	EPA 200.8	<0.0025	mg/L
		Selenium, Dissolved	EPA 200.8	<0.0050	mg/L
		Thallium, Dissolved	EPA 200.8	<0.0010	mg/L
QC13020181	Blank 1	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L
QC13020181	Blank 2	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L
QC13020181	Blank 3	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L
QC13020181	Blank 4	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC13020016	LCS 1	pH	SM 4500-H+ B	7.00	7.00	100	pH Units
QC13020016	LCS 2	pH	SM 4500-H+ B	7.00	7.00	100	pH Units
QC13020016	LCS 3	pH	SM 4500-H+ B	7.00	7.00	100	pH Units
QC13020020	LCS 1	Total Alkalinity	SM 2320B	96.5	100	96	mg/L
QC13020020	LCS 2	Total Alkalinity	SM 2320B	99.0	100	99	mg/L
QC13020020	LCS 3	Total Alkalinity	SM 2320B	98.7	100	99	mg/L
QC13020020	LCS 4	Total Alkalinity	SM 2320B	99.0	100	99	mg/L
QC13020049	LCS 1	Fluoride	EPA 300.0	2.00	2.00	100	mg/L
QC13020050	LCS 1	Chloride	EPA 300.0	9.73	10.0	97	mg/L
QC13020051	LCS 1	Nitrite Nitrogen	EPA 300.0	0.524	0.500	105	mg/L
QC13020053	LCS 1	Nitrate Nitrogen	EPA 300.0	1.97	2.00	98	mg/L
QC13020055	LCS 1	Sulfate	EPA 300.0	23.9	25.0	95	mg/L
QC13020123	LCS 1	Aluminum, Dissolved	EPA 200.7	0.930	1.00	93	mg/L
		Barium, Dissolved	EPA 200.7	0.999	1.00	100	mg/L
		Beryllium, Dissolved	EPA 200.7	0.998	1.00	100	mg/L
		Bismuth, Dissolved	EPA 200.7	1.07	1.00	107	mg/L

QC Batch ID	QC Type	Parameter	Method	Result	Actual	% Recovery	Units
		Boron, Dissolved	EPA 200.7	0.945	1.00	94	mg/L
		Cadmium, Dissolved	EPA 200.7	1.02	1.00	102	mg/L
		Calcium, Dissolved	EPA 200.7	10.0	10.0	100	mg/L
		Chromium, Dissolved	EPA 200.7	0.983	1.00	98	mg/L
		Cobalt, Dissolved	EPA 200.7	1.01	1.00	101	mg/L
		Copper, Dissolved	EPA 200.7	4.86	5.00	97	mg/L
		Gallium, Dissolved	EPA 200.7	1.00	1.00	100	mg/L
		Iron, Dissolved	EPA 200.7	0.983	1.00	98	mg/L
		Lithium, Dissolved	EPA 200.7	0.962	1.00	96	mg/L
		Magnesium, Dissolved	EPA 200.7	9.89	10.0	99	mg/L
		Manganese, Dissolved	EPA 200.7	1.00	1.00	100	mg/L
		Molybdenum, Dissolved	EPA 200.7	1.02	1.00	102	mg/L
		Nickel, Dissolved	EPA 200.7	5.01	5.00	100	mg/L
		Phosphorus, Dissolved	EPA 200.7	5.11	5.00	102	mg/L
		Potassium, Dissolved	EPA 200.7	9.89	10.0	99	mg/L
		Scandium, Dissolved	EPA 200.7	0.978	1.00	98	mg/L
		Silver, Dissolved	EPA 200.7	0.088	0.090	98	mg/L
		Sodium, Dissolved	EPA 200.7	9.96	10.0	100	mg/L
		Strontium, Dissolved	EPA 200.7	0.963	1.00	96	mg/L
		Tin, Dissolved	EPA 200.7	1.01	1.00	101	mg/L
		Titanium, Dissolved	EPA 200.7	0.986	1.00	99	mg/L
		Vanadium, Dissolved	EPA 200.7	0.983	1.00	98	mg/L
		Zinc, Dissolved	EPA 200.7	1.04	1.00	104	mg/L
QC13020129	LCS 1	Aluminum, Dissolved	EPA 200.7	0.972	1.00	97	mg/L
		Barium, Dissolved	EPA 200.7	1.02	1.00	102	mg/L
		Beryllium, Dissolved	EPA 200.7	0.991	1.00	99	mg/L
		Bismuth, Dissolved	EPA 200.7	1.05	1.00	105	mg/L
		Boron, Dissolved	EPA 200.7	0.937	1.00	94	mg/L
		Cadmium, Dissolved	EPA 200.7	1.02	1.00	102	mg/L
		Calcium, Dissolved	EPA 200.7	10.1	10.0	101	mg/L
		Chromium, Dissolved	EPA 200.7	0.995	1.00	100	mg/L
		Cobalt, Dissolved	EPA 200.7	1.00	1.00	100	mg/L
		Copper, Dissolved	EPA 200.7	4.87	5.00	97	mg/L
		Gallium, Dissolved	EPA 200.7	1.01	1.00	101	mg/L
		Iron, Dissolved	EPA 200.7	0.999	1.00	100	mg/L
		Lithium, Dissolved	EPA 200.7	0.991	1.00	99	mg/L
		Magnesium, Dissolved	EPA 200.7	10.0	10.0	100	mg/L
		Manganese, Dissolved	EPA 200.7	0.998	1.00	100	mg/L
		Molybdenum, Dissolved	EPA 200.7	0.995	1.00	100	mg/L
		Nickel, Dissolved	EPA 200.7	5.09	5.00	102	mg/L
		Phosphorus, Dissolved	EPA 200.7	5.03	5.00	101	mg/L
		Potassium, Dissolved	EPA 200.7	10.1	10.0	101	mg/L
		Scandium, Dissolved	EPA 200.7	0.994	1.00	99	mg/L
		Silver, Dissolved	EPA 200.7	0.090	0.090	100	mg/L
		Sodium, Dissolved	EPA 200.7	10.1	10.0	101	mg/L
		Strontium, Dissolved	EPA 200.7	0.982	1.00	98	mg/L
		Tin, Dissolved	EPA 200.7	0.968	1.00	97	mg/L
		Titanium, Dissolved	EPA 200.7	0.968	1.00	97	mg/L
		Vanadium, Dissolved	EPA 200.7	1.00	1.00	100	mg/L
		Zinc, Dissolved	EPA 200.7	1.00	1.00	100	mg/L
QC13020140	LCS 1	Uranium, Dissolved	EPA 200.8	0.0096	0.010	96	mg/L
		Mercury, Dissolved	EPA 200.8	0.000971	0.001	97	mg/L
		Antimony, Dissolved	EPA 200.8	0.0095	0.010	95	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC13020141	LCS 1	Arsenic, Dissolved	EPA 200.8	0.0501	0.050	100	mg/L
		Lead, Dissolved	EPA 200.8	0.0096	0.010	96	mg/L
		Selenium, Dissolved	EPA 200.8	0.0468	0.050	94	mg/L
		Thallium, Dissolved	EPA 200.8	0.0097	0.010	97	mg/L
		Uranium, Dissolved	EPA 200.8	0.0096	0.010	96	mg/L
		Mercury, Dissolved	EPA 200.8	0.000939	0.001	94	mg/L
		Antimony, Dissolved	EPA 200.8	0.0094	0.010	94	mg/L
		Arsenic, Dissolved	EPA 200.8	0.0492	0.050	98	mg/L
		Lead, Dissolved	EPA 200.8	0.0097	0.010	97	mg/L
		Selenium, Dissolved	EPA 200.8	0.0465	0.050	93	mg/L
		Thallium, Dissolved	EPA 200.8	0.0094	0.010	94	mg/L
QC13020181	LCS 1	Total Dissolved Solids (TDS)	SM 2540C	159	150	106	mg/L
QC13020181	LCS 2	Total Dissolved Solids (TDS)	SM 2540C	140	150	93	mg/L
QC13020181	LCS 3	Total Dissolved Solids (TDS)	SM 2540C	141	150	94	mg/L
QC13020181	LCS 4	Total Dissolved Solids (TDS)	SM 2540C	151	150	100	mg/L

QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD
QC13020016	Duplicate	pH	SM 4500-H+ B	1301468-001	4.59	4.61	pH Units	<1%
QC13020016	Duplicate	pH	SM 4500-H+ B	1301473-003	7.41	7.41	pH Units	<1%
QC13020016	Duplicate	pH	SM 4500-H+ B	1301477-001	7.58	7.61	pH Units	<1%
QC13020016	Duplicate	pH	SM 4500-H+ B	1301487-001	7.78	7.82	pH Units	1 %
QC13020016	Duplicate	pH	SM 4500-H+ B	1301487-005	7.74	7.73	pH Units	<1%
QC13020020	Duplicate	Bicarbonate (HCO3)	SM 2320B	1301468-001	<1.000	<1.000	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1301468-001	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1301468-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1301468-001	<1.000	<1.000	mg/L as CaCO3	<1%
QC13020020	Duplicate	Bicarbonate (HCO3)	SM 2320B	1301473-003	174	176	mg/L	1 %
		Carbonate (CO3)	SM 2320B	1301473-003	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1301473-003	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1301473-003	143	144	mg/L as CaCO3	1 %
QC13020020	Duplicate	Bicarbonate (HCO3)	SM 2320B	1301477-001	218	218	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1301477-001	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1301477-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1301477-001	178	179	mg/L as CaCO3	<1%
QC13020020	Duplicate	Bicarbonate (HCO3)	SM 2320B	1301487-001	136	135	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1301487-001	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1301487-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1301487-001	111	111	mg/L as CaCO3	<1%
QC13020020	Duplicate	Bicarbonate (HCO3)	SM 2320B	1301487-005	182	183	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1301487-005	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1301487-005	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1301487-005	150	150	mg/L as CaCO3	<1%
QC13020181	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1301437-001	21.0	23.0	mg/L	9 %
QC13020181	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1301438-006	45.0	45.0	mg/L	<1%
QC13020181	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1301452-008	54.0	57.0	mg/L	5 %

QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD
QC13020181	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1301483-007	96.0	68.0	HT mg/L	12 %
QC13020181	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1302008-004	884	896	mg/L	1 %
QC13020181	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1302031-004	28.0	20.0	mg/L	33 %
QC13020181	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1302031-014	31.0	34.0	mg/L	9 %

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC13020049	MS 1	Fluoride	EPA 300.0	1301481-001	<0.100	1.84	1.87	2.00	mg/L	94	96	2 %
QC13020050	MS 1	Chloride	EPA 300.0	1301481-001	<1.000	4.99	5.10	5.00	mg/L	99	101	2 %
QC13020051	MS 1	Nitrite Nitrogen	EPA 300.0	1301481-001	<0.025	0.524	0.532	0.500	mg/L	105	106	2 %
QC13020053	MS 1	Nitrate Nitrogen	EPA 300.0	1301481-001	<1.000	2.00	2.03	2.00	mg/L	98	100	1 %
QC13020055	MS 1	Sulfate	EPA 300.0	1301481-001	4.91	14.5	14.7	10.0	mg/L	96	98	1 %
QC13020123	MS 1	Aluminum, Dissolved	EPA 200.7	1301473-002	<0.045	0.972	0.969	1.00	mg/L	96	96	<1%
		Barium, Dissolved	EPA 200.7	1301473-002	0.040	1.06	1.06	1.00	mg/L	102	102	<1%
		Beryllium, Dissolved	EPA 200.7	1301473-002	<0.001	0.999	1.00	1.00	mg/L	100	100	<1%
		Bismuth, Dissolved	EPA 200.7	1301473-002	<0.100	1.05	1.05	1.00	mg/L	106	106	<1%
		Boron, Dissolved	EPA 200.7	1301473-002	0.110	1.13	1.13	1.00	mg/L	102	102	<1%
		Cadmium, Dissolved	EPA 200.7	1301473-002	<0.001	1.03	1.03	1.00	mg/L	103	103	<1%
		Calcium, Dissolved	EPA 200.7	1301473-002	51.6	60.3	59.7	10.0	mg/L	87	81	1 %
		Chromium, Dissolved	EPA 200.7	1301473-002	<0.005	0.987	0.991	1.00	mg/L	99	99	<1%
		Cobalt, Dissolved	EPA 200.7	1301473-002	0.010	0.985	0.986	1.00	mg/L	97	98	<1%
		Copper, Dissolved	EPA 200.7	1301473-002	<0.050	4.84	4.84	5.00	mg/L	97	97	<1%
		Gallium, Dissolved	EPA 200.7	1301473-002	<0.100	1.02	1.02	1.00	mg/L	102	102	<1%
		Iron, Dissolved	EPA 200.7	1301473-002	<0.010	1.01	1.00	1.00	mg/L	101	100	1 %
		Lithium, Dissolved	EPA 200.7	1301473-002	<0.100	0.952	0.950	1.00	mg/L	93	93	<1%
		Magnesium, Dissolved	EPA 200.7	1301473-002	24.1	32.2	32.1	10.0	mg/L	81	80	<1%
		Manganese, Dissolved	EPA 200.7	1301473-002	<0.005	0.980	0.983	1.00	mg/L	100	100	<1%
		Molybdenum, Dissolved	EPA 200.7	1301473-002	<0.010	1.06	1.05	1.00	mg/L	106	105	1 %
		Nickel, Dissolved	EPA 200.7	1301473-002	<0.010	4.87	4.89	5.00	mg/L	97	98	<1%
		Phosphorus, Dissolved	EPA 200.7	1301473-002	<0.500	5.45	5.46	5.00	mg/L	107	107	<1%
		Potassium, Dissolved	EPA 200.7	1301473-002	5.67	15.4	15.3	10.0	mg/L	97	96	1 %
		Scandium, Dissolved	EPA 200.7	1301473-002	<0.100	0.990	0.993	1.00	mg/L	99	99	<1%
		Silver, Dissolved	EPA 200.7	1301473-002	<0.005	0.090	0.092	0.090	mg/L	100	103	2 %
		Sodium, Dissolved	EPA 200.7	1301473-002	29.8	39.1	38.9	10.0	mg/L	93	91	1 %
		Strontium, Dissolved	EPA 200.7	1301473-002	0.213	1.16	1.16	1.00	mg/L	95	95	<1%
		Tin, Dissolved	EPA 200.7	1301473-002	<0.100	1.00	0.991	1.00	mg/L	103	102	1 %
		Titanium, Dissolved	EPA 200.7	1301473-002	<0.100	0.984	0.983	1.00	mg/L	98	98	<1%
		Vanadium, Dissolved	EPA 200.7	1301473-002	0.039	1.05	1.05	1.00	mg/L	101	101	<1%
		Zinc, Dissolved	EPA 200.7	1301473-002	<0.010	0.973	0.976	1.00	mg/L	97	97	<1%
QC13020129	MS 1	Aluminum, Dissolved	EPA 200.7	1301487-001	<0.045	0.970	0.967	1.00	mg/L	96	96	<1%
		Barium, Dissolved	EPA 200.7	1301487-001	<0.010	1.01	1.02	1.00	mg/L	100	101	1 %
		Beryllium, Dissolved	EPA 200.7	1301487-001	<0.001	0.989	0.991	1.00	mg/L	99	99	<1%
		Bismuth, Dissolved	EPA 200.7	1301487-001	<0.100	1.02	1.03	1.00	mg/L	103	104	1 %
		Boron, Dissolved	EPA 200.7	1301487-001	<0.100	1.08	1.08	1.00	mg/L	98	98	<1%
		Cadmium, Dissolved	EPA 200.7	1301487-001	<0.001	1.00	1.01	1.00	mg/L	100	101	1 %
		Calcium, Dissolved	EPA 200.7	1301487-001	46.0	54.7	55.2	10.0	mg/L	87	92	1 %
		Chromium, Dissolved	EPA 200.7	1301487-001	0.009	0.989	0.990	1.00	mg/L	98	98	<1%
		Cobalt, Dissolved	EPA 200.7	1301487-001	<0.010	0.977	0.979	1.00	mg/L	98	98	<1%
		Copper, Dissolved	EPA 200.7	1301487-001	<0.050	4.95	4.96	5.00	mg/L	99	99	<1%
		Gallium, Dissolved	EPA 200.7	1301487-001	<0.100	1.02	1.02	1.00	mg/L	102	102	<1%
		Iron, Dissolved	EPA 200.7	1301487-001	0.016	1.01	1.01	1.00	mg/L	99	99	<1%

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
		Lithium, Dissolved	EPA 200.7	1301487-001	<0.100	0.969	0.965	1.00	mg/L	95	95	<1%
		Magnesium, Dissolved	EPA 200.7	1301487-001	6.47	15.7	15.8	10.0	mg/L	92	93	1%
		Manganese, Dissolved	EPA 200.7	1301487-001	<0.005	0.973	0.974	1.00	mg/L	98	99	<1%
		Molybdenum, Dissolved	EPA 200.7	1301487-001	<0.010	1.00	1.00	1.00	mg/L	100	100	<1%
		Nickel, Dissolved	EPA 200.7	1301487-001	<0.010	4.93	4.95	5.00	mg/L	99	99	<1%
		Phosphorus, Dissolved	EPA 200.7	1301487-001	<0.500	5.12	5.15	5.00	mg/L	101	102	1%
		Potassium, Dissolved	EPA 200.7	1301487-001	3.70	13.6	13.6	10.0	mg/L	99	99	<1%
		Scandium, Dissolved	EPA 200.7	1301487-001	<0.100	0.993	0.991	1.00	mg/L	99	99	<1%
		Silver, Dissolved	EPA 200.7	1301487-001	<0.005	0.090	0.089	0.090	mg/L	100	99	1%
		Sodium, Dissolved	EPA 200.7	1301487-001	13.9	23.3	23.3	10.0	mg/L	94	94	<1%
		Strontium, Dissolved	EPA 200.7	1301487-001	0.138	1.10	1.10	1.00	mg/L	96	96	<1%
		Tin, Dissolved	EPA 200.7	1301487-001	<0.100	0.955	0.953	1.00	mg/L	98	98	<1%
		Titanium, Dissolved	EPA 200.7	1301487-001	<0.100	0.970	0.966	1.00	mg/L	97	97	<1%
		Vanadium, Dissolved	EPA 200.7	1301487-001	0.012	1.02	1.02	1.00	mg/L	101	101	<1%
		Zinc, Dissolved	EPA 200.7	1301487-001	<0.010	0.993	1.00	1.00	mg/L	99	100	1%
QC13020140	MS 1	Uranium, Dissolved	EPA 200.8	1301473-002	<0.0050	0.0128	0.0128	0.010	mg/L	100	100	<1%
		Mercury, Dissolved	EPA 200.8	1301473-002	<0.00010	0.000960	0.000959	0.001	mg/L	94	94	<1%
		Antimony, Dissolved	EPA 200.8	1301473-002	<0.0025	0.0091	0.0093	0.010	mg/L	90	92	2%
		Arsenic, Dissolved	EPA 200.8	1301473-002	0.0080	0.0576	0.0573	0.050	mg/L	99	99	1%
		Lead, Dissolved	EPA 200.8	1301473-002	<0.0025	0.0096	0.0097	0.010	mg/L	96	97	1%
		Selenium, Dissolved	EPA 200.8	1301473-002	<0.0050	0.0474	0.0472	0.050	mg/L	90	89	<1%
		Thallium, Dissolved	EPA 200.8	1301473-002	<0.0010	0.0094	0.0095	0.010	mg/L	94	94	1%
QC13020141	MS 1	Uranium, Dissolved	EPA 200.8	1301487-001	0.0075	0.0168	0.0169	0.010	mg/L	93	94	1%
		Mercury, Dissolved	EPA 200.8	1301487-001	<0.00100	0.001003	<0.00100	0.001	mg/L	97	94	#Erro
		Antimony, Dissolved	EPA 200.8	1301487-001	<0.0025	0.0091	0.0093	0.010	mg/L	88	89	2%
		Arsenic, Dissolved	EPA 200.8	1301487-001	<0.0050	0.0517	0.0505	0.050	mg/L	98	96	2%
		Lead, Dissolved	EPA 200.8	1301487-001	<0.0025	0.0096	0.0096	0.010	mg/L	95	95	<1%
		Selenium, Dissolved	EPA 200.8	1301487-001	<0.0050	0.0461	0.0451	0.050	mg/L	88	86	2%
		Thallium, Dissolved	EPA 200.8	1301487-001	<0.0010	0.0093	0.0093	0.010	mg/L	93	93	<1%



WETLAB

WESTERN ENVIRONMENTAL TESTING LABORATORY

Specializing in Soil, Hazardous Waste and Water Analysis.

475 E. Greg Street #119 | Sparks, Nevada 89431

tel (775) 355-0202 | fax (775) 355-0847 | www.WETLaboratory.com

Lab Number

13014823

Report

Due Date:

02-14-13

Page 1 of 1

Client McClelland Laboratories, Inc.

Address 1016 Greg Street

City, State & Zip Sparks, NV 89431

Contact Mike Medina

Phone 775-356-1300

Collector's Name Robert

Fax 775-356-8917

Project Name

P.O. Number

Project Number 3438

Email mli@mettest.com

Turnaround Time

Standard _____ Day _____ Other _____

Billing Address (if different than Client Address):

Company _____

Address _____

City, State & Zip _____

Contact _____

Phone _____

Fax _____

Email _____

Additional Information

Fax Results	Y	N	To: Client	Billing
Email Results	Y	N	To: Client	Billing
Compliance Monitoring	Y	N		
Fax Results to State EPA	Y	N		

Sample Type Codes

DW = Drinking Water	SD = Solid
WW = Wastewater	SO = Soil
SW = Surface Water	HW = Hazardous Waste
MW = Monitoring Well	OTHER: _____

SAMPLE ID / LOCATION

DATE / TIME

NO. OF SAMPLES

Analysis Requested

Profile II w/o Wat	Uranium	Spl. No.
X	X	1
		2
		3
		4
		5
		6
		7
		8
		5
		8

CF-11-02 (227-367)

Wk:32

01/31/13

9:00

WW

2

X

X

CF-11-02 (52-117)

K-Spar Breccia 5+ Comp

Biotite Breccia 5+ Comp

Quartz Monzonite 5+ Comp

Biotite Breccia 0-5 Comp

K-Spar Breccia 0-5 Comp

Quartz Monzonite 0-5 Comp

Instructions/Comments/Special Requirements:

SAMPLE RECEIPT

DATE

TIME

Samples Relinquished By

Samples Received By

Temperature

17.8°C

1/31/13

14:20

[Signature]

[Signature]

Custody Seals Intact? Y N None

Number of Containers 16

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.

To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.

Specializing in Soil, Hazardous Waste and Water Analysis.

2/27/2013

McClelland Laboratory
1016 Greg Street
Sparks, NV 89431
Attn: Mike Medina

OrderID: 1302236

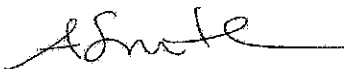
Dear: Mike Medina

This is to transmit the attached analytical report. The analytical data and information contained therein was generated using specified or selected methods contained in references, such as Standard Methods for the Examination of Water and Wastewater, 18th & 19th editions, Methods for Determination of Organic Compounds in Drinking Water, EPA-600/4-79-020, and Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW846) Third Edition.

The samples were received by WETLAB-Western Environmental Testing Laboratory in good condition on 2/14/2013. Additional comments are located on page 2 of this report.

If you should have any questions or comments regarding this report, please do not hesitate to call.

Sincerely,



Andy Smith
QA Manager

SPARKS

475 E. Greg Street, Suite 119
Sparks, Nevada 89431
tel [775] 355-0202
fax [775] 355-0817

ELKO

1084 Lamoille Hwy.
Elko, Nevada 89801
tel [775] 777-9933
fax [775] 777-9933

LAS VEGAS

3230 Polaris Ave., Suite 4
Las Vegas, Nevada 89102
tel [702] 475-8899
fax [702] 776-6152

Western Environmental Testing Laboratory

Report Comments

McClelland Laboratory - 1302236

General Comments

None

Specific Comments

Due to the sample matrix it was necessary to analyze the following at a dilution:

1302236-002 Potassium

The reporting limits have been adjusted accordingly.

Data Qualifier Legend

- B -- Blank contamination; Analyte detected above the method reporting limit in an associated blank
- D -- Reporting limit is elevated due to required sample dilution
- HT -- Sample analyzed beyond the accepted holding time
- J -- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
- M -- Reported value is estimated; The sample matrix interfered with the analysis
- N -- There was insufficient sample available to perform a spike and/or duplicate on this analytical batch.
- NC -- Not calculated due to matrix interference
- Q -- Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
- S -- Surrogate recovery was outside of laboratory acceptance limits due to matrix interference. The associated blank and LCS surrogate recovery was within acceptance limits.
- SC -- Spike recovery not calculated. Sample concentration >4X the spike amount; therefore, the spike could not be adequately recovered.

Western Environmental Testing Laboratory Analytical Report

McClelland Laboratory

1016 Greg Street

Sparks, NV 89431

Attn: Mike Medina

Phone: (775) 356-1300 Fax: (775) 356-8917

PO/Project: 3438 Wk:40

Date Printed: 2/27/2013

OrderID: 1302236

Customer Sample ID: CF-11-02 (0-27) Wk:40

Collect Date/Time: 2/14/2013 09:00

WETLAB Sample ID: 1302236-001

Receive Date: 2/14/2013 14:50

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	8.93	pH Units		2/14/2013
Trace Metals Digestion	EPA 200.2	Complete			2/19/2013
Bicarbonate (HCO ₃)	SM 2320B	44	mg/L	1.0	2/14/2013
Carbonate (CO ₃)	SM 2320B	15	mg/L	1.0	2/14/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	2/14/2013
Total Alkalinity	SM 2320B	61	mg/L as CaCO ₃	1.0	2/14/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	2/15/2013
Fluoride	EPA 300.0	0.98	mg/L	0.10	2/15/2013
Sulfate	EPA 300.0	13	mg/L	1.0	2/15/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	2/15/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	2/15/2013
Total Dissolved Solids (TDS)	SM 2540C	75	mg/L	10	2/20/2013
Aluminum	EPA 200.7	0.048	mg/L	0.045	2/20/2013
Barium	EPA 200.7	<0.010	mg/L	0.010	2/20/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	2/20/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	2/20/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	2/20/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	2/20/2013
Calcium	EPA 200.7	17	mg/L	0.50	2/20/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	2/20/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	2/20/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	2/20/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	2/20/2013
Iron	EPA 200.7	0.010	mg/L	0.010	2/20/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	2/20/2013
Magnesium	EPA 200.7	2.8	mg/L	0.50	2/20/2013
Manganese	EPA 200.7	0.037	mg/L	0.0050	2/20/2013

Page 3 of 9

Customer Sample ID: CF-11-02 (0-27) Wk:40

Collect Date/Time: 2/14/2013 09:00

WETLAB Sample ID: 1302236-001

Receive Date: 2/14/2013 14:50

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	2/20/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	2/20/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	2/20/2013
Potassium	EPA 200.7	1.2	mg/L	0.50	2/20/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	2/20/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	2/20/2013
Sodium	EPA 200.7	0.69	mg/L	0.50	2/20/2013
Strontium	EPA 200.7	0.13	mg/L	0.10	2/20/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	2/20/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	2/20/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	2/20/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	2/20/2013
Mercury	EPA 200.8	0.00011	mg/L	0.00010	2/20/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	2/20/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	2/20/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	2/20/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	2/20/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	2/20/2013
Uranium	EPA 200.8	<0.0050	mg/L	0.0050	2/20/2013
Anions	Calculation	1.54	meq/L	0.10	
Cations	Calculation	1.15	meq/L	0.10	
Error	Calculation	15	%	1.0	

Customer Sample ID: CF-11-02 (367-408) Wk:40

Collect Date/Time: 2/14/2013 09:00

WETLAB Sample ID: 1302236-002

Receive Date: 2/14/2013 14:50

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.61	pH Units		2/14/2013
Trace Metals Digestion	EPA 200.2	Complete			2/19/2013
Bicarbonate (HCO ₃)	SM 2320B	31	mg/L	1.0	2/14/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	2/14/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	2/14/2013
Total Alkalinity	SM 2320B	25	mg/L as CaCO ₃	1.0	2/14/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	2/15/2013
Fluoride	EPA 300.0	0.91	mg/L	0.10	2/15/2013
Sulfate	EPA 300.0	8.1	mg/L	1.0	2/15/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	2/15/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	2/15/2013

Page 4 of 9

Customer Sample ID: CF-11-02 (367-408) Wk:40

Collect Date/Time: 2/14/2013 09:00

WETLAB Sample ID: 1302236-002

Receive Date: 2/14/2013 14:50

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Total Dissolved Solids (TDS)	SM 2540C	45	mg/L	10	2/20/2013
Aluminum	EPA 200.7	0.12	mg/L	0.045	2/20/2013
Barium	EPA 200.7	<0.010	mg/L	0.010	2/20/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	2/20/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	2/20/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	2/20/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	2/20/2013
Calcium	EPA 200.7	12	mg/L	0.50	2/20/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	2/20/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	2/20/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	2/20/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	2/20/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	2/20/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	2/20/2013
Magnesium	EPA 200.7	<0.50	mg/L	0.50	2/20/2013
Manganese	EPA 200.7	0.023	mg/L	0.0050	2/20/2013
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	2/20/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	2/20/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	2/20/2013
Potassium	EPA 200.7	<2.5	mg/L	2.5	2/20/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	2/20/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	2/20/2013
Sodium	EPA 200.7	0.51	mg/L	0.50	2/20/2013
Strontium	EPA 200.7	<0.10	mg/L	0.10	2/20/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	2/20/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	2/20/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	2/20/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	2/20/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	2/20/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	2/20/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	2/20/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	2/20/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	2/20/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	2/20/2013
Uranium	EPA 200.8	<0.0050	mg/L	0.0050	2/20/2013
Anions	Calculation	0.72	meq/L	0.10	
Cations	Calculation	0.64	meq/L	0.10	
Error	Calculation	6.6	%	1.0	

Western Environmental Testing Laboratory QC Report

QCBatchID	QCType	Parameter	Method	Result	Units
QC13020467	Blank 1	Fluoride	EPA 300.0	<0.10	mg/L
QC13020467	Blank 2	Fluoride	EPA 300.0	<0.10	mg/L
QC13020467	Blank 3	Fluoride	EPA 300.0	<0.10	mg/L
QC13020469	Blank 1	Chloride	EPA 300.0	<1.0	mg/L
QC13020469	Blank 2	Chloride	EPA 300.0	<1.0	mg/L
QC13020469	Blank 3	Chloride	EPA 300.0	<1.0	mg/L
QC13020473	Blank 1	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13020473	Blank 2	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13020473	Blank 3	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13020477	Blank 1	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13020477	Blank 2	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13020477	Blank 3	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13020479	Blank 1	Sulfate	EPA 300.0	<1.0	mg/L
QC13020479	Blank 2	Sulfate	EPA 300.0	<1.0	mg/L
QC13020479	Blank 3	Sulfate	EPA 300.0	<1.0	mg/L
QC13020526	Blank 1	Aluminum	EPA 200.7	<0.045	mg/L
		Barium	EPA 200.7	<0.010	mg/L
		Beryllium	EPA 200.7	<0.0010	mg/L
		Bismuth	EPA 200.7	<0.10	mg/L
		Boron	EPA 200.7	<0.100	mg/L
		Cadmium	EPA 200.7	<0.0010	mg/L
		Calcium	EPA 200.7	<0.50	mg/L
		Chromium	EPA 200.7	<0.0050	mg/L
		Cobalt	EPA 200.7	<0.010	mg/L
		Copper	EPA 200.7	<0.050	mg/L
		Gallium	EPA 200.7	<0.10	mg/L
		Iron	EPA 200.7	<0.010	mg/L
		Lithium	EPA 200.7	<0.10	mg/L
		Magnesium	EPA 200.7	<0.50	mg/L
		Manganese	EPA 200.7	<0.0050	mg/L
		Molybdenum	EPA 200.7	<0.010	mg/L
		Nickel	EPA 200.7	<0.010	mg/L
		Phosphorus	EPA 200.7	<0.50	mg/L
		Potassium	EPA 200.7	<0.50	mg/L
		Scandium	EPA 200.7	<0.10	mg/L
		Silver	EPA 200.7	<0.0050	mg/L
		Sodium	EPA 200.7	<0.50	mg/L
		Strontium	EPA 200.7	<0.10	mg/L
		Tin	EPA 200.7	<0.10	mg/L
		Titanium	EPA 200.7	<0.10	mg/L
		Vanadium	EPA 200.7	<0.010	mg/L
		Zinc	EPA 200.7	<0.010	mg/L
QC13020535	Blank 1	Mercury	EPA 200.8	<0.00010	mg/L
		Antimony	EPA 200.8	<0.0025	mg/L
		Arsenic	EPA 200.8	<0.0050	mg/L
		Lead	EPA 200.8	<0.0025	mg/L
		Selenium	EPA 200.8	<0.0050	mg/L

QCBatchID	QCType	Parameter	Method	Result	Units
QC13020628	Blank 1	Thallium	EPA 200.8	<0.0010	mg/L
		Uranium	EPA 200.8	<0.0050	mg/L
		Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC13020422	LCS 1	pH	SM 4500-H+ B	6.99	7.00	100	pH Units
QC13020422	LCS 2	pH	SM 4500-H+ B	6.99	7.00	100	pH Units
QC13020422	LCS 3	pH	SM 4500-H+ B	6.99	7.00	100	pH Units
QC13020425	LCS 1	Total Alkalinity	SM 2320B	98.2	100	98	mg/L
QC13020425	LCS 2	Total Alkalinity	SM 2320B	98.6	100	99	mg/L
QC13020425	LCS 3	Total Alkalinity	SM 2320B	98.8	100	99	mg/L
QC13020425	LCS 4	Total Alkalinity	SM 2320B	99.4	100	99	mg/L
QC13020467	LCS 1	Fluoride	EPA 300.0	2.01	2.00	100	mg/L
QC13020469	LCS 1	Chloride	EPA 300.0	9.71	10.0	97	mg/L
QC13020473	LCS 1	Nitrite Nitrogen	EPA 300.0	0.524	0.500	105	mg/L
QC13020477	LCS 1	Nitrate Nitrogen	EPA 300.0	1.97	2.00	98	mg/L
QC13020479	LCS 1	Sulfate	EPA 300.0	23.7	25.0	95	mg/L
QC13020526	LCS 1	Aluminum	EPA 200.7	0.955	1.00	96	mg/L
		Barium	EPA 200.7	0.978	1.00	98	mg/L
		Beryllium	EPA 200.7	0.988	1.00	99	mg/L
		Bismuth	EPA 200.7	1.02	1.00	102	mg/L
		Boron	EPA 200.7	0.940	1.00	94	mg/L
		Cadmium	EPA 200.7	1.01	1.00	101	mg/L
		Calcium	EPA 200.7	9.84	10.0	98	mg/L
		Chromium	EPA 200.7	0.971	1.00	97	mg/L
		Cobalt	EPA 200.7	0.988	1.00	99	mg/L
		Copper	EPA 200.7	4.67	5.00	93	mg/L
		Gallium	EPA 200.7	0.974	1.00	97	mg/L
		Iron	EPA 200.7	0.955	1.00	96	mg/L
		Lithium	EPA 200.7	0.946	1.00	95	mg/L
		Magnesium	EPA 200.7	9.35	10.0	94	mg/L
		Manganese	EPA 200.7	0.991	1.00	99	mg/L
		Molybdenum	EPA 200.7	0.963	1.00	96	mg/L
		Nickel	EPA 200.7	4.90	5.00	98	mg/L
		Phosphorus	EPA 200.7	5.03	5.00	101	mg/L
		Potassium	EPA 200.7	9.55	10.0	96	mg/L
		Scandium	EPA 200.7	0.950	1.00	95	mg/L
		Silver	EPA 200.7	0.085	0.090	94	mg/L
		Sodium	EPA 200.7	9.31	10.0	93	mg/L
		Strontium	EPA 200.7	0.935	1.00	94	mg/L
		Tin	EPA 200.7	0.972	1.00	97	mg/L
		Titanium	EPA 200.7	0.953	1.00	95	mg/L
		Vanadium	EPA 200.7	0.963	1.00	96	mg/L
		Zinc	EPA 200.7	1.03	1.00	103	mg/L
QC13020535	LCS 1	Mercury	EPA 200.8	0.001014	0.001	101	mg/L
		Antimony	EPA 200.8	0.0094	0.010	94	mg/L
		Arsenic	EPA 200.8	0.0487	0.050	97	mg/L
		Lead	EPA 200.8	0.0098	0.010	98	mg/L
		Selenium	EPA 200.8	0.0464	0.050	93	mg/L
		Thallium	EPA 200.8	0.0098	0.010	98	mg/L
		Uranium	EPA 200.8	0.0097	0.010	97	mg/L
QC13020628	LCS 1	Total Dissolved Solids (TDS)	SM 2540C	157	150	105	mg/L

Duplicate Sample Duplicate

QC Batch ID	QC Type	Parameter	Method	Sample	Result	Result	Units	Recovery
QC13020422	Duplicate	pH		SM 4500-H+ B	1302226-001	7.69	7.70	pH Units <1%
QC13020422	Duplicate	pH		SM 4500-H+ B	1302231-001	7.54	7.56	pH Units <1%
QC13020422	Duplicate	pH		SM 4500-H+ B	1302238-001	7.37	7.40	pH Units <1%
QC13020422	Duplicate	pH		SM 4500-H+ B	1302239-007	10.0	10.1	pH Units 1 %
QC13020422	Duplicate	pH		SM 4500-H+ B	1302249-009	7.38	7.40	pH Units <1%
QC13020425	Duplicate	Bicarbonate (HCO3)	SM 2320B	1302226-001	113	112	mg/L <1%	
		Carbonate (CO3)	SM 2320B	1302226-001	<1.000	<1.000	mg/L <1%	
		Hydroxide (OH)	SM 2320B	1302226-001	<1.000	<1.000	mg/L <1%	
		Total Alkalinity	SM 2320B	1302226-001	92.6	92.2	mg/L as CaCO3 <1%	
QC13020425	Duplicate	Bicarbonate (HCO3)	SM 2320B	1302231-001	260	260	mg/L <1%	
		Carbonate (CO3)	SM 2320B	1302231-001	<1.000	<1.000	mg/L <1%	
		Hydroxide (OH)	SM 2320B	1302231-001	<1.000	<1.000	mg/L <1%	
		Total Alkalinity	SM 2320B	1302231-001	213	214	mg/L as CaCO3 <1%	
QC13020425	Duplicate	Bicarbonate (HCO3)	SM 2320B	1302238-001	118	119	mg/L 1 %	
		Carbonate (CO3)	SM 2320B	1302238-001	<1.000	<1.000	mg/L <1%	
		Hydroxide (OH)	SM 2320B	1302238-001	<1.000	<1.000	mg/L <1%	
		Total Alkalinity	SM 2320B	1302238-001	96.8	97.6	mg/L as CaCO3 1 %	
QC13020425	Duplicate	Bicarbonate (HCO3)	SM 2320B	1302239-007	<1.000	<1.000	mg/L <1%	
		Carbonate (CO3)	SM 2320B	1302239-007	78.9	60.6	mg/L 26 %	
		Hydroxide (OH)	SM 2320B	1302239-007	100	109	mg/L 9 %	
		Total Alkalinity	SM 2320B	1302239-007	425	422	mg/L as CaCO3 1 %	
QC13020425	Duplicate	Bicarbonate (HCO3)	SM 2320B	1302249-009	111	111	mg/L <1%	
		Carbonate (CO3)	SM 2320B	1302249-009	<1.000	<1.000	mg/L <1%	
		Hydroxide (OH)	SM 2320B	1302249-009	<1.000	<1.000	mg/L <1%	
		Total Alkalinity	SM 2320B	1302249-009	90.9	91.1	mg/L as CaCO3 <1%	
QC13020628	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1302236-001	75.0	73.0	mg/L 3 %	
QC13020628	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1302268-001	35.0	26.0	mg/L 30 %	

QC Batch ID	QC Type	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC13020467	MS 1	Fluoride	EPA 300.0	1302236-002	0.907	2.66	2.73	2.00	mg/L	88	91	3 %
QC13020467	MS 2	Fluoride	EPA 300.0	1302265-001	1.05	3.11	3.05	2.00	mg/L	103	100	2 %
QC13020469	MS 1	Chloride	EPA 300.0	1302236-002	<1.000	4.79	4.91	5.00	mg/L	95	97	2 %
QC13020469	MS 2	Chloride	EPA 300.0	1302265-001	5.30	10.3	10.1	5.00	mg/L	99	97	2 %
QC13020473	MS 1	Nitrite Nitrogen	EPA 300.0	1302236-002	<0.025	0.511	0.524	0.500	mg/L	101	103	3 %
QC13020473	MS 2	Nitrite Nitrogen	EPA 300.0	1302265-001	0.107	0.588	0.568	0.500	mg/L	96	92	3 %
QC13020477	MS 1	Nitrate Nitrogen	EPA 300.0	1302236-002	<1.000	1.90	1.96	2.00	mg/L	93	96	3 %
QC13020477	MS 2	Nitrate Nitrogen	EPA 300.0	1302265-001	<1.000	2.28	2.21	2.00	mg/L	104	100	3 %
QC13020479	MS 1	Sulfate	EPA 300.0	1302236-002	8.14	17.3	17.5	10.0	mg/L	91	94	1 %
QC13020479	MS 2	Sulfate	EPA 300.0	1302226-003	<1.000	10.00	10.1	10.0	mg/L	96	97	1 %
QC13020526	MS 1	Aluminum	EPA 200.7	1302271-001	16.0	SC 16.6	16.7	1.00	mg/L	NC	NC	NC
		Barium	EPA 200.7	1302271-001	0.015	0.787	0.789	1.00	mg/L	77	77	<1%
		Beryllium	EPA 200.7	1302271-001	0.013	0.804	0.802	1.00	mg/L	79	79	<1%
		Bismuth	EPA 200.7	1302271-001	<0.100	0.835	0.830	1.00	mg/L	85	85	1 %
		Boron	EPA 200.7	1302271-001	0.236	1.09	1.09	1.00	mg/L	85	85	<1%
		Cadmium	EPA 200.7	1302271-001	0.283	1.06	1.06	1.00	mg/L	78	78	<1%
		Calcium	EPA 200.7	1302271-001	420	SC 343	342	10.0	mg/L	NC	NC	NC

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
		Chromium	EPA 200.7	1302271-001	<0.005	0.781	0.778	1.00	mg/L	78	77	<1%
		Cobalt	EPA 200.7	1302271-001	1.66	2.37	2.37	1.00	mg/L	71	71	<1%
		Copper	EPA 200.7	1302271-001	0.413	4.52	4.53	5.00	mg/L	82	82	<1%
		Gallium	EPA 200.7	1302271-001	<0.100	0.812	0.811	1.00	mg/L	81	81	<1%
		Iron	EPA 200.7	1302271-001	0.135	0.929	0.933	1.00	mg/L	79	80	<1%
		Lithium	EPA 200.7	1302271-001	0.256	1.07	1.07	1.00	mg/L	81	81	<1%
		Magnesium	EPA 200.7	1302271-001	184	195	196	10.0	mg/L	110	120	1 %
		Manganese	EPA 200.7	1302271-001	18.5	SC 19.0	19.1	1.00	mg/L	NC	NC	NC
		Molybdenum	EPA 200.7	1302271-001	<0.010	0.802	0.799	1.00	mg/L	81	81	<1%
		Nickel	EPA 200.7	1302271-001	4.14	7.70	7.70	5.00	mg/L	71	71	<1%
		Phosphorus	EPA 200.7	1302271-001	<0.500	4.46	4.41	5.00	mg/L	90	89	1 %
		Potassium	EPA 200.7	1302271-001	15.3	23.9	24.1	10.0	mg/L	86	88	1 %
		Scandium	EPA 200.7	1302271-001	<0.100	0.809	0.807	1.00	mg/L	81	80	<1%
		Silver	EPA 200.7	1302271-001	<0.005	0.076	0.076	0.090	mg/L	85	85	<1%
		Sodium	EPA 200.7	1302271-001	750	SC 671	688	10.0	mg/L	NC	NC	NC
		Strontium	EPA 200.7	1302271-001	0.827	1.62	1.63	1.00	mg/L	79	80	1 %
		Tin	EPA 200.7	1302271-001	<0.100	0.760	0.755	1.00	mg/L	82	81	1 %
		Titanium	EPA 200.7	1302271-001	<0.100	0.829	0.829	1.00	mg/L	83	83	<1%
		Vanadium	EPA 200.7	1302271-001	0.058	0.877	0.874	1.00	mg/L	82	82	<1%
		Zinc	EPA 200.7	1302271-001	13.0	SC 13.3	13.3	1.00	mg/L	NC	NC	NC
QC13020535	MS 1	Mercury	EPA 200.8	1302271-001	0.007220	SC 0.007841	0.008242	0.001	mg/L	NC	NC	NC
		Antimony	EPA 200.8	1302271-001	0.0250	0.0354	0.0355	0.010	mg/L	104	105	<1%
		Arsenic	EPA 200.8	1302271-001	0.0665	0.1109	0.1113	0.050	mg/L	89	89	<1%
		Lead	EPA 200.8	1302271-001	<0.0050	M 0.0069	0.0068	0.010	mg/L	NC	NC	NC
		Selenium	EPA 200.8	1302271-001	0.6842	0.7442	0.7667	0.050	mg/L	120	165	3 %
		Thallium	EPA 200.8	1302271-001	0.0054	M 0.0118	0.0119	0.010	mg/L	NC	NC	NC
		Uranium	EPA 200.8	1302271-001	0.1497	0.1620	0.1624	0.010	mg/L	123	127	<1%

**WETLAB**
WESTERN ENVIRONMENTAL
TESTING LABORATORY*Specializing in Soil, Hazardous Waste and Water Analysis.*

475 E. Greg Street #119 | Sparks, Nevada 89431

tel [775] 355-0202 | fax [775] 355-0817 | www.WETLaboratory.com

Lab Number 1302236

Report

Due Date:

3/1/13

Page 1 of 1

Client McClelland Laboratories, Inc.

Address 1016 Greg Street

City, State & Zip Sparks, NV 89431

Contact Mike Medina

Phone 775-356-1300

Collector's Name Robert

Fax 775-356-8917

Project Name

P.O. Number

Project Number 3438

Email mli@mettest.com

Turnaround time

Standard _____ 5-Day _____ Other _____

Billing Address (if different than Client Address):

Company _____

Address _____

City, State & Zip _____

Contact _____

Phone _____

Fax _____

Email _____

Additional Information

Fax Results	Y	N	To: Client	Billing
Email Results	Y	N	To: Client	Billing
Compliance Monitoring	Y	N		
Fax Results to State EPA	Y	N		

Sample Type Codes

DW = Drinking Water	SD = Solid
WW = Wastewater	SO = Soil
SW = Surface Water	HW = Hazardous Waste
MW = Monitoring Well	OTHER: _____

SAMPLE ID/LOCATION	DATE	TIME	SAMPLE TYPE	NO OF CONTAINERS	Analyses Requested										Spl. No.							
					Profile II w/o Wat	Uranium																
CF-11-02 (0-27)	02/14/13	9:00	WW	2	X	X															1	
CF-11-02 (367-408)	↓	↓	↓	↓	↓	↓	↓															2
																						1302 5
																						236 2

Instructions/Comments/Special Requirements:

SAMPLE RECEIPT	DATE	TIME	Samples Relinquished By	Samples Received By
Temperature 20.3 °C	2/14/13	1450		
Custody Seals Intact? Y N None				
Number of Containers 4				

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.

To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.

Specializing in Soil, Hazardous Waste and Water Analysis.

3/6/2013

McClelland Laboratory
1016 Greg Street
Sparks, NV 89431
Attn: Mike Medina

OrderID: 1302356

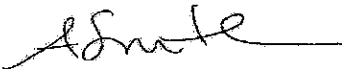
Dear: Mike Medina

This is to transmit the attached analytical report. The analytical data and information contained therein was generated using specified or selected methods contained in references, such as Standard Methods for the Examination of Water and Wastewater, 18th & 19th editions, Methods for Determination of Organic Compounds in Drinking Water, EPA-600/4-79-020, and Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW846) Third Edition.

The samples were received by WETLAB-Western Environmental Testing Laboratory in good condition on 2/21/2013. Additional comments are located on page 2 of this report.

If you should have any questions or comments regarding this report, please do not hesitate to call.

Sincerely,



Andy Smith
QA Manager

SPARKS

475 E. Greg Street, Suite 119
Sparks, Nevada 89431
tel [775] 355-0202
fax [775] 355-0817

ELKO

1084 Lamaille Hwy.
Elko, Nevada 89801
tel [775] 777-9933
fax [775] 777-9933

LAS VEGAS

3230 Polaris Ave., Suite 4
Las Vegas, Nevada 89102
tel [702] 475-8899
fax [702] 776-6152

Western Environmental Testing Laboratory

Report Comments

McClelland Laboratory - 1302356

General Comments

None

Specific Comments

None

Data Qualifier Legend

- B -- Blank contamination; Analyte detected above the method reporting limit in an associated blank
- D -- Reporting limit is elevated due to required sample dilution
- HT -- Sample analyzed beyond the accepted holding time
- J -- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
- M -- Reported value is estimated; The sample matrix interfered with the analysis
- N -- There was insufficient sample available to perform a spike and/or duplicate on this analytical batch.
- NC -- Not calculated due to matrix interference
- Q -- Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
- S -- Surrogate recovery was outside of laboratory acceptance limits due to matrix interference. The associated blank and LCS surrogate recovery was within acceptance limits.
- SC -- Spike recovery not calculated. Sample concentration >4X the spike amount; therefore, the spike could not be adequately recovered.

Western Environmental Testing Laboratory Analytical Report

McClelland Laboratory

1016 Greg Street

Sparks, NV 89431

Attn: Mike Medina

Phone: (775) 356-1300 Fax: (775) 356-8917

PO\Project: 3438 Wk:108

Date Printed: 3/6/2013

OrderID: 1302356

Customer Sample ID: 604 673 Wk:108

Collect Date/Time: 2/21/2013 09:00

WETLAB Sample ID: 1302356-001

Receive Date: 2/21/2013 15:25

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	4.83	pH Units		2/21/2013
Trace Metals Digestion	EPA 200.2	Complete			2/26/2013
Bicarbonate (HCO ₃)	SM 2320B	<1.0	mg/L	1.0	2/22/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	2/22/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	2/22/2013
Total Alkalinity	SM 2320B	<1.0	mg/L as CaCO ₃	1.0	2/22/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	2/22/2013
Fluoride	EPA 300.0	0.22	mg/L	0.10	2/22/2013
Sulfate	EPA 300.0	23	mg/L	1.0	2/22/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	2/22/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	2/22/2013
Total Dissolved Solids (TDS)	SM 2540C	32	mg/L	10	2/26/2013
Aluminum	EPA 200.7	0.16	mg/L	0.045	2/27/2013
Barium	EPA 200.7	0.063	mg/L	0.010	2/27/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	2/27/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	2/27/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	2/27/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	2/27/2013
Calcium	EPA 200.7	6.2	mg/L	0.50	2/27/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	2/27/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	2/27/2013
Copper	EPA 200.7	1.8	mg/L	0.050	2/27/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	2/27/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	2/27/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	2/27/2013
Magnesium	EPA 200.7	0.83	mg/L	0.50	2/27/2013
Manganese	EPA 200.7	0.041	mg/L	0.0050	2/27/2013

Page 3 of 8

Customer Sample ID: 604 673 Wk:108

Collect Date/Time: 2/21/2013 09:00

WETLAB Sample ID: 1302356-001

Receive Date: 2/21/2013 15:25

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	2/27/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	2/27/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	2/27/2013
Potassium	EPA 200.7	0.72	mg/L	0.50	2/27/2013
Scandium	EPA 200.7	<0.100	mg/L	0.100	2/27/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	2/27/2013
Sodium	EPA 200.7	0.94	mg/L	0.50	2/27/2013
Strontium	EPA 200.7	<0.10	mg/L	0.10	2/27/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	2/27/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	2/27/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	2/27/2013
Zinc	EPA 200.7	0.054	mg/L	0.010	2/27/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	2/27/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	2/27/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	2/27/2013
Lead	EPA 200.8	0.0074	mg/L	0.0025	2/27/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	2/27/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	2/27/2013
Uranium	EPA 200.8	0.018	mg/L	0.0050	2/27/2013
Anions	Calculation	0.49	meq/L	0.10	
Cations	Calculation	0.51	meq/L	0.10	
Error	Calculation	2.4	%	1.0	

Western Environmental Testing Laboratory QC Report

QCBatchID	QCType	Parameter	Method	Result	Units
QC13020646	Blank 1	Fluoride	EPA 300.0	<0.10	mg/L
QC13020646	Blank 2	Fluoride	EPA 300.0	<0.10	mg/L
QC13020646	Blank 3	Fluoride	EPA 300.0	<0.10	mg/L
QC13020650	Blank 1	Chloride	EPA 300.0	<1.0	mg/L
QC13020650	Blank 2	Chloride	EPA 300.0	<1.0	mg/L
QC13020650	Blank 3	Chloride	EPA 300.0	<1.0	mg/L
QC13020654	Blank 1	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13020654	Blank 2	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13020654	Blank 3	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13020656	Blank 1	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13020656	Blank 2	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13020656	Blank 3	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13020658	Blank 1	Sulfate	EPA 300.0	<1.0	mg/L
QC13020658	Blank 2	Sulfate	EPA 300.0	<1.0	mg/L
QC13020658	Blank 3	Sulfate	EPA 300.0	<1.0	mg/L
QC13020745	Blank 1	Aluminum, Dissolved	EPA 200.7	<0.045	mg/L
		Barium, Dissolved	EPA 200.7	<0.010	mg/L
		Beryllium, Dissolved	EPA 200.7	<0.0010	mg/L
		Bismuth, Dissolved	EPA 200.7	<0.10	mg/L
		Boron, Dissolved	EPA 200.7	<0.10	mg/L
		Cadmium, Dissolved	EPA 200.7	<0.0010	mg/L
		Calcium, Dissolved	EPA 200.7	<0.50	mg/L
		Chromium, Dissolved	EPA 200.7	<0.0050	mg/L
		Cobalt, Dissolved	EPA 200.7	<0.010	mg/L
		Copper, Dissolved	EPA 200.7	<0.050	mg/L
		Gallium, Dissolved	EPA 200.7	<0.10	mg/L
		Iron, Dissolved	EPA 200.7	<0.010	mg/L
		Lithium, Dissolved	EPA 200.7	<0.10	mg/L
		Magnesium, Dissolved	EPA 200.7	<0.50	mg/L
		Manganese, Dissolved	EPA 200.7	<0.0050	mg/L
		Molybdenum, Dissolved	EPA 200.7	<0.010	mg/L
		Nickel, Dissolved	EPA 200.7	<0.010	mg/L
		Phosphorus, Dissolved	EPA 200.7	<0.50	mg/L
		Potassium, Dissolved	EPA 200.7	<0.50	mg/L
		Scandium, Dissolved	EPA 200.7	<0.10	mg/L
		Silver, Dissolved	EPA 200.7	<0.0050	mg/L
		Sodium, Dissolved	EPA 200.7	<0.50	mg/L
		Strontium, Dissolved	EPA 200.7	<0.10	mg/L
		Tin, Dissolved	EPA 200.7	<0.10	mg/L
		Titanium, Dissolved	EPA 200.7	<0.10	mg/L
		Vanadium, Dissolved	EPA 200.7	<0.010	mg/L
		Zinc, Dissolved	EPA 200.7	<0.010	mg/L
QC13020779	Blank 1	Uranium, Dissolved	EPA 200.8	<0.0050	mg/L
		Mercury, Dissolved	EPA 200.8	<0.00010	mg/L
		Antimony, Dissolved	EPA 200.8	<0.0025	mg/L
		Arsenic, Dissolved	EPA 200.8	<0.0050	mg/L
		Lead, Dissolved	EPA 200.8	<0.0025	mg/L

QCBatchID	QCType	Parameter	Method	Result	Units
		Selenium, Dissolved	EPA 200.8	<0.0050	mg/L
		Thallium, Dissolved	EPA 200.8	<0.0010	mg/L
QC13020800	Blank 1	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC13020599	LCS 1	pH	SM 4500-H+ B	7.00	7.00	100	pH Units
QC13020599	LCS 2	pH	SM 4500-H+ B	7.00	7.00	100	pH Units
QC13020600	LCS 1	Total Alkalinity	SM 2320B	98.4	100	98	mg/L
QC13020600	LCS 2	Total Alkalinity	SM 2320B	93.3	100	93	mg/L
QC13020600	LCS 3	Total Alkalinity	SM 2320B	99.6	100	100	mg/L
QC13020600	LCS 4	Total Alkalinity	SM 2320B	97.4	100	97	mg/L
QC13020646	LCS 1	Fluoride	EPA 300.0	1.81	2.00	91	mg/L
QC13020650	LCS 1	Chloride	EPA 300.0	10.1	10.0	101	mg/L
QC13020654	LCS 1	Nitrite Nitrogen	EPA 300.0	0.457	0.500	91	mg/L
QC13020656	LCS 1	Nitrate Nitrogen	EPA 300.0	2.02	2.00	101	mg/L
QC13020658	LCS 1	Sulfate	EPA 300.0	23.6	25.0	94	mg/L
QC13020745	LCS 1	Aluminum, Dissolved	EPA 200.7	0.965	1.00	96	mg/L
		Barium, Dissolved	EPA 200.7	1.01	1.00	101	mg/L
		Beryllium, Dissolved	EPA 200.7	1.00	1.00	100	mg/L
		Bismuth, Dissolved	EPA 200.7	1.03	1.00	103	mg/L
		Boron, Dissolved	EPA 200.7	0.984	1.00	98	mg/L
		Cadmium, Dissolved	EPA 200.7	1.04	1.00	104	mg/L
		Calcium, Dissolved	EPA 200.7	10.3	10.0	103	mg/L
		Chromium, Dissolved	EPA 200.7	0.994	1.00	99	mg/L
		Cobalt, Dissolved	EPA 200.7	1.01	1.00	101	mg/L
		Copper, Dissolved	EPA 200.7	4.83	5.00	97	mg/L
		Gallium, Dissolved	EPA 200.7	0.981	1.00	98	mg/L
		Iron, Dissolved	EPA 200.7	1.01	1.00	101	mg/L
		Lithium, Dissolved	EPA 200.7	0.984	1.00	98	mg/L
		Magnesium, Dissolved	EPA 200.7	10.2	10.0	102	mg/L
		Manganese, Dissolved	EPA 200.7	0.977	1.00	98	mg/L
		Molybdenum, Dissolved	EPA 200.7	1.03	1.00	103	mg/L
		Nickel, Dissolved	EPA 200.7	5.12	5.00	102	mg/L
		Phosphorus, Dissolved	EPA 200.7	5.40	5.00	108	mg/L
		Potassium, Dissolved	EPA 200.7	9.92	10.0	99	mg/L
		Scandium, Dissolved	EPA 200.7	1.00	1.00	100	mg/L
		Silver, Dissolved	EPA 200.7	0.090	0.090	99	mg/L
		Sodium, Dissolved	EPA 200.7	10.0	10.0	100	mg/L
		Strontium, Dissolved	EPA 200.7	0.974	1.00	97	mg/L
		Tin, Dissolved	EPA 200.7	1.02	1.00	102	mg/L
		Titanium, Dissolved	EPA 200.7	0.989	1.00	99	mg/L
		Vanadium, Dissolved	EPA 200.7	1.00	1.00	100	mg/L
		Zinc, Dissolved	EPA 200.7	1.01	1.00	101	mg/L
QC13020779	LCS 1	Uranium, Dissolved	EPA 200.8	0.0092	0.010	92	mg/L
		Mercury, Dissolved	EPA 200.8	0.000864	0.001	86	mg/L
		Antimony, Dissolved	EPA 200.8	0.0095	0.010	95	mg/L
		Arsenic, Dissolved	EPA 200.8	0.0498	0.050	100	mg/L
		Lead, Dissolved	EPA 200.8	0.0094	0.010	94	mg/L
		Selenium, Dissolved	EPA 200.8	0.0468	0.050	94	mg/L
		Thallium, Dissolved	EPA 200.8	0.0094	0.010	94	mg/L
QC13020800	LCS 1	Total Dissolved Solids (TDS)	SM 2540C	159	150	106	mg/L

QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD
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QC13020599	Duplicate	pH	SM 4500-H+ B	1302342-003	6.79	6.81	pH Units	<1%
QC13020599	Duplicate	pH	SM 4500-H+ B	1302342-004	6.83	6.84	pH Units	<1%
QC13020599	Duplicate	pH	SM 4500-H+ B	1302355-001	5.80	5.86	pH Units	1 %
QC13020599	Duplicate	pH	SM 4500-H+ B	1302356-001	4.83	4.86	pH Units	1 %
QC13020600	Duplicate	Bicarbonate (HCO3)	SM 2320B	1302342-003	232	233	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1302342-003	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1302342-003	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1302342-003	190	191	mg/L as CaCO3	<1%
QC13020600	Duplicate	Bicarbonate (HCO3)	SM 2320B	1302342-004	154	154	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1302342-004	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1302342-004	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1302342-004	126	126	mg/L as CaCO3	<1%
QC13020600	Duplicate	Bicarbonate (HCO3)	SM 2320B	1302355-001	<1.000	<1.000	mg/L	7 %
		Carbonate (CO3)	SM 2320B	1302355-001	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1302355-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1302355-001	<1.000	<1.000	mg/L as CaCO3	7 %
QC13020600	Duplicate	Bicarbonate (HCO3)	SM 2320B	1302356-001	<1.000	<1.000	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1302356-001	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1302356-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1302356-001	<1.000	<1.000	mg/L as CaCO3	<1%
QC13020800	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1302356-001	32.0	30.0	mg/L	6 %
QC13020800	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1302397-004	1002	1002	mg/L	<1%

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC13020646	MS 1	Fluoride	EPA 300.0	1302356-001	0.219	2.26	2.30	2.00	mg/L	102	104	2 %
QC13020646	MS 2	Fluoride	EPA 300.0	1302350-001	<1.000	18.8	18.7	2.00	mg/L	94	93	1 %
QC13020650	MS 1	Chloride	EPA 300.0	1302356-001	<1.000	5.15	5.26	5.00	mg/L	103	105	2 %
QC13020650	MS 2	Chloride	EPA 300.0	1302350-001	141	195	193	5.00	mg/L	108	106	1 %
QC13020654	MS 1	Nitrite Nitrogen	EPA 300.0	1302356-001	<0.025	0.468	0.478	0.500	mg/L	94	96	2 %
QC13020654	MS 2	Nitrite Nitrogen	EPA 300.0	1302372-001	<0.025	0.549	0.556	0.500	mg/L	105	107	1 %
QC13020656	MS 1	Nitrate Nitrogen	EPA 300.0	1302356-001	<1.000	2.17	2.22	2.00	mg/L	106	108	2 %
QC13020656	MS 2	Nitrate Nitrogen	EPA 300.0	1302372-001	<1.000	2.22	2.26	2.00	mg/L	109	110	2 %
QC13020658	MS 1	Sulfate	EPA 300.0	1302356-001	23.5	33.1	33.3	10.0	mg/L	96	99	1 %
QC13020658	MS 2	Sulfate	EPA 300.0	1302350-001	95.6	200	198	10.0	mg/L	105	102	1 %
QC13020745	MS 1	Aluminum, Dissolved	EPA 200.7	1302378-001	<0.045	1.06	1.06	1.00	mg/L	105	105	<1%
		Barium, Dissolved	EPA 200.7	1302378-001	0.163	1.16	1.16	1.00	mg/L	100	100	<1%
		Beryllium, Dissolved	EPA 200.7	1302378-001	<0.001	1.00	0.999	1.00	mg/L	100	100	<1%
		Bismuth, Dissolved	EPA 200.7	1302378-001	<0.100	0.981	0.987	1.00	mg/L	100	101	1 %
		Boron, Dissolved	EPA 200.7	1302378-001	0.230	1.29	1.28	1.00	mg/L	106	105	1 %
		Cadmium, Dissolved	EPA 200.7	1302378-001	<0.001	1.01	1.00	1.00	mg/L	101	100	1 %
		Calcium, Dissolved	EPA 200.7	1302378-001	91.5	100	101	10.0	mg/L	85	95	1 %
		Chromium, Dissolved	EPA 200.7	1302378-001	<0.005	0.998	0.997	1.00	mg/L	100	100	<1%
		Cobalt, Dissolved	EPA 200.7	1302378-001	<0.010	0.981	0.974	1.00	mg/L	97	96	1 %
		Copper, Dissolved	EPA 200.7	1302378-001	<0.050	4.96	4.94	5.00	mg/L	99	99	<1%
		Gallium, Dissolved	EPA 200.7	1302378-001	<0.100	1.00	1.00	1.00	mg/L	100	100	<1%
		Iron, Dissolved	EPA 200.7	1302378-001	<0.010	1.00	1.00	1.00	mg/L	100	100	<1%
		Lithium, Dissolved	EPA 200.7	1302378-001	<0.100	0.955	0.951	1.00	mg/L	93	93	<1%
		Magnesium, Dissolved	EPA 200.7	1302378-001	23.9	33.2	33.3	10.0	mg/L	93	94	<1%

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
		Manganese, Dissolved	EPA 200.7	1302378-001	<0.005	0.935	0.932	1.00	mg/L	96	96	<1%
		Molybdenum, Dissolved	EPA 200.7	1302378-001	<0.010	1.05	1.06	1.00	mg/L	105	106	1%
		Nickel, Dissolved	EPA 200.7	1302378-001	<0.010	4.90	4.89	5.00	mg/L	98	98	<1%
		Phosphorus, Dissolved	EPA 200.7	1302378-001	<0.500	5.93	5.93	5.00	mg/L	113	113	<1%
		Potassium, Dissolved	EPA 200.7	1302378-001	2.30	12.1	12.1	10.0	mg/L	98	98	<1%
		Scandium, Dissolved	EPA 200.7	1302378-001	<0.100	1.00	1.00	1.00	mg/L	100	100	<1%
		Silver, Dissolved	EPA 200.7	1302378-001	<0.005	0.092	0.093	0.090	mg/L	102	102	1%
		Sodium, Dissolved	EPA 200.7	1302378-001	184	SC 189	191	10.0	mg/L	NC	NC	NC
		Strontium, Dissolved	EPA 200.7	1302378-001	0.944	1.89	1.90	1.00	mg/L	95	96	1%
		Tin, Dissolved	EPA 200.7	1302378-001	<0.100	1.00	1.00	1.00	mg/L	104	104	<1%
		Titanium, Dissolved	EPA 200.7	1302378-001	<0.100	0.999	0.996	1.00	mg/L	100	100	<1%
		Vanadium, Dissolved	EPA 200.7	1302378-001	0.028	1.06	1.06	1.00	mg/L	103	103	<1%
		Zinc, Dissolved	EPA 200.7	1302378-001	<0.010	0.974	0.981	1.00	mg/L	97	98	1%
QC13020779	MS 1	Uranium, Dissolved	EPA 200.8	1302378-001	<0.0050	0.0145	0.0144	0.010	mg/L	95	95	1%
		Mercury, Dissolved	EPA 200.8	1302378-001	0.000554	0.001305	0.001312	0.001	mg/L	75	76	1%
		Antimony, Dissolved	EPA 200.8	1302378-001	<0.0025	0.0098	0.0098	0.010	mg/L	96	96	<1%
		Arsenic, Dissolved	EPA 200.8	1302378-001	0.0197	0.0740	0.0726	0.050	mg/L	109	106	2%
		Lead, Dissolved	EPA 200.8	1302378-001	<0.0025	0.0088	0.0087	0.010	mg/L	88	87	1%
		Selenium, Dissolved	EPA 200.8	1302378-001	0.0054	0.0520	0.0531	0.050	mg/L	93	95	2%
		Thallium, Dissolved	EPA 200.8	1302378-001	<0.0010	0.0087	0.0087	0.010	mg/L	87	87	<1%



WETLAB

WESTERN ENVIRONMENTAL TESTING LABORATORY

Specializing in Soil, Hazardous Waste and Water Analysis.

475 E. Greg Street #118 | Sparks, Nevada 89431

tel [775] 355-0202 | fax [775] 355-0817 | www.WETLaboratory.com

Lab Number 1302356

Report

Due Date: 3/7/13

Page 1 of 1

Client McClelland Laboratories, Inc.

Address 1016 Greg Street

City, State & Zip Sparks, NV 89431

Contact Mike Medina

Phone 775-356-1300

Collector's Name Robert

Fax 775-356-8917

Project Name

P.O. Number

Project Number 3438

Email mli@mettest.com

Turnaround Time

Standard 5-Day Other

Billing Address (if different than Client Address):

Company _____

Address _____

City, State & Zip _____

Contact _____

Phone _____

Fax _____

Email _____

Additional Information

Fax Results	Y	N	To: Client	Billing
Email Results	Y	N	To: Client	Billing
Compliance Monitoring	Y	N		
Fax Results to State EPA	Y	N		

Sample Type Codes

DW = Drinking Water	SD = Solid
WW = Wastewater	SO = Soil
SW = Surface Water	HW = Hazardous Waste
MW = Monitoring Well	OTHER: _____

SAMPLE ID/LOCATION	DATE	TIME	NO OF CONTAINERS	Analyses Requested										Spl. No.				
				Profile II w/o Wad	Uranium													
604 673	Wk:108	02/21/13	9:00	WW	2	X	X											

Instructions/Comments/Special Requirements:

SAMPLE RECEIPT	DATE	TIME	Samples Relinquished By	Samples Received By
Temperature <u>19.5</u> °C	<u>2/21/13</u>	<u>3:25p</u>		
Custody Seals Intact? Y N <u>None</u>				
Number of Containers <u>6</u>				

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.

To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.



WETLAB

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Lab Number 1302356

Report

Due Date: 3/7/13

Page 1 of 1

Client McClelland Laboratories, Inc.

Address 1016 Greg Street

City, State & Zip Sparks, NV 89431

Contact Mike Medina

Phone 775-356-1300

Collector's Name Robert

Fax 775-356-8917

Project Name

P.O. Number

Project Number 3438

Email mli@mettest.com

Turnaround Time

Standard _____ 5-Day _____ Other _____

Billing Address (if different than Client Address):

Company _____

Address _____

City, State & Zip _____

Contact _____

Phone _____

Fax _____

Email _____

Additional Information

Fax Results	Y	N	To: Client	Billing
Email Results	Y	N	To: Client	Billing
Compliance Monitoring	Y	N		
Fax Results to State EPA	Y	N		

Sample Type Codes

DW = Drinking Water	SD = Solid
WW = Wastewater	SO = Soil
SW = Surface Water	HW = Hazardous Waste
MW = Monitoring Well	OTHER: _____

SAMPLE TYPE	NO OF CONTAINERS	Analyses Requested										Spl. No.								
		Profile II w/o Wad	Uranium																	
WW	2	X	X																	

SAMPLE ID/LOCATION	DATE	TIME
604 673 Wk:108	02/21/13	9:00

Instructions/Comments/Special Requirements:

SAMPLE RECEIPT	DATE	TIME	Samples Relinquished By	Samples Received By
Temperature 19°C	2/21/13	3:25	<i>[Signature]</i>	<i>[Signature]</i>
Custody Seals Intact? Y N None				
Number of Containers 6				

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30. To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.

Specializing in Soil, Hazardous Waste and Water Analysis.

3/18/2013

McClelland Laboratory
1016 Greg Street
Sparks, NV 89431
Attn: Mike Medina

OrderID: 1302487


Dear: Mike Medina

This is to transmit the attached analytical report. The analytical data and information contained therein was generated using specified or selected methods contained in references, such as Standard Methods for the Examination of Water and Wastewater, 18th & 19th editions, Methods for Determination of Organic Compounds in Drinking Water, EPA-600/4-79-020, and Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW846) Third Edition.

The samples were received by WETLAB-Western Environmental Testing Laboratory in good condition on 2/28/2013. Additional comments are located on page 2 of this report.

If you should have any questions or comments regarding this report, please do not hesitate to call.

Sincerely,



Jennifer Delaney
QA Specialist

SPARKS

475 E. Greg Street, Suite 119
Sparks, Nevada 89431
tel (775) 355-0202
fax (775) 355-0817

ELKO

1084 Lamoille Hwy.
Elko, Nevada 89801
tel (775) 777-9933
fax (775) 777-9933

LAS VEGAS

3230 Polaris Ave., Suite 4
Las Vegas, Nevada 89102
tel (702) 475-8899
fax (702) 776-6152

Western Environmental Testing Laboratory

Report Comments

McClelland Laboratory - 1302487

General Comments

None

Specific Comments

The following is a synopsis of the reanalysis of Total Dissolved Solids

- Sample 1302487-005 reanalysis results for Total Dissolved Solids have been reported.

This reanalysis was performed past the EPA recommended holding time due to an unacceptable cation/anion balance using data obtained within the holding time. We apologize for any inconvenience this may cause.

Data Qualifier Legend

- B -- Blank contamination; Analyte detected above the method reporting limit in an associated blank
- D -- Reporting limit is elevated due to required sample dilution
- HT -- Sample analyzed beyond the accepted holding time
- J -- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
- M -- Reported value is estimated; The sample matrix interfered with the analysis
- N -- There was insufficient sample available to perform a spike and/or duplicate on this analytical batch.
- NC -- Not calculated due to matrix interference
- Q -- Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
- S -- Surrogate recovery was outside of laboratory acceptance limits due to matrix interference. The associated blank and LCS surrogate recovery was within acceptance limits.
- SC -- Spike recovery not calculated. Sample concentration >4X the spike amount; therefore, the spike could not be adequately recovered.

Western Environmental Testing Laboratory Analytical Report

McClelland Laboratory

1016 Greg Street

Sparks, NV 89431

Attn: Mike Medina

Phone: (775) 356-1300 Fax: (775) 356-8917

PO\Project: 3438 Wk: 36

Date Printed: 3/18/2013

OrderID: 1302487

Customer Sample ID: CF-11-02 (227-367) Wk:36

Collect Date/Time: 2/28/2013 09:00

WETLAB Sample ID: 1302487-001

Receive Date: 2/28/2013 14:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.80	pH Units		2/28/2013
Trace Metals Digestion	EPA 200.2	Complete			3/7/2013
Bicarbonate (HCO ₃)	SM 2320B	65	mg/L	1.0	2/28/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	2/28/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	2/28/2013
Total Alkalinity	SM 2320B	54	mg/L as CaCO ₃	1.0	2/28/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	3/2/2013
Fluoride	EPA 300.0	1.0	mg/L	0.10	3/2/2013
Sulfate	EPA 300.0	5.4	mg/L	1.0	3/2/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	3/2/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	3/2/2013
Total Dissolved Solids (TDS)	SM 2540C	67	mg/L	10	3/6/2013
Aluminum	EPA 200.7	0.066	mg/L	0.045	3/8/2013
Barium	EPA 200.7	0.043	mg/L	0.010	3/8/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	3/8/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	3/8/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	3/8/2013
Calcium	EPA 200.7	18	mg/L	0.50	3/8/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	3/8/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	3/8/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Magnesium	EPA 200.7	2.6	mg/L	0.50	3/8/2013
Manganese	EPA 200.7	0.029	mg/L	0.0050	3/8/2013

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Customer Sample ID: CF-11-02 (227-367) Wk:36

Collect Date/Time: 2/28/2013 09:00

WETLAB Sample ID: 1302487-001

Receive Date: 2/28/2013 14:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	3/8/2013
Potassium	EPA 200.7	2.7	mg/L	0.50	3/8/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	3/8/2013
Sodium	EPA 200.7	<0.50	mg/L	0.50	3/8/2013
Strontium	EPA 200.7	0.16	mg/L	0.10	3/8/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	3/11/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	3/12/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	3/11/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	3/11/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	3/11/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	3/11/2013
Uranium	EPA 200.8	<0.0050	mg/L	0.0050	3/11/2013
Anions	Calculation	1.23	meq/L	0.10	
Cations	Calculation	1.19	meq/L	0.10	
Error	Calculation	1.7	%	1.0	

Customer Sample ID: CF-11-02 (52-117) Wk:36

Collect Date/Time: 2/28/2013 09:00

WETLAB Sample ID: 1302487-002

Receive Date: 2/28/2013 14:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.75	pH Units		2/28/2013
Trace Metals Digestion	EPA 200.2	Complete			3/7/2013
Bicarbonate (HCO ₃)	SM 2320B	55	mg/L	1.0	2/28/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	2/28/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	2/28/2013
Total Alkalinity	SM 2320B	45	mg/L as CaCO ₃	1.0	2/28/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	3/2/2013
Fluoride	EPA 300.0	0.82	mg/L	0.10	3/2/2013
Sulfate	EPA 300.0	7.6	mg/L	1.0	3/2/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	3/2/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	3/2/2013

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Customer Sample ID: CF-11-02 (52-117) Wk:36

Collect Date/Time: 2/28/2013 09:00

WETLAB Sample ID: 1302487-002

Receive Date: 2/28/2013 14:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Total Dissolved Solids (TDS)	SM 2540C	59	mg/L	10	3/6/2013
Aluminum	EPA 200.7	0.054	mg/L	0.045	3/8/2013
Barium	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	3/8/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	3/8/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	3/8/2013
Calcium	EPA 200.7	17	mg/L	0.50	3/8/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	3/8/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	3/8/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Magnesium	EPA 200.7	1.5	mg/L	0.50	3/8/2013
Manganese	EPA 200.7	0.024	mg/L	0.0050	3/8/2013
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	3/8/2013
Potassium	EPA 200.7	2.6	mg/L	0.50	3/8/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	3/8/2013
Sodium	EPA 200.7	<0.50	mg/L	0.50	3/8/2013
Strontium	EPA 200.7	0.12	mg/L	0.10	3/8/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	3/12/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	3/12/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	3/12/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	3/12/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	3/12/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	3/12/2013
Uranium	EPA 200.8	0.0077	mg/L	0.0050	3/12/2013
Anions	Calculation	1.10	meq/L	0.10	
Cations	Calculation	1.05	meq/L	0.10	
Error	Calculation	2.7	%	1.0	

Customer Sample ID: K-Spar Breccia 5+ Comp Wk:36

Collect Date/Time: 2/28/2013 09:00

WETLAB Sample ID: 1302487-003

Receive Date: 2/28/2013 14:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.85	pH Units		2/28/2013
Trace Metals Digestion	EPA 200.2	Complete			3/7/2013
Bicarbonate (HCO ₃)	SM 2320B	70	mg/L	1.0	2/28/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	2/28/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	2/28/2013
Total Alkalinity	SM 2320B	57	mg/L as CaCO ₃	1.0	2/28/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	3/2/2013
Fluoride	EPA 300.0	1.1	mg/L	0.10	3/2/2013
Sulfate	EPA 300.0	34	mg/L	1.0	3/2/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	3/2/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	3/2/2013
Total Dissolved Solids (TDS)	SM 2540C	100	mg/L	10	3/6/2013
Aluminum	EPA 200.7	<0.045	mg/L	0.045	3/8/2013
Barium	EPA 200.7	0.11	mg/L	0.010	3/8/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	3/8/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	3/8/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	3/8/2013
Calcium	EPA 200.7	32	mg/L	0.50	3/8/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	3/8/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	3/8/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Magnesium	EPA 200.7	2.7	mg/L	0.50	3/8/2013
Manganese	EPA 200.7	0.051	mg/L	0.0050	3/8/2013
Molybdenum	EPA 200.7	0.049	mg/L	0.010	3/8/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	3/8/2013
Potassium	EPA 200.7	2.6	mg/L	0.50	3/8/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	3/8/2013
Sodium	EPA 200.7	<0.50	mg/L	0.50	3/8/2013
Strontium	EPA 200.7	0.62	mg/L	0.10	3/8/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	3/8/2013

Customer Sample ID: K-Spar Breccia 5+ Comp Wk:36

Collect Date/Time: 2/28/2013 09:00

WETLAB Sample ID: 1302487-003

Receive Date: 2/28/2013 14:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Zinc	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	3/12/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	3/12/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	3/12/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	3/12/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	3/12/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	3/12/2013
Uranium	EPA 200.8	0.019	mg/L	0.0050	3/12/2013
Anions	Calculation	1.91	meq/L	0.10	
Cations	Calculation	1.89	meq/L	0.10	
Error	Calculation	<1.0	%	1.0	

Customer Sample ID: Biotite Breccia 5+ Comp Wk:36

Collect Date/Time: 2/28/2013 09:00

WETLAB Sample ID: 1302487-004

Receive Date: 2/28/2013 14:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.90	pH Units		2/28/2013
Trace Metals Digestion	EPA 200.2	Complete			3/8/2013
Bicarbonate (HCO ₃)	SM 2320B	76	mg/L	1.0	2/28/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	2/28/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	2/28/2013
Total Alkalinity	SM 2320B	62	mg/L as CaCO ₃	1.0	2/28/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	3/2/2013
Fluoride	EPA 300.0	1.4	mg/L	0.10	3/2/2013
Sulfate	EPA 300.0	10	mg/L	1.0	3/2/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	3/2/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	3/2/2013
Total Dissolved Solids (TDS)	SM 2540C	90	mg/L	10	3/6/2013
Aluminum	EPA 200.7	<0.045	mg/L	0.045	3/8/2013
Barium	EPA 200.7	0.073	mg/L	0.010	3/8/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	3/8/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	3/8/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	3/8/2013
Calcium	EPA 200.7	22	mg/L	0.50	3/8/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	3/8/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	3/8/2013

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Customer Sample ID: Biotite Breccia 5+ Comp Wk:36

Collect Date/Time: 2/28/2013 09:00

WETLAB Sample ID: 1302487-004

Receive Date: 2/28/2013 14:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Gallium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Magnesium	EPA 200.7	3.6	mg/L	0.50	3/8/2013
Manganese	EPA 200.7	0.052	mg/L	0.0050	3/8/2013
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	3/8/2013
Potassium	EPA 200.7	2.5	mg/L	0.50	3/8/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	3/8/2013
Sodium	EPA 200.7	<0.50	mg/L	0.50	3/8/2013
Strontium	EPA 200.7	0.26	mg/L	0.10	3/8/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	3/12/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	3/12/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	3/12/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	3/12/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	3/12/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	3/12/2013
Uranium	EPA 200.8	0.0070	mg/L	0.0050	3/12/2013
Anions	Calculation	1.53	meq/L	0.10	
Cations	Calculation	1.46	meq/L	0.10	
Error	Calculation	2.3	%	1.0	

Customer Sample ID: Quartz Monzonite 5+ Comp Wk:36

Collect Date/Time: 2/28/2013 09:00

WETLAB Sample ID: 1302487-005

Receive Date: 2/28/2013 14:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.80	pH Units		2/28/2013
Trace Metals Digestion	EPA 200.2	Complete			3/8/2013
Bicarbonate (HCO ₃)	SM 2320B	58	mg/L	1.0	2/28/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	2/28/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	2/28/2013
Total Alkalinity	SM 2320B	47	mg/L as CaCO ₃	1.0	2/28/2013

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Customer Sample ID: Quartz Monzonite 5+ Comp Wk:36

Collect Date/Time: 2/28/2013 09:00

WETLAB Sample ID: 1302487-005

Receive Date: 2/28/2013 14:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Chloride	EPA 300.0	<1.00	mg/L	1.00	3/2/2013
Fluoride	EPA 300.0	0.87	mg/L	0.10	3/2/2013
Sulfate	EPA 300.0	11	mg/L	1.0	3/2/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	3/2/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	3/2/2013
Total Dissolved Solids (TDS)	SM 2540C	77	HT mg/L	10	3/12/2013
Aluminum	EPA 200.7	<0.045	mg/L	0.045	3/8/2013
Barium	EPA 200.7	0.10	mg/L	0.010	3/8/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	3/8/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	3/8/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	3/8/2013
Calcium	EPA 200.7	17	mg/L	0.50	3/8/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	3/8/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	3/8/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Magnesium	EPA 200.7	3.0	mg/L	0.50	3/8/2013
Manganese	EPA 200.7	0.023	mg/L	0.0050	3/8/2013
Molybdenum	EPA 200.7	0.052	mg/L	0.010	3/8/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	3/8/2013
Potassium	EPA 200.7	2.2	mg/L	0.50	3/8/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	3/8/2013
Sodium	EPA 200.7	<0.50	mg/L	0.50	3/8/2013
Strontium	EPA 200.7	0.43	mg/L	0.10	3/8/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	3/12/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	3/12/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	3/12/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	3/12/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	3/12/2013

Customer Sample ID: Quartz Monzonite 5+ Comp Wk:36

Collect Date/Time: 2/28/2013 09:00

WETLAB Sample ID: 1302487-005

Receive Date: 2/28/2013 14:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	3/12/2013
Uranium	EPA 200.8	0.0092	mg/L	0.0050	3/12/2013
Anions	Calculation	1.23	meq/L	0.10	
Cations	Calculation	1.15	meq/L	0.10	
Error	Calculation	3.1	%	1.0	

Customer Sample ID: Biotite Breccia 0-5 Comp Wk:36

Collect Date/Time: 2/28/2013 09:00

WETLAB Sample ID: 1302487-006

Receive Date: 2/28/2013 14:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.85	pH Units		2/28/2013
Trace Metals Digestion	EPA 200.2	Complete			3/8/2013
Bicarbonate (HCO ₃)	SM 2320B	69	mg/L	1.0	2/28/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	2/28/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	2/28/2013
Total Alkalinity	SM 2320B	57	mg/L as CaCO ₃	1.0	2/28/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	3/2/2013
Fluoride	EPA 300.0	1.4	mg/L	0.10	3/2/2013
Sulfate	EPA 300.0	13	mg/L	1.0	3/2/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	3/2/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	3/2/2013
Total Dissolved Solids (TDS)	SM 2540C	90	mg/L	10	3/6/2013
Aluminum	EPA 200.7	<0.045	mg/L	0.045	3/8/2013
Barium	EPA 200.7	0.097	mg/L	0.010	3/8/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	3/8/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	3/8/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	3/8/2013
Calcium	EPA 200.7	20	mg/L	0.50	3/8/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	3/8/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	3/8/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Magnesium	EPA 200.7	3.8	mg/L	0.50	3/8/2013
Manganese	EPA 200.7	0.024	mg/L	0.0050	3/8/2013
Molybdenum	EPA 200.7	0.014	mg/L	0.010	3/8/2013

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Customer Sample ID: Biotite Breccia 0-5 Comp Wk:36

Collect Date/Time: 2/28/2013 09:00

WETLAB Sample ID: 1302487-006

Receive Date: 2/28/2013 14:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Nickel	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	3/8/2013
Potassium	EPA 200.7	1.7	mg/L	0.50	3/8/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	3/8/2013
Sodium	EPA 200.7	<0.50	mg/L	0.50	3/8/2013
Strontium	EPA 200.7	0.29	mg/L	0.10	3/8/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	3/12/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	3/12/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	3/12/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	3/12/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	3/12/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	3/12/2013
Uranium	EPA 200.8	0.028	mg/L	0.0050	3/12/2013
Anions	Calculation	1.48	meq/L	0.10	
Cations	Calculation	1.36	meq/L	0.10	
Error	Calculation	4.2	%	1.0	

Customer Sample ID: K-Spar Breccia 0-5 Comp Wk:36

Collect Date/Time: 2/28/2013 09:00

WETLAB Sample ID: 1302487-007

Receive Date: 2/28/2013 14:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.82	pH Units		2/28/2013
Trace Metals Digestion	EPA 200.2	Complete			3/8/2013
Bicarbonate (HCO3)	SM 2320B	56	mg/L	1.0	2/28/2013
Carbonate (CO3)	SM 2320B	<1.0	mg/L	1.0	2/28/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	2/28/2013
Total Alkalinity	SM 2320B	46	mg/L as CaCO3	1.0	2/28/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	3/2/2013
Fluoride	EPA 300.0	1.0	mg/L	0.10	3/2/2013
Sulfate	EPA 300.0	11	mg/L	1.0	3/2/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	3/2/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	3/2/2013
Total Dissolved Solids (TDS)	SM 2540C	71	mg/L	10	3/6/2013

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Customer Sample ID: K-Spar Breccia 0-5 Comp Wk:36

Collect Date/Time: 2/28/2013 09:00

WETLAB Sample ID: 1302487-007

Receive Date: 2/28/2013 14:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Aluminum	EPA 200.7	<0.045	mg/L	0.045	3/8/2013
Barium	EPA 200.7	0.12	mg/L	0.010	3/8/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	3/8/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	3/8/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	3/8/2013
Calcium	EPA 200.7	17	mg/L	0.50	3/8/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	3/8/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	3/8/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Magnesium	EPA 200.7	2.9	mg/L	0.50	3/8/2013
Manganese	EPA 200.7	0.026	mg/L	0.0050	3/8/2013
Molybdenum	EPA 200.7	0.014	mg/L	0.010	3/8/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	3/8/2013
Potassium	EPA 200.7	1.4	mg/L	0.50	3/8/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	3/8/2013
Sodium	EPA 200.7	<0.50	mg/L	0.50	3/8/2013
Strontium	EPA 200.7	0.29	mg/L	0.10	3/8/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	3/12/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	3/12/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	3/12/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	3/12/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	3/12/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	3/12/2013
Uranium	EPA 200.8	0.022	mg/L	0.0050	3/12/2013
Anions	Calculation	1.20	meq/L	0.10	
Cations	Calculation	1.12	meq/L	0.10	
Error	Calculation	3.3	%	1.0	

Customer Sample ID: Quartz Monzonite 0-5 Comp Wk:36

Collect Date/Time: 2/28/2013 09:00

WETLAB Sample ID: 1302487-008

Receive Date: 2/28/2013 14:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.49	pH Units		2/28/2013
Trace Metals Digestion	EPA 200.2	Complete			3/8/2013
Bicarbonate (HCO ₃)	SM 2320B	16	mg/L	1.0	2/28/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	2/28/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	2/28/2013
Total Alkalinity	SM 2320B	13	mg/L as CaCO ₃	1.0	2/28/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	3/2/2013
Fluoride	EPA 300.0	<0.10	mg/L	0.10	3/2/2013
Sulfate	EPA 300.0	<1.0	mg/L	1.0	3/2/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	3/2/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	3/2/2013
Total Dissolved Solids (TDS)	SM 2540C	26	mg/L	10	3/6/2013
Aluminum	EPA 200.7	0.051	mg/L	0.045	3/8/2013
Barium	EPA 200.7	0.016	mg/L	0.010	3/8/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	3/8/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	3/8/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	3/8/2013
Calcium	EPA 200.7	4.7	mg/L	0.50	3/8/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	3/8/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	3/8/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Iron	EPA 200.7	0.011	mg/L	0.010	3/8/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Magnesium	EPA 200.7	<0.50	mg/L	0.50	3/8/2013
Manganese	EPA 200.7	<0.0050	mg/L	0.0050	3/8/2013
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	3/8/2013
Potassium	EPA 200.7	<0.50	mg/L	0.50	3/8/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	3/8/2013
Sodium	EPA 200.7	<0.50	mg/L	0.50	3/8/2013
Strontium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	3/8/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	3/8/2013

Customer Sample ID: Quartz Monzonite 0-5 Comp Wk:36

Collect Date/Time: 2/28/2013 09:00

WETLAB Sample ID: 1302487-008

Receive Date: 2/28/2013 14:10

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Zinc	EPA 200.7	<0.010	mg/L	0.010	3/8/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	3/12/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	3/12/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	3/12/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	3/12/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	3/12/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	3/12/2013
Uranium	EPA 200.8	<0.0050	mg/L	0.0050	3/12/2013
Anions	Calculation	0.26	meq/L	0.10	
Cations	Calculation	0.24	meq/L	0.10	
Error	Calculation	4.3	%	1.0	

Western Environmental Testing Laboratory QC Report

QCBatchID	QCType	Parameter	Method	Result	Units
QC13030045	Blank 1	Fluoride	EPA 300.0	<0.10	mg/L
QC13030045	Blank 2	Fluoride	EPA 300.0	<0.10	mg/L
QC13030045	Blank 3	Fluoride	EPA 300.0	<0.10	mg/L
QC13030049	Blank 1	Chloride	EPA 300.0	<1.0	mg/L
QC13030049	Blank 2	Chloride	EPA 300.0	<1.0	mg/L
QC13030049	Blank 3	Chloride	EPA 300.0	<1.0	mg/L
QC13030057	Blank 1	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13030057	Blank 2	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13030057	Blank 3	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13030061	Blank 1	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13030061	Blank 2	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13030061	Blank 3	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13030065	Blank 1	Sulfate	EPA 300.0	<1.0	mg/L
QC13030065	Blank 2	Sulfate	EPA 300.0	<1.0	mg/L
QC13030065	Blank 3	Sulfate	EPA 300.0	<1.0	mg/L
QC13030280	Blank 1	Mercury	EPA 200.8	<0.00010	mg/L
		Antimony	EPA 200.8	<0.0025	mg/L
		Arsenic	EPA 200.8	<0.0050	mg/L
		Lead	EPA 200.8	<0.0025	mg/L
		Selenium	EPA 200.8	<0.0050	mg/L
		Thallium	EPA 200.8	<0.0010	mg/L
		Uranium	EPA 200.8	<0.0050	mg/L
QC13030290	Blank 1	Aluminum	EPA 200.7	<0.045	mg/L
		Barium	EPA 200.7	<0.010	mg/L
		Beryllium	EPA 200.7	<0.0010	mg/L
		Bismuth	EPA 200.7	<0.10	mg/L
		Boron	EPA 200.7	<0.100	mg/L
		Cadmium	EPA 200.7	<0.0010	mg/L
		Calcium	EPA 200.7	<0.50	mg/L
		Chromium	EPA 200.7	<0.0050	mg/L
		Cobalt	EPA 200.7	<0.010	mg/L
		Copper	EPA 200.7	<0.050	mg/L
		Gallium	EPA 200.7	<0.10	mg/L
		Iron	EPA 200.7	<0.010	mg/L
		Lithium	EPA 200.7	<0.10	mg/L
		Magnesium	EPA 200.7	<0.50	mg/L
		Manganese	EPA 200.7	<0.0050	mg/L
		Molybdenum	EPA 200.7	<0.010	mg/L
		Nickel	EPA 200.7	<0.010	mg/L
		Phosphorus	EPA 200.7	<0.50	mg/L
		Potassium	EPA 200.7	<0.50	mg/L
		Scandium	EPA 200.7	<0.10	mg/L
		Silver	EPA 200.7	<0.0050	mg/L
		Sodium	EPA 200.7	<0.50	mg/L
		Strontium	EPA 200.7	<0.10	mg/L
		Tin	EPA 200.7	<0.10	mg/L
		Titanium	EPA 200.7	<0.10	mg/L

QCBatchID	QCType	Parameter	Method	Result	Units
QC13030293	Blank 1	Vanadium	EPA 200.7	<0.010	mg/L
		Zinc	EPA 200.7	<0.010	mg/L
		Aluminum, Dissolved	EPA 200.7	<0.045	mg/L
		Barium, Dissolved	EPA 200.7	<0.010	mg/L
		Beryllium, Dissolved	EPA 200.7	<0.0010	mg/L
		Bismuth, Dissolved	EPA 200.7	<0.10	mg/L
		Boron, Dissolved	EPA 200.7	<0.10	mg/L
		Cadmium, Dissolved	EPA 200.7	<0.0010	mg/L
		Calcium, Dissolved	EPA 200.7	<0.50	mg/L
		Chromium, Dissolved	EPA 200.7	<0.0050	mg/L
		Cobalt, Dissolved	EPA 200.7	<0.010	mg/L
		Copper, Dissolved	EPA 200.7	<0.050	mg/L
		Gallium, Dissolved	EPA 200.7	<0.10	mg/L
		Iron, Dissolved	EPA 200.7	<0.010	mg/L
		Lithium, Dissolved	EPA 200.7	<0.10	mg/L
		Magnesium, Dissolved	EPA 200.7	<0.50	mg/L
		Manganese, Dissolved	EPA 200.7	<0.0050	mg/L
		Molybdenum, Dissolved	EPA 200.7	<0.010	mg/L
		Nickel, Dissolved	EPA 200.7	<0.010	mg/L
		Phosphorus, Dissolved	EPA 200.7	<0.50	mg/L
		Potassium, Dissolved	EPA 200.7	<0.50	mg/L
		Scandium, Dissolved	EPA 200.7	<0.10	mg/L
		Silver, Dissolved	EPA 200.7	<0.0050	mg/L
Sodium, Dissolved	EPA 200.7	<0.50	mg/L		
Strontium, Dissolved	EPA 200.7	<0.10	mg/L		
Tin, Dissolved	EPA 200.7	<0.10	mg/L		
Titanium, Dissolved	EPA 200.7	<0.10	mg/L		
Vanadium, Dissolved	EPA 200.7	<0.010	mg/L		
Zinc, Dissolved	EPA 200.7	<0.010	mg/L		
QC13030347	Blank 1	Uranium, Dissolved	EPA 200.8	<0.0050	mg/L
		Mercury, Dissolved	EPA 200.8	<0.00010	mg/L
		Antimony, Dissolved	EPA 200.8	<0.0025	mg/L
		Arsenic, Dissolved	EPA 200.8	<0.0050	mg/L
		Lead, Dissolved	EPA 200.8	<0.0025	mg/L
		Selenium, Dissolved	EPA 200.8	<0.0050	mg/L
		Thallium, Dissolved	EPA 200.8	<0.0010	mg/L
QC13030478	Blank 1	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L
QC13030478	Blank 2	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L
QC13030478	Blank 3	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC13030010	LCS 1	pH	SM 4500-H+ B	7.00	7.00	100	pH Units
QC13030010	LCS 2	pH	SM 4500-H+ B	7.00	7.00	100	pH Units
QC13030010	LCS 3	pH	SM 4500-H+ B	7.00	7.00	100	pH Units
QC13030045	LCS 1	Fluoride	EPA 300.0	1.81	2.00	90	mg/L
QC13030049	LCS 1	Chloride	EPA 300.0	10.2	10.0	102	mg/L
QC13030057	LCS 1	Nitrite Nitrogen	EPA 300.0	0.507	0.500	101	mg/L
QC13030061	LCS 1	Nitrate Nitrogen	EPA 300.0	2.02	2.00	101	mg/L
QC13030065	LCS 1	Sulfate	EPA 300.0	24.0	25.0	96	mg/L
QC13030280	LCS 1	Mercury	EPA 200.8	0.000911	0.001	91	mg/L
		Antimony	EPA 200.8	0.0100	0.010	100	mg/L
		Arsenic	EPA 200.8	0.0519	0.050	104	mg/L
		Lead	EPA 200.8	0.0098	0.010	98	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC13030290	LCS 1	Selenium	EPA 200.8	0.0503	0.050	101	mg/L
		Thallium	EPA 200.8	0.0098	0.010	98	mg/L
		Uranium	EPA 200.8	0.0098	0.010	98	mg/L
		Aluminum	EPA 200.7	1.01	1.00	101	mg/L
		Barium	EPA 200.7	1.01	1.00	101	mg/L
		Beryllium	EPA 200.7	1.00	1.00	100	mg/L
		Bismuth	EPA 200.7	1.04	1.00	104	mg/L
		Boron	EPA 200.7	1.01	1.00	101	mg/L
		Cadmium	EPA 200.7	1.02	1.00	102	mg/L
		Calcium	EPA 200.7	10.1	10.0	101	mg/L
		Chromium	EPA 200.7	1.00	1.00	100	mg/L
		Cobalt	EPA 200.7	1.01	1.00	101	mg/L
		Copper	EPA 200.7	4.98	5.00	100	mg/L
		Gallium	EPA 200.7	1.01	1.00	101	mg/L
		Iron	EPA 200.7	0.997	1.00	100	mg/L
		Lithium	EPA 200.7	0.994	1.00	99	mg/L
		Magnesium	EPA 200.7	10.0	10.0	100	mg/L
		Manganese	EPA 200.7	0.998	1.00	100	mg/L
		Molybdenum	EPA 200.7	1.00	1.00	100	mg/L
		Nickel	EPA 200.7	5.09	5.00	102	mg/L
		Phosphorus	EPA 200.7	5.18	5.00	104	mg/L
		Potassium	EPA 200.7	10.2	10.0	102	mg/L
		Scandium	EPA 200.7	1.01	1.00	101	mg/L
Silver	EPA 200.7	0.092	0.090	102	mg/L		
Sodium	EPA 200.7	9.86	10.0	99	mg/L		
Strontium	EPA 200.7	1.00	1.00	100	mg/L		
Tin	EPA 200.7	0.992	1.00	99	mg/L		
Titanium	EPA 200.7	1.00	1.00	100	mg/L		
Vanadium	EPA 200.7	1.01	1.00	101	mg/L		
Zinc	EPA 200.7	1.03	1.00	103	mg/L		
QC13030293	LCS 1	Aluminum, Dissolved	EPA 200.7	0.991	1.00	99	mg/L
		Barium, Dissolved	EPA 200.7	0.980	1.00	98	mg/L
		Beryllium, Dissolved	EPA 200.7	1.00	1.00	100	mg/L
		Bismuth, Dissolved	EPA 200.7	1.02	1.00	102	mg/L
		Boron, Dissolved	EPA 200.7	0.986	1.00	99	mg/L
		Cadmium, Dissolved	EPA 200.7	0.989	1.00	99	mg/L
		Calcium, Dissolved	EPA 200.7	9.88	10.0	99	mg/L
		Chromium, Dissolved	EPA 200.7	0.979	1.00	98	mg/L
		Cobalt, Dissolved	EPA 200.7	0.988	1.00	99	mg/L
		Copper, Dissolved	EPA 200.7	4.99	5.00	100	mg/L
		Gallium, Dissolved	EPA 200.7	0.992	1.00	99	mg/L
		Iron, Dissolved	EPA 200.7	0.956	1.00	96	mg/L
		Lithium, Dissolved	EPA 200.7	1.00	1.00	100	mg/L
		Magnesium, Dissolved	EPA 200.7	9.51	10.0	95	mg/L
		Manganese, Dissolved	EPA 200.7	0.995	1.00	100	mg/L
		Molybdenum, Dissolved	EPA 200.7	0.951	1.00	95	mg/L
		Nickel, Dissolved	EPA 200.7	4.88	5.00	98	mg/L
		Phosphorus, Dissolved	EPA 200.7	4.87	5.00	97	mg/L
		Potassium, Dissolved	EPA 200.7	10.1	10.0	101	mg/L
		Scandium, Dissolved	EPA 200.7	0.986	1.00	99	mg/L
		Silver, Dissolved	EPA 200.7	0.090	0.090	99	mg/L
		Sodium, Dissolved	EPA 200.7	10.0	10.0	100	mg/L
		Strontium, Dissolved	EPA 200.7	1.01	1.00	101	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC13030347	LCS 1	Tin, Dissolved	EPA 200.7	0.962	1.00	96	mg/L
		Titanium, Dissolved	EPA 200.7	1.00	1.00	100	mg/L
		Vanadium, Dissolved	EPA 200.7	0.977	1.00	98	mg/L
		Zinc, Dissolved	EPA 200.7	0.979	1.00	98	mg/L
		Uranium, Dissolved	EPA 200.8	0.0099	0.010	99	mg/L
		Mercury, Dissolved	EPA 200.8	0.000896	0.001	90	mg/L
		Antimony, Dissolved	EPA 200.8	0.0097	0.010	97	mg/L
		Arsenic, Dissolved	EPA 200.8	0.0510	0.050	102	mg/L
		Lead, Dissolved	EPA 200.8	0.0099	0.010	99	mg/L
		Selenium, Dissolved	EPA 200.8	0.0487	0.050	98	mg/L
QC13030408	LCS 1	Thallium, Dissolved	EPA 200.8	0.0100	0.010	100	mg/L
QC13030408	LCS 2	Total Alkalinity	SM 2320B	98.9	100	99	mg/L
QC13030478	LCS 1	Total Alkalinity	SM 2320B	99.0	100	99	mg/L
QC13030478	LCS 2	Total Dissolved Solids (TDS)	SM 2540C	144	150	96	mg/L
QC13030478	LCS 2	Total Dissolved Solids (TDS)	SM 2540C	156	150	104	mg/L
QC13030478	LCS 3	Total Dissolved Solids (TDS)	SM 2540C	143	150	95	mg/L

QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD
QC13030010	Duplicate	pH	SM 4500-H+ B	1302474-001	7.78	7.77	pH Units	<1%
QC13030010	Duplicate	pH	SM 4500-H+ B	1302484-001	10.2	10.2	pH Units	<1%
QC13030010	Duplicate	pH	SM 4500-H+ B	1302488-002	8.11	8.12	pH Units	<1%
QC13030010	Duplicate	pH	SM 4500-H+ B	1302484-002	10.1	10.1	pH Units	<1%
QC13030010	Duplicate	pH	SM 4500-H+ B	1302484-003	10.2	10.2	pH Units	<1%
QC13030010	Duplicate	pH	SM 4500-H+ B	1302497-003	7.79	7.84	pH Units	1 %
QC13030010	Duplicate	pH	SM 4500-H+ B	1302493-004	7.56	7.59	pH Units	<1%
QC13030408	Duplicate	Bicarbonate (HCO3)	SM 2320B	1302474-001	173	173	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1302474-001	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1302474-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1302474-001	142	142	mg/L as CaCO3	<1%
QC13030408	Duplicate	Bicarbonate (HCO3)	SM 2320B	1302484-001	67.3	65.3	mg/L	3 %
		Carbonate (CO3)	SM 2320B	1302484-001	218	220	mg/L	1 %
		Hydroxide (OH)	SM 2320B	1302484-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1302484-001	418	419	mg/L as CaCO3	<1%
QC13030408	Duplicate	Bicarbonate (HCO3)	SM 2320B	1302484-002	13.2	13.7	mg/L	4 %
		Carbonate (CO3)	SM 2320B	1302484-002	90.1	89.6	mg/L	1 %
		Hydroxide (OH)	SM 2320B	1302484-002	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1302484-002	160	160	mg/L as CaCO3	<1%
QC13030408	Duplicate	Bicarbonate (HCO3)	SM 2320B	1302497-003	127	126	mg/L	1 %
		Carbonate (CO3)	SM 2320B	1302497-003	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1302497-003	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1302497-003	104	103	mg/L as CaCO3	1 %
QC13030478	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1303097-001	575	582	mg/L	1 %
QC13030478	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1303098-003	98.0	93.0	mg/L	5 %
QC13030478	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1303134-002	604	604	mg/L	<1%
QC13030478	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1303168-003	1410	1448	mg/L	3 %

QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD				
QC13030478	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1303185-003	1082	1086	mg/L	<1%				
QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC13030045	MS 1	Fluoride	EPA 300.0	1302485-022	0.706	2.54	2.55	2.00	mg/L	92	92	<1%
QC13030045	MS 2	Fluoride	EPA 300.0	1302487-008	<0.100	1.92	1.95	2.00	mg/L	93	94	2 %
QC13030049	MS 1	Chloride	EPA 300.0	1302485-022	2.83	8.19	8.24	5.00	mg/L	107	108	1 %
QC13030049	MS 2	Chloride	EPA 300.0	1302487-008	<1.000	5.29	5.37	5.00	mg/L	106	108	2 %
QC13030057	MS 1	Nitrite Nitrogen	EPA 300.0	1302485-022	0.074	0.606	0.612	0.500	mg/L	106	108	1 %
QC13030057	MS 2	Nitrite Nitrogen	EPA 300.0	1302487-008	<0.025	0.531	0.538	0.500	mg/L	105	106	1 %
QC13030061	MS 1	Nitrate Nitrogen	EPA 300.0	1302485-022	<1.000	2.27	2.30	2.00	mg/L	108	109	1 %
QC13030061	MS 2	Nitrate Nitrogen	EPA 300.0	1302487-008	<1.000	2.21	2.24	2.00	mg/L	108	110	1 %
QC13030065	MS 1	Sulfate	EPA 300.0	1302485-022	12.0	22.1	22.2	10.0	mg/L	101	102	<1%
QC13030065	MS 2	Sulfate	EPA 300.0	1302487-008	<1.000	10.8	10.9	10.0	mg/L	102	103	1 %
QC13030280	MS 1	Mercury	EPA 200.8	1302438-002	<0.00010	0.000901	0.000904	0.001	mg/L	90	90	<1%
		Antimony	EPA 200.8	1302438-002	<0.0025	0.0099	0.0099	0.010	mg/L	99	99	<1%
		Arsenic	EPA 200.8	1302438-002	<0.0050	0.0501	0.0495	0.050	mg/L	100	99	1 %
		Lead	EPA 200.8	1302438-002	<0.0025	0.0098	0.0099	0.010	mg/L	98	99	1 %
		Selenium	EPA 200.8	1302438-002	<0.0050	0.0464	0.0462	0.050	mg/L	93	92	<1%
		Thallium	EPA 200.8	1302438-002	<0.0010	0.0097	0.0097	0.010	mg/L	97	98	<1%
		Uranium	EPA 200.8	1302438-002	<0.0050	0.0097	0.0098	0.010	mg/L	97	98	1 %
QC13030290	MS 1	Aluminum	EPA 200.7	1302438-002	<0.045	1.01	1.01	1.00	mg/L	101	101	<1%
		Barium	EPA 200.7	1302438-002	<0.010	1.02	1.01	1.00	mg/L	102	101	1 %
		Beryllium	EPA 200.7	1302438-002	<0.001	1.01	1.00	1.00	mg/L	101	100	1 %
		Bismuth	EPA 200.7	1302438-002	<0.100	1.04	1.04	1.00	mg/L	103	103	<1%
		Boron	EPA 200.7	1302438-002	<0.100	1.02	1.02	1.00	mg/L	102	102	<1%
		Cadmium	EPA 200.7	1302438-002	<0.001	1.02	1.02	1.00	mg/L	102	102	<1%
		Calcium	EPA 200.7	1302438-002	<0.500	10.2	10.1	10.0	mg/L	101	100	1 %
		Chromium	EPA 200.7	1302438-002	<0.005	1.01	1.01	1.00	mg/L	101	101	<1%
		Cobalt	EPA 200.7	1302438-002	<0.010	1.01	1.01	1.00	mg/L	101	101	<1%
		Copper	EPA 200.7	1302438-002	<0.050	4.96	4.97	5.00	mg/L	99	99	<1%
		Gallium	EPA 200.7	1302438-002	<0.100	1.01	1.01	1.00	mg/L	101	101	<1%
		Iron	EPA 200.7	1302438-002	<0.010	0.992	0.984	1.00	mg/L	99	98	1 %
		Lithium	EPA 200.7	1302438-002	<0.100	0.996	1.00	1.00	mg/L	100	100	<1%
		Magnesium	EPA 200.7	1302438-002	<0.500	9.84	9.82	10.0	mg/L	98	98	<1%
		Manganese	EPA 200.7	1302438-002	<0.005	1.01	1.01	1.00	mg/L	101	101	<1%
		Molybdenum	EPA 200.7	1302438-002	<0.010	0.988	0.987	1.00	mg/L	99	99	<1%
		Nickel	EPA 200.7	1302438-002	<0.010	5.07	5.07	5.00	mg/L	101	101	<1%
		Phosphorus	EPA 200.7	1302438-002	<0.500	5.10	5.08	5.00	mg/L	101	100	<1%
		Potassium	EPA 200.7	1302438-002	<0.500	10.2	10.2	10.0	mg/L	102	102	<1%
		Scandium	EPA 200.7	1302438-002	<0.100	1.00	0.996	1.00	mg/L	100	100	<1%
		Silver	EPA 200.7	1302438-002	<0.005	0.091	0.092	0.090	mg/L	101	102	1 %
		Sodium	EPA 200.7	1302438-002	<0.500	10.5	10.5	10.0	mg/L	102	102	<1%
		Strontium	EPA 200.7	1302438-002	<0.100	1.01	1.01	1.00	mg/L	101	101	<1%
		Tin	EPA 200.7	1302438-002	<0.100	0.988	0.986	1.00	mg/L	99	98	<1%
		Titanium	EPA 200.7	1302438-002	<0.100	1.00	1.00	1.00	mg/L	100	100	<1%
		Vanadium	EPA 200.7	1302438-002	<0.010	1.01	1.01	1.00	mg/L	101	101	<1%
		Zinc	EPA 200.7	1302438-002	<0.010	1.02	1.02	1.00	mg/L	102	102	<1%
QC13030293	MS 1	Aluminum, Dissolved	EPA 200.7	1303119-002	<0.045	1.04	1.03	1.00	mg/L	103	102	1 %
		Barium, Dissolved	EPA 200.7	1303119-002	0.092	1.06	1.07	1.00	mg/L	97	98	1 %
		Beryllium, Dissolved	EPA 200.7	1303119-002	<0.001	0.993	1.01	1.00	mg/L	99	101	2 %
		Bismuth, Dissolved	EPA 200.7	1303119-002	<0.100	0.978	0.977	1.00	mg/L	99	99	<1%

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
		Boron, Dissolved	EPA 200.7	1303119-002	0.344	1.38	1.40	1.00	mg/L	104	106	1 %
		Cadmium, Dissolved	EPA 200.7	1303119-002	<0.001	0.965	0.985	1.00	mg/L	97	99	2 %
		Calcium, Dissolved	EPA 200.7	1303119-002	62.0	72.2	73.4	10.0	mg/L	102	114	2 %
		Chromium, Dissolved	EPA 200.7	1303119-002	<0.005	0.975	0.987	1.00	mg/L	97	99	1 %
		Cobalt, Dissolved	EPA 200.7	1303119-002	<0.010	0.926	0.940	1.00	mg/L	92	94	2 %
		Copper, Dissolved	EPA 200.7	1303119-002	<0.050	4.85	4.86	5.00	mg/L	97	97	<1%
		Gallium, Dissolved	EPA 200.7	1303119-002	<0.100	1.01	1.00	1.00	mg/L	101	100	1 %
		Iron, Dissolved	EPA 200.7	1303119-002	<0.010	0.943	0.953	1.00	mg/L	94	95	1 %
		Lithium, Dissolved	EPA 200.7	1303119-002	0.138	1.09	1.08	1.00	mg/L	95	94	1 %
		Magnesium, Dissolved	EPA 200.7	1303119-002	21.9	29.9	30.7	10.0	mg/L	80	88	3 %
		Manganese, Dissolved	EPA 200.7	1303119-002	<0.005	0.978	0.992	1.00	mg/L	99	100	1 %
		Molybdenum, Dissolved	EPA 200.7	1303119-002	<0.010	0.969	0.971	1.00	mg/L	97	97	<1%
		Nickel, Dissolved	EPA 200.7	1303119-002	<0.010	4.58	4.64	5.00	mg/L	92	93	1 %
		Phosphorus, Dissolved	EPA 200.7	1303119-002	<0.500	5.09	5.16	5.00	mg/L	100	102	1 %
		Potassium, Dissolved	EPA 200.7	1303119-002	10.8	20.6	20.5	10.0	mg/L	98	97	<1%
		Scandium, Dissolved	EPA 200.7	1303119-002	<0.100	0.974	0.975	1.00	mg/L	97	97	<1%
		Silver, Dissolved	EPA 200.7	1303119-002	<0.005	0.090	0.090	0.090	mg/L	101	100	<1%
		Sodium, Dissolved	EPA 200.7	1303119-002	35.8	46.1	44.3	10.0	mg/L	103	85	4 %
		Strontium, Dissolved	EPA 200.7	1303119-002	0.386	1.39	1.33	1.00	mg/L	100	94	4 %
		Tin, Dissolved	EPA 200.7	1303119-002	<0.100	0.949	0.967	1.00	mg/L	98	100	2 %
		Titanium, Dissolved	EPA 200.7	1303119-002	<0.100	1.00	1.00	1.00	mg/L	100	100	<1%
		Vanadium, Dissolved	EPA 200.7	1303119-002	0.017	1.01	1.02	1.00	mg/L	99	100	1 %
		Zinc, Dissolved	EPA 200.7	1303119-002	0.015	0.950	0.967	1.00	mg/L	94	95	2 %
QC13030347	MS 1	Uranium, Dissolved	EPA 200.8	1303119-002	<0.0050	0.0100	0.0100	0.010	mg/L	99	99	<1%
		Mercury, Dissolved	EPA 200.8	1303119-002	<0.00010	0.000878	0.000874	0.001	mg/L	84	84	<1%
		Antimony, Dissolved	EPA 200.8	1303119-002	0.0051	0.0148	0.0149	0.010	mg/L	97	99	1 %
		Arsenic, Dissolved	EPA 200.8	1303119-002	0.0071	0.0575	0.0572	0.050	mg/L	101	100	1 %
		Lead, Dissolved	EPA 200.8	1303119-002	<0.0025	0.0093	0.0093	0.010	mg/L	93	93	<1%
		Selenium, Dissolved	EPA 200.8	1303119-002	<0.0050	0.0448	0.0456	0.050	mg/L	90	91	2 %
		Thallium, Dissolved	EPA 200.8	1303119-002	<0.0010	0.0096	0.0096	0.010	mg/L	95	94	<1%



WETLAB

WESTERN ENVIRONMENTAL TESTING LABORATORY

Specializing in Soil, Hazardous Waste and Water Analysis.

475 E. Greg Street #119 | Sparks, Nevada 89431

tel [775] 355-0202 | fax [775] 355-0817 | www.WETLaboratory.com

Lab Number 1302487

Report

Due Date: 3/14/13

Page 1 of 1

Client **McClelland Laboratories, Inc.**

Address **1016 Greg Street**

City, State & Zip **Sparks, NV 89431**

Contact **Mike Medina**

Phone **775-356-1300**

Collector's Name **Robert**

Fax **775-356-8917**

Project Name

P.O. Number

Project Number **3438**

Email **mli@mettest.com**

Turnaround Time

Standard 3-Day Other

Billing Address (if different than Client Address):

Company _____

Address _____

City, State & Zip _____

Contact _____

Phone _____

Fax _____

Email _____

Additional Information

Fax Results	Y	N	To: Client	Billing
Email Results	Y	N	To: Client	Billing
Compliance Monitoring	Y	N		
Fax Results to State EPA	Y	N		

Sample Type Codes

DW = Drinking Water	SD = Solid
WW = Wastewater	SO = Soil
SW = Surface Water	HW = Hazardous Waste
MW = Monitoring Well	OTHER: _____

NO OF CONTAINERS

Analyses Requested

Profile II w/o Wad
Uranium

SAMPLE ID/LOCATION	DATE	TIME	TYPE	NO OF CONTAINERS	Profile II w/o Wad	Uranium	Spl. No.
CF-11-02 (227-367) Wk:36	02/28/13	9:00	WW	2	X	X	1
CF-11-02 (52-117)							2
K-Spar Breccia 5+ Comp							3
Biotite Breccia 5+ Comp							4
Quartz Monzonite 5+ Comp							5
Biotite Breccia 0-5 Comp							6
K-Spar Breccia 0-5 Comp							7
Quartz Monzonite 0-5 Comp							8

Instructions/Comments/Special Requirements:

1302
487
8

SAMPLE RECEIPT	DATE	TIME	Samples Relinquished By	Samples Received By
Temperature <u>20.9</u> °C	<u>3/13</u>	<u>1410</u>	<i>[Signature]</i>	<i>[Signature]</i>
Custody Seals Intact? Y N None				
Number of Containers <u>16</u>				

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.

To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.



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Report

Due Date: 3/14/13

Page 1 of 1

Client **McClelland Laboratories, Inc.**

Address **1016 Greg Street**

City, State & Zip **Sparks, NV 89431**

Contact **Mike Medina**

Phone **775-356-1300**

Collector's Name **Robert**

Fax **775-356-8917**

Project Name

P.O. Number

Project Number **3438**

Email **mli@mettest.com**

Turnaround Time

Standard _____ 5-Day _____ Other _____

Billing Address (if different than Client Address):

Company _____

Address _____

City, State & Zip _____

Contact _____

Phone _____

Fax _____

Email _____

Additional Information

Fax Results	Y	N	To: Client	Billing
Email Results	Y	N	To: Client	Billing
Compliance Monitoring	Y	N		
Fax Results to State EPA	Y	N		

Sample Type Codes

DW = Drinking Water	SD = Solid
WW = Wastewater	SO = Soil
SW = Surface Water	HW = Hazardous Waste
MW = Monitoring Well	OTHER: _____

NO OF CONTAINERS

Analyses Requested

SAMPLE ID/LOCATION	DATE	TIME	TYPE	NO OF CONTAINERS	Profile II w/o Wad	Uranium	Spl. No.
CF-11-02 (227-367) Wk:36	02/28/13	9:00	WW	2	X	X	1
CF-11-02 (52-117)							2
K-Spar Breccia 5+ Comp							3
Biotite Breccia 5+ Comp							4
Quartz Monzonite 5+ Comp							5
Biotite Breccia 0-5 Comp							6
K-Spar Breccia 0-5 Comp							7
Quartz Monzonite 0-5 Comp							8

1302-1-1
487 8

Instructions/Comments/Special Requirements:

SAMPLE RECEIPT	DATE	TIME	Samples Relinquished By	Samples Received By
Temperature <u>20.9</u> °C	<u>3/13</u>	<u>1410</u>		
Custody Seals Intact? Y N None				
Number of Containers <u>16</u>				

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.

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Specializing in Soil, Hazardous Waste and Water Analysis.

3/27/2013

McClelland Laboratory
1016 Greg Street
Sparks, NV 89431
Attn: Mike Medina

OrderID: 1303281

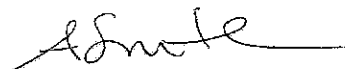
Dear: Mike Medina

This is to transmit the attached analytical report. The analytical data and information contained therein was generated using specified or selected methods contained in references, such as Standard Methods for the Examination of Water and Wastewater, 18th & 19th editions, Methods for Determination of Organic Compounds in Drinking Water, EPA-600/4-79-020, and Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW846) Third Edition.

The samples were received by WETLAB-Western Environmental Testing Laboratory in good condition on 3/14/2013. Additional comments are located on page 2 of this report.

If you should have any questions or comments regarding this report, please do not hesitate to call.

Sincerely,



Andy Smith
QA Manager

SPARKS

475 E. Greg Street, Suite 119
Sparks, Nevada 89431
tel [775] 355-0202
fax [775] 355-0817

ELKO

1084 Lamoille Hwy.
Elko, Nevada 89801
tel [775] 777-9933
fax [775] 777-9933

LAS VEGAS

3230 Polaris Ave., Suite 4
Las Vegas, Nevada 89102
tel [702] 475-8899
fax [702] 776-6152

Western Environmental Testing Laboratory

Report Comments

McClelland Laboratory - 1303281

General Comments

None

Specific Comments

None

Data Qualifier Legend

- B -- Blank contamination; Analyte detected above the method reporting limit in an associated blank
- D -- Reporting limit is elevated due to required sample dilution
- HT -- Sample analyzed beyond the accepted holding time
- J -- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
- M -- Reported value is estimated; The sample matrix interfered with the analysis
- N -- There was insufficient sample available to perform a spike and/or duplicate on this analytical batch.
- NC -- Not calculated due to matrix interference
- Q -- Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
- S -- Surrogate recovery was outside of laboratory acceptance limits due to matrix interference. The associated blank and LCS surrogate recovery was within acceptance limits.
- SC -- Spike recovery not calculated. Sample concentration >4X the spike amount; therefore, the spike could not be adequately recovered.

Western Environmental Testing Laboratory Analytical Report

McClelland Laboratory
1016 Greg Street
Sparks, NV 89431
Attn: Mike Medina
Phone: (775) 356-1300 Fax: (775) 356-8917
PO/Project: 3438 Wk:44

Date Printed: 3/27/2013
OrderID: 1303281

Customer Sample ID: CF-11-02 (0-27) Wk: 44
WETLAB Sample ID: 1303281-001

Collect Date/Time: 3/14/2013 09:00
Receive Date: 3/14/2013 14:50

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.65	pH Units		3/14/2013
Trace Metals Digestion	EPA 200.2	Complete			3/20/2013
Bicarbonate (HCO ₃)	SM 2320B	49	mg/L	1.0	3/14/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	3/14/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	3/14/2013
Total Alkalinity	SM 2320B	40	mg/L as CaCO ₃	1.0	3/14/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	3/15/2013
Fluoride	EPA 300.0	0.91	mg/L	0.10	3/15/2013
Sulfate	EPA 300.0	15	mg/L	1.0	3/15/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	3/15/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	3/15/2013
Total Dissolved Solids (TDS)	SM 2540C	82	mg/L	10	3/19/2013
Aluminum	EPA 200.7	0.052	mg/L	0.045	3/21/2013
Barium	EPA 200.7	<0.010	mg/L	0.010	3/21/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	3/21/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	3/21/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	3/21/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	3/21/2013
Calcium	EPA 200.7	17	mg/L	0.50	3/21/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	3/21/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	3/21/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	3/21/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	3/21/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	3/21/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	3/21/2013
Magnesium	EPA 200.7	2.6	mg/L	0.50	3/21/2013
Manganese	EPA 200.7	0.041	mg/L	0.0050	3/21/2013

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Customer Sample ID: CF-11-02 (0-27) Wk: 44

Collect Date/Time: 3/14/2013 09:00

WETLAB Sample ID: 1303281-001

Receive Date: 3/14/2013 14:50

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	3/21/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	3/21/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	3/21/2013
Potassium	EPA 200.7	1.3	mg/L	0.50	3/21/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	3/21/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	3/21/2013
Sodium	EPA 200.7	0.55	mg/L	0.50	3/21/2013
Strontium	EPA 200.7	0.12	mg/L	0.10	3/22/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	3/21/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	3/21/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	3/21/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	3/21/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	3/25/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	3/25/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	3/25/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	3/25/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	3/25/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	3/25/2013
Uranium	EPA 200.8	<0.0050	mg/L	0.0050	3/25/2013
Anions	Calculation	1.16	meq/L	0.10	
Cations	Calculation	1.13	meq/L	0.10	
Error	Calculation	1.6	%	1.0	

Customer Sample ID: CF-11-02 (367-408) Wk: 44

Collect Date/Time: 3/14/2013 09:00

WETLAB Sample ID: 1303281-002

Receive Date: 3/14/2013 14:50

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.52	pH Units		3/14/2013
Trace Metals Digestion	EPA 200.2	Complete			3/20/2013
Bicarbonate (HCO3)	SM 2320B	31	mg/L	1.0	3/14/2013
Carbonate (CO3)	SM 2320B	<1.0	mg/L	1.0	3/14/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	3/14/2013
Total Alkalinity	SM 2320B	25	mg/L as CaCO3	1.0	3/14/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	3/15/2013
Fluoride	EPA 300.0	0.89	mg/L	0.10	3/15/2013
Sulfate	EPA 300.0	6.8	mg/L	1.0	3/15/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	3/15/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	3/15/2013

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Customer Sample ID: CF-11-02 (367-408) Wk: 44

Collect Date/Time: 3/14/2013 09:00

WETLAB Sample ID: 1303281-002

Receive Date: 3/14/2013 14:50

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Total Dissolved Solids (TDS)	SM 2540C	54	mg/L	10	3/19/2013
Aluminum	EPA 200.7	0.15	mg/L	0.045	3/21/2013
Barium	EPA 200.7	<0.010	mg/L	0.010	3/21/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	3/21/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	3/21/2013
Boron	EPA 200.7	<0.100	mg/L	0.100	3/21/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	3/21/2013
Calcium	EPA 200.7	12	mg/L	0.50	3/21/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	3/21/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	3/21/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	3/21/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	3/21/2013
Iron	EPA 200.7	0.015	mg/L	0.010	3/21/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	3/21/2013
Magnesium	EPA 200.7	<0.50	mg/L	0.50	3/21/2013
Manganese	EPA 200.7	0.029	mg/L	0.0050	3/21/2013
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	3/21/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	3/21/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	3/21/2013
Potassium	EPA 200.7	0.85	mg/L	0.50	3/21/2013
Scandium	EPA 200.7	<0.10	mg/L	0.10	3/21/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	3/21/2013
Sodium	EPA 200.7	<0.50	mg/L	0.50	3/21/2013
Strontium	EPA 200.7	<0.10	mg/L	0.10	3/22/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	3/21/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	3/21/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	3/21/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	3/21/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	3/25/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	3/25/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	3/25/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	3/25/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	3/25/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	3/25/2013
Uranium	EPA 200.8	<0.0050	mg/L	0.0050	3/25/2013
Anions	Calculation	0.70	meq/L	0.10	
Cations	Calculation	0.64	meq/L	0.10	
Error	Calculation	4.3	%	1.0	

Western Environmental Testing Laboratory QC Report

QC Batch ID	QC Type	Parameter	Method	Result	Units
QC13030551	Blank 1	Fluoride	EPA 300.0	<0.10	mg/L
QC13030551	Blank 2	Fluoride	EPA 300.0	<0.10	mg/L
QC13030551	Blank 3	Fluoride	EPA 300.0	<0.10	mg/L
QC13030554	Blank 1	Chloride	EPA 300.0	<1.0	mg/L
QC13030554	Blank 2	Chloride	EPA 300.0	<1.0	mg/L
QC13030554	Blank 3	Chloride	EPA 300.0	<1.0	mg/L
QC13030556	Blank 1	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13030556	Blank 2	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13030556	Blank 3	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13030557	Blank 1	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13030557	Blank 2	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13030557	Blank 3	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13030559	Blank 1	Sulfate	EPA 300.0	<1.0	mg/L
QC13030559	Blank 2	Sulfate	EPA 300.0	<1.0	mg/L
QC13030559	Blank 3	Sulfate	EPA 300.0	<1.0	mg/L
QC13030683	Blank 1	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L
QC13030683	Blank 2	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L
QC13030745	Blank 1	Aluminum	EPA 200.7	<0.045	mg/L
		Barium	EPA 200.7	<0.010	mg/L
		Beryllium	EPA 200.7	<0.0010	mg/L
		Bismuth	EPA 200.7	<0.10	mg/L
		Boron	EPA 200.7	<0.10	mg/L
		Cadmium	EPA 200.7	<0.0010	mg/L
		Calcium	EPA 200.7	<0.50	mg/L
		Chromium	EPA 200.7	<0.0050	mg/L
		Cobalt	EPA 200.7	<0.010	mg/L
		Copper	EPA 200.7	<0.050	mg/L
		Gallium	EPA 200.7	<0.10	mg/L
		Iron	EPA 200.7	<0.010	mg/L
		Lithium	EPA 200.7	<0.10	mg/L
		Magnesium	EPA 200.7	<0.50	mg/L
		Manganese	EPA 200.7	<0.0050	mg/L
		Molybdenum	EPA 200.7	<0.010	mg/L
		Nickel	EPA 200.7	<0.010	mg/L
		Phosphorus	EPA 200.7	<0.50	mg/L
		Potassium	EPA 200.7	<0.50	mg/L
		Scandium	EPA 200.7	<0.10	mg/L
		Silver	EPA 200.7	<0.0050	mg/L
		Sodium	EPA 200.7	<0.50	mg/L
		Strontium	EPA 200.7	<0.10	mg/L
		Tin	EPA 200.7	<0.10	mg/L
		Titanium	EPA 200.7	<0.10	mg/L
		Vanadium	EPA 200.7	<0.010	mg/L
		Zinc	EPA 200.7	<0.010	mg/L
QC13030763	Blank 1	Mercury	EPA 200.8	<0.00010	mg/L
		Antimony	EPA 200.8	<0.0025	mg/L
		Arsenic	EPA 200.8	<0.0050	mg/L

QCBatchID	QCType	Parameter	Method	Result	Units
		Lead	EPA 200.8	<0.0025	mg/L
		Selenium	EPA 200.8	<0.0050	mg/L
		Thallium	EPA 200.8	<0.0010	mg/L
		Uranium	EPA 200.8	<0.0050	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC13030488	LCS 1	pH	SM 4500-H+ B	6.99	7.00	100	pH Units
QC13030490	LCS 1	Total Alkalinity	SM 2320B	98.8	100	99	mg/L
QC13030490	LCS 2	Total Alkalinity	SM 2320B	98.7	100	99	mg/L
QC13030490	LCS 3	Total Alkalinity	SM 2320B	99.2	100	99	mg/L
QC13030551	LCS 1	Fluoride	EPA 300.0	1.90	2.00	95	mg/L
QC13030554	LCS 1	Chloride	EPA 300.0	10.3	10.0	103	mg/L
QC13030556	LCS 1	Nitrite Nitrogen	EPA 300.0	0.494	0.500	99	mg/L
QC13030557	LCS 1	Nitrate Nitrogen	EPA 300.0	2.03	2.00	102	mg/L
QC13030559	LCS 1	Sulfate	EPA 300.0	24.7	25.0	99	mg/L
QC13030683	LCS 1	Total Dissolved Solids (TDS)	SM 2540C	152	150	101	mg/L
QC13030683	LCS 2	Total Dissolved Solids (TDS)	SM 2540C	152	150	101	mg/L
QC13030745	LCS 1	Aluminum	EPA 200.7	0.971	1.00	97	mg/L
		Barium	EPA 200.7	0.940	1.00	94	mg/L
		Beryllium	EPA 200.7	0.953	1.00	95	mg/L
		Bismuth	EPA 200.7	1.02	1.00	102	mg/L
		Boron	EPA 200.7	1.02	1.00	102	mg/L
		Cadmium	EPA 200.7	0.952	1.00	95	mg/L
		Calcium	EPA 200.7	9.57	10.0	96	mg/L
		Chromium	EPA 200.7	0.999	1.00	100	mg/L
		Cobalt	EPA 200.7	1.01	1.00	101	mg/L
		Copper	EPA 200.7	4.86	5.00	97	mg/L
		Gallium	EPA 200.7	1.01	1.00	101	mg/L
		Iron	EPA 200.7	0.923	1.00	92	mg/L
		Lithium	EPA 200.7	1.03	1.00	103	mg/L
		Magnesium	EPA 200.7	9.08	10.0	91	mg/L
		Manganese	EPA 200.7	0.963	1.00	96	mg/L
		Molybdenum	EPA 200.7	0.946	1.00	95	mg/L
		Nickel	EPA 200.7	4.60	5.00	92	mg/L
		Phosphorus	EPA 200.7	5.15	5.00	103	mg/L
		Potassium	EPA 200.7	9.96	10.0	100	mg/L
		Scandium	EPA 200.7	0.979	1.00	98	mg/L
		Silver	EPA 200.7	0.089	0.090	99	mg/L
		Sodium	EPA 200.7	10.5	10.0	105	mg/L
		Strontium	EPA 200.7	0.891	1.00	89	mg/L
		Tin	EPA 200.7	0.973	1.00	97	mg/L
		Titanium	EPA 200.7	0.974	1.00	97	mg/L
		Vanadium	EPA 200.7	0.925	1.00	92	mg/L
		Zinc	EPA 200.7	0.988	1.00	99	mg/L
QC13030763	LCS 1	Mercury	EPA 200.8	0.000991	0.001	99	mg/L
		Antimony	EPA 200.8	0.0095	0.010	95	mg/L
		Arsenic	EPA 200.8	0.0526	0.050	105	mg/L
		Lead	EPA 200.8	0.0100	0.010	100	mg/L
		Selenium	EPA 200.8	0.0478	0.050	96	mg/L
		Thallium	EPA 200.8	0.0099	0.010	99	mg/L
		Uranium	EPA 200.8	0.0099	0.010	99	mg/L

QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD
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QC13030488	Duplicate	pH	SM 4500-H+ B	1303274-001	7.73	7.73	pH Units	<1%
QC13030488	Duplicate	pH	SM 4500-H+ B	1303282-001	7.97	7.99	pH Units	<1%
QC13030488	Duplicate	pH	SM 4500-H+ B	1303282-002	7.78	7.79	pH Units	<1%
QC13030490	Duplicate	Bicarbonate (HCO3)	SM 2320B	1303274-001	153	153	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1303274-001	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1303274-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1303274-001	126	126	mg/L as CaCO3	<1%
QC13030490	Duplicate	Bicarbonate (HCO3)	SM 2320B	1303282-001	139	138	mg/L	1 %
		Carbonate (CO3)	SM 2320B	1303282-001	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1303282-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1303282-001	114	113	mg/L as CaCO3	1 %
QC13030490	Duplicate	Bicarbonate (HCO3)	SM 2320B	1303282-002	139	139	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1303282-002	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1303282-002	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1303282-002	114	114	mg/L as CaCO3	<1%
QC13030683	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1303281-001	82.0	77.0	mg/L	6 %
QC13030683	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1303302-002	293	369	mg/L	23 %
QC13030683	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1303320-004	1872	1872	mg/L	<1%
QC13030683	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1303320-014	3930	3900	mg/L	1 %

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC13030551	MS 1	Fluoride	EPA 300.0	1303281-002	0.886	2.79	2.80	2.00	mg/L	95	96	<1%
QC13030551	MS 2	Fluoride	EPA 300.0	1303317-001	0.159	1.98	2.02	2.00	mg/L	91	93	2 %
QC13030554	MS 1	Chloride	EPA 300.0	1303281-002	<1.000	5.30	5.36	5.00	mg/L	106	107	1 %
QC13030554	MS 2	Chloride	EPA 300.0	1303317-001	<1.000	5.12	5.17	5.00	mg/L	103	104	1 %
QC13030556	MS 1	Nitrite Nitrogen	EPA 300.0	1303281-002	<0.025	0.514	0.522	0.500	mg/L	101	103	2 %
QC13030556	MS 2	Nitrite Nitrogen	EPA 300.0	1303317-001	<0.025	0.493	0.500	0.500	mg/L	99	100	1 %
QC13030557	MS 1	Nitrate Nitrogen	EPA 300.0	1303281-002	<1.000	2.13	2.16	2.00	mg/L	106	107	1 %
QC13030557	MS 2	Nitrate Nitrogen	EPA 300.0	1303317-001	<1.000	2.05	2.07	2.00	mg/L	102	103	1 %
QC13030559	MS 1	Sulfate	EPA 300.0	1303281-002	6.75	16.8	16.9	10.0	mg/L	100	102	1 %
QC13030559	MS 2	Sulfate	EPA 300.0	1303317-001	31.7	40.9	41.0	10.0	mg/L	92	93	<1%
QC13030745	MS 1	Aluminum	EPA 200.7	1303282-002	0.051	1.05	1.05	1.00	mg/L	100	100	<1%
		Barium	EPA 200.7	1303282-002	<0.010	0.932	0.941	1.00	mg/L	93	94	1 %
		Beryllium	EPA 200.7	1303282-002	<0.001	0.967	0.944	1.00	mg/L	97	94	2 %
		Bismuth	EPA 200.7	1303282-002	<0.100	1.02	1.03	1.00	mg/L	103	104	1 %
		Boron	EPA 200.7	1303282-002	<0.100	1.09	1.10	1.00	mg/L	103	104	1 %
		Cadmium	EPA 200.7	1303282-002	<0.001	0.938	0.947	1.00	mg/L	94	95	1 %
		Calcium	EPA 200.7	1303282-002	29.7	38.6	39.1	10.0	mg/L	89	94	1 %
		Chromium	EPA 200.7	1303282-002	<0.005	0.985	0.990	1.00	mg/L	99	99	1 %
		Cobalt	EPA 200.7	1303282-002	<0.010	0.901	0.964	1.00	mg/L	90	96	7 %
		Copper	EPA 200.7	1303282-002	<0.050	4.76	4.75	5.00	mg/L	95	95	<1%
		Gallium	EPA 200.7	1303282-002	<0.100	1.02	1.03	1.00	mg/L	102	103	1 %
		Iron	EPA 200.7	1303282-002	0.038	0.960	0.959	1.00	mg/L	92	92	<1%
		Lithium	EPA 200.7	1303282-002	<0.100	1.02	1.03	1.00	mg/L	97	98	1 %
		Magnesium	EPA 200.7	1303282-002	11.1	19.8	19.9	10.0	mg/L	87	88	1 %
		Manganese	EPA 200.7	1303282-002	<0.005	0.941	0.950	1.00	mg/L	94	95	1 %
		Molybdenum	EPA 200.7	1303282-002	<0.010	0.954	0.951	1.00	mg/L	95	95	<1%
		Nickel	EPA 200.7	1303282-002	<0.010	4.39	4.45	5.00	mg/L	88	89	1 %
		Phosphorus	EPA 200.7	1303282-002	<0.500	5.25	5.33	5.00	mg/L	103	104	2 %

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
		Potassium	EPA 200.7	1303282-002	1.57	11.2	11.2	10.0	mg/L	96	96	<1%
		Scandium	EPA 200.7	1303282-002	<0.100	0.970	0.973	1.00	mg/L	97	97	<1%
		Silver	EPA 200.7	1303282-002	<0.005	0.088	0.088	0.090	mg/L	98	98	<1%
		Sodium	EPA 200.7	1303282-002	18.9	27.5	27.9	10.0	mg/L	86	90	1 %
		Strontium	EPA 200.7	1303282-002	0.125	1.01	1.03	1.00	mg/L	88	90	2 %
		Tin	EPA 200.7	1303282-002	<0.100	0.979	0.975	1.00	mg/L	100	99	<1%
		Titanium	EPA 200.7	1303282-002	<0.100	0.981	0.978	1.00	mg/L	98	98	<1%
		Vanadium	EPA 200.7	1303282-002	0.022	0.943	0.950	1.00	mg/L	92	93	1 %
		Zinc	EPA 200.7	1303282-002	<0.010	0.974	0.983	1.00	mg/L	97	98	1 %
QC13030763	MS 1	Mercury	EPA 200.8	1303282-002	<0.00010	0.000880	0.000878	0.001	mg/L	86	86	<1%
		Antimony	EPA 200.8	1303282-002	<0.0025	0.0096	0.0095	0.010	mg/L	96	95	1 %
		Arsenic	EPA 200.8	1303282-002	0.0211	0.0739	0.0739	0.050	mg/L	106	106	<1%
		Lead	EPA 200.8	1303282-002	<0.0025	0.0094	0.0093	0.010	mg/L	94	93	1 %
		Selenium	EPA 200.8	1303282-002	<0.0050	0.0471	0.0467	0.050	mg/L	93	92	1 %
		Thallium	EPA 200.8	1303282-002	<0.0010	0.0094	0.0094	0.010	mg/L	94	94	<1%
		Uranium	EPA 200.8	1303282-002	<0.0050	0.0132	0.0131	0.010	mg/L	99	98	1 %



WETLAB

WESTERN ENVIRONMENTAL TESTING LABORATORY

Specializing in Soil, Hazardous Waste and Water Analysis.

475 E. Greg Street #119 | Sparks, Nevada 89431
tel (775) 355-0202 | fax (775) 355-0817 | www.WETLaboratory.com

Lab Number **1303281**

Report Due Date: **3/28/13**

Page 1 of 1

Client McClelland Laboratories, Inc.
Address 1016 Greg Street
City, State & Zip Sparks, NV 89431
Contact Mike Medina
Phone 775-356-1300 **Collector's Name** Robert
Fax 775-356-8917 **Project Name**
P.O. Number **Project Number** 3438

Turnaround Time
 Standard 5 Day Other
Billing Address (if different than Client Address):
 Company _____
 Address _____
 City, State & Zip _____
 Contact _____
 Phone _____
 Fax _____
 Email _____

Email mli@mettest.com

Additional Information			
Fax Results	Y	N	To: Client Billing
Email Results	Y	N	To: Client Billing
Compliance Monitoring	Y	N	
Fax Results to State EPA	Y	N	

Sample Type Codes	
DW = Drinking Water	SD = Solid
WW = Wastewater	SO = Soil
SW = Surface Water	HW = Hazardous Waste
MW = Monitoring Well	OTHER: _____

SAMPLE ID/LOCATION	DATE	TIME	SAMPLE TYPE	NO OF CONTAINERS	Analyses Requested										Spl. No.				
					Profile II w/o Wad	Uranium													
CF-11-02 (0-27)	Wk:44	03/14/13	9:00	ww	2	X	X												1
CF-11-02 (367-408)	↓	↓	↓	↓	↓	↓	↓												2

Instructions/Comments/Special Requirements: _____

1303 V-5
281 1

SAMPLE RECEIPT	DATE	TIME	Samples Relinquished By	Samples Received By
Temperature <u>16.8°C</u>	<u>3/14/13</u>	<u>1450</u>	<i>[Signature]</i>	<i>[Signature]</i>
Custody Seals Intact? Y N <u>None</u>				
Number of Containers <u>4</u>				

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.

To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.



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Lab Number 1303281

Report Due Date: 3/28/13

Page 1 of 1

Client **McClelland Laboratories, Inc.**

Address 1016 Greg Street

City, State & Zip Sparks, NV 89431

Contact Mike Medina

Phone 775-356-1300

Collector's Name Robert

Fax 775-356-8917

Project Name

P.O. Number

Project Number 3438

Email mli@mettest.com

Turnaround Time

Standard 5 Day Other

Billing Address (if different than Client Address):

Company _____

Address _____

City, State & Zip _____

Contact _____

Phone _____

Fax _____

Email _____

Additional Information

Fax Results	Y	N	To: Client	Billing
Email Results	Y	N	To: Client	Billing
Compliance Monitoring	Y	N		
Fax Results to State EPA	Y	N		

Sample Type Codes

DW = Drinking Water	SD = Solid
WW = Wastewater	SO = Soil
SW = Surface Water	HW = Hazardous Waste
MW = Monitoring Well	OTHER: _____

NO OF CONTAINERS

Analyses Requested

SAMPLE ID/LOCATION	Wk	DATE	TIME	SAMPLE TYPE	NO OF CONTAINERS	Profile II w/o Wat	Uranium	Other Analyses						Spl. No.		
CF-11-02 (0-27)	Wk:44	03/14/13	9:00	WW	2	X	X									1
CF-11-02 (367-408)	↓	↓	↓	↓	↓	↓	↓									2

Instructions/Comments/Special Requirements:

1303 V-5

281 1

SAMPLE RECEIPT	DATE	TIME	Samples Relinquished By	Samples Received By
Temperature <u>19.8°C</u>	<u>3/14/13</u>	<u>1450</u>	<u>[Signature]</u>	<u>[Signature]</u>
Custody Seals Intact? Y <u>N</u> <u>None</u>				
Number of Containers <u>4</u>				

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.

To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.

Specializing in Soil, Hazardous Waste and Water Analysis.

4/4/2013

McClelland Laboratory
1016 Greg Street
Sparks, NV 89431
Attn: Mike Medina

OrderID: 1303419

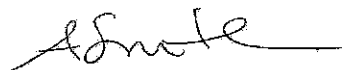
Dear: Mike Medina

This is to transmit the attached analytical report. The analytical data and information contained therein was generated using specified or selected methods contained in references, such as Standard Methods for the Examination of Water and Wastewater, 18th & 19th editions, Methods for Determination of Organic Compounds in Drinking Water, EPA-600/4-79-020, and Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW846) Third Edition.

The samples were received by WETLAB-Western Environmental Testing Laboratory in good condition on 3/21/2013. Additional comments are located on page 2 of this report.

If you should have any questions or comments regarding this report, please do not hesitate to call.

Sincerely,



Andy Smith
QA Manager

SPARKS

475 E. Greg Street, Suite 119
Sparks, Nevada 89431
tel [775] 355-0202
fax [775] 355-0817

ELKO

1084 Lamoille Hwy.
Elko, Nevada 89801
tel [775] 777-9933
fax [775] 777-9933

LAS VEGAS

3230 Polaris Ave., Suite 4
Las Vegas, Nevada 89102
tel [702] 475-8899
fax [702] 776-6152

Western Environmental Testing Laboratory

Report Comments

McClelland Laboratory - 1303419

General Comments

None

Specific Comments

Due to the sample matrix it was necessary to analyze the following at a dilution:

1303419-001 Cadmium

The reporting limits have been adjusted accordingly.

Data Qualifier Legend

- B -- Blank contamination; Analyte detected above the method reporting limit in an associated blank
- D -- Reporting limit is elevated due to required sample dilution
- HT -- Sample analyzed beyond the accepted holding time
- J -- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
- M -- Reported value is estimated; The sample matrix interfered with the analysis
- N -- There was insufficient sample available to perform a spike and/or duplicate on this analytical batch.
- NC -- Not calculated due to matrix interference
- Q -- Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
- S -- Surrogate recovery was outside of laboratory acceptance limits due to matrix interference. The associated blank and LCS surrogate recovery was within acceptance limits.
- SC -- Spike recovery not calculated. Sample concentration >4X the spike amount; therefore, the spike could not be adequately recovered.

Western Environmental Testing Laboratory Analytical Report

McClelland Laboratory
1016 Greg Street
Sparks, NV 89431
Attn: Mike Medina
Phone: (775) 356-1300 Fax: (775) 356-8917
PO/Project: 3438 WK:112

Date Printed: 4/4/2013
OrderID: 1303419

Customer Sample ID: 604 673 Wk:112

Collect Date/Time: 3/21/2013 09:00

WETLAB Sample ID: 1303419-001

Receive Date: 3/21/2013 14:20

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	4.95	pH Units		3/21/2013
Trace Metals Digestion	EPA 200.2	Complete			3/27/2013
Bicarbonate (HCO ₃)	SM 2320B	<1.0	mg/L	1.0	3/21/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	3/21/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	3/21/2013
Total Alkalinity	SM 2320B	<1.0	mg/L as CaCO ₃	1.0	3/21/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	3/22/2013
Fluoride	EPA 300.0	0.24	mg/L	0.10	3/22/2013
Sulfate	EPA 300.0	30	mg/L	1.0	3/22/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	3/22/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	3/22/2013
Total Dissolved Solids (TDS)	SM 2540C	60	mg/L	10	3/26/2013
Aluminum	EPA 200.7	0.19	mg/L	0.045	3/27/2013
Barium	EPA 200.7	0.068	mg/L	0.010	3/27/2013
Beryllium	EPA 200.7	0.0010	mg/L	0.0010	3/27/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	3/27/2013
Boron	EPA 200.7	<0.10	mg/L	0.10	3/27/2013
Cadmium	EPA 200.7	<0.0050	mg/L	0.0050	3/28/2013
Calcium	EPA 200.7	7.2	mg/L	0.50	3/27/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	3/27/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	3/27/2013
Copper	EPA 200.7	2.5	mg/L	0.050	3/27/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	3/27/2013
Iron	EPA 200.7	0.042	mg/L	0.010	3/27/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	3/27/2013
Magnesium	EPA 200.7	0.97	mg/L	0.50	3/27/2013
Manganese	EPA 200.7	0.052	mg/L	0.0050	3/27/2013

Page 3 of 8

Customer Sample ID: 604 673 Wk:112

Collect Date/Time: 3/21/2013 09:00

WETLAB Sample ID: 1303419-001

Receive Date: 3/21/2013 14:20

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	3/27/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	3/27/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	3/27/2013
Potassium	EPA 200.7	0.72	mg/L	0.50	3/27/2013
Scandium	EPA 200.7	<0.100	mg/L	0.100	3/27/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	3/27/2013
Sodium	EPA 200.7	0.52	mg/L	0.50	3/27/2013
Strontium	EPA 200.7	<0.10	mg/L	0.10	3/27/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	3/27/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	3/27/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	3/27/2013
Zinc	EPA 200.7	0.064	mg/L	0.010	3/27/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	3/29/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	3/29/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	3/29/2013
Lead	EPA 200.8	0.015	mg/L	0.0025	3/29/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	3/29/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	3/29/2013
Uranium	EPA 200.8	0.032	mg/L	0.0050	3/29/2013
Anions	Calculation	0.64	meq/L	0.10	
Cations	Calculation	0.59	meq/L	0.10	
Error	Calculation	4.2	%	1.0	

Western Environmental Testing Laboratory QC Report

QCBatchID	QCType	Parameter	Method	Result	Units
QC13030770	Blank 1	Fluoride	EPA 300.0	<0.10	mg/L
QC13030770	Blank 2	Fluoride	EPA 300.0	<0.10	mg/L
QC13030770	Blank 3	Fluoride	EPA 300.0	<0.10	mg/L
QC13030771	Blank 1	Chloride	EPA 300.0	<1.0	mg/L
QC13030771	Blank 2	Chloride	EPA 300.0	<1.0	mg/L
QC13030771	Blank 3	Chloride	EPA 300.0	<1.0	mg/L
QC13030773	Blank 1	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13030773	Blank 2	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13030773	Blank 3	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13030774	Blank 1	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13030774	Blank 2	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13030774	Blank 3	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13030775	Blank 1	Sulfate	EPA 300.0	<1.0	mg/L
QC13030775	Blank 2	Sulfate	EPA 300.0	<1.0	mg/L
QC13030775	Blank 3	Sulfate	EPA 300.0	<1.0	mg/L
QC13030920	Blank 1	Aluminum, Dissolved	EPA 200.7	<0.045	mg/L
		Barium, Dissolved	EPA 200.7	<0.010	mg/L
		Beryllium, Dissolved	EPA 200.7	<0.0010	mg/L
		Bismuth, Dissolved	EPA 200.7	<0.10	mg/L
		Boron, Dissolved	EPA 200.7	<0.10	mg/L
		Cadmium, Dissolved	EPA 200.7	<0.0010	mg/L
		Calcium, Dissolved	EPA 200.7	<0.50	mg/L
		Chromium, Dissolved	EPA 200.7	<0.0050	mg/L
		Cobalt, Dissolved	EPA 200.7	<0.010	mg/L
		Copper, Dissolved	EPA 200.7	<0.050	mg/L
		Gallium, Dissolved	EPA 200.7	<0.10	mg/L
		Iron, Dissolved	EPA 200.7	<0.010	mg/L
		Lithium, Dissolved	EPA 200.7	<0.10	mg/L
		Magnesium, Dissolved	EPA 200.7	<0.50	mg/L
		Manganese, Dissolved	EPA 200.7	<0.0050	mg/L
		Molybdenum, Dissolved	EPA 200.7	<0.010	mg/L
		Nickel, Dissolved	EPA 200.7	<0.010	mg/L
		Phosphorus, Dissolved	EPA 200.7	<0.50	mg/L
		Potassium, Dissolved	EPA 200.7	<0.50	mg/L
		Scandium, Dissolved	EPA 200.7	<0.10	mg/L
		Silver, Dissolved	EPA 200.7	<0.0050	mg/L
		Sodium, Dissolved	EPA 200.7	<0.50	mg/L
		Strontium, Dissolved	EPA 200.7	<0.10	mg/L
		Tin, Dissolved	EPA 200.7	<0.10	mg/L
		Titanium, Dissolved	EPA 200.7	<0.10	mg/L
		Vanadium, Dissolved	EPA 200.7	<0.010	mg/L
		Zinc, Dissolved	EPA 200.7	<0.010	mg/L
QC13030962	Blank 1	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L
QC13030962	Blank 2	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L
QC13030972	Blank 1	Uranium, Dissolved	EPA 200.8	<0.0050	mg/L
		Mercury, Dissolved	EPA 200.8	<0.00010	mg/L
		Antimony, Dissolved	EPA 200.8	<0.0025	mg/L

QCBatchID	QCType	Parameter	Method	Result	Units
		Arsenic, Dissolved	EPA 200.8	<0.0050	mg/L
		Lead, Dissolved	EPA 200.8	<0.0025	mg/L
		Selenium, Dissolved	EPA 200.8	<0.0050	mg/L
		Thallium, Dissolved	EPA 200.8	<0.0010	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC13030719	LCS 1	pH	SM 4500-H+ B	7.01	7.00	100	pH Units
QC13030719	LCS 2	pH	SM 4500-H+ B	7.01	7.00	100	pH Units
QC13030721	LCS 1	Total Alkalinity	SM 2320B	99.6	100	100	mg/L
QC13030721	LCS 2	Total Alkalinity	SM 2320B	99.0	100	99	mg/L
QC13030721	LCS 3	Total Alkalinity	SM 2320B	100.0	100	100	mg/L
QC13030770	LCS 1	Fluoride	EPA 300.0	1.83	2.00	91	mg/L
QC13030771	LCS 1	Chloride	EPA 300.0	9.74	10.0	97	mg/L
QC13030773	LCS 1	Nitrite Nitrogen	EPA 300.0	0.458	0.500	92	mg/L
QC13030774	LCS 1	Nitrate Nitrogen	EPA 300.0	1.90	2.00	95	mg/L
QC13030775	LCS 1	Sulfate	EPA 300.0	24.3	25.0	97	mg/L
QC13030920	LCS 1	Aluminum, Dissolved	EPA 200.7	0.938	1.00	94	mg/L
		Barium, Dissolved	EPA 200.7	0.944	1.00	94	mg/L
		Beryllium, Dissolved	EPA 200.7	0.967	1.00	97	mg/L
		Bismuth, Dissolved	EPA 200.7	0.982	1.00	98	mg/L
		Boron, Dissolved	EPA 200.7	0.922	1.00	92	mg/L
		Cadmium, Dissolved	EPA 200.7	0.974	1.00	97	mg/L
		Calcium, Dissolved	EPA 200.7	9.68	10.0	97	mg/L
		Chromium, Dissolved	EPA 200.7	0.935	1.00	94	mg/L
		Cobalt, Dissolved	EPA 200.7	0.956	1.00	96	mg/L
		Copper, Dissolved	EPA 200.7	4.59	5.00	92	mg/L
		Gallium, Dissolved	EPA 200.7	0.945	1.00	94	mg/L
		Iron, Dissolved	EPA 200.7	0.932	1.00	93	mg/L
		Lithium, Dissolved	EPA 200.7	0.883	1.00	88	mg/L
		Magnesium, Dissolved	EPA 200.7	9.36	10.0	94	mg/L
		Manganese, Dissolved	EPA 200.7	0.956	1.00	96	mg/L
		Molybdenum, Dissolved	EPA 200.7	0.935	1.00	94	mg/L
		Nickel, Dissolved	EPA 200.7	4.75	5.00	95	mg/L
		Phosphorus, Dissolved	EPA 200.7	4.89	5.00	98	mg/L
		Potassium, Dissolved	EPA 200.7	9.12	10.0	91	mg/L
		Scandium, Dissolved	EPA 200.7	0.931	1.00	93	mg/L
		Silver, Dissolved	EPA 200.7	0.083	0.090	92	mg/L
		Sodium, Dissolved	EPA 200.7	9.55	10.0	96	mg/L
		Strontium, Dissolved	EPA 200.7	0.912	1.00	91	mg/L
		Tin, Dissolved	EPA 200.7	0.987	1.00	99	mg/L
		Titanium, Dissolved	EPA 200.7	0.946	1.00	95	mg/L
		Vanadium, Dissolved	EPA 200.7	0.927	1.00	93	mg/L
		Zinc, Dissolved	EPA 200.7	0.992	1.00	99	mg/L
QC13030962	LCS 1	Total Dissolved Solids (TDS)	SM 2540C	153	150	102	mg/L
QC13030962	LCS 2	Total Dissolved Solids (TDS)	SM 2540C	159	150	106	mg/L
QC13030972	LCS 1	Uranium, Dissolved	EPA 200.8	0.0097	0.010	96	mg/L
		Mercury, Dissolved	EPA 200.8	0.000901	0.001	90	mg/L
		Antimony, Dissolved	EPA 200.8	0.0096	0.010	96	mg/L
		Arsenic, Dissolved	EPA 200.8	0.0495	0.050	99	mg/L
		Lead, Dissolved	EPA 200.8	0.0096	0.010	96	mg/L
		Selenium, Dissolved	EPA 200.8	0.0474	0.050	95	mg/L
		Thallium, Dissolved	EPA 200.8	0.0096	0.010	96	mg/L

Duplicate Sample Duplicate

QCBatchID	QCType	Sample	Result	Result				
QC13030719	Duplicate	pH	SM 4500-H+ B	1303404-001	7.29	7.38	pH Units	1 %
QC13030719	Duplicate	pH	SM 4500-H+ B	1303404-002	7.65	7.64	pH Units	<1%
QC13030719	Duplicate	pH	SM 4500-H+ B	1303404-003	7.63	7.64	pH Units	<1%
QC13030719	Duplicate	pH	SM 4500-H+ B	1303404-004	7.09	7.07	pH Units	<1%
QC13030721	Duplicate	Bicarbonate (HCO3)	SM 2320B	1303404-001	400	348	mg/L	14 %
		Carbonate (CO3)	SM 2320B	1303404-001	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1303404-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1303404-001	328	285	mg/L as CaCO3	14 %
QC13030721	Duplicate	Bicarbonate (HCO3)	SM 2320B	1303404-002	391	392	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1303404-002	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1303404-002	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1303404-002	321	321	mg/L as CaCO3	<1%
QC13030721	Duplicate	Bicarbonate (HCO3)	SM 2320B	1303404-003	385	385	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1303404-003	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1303404-003	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1303404-003	316	316	mg/L as CaCO3	<1%
QC13030721	Duplicate	Bicarbonate (HCO3)	SM 2320B	1303404-004	150	149	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1303404-004	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1303404-004	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1303404-004	123	122	mg/L as CaCO3	<1%
QC13030962	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1303419-001	60.0	57.0	mg/L	5 %
QC13030962	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1303440-001	1018	1038	mg/L	2 %
QC13030962	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1303462-004	811	819	mg/L	1 %

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC13030770	MS 1	Fluoride	EPA 300.0	1303419-001	0.240	2.45	2.52	2.00	mg/L	111	114	3 %
QC13030770	MS 2	Fluoride	EPA 300.0	1303405-003	<0.100	1.91	1.97	2.00	mg/L	96	99	3 %
QC13030771	MS 1	Chloride	EPA 300.0	1303419-001	<1.000	5.22	5.32	5.00	mg/L	105	107	2 %
QC13030771	MS 2	Chloride	EPA 300.0	1303405-003	<1.000	5.37	5.42	5.00	mg/L	107	108	1 %
QC13030773	MS 1	Nitrite Nitrogen	EPA 300.0	1303419-001	<0.025	0.480	0.491	0.500	mg/L	96	98	2 %
QC13030773	MS 2	Nitrite Nitrogen	EPA 300.0	1303445-001	<0.250	4.90	5.00	0.500	mg/L	97	99	2 %
QC13030774	MS 1	Nitrate Nitrogen	EPA 300.0	1303419-001	<1.000	2.10	2.14	2.00	mg/L	104	106	2 %
QC13030774	MS 2	Nitrate Nitrogen	EPA 300.0	1303445-001	28.3	48.8	49.3	2.00	mg/L	102	105	1 %
QC13030775	MS 1	Sulfate	EPA 300.0	1303419-001	30.0	39.3	39.5	10.0	mg/L	93	95	1 %
QC13030775	MS 2	Sulfate	EPA 300.0	1303405-003	<1.000	9.91	10.1	10.0	mg/L	99	101	2 %
QC13030920	MS 1	Aluminum, Dissolved	EPA 200.7	1303410-002	<0.045	0.926	0.936	1.00	mg/L	92	93	1 %
		Barium, Dissolved	EPA 200.7	1303410-002	<0.010	0.927	0.922	1.00	mg/L	92	92	1 %
		Beryllium, Dissolved	EPA 200.7	1303410-002	<0.001	0.965	0.955	1.00	mg/L	97	96	1 %
		Bismuth, Dissolved	EPA 200.7	1303410-002	<0.100	0.910	0.898	1.00	mg/L	95	93	1 %
		Boron, Dissolved	EPA 200.7	1303410-002	0.157	1.17	1.16	1.00	mg/L	101	100	1 %
		Cadmium, Dissolved	EPA 200.7	1303410-002	<0.001	0.954	0.943	1.00	mg/L	96	94	1 %
		Calcium, Dissolved	EPA 200.7	1303410-002	140	148	143	10.0	mg/L	80	30	3 %
		Chromium, Dissolved	EPA 200.7	1303410-002	<0.005	0.943	0.934	1.00	mg/L	94	93	1 %
		Cobalt, Dissolved	EPA 200.7	1303410-002	<0.010	0.874	0.862	1.00	mg/L	87	86	1 %
		Copper, Dissolved	EPA 200.7	1303410-002	<0.050	4.39	4.40	5.00	mg/L	88	88	<1%
		Gallium, Dissolved	EPA 200.7	1303410-002	<0.100	0.940	0.942	1.00	mg/L	94	94	<1%
		Iron, Dissolved	EPA 200.7	1303410-002	0.254	1.19	1.19	1.00	mg/L	94	94	<1%

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
		Lithium, Dissolved	EPA 200.7	1303410-002	<0.100	0.837	0.824	1.00	mg/L	81	80	2 %
		Magnesium, Dissolved	EPA 200.7	1303410-002	27.0	34.6	33.9	10.0	mg/L	76	69	2 %
		Manganese, Dissolved	EPA 200.7	1303410-002	0.010	0.949	0.947	1.00	mg/L	94	94	<1%
		Molybdenum, Dissolved	EPA 200.7	1303410-002	<0.050	0.977	0.961	1.00	mg/L	97	96	2 %
		Nickel, Dissolved	EPA 200.7	1303410-002	<0.010	4.38	4.34	5.00	mg/L	88	87	1 %
		Phosphorus, Dissolved	EPA 200.7	1303410-002	<0.500	5.24	5.19	5.00	mg/L	104	103	1 %
		Potassium, Dissolved	EPA 200.7	1303410-002	6.63	15.9	15.8	10.0	mg/L	93	92	1 %
		Scandium, Dissolved	EPA 200.7	1303410-002	<0.100	0.929	0.926	1.00	mg/L	93	93	<1%
		Silver, Dissolved	EPA 200.7	1303410-002	<0.005	0.082	0.082	0.090	mg/L	92	91	<1%
		Sodium, Dissolved	EPA 200.7	1303410-002	66.5	SC 73.0	73.2	10.0	mg/L	NC	NC	NC
		Strontium, Dissolved	EPA 200.7	1303410-002	0.878	1.77	1.74	1.00	mg/L	89	86	2 %
		Tin, Dissolved	EPA 200.7	1303410-002	<0.100	0.942	0.923	1.00	mg/L	101	99	2 %
		Titanium, Dissolved	EPA 200.7	1303410-002	<0.100	0.959	0.947	1.00	mg/L	96	95	1 %
		Vanadium, Dissolved	EPA 200.7	1303410-002	0.033	0.989	0.984	1.00	mg/L	96	95	1 %
		Zinc, Dissolved	EPA 200.7	1303410-002	<0.010	0.941	0.924	1.00	mg/L	94	92	2 %
QC13030972	MS 1	Uranium, Dissolved	EPA 200.8	1303410-002	<0.0050	0.0144	0.0143	0.010	mg/L	97	96	1 %
		Mercury, Dissolved	EPA 200.8	1303410-002	<0.00010	0.000791	0.000776	0.001	mg/L	78	77	2 %
		Antimony, Dissolved	EPA 200.8	1303410-002	<0.0025	0.0093	0.0095	0.010	mg/L	91	92	2 %
		Arsenic, Dissolved	EPA 200.8	1303410-002	<0.0050	0.0554	0.0549	0.050	mg/L	107	106	1 %
		Lead, Dissolved	EPA 200.8	1303410-002	<0.0025	0.0091	0.0090	0.010	mg/L	90	89	1 %
		Selenium, Dissolved	EPA 200.8	1303410-002	<0.0050	0.0489	0.0478	0.050	mg/L	94	91	2 %
		Thallium, Dissolved	EPA 200.8	1303410-002	<0.0010	0.0089	0.0089	0.010	mg/L	88	88	<1%



WETLAB

WESTERN ENVIRONMENTAL TESTING LABORATORY *Specializing in Soil, Hazardous Waste and Water Analysis.*

475 E. Greg Street #119 | Sparks, Nevada 89431
tel (775) 355-0202 | fax (775) 355-0817 | www.WETLaboratory.com

Lab Number 1303419

Report

Due Date: 4/4/13

Page 1 of 1

Client McClelland Laboratories, Inc.

Address 1016 Greg Street

City, State & Zip Sparks, NV 89431

Contact Mike Medina

Phone 775-356-1300

Collector's Name Robert

Fax 775-356-8917

Project Name

P.O. Number

Project Number 3438

Email mli@mettest.com

Turnaround Time

Standard _____ 5-Day _____ Other _____

Billing Address (if different than Client Address):

Company _____

Address _____

City, State & Zip _____

Contact _____

Phone _____

Fax _____

Email _____

Additional Information

Fax Results Y N To: Client Billing
Email Results Y N To: Client Billing
Compliance Monitoring Y N
Fax Results to State EPA Y N

Sample Type Codes

DW = Drinking Water SD = Solid
WW = Wastewater SO = Soil
SW = Surface Water HW = Hazardous Waste
MW = Monitoring Well OTHER: _____

NO. OF CONTAINERS
S A M P L E T Y P E

Analyses Requested

Profile II w/o Wad

Uranium

Spl. No.

SAMPLE ID/LOCATION	DATE	TIME	TYPE	NO. OF CONTAINERS	Profile II w/o Wad	Uranium	Spl. No.
604 673 Wk:112	03/21/13	9:00	WW	2	X	X	1

1303-5
419-1

Instructions/Comments/Special Requirements:

SAMPLE RECEIPT	DATE	TIME	Samples Relinquished By	Samples Received By
Temperature <u>20 °C</u>	<u>3/21/13</u>	<u>2:00 p</u>	<i>[Signature]</i>	<i>[Signature]</i>
Custody Seals Intact? Y <input type="checkbox"/> N <input checked="" type="checkbox"/> None				
Number of Containers <u>6</u>				

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.
To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.

Specializing in Soil, Hazardous Waste and Water Analysis.

4/11/2013

McClelland Laboratory
1016 Greg Street
Sparks, NV 89431
Attn: Mike Medina

OrderID: 1303567

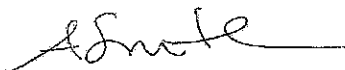
Dear: Mike Medina

This is to transmit the attached analytical report. The analytical data and information contained therein was generated using specified or selected methods contained in references, such as Standard Methods for the Examination of Water and Wastewater, 18th & 19th editions, Methods for Determination of Organic Compounds in Drinking Water, EPA-600/4-79-020, and Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW846) Third Edition.

The samples were received by WETLAB-Western Environmental Testing Laboratory in good condition on 3/28/2013. Additional comments are located on page 2 of this report.

If you should have any questions or comments regarding this report, please do not hesitate to call.

Sincerely,



Andy Smith
QA Manager

SPARKS

475 E. Greg Street, Suite 119
Sparks, Nevada 89431
tel [775] 355-0202
fax [775] 355-0817

ELKO

1084 Lamoille Hwy.
Elko, Nevada 89801
tel [775] 777-9933
fax [775] 777-9933

LAS VEGAS

3230 Polaris Ave., Suite 4
Las Vegas, Nevada 89102
tel [702] 475-8899
fax [702] 776-6152

Western Environmental Testing Laboratory

Report Comments

MCClelland Laboratory - 1303567

General Comments

None

Specific Comments

Due to the sample matrix it was necessary to analyze the following at a dilution:

1303567-005 Iron

1303567-006 Sodium

1303567-007 Iron, Molybdenum

The reporting limits have been adjusted accordingly.

Due to a laboratory reanalysis requirement the analysis for Total Dissolved Solids (TDS) on sample 1303567-004 was performed past the EPA recommended holding time. We apologize for any inconvenience this may have caused.

Data Qualifier Legend

- B -- Blank contamination; Analyte detected above the method reporting limit in an associated blank
- D -- Reporting limit is elevated due to required sample dilution
- HT -- Sample analyzed beyond the accepted holding time
- J -- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
- M -- Reported value is estimated; The sample matrix interfered with the analysis
- N -- There was insufficient sample available to perform a spike and/or duplicate on this analytical batch.
- NC -- Not calculated due to matrix interference
- Q -- Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
- S -- Surrogate recovery was outside of laboratory acceptance limits due to matrix interference. The associated blank and LCS surrogate recovery was within acceptance limits.
- SC -- Spike recovery not calculated. Sample concentration >4X the spike amount; therefore, the spike could not be adequately recovered.

Western Environmental Testing Laboratory Analytical Report

McClelland Laboratory

1016 Greg Street

Sparks, NV 89431

Attn: Mike Medina

Phone: (775) 356-1300 Fax: (775) 356-8917

PO\Project: 3438

Date Printed: 4/11/2013

OrderID: 1303567

Customer Sample ID: CF-11-02 (227-367) Wk:40

Collect Date/Time: 3/28/2013 09:00

WETLAB Sample ID: 1303567-001

Receive Date: 3/28/2013 14:30

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.77	pH Units		3/28/2013
Trace Metals Digestion	EPA 200.2	Complete			4/4/2013
Bicarbonate (HCO ₃)	SM 2320B	69	mg/L	1.0	3/28/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	3/28/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	3/28/2013
Total Alkalinity	SM 2320B	56	mg/L as CaCO ₃	1.0	3/28/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	3/29/2013
Fluoride	EPA 300.0	1.1	mg/L	0.10	3/29/2013
Sulfate	EPA 300.0	4.3	mg/L	1.0	3/29/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	3/29/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	3/29/2013
Total Dissolved Solids (TDS)	SM 2540C	76	mg/L	10	4/2/2013
Aluminum	EPA 200.7	0.075	mg/L	0.045	4/4/2013
Barium	EPA 200.7	0.044	mg/L	0.010	4/4/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	4/4/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Boron	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	4/4/2013
Calcium	EPA 200.7	18	mg/L	0.50	4/4/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	4/4/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	4/4/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Iron	EPA 200.7	0.018	mg/L	0.010	4/4/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Magnesium	EPA 200.7	2.7	mg/L	0.50	4/4/2013
Manganese	EPA 200.7	0.029	mg/L	0.0050	4/4/2013

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Customer Sample ID: CF-11-02 (227-367) Wk:40

Collect Date/Time: 3/28/2013 09:00

WETLAB Sample ID: 1303567-001

Receive Date: 3/28/2013 14:30

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	4/4/2013
Potassium	EPA 200.7	2.7	mg/L	0.50	4/4/2013
Scandium	EPA 200.7	<0.100	mg/L	0.100	4/4/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	4/4/2013
Sodium	EPA 200.7	1.6	mg/L	0.50	4/4/2013
Strontium	EPA 200.7	0.16	mg/L	0.10	4/4/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	4/5/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	4/5/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	4/5/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	4/5/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	4/5/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	4/5/2013
Uranium	EPA 200.8	<0.0050	mg/L	0.0050	4/5/2013
Anions	Calculation	1.28	meq/L	0.10	
Cations	Calculation	1.27	meq/L	0.10	
Error	Calculation	<1.0	%	1.0	

Customer Sample ID: CF-11-02 (52-117) Wk:40

Collect Date/Time: 3/28/2013 09:00

WETLAB Sample ID: 1303567-002

Receive Date: 3/28/2013 14:30

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.66	pH Units		3/28/2013
Trace Metals Digestion	EPA 200.2	Complete			4/4/2013
Bicarbonate (HCO3)	SM 2320B	57	mg/L	1.0	3/28/2013
Carbonate (CO3)	SM 2320B	<1.0	mg/L	1.0	3/28/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	3/28/2013
Total Alkalinity	SM 2320B	46	mg/L as CaCO3	1.0	3/28/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	3/29/2013
Fluoride	EPA 300.0	0.85	mg/L	0.10	3/29/2013
Sulfate	EPA 300.0	6.6	mg/L	1.0	3/29/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	3/29/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	3/29/2013

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Customer Sample ID: CF-11-02 (52-117) Wk:40

Collect Date/Time: 3/28/2013 09:00

WETLAB Sample ID: 1303567-002

Receive Date: 3/28/2013 14:30

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Total Dissolved Solids (TDS)	SM 2540C	68	mg/L	10	4/2/2013
Aluminum	EPA 200.7	0.056	mg/L	0.045	4/4/2013
Barium	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	4/4/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Boron	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	4/4/2013
Calcium	EPA 200.7	18	mg/L	0.50	4/4/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	4/4/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	4/4/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Iron	EPA 200.7	0.013	mg/L	0.010	4/4/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Magnesium	EPA 200.7	1.5	mg/L	0.50	4/4/2013
Manganese	EPA 200.7	0.024	mg/L	0.0050	4/4/2013
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	4/4/2013
Potassium	EPA 200.7	2.4	mg/L	0.50	4/4/2013
Scandium	EPA 200.7	<0.100	mg/L	0.100	4/4/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	4/4/2013
Sodium	EPA 200.7	1.4	mg/L	0.50	4/4/2013
Strontium	EPA 200.7	0.12	mg/L	0.10	4/4/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	4/5/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	4/5/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	4/5/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	4/5/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	4/5/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	4/5/2013
Uranium	EPA 200.8	0.0065	mg/L	0.0050	4/5/2013
Anions	Calculation	1.12	meq/L	0.10	
Cations	Calculation	1.15	meq/L	0.10	
Error	Calculation	1.6	%	1.0	

Customer Sample ID: K-Spar Breccia 5+ Comp Wk:40

Collect Date/Time: 3/28/2013 09:00

WETLAB Sample ID: 1303567-003

Receive Date: 3/28/2013 14:30

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.79	pH Units		3/28/2013
Trace Metals Digestion	EPA 200.2	Complete			4/4/2013
Bicarbonate (HCO ₃)	SM 2320B	70	mg/L	1.0	3/28/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	3/28/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	3/28/2013
Total Alkalinity	SM 2320B	58	mg/L as CaCO ₃	1.0	3/28/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	3/29/2013
Fluoride	EPA 300.0	1.2	mg/L	0.10	3/29/2013
Sulfate	EPA 300.0	33	mg/L	1.0	3/29/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	3/29/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	3/29/2013
Total Dissolved Solids (TDS)	SM 2540C	120	mg/L	10	4/2/2013
Aluminum	EPA 200.7	<0.045	mg/L	0.045	4/4/2013
Barium	EPA 200.7	0.12	mg/L	0.010	4/4/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	4/4/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Boron	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	4/4/2013
Calcium	EPA 200.7	31	mg/L	0.50	4/4/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	4/4/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	4/4/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Magnesium	EPA 200.7	2.5	mg/L	0.50	4/4/2013
Manganese	EPA 200.7	0.049	mg/L	0.0050	4/4/2013
Molybdenum	EPA 200.7	0.046	mg/L	0.010	4/4/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	4/4/2013
Potassium	EPA 200.7	2.5	mg/L	0.50	4/4/2013
Scandium	EPA 200.7	<0.100	mg/L	0.100	4/4/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	4/4/2013
Sodium	EPA 200.7	1.6	mg/L	0.50	4/4/2013
Strontium	EPA 200.7	0.57	mg/L	0.10	4/4/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	4/4/2013

Customer Sample ID: K-Spar Breccia 5+ Comp Wk:40

Collect Date/Time: 3/28/2013 09:00

WETLAB Sample ID: 1303567-003

Receive Date: 3/28/2013 14:30

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Zinc	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	4/5/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	4/5/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	4/5/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	4/5/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	4/5/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	4/5/2013
Uranium	EPA 200.8	0.017	mg/L	0.0050	4/5/2013
Anions	Calculation	1.90	meq/L	0.10	
Cations	Calculation	1.89	meq/L	0.10	
Error	Calculation	<1.0	%	1.0	

Customer Sample ID: Biotite Breccia 5+ Comp Wk:40

Collect Date/Time: 3/28/2013 09:00

WETLAB Sample ID: 1303567-004

Receive Date: 3/28/2013 14:30

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.86	pH Units		3/28/2013
Trace Metals Digestion	EPA 200.2	Complete			4/4/2013
Bicarbonate (HCO ₃)	SM 2320B	77	mg/L	1.0	3/28/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	3/28/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	3/28/2013
Total Alkalinity	SM 2320B	63	mg/L as CaCO ₃	1.0	3/28/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	3/29/2013
Fluoride	EPA 300.0	1.5	mg/L	0.10	3/29/2013
Sulfate	EPA 300.0	8.6	mg/L	1.0	3/29/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	3/29/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	3/29/2013
Total Dissolved Solids (TDS)	SM 2540C	96	HT mg/L	10	4/11/2013
Aluminum	EPA 200.7	<0.045	mg/L	0.045	4/4/2013
Barium	EPA 200.7	0.072	mg/L	0.010	4/4/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	4/4/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Boron	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	4/4/2013
Calcium	EPA 200.7	22	mg/L	0.50	4/4/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	4/4/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	4/4/2013

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Customer Sample ID: Biotite Breccia 5+ Comp Wk:40

Collect Date/Time: 3/28/2013 09:00

WETLAB Sample ID: 1303567-004

Receive Date: 3/28/2013 14:30

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Gallium	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Magnesium	EPA 200.7	3.6	mg/L	0.50	4/4/2013
Manganese	EPA 200.7	0.054	mg/L	0.0050	4/4/2013
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	4/4/2013
Potassium	EPA 200.7	2.3	mg/L	0.50	4/4/2013
Scandium	EPA 200.7	<0.100	mg/L	0.100	4/4/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	4/4/2013
Sodium	EPA 200.7	1.3	mg/L	0.50	4/4/2013
Strontium	EPA 200.7	0.24	mg/L	0.10	4/4/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	4/5/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	4/5/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	4/5/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	4/5/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	4/5/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	4/5/2013
Uranium	EPA 200.8	0.0063	mg/L	0.0050	4/5/2013
Anions	Calculation	1.52	meq/L	0.10	
Cations	Calculation	1.51	meq/L	0.10	
Error	Calculation	<1.0	%	1.0	

Customer Sample ID: Quartz Monzonite 5+ Comp Wk:40

Collect Date/Time: 3/28/2013 09:00

WETLAB Sample ID: 1303567-005

Receive Date: 3/28/2013 14:30

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.90	pH Units		3/28/2013
Trace Metals Digestion	EPA 200.2	Complete			4/4/2013
Bicarbonate (HCO3)	SM 2320B	72	mg/L	1.0	3/28/2013
Carbonate (CO3)	SM 2320B	<1.0	mg/L	1.0	3/28/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	3/28/2013
Total Alkalinity	SM 2320B	59	mg/L as CaCO3	1.0	3/28/2013

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Customer Sample ID: Quartz Monzonite 5+ Comp Wk:40

Collect Date/Time: 3/28/2013 09:00

WETLAB Sample ID: 1303567-005

Receive Date: 3/28/2013 14:30

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Chloride	EPA 300.0	<1.00	mg/L	1.00	3/29/2013
Fluoride	EPA 300.0	1.2	mg/L	0.10	3/29/2013
Sulfate	EPA 300.0	10	mg/L	1.0	3/29/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	3/29/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	3/29/2013
Total Dissolved Solids (TDS)	SM 2540C	90	mg/L	10	4/2/2013
Aluminum	EPA 200.7	<0.045	mg/L	0.045	4/4/2013
Barium	EPA 200.7	0.13	mg/L	0.010	4/4/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	4/4/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Boron	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	4/4/2013
Calcium	EPA 200.7	21	mg/L	0.50	4/4/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	4/4/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	4/4/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Iron	EPA 200.7	<0.050	mg/L	0.050	4/5/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Magnesium	EPA 200.7	3.6	mg/L	0.50	4/4/2013
Manganese	EPA 200.7	0.023	mg/L	0.0050	4/4/2013
Molybdenum	EPA 200.7	0.052	mg/L	0.010	4/4/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	4/4/2013
Potassium	EPA 200.7	2.3	mg/L	0.50	4/4/2013
Scandium	EPA 200.7	<0.100	mg/L	0.100	4/4/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	4/4/2013
Sodium	EPA 200.7	1.4	mg/L	0.50	4/4/2013
Strontium	EPA 200.7	0.48	mg/L	0.10	4/4/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	4/5/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	4/5/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	4/5/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	4/5/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	4/5/2013

Customer Sample ID: Quartz Monzonite 5+ Comp Wk:40

Collect Date/Time: 3/28/2013 09:00

WETLAB Sample ID: 1303567-005

Receive Date: 3/28/2013 14:30

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	4/5/2013
Uranium	EPA 200.8	0.010	mg/L	0.0050	4/5/2013
Anions	Calculation	1.45	meq/L	0.10	
Cations	Calculation	1.46	meq/L	0.10	
Error	Calculation	<1.0	%	1.0	

Customer Sample ID: Biotite Breccia 0-5 Comp Wk:40

Collect Date/Time: 3/28/2013 09:00

WETLAB Sample ID: 1303567-006

Receive Date: 3/28/2013 14:30

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.76	pH Units		3/28/2013
Trace Metals Digestion	EPA 200.2	Complete			4/4/2013
Bicarbonate (HCO3)	SM 2320B	65	mg/L	1.0	3/28/2013
Carbonate (CO3)	SM 2320B	<1.0	mg/L	1.0	3/28/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	3/28/2013
Total Alkalinity	SM 2320B	54	mg/L as CaCO3	1.0	3/28/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	3/29/2013
Fluoride	EPA 300.0	1.4	mg/L	0.10	3/29/2013
Sulfate	EPA 300.0	12	mg/L	1.0	3/29/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	3/29/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	3/29/2013
Total Dissolved Solids (TDS)	SM 2540C	80	mg/L	10	4/2/2013
Aluminum	EPA 200.7	<0.045	mg/L	0.045	4/4/2013
Barium	EPA 200.7	0.099	mg/L	0.010	4/4/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	4/4/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Boron	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	4/4/2013
Calcium	EPA 200.7	20	mg/L	0.50	4/4/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	4/4/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	4/4/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Iron	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Magnesium	EPA 200.7	3.8	mg/L	0.50	4/4/2013
Manganese	EPA 200.7	0.021	mg/L	0.0050	4/4/2013
Molybdenum	EPA 200.7	0.012	mg/L	0.010	4/4/2013

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Customer Sample ID: Biotite Breccia 0-5 Comp Wk:40

Collect Date/Time: 3/28/2013 09:00

WETLAB Sample ID: 1303567-006

Receive Date: 3/28/2013 14:30

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Nickel	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	4/4/2013
Potassium	EPA 200.7	1.5	mg/L	0.50	4/4/2013
Scandium	EPA 200.7	<0.100	mg/L	0.100	4/4/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	4/4/2013
Sodium	EPA 200.7	<2.5	mg/L	2.5	4/5/2013
Strontium	EPA 200.7	0.26	mg/L	0.10	4/4/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	4/5/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	4/5/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	4/5/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	4/5/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	4/5/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	4/5/2013
Uranium	EPA 200.8	0.023	mg/L	0.0050	4/5/2013
Anions	Calculation	1.39	meq/L	0.10	
Cations	Calculation	1.35	meq/L	0.10	
Error	Calculation	1.4	%	1.0	

Customer Sample ID: K-Spar Breccia 0-5 Comp Wk:40

Collect Date/Time: 3/28/2013 09:00

WETLAB Sample ID: 1303567-007

Receive Date: 3/28/2013 14:30

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.75	pH Units		3/28/2013
Trace Metals Digestion	EPA 200.2	Complete			4/4/2013
Bicarbonate (HCO ₃)	SM 2320B	60	mg/L	1.0	3/28/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	3/28/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	3/28/2013
Total Alkalinity	SM 2320B	49	mg/L as CaCO ₃	1.0	3/28/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	3/29/2013
Fluoride	EPA 300.0	1.2	mg/L	0.10	3/29/2013
Sulfate	EPA 300.0	11	mg/L	1.0	3/29/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	3/29/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	3/29/2013
Total Dissolved Solids (TDS)	SM 2540C	78	mg/L	10	4/2/2013

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Customer Sample ID: K-Spar Breccia 0-5 Comp Wk:40

Collect Date/Time: 3/28/2013 09:00

WETLAB Sample ID: 1303567-007

Receive Date: 3/28/2013 14:30

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Aluminum	EPA 200.7	<0.045	mg/L	0.045	4/4/2013
Barium	EPA 200.7	0.10	mg/L	0.010	4/4/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	4/4/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Boron	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	4/4/2013
Calcium	EPA 200.7	18	mg/L	0.50	4/4/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	4/4/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	4/4/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Iron	EPA 200.7	<0.050	mg/L	0.050	4/5/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Magnesium	EPA 200.7	3.6	mg/L	0.50	4/4/2013
Manganese	EPA 200.7	0.018	mg/L	0.0050	4/4/2013
Molybdenum	EPA 200.7	<0.050	mg/L	0.050	4/5/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	4/4/2013
Potassium	EPA 200.7	1.6	mg/L	0.50	4/4/2013
Scandium	EPA 200.7	<0.100	mg/L	0.100	4/4/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	4/4/2013
Sodium	EPA 200.7	1.1	mg/L	0.50	4/4/2013
Strontium	EPA 200.7	0.32	mg/L	0.10	4/4/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Zinc	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	4/5/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	4/5/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	4/5/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	4/5/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	4/5/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	4/5/2013
Uranium	EPA 200.8	0.021	mg/L	0.0050	4/5/2013
Anions	Calculation	1.28	meq/L	0.10	
Cations	Calculation	1.28	meq/L	0.10	
Error	Calculation	<1.0	%	1.0	

Customer Sample ID: Quartz Monzonite 0-5 Comp Wk:40

Collect Date/Time: 3/28/2013 09:00

WETLAB Sample ID: 1303567-008

Receive Date: 3/28/2013 14:30

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
pH	SM 4500-H+ B	7.56	pH Units		3/28/2013
Trace Metals Digestion	EPA 200.2	Complete			4/4/2013
Bicarbonate (HCO ₃)	SM 2320B	35	mg/L	1.0	3/28/2013
Carbonate (CO ₃)	SM 2320B	<1.0	mg/L	1.0	3/28/2013
Hydroxide (OH)	SM 2320B	<1.0	mg/L	1.0	3/28/2013
Total Alkalinity	SM 2320B	29	mg/L as CaCO ₃	1.0	3/28/2013
Chloride	EPA 300.0	<1.00	mg/L	1.00	3/29/2013
Fluoride	EPA 300.0	0.55	mg/L	0.10	3/29/2013
Sulfate	EPA 300.0	9.9	mg/L	1.0	3/29/2013
Nitrate Nitrogen	EPA 300.0	<1.0	mg/L	1.0	3/29/2013
Nitrite Nitrogen	EPA 300.0	<0.025	mg/L	0.025	3/29/2013
Total Dissolved Solids (TDS)	SM 2540C	56	mg/L	10	4/2/2013
Aluminum	EPA 200.7	<0.045	mg/L	0.045	4/4/2013
Barium	EPA 200.7	0.14	mg/L	0.010	4/4/2013
Beryllium	EPA 200.7	<0.0010	mg/L	0.0010	4/4/2013
Bismuth	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Boron	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Cadmium	EPA 200.7	<0.0010	mg/L	0.0010	4/4/2013
Calcium	EPA 200.7	11	mg/L	0.50	4/4/2013
Chromium	EPA 200.7	<0.0050	mg/L	0.0050	4/4/2013
Cobalt	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Copper	EPA 200.7	<0.050	mg/L	0.050	4/4/2013
Gallium	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Iron	EPA 200.7	0.023	mg/L	0.010	4/4/2013
Lithium	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Magnesium	EPA 200.7	1.8	mg/L	0.50	4/4/2013
Manganese	EPA 200.7	0.018	mg/L	0.0050	4/4/2013
Molybdenum	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Nickel	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Phosphorus	EPA 200.7	<0.50	mg/L	0.50	4/4/2013
Potassium	EPA 200.7	<0.50	mg/L	0.50	4/4/2013
Scandium	EPA 200.7	<0.100	mg/L	0.100	4/4/2013
Silver	EPA 200.7	<0.0050	mg/L	0.0050	4/4/2013
Sodium	EPA 200.7	2.2	mg/L	0.50	4/4/2013
Strontium	EPA 200.7	0.12	mg/L	0.10	4/4/2013
Tin	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Titanium	EPA 200.7	<0.10	mg/L	0.10	4/4/2013
Vanadium	EPA 200.7	<0.010	mg/L	0.010	4/4/2013

Customer Sample ID: Quartz Monzonite 0-5 Comp Wk:40

Collect Date/Time: 3/28/2013 09:00

WETLAB Sample ID: 1303567-008

Receive Date: 3/28/2013 14:30

PROFILE II

Parameter	Method	Results	Units	Reporting Limit	Date Analyzed
Zinc	EPA 200.7	<0.010	mg/L	0.010	4/4/2013
Mercury	EPA 200.8	<0.00010	mg/L	0.00010	4/5/2013
Antimony	EPA 200.8	<0.0025	mg/L	0.0025	4/5/2013
Arsenic	EPA 200.8	<0.0050	mg/L	0.0050	4/5/2013
Lead	EPA 200.8	<0.0025	mg/L	0.0025	4/5/2013
Selenium	EPA 200.8	<0.0050	mg/L	0.0050	4/5/2013
Thallium	EPA 200.8	<0.0010	mg/L	0.0010	4/5/2013
Uranium	EPA 200.8	0.011	mg/L	0.0050	4/5/2013
Anions	Calculation	0.81	meq/L	0.10	
Cations	Calculation	0.79	meq/L	0.10	
Error	Calculation	<1.0	%	1.0	

Western Environmental Testing Laboratory QC Report

QC Batch ID	QC Type	Parameter	Method	Result	Units
QC13040001	Blank 1	Fluoride	EPA 300.0	<0.10	mg/L
QC13040001	Blank 2	Fluoride	EPA 300.0	<0.10	mg/L
QC13040001	Blank 3	Fluoride	EPA 300.0	<0.10	mg/L
QC13040006	Blank 1	Chloride	EPA 300.0	<1.0	mg/L
QC13040006	Blank 2	Chloride	EPA 300.0	<1.0	mg/L
QC13040006	Blank 3	Chloride	EPA 300.0	<1.0	mg/L
QC13040013	Blank 1	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13040013	Blank 2	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13040013	Blank 3	Nitrite Nitrogen	EPA 300.0	<0.025	mg/L
QC13040018	Blank 1	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13040018	Blank 2	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13040018	Blank 3	Nitrate Nitrogen	EPA 300.0	<1.0	mg/L
QC13040023	Blank 1	Sulfate	EPA 300.0	<1.0	mg/L
QC13040023	Blank 2	Sulfate	EPA 300.0	<1.0	mg/L
QC13040023	Blank 3	Sulfate	EPA 300.0	<1.0	mg/L
QC13040178	Blank 1	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L
QC13040178	Blank 2	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L
QC13040178	Blank 3	Total Dissolved Solids (TDS)	SM 2540C	<10	mg/L
QC13040200	Blank 1	Aluminum	EPA 200.7	<0.045	mg/L
		Barium	EPA 200.7	<0.010	mg/L
		Beryllium	EPA 200.7	<0.0010	mg/L
		Bismuth	EPA 200.7	<0.10	mg/L
		Boron	EPA 200.7	<0.10	mg/L
		Cadmium	EPA 200.7	<0.0010	mg/L
		Calcium	EPA 200.7	<0.50	mg/L
		Chromium	EPA 200.7	<0.0050	mg/L
		Cobalt	EPA 200.7	<0.010	mg/L
		Copper	EPA 200.7	<0.050	mg/L
		Gallium	EPA 200.7	<0.10	mg/L
		Iron	EPA 200.7	<0.010	mg/L
		Lithium	EPA 200.7	<0.10	mg/L
		Magnesium	EPA 200.7	<0.50	mg/L
		Manganese	EPA 200.7	<0.0050	mg/L
		Molybdenum	EPA 200.7	<0.010	mg/L
		Nickel	EPA 200.7	<0.010	mg/L
		Phosphorus	EPA 200.7	<0.50	mg/L
		Potassium	EPA 200.7	<0.50	mg/L
		Scandium	EPA 200.7	<0.100	mg/L
		Silver	EPA 200.7	<0.0050	mg/L
		Sodium	EPA 200.7	<0.50	mg/L
		Strontium	EPA 200.7	<0.10	mg/L
		Tin	EPA 200.7	<0.10	mg/L
		Titanium	EPA 200.7	<0.10	mg/L
		Vanadium	EPA 200.7	<0.010	mg/L
		Zinc	EPA 200.7	<0.010	mg/L
QC13040227	Blank 1	Mercury	EPA 200.8	<0.00010	mg/L
		Antimony	EPA 200.8	<0.0025	mg/L

QCBatchID	QCType	Parameter	Method	Result	Units
		Arsenic	EPA 200.8	<0.0050	mg/L
		Lead	EPA 200.8	<0.0025	mg/L
		Selenium	EPA 200.8	<0.0050	mg/L
		Thallium	EPA 200.8	<0.0010	mg/L
		Uranium	EPA 200.8	<0.0050	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC13030974	LCS 1	pH	SM 4500-H+ B	7.00	7.00	100	pH Units
QC13030974	LCS 2	pH	SM 4500-H+ B	7.00	7.00	100	pH Units
QC13030975	LCS 1	Total Alkalinity	SM 2320B	99.4	100	99	mg/L
QC13030975	LCS 2	Total Alkalinity	SM 2320B	99.0	100	99	mg/L
QC13030975	LCS 3	Total Alkalinity	SM 2320B	99.3	100	99	mg/L
QC13040001	LCS 1	Fluoride	EPA 300.0	1.83	2.00	92	mg/L
QC13040006	LCS 1	Chloride	EPA 300.0	10.2	10.0	102	mg/L
QC13040013	LCS 1	Nitrite Nitrogen	EPA 300.0	0.495	0.500	99	mg/L
QC13040018	LCS 1	Nitrate Nitrogen	EPA 300.0	2.01	2.00	100	mg/L
QC13040023	LCS 1	Sulfate	EPA 300.0	24.4	25.0	98	mg/L
QC13040178	LCS 1	Total Dissolved Solids (TDS)	SM 2540C	147	150	98	mg/L
QC13040178	LCS 2	Total Dissolved Solids (TDS)	SM 2540C	157	150	105	mg/L
QC13040178	LCS 3	Total Dissolved Solids (TDS)	SM 2540C	159	150	106	mg/L
QC13040200	LCS 1	Aluminum	EPA 200.7	0.981	1.00	98	mg/L
		Barium	EPA 200.7	0.979	1.00	98	mg/L
		Beryllium	EPA 200.7	0.975	1.00	98	mg/L
		Bismuth	EPA 200.7	0.983	1.00	98	mg/L
		Boron	EPA 200.7	0.976	1.00	98	mg/L
		Cadmium	EPA 200.7	0.986	1.00	99	mg/L
		Calcium	EPA 200.7	9.44	10.0	94	mg/L
		Chromium	EPA 200.7	0.973	1.00	97	mg/L
		Cobalt	EPA 200.7	0.983	1.00	98	mg/L
		Copper	EPA 200.7	4.82	5.00	96	mg/L
		Gallium	EPA 200.7	0.985	1.00	98	mg/L
		Iron	EPA 200.7	0.974	1.00	97	mg/L
		Lithium	EPA 200.7	0.944	1.00	94	mg/L
		Magnesium	EPA 200.7	9.51	10.0	95	mg/L
		Manganese	EPA 200.7	0.976	1.00	98	mg/L
		Molybdenum	EPA 200.7	0.978	1.00	98	mg/L
		Nickel	EPA 200.7	4.91	5.00	98	mg/L
		Phosphorus	EPA 200.7	4.92	5.00	98	mg/L
		Potassium	EPA 200.7	9.63	10.0	96	mg/L
		Scandium	EPA 200.7	0.973	1.00	97	mg/L
		Silver	EPA 200.7	0.089	0.090	99	mg/L
		Sodium	EPA 200.7	9.59	10.0	96	mg/L
		Strontium	EPA 200.7	0.999	1.00	100	mg/L
		Tin	EPA 200.7	0.985	1.00	98	mg/L
		Titanium	EPA 200.7	0.979	1.00	98	mg/L
		Vanadium	EPA 200.7	0.979	1.00	98	mg/L
		Zinc	EPA 200.7	0.996	1.00	100	mg/L
QC13040227	LCS 1	Mercury	EPA 200.8	0.000911	0.001	91	mg/L
		Antimony	EPA 200.8	0.0099	0.010	99	mg/L
		Arsenic	EPA 200.8	0.0528	0.050	106	mg/L
		Lead	EPA 200.8	0.0100	0.010	100	mg/L
		Selenium	EPA 200.8	0.0509	0.050	102	mg/L
		Thallium	EPA 200.8	0.0100	0.010	100	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
		Uranium	EPA 200.8	0.0099	0.010	98	mg/L

QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD
QC13030974	Duplicate	pH	SM 4500-H+ B	1303558-001	7.39	7.40	pH Units	<1%
QC13030974	Duplicate	pH	SM 4500-H+ B	1303555-005	7.80	7.82	pH Units	<1%
QC13030974	Duplicate	pH	SM 4500-H+ B	1303568-001	7.46	7.45	pH Units	<1%
QC13030975	Duplicate	Bicarbonate (HCO3)	SM 2320B	1303558-001	215	216	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1303558-001	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1303558-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1303558-001	177	177	mg/L as CaCO3	<1%
QC13030975	Duplicate	Bicarbonate (HCO3)	SM 2320B	1303555-005	171	170	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1303555-005	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1303555-005	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1303555-005	140	140	mg/L as CaCO3	<1%
QC13030975	Duplicate	Bicarbonate (HCO3)	SM 2320B	1303568-001	39.8	39.6	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1303568-001	<1.000	<1.000	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1303568-001	<1.000	<1.000	mg/L	<1%
		Total Alkalinity	SM 2320B	1303568-001	32.6	32.5	mg/L as CaCO3	<1%
QC13040178	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1303532-001	484	438	mg/L	10 %
QC13040178	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1303533-001	100	99.0	mg/L	1 %
QC13040178	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1303567-006	80.0	84.0	mg/L	5 %
QC13040178	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1303594-008	343	346	mg/L	1 %
QC13040178	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1304005-002	210	212	mg/L	1 %
QC13040178	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1304010-002	297	305	mg/L	3 %

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC13040001	MS 1	Fluoride	EPA 300.0	1303567-008	0.546	2.40	2.43	2.00	mg/L	93	94	1 %
QC13040001	MS 2	Fluoride	EPA 300.0	1303568-001	<0.100	1.90	1.94	2.00	mg/L	92	94	2 %
QC13040006	MS 1	Chloride	EPA 300.0	1303567-008	<1.000	5.37	5.42	5.00	mg/L	108	109	1 %
QC13040006	MS 2	Chloride	EPA 300.0	1303568-001	<1.000	5.39	5.46	5.00	mg/L	109	110	1 %
QC13040013	MS 1	Nitrite Nitrogen	EPA 300.0	1303567-008	<0.025	0.513	0.518	0.500	mg/L	101	102	1 %
QC13040013	MS 2	Nitrite Nitrogen	EPA 300.0	1303568-001	<0.025	0.509	0.518	0.500	mg/L	102	104	2 %
QC13040018	MS 1	Nitrate Nitrogen	EPA 300.0	1303567-008	<1.000	2.18	2.20	2.00	mg/L	107	108	1 %
QC13040018	MS 2	Nitrate Nitrogen	EPA 300.0	1303568-001	<1.000	2.14	2.17	2.00	mg/L	106	108	1 %
QC13040023	MS 1	Sulfate	EPA 300.0	1303567-008	9.89	20.0	20.1	10.0	mg/L	101	102	<1%
QC13040023	MS 2	Sulfate	EPA 300.0	1303568-001	5.42	15.5	15.6	10.0	mg/L	101	102	1 %
QC13040200	MS 1	Aluminum	EPA 200.7	1303566-001	<0.045	0.940	0.917	1.00	mg/L	91	89	2 %
		Barium	EPA 200.7	1303566-001	0.032	0.968	0.963	1.00	mg/L	94	93	1 %
		Beryllium	EPA 200.7	1303566-001	<0.001	0.976	0.983	1.00	mg/L	98	98	1 %
		Bismuth	EPA 200.7	1303566-001	<0.100	0.926	0.908	1.00	mg/L	98	96	2 %
		Boron	EPA 200.7	1303566-001	1.32	2.40	2.39	1.00	mg/L	108	107	<1%
		Cadmium	EPA 200.7	1303566-001	<0.001	0.921	0.928	1.00	mg/L	92	93	1 %
		Calcium	EPA 200.7	1303566-001	146	SC 160	161	10.0	mg/L	NC	NC	NC
		Chromium	EPA 200.7	1303566-001	<0.005	0.942	0.939	1.00	mg/L	94	94	<1%
		Cobalt	EPA 200.7	1303566-001	<0.010	0.932	0.933	1.00	mg/L	93	93	<1%
		Copper	EPA 200.7	1303566-001	<0.050	4.98	4.89	5.00	mg/L	99	98	2 %

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
		Gallium	EPA 200.7	1303566-001	<0.100	0.922	0.905	1.00	mg/L	92	90	2 %
		Iron	EPA 200.7	1303566-001	0.018	0.969	0.969	1.00	mg/L	95	95	<1%
		Lithium	EPA 200.7	1303566-001	<0.100	0.966	0.934	1.00	mg/L	89	86	3 %
		Magnesium	EPA 200.7	1303566-001	45.9	53.4	53.9	10.0	mg/L	75	80	1 %
		Manganese	EPA 200.7	1303566-001	0.733	1.72	1.71	1.00	mg/L	99	98	1 %
		Molybdenum	EPA 200.7	1303566-001	0.072	1.06	1.05	1.00	mg/L	99	98	1 %
		Nickel	EPA 200.7	1303566-001	<0.010	4.58	4.59	5.00	mg/L	91	92	<1%
		Phosphorus	EPA 200.7	1303566-001	<0.500	5.33	5.28	5.00	mg/L	105	104	1 %
		Potassium	EPA 200.7	1303566-001	4.14	14.1	13.9	10.0	mg/L	100	98	1 %
		Scandium	EPA 200.7	1303566-001	<0.100	0.971	0.968	1.00	mg/L	97	97	<1%
		Silver	EPA 200.7	1303566-001	<0.005	0.087	0.086	0.090	mg/L	97	96	1 %
		Sodium	EPA 200.7	1303566-001	379	390	391	10.0	mg/L	110	120	<1%
		Strontium	EPA 200.7	1303566-001	1.63	2.58	2.55	1.00	mg/L	95	92	1 %
		Tin	EPA 200.7	1303566-001	<0.100	0.914	0.909	1.00	mg/L	98	97	1 %
		Titanium	EPA 200.7	1303566-001	<0.100	0.981	0.985	1.00	mg/L	98	99	<1%
		Vanadium	EPA 200.7	1303566-001	0.135	1.14	1.13	1.00	mg/L	100	99	1 %
		Zinc	EPA 200.7	1303566-001	<0.010	0.983	0.994	1.00	mg/L	98	99	1 %
QC13040227	MS 1	Mercury	EPA 200.8	1303566-001	<0.00200	<0.00200	0.002000	0.001	mg/L	70	80	#Erro
		Antimony	EPA 200.8	1303566-001	<0.0025	0.0122	0.0122	0.010	mg/L	97	98	<1%
		Arsenic	EPA 200.8	1303566-001	0.1118	0.1666	0.1670	0.050	mg/L	110	110	<1%
		Lead	EPA 200.8	1303566-001	<0.0025	0.0089	0.0089	0.010	mg/L	87	86	<1%
		Selenium	EPA 200.8	1303566-001	0.0052	0.0523	0.0522	0.050	mg/L	94	94	<1%
		Thallium	EPA 200.8	1303566-001	<0.0010	0.0085	0.0086	0.010	mg/L	84	85	1 %
		Uranium	EPA 200.8	1303566-001	<0.0050	0.0143	0.0144	0.010	mg/L	98	99	1 %



WETLAB

WESTERN ENVIRONMENTAL TESTING LABORATORY

Specializing in Soil, Hazardous Waste and Water Analysis.

475 E. Greg Street #119 | Sparks, Nevada 89431

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Lab Number 130366

Report Due Date: 4/11/13

Page 1 of 1

Client **McClelland Laboratories, Inc.**

Address **1016 Greg Street**

City, State & Zip **Sparks, NV 89431**

Contact **Mike Medina**

Phone **775-356-1300**

Collector's Name **Robert**

Fax **775-356-8917**

Project Name

P.O. Number

Project Number **3438**

Email **mli@mettest.com**

Turnaround Time

Standard _____ 5-Day _____ Other _____

Billing Address (if different than Client Address):

Company _____

Address _____

City, State & Zip _____

Contact _____

Phone _____

Fax _____

Email _____

Additional Information

Fax Results	Y	N	To: Client	Billing
Email Results	Y	N	To: Client	Billing
Compliance Monitoring	Y	N		
Fax Results to State EPA	Y	N		

Sample Type Codes

DW = Drinking Water	SD = Solid
WW = Wastewater	SO = Soil
SW = Surface Water	HW = Hazardous Waste
MW = Monitoring Well	OTHER: _____

NO OF CONTAINERS

Analyses Requested

Profile II w/o Wtab

Uranium

SAMPLE ID/LOCATION	DATE	TIME	TYPE	NO OF CONTAINERS	Profile II w/o Wtab	Uranium	Spl. No.
CF-11-02 (227-367) Wk:40	03/28/13	9:00	WW	2	X	X	1
CF-11-02 (52-117)							2
K-Spar Breccia 5+ Comp							3
Biotite Breccia 5+ Comp							4
Quartz Monzonite 5+ Comp							5
Biotite Breccia 0-5 Comp							6
K-Spar Breccia 0-5 Comp							7
Quartz Monzonite 0-5 Comp							8

1303 115
567 8

Instructions/Comments/Special Requirements:

SAMPLE RECEIPT	DATE	TIME	Samples Relinquished By	Samples Received By
Temperature <u>21</u> °C	<u>3/28/13</u>	<u>9:45:30</u>	<i>[Signature]</i>	<i>[Signature]</i>
Custody Seals Intact? Y N <u>(None)</u>	<u>3/28/13</u>			
Number of Containers <u>16</u>				

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.

To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.



WETLAB

WESTERN ENVIRONMENTAL TESTING LABORATORY

Specializing in Soil, Hazardous Waste and Water Analysis.

475 E. Greg Street #119 | Sparks, Nevada 89431

tel (775) 355-0202 | fax (775) 355-0817 | www.WETLaboratory.com

Lab Number 130306

Report Due Date: 4/11/13

Page 1 of 1

Client **McClelland Laboratories, Inc.**

Address **1016 Greg Street**

City, State & Zip **Sparks, NV 89431**

Contact **Mike Medina**

Phone **775-356-1300**

Fax **775-356-8917**

P.O. Number

Collector's Name **Robert**

Project Name

Project Number **3438**

Email **mli@mettest.com**

Turnaround Time
Standard 5-Day Other

Billing Address (if different than Client Address):

Company _____
Address _____
City, State & Zip _____
Contact _____
Phone _____
Fax _____
Email _____

Additional Information

Fax Results	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	To: Client	Billing
Email Results	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	To: Client	Billing
Compliance Monitoring	<input type="checkbox"/> Y	<input type="checkbox"/> N		
Fax Results to State EPA	<input type="checkbox"/> Y	<input type="checkbox"/> N		

Sample Type Codes

DW = Drinking Water	SD = Solid
WW = Wastewater	SO = Soil
SW = Surface Water	HW = Hazardous Waste
MW = Monitoring Well	OTHER: _____

SAMPLE ID/LOCATION	DATE	TIME	SAMPLE TYPE	NO OF CONTAINERS	Analyses Requested		Spl. No.
					Profile II w/o Wad	Uranium	
CF-11-02 (227-367) Wk:40	03/28/13	9:00	WW	2	X	X	1
CF-11-02 (52-117)							2
K-Spar Breccia 5+ Comp							3
Biotite Breccia 5+ Comp							4
Quartz Monzonite 5+ Comp							5
Biotite Breccia 0-5 Comp							6
K-Spar Breccia 0-5 Comp							7
Quartz Monzonite 0-5 Comp							8

1303 115
567 8

Instructions/Comments/Special Requirements:

SAMPLE RECEIPT	DATE	TIME	Samples Relinquished By	Samples Received By
Temperature <u>21</u> °C	<u>3/28/13</u>	<u>14:30</u>		
Custody Seals Intact? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <u>(None)</u>	<u>3/28/13</u>			
Number of Containers <u>16</u>				

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.

To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.

Specializing in Soil, Hazardous Waste and Water Analysis.

4/24/2013

McClelland Laboratory
1016 Greg Street
Sparks, NV 89431
Attn: Mike Medina

OrderID: 1304219


Dear: Mike Medina

This is to transmit the attached analytical report. The analytical data and information contained therein was generated using specified or selected methods contained in references, such as Standard Methods for the Examination of Water and Wastewater, 18th & 19th editions, Methods for Determination of Organic Compounds in Drinking Water, EPA-600/4-79-020, and Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW846) Third Edition.

The samples were received by WETLAB-Western Environmental Testing Laboratory in good condition on 4/11/2013. Additional comments are located on page 2 of this report.

If you should have any questions or comments regarding this report, please do not hesitate to call.

Sincerely,



Jennifer Delaney
QA Specialist

SPARKS

475 E. Greg Street, Suite 119
Sparks, Nevada 89431
tel [775] 355-0202
fax [775] 355-0817

ELKO

1084 Lamoille Hwy.
Elko, Nevada 89801
tel [775] 777-9933
fax [775] 777-9933

LAS VEGAS

3230 Polaris Ave., Suite 4
Las Vegas, Nevada 89102
tel [702] 475-8899
fax [702] 776-6152

Western Environmental Testing Laboratory

Report Comments

McClelland Laboratory - 1304219

General Comments

None

Specific Comments

None

Data Qualifier Legend

- B -- Blank contamination; Analyte detected above the method reporting limit in an associated blank
- D -- Reporting limit is elevated due to required sample dilution
- HT -- Sample analyzed beyond the accepted holding time
- J -- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
- M -- Reported value is estimated; The sample matrix interfered with the analysis
- N -- There was insufficient sample available to perform a spike and/or duplicate on this analytical batch.
- NC -- Not calculated due to matrix interference
- Q -- Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
- S -- Surrogate recovery was outside of laboratory acceptance limits due to matrix interference. The associated blank and LCS surrogate recovery was within acceptance limits.
- SC -- Spike recovery not calculated. Sample concentration >4X the spike amount; therefore, the spike could not be adequately recovered.

Western Environmental Testing Laboratory Analytical Report

McClelland Laboratory

1016 Greg Street

Sparks, NV 89431

Attn: Mike Medina

Phone: (775) 356-1300 Fax: (775) 356-8917

PO\Project: 3438

Date Printed: 4/24/2013

OrderID: 1304219

Customer Sample ID: CF-11-02 (0-27) Wk:48

Collect Date/Time: 4/11/2013 09:00

WETLAB Sample ID: 1304219-001

Receive Date: 4/11/2013 14:10

Analyte	Method	Results	Units	DF	RL	Analyzed
<u>General Chemistry</u>						
pH	SM 4500-H+ B	7.52	pH Units	1		4/11/2013
Bicarbonate (HCO ₃)	SM 2320B	46	mg/L	1	1.0	4/11/2013
Carbonate (CO ₃)	SM 2320B	ND	mg/L	1	1.0	4/11/2013
Hydroxide (OH)	SM 2320B	ND	mg/L	1	1.0	4/11/2013
Total Alkalinity	SM 2320B	38	mg/L as CaCO ₃	1	1.0	4/11/2013
Total Dissolved Solids (TDS)	SM 2540C	60	mg/L	1	10	4/16/2013
<u>Anions by Ion Chromatography</u>						
Chloride	EPA 300.0	ND	mg/L	1	1.00	4/12/2013
Fluoride	EPA 300.0	0.94	mg/L	1	0.10	4/12/2013
Sulfate	EPA 300.0	14	mg/L	1	1.0	4/12/2013
Nitrate Nitrogen	EPA 300.0	ND	mg/L	1	1.0	4/12/2013
Nitrite Nitrogen	EPA 300.0	ND	mg/L	1	0.025	4/12/2013
<u>Trace Metals by ICP-OES</u>						
Aluminum	EPA 200.7	0.060	mg/L	1	0.045	4/17/2013
Barium	EPA 200.7	ND	mg/L	1	0.010	4/17/2013
Beryllium	EPA 200.7	ND	mg/L	1	0.0010	4/17/2013
Bismuth	EPA 200.7	ND	mg/L	1	0.10	4/17/2013
Boron	EPA 200.7	ND	mg/L	1	0.10	4/18/2013
Cadmium	EPA 200.7	ND	mg/L	1	0.0010	4/17/2013
Calcium	EPA 200.7	16	mg/L	1	0.50	4/17/2013
Chromium	EPA 200.7	ND	mg/L	1	0.0050	4/17/2013
Cobalt	EPA 200.7	ND	mg/L	1	0.010	4/17/2013
Copper	EPA 200.7	ND	mg/L	1	0.050	4/17/2013
Gallium	EPA 200.7	ND	mg/L	1	0.10	4/17/2013
Iron	EPA 200.7	0.013	mg/L	1	0.010	4/17/2013
Lithium	EPA 200.7	ND	mg/L	1	0.10	4/17/2013
Magnesium	EPA 200.7	2.6	mg/L	1	0.50	4/17/2013
Manganese	EPA 200.7	0.032	mg/L	1	0.0050	4/17/2013
Molybdenum	EPA 200.7	ND	mg/L	1	0.010	4/17/2013
Nickel	EPA 200.7	ND	mg/L	1	0.010	4/17/2013
Phosphorus	EPA 200.7	ND	mg/L	1	0.50	4/17/2013
Potassium	EPA 200.7	1.4	mg/L	1	0.50	4/17/2013

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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475 East Greg Street Suite #119
Sparks, NV 89431 (775) 355-0202
EPA Lab ID: NV00925 - ELAP No: 25

1084 Lamoille Hwy
Elko, NV 89801 (775) 777-9933
EPA Lab ID: NV00926

3230 Polaris Ave #4
Las Vegas, NV 89102 (702) 475-8899
EPA Lab ID: NV00932

Customer Sample ID: CF-11-02 (0-27) Wk:48

Collect Date/Time: 4/11/2013 09:00

WETLAB Sample ID: 1304219-001

Receive Date: 4/11/2013 14:10

Analyte	Method	Results	Units	DF	RL	Analyzed
Scandium	EPA 200.7	ND	mg/L	1	0.100	4/17/2013
Silver	EPA 200.7	ND	mg/L	1	0.0050	4/17/2013
Sodium	EPA 200.7	ND	mg/L	1	0.50	4/18/2013
Strontium	EPA 200.7	0.13	mg/L	1	0.10	4/17/2013
Tin	EPA 200.7	ND	mg/L	1	0.10	4/17/2013
Titanium	EPA 200.7	ND	mg/L	1	0.10	4/17/2013
Vanadium	EPA 200.7	ND	mg/L	1	0.010	4/17/2013
Zinc	EPA 200.7	ND	mg/L	1	0.010	4/17/2013

Trace Metals by ICP-MS

Mercury	EPA 200.8	ND	mg/L	1	0.00010	4/19/2013
Antimony	EPA 200.8	ND	mg/L	1	0.0025	4/23/2013
Arsenic	EPA 200.8	ND	mg/L	1	0.0050	4/19/2013
Lead	EPA 200.8	ND	mg/L	1	0.0025	4/19/2013
Selenium	EPA 200.8	ND	mg/L	1	0.0050	4/19/2013
Thallium	EPA 200.8	ND	mg/L	1	0.0010	4/19/2013
Uranium	EPA 200.8	ND	mg/L	1	0.0050	4/19/2013

Ion Balance

Anions	Calculation	1.09	meq/L	1	0.10	
Cations	Calculation	1.06	meq/L	1	0.10	
Error	Calculation	1.8	%	1	1.0	

Sample Preparation

Trace Metals Digestion	EPA 200.2	Complete		1		4/17/2013
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Customer Sample ID: CF-11-02 (367-408) Wk:48

Collect Date/Time: 4/11/2013 09:00

WETLAB Sample ID: 1304219-002

Receive Date: 4/11/2013 14:10

Analyte	Method	Results	Units	DF	RL	Analyzed
General Chemistry						
pH	SM 4500-H+ B	7.28	pH Units	1		4/11/2013
Bicarbonate (HCO3)	SM 2320B	28	mg/L	1	1.0	4/11/2013
Carbonate (CO3)	SM 2320B	ND	mg/L	1	1.0	4/11/2013
Hydroxide (OH)	SM 2320B	ND	mg/L	1	1.0	4/11/2013
Total Alkalinity	SM 2320B	23	mg/L as CaCO3	1	1.0	4/11/2013
Total Dissolved Solids (TDS)	SM 2540C	51	mg/L	1	10	4/16/2013

Anions by Ion Chromatography

Chloride	EPA 300.0	ND	mg/L	1	1.00	4/12/2013
Fluoride	EPA 300.0	0.86	mg/L	1	0.10	4/12/2013
Sulfate	EPA 300.0	7.5	mg/L	1	1.0	4/12/2013
Nitrate Nitrogen	EPA 300.0	ND	mg/L	1	1.0	4/12/2013
Nitrite Nitrogen	EPA 300.0	ND	mg/L	1	0.025	4/12/2013

Trace Metals by ICP-OES

Aluminum	EPA 200.7	0.14	mg/L	1	0.045	4/17/2013
Barium	EPA 200.7	ND	mg/L	1	0.010	4/17/2013
Beryllium	EPA 200.7	ND	mg/L	1	0.0010	4/17/2013
Bismuth	EPA 200.7	ND	mg/L	1	0.10	4/17/2013

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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475 East Greg Street Suite #119
Sparks, NV 89431 (775) 355-0202
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1084 Lamoille Hwy
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EPA Lab ID: NV00926

3230 Polaris Ave #4
Las Vegas, NV 89102 (702) 475-8899
EPA Lab ID: NV00932

Customer Sample ID: CF-11-02 (367-408) Wk:48

Collect Date/Time: 4/11/2013 09:00

WETLAB Sample ID: 1304219-002

Receive Date: 4/11/2013 14:10

Analyte	Method	Results	Units	DF	RL	Analyzed
Boron	EPA 200.7	ND	mg/L	1	0.10	4/18/2013
Cadmium	EPA 200.7	ND	mg/L	1	0.0010	4/17/2013
Calcium	EPA 200.7	13	mg/L	1	0.50	4/17/2013
Chromium	EPA 200.7	ND	mg/L	1	0.0050	4/17/2013
Cobalt	EPA 200.7	ND	mg/L	1	0.010	4/17/2013
Copper	EPA 200.7	ND	mg/L	1	0.050	4/17/2013
Gallium	EPA 200.7	ND	mg/L	1	0.10	4/17/2013
Iron	EPA 200.7	ND	mg/L	1	0.010	4/17/2013
Lithium	EPA 200.7	ND	mg/L	1	0.10	4/17/2013
Magnesium	EPA 200.7	ND	mg/L	1	0.50	4/17/2013
Manganese	EPA 200.7	0.024	mg/L	1	0.0050	4/17/2013
Molybdenum	EPA 200.7	ND	mg/L	1	0.010	4/17/2013
Nickel	EPA 200.7	ND	mg/L	1	0.010	4/17/2013
Phosphorus	EPA 200.7	ND	mg/L	1	0.50	4/17/2013
Potassium	EPA 200.7	0.83	mg/L	1	0.50	4/17/2013
Scandium	EPA 200.7	ND	mg/L	1	0.100	4/17/2013
Silver	EPA 200.7	ND	mg/L	1	0.0050	4/17/2013
Sodium	EPA 200.7	ND	mg/L	1	0.50	4/18/2013
Strontium	EPA 200.7	ND	mg/L	1	0.10	4/17/2013
Tin	EPA 200.7	ND	mg/L	1	0.10	4/17/2013
Titanium	EPA 200.7	ND	mg/L	1	0.10	4/17/2013
Vanadium	EPA 200.7	ND	mg/L	1	0.010	4/17/2013
Zinc	EPA 200.7	ND	mg/L	1	0.010	4/17/2013
<u>Trace Metals by ICP-MS</u>						
Mercury	EPA 200.8	ND	mg/L	1	0.00010	4/19/2013
Antimony	EPA 200.8	ND	mg/L	1	0.0025	4/23/2013
Arsenic	EPA 200.8	ND	mg/L	1	0.0050	4/19/2013
Lead	EPA 200.8	ND	mg/L	1	0.0025	4/19/2013
Selenium	EPA 200.8	ND	mg/L	1	0.0050	4/19/2013
Thallium	EPA 200.8	ND	mg/L	1	0.0010	4/19/2013
Uranium	EPA 200.8	ND	mg/L	1	0.0050	4/19/2013
<u>Ion Balance</u>						
Anions	Calculation	0.66	meq/L	1	0.10	
Cations	Calculation	0.69	meq/L	1	0.10	
Error	Calculation	1.9	%	1	1.0	
<u>Sample Preparation</u>						
Trace Metals Digestion	EPA 200.2	Complete		1		4/17/2013

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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EPA Lab ID: NV00926

3230 Polaris Ave #4
Las Vegas, NV 89102 (702) 475-8899
EPA Lab ID: NV00932

Western Environmental Testing Laboratory QC Report

QCBatchID	QCType	Parameter	Method	Result	Units
QC13040485	Blank 1	Fluoride	EPA 300.0	ND	mg/L
QC13040485	Blank 2	Fluoride	EPA 300.0	ND	mg/L
QC13040485	Blank 3	Fluoride	EPA 300.0	ND	mg/L
QC13040487	Blank 1	Chloride	EPA 300.0	ND	mg/L
QC13040487	Blank 2	Chloride	EPA 300.0	ND	mg/L
QC13040487	Blank 3	Chloride	EPA 300.0	ND	mg/L
QC13040489	Blank 1	Nitrite Nitrogen	EPA 300.0	ND	mg/L
QC13040489	Blank 2	Nitrite Nitrogen	EPA 300.0	ND	mg/L
QC13040489	Blank 3	Nitrite Nitrogen	EPA 300.0	ND	mg/L
QC13040493	Blank 1	Nitrate Nitrogen	EPA 300.0	ND	mg/L
QC13040493	Blank 2	Nitrate Nitrogen	EPA 300.0	ND	mg/L
QC13040493	Blank 3	Nitrate Nitrogen	EPA 300.0	ND	mg/L
QC13040496	Blank 1	Sulfate	EPA 300.0	ND	mg/L
QC13040496	Blank 2	Sulfate	EPA 300.0	ND	mg/L
QC13040496	Blank 3	Sulfate	EPA 300.0	ND	mg/L
QC13040618	Blank 1	Aluminum	EPA 200.7	ND	mg/L
		Barium	EPA 200.7	ND	mg/L
		Beryllium	EPA 200.7	ND	mg/L
		Bismuth	EPA 200.7	ND	mg/L
		Boron	EPA 200.7	ND	mg/L
		Cadmium	EPA 200.7	ND	mg/L
		Calcium	EPA 200.7	ND	mg/L
		Chromium	EPA 200.7	ND	mg/L
		Cobalt	EPA 200.7	ND	mg/L
		Copper	EPA 200.7	ND	mg/L
		Gallium	EPA 200.7	ND	mg/L
		Iron	EPA 200.7	ND	mg/L
		Lithium	EPA 200.7	ND	mg/L
		Magnesium	EPA 200.7	ND	mg/L
		Manganese	EPA 200.7	ND	mg/L
		Molybdenum	EPA 200.7	ND	mg/L
		Nickel	EPA 200.7	ND	mg/L
		Phosphorus	EPA 200.7	ND	mg/L
		Potassium	EPA 200.7	ND	mg/L
		Scandium	EPA 200.7	ND	mg/L
		Silver	EPA 200.7	ND	mg/L
		Sodium	EPA 200.7	ND	mg/L
		Strontium	EPA 200.7	ND	mg/L
		Tin	EPA 200.7	ND	mg/L
		Titanium	EPA 200.7	ND	mg/L
		Vanadium	EPA 200.7	ND	mg/L
		Zinc	EPA 200.7	ND	mg/L
QC13040630	Blank 1	Total Dissolved Solids (TDS)	SM 2540C	ND	mg/L
QC13040630	Blank 2	Total Dissolved Solids (TDS)	SM 2540C	ND	mg/L
QC13040687	Blank 1	Mercury	EPA 200.8	ND	mg/L
		Antimony	EPA 200.8	ND	mg/L

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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EPA Lab ID: NV00926

3230 Polaris Ave #4
Las Vegas, NV 89102 (702) 475-8899
EPA Lab ID: NV00932

QCBatchID	QCType	Parameter	Method	Result	Units		
		Arsenic	EPA 200.8	ND	mg/L		
		Lead	EPA 200.8	ND	mg/L		
		Selenium	EPA 200.8	ND	mg/L		
		Thallium	EPA 200.8	ND	mg/L		
		Uranium	EPA 200.8	ND	mg/L		
QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC13040432	LCS 1	pH	SM 4500-H+ B	6.99	7.00	100	pH Units
QC13040432	LCS 2	pH	SM 4500-H+ B	6.99	7.00	100	pH Units
QC13040432	LCS 3	pH	SM 4500-H+ B	7.00	7.00	100	pH Units
QC13040433	LCS 1	Total Alkalinity	SM 2320B	98.5	100	98	mg/L
QC13040433	LCS 2	Total Alkalinity	SM 2320B	98.4	100	98	mg/L
QC13040433	LCS 3	Total Alkalinity	SM 2320B	98.5	100	98	mg/L
QC13040433	LCS 4	Total Alkalinity	SM 2320B	98.8	100	99	mg/L
QC13040485	LCS 1	Fluoride	EPA 300.0	1.91	2.00	95	mg/L
QC13040487	LCS 1	Chloride	EPA 300.0	10.2	10.0	102	mg/L
QC13040489	LCS 1	Nitrite Nitrogen	EPA 300.0	0.454	0.500	91	mg/L
QC13040493	LCS 1	Nitrate Nitrogen	EPA 300.0	1.97	2.00	98	mg/L
QC13040496	LCS 1	Sulfate	EPA 300.0	24.3	25.0	97	mg/L
QC13040618	LCS 1	Aluminum	EPA 200.7	1.00	1.00	100	mg/L
		Barium	EPA 200.7	0.986	1.00	99	mg/L
		Beryllium	EPA 200.7	0.966	1.00	97	mg/L
		Bismuth	EPA 200.7	1.03	1.00	103	mg/L
		Boron	EPA 200.7	0.972	1.00	97	mg/L
		Cadmium	EPA 200.7	0.990	1.00	99	mg/L
		Calcium	EPA 200.7	9.82	10.0	98	mg/L
		Chromium	EPA 200.7	0.974	1.00	97	mg/L
		Cobalt	EPA 200.7	0.980	1.00	98	mg/L
		Copper	EPA 200.7	4.83	5.00	97	mg/L
		Gallium	EPA 200.7	0.986	1.00	99	mg/L
		Iron	EPA 200.7	0.971	1.00	97	mg/L
		Lithium	EPA 200.7	0.952	1.00	95	mg/L
		Magnesium	EPA 200.7	9.56	10.0	96	mg/L
		Manganese	EPA 200.7	0.971	1.00	97	mg/L
		Molybdenum	EPA 200.7	0.990	1.00	99	mg/L
		Nickel	EPA 200.7	4.89	5.00	98	mg/L
		Phosphorus	EPA 200.7	4.99	5.00	100	mg/L
		Potassium	EPA 200.7	9.77	10.0	98	mg/L
		Scandium	EPA 200.7	0.969	1.00	97	mg/L
		Silver	EPA 200.7	0.088	0.090	98	mg/L
		Sodium	EPA 200.7	9.84	10.0	98	mg/L
		Strontium	EPA 200.7	0.979	1.00	98	mg/L
		Tin	EPA 200.7	0.980	1.00	98	mg/L
		Titanium	EPA 200.7	0.970	1.00	97	mg/L
		Vanadium	EPA 200.7	0.976	1.00	98	mg/L
		Zinc	EPA 200.7	0.989	1.00	99	mg/L
QC13040630	LCS 1	Total Dissolved Solids (TDS)	SM 2540C	144	150	96	mg/L
QC13040630	LCS 2	Total Dissolved Solids (TDS)	SM 2540C	137	150	92	mg/L
QC13040687	LCS 1	Mercury	EPA 200.8	0.000934	0.001	93	mg/L
		Antimony	EPA 200.8	0.0088	0.010	88	mg/L
		Arsenic	EPA 200.8	0.0500	0.050	100	mg/L
		Lead	EPA 200.8	0.0099	0.010	99	mg/L
		Selenium	EPA 200.8	0.0497	0.050	99	mg/L

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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Las Vegas, NV 89102 (702) 475-8899
EPA Lab ID: NV00932

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units					
		Thallium	EPA 200.8	0.0098	0.010	98	mg/L					
		Uranium	EPA 200.8	0.0097	0.010	97	mg/L					
QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD				
QC13040432	Duplicate	pH	SM 4500-H+ B	1304219-001	7.52	7.51	pH Units	<1%				
QC13040432	Duplicate	pH	SM 4500-H+ B	1304234-001	8.79	8.80	pH Units	<1%				
QC13040432	Duplicate	pH	SM 4500-H+ B	1304233-004	7.34	7.36	pH Units	<1%				
QC13040432	Duplicate	pH	SM 4500-H+ B	1304234-006	7.80	7.81	pH Units	<1%				
QC13040433	Duplicate	Bicarbonate (HCO ₃)	SM 2320B	1304219-001	46.2	46.0	mg/L	<1%				
		Carbonate (CO ₃)	SM 2320B	1304219-001	ND	ND	mg/L	<1%				
		Hydroxide (OH)	SM 2320B	1304219-001	ND	ND	mg/L	<1%				
		Total Alkalinity	SM 2320B	1304219-001	37.9	37.8	mg/L as CaCO ₃	<1%				
QC13040433	Duplicate	Bicarbonate (HCO ₃)	SM 2320B	1304234-001	242	243	mg/L	<1%				
		Carbonate (CO ₃)	SM 2320B	1304234-001	21.4	21.1	mg/L	2 %				
		Hydroxide (OH)	SM 2320B	1304234-001	ND	ND	mg/L	<1%				
		Total Alkalinity	SM 2320B	1304234-001	234	234	mg/L as CaCO ₃	<1%				
QC13040433	Duplicate	Bicarbonate (HCO ₃)	SM 2320B	1304233-004	152	152	mg/L	<1%				
		Carbonate (CO ₃)	SM 2320B	1304233-004	ND	ND	mg/L	<1%				
		Hydroxide (OH)	SM 2320B	1304233-004	ND	ND	mg/L	<1%				
		Total Alkalinity	SM 2320B	1304233-004	125	125	mg/L as CaCO ₃	<1%				
QC13040433	Duplicate	Bicarbonate (HCO ₃)	SM 2320B	1304234-006	172	171	mg/L	1 %				
		Carbonate (CO ₃)	SM 2320B	1304234-006	ND	ND	mg/L	<1%				
		Hydroxide (OH)	SM 2320B	1304234-006	ND	ND	mg/L	<1%				
		Total Alkalinity	SM 2320B	1304234-006	141	140	mg/L as CaCO ₃	1 %				
QC13040433	Duplicate	Bicarbonate (HCO ₃)	SM 2320B	1304221-001	87.9	88.8	mg/L	1 %				
		Carbonate (CO ₃)	SM 2320B	1304221-001	ND	ND	mg/L	<1%				
		Hydroxide (OH)	SM 2320B	1304221-001	ND	ND	mg/L	<1%				
		Total Alkalinity	SM 2320B	1304221-001	72.1	72.8	mg/L as CaCO ₃	1 %				
QC13040630	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1304237-001	215	214	mg/L	<1%				
QC13040630	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1304239-001	477	466	mg/L	2 %				
QC13040630	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1304239-009	275	269	mg/L	2 %				
QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC13040485	MS 1	Fluoride	EPA 300.0	1304219-002	0.857	2.78	2.88	2.00	mg/L	96	101	4 %
QC13040485	MS 2	Fluoride	EPA 300.0	1304249-013	0.396	2.41	2.40	2.00	mg/L	101	100	<1%
QC13040487	MS 1	Chloride	EPA 300.0	1304219-002	ND	5.24	5.31	5.00	mg/L	105	106	1 %
QC13040487	MS 2	Chloride	EPA 300.0	1304249-001	ND	5.81	5.86	5.00	mg/L	106	107	1 %
QC13040489	MS 1	Nitrite Nitrogen	EPA 300.0	1304219-002	ND	0.494	0.499	0.500	mg/L	99	100	1 %
QC13040489	MS 2	Nitrite Nitrogen	EPA 300.0	1304249-001	ND	0.492	0.498	0.500	mg/L	98	100	1 %
QC13040493	MS 1	Nitrate Nitrogen	EPA 300.0	1304219-002	ND	2.10	2.13	2.00	mg/L	104	105	1 %
QC13040493	MS 2	Nitrate Nitrogen	EPA 300.0	1304239-004	6.08	27.4	27.6	2.00	mg/L	107	108	1 %
QC13040496	MS 1	Sulfate	EPA 300.0	1304219-002	7.55	18.0	18.1	10.0	mg/L	104	106	1 %
QC13040496	MS 2	Sulfate	EPA 300.0	1304249-013	4.02	14.4	14.5	10.0	mg/L	104	105	1 %
QC13040618	MS 1	Aluminum	EPA 200.7	1304221-005	ND	0.850	0.850	1.00	mg/L	82	82	<1%

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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475 East Greg Street Suite #119
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Elko, NV 89801 (775) 777-9933
EPA Lab ID: NV00926

3230 Polaris Ave #4
Las Vegas, NV 89102 (702) 475-8899
EPA Lab ID: NV00932

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
		Barium	EPA 200.7	1304221-005	0.170	1.13	1.13	1.00	mg/L	96	96	<1%
		Beryllium	EPA 200.7	1304221-005	ND	1.02	1.01	1.00	mg/L	102	101	1 %
		Bismuth	EPA 200.7	1304221-005	ND	0.962	0.966	1.00	mg/L	98	99	<1%
		Boron	EPA 200.7	1304221-005	17.5	SC 19.6	19.7	1.00	mg/L	NC	NC	NC
		Cadmium	EPA 200.7	1304221-005	ND	1.02	1.02	1.00	mg/L	102	102	<1%
		Calcium	EPA 200.7	1304221-005	67.4	77.8	77.1	10.0	mg/L	104	97	1 %
		Chromium	EPA 200.7	1304221-005	ND	0.954	0.952	1.00	mg/L	95	95	<1%
		Cobalt	EPA 200.7	1304221-005	ND	0.932	0.940	1.00	mg/L	93	94	1 %
		Copper	EPA 200.7	1304221-005	ND	5.21	5.18	5.00	mg/L	104	103	1 %
		Gallium	EPA 200.7	1304221-005	ND	0.849	0.848	1.00	mg/L	84	84	<1%
		Iron	EPA 200.7	1304221-005	0.065	1.02	1.05	1.00	mg/L	96	99	3 %
		Lithium	EPA 200.7	1304221-005	2.25	3.43	3.40	1.00	mg/L	118	115	1 %
		Magnesium	EPA 200.7	1304221-005	ND	9.51	9.54	10.0	mg/L	91	91	<1%
		Manganese	EPA 200.7	1304221-005	0.012	0.964	0.958	1.00	mg/L	95	95	1 %
		Molybdenum	EPA 200.7	1304221-005	ND	0.962	0.969	1.00	mg/L	98	99	1 %
		Nickel	EPA 200.7	1304221-005	ND	4.82	4.80	5.00	mg/L	96	96	<1%
		Phosphorus	EPA 200.7	1304221-005	ND	5.50	5.56	5.00	mg/L	107	109	1 %
		Potassium	EPA 200.7	1304221-005	111	124	124	10.0	mg/L	130	130	<1%
		Scandium	EPA 200.7	1304221-005	ND	0.976	0.974	1.00	mg/L	98	97	<1%
		Silver	EPA 200.7	1304221-005	ND	0.089	0.088	0.090	mg/L	100	99	1 %
		Sodium	EPA 200.7	1304221-005	1440	SC 1510	1520	10.0	mg/L	NC	NC	NC
		Strontium	EPA 200.7	1304221-005	2.46	3.46	3.41	1.00	mg/L	100	95	1 %
		Tin	EPA 200.7	1304221-005	ND	0.929	0.942	1.00	mg/L	97	98	1 %
		Titanium	EPA 200.7	1304221-005	ND	0.975	0.972	1.00	mg/L	98	97	<1%
		Vanadium	EPA 200.7	1304221-005	ND	0.998	0.995	1.00	mg/L	99	99	<1%
		Zinc	EPA 200.7	1304221-005	ND	1.05	1.06	1.00	mg/L	105	106	1 %
QC13040687	MS 1	Mercury	EPA 200.8	1304221-005	ND	0.001400	0.001300	0.001	mg/L	110	100	7 %
		Antimony	EPA 200.8	1304221-005	ND	<0.0125	<0.0125	0.010	mg/L	107	110	#Erro
		Arsenic	EPA 200.8	1304221-005	0.0129	M 0.0415	0.0421	0.050	mg/L	NC	NC	NC
		Lead	EPA 200.8	1304221-005	ND	0.0076	0.0079	0.010	mg/L	74	76	4 %
		Selenium	EPA 200.8	1304221-005	ND	M 0.0410	0.0403	0.050	mg/L	NC	NC	NC
		Thallium	EPA 200.8	1304221-005	ND	0.0074	0.0077	0.010	mg/L	74	76	4 %
		Uranium	EPA 200.8	1304221-005	ND	0.0080	0.0083	0.010	mg/L	80	83	4 %



WETLAB

WESTERN ENVIRONMENTAL TESTING LABORATORY *Specializing in Soil, Hazardous Waste and Water Analysis.*

475 E. Greg Street #119 | Sparks, Nevada 89431
tel (775) 355-0202 | fax (775) 355-0817 | www.WETLaboratory.com

Lab Number 1304219
Report _____
Due Date: 4/25/13
Page 1 of 1

Client McClelland Laboratories, Inc.
Address 1016 Greg Street
City, State & Zip Sparks, NV 89431
Contact Mike Medina
Phone 775-356-1300 **Collector's Name** Robert
Fax 775-356-8917 **Project Name** _____
P.O. Number _____ **Project Number** 3438

Turnaround Time
 Standard _____ 5-Day _____ Other _____
Billing Address (if different than Client Address):
 Company _____
 Address _____
 City, State & Zip _____
 Contact _____
 Phone _____
 Fax _____
 Email _____

Email mli@mettest.com

Additional Information

Fax Results	Y	N	To: Client	Billing
Email Results	Y	N	To: Client	Billing
Compliance Monitoring	Y	N		
Fax Results to State EPA	Y	N		

Sample Type Codes

DW = Drinking Water	SD = Solid
WW = Wastewater	SO = Soil
SW = Surface Water	HW = Hazardous Waste
MW = Monitoring Well	OTHER: _____

SAMPLE TYPE	NO. OF CONTAINERS	Analyses Requested										Spl. No.	
		Profile II w/o Wad	Uranium										
WW	2	X	X										1
		↓	↓	↓	↓	↓	↓						2

Instructions/Comments/Special Requirements:

SAMPLE RECEIPT	DATE	TIME	Samples Relinquished By	Samples Received By
Temperature <u>19.5 °C</u>	<u>4/11/13</u>	<u>1410</u>	<u>[Signature]</u>	<u>[Signature]</u>
Custody Seals Intact? Y N <u>(None)</u>				
Number of Containers <u>4</u>				

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.

To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.



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Lab Number 1304219

Report 4/25/13

Due Date: 4/25/13

Page 1 of 1

Client McClelland Laboratories, Inc.

Address 1016 Greg Street

City, State & Zip Sparks, NV 89431

Contact Mike Medina

Phone 775-356-1300

Collector's Name Robert

Fax 775-356-8917

Project Name

P.O. Number

Project Number 3438

Turnaround Time
Standard 5-Day Other

Billing Address (if different than Client Address):

Company _____
Address _____
City, State & Zip _____
Contact _____
Phone _____
Fax _____
Email _____

Email mli@mettest.com

Additional Information

Fax Results	Y	N	To: Client	Billing
Email Results	Y	N	To: Client	Billing
Compliance Monitoring	Y	N		
Fax Results to State EPA	Y	N		

Sample Type Codes

DW = Drinking Water	SD = Solid
WW = Wastewater	SO = Soil
SW = Surface Water	HW = Hazardous Waste
MW = Monitoring Well	OTHER: _____

SAMPLE TYPE	NO OF CONTAINERS	Analyses Requested											Spl. No.
		Profile II w/o Wad	Uranium										
WW	2	X	X										1
		↓	↓										2

Instructions/Comments/Special Requirements:

SAMPLE RECEIPT		DATE	TIME	Samples Relinquished By	Samples Received By
Temperature	19.5 °C	4/11/13	1410	[Signature]	[Signature]
Custody Seals Intact?	Y N <u>None</u>				
Number of Containers	<u>4</u>				

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.

To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.

Specializing in Soil, Hazardous Waste and Water Analysis.

4/30/2013

McClelland Laboratory
1016 Greg Street
Sparks, NV 89431
Attn: Mike Medina

OrderID: 1304347

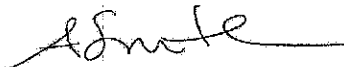
Dear: Mike Medina

This is to transmit the attached analytical report. The analytical data and information contained therein was generated using specified or selected methods contained in references, such as Standard Methods for the Examination of Water and Wastewater, 18th & 19th editions, Methods for Determination of Organic Compounds in Drinking Water, EPA-600/4-79-020, and Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW846) Third Edition.

The samples were received by WETLAB-Western Environmental Testing Laboratory in good condition on 4/18/2013. Additional comments are located on page 2 of this report.

If you should have any questions or comments regarding this report, please do not hesitate to call.

Sincerely,



Andy Smith
QA Manager

SPARKS

475 E. Greg Street, Suite 119
Sparks, Nevada 89431
tel [775] 355-0202
fax [775] 355-0817

ELKO

1084 Lamoille Hwy.
Elko, Nevada 89801
tel [775] 777-9933
fax [775] 777-9933

LAS VEGAS

3230 Polaris Ave., Suite 4
Las Vegas, Nevada 89102
tel [702] 475-8899
fax [702] 776-6152

Western Environmental Testing Laboratory

Report Comments

McClelland Laboratory - 1304347

General Comments

None

Specific Comments

Due to the sample matrix it was necessary to analyze the following at a dilution:

1304347-001 Arsenic, Selenium

The reporting limits have been adjusted accordingly.

Data Qualifier Legend

- B -- Blank contamination; Analyte detected above the method reporting limit in an associated blank
- D -- Reporting limit is elevated due to required sample dilution
- DF -- Dilution Factor
- HT -- Sample analyzed beyond the accepted holding time
- J -- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
- M -- Reported value is estimated; The sample matrix interfered with the analysis
- MCL -- State or EPA Maximum Contamination Level
- N -- There was insufficient sample available to perform a spike and/or duplicate on this analytical batch.
- NC -- Not calculated due to matrix interference
- ND -- Non-detect result; Indicates the result was below the reporting limit (RL)
- Q -- Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
- RL -- Reporting Limit or Practical Quantitation Limit
- S -- Surrogate recovery was outside of laboratory acceptance limits due to matrix interference. The associated blank and LCS surrogate recovery was within acceptance limits
- SC -- Spike recovery not calculated. Sample concentration >4X the spike amount; therefore, the spike could not be adequately recovered

Western Environmental Testing Laboratory Analytical Report

McClelland Laboratory

1016 Greg Street

Sparks, NV 89431

Attn: Mike Medina

Phone: (775) 356-1300 Fax: (775) 356-8917

PO\Project: 3438

Date Printed: 4/30/2013

OrderID: 1304347

Customer Sample ID: 604 673

Collect Date/Time: 4/18/2013 09:00

WETLAB Sample ID: 1304347-001

Receive Date: 4/18/2013 14:05

Analyte	Method	Results	Units	DF	RL	Analyzed
<u>General Chemistry</u>						
pH	SM 4500-H+ B	4.71 Q	pH Units	1		4/18/2013
Bicarbonate (HCO ₃)	SM 2320B	ND	mg/L	1	1.0	4/18/2013
Carbonate (CO ₃)	SM 2320B	ND	mg/L	1	1.0	4/18/2013
Hydroxide (OH)	SM 2320B	ND	mg/L	1	1.0	4/18/2013
Total Alkalinity	SM 2320B	ND	mg/L as CaCO ₃	1	1.0	4/18/2013
Total Dissolved Solids (TDS)	SM 2540C	59	mg/L	1	10	4/23/2013
<u>Anions by Ion Chromatography</u>						
Chloride	EPA 300.0	ND	mg/L	1	1.00	4/19/2013
Fluoride	EPA 300.0	0.18	mg/L	1	0.10	4/19/2013
Sulfate	EPA 300.0	28	mg/L	1	1.0	4/19/2013
Nitrate Nitrogen	EPA 300.0	ND	mg/L	1	1.0	4/19/2013
Nitrite Nitrogen	EPA 300.0	ND	mg/L	1	0.025	4/19/2013
<u>Trace Metals by ICP-OES</u>						
Aluminum	EPA 200.7	0.19	mg/L	1	0.045	4/23/2013
Barium	EPA 200.7	0.065	mg/L	1	0.010	4/23/2013
Beryllium	EPA 200.7	ND	mg/L	1	0.0010	4/23/2013
Bismuth	EPA 200.7	ND	mg/L	1	0.10	4/23/2013
Boron	EPA 200.7	ND	mg/L	1	0.10	4/23/2013
Cadmium	EPA 200.7	ND	mg/L	1	0.0010	4/23/2013
Calcium	EPA 200.7	7.0	mg/L	1	0.50	4/23/2013
Chromium	EPA 200.7	ND	mg/L	1	0.0050	4/23/2013
Cobalt	EPA 200.7	ND	mg/L	1	0.010	4/23/2013
Copper	EPA 200.7	2.8	mg/L	1	0.050	4/23/2013
Gallium	EPA 200.7	ND	mg/L	1	0.10	4/23/2013
Iron	EPA 200.7	0.064	mg/L	1	0.010	4/23/2013
Lithium	EPA 200.7	ND	mg/L	1	0.10	4/23/2013
Magnesium	EPA 200.7	0.96	mg/L	1	0.50	4/23/2013
Manganese	EPA 200.7	0.053	mg/L	1	0.0050	4/23/2013
Molybdenum	EPA 200.7	ND	mg/L	1	0.010	4/23/2013
Nickel	EPA 200.7	ND	mg/L	1	0.010	4/23/2013
Phosphorus	EPA 200.7	ND	mg/L	1	0.50	4/23/2013
Potassium	EPA 200.7	0.71	mg/L	1	0.50	4/23/2013

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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475 East Greg Street Suite #119
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Elko, NV 89801 (775) 777-9933
EPA Lab ID: NV00926

3230 Polaris Ave #4
Las Vegas, NV 89102 (702) 475-8899
EPA Lab ID: NV00932

Customer Sample ID: 604 673
 WETLAB Sample ID: 1304347-001

Collect Date/Time: 4/18/2013 09:00

Receive Date: 4/18/2013 14:05

Analyte	Method	Results	Units	DF	RL	Analyzed
Scandium	EPA 200.7	ND	mg/L	1	0.100	4/23/2013
Silver	EPA 200.7	ND	mg/L	1	0.0050	4/23/2013
Sodium	EPA 200.7	0.58	mg/L	1	0.50	4/23/2013
Strontium	EPA 200.7	ND	mg/L	1	0.10	4/23/2013
Tin	EPA 200.7	ND	mg/L	1	0.10	4/23/2013
Titanium	EPA 200.7	ND	mg/L	1	0.10	4/23/2013
Vanadium	EPA 200.7	ND	mg/L	1	0.010	4/23/2013
Zinc	EPA 200.7	0.058	mg/L	1	0.010	4/23/2013
<u>Trace Metals by ICP-MS</u>						
Mercury	EPA 200.8	ND	mg/L	1	0.00010	4/23/2013
Antimony	EPA 200.8	ND	mg/L	1	0.0025	4/23/2013
Arsenic	EPA 200.8	ND	mg/L	5	0.015	4/24/2013
Lead	EPA 200.8	0.011	mg/L	1	0.0025	4/23/2013
Selenium	EPA 200.8	ND	mg/L	5	0.025	4/24/2013
Thallium	EPA 200.8	ND	mg/L	1	0.0010	4/23/2013
Uranium	EPA 200.8	0.026	mg/L	1	0.0050	4/23/2013
<u>Ion Balance</u>						
Anions	Calculation	0.59	meq/L	1	0.10	
Cations	Calculation	0.59	meq/L	1	0.10	
Error	Calculation	ND	%	1	1.0	
<u>Sample Preparation</u>						
Trace Metals Digestion	EPA 200.2	Complete		1		4/22/2013

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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475 East Greg Street Suite #119
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 Elko, NV 89801 (775) 777-9933
 EPA Lab ID: NV00926

3230 Polaris Ave #4
 Las Vegas, NV 89102 (702) 475-8899
 EPA Lab ID: NV00932

Western Environmental Testing Laboratory QC Report

QCBatchID	QCType	Parameter	Method	Result	Units
QC13040691	Blank 1	Fluoride	EPA 300.0	ND	mg/L
QC13040691	Blank 2	Fluoride	EPA 300.0	ND	mg/L
QC13040691	Blank 3	Fluoride	EPA 300.0	ND	mg/L
QC13040693	Blank 1	Chloride	EPA 300.0	ND	mg/L
QC13040693	Blank 2	Chloride	EPA 300.0	ND	mg/L
QC13040693	Blank 3	Chloride	EPA 300.0	ND	mg/L
QC13040695	Blank 1	Nitrite Nitrogen	EPA 300.0	ND	mg/L
QC13040695	Blank 2	Nitrite Nitrogen	EPA 300.0	ND	mg/L
QC13040695	Blank 3	Nitrite Nitrogen	EPA 300.0	ND	mg/L
QC13040696	Blank 1	Nitrate Nitrogen	EPA 300.0	ND	mg/L
QC13040696	Blank 2	Nitrate Nitrogen	EPA 300.0	ND	mg/L
QC13040696	Blank 3	Nitrate Nitrogen	EPA 300.0	ND	mg/L
QC13040697	Blank 1	Sulfate	EPA 300.0	ND	mg/L
QC13040697	Blank 2	Sulfate	EPA 300.0	ND	mg/L
QC13040697	Blank 3	Sulfate	EPA 300.0	ND	mg/L
QC13040772	Blank 1	Aluminum, Dissolved	EPA 200.7	ND	mg/L
		Barium, Dissolved	EPA 200.7	ND	mg/L
		Beryllium, Dissolved	EPA 200.7	ND	mg/L
		Bismuth, Dissolved	EPA 200.7	ND	mg/L
		Boron, Dissolved	EPA 200.7	ND	mg/L
		Cadmium, Dissolved	EPA 200.7	ND	mg/L
		Calcium, Dissolved	EPA 200.7	ND	mg/L
		Chromium, Dissolved	EPA 200.7	ND	mg/L
		Cobalt, Dissolved	EPA 200.7	ND	mg/L
		Copper, Dissolved	EPA 200.7	ND	mg/L
		Gallium, Dissolved	EPA 200.7	ND	mg/L
		Iron, Dissolved	EPA 200.7	ND	mg/L
		Lithium, Dissolved	EPA 200.7	ND	mg/L
		Magnesium, Dissolved	EPA 200.7	ND	mg/L
		Manganese, Dissolved	EPA 200.7	ND	mg/L
		Molybdenum, Dissolved	EPA 200.7	ND	mg/L
		Nickel, Dissolved	EPA 200.7	ND	mg/L
		Phosphorus, Dissolved	EPA 200.7	ND	mg/L
		Potassium, Dissolved	EPA 200.7	ND	mg/L
		Scandium, Dissolved	EPA 200.7	ND	mg/L
		Silver, Dissolved	EPA 200.7	ND	mg/L
		Sodium, Dissolved	EPA 200.7	ND	mg/L
		Strontium, Dissolved	EPA 200.7	ND	mg/L
		Tin, Dissolved	EPA 200.7	ND	mg/L
		Titanium, Dissolved	EPA 200.7	ND	mg/L
		Vanadium, Dissolved	EPA 200.7	ND	mg/L
		Zinc, Dissolved	EPA 200.7	ND	mg/L
QC13040791	Blank 1	Uranium, Dissolved	EPA 200.8	ND	mg/L
		Mercury, Dissolved	EPA 200.8	ND	mg/L
		Antimony, Dissolved	EPA 200.8	ND	mg/L
		Arsenic, Dissolved	EPA 200.8	ND	mg/L

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

Page 5 of 8

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Elko, NV 89801 (775) 777-9933
EPA Lab ID: NV00926

3230 Polaris Ave #4
Las Vegas, NV 89102 (702) 475-8899
EPA Lab ID: NV00932

QCBatchID	QCType	Parameter	Method	Result	Units
		Lead, Dissolved	EPA 200.8	ND	mg/L
		Selenium, Dissolved	EPA 200.8	ND	mg/L
		Thallium, Dissolved	EPA 200.8	ND	mg/L
QC13040886	Blank 1	Total Dissolved Solids (TDS)	SM 2540C	ND	mg/L
QC13040886	Blank 2	Total Dissolved Solids (TDS)	SM 2540C	ND	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC13040660	LCS 1	pH	SM 4500-H+ B	7.00	7.00	100	pH Units
QC13040660	LCS 2	pH	SM 4500-H+ B	6.99	7.00	100	pH Units
QC13040660	LCS 3	pH	SM 4500-H+ B	6.98	7.00	100	pH Units
QC13040663	LCS 1	Total Alkalinity	SM 2320B	99.3	100	99	mg/L
QC13040663	LCS 2	Total Alkalinity	SM 2320B	99.1	100	99	mg/L
QC13040663	LCS 3	Total Alkalinity	SM 2320B	99.7	100	100	mg/L
QC13040663	LCS 4	Total Alkalinity	SM 2320B	100	100	100	mg/L
QC13040691	LCS 1	Fluoride	EPA 300.0	2.03	2.00	101	mg/L
QC13040693	LCS 1	Chloride	EPA 300.0	10.2	10.0	102	mg/L
QC13040695	LCS 1	Nitrite Nitrogen	EPA 300.0	0.474	0.500	95	mg/L
QC13040696	LCS 1	Nitrate Nitrogen	EPA 300.0	1.95	2.00	97	mg/L
QC13040697	LCS 1	Sulfate	EPA 300.0	24.5	25.0	98	mg/L
QC13040772	LCS 1	Aluminum, Dissolved	EPA 200.7	0.989	1.00	99	mg/L
		Barium, Dissolved	EPA 200.7	0.966	1.00	97	mg/L
		Beryllium, Dissolved	EPA 200.7	0.968	1.00	97	mg/L
		Bismuth, Dissolved	EPA 200.7	0.958	1.00	96	mg/L
		Boron, Dissolved	EPA 200.7	0.947	1.00	95	mg/L
		Cadmium, Dissolved	EPA 200.7	0.966	1.00	97	mg/L
		Calcium, Dissolved	EPA 200.7	9.65	10.0	96	mg/L
		Chromium, Dissolved	EPA 200.7	0.963	1.00	96	mg/L
		Cobalt, Dissolved	EPA 200.7	0.946	1.00	95	mg/L
		Copper, Dissolved	EPA 200.7	4.80	5.00	96	mg/L
		Gallium, Dissolved	EPA 200.7	0.977	1.00	98	mg/L
		Iron, Dissolved	EPA 200.7	0.954	1.00	95	mg/L
		Lithium, Dissolved	EPA 200.7	0.963	1.00	96	mg/L
		Magnesium, Dissolved	EPA 200.7	9.50	10.0	95	mg/L
		Manganese, Dissolved	EPA 200.7	0.958	1.00	96	mg/L
		Molybdenum, Dissolved	EPA 200.7	0.939	1.00	94	mg/L
		Nickel, Dissolved	EPA 200.7	4.82	5.00	96	mg/L
		Phosphorus, Dissolved	EPA 200.7	4.77	5.00	95	mg/L
		Potassium, Dissolved	EPA 200.7	9.81	10.0	98	mg/L
		Scandium, Dissolved	EPA 200.7	0.970	1.00	97	mg/L
		Silver, Dissolved	EPA 200.7	0.086	0.090	96	mg/L
		Sodium, Dissolved	EPA 200.7	10.0	10.0	100	mg/L
		Strontium, Dissolved	EPA 200.7	0.968	1.00	97	mg/L
		Tin, Dissolved	EPA 200.7	0.938	1.00	94	mg/L
		Titanium, Dissolved	EPA 200.7	0.953	1.00	95	mg/L
		Vanadium, Dissolved	EPA 200.7	0.954	1.00	95	mg/L
		Zinc, Dissolved	EPA 200.7	0.965	1.00	96	mg/L
QC13040791	LCS 1	Uranium, Dissolved	EPA 200.8	0.0093	0.010	93	mg/L
		Mercury, Dissolved	EPA 200.8	0.000952	0.001	95	mg/L
		Antimony, Dissolved	EPA 200.8	0.0096	0.010	96	mg/L
		Arsenic, Dissolved	EPA 200.8	0.0502	0.050	100	mg/L
		Lead, Dissolved	EPA 200.8	0.0095	0.010	95	mg/L
		Selenium, Dissolved	EPA 200.8	0.0440	0.050	88	mg/L
		Thallium, Dissolved	EPA 200.8	0.0096	0.010	96	mg/L

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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 EPA Lab ID: NV00926

3230 Polaris Ave #4
 Las Vegas, NV 89102 (702) 475-8899
 EPA Lab ID: NV00932

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units					
QC13040886	LCS 1	Total Dissolved Solids (TDS)	SM 2540C	163	150	108	mg/L					
QC13040886	LCS 2	Total Dissolved Solids (TDS)	SM 2540C	148	150	99	mg/L					
QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD				
QC13040660	Duplicate	pH	SM 4500-H+ B	1304338-001	7.98	8.00	pH Units	<1%				
QC13040660	Duplicate	pH	SM 4500-H+ B	1304347-001	4.71	4.94	pH Units	5 %	Q			
QC13040660	Duplicate	pH	SM 4500-H+ B	1304349-001	5.81	5.71	pH Units	2 %				
QC13040660	Duplicate	pH	SM 4500-H+ B	1304356-002	9.54	9.71	pH Units	2 %	Q			
QC13040660	Duplicate	pH	SM 4500-H+ B	1304351-006	7.87	7.87	pH Units	<1%				
QC13040660	Duplicate	pH	SM 4500-H+ B	1304352-004	7.63	7.51	pH Units	2 %	Q			
QC13040663	Duplicate	Bicarbonate (HCO3)	SM 2320B	1304338-001	179	179	mg/L	<1%				
		Carbonate (CO3)	SM 2320B	1304338-001	ND	ND	mg/L	<1%				
		Hydroxide (OH)	SM 2320B	1304338-001	ND	ND	mg/L	<1%				
		Total Alkalinity	SM 2320B	1304338-001	146	146	mg/L as CaCO3	<1%				
QC13040663	Duplicate	Bicarbonate (HCO3)	SM 2320B	1304347-001	ND	ND	mg/L	<1%				
		Carbonate (CO3)	SM 2320B	1304347-001	ND	ND	mg/L	<1%				
		Hydroxide (OH)	SM 2320B	1304347-001	ND	ND	mg/L	<1%				
		Total Alkalinity	SM 2320B	1304347-001	ND	ND	mg/L as CaCO3	<1%				
QC13040663	Duplicate	Bicarbonate (HCO3)	SM 2320B	1304349-001	ND	ND	mg/L	23 %	Q			
		Carbonate (CO3)	SM 2320B	1304349-001	ND	ND	mg/L	<1%				
		Hydroxide (OH)	SM 2320B	1304349-001	ND	ND	mg/L	<1%				
		Total Alkalinity	SM 2320B	1304349-001	ND	ND	mg/L as CaCO3	23 %	Q			
QC13040663	Duplicate	Bicarbonate (HCO3)	SM 2320B	1304356-002	131	97.5	mg/L	29 %	Q			
		Carbonate (CO3)	SM 2320B	1304356-002	199	219	mg/L	9 %				
		Hydroxide (OH)	SM 2320B	1304356-002	ND	ND	mg/L	<1%				
		Total Alkalinity	SM 2320B	1304356-002	438	443	mg/L as CaCO3	1 %				
QC13040663	Duplicate	Bicarbonate (HCO3)	SM 2320B	1304351-006	183	183	mg/L	<1%				
		Carbonate (CO3)	SM 2320B	1304351-006	ND	ND	mg/L	<1%				
		Hydroxide (OH)	SM 2320B	1304351-006	ND	ND	mg/L	<1%				
		Total Alkalinity	SM 2320B	1304351-006	150	150	mg/L as CaCO3	<1%				
QC13040663	Duplicate	Bicarbonate (HCO3)	SM 2320B	1304352-004	176	175	mg/L	1 %				
		Carbonate (CO3)	SM 2320B	1304352-004	ND	ND	mg/L	<1%				
		Hydroxide (OH)	SM 2320B	1304352-004	ND	ND	mg/L	<1%				
		Total Alkalinity	SM 2320B	1304352-004	145	144	mg/L as CaCO3	1 %				
QC13040886	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1304347-001	59.0	55.0	mg/L	7 %				
QC13040886	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1304353-009	223	224	mg/L	<1%				
QC13040886	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1304374-006	180	181	mg/L	1 %				
QC13040886	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1304375-006	237	243	mg/L	2 %				
QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC13040691	MS 1	Fluoride	EPA 300.0	1304349-001	ND	2.28	2.31	2.00	mg/L	114	116	1 %
QC13040691	MS 2	Fluoride	EPA 300.0	1304379-001	0.259	M 5.59	5.89	2.00	mg/L	NC	NC	NC

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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Las Vegas, NV 89102 (702) 475-8899
EPA Lab ID: NV00932

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC13040693	MS 1	Chloride	EPA 300.0	1304349-001	ND	5.18	5.37	5.00	mg/L	104	108	4 %
QC13040693	MS 2	Chloride	EPA 300.0	1304355-001	19.7	46.2	46.3	5.00	mg/L	106	106	<1%
QC13040695	MS 1	Nitrite Nitrogen	EPA 300.0	1304349-001	ND	0.430	0.405	0.500	mg/L	86	81	6 %
QC13040695	MS 2	Nitrite Nitrogen	EPA 300.0	1304381-009	ND	0.465	0.482	0.500	mg/L	91	95	4 %
QC13040696	MS 1	Nitrate Nitrogen	EPA 300.0	1304349-001	ND	2.10	2.17	2.00	mg/L	104	107	3 %
QC13040696	MS 2	Nitrate Nitrogen	EPA 300.0	1304381-009	ND	2.17	2.20	2.00	mg/L	105	106	1 %
QC13040697	MS 1	Sulfate	EPA 300.0	1304349-001	2.18	13.0	13.3	10.0	mg/L	108	112	2 %
QC13040697	MS 2	Sulfate	EPA 300.0	1304379-001	142	M 171	173	10.0	mg/L	NC	NC	NC
QC13040772	MS 1	Aluminum, Dissolved	EPA 200.7	1304351-001	1.37	2.40	2.39	1.00	mg/L	103	102	<1%
		Barium, Dissolved	EPA 200.7	1304351-001	0.076	1.04	1.03	1.00	mg/L	96	95	1 %
		Beryllium, Dissolved	EPA 200.7	1304351-001	ND	0.988	0.983	1.00	mg/L	99	98	1 %
		Bismuth, Dissolved	EPA 200.7	1304351-001	ND	0.968	0.970	1.00	mg/L	97	97	<1%
		Boron, Dissolved	EPA 200.7	1304351-001	ND	0.982	0.975	1.00	mg/L	97	97	1 %
		Cadmium, Dissolved	EPA 200.7	1304351-001	ND	0.982	0.976	1.00	mg/L	98	98	1 %
		Calcium, Dissolved	EPA 200.7	1304351-001	87.8	SC 106	105	10.0	mg/L	NC	NC	NC
		Chromium, Dissolved	EPA 200.7	1304351-001	ND	0.968	0.964	1.00	mg/L	96	96	<1%
		Cobalt, Dissolved	EPA 200.7	1304351-001	0.031	0.964	0.953	1.00	mg/L	93	92	1 %
		Copper, Dissolved	EPA 200.7	1304351-001	ND	4.78	4.78	5.00	mg/L	96	96	<1%
		Gallium, Dissolved	EPA 200.7	1304351-001	ND	0.994	0.991	1.00	mg/L	99	99	<1%
		Iron, Dissolved	EPA 200.7	1304351-001	0.012	0.975	0.968	1.00	mg/L	96	96	1 %
		Lithium, Dissolved	EPA 200.7	1304351-001	ND	0.950	0.960	1.00	mg/L	92	93	1 %
		Magnesium, Dissolved	EPA 200.7	1304351-001	18.0	29.0	28.5	10.0	mg/L	110	105	2 %
		Manganese, Dissolved	EPA 200.7	1304351-001	ND	0.962	0.957	1.00	mg/L	96	96	1 %
		Molybdenum, Dissolved	EPA 200.7	1304351-001	0.159	1.12	1.11	1.00	mg/L	96	95	1 %
		Nickel, Dissolved	EPA 200.7	1304351-001	ND	4.81	4.79	5.00	mg/L	96	96	<1%
		Phosphorus, Dissolved	EPA 200.7	1304351-001	ND	5.20	5.17	5.00	mg/L	102	101	1 %
		Potassium, Dissolved	EPA 200.7	1304351-001	28.6	40.9	41.2	10.0	mg/L	123	126	1 %
		Scandium, Dissolved	EPA 200.7	1304351-001	ND	0.966	0.964	1.00	mg/L	97	96	<1%
		Silver, Dissolved	EPA 200.7	1304351-001	ND	0.086	0.087	0.090	mg/L	94	95	1 %
		Sodium, Dissolved	EPA 200.7	1304351-001	50.2	SC 63.7	64.2	10.0	mg/L	NC	NC	NC
		Strontium, Dissolved	EPA 200.7	1304351-001	0.689	1.69	1.71	1.00	mg/L	100	102	1 %
		Tin, Dissolved	EPA 200.7	1304351-001	ND	0.962	0.949	1.00	mg/L	97	95	1 %
		Titanium, Dissolved	EPA 200.7	1304351-001	ND	0.961	0.957	1.00	mg/L	96	96	<1%
		Vanadium, Dissolved	EPA 200.7	1304351-001	0.063	1.04	1.03	1.00	mg/L	98	97	1 %
		Zinc, Dissolved	EPA 200.7	1304351-001	ND	0.960	0.970	1.00	mg/L	96	97	1 %
QC13040791	MS 1	Uranium, Dissolved	EPA 200.8	1304351-001	ND	0.0091	0.0090	0.010	mg/L	89	88	1 %
		Mercury, Dissolved	EPA 200.8	1304351-001	ND	0.000845	0.000832	0.001	mg/L	76	75	2 %
		Antimony, Dissolved	EPA 200.8	1304351-001	0.0302	0.0391	0.0389	0.010	mg/L	89	88	1 %
		Arsenic, Dissolved	EPA 200.8	1304351-001	0.1748	0.2297	0.2298	0.050	mg/L	110	110	<1%
		Lead, Dissolved	EPA 200.8	1304351-001	ND	0.0083	0.0082	0.010	mg/L	83	82	1 %
		Selenium, Dissolved	EPA 200.8	1304351-001	0.0140	0.0633	0.0629	0.050	mg/L	98	98	1 %
		Thallium, Dissolved	EPA 200.8	1304351-001	0.0115	0.0202	0.0198	0.010	mg/L	87	83	2 %



WETLAB

WESTERN ENVIRONMENTAL TESTING LABORATORY

Specializing in Soil, Hazardous Waste and Water Analysis.

475 E. Greg Street #119 | Sparks, Nevada 89431

tel (775) 355-0202 | fax (775) 355-0817 | www.WETLaboratory.com

Lab Number 1304347

Report

Due Date: 4/25 5/2/13

Page 1 of 1

Client McClelland Laboratories, Inc.

Address 1016 Greg Street

City, State & Zip Sparks, NV 89431

Contact Mike Medina

Phone 775-356-1300

Collector's Name Robert

Fax 775-356-8917

Project Name

P.O. Number

Project Number 3438

Email mli@mettest.com

Turnaround Time

Standard 5 Day Other

Billing Address (if different than Client Address):

Company _____

Address _____

City, State & Zip _____

Contact _____

Phone _____

Fax _____

Email _____

Additional Information

Fax Results	Y	N	To: Client	Billing
Email Results	Y	N	To: Client	Billing
Compliance Monitoring	Y	N		
Fax Results to State EPA	Y	N		

Sample Type Codes

DW = Drinking Water	SD = Solid
WW = Wastewater	SO = Soil
SW = Surface Water	HW = Hazardous Waste
MW = Monitoring Well	OTHER:

SAMPLE ID / LOCATION	DATE	TIME	TYPE	NO OF CONTAINERS	ANALYSES REQUESTED	Spl. No.
604 673 Wk:116	04/18/13	9:00	WW	2	Profile II w/o Wad Uranium	1

Instructions/Comments/Special Requirements:

SAMPLE RECEIPT	DATE	TIME	Samples Relinquished By	Samples Received By
Temperature <u>21.5°C</u>	<u>4/18/13</u>	<u>1405</u>	<i>[Signature]</i>	<i>[Signature]</i>
Custody Seals Intact? Y N <u>(None)</u>				
Number of Containers <u>6</u>				

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.

To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.

Specializing in Soil, Hazardous Waste and Water Analysis.

5/7/2013

McClelland Laboratory
1016 Greg Street
Sparks, NV 89431
Attn: Mike Medina

OrderID: 1304490

Dear: Mike Medina

This is to transmit the attached analytical report. The analytical data and information contained therein was generated using specified or selected methods contained in references, such as Standard Methods for the Examination of Water and Wastewater, 18th & 19th editions, Methods for Determination of Organic Compounds in Drinking Water, EPA-600/4-79-020, and Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW846) Third Edition.

The samples were received by WETLAB-Western Environmental Testing Laboratory in good condition on 4/25/2013. Additional comments are located on page 2 of this report.

If you should have any questions or comments regarding this report, please do not hesitate to call.

Sincerely,



Jennifer Delaney
QA Specialist

SPARKS

475 E. Greg Street, Suite 119
Sparks, Nevada 89431
tel [775] 355-0202
fax [775] 355-0817

ELKO

1084 Lamoille Hwy.
Elko, Nevada 89801
tel [775] 777-9933
fax [775] 777-9933

LAS VEGAS

3230 Polaris Ave., Suite 4
Las Vegas, Nevada 89102
tel [702] 475-8899
fax [702] 776-6152

Western Environmental Testing Laboratory

Report Comments

McClelland Laboratory - 1304490

General Comments

None

Specific Comments

Due to the sample matrix it was necessary to analyze the following at a dilution:

1304490-001 Iron

1304490-003 Iron and Molybdenum

1304490-004 Iron and Molybdenum

The reporting limits have been adjusted accordingly.

Report Legend

- B -- Blank contamination; Analyte detected above the method reporting limit in an associated blank
- D -- Reporting limit is elevated due to required sample dilution
- DF -- Dilution Factor
- HT -- Sample analyzed beyond the accepted holding time
- J -- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
- M -- Reported value is estimated; The sample matrix interfered with the analysis
- MCL -- State or EPA Maximum Contamination Level
- N -- There was insufficient sample available to perform a spike and/or duplicate on this analytical batch.
- NC -- Not calculated due to matrix interference
- ND -- Non-detect result; Indicates the result was below the reporting limit (RL)
- Q -- Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
- RL -- Reporting Limit or Practical Quantitation Limit
- S -- Surrogate recovery was outside of laboratory acceptance limits due to matrix interference. The associated blank and LCS surrogate recovery was within acceptance limits
- SC -- Spike recovery not calculated. Sample concentration >4X the spike amount; therefore, the spike could not be adequately recovered

Western Environmental Testing Laboratory Analytical Report

McClelland Laboratory

1016 Greg Street

Sparks, NV 89431

Attn: Mike Medina

Phone: (775) 356-1300 Fax: (775) 356-8917

PO\Project: 3438

Date Printed: 5/7/2013

OrderID: 1304490

Customer Sample ID: CF-11-02 (227-367) Wk:44

Collect Date/Time: 4/25/2013 09:00

WETLAB Sample ID: 1304490-001

Receive Date: 4/25/2013 14:40

Analyte	Method	Results	Units	DF	RL	Analyzed
<u>General Chemistry</u>						
pH	SM 4500-H+ B	7.70	pH Units	1		4/25/2013
Bicarbonate (HCO ₃)	SM 2320B	52	mg/L	1	1.0	4/25/2013
Carbonate (CO ₃)	SM 2320B	ND	mg/L	1	1.0	4/25/2013
Hydroxide (OH)	SM 2320B	ND	mg/L	1	1.0	4/25/2013
Total Alkalinity	SM 2320B	43	mg/L as CaCO ₃	1	1.0	4/25/2013
Total Dissolved Solids (TDS)	SM 2540C	57	mg/L	1	10	4/30/2013
<u>Anions by Ion Chromatography</u>						
Chloride	EPA 300.0	ND	mg/L	1	1.00	4/26/2013
Fluoride	EPA 300.0	0.94	mg/L	1	0.10	4/26/2013
Sulfate	EPA 300.0	3.7	mg/L	1	1.0	4/26/2013
Nitrate Nitrogen	EPA 300.0	ND	mg/L	1	1.0	4/26/2013
Nitrite Nitrogen	EPA 300.0	ND	mg/L	1	0.025	4/26/2013
<u>Trace Metals by ICP-OES</u>						
Aluminum	EPA 200.7	0.091	mg/L	1	0.045	5/2/2013
Barium	EPA 200.7	0.031	mg/L	1	0.010	5/2/2013
Beryllium	EPA 200.7	ND	mg/L	1	0.0010	5/2/2013
Bismuth	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Boron	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Cadmium	EPA 200.7	ND	mg/L	1	0.0010	5/2/2013
Calcium	EPA 200.7	15	mg/L	1	0.50	5/2/2013
Chromium	EPA 200.7	ND	mg/L	1	0.0050	5/2/2013
Cobalt	EPA 200.7	ND	mg/L	1	0.010	5/2/2013
Copper	EPA 200.7	ND	mg/L	1	0.050	5/2/2013
Gallium	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Iron	EPA 200.7	ND	mg/L	5	0.050	5/3/2013
Lithium	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Magnesium	EPA 200.7	2.0	mg/L	1	0.50	5/2/2013
Manganese	EPA 200.7	0.019	mg/L	1	0.0050	5/2/2013
Molybdenum	EPA 200.7	ND	mg/L	1	0.010	5/2/2013
Nickel	EPA 200.7	ND	mg/L	1	0.010	5/2/2013
Phosphorus	EPA 200.7	ND	mg/L	1	0.50	5/2/2013
Potassium	EPA 200.7	2.2	mg/L	1	0.50	5/2/2013

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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475 East Greg Street Suite #119

Sparks, NV 89431 (775) 355-0202

EPA Lab ID: NV00925 - ELAP No: 25

1084 Lamoille Hwy

Elko, NV 89801 (775) 777-9933

EPA Lab ID: NV00926

3230 Polaris Ave #4

Las Vegas, NV 89102 (702) 475-8899

EPA Lab ID: NV00932

Customer Sample ID: CF-11-02 (227-367) Wk:44

Collect Date/Time: 4/25/2013 09:00

WETLAB Sample ID: 1304490-001

Receive Date: 4/25/2013 14:40

Analyte	Method	Results	Units	DF	RL	Analyzed
Scandium	EPA 200.7	ND	mg/L	1	0.100	5/2/2013
Silver	EPA 200.7	ND	mg/L	1	0.0050	5/2/2013
Sodium	EPA 200.7	ND	mg/L	1	0.50	5/2/2013
Strontium	EPA 200.7	0.12	mg/L	1	0.10	5/2/2013
Tin	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Titanium	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Vanadium	EPA 200.7	ND	mg/L	1	0.010	5/2/2013
Zinc	EPA 200.7	ND	mg/L	1	0.010	5/2/2013
Trace Metals by ICP-MS						
Mercury	EPA 200.8	ND	mg/L	1	0.00010	4/30/2013
Antimony	EPA 200.8	ND	mg/L	1	0.0025	4/30/2013
Arsenic	EPA 200.8	ND	mg/L	1	0.0050	4/30/2013
Lead	EPA 200.8	ND	mg/L	1	0.0025	4/30/2013
Selenium	EPA 200.8	ND	mg/L	1	0.0050	4/30/2013
Thallium	EPA 200.8	ND	mg/L	1	0.0010	4/30/2013
Uranium	EPA 200.8	ND	mg/L	1	0.0050	4/30/2013
Ion Balance						
Anions	Calculation	0.98	meq/L	1	0.10	
Cations	Calculation	0.98	meq/L	1	0.10	
Error	Calculation	ND	%	1	1.0	
Sample Preparation						
Trace Metals Digestion	EPA 200.2	Complete		1		4/30/2013

Customer Sample ID: K-Spar Breccia 5+ Comp Wk:44

Collect Date/Time: 4/25/2013 09:00

WETLAB Sample ID: 1304490-002

Receive Date: 4/25/2013 14:40

Analyte	Method	Results	Units	DF	RL	Analyzed
General Chemistry						
pH	SM 4500-H+ B	7.90	pH Units	1		4/25/2013
Bicarbonate (HCO ₃)	SM 2320B	67	mg/L	1	1.0	4/25/2013
Carbonate (CO ₃)	SM 2320B	ND	mg/L	1	1.0	4/25/2013
Hydroxide (OH)	SM 2320B	ND	mg/L	1	1.0	4/25/2013
Total Alkalinity	SM 2320B	55	mg/L as CaCO ₃	1	1.0	4/25/2013
Total Dissolved Solids (TDS)	SM 2540C	110	mg/L	1	10	4/30/2013
Anions by Ion Chromatography						
Chloride	EPA 300.0	ND	mg/L	1	1.00	4/26/2013
Fluoride	EPA 300.0	1.3	mg/L	1	0.10	4/26/2013
Sulfate	EPA 300.0	24	mg/L	1	1.0	4/26/2013
Nitrate Nitrogen	EPA 300.0	ND	mg/L	1	1.0	4/26/2013
Nitrite Nitrogen	EPA 300.0	ND	mg/L	1	0.025	4/26/2013
Trace Metals by ICP-OES						
Aluminum	EPA 200.7	ND	mg/L	1	0.045	5/2/2013
Barium	EPA 200.7	0.14	mg/L	1	0.010	5/2/2013
Beryllium	EPA 200.7	ND	mg/L	1	0.0010	5/2/2013
Bismuth	EPA 200.7	ND	mg/L	1	0.10	5/2/2013

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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475 East Greg Street Suite #119
 Sparks, NV 89431 (775) 355-0202
 EPA Lab ID: NV00925 - ELAP No: 25

1084 Lamoille Hwy
 Elko, NV 89801 (775) 777-9933
 EPA Lab ID: NV00926

3230 Polaris Ave #4
 Las Vegas, NV 89102 (702) 475-8899
 EPA Lab ID: NV00932

Customer Sample ID: K-Spar Breccia 5+ Comp Wk:44

Collect Date/Time: 4/25/2013 09:00

WETLAB Sample ID: 1304490-002

Receive Date: 4/25/2013 14:40

Analyte	Method	Results	Units	DF	RL	Analyzed
Boron	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Cadmium	EPA 200.7	ND	mg/L	1	0.0010	5/2/2013
Calcium	EPA 200.7	29	mg/L	1	0.50	5/2/2013
Chromium	EPA 200.7	ND	mg/L	1	0.0050	5/2/2013
Cobalt	EPA 200.7	ND	mg/L	1	0.010	5/2/2013
Copper	EPA 200.7	ND	mg/L	1	0.050	5/2/2013
Gallium	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Iron	EPA 200.7	ND	mg/L	1	0.010	5/2/2013
Lithium	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Magnesium	EPA 200.7	2.1	mg/L	1	0.50	5/2/2013
Manganese	EPA 200.7	0.045	mg/L	1	0.0050	5/2/2013
Molybdenum	EPA 200.7	0.052	mg/L	1	0.010	5/2/2013
Nickel	EPA 200.7	ND	mg/L	1	0.010	5/2/2013
Phosphorus	EPA 200.7	ND	mg/L	1	0.50	5/2/2013
Potassium	EPA 200.7	2.3	mg/L	1	0.50	5/2/2013
Scandium	EPA 200.7	ND	mg/L	1	0.100	5/2/2013
Silver	EPA 200.7	ND	mg/L	1	0.0050	5/2/2013
Sodium	EPA 200.7	0.78	mg/L	1	0.50	5/2/2013
Strontium	EPA 200.7	0.50	mg/L	1	0.10	5/2/2013
Tin	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Titanium	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Vanadium	EPA 200.7	ND	mg/L	1	0.010	5/2/2013
Zinc	EPA 200.7	ND	mg/L	1	0.010	5/2/2013

Trace Metals by ICP-MS

Mercury	EPA 200.8	ND	mg/L	1	0.00010	4/30/2013
Antimony	EPA 200.8	ND	mg/L	1	0.0025	4/30/2013
Arsenic	EPA 200.8	ND	mg/L	1	0.0050	4/30/2013
Lead	EPA 200.8	ND	mg/L	1	0.0025	4/30/2013
Selenium	EPA 200.8	ND	mg/L	1	0.0050	4/30/2013
Thallium	EPA 200.8	ND	mg/L	1	0.0010	4/30/2013
Uranium	EPA 200.8	0.015	mg/L	1	0.0050	4/30/2013

Ion Balance

Anions	Calculation	1.67	meq/L	1	0.10	
Cations	Calculation	1.71	meq/L	1	0.10	
Error	Calculation	1.4	%	1	1.0	

Sample Preparation

Trace Metals Digestion	EPA 200.2	Complete		1		4/30/2013
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Customer Sample ID: Biotite Breccia 0-5 Comp Wk:44

Collect Date/Time: 4/25/2013 09:00

WETLAB Sample ID: 1304490-003

Receive Date: 4/25/2013 14:40

Analyte	Method	Results	Units	DF	RL	Analyzed
General Chemistry						
pH	SM 4500-H+ B	7.88	pH Units	1		4/25/2013
Bicarbonate (HCO3)	SM 2320B	66	mg/L	1	1.0	4/25/2013
Carbonate (CO3)	SM 2320B	ND	mg/L	1	1.0	4/25/2013

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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475 East Greg Street Suite #119
Sparks, NV 89431 (775) 355-0202
EPA Lab ID: NV00925 - ELAP No: 25

1084 Lamoille Hwy
Elko, NV 89801 (775) 777-9933
EPA Lab ID: NV00926

3230 Polaris Ave #4
Las Vegas, NV 89102 (702) 475-8899
EPA Lab ID: NV00932

Customer Sample ID: Biotite Breccia 0-5 Comp Wk:44

Collect Date/Time: 4/25/2013 09:00

WETLAB Sample ID: 1304490-003

Receive Date: 4/25/2013 14:40

Analyte	Method	Results	Units	DF	RL	Analyzed
Hydroxide (OH)	SM 2320B	ND	mg/L	1	1.0	4/25/2013
Total Alkalinity	SM 2320B	54	mg/L as CaCO ₃	1	1.0	4/25/2013
Total Dissolved Solids (TDS)	SM 2540C	77	mg/L	1	10	4/30/2013
<u>Anions by Ion Chromatography</u>						
Chloride	EPA 300.0	ND	mg/L	1	1.00	4/26/2013
Fluoride	EPA 300.0	1.2	mg/L	1	0.10	4/26/2013
Sulfate	EPA 300.0	11	mg/L	1	1.0	4/26/2013
Nitrate Nitrogen	EPA 300.0	ND	mg/L	1	1.0	4/26/2013
Nitrite Nitrogen	EPA 300.0	ND	mg/L	1	0.025	4/26/2013
<u>Trace Metals by ICP-OES</u>						
Aluminum	EPA 200.7	ND	mg/L	1	0.045	5/2/2013
Barium	EPA 200.7	0.10	mg/L	1	0.010	5/2/2013
Beryllium	EPA 200.7	ND	mg/L	1	0.0010	5/2/2013
Bismuth	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Boron	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Cadmium	EPA 200.7	ND	mg/L	1	0.0010	5/2/2013
Calcium	EPA 200.7	20	mg/L	1	0.50	5/2/2013
Chromium	EPA 200.7	ND	mg/L	1	0.0050	5/2/2013
Cobalt	EPA 200.7	ND	mg/L	1	0.010	5/2/2013
Copper	EPA 200.7	ND	mg/L	1	0.050	5/2/2013
Gallium	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Iron	EPA 200.7	ND	mg/L	5	0.050	5/3/2013
Lithium	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Magnesium	EPA 200.7	3.9	mg/L	1	0.50	5/2/2013
Manganese	EPA 200.7	0.021	mg/L	1	0.0050	5/2/2013
Molybdenum	EPA 200.7	ND	mg/L	5	0.050	5/3/2013
Nickel	EPA 200.7	ND	mg/L	1	0.010	5/2/2013
Phosphorus	EPA 200.7	ND	mg/L	1	0.50	5/2/2013
Potassium	EPA 200.7	1.5	mg/L	1	0.50	5/2/2013
Scandium	EPA 200.7	ND	mg/L	1	0.100	5/2/2013
Silver	EPA 200.7	ND	mg/L	1	0.0050	5/2/2013
Sodium	EPA 200.7	ND	mg/L	1	0.50	5/2/2013
Strontium	EPA 200.7	0.27	mg/L	1	0.10	5/2/2013
Tin	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Titanium	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Vanadium	EPA 200.7	ND	mg/L	1	0.010	5/2/2013
Zinc	EPA 200.7	ND	mg/L	1	0.010	5/2/2013
<u>Trace Metals by ICP-MS</u>						
Mercury	EPA 200.8	ND	mg/L	1	0.00010	4/30/2013
Antimony	EPA 200.8	ND	mg/L	1	0.0025	4/30/2013
Arsenic	EPA 200.8	ND	mg/L	1	0.0050	4/30/2013
Lead	EPA 200.8	ND	mg/L	1	0.0025	4/30/2013
Selenium	EPA 200.8	ND	mg/L	1	0.0050	4/30/2013
Thallium	EPA 200.8	ND	mg/L	1	0.0010	4/30/2013
Uranium	EPA 200.8	0.023	mg/L	1	0.0050	4/30/2013
<u>Ion Balance</u>						
Anions	Calculation	1.37	meq/L	1	0.10	

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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475 East Greg Street Suite #119
 Sparks, NV 89431 (775) 355-0202
 EPA Lab ID: NV00925 - ELAP No: 25

1084 Lamoille Hwy
 Elko, NV 89801 (775) 777-9933
 EPA Lab ID: NV00926

3230 Polaris Ave #4
 Las Vegas, NV 89102 (702) 475-8899
 EPA Lab ID: NV00932

Customer Sample ID: Biotite Breccia 0-5 Comp Wk:44

Collect Date/Time: 4/25/2013 09:00

WETLAB Sample ID: 1304490-003

Receive Date: 4/25/2013 14:40

Analyte	Method	Results	Units	DF	RL	Analyzed
Cations	Calculation	1.36	meq/L	1	0.10	
Error	Calculation	ND	%	1	1.0	
Sample Preparation						
Trace Metals Digestion	EPA 200.2	Complete		1		4/30/2013

Customer Sample ID: K-Spar Breccia 0-5 Comp Wk:44

Collect Date/Time: 4/25/2013 09:00

WETLAB Sample ID: 1304490-004

Receive Date: 4/25/2013 14:40

Analyte	Method	Results	Units	DF	RL	Analyzed
General Chemistry						
pH	SM 4500-H+ B	7.83	pH Units	1		4/25/2013
Bicarbonate (HCO ₃)	SM 2320B	62	mg/L	1	1.0	4/25/2013
Carbonate (CO ₃)	SM 2320B	ND	mg/L	1	1.0	4/25/2013
Hydroxide (OH)	SM 2320B	ND	mg/L	1	1.0	4/25/2013
Total Alkalinity	SM 2320B	51	mg/L as CaCO ₃	1	1.0	4/25/2013
Total Dissolved Solids (TDS)	SM 2540C	61	mg/L	1	10	4/30/2013
Anions by Ion Chromatography						
Chloride	EPA 300.0	ND	mg/L	1	1.00	4/26/2013
Fluoride	EPA 300.0	1.6	mg/L	1	0.10	4/26/2013
Sulfate	EPA 300.0	12	mg/L	1	1.0	4/26/2013
Nitrate Nitrogen	EPA 300.0	ND	mg/L	1	1.0	4/26/2013
Nitrite Nitrogen	EPA 300.0	ND	mg/L	1	0.025	4/26/2013
Trace Metals by ICP-OES						
Aluminum	EPA 200.7	ND	mg/L	1	0.045	5/2/2013
Barium	EPA 200.7	0.12	mg/L	1	0.010	5/2/2013
Beryllium	EPA 200.7	ND	mg/L	1	0.0010	5/2/2013
Bismuth	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Boron	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Cadmium	EPA 200.7	ND	mg/L	1	0.0010	5/2/2013
Calcium	EPA 200.7	18	mg/L	1	0.50	5/2/2013
Chromium	EPA 200.7	ND	mg/L	1	0.0050	5/2/2013
Cobalt	EPA 200.7	ND	mg/L	1	0.010	5/2/2013
Copper	EPA 200.7	ND	mg/L	1	0.050	5/2/2013
Gallium	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Iron	EPA 200.7	ND	mg/L	5	0.050	5/3/2013
Lithium	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Magnesium	EPA 200.7	3.6	mg/L	1	0.50	5/2/2013
Manganese	EPA 200.7	0.016	mg/L	1	0.0050	5/2/2013
Molybdenum	EPA 200.7	ND	mg/L	5	0.050	5/3/2013
Nickel	EPA 200.7	ND	mg/L	1	0.010	5/2/2013
Phosphorus	EPA 200.7	ND	mg/L	1	0.50	5/2/2013
Potassium	EPA 200.7	1.5	mg/L	1	0.50	5/2/2013
Scandium	EPA 200.7	ND	mg/L	1	0.100	5/2/2013
Silver	EPA 200.7	ND	mg/L	1	0.0050	5/2/2013
Sodium	EPA 200.7	ND	mg/L	1	0.50	5/2/2013
Strontium	EPA 200.7	0.33	mg/L	1	0.10	5/2/2013

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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475 East Greg Street Suite #119
Sparks, NV 89431 (775) 355-0202
EPA Lab ID: NV00925 - ELAP No: 25

1084 Lamoille Hwy
Elko, NV 89801 (775) 777-9933
EPA Lab ID: NV00926

3230 Polaris Ave #4
Las Vegas, NV 89102 (702) 475-8899
EPA Lab ID: NV00932

Customer Sample ID: K-Spar Breccia 0-5 Comp Wk:44

Collect Date/Time: 4/25/2013 09:00

WETLAB Sample ID: 1304490-004

Receive Date: 4/25/2013 14:40

Analyte	Method	Results	Units	DF	RL	Analyzed
Tin	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Titanium	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Vanadium	EPA 200.7	ND	mg/L	1	0.010	5/2/2013
Zinc	EPA 200.7	ND	mg/L	1	0.010	5/2/2013
Trace Metals by ICP-MS						
Mercury	EPA 200.8	ND	mg/L	1	0.00010	4/30/2013
Antimony	EPA 200.8	ND	mg/L	1	0.0025	4/30/2013
Arsenic	EPA 200.8	ND	mg/L	1	0.0050	4/30/2013
Lead	EPA 200.8	ND	mg/L	1	0.0025	4/30/2013
Selenium	EPA 200.8	ND	mg/L	1	0.0050	4/30/2013
Thallium	EPA 200.8	ND	mg/L	1	0.0010	4/30/2013
Uranium	EPA 200.8	0.020	mg/L	1	0.0050	4/30/2013
Ion Balance						
Anions	Calculation	1.35	meq/L	1	0.10	
Cations	Calculation	1.23	meq/L	1	0.10	
Error	Calculation	4.5	%	1	1.0	
Sample Preparation						
Trace Metals Digestion	EPA 200.2	Complete		1		4/30/2013

Customer Sample ID: Quartz Monzonite 0-5 Comp Wk:44

Collect Date/Time: 4/25/2013 09:00

WETLAB Sample ID: 1304490-005

Receive Date: 4/25/2013 14:40

Analyte	Method	Results	Units	DF	RL	Analyzed
General Chemistry						
pH	SM 4500-H+ B	7.87	pH Units	1		4/25/2013
Bicarbonate (HCO ₃)	SM 2320B	64	mg/L	1	1.0	4/25/2013
Carbonate (CO ₃)	SM 2320B	ND	mg/L	1	1.0	4/25/2013
Hydroxide (OH)	SM 2320B	ND	mg/L	1	1.0	4/25/2013
Total Alkalinity	SM 2320B	52	mg/L as CaCO ₃	1	1.0	4/25/2013
Total Dissolved Solids (TDS)	SM 2540C	73	mg/L	1	10	4/30/2013
Anions by Ion Chromatography						
Chloride	EPA 300.0	ND	mg/L	1	1.00	4/26/2013
Fluoride	EPA 300.0	1.2	mg/L	1	0.10	4/26/2013
Sulfate	EPA 300.0	14	mg/L	1	1.0	4/26/2013
Nitrate Nitrogen	EPA 300.0	ND	mg/L	1	1.0	4/26/2013
Nitrite Nitrogen	EPA 300.0	ND	mg/L	1	0.025	4/26/2013
Trace Metals by ICP-OES						
Aluminum	EPA 200.7	ND	mg/L	1	0.045	5/2/2013
Barium	EPA 200.7	0.098	mg/L	1	0.010	5/2/2013
Beryllium	EPA 200.7	ND	mg/L	1	0.0010	5/2/2013
Bismuth	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Boron	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Cadmium	EPA 200.7	ND	mg/L	1	0.0010	5/2/2013
Calcium	EPA 200.7	20	mg/L	1	0.50	5/2/2013
Chromium	EPA 200.7	ND	mg/L	1	0.0050	5/2/2013

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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475 East Greg Street Suite #119

Sparks, NV 89431 (775) 355-0202

EPA Lab ID: NV00925 - ELAP No: 25

1084 Lamoille Hwy

Elko, NV 89801 (775) 777-9933

EPA Lab ID: NV00926

3230 Polaris Ave #4

Las Vegas, NV 89102 (702) 475-8899

EPA Lab ID: NV00932

Customer Sample ID: Quartz Monzonite 0-5 Comp Wk:44

Collect Date/Time: 4/25/2013 09:00

WETLAB Sample ID: 1304490-005

Receive Date: 4/25/2013 14:40

Analyte	Method	Results	Units	DF	RL	Analyzed
Cobalt	EPA 200.7	ND	mg/L	1	0.010	5/2/2013
Copper	EPA 200.7	ND	mg/L	1	0.050	5/2/2013
Gallium	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Iron	EPA 200.7	ND	mg/L	1	0.010	5/2/2013
Lithium	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Magnesium	EPA 200.7	4.2	mg/L	1	0.50	5/2/2013
Manganese	EPA 200.7	0.018	mg/L	1	0.0050	5/2/2013
Molybdenum	EPA 200.7	ND	mg/L	1	0.010	5/2/2013
Nickel	EPA 200.7	ND	mg/L	1	0.010	5/2/2013
Phosphorus	EPA 200.7	ND	mg/L	1	0.50	5/2/2013
Potassium	EPA 200.7	1.5	mg/L	1	0.50	5/2/2013
Scandium	EPA 200.7	ND	mg/L	1	0.100	5/2/2013
Silver	EPA 200.7	ND	mg/L	1	0.0050	5/2/2013
Sodium	EPA 200.7	0.53	mg/L	1	0.50	5/2/2013
Strontium	EPA 200.7	0.28	mg/L	1	0.10	5/2/2013
Tin	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Titanium	EPA 200.7	ND	mg/L	1	0.10	5/2/2013
Vanadium	EPA 200.7	ND	mg/L	1	0.010	5/2/2013
Zinc	EPA 200.7	ND	mg/L	1	0.010	5/2/2013
<u>Trace Metals by ICP-MS</u>						
Mercury	EPA 200.8	ND	mg/L	1	0.00010	4/30/2013
Antimony	EPA 200.8	ND	mg/L	1	0.0025	4/30/2013
Arsenic	EPA 200.8	ND	mg/L	1	0.0050	4/30/2013
Lead	EPA 200.8	ND	mg/L	1	0.0025	4/30/2013
Selenium	EPA 200.8	ND	mg/L	1	0.0050	4/30/2013
Thallium	EPA 200.8	ND	mg/L	1	0.0010	4/30/2013
Uranium	EPA 200.8	0.021	mg/L	1	0.0050	4/30/2013
<u>Ion Balance</u>						
Anions	Calculation	1.40	meq/L	1	0.10	
Cations	Calculation	1.41	meq/L	1	0.10	
Error	Calculation	ND	%	1	1.0	
<u>Sample Preparation</u>						
Trace Metals Digestion	EPA 200.2	Complete		1		4/30/2013

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475 East Greg Street Suite #119
 Sparks, NV 89431 (775) 355-0202
 EPA Lab ID: NV00925 - ELAP No: 25

1084 Lamoille Hwy
 Elko, NV 89801 (775) 777-9933
 EPA Lab ID: NV00926

3230 Polaris Ave #4
 Las Vegas, NV 89102 (702) 475-8899
 EPA Lab ID: NV00932

Western Environmental Testing Laboratory QC Report

QC Batch ID	QC Type	Parameter	Method	Result	Units
QC13040964	Blank 1	Fluoride	EPA 300.0	ND	mg/L
QC13040964	Blank 2	Fluoride	EPA 300.0	ND	mg/L
QC13040964	Blank 3	Fluoride	EPA 300.0	ND	mg/L
QC13040969	Blank 1	Chloride	EPA 300.0	ND	mg/L
QC13040969	Blank 2	Chloride	EPA 300.0	ND	mg/L
QC13040969	Blank 3	Chloride	EPA 300.0	ND	mg/L
QC13040972	Blank 1	Nitrite Nitrogen	EPA 300.0	ND	mg/L
QC13040972	Blank 2	Nitrite Nitrogen	EPA 300.0	ND	mg/L
QC13040972	Blank 3	Nitrite Nitrogen	EPA 300.0	ND	mg/L
QC13040975	Blank 1	Nitrate Nitrogen	EPA 300.0	ND	mg/L
QC13040975	Blank 2	Nitrate Nitrogen	EPA 300.0	ND	mg/L
QC13040975	Blank 3	Nitrate Nitrogen	EPA 300.0	ND	mg/L
QC13040980	Blank 1	Sulfate	EPA 300.0	ND	mg/L
QC13040980	Blank 2	Sulfate	EPA 300.0	ND	mg/L
QC13040980	Blank 3	Sulfate	EPA 300.0	ND	mg/L
QC13050006	Blank 1	Uranium, Dissolved	EPA 200.8	ND	mg/L
		Mercury, Dissolved	EPA 200.8	ND	mg/L
		Antimony, Dissolved	EPA 200.8	ND	mg/L
		Arsenic, Dissolved	EPA 200.8	ND	mg/L
		Lead, Dissolved	EPA 200.8	ND	mg/L
		Selenium, Dissolved	EPA 200.8	ND	mg/L
		Thallium, Dissolved	EPA 200.8	ND	mg/L
QC13050007	Blank 1	Uranium, Dissolved	EPA 200.8	ND	mg/L
		Mercury, Dissolved	EPA 200.8	ND	mg/L
		Antimony, Dissolved	EPA 200.8	ND	mg/L
		Arsenic, Dissolved	EPA 200.8	ND	mg/L
		Lead, Dissolved	EPA 200.8	ND	mg/L
		Selenium, Dissolved	EPA 200.8	ND	mg/L
		Thallium, Dissolved	EPA 200.8	ND	mg/L
QC13050101	Blank 1	Total Dissolved Solids (TDS)	SM 2540C	ND	mg/L
QC13050101	Blank 2	Total Dissolved Solids (TDS)	SM 2540C	ND	mg/L
QC13050101	Blank 3	Total Dissolved Solids (TDS)	SM 2540C	ND	mg/L
QC13050117	Blank 1	Aluminum, Dissolved	EPA 200.7	ND	mg/L
		Barium, Dissolved	EPA 200.7	ND	mg/L
		Beryllium, Dissolved	EPA 200.7	ND	mg/L
		Bismuth, Dissolved	EPA 200.7	ND	mg/L
		Boron, Dissolved	EPA 200.7	ND	mg/L
		Cadmium, Dissolved	EPA 200.7	ND	mg/L
		Calcium, Dissolved	EPA 200.7	ND	mg/L
		Chromium, Dissolved	EPA 200.7	ND	mg/L
		Cobalt, Dissolved	EPA 200.7	ND	mg/L
		Copper, Dissolved	EPA 200.7	ND	mg/L
		Gallium, Dissolved	EPA 200.7	ND	mg/L
		Iron, Dissolved	EPA 200.7	ND	mg/L
		Lithium, Dissolved	EPA 200.7	ND	mg/L
		Magnesium, Dissolved	EPA 200.7	ND	mg/L

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475 East Greg Street Suite #119
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1084 Lamoille Hwy
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EPA Lab ID: NV00926

3230 Polaris Ave #4
Las Vegas, NV 89102 (702) 475-8899
EPA Lab ID: NV00932

QCBatchID	QCType	Parameter	Method	Result	Units
		Manganese, Dissolved	EPA 200.7	ND	mg/L
		Molybdenum, Dissolved	EPA 200.7	ND	mg/L
		Nickel, Dissolved	EPA 200.7	ND	mg/L
		Phosphorus, Dissolved	EPA 200.7	ND	mg/L
		Potassium, Dissolved	EPA 200.7	ND	mg/L
		Scandium, Dissolved	EPA 200.7	ND	mg/L
		Silver, Dissolved	EPA 200.7	ND	mg/L
		Sodium, Dissolved	EPA 200.7	ND	mg/L
		Strontium, Dissolved	EPA 200.7	ND	mg/L
		Tin, Dissolved	EPA 200.7	ND	mg/L
		Titanium, Dissolved	EPA 200.7	ND	mg/L
		Vanadium, Dissolved	EPA 200.7	ND	mg/L
		Zinc, Dissolved	EPA 200.7	ND	mg/L
QC13050118	Blank 1	Aluminum, Dissolved	EPA 200.7	ND	mg/L
		Barium, Dissolved	EPA 200.7	ND	mg/L
		Beryllium, Dissolved	EPA 200.7	ND	mg/L
		Bismuth, Dissolved	EPA 200.7	ND	mg/L
		Boron, Dissolved	EPA 200.7	ND	mg/L
		Cadmium, Dissolved	EPA 200.7	ND	mg/L
		Calcium, Dissolved	EPA 200.7	ND	mg/L
		Chromium, Dissolved	EPA 200.7	ND	mg/L
		Cobalt, Dissolved	EPA 200.7	ND	mg/L
		Copper, Dissolved	EPA 200.7	ND	mg/L
		Gallium, Dissolved	EPA 200.7	ND	mg/L
		Iron, Dissolved	EPA 200.7	ND	mg/L
		Lithium, Dissolved	EPA 200.7	ND	mg/L
		Magnesium, Dissolved	EPA 200.7	ND	mg/L
		Manganese, Dissolved	EPA 200.7	ND	mg/L
		Molybdenum, Dissolved	EPA 200.7	ND	mg/L
		Nickel, Dissolved	EPA 200.7	ND	mg/L
		Phosphorus, Dissolved	EPA 200.7	ND	mg/L
		Potassium, Dissolved	EPA 200.7	ND	mg/L
		Scandium, Dissolved	EPA 200.7	ND	mg/L
		Silver, Dissolved	EPA 200.7	ND	mg/L
		Sodium, Dissolved	EPA 200.7	ND	mg/L
		Strontium, Dissolved	EPA 200.7	ND	mg/L
		Tin, Dissolved	EPA 200.7	ND	mg/L
		Titanium, Dissolved	EPA 200.7	ND	mg/L
		Vanadium, Dissolved	EPA 200.7	ND	mg/L
		Zinc, Dissolved	EPA 200.7	ND	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC13040889	LCS 1	pH	SM 4500-H+ B	6.99	7.00	100	pH Units
QC13040889	LCS 2	pH	SM 4500-H+ B	6.99	7.00	100	pH Units
QC13040889	LCS 3	pH	SM 4500-H+ B	6.99	7.00	100	pH Units
QC13040890	LCS 1	Total Alkalinity	SM 2320B	99.6	100	100	mg/L
QC13040890	LCS 2	Total Alkalinity	SM 2320B	99.3	100	99	mg/L
QC13040890	LCS 3	Total Alkalinity	SM 2320B	99.4	100	99	mg/L
QC13040890	LCS 4	Total Alkalinity	SM 2320B	100.0	100	100	mg/L
QC13040964	LCS 1	Fluoride	EPA 300.0	1.96	2.00	98	mg/L
QC13040969	LCS 1	Chloride	EPA 300.0	10.2	10.0	102	mg/L
QC13040972	LCS 1	Nitrite Nitrogen	EPA 300.0	0.507	0.500	101	mg/L
QC13040975	LCS 1	Nitrate Nitrogen	EPA 300.0	1.98	2.00	99	mg/L

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EPA Lab ID: NV00926

2330 Polaris Ave #4
Las Vegas, NV 89102 (702) 475-8899
EPA Lab ID: NV00932

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC13040980	LCS 1	Sulfate	EPA 300.0	24.0	25.0	96	mg/L
QC13050006	LCS 1	Uranium, Dissolved	EPA 200.8	0.0102	0.010	102	mg/L
		Mercury, Dissolved	EPA 200.8	0.001044	0.001	104	mg/L
		Antimony, Dissolved	EPA 200.8	0.0099	0.010	99	mg/L
		Arsenic, Dissolved	EPA 200.8	0.0498	0.050	100	mg/L
		Lead, Dissolved	EPA 200.8	0.0103	0.010	103	mg/L
		Selenium, Dissolved	EPA 200.8	0.0461	0.050	92	mg/L
		Thallium, Dissolved	EPA 200.8	0.0102	0.010	102	mg/L
QC13050007	LCS 1	Uranium, Dissolved	EPA 200.8	0.0102	0.010	102	mg/L
		Mercury, Dissolved	EPA 200.8	0.001044	0.001	104	mg/L
		Antimony, Dissolved	EPA 200.8	0.0099	0.010	99	mg/L
		Arsenic, Dissolved	EPA 200.8	0.0498	0.050	100	mg/L
		Lead, Dissolved	EPA 200.8	0.0103	0.010	103	mg/L
		Selenium, Dissolved	EPA 200.8	0.0461	0.050	92	mg/L
		Thallium, Dissolved	EPA 200.8	0.0102	0.010	102	mg/L
QC13050101	LCS 1	Total Dissolved Solids (TDS)	SM 2540C	145	150	97	mg/L
QC13050101	LCS 2	Total Dissolved Solids (TDS)	SM 2540C	139	150	92	mg/L
QC13050101	LCS 3	Total Dissolved Solids (TDS)	SM 2540C	139	150	92	mg/L
QC13050117	LCS 1	Aluminum, Dissolved	EPA 200.7	0.972	1.00	97	mg/L
		Barium, Dissolved	EPA 200.7	0.949	1.00	95	mg/L
		Beryllium, Dissolved	EPA 200.7	0.974	1.00	97	mg/L
		Bismuth, Dissolved	EPA 200.7	1.00	1.00	100	mg/L
		Boron, Dissolved	EPA 200.7	0.895	1.00	90	mg/L
		Cadmium, Dissolved	EPA 200.7	0.943	1.00	94	mg/L
		Calcium, Dissolved	EPA 200.7	9.58	10.0	96	mg/L
		Chromium, Dissolved	EPA 200.7	0.946	1.00	95	mg/L
		Cobalt, Dissolved	EPA 200.7	0.952	1.00	95	mg/L
		Copper, Dissolved	EPA 200.7	4.77	5.00	95	mg/L
		Gallium, Dissolved	EPA 200.7	0.973	1.00	97	mg/L
		Iron, Dissolved	EPA 200.7	0.958	1.00	96	mg/L
		Lithium, Dissolved	EPA 200.7	0.957	1.00	96	mg/L
		Magnesium, Dissolved	EPA 200.7	9.53	10.0	95	mg/L
		Manganese, Dissolved	EPA 200.7	0.957	1.00	96	mg/L
		Molybdenum, Dissolved	EPA 200.7	0.952	1.00	95	mg/L
		Nickel, Dissolved	EPA 200.7	4.71	5.00	94	mg/L
		Phosphorus, Dissolved	EPA 200.7	4.79	5.00	96	mg/L
		Potassium, Dissolved	EPA 200.7	9.87	10.0	99	mg/L
		Scandium, Dissolved	EPA 200.7	0.968	1.00	97	mg/L
		Silver, Dissolved	EPA 200.7	0.087	0.090	96	mg/L
		Sodium, Dissolved	EPA 200.7	10.1	10.0	101	mg/L
		Strontium, Dissolved	EPA 200.7	0.950	1.00	95	mg/L
		Tin, Dissolved	EPA 200.7	0.965	1.00	96	mg/L
		Titanium, Dissolved	EPA 200.7	0.981	1.00	98	mg/L
		Vanadium, Dissolved	EPA 200.7	0.950	1.00	95	mg/L
		Zinc, Dissolved	EPA 200.7	0.946	1.00	95	mg/L
QC13050118	LCS 1	Aluminum, Dissolved	EPA 200.7	0.972	1.00	97	mg/L
		Barium, Dissolved	EPA 200.7	0.949	1.00	95	mg/L
		Beryllium, Dissolved	EPA 200.7	0.974	1.00	97	mg/L
		Bismuth, Dissolved	EPA 200.7	1.00	1.00	100	mg/L
		Boron, Dissolved	EPA 200.7	0.895	1.00	90	mg/L
		Cadmium, Dissolved	EPA 200.7	0.943	1.00	94	mg/L
		Calcium, Dissolved	EPA 200.7	9.58	10.0	96	mg/L

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 EPA Lab ID: NV00926

3230 Polaris Ave #4
 Las Vegas, NV 89102 (702) 475-8899
 EPA Lab ID: NV00932

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
		Chromium, Dissolved	EPA 200.7	0.946	1.00	95	mg/L
		Cobalt, Dissolved	EPA 200.7	0.952	1.00	95	mg/L
		Copper, Dissolved	EPA 200.7	4.77	5.00	95	mg/L
		Gallium, Dissolved	EPA 200.7	0.973	1.00	97	mg/L
		Iron, Dissolved	EPA 200.7	0.958	1.00	96	mg/L
		Lithium, Dissolved	EPA 200.7	0.957	1.00	96	mg/L
		Magnesium, Dissolved	EPA 200.7	9.53	10.0	95	mg/L
		Manganese, Dissolved	EPA 200.7	0.957	1.00	96	mg/L
		Molybdenum, Dissolved	EPA 200.7	0.952	1.00	95	mg/L
		Nickel, Dissolved	EPA 200.7	4.71	5.00	94	mg/L
		Phosphorus, Dissolved	EPA 200.7	4.79	5.00	96	mg/L
		Potassium, Dissolved	EPA 200.7	9.87	10.0	99	mg/L
		Scandium, Dissolved	EPA 200.7	0.968	1.00	97	mg/L
		Silver, Dissolved	EPA 200.7	0.087	0.090	96	mg/L
		Sodium, Dissolved	EPA 200.7	10.1	10.0	101	mg/L
		Strontium, Dissolved	EPA 200.7	0.950	1.00	95	mg/L
		Tin, Dissolved	EPA 200.7	0.965	1.00	96	mg/L
		Titanium, Dissolved	EPA 200.7	0.981	1.00	98	mg/L
		Vanadium, Dissolved	EPA 200.7	0.950	1.00	95	mg/L
		Zinc, Dissolved	EPA 200.7	0.946	1.00	95	mg/L

QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD
QC13040889	Duplicate	pH	SM 4500-H+ B	1304481-001	7.40	7.40	pH Units	<1%
QC13040889	Duplicate	pH	SM 4500-H+ B	1304481-002	7.75	7.72	pH Units	<1%
QC13040889	Duplicate	pH	SM 4500-H+ B	1304481-003	7.53	7.54	pH Units	<1%
QC13040889	Duplicate	pH	SM 4500-H+ B	1304481-004	7.52	7.51	pH Units	<1%
QC13040889	Duplicate	pH	SM 4500-H+ B	1304481-007	7.77	7.78	pH Units	<1%
QC13040890	Duplicate	Bicarbonate (HCO3)	SM 2320B	1304481-001	189	189	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1304481-001	ND	ND	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1304481-001	ND	ND	mg/L	<1%
		Total Alkalinity	SM 2320B	1304481-001	155	155	mg/L as CaCO3	<1%
QC13040890	Duplicate	Bicarbonate (HCO3)	SM 2320B	1304481-002	148	148	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1304481-002	ND	ND	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1304481-002	ND	ND	mg/L	<1%
		Total Alkalinity	SM 2320B	1304481-002	122	121	mg/L as CaCO3	<1%
QC13040890	Duplicate	Bicarbonate (HCO3)	SM 2320B	1304481-003	179	179	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1304481-003	ND	ND	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1304481-003	ND	ND	mg/L	<1%
		Total Alkalinity	SM 2320B	1304481-003	147	147	mg/L as CaCO3	<1%
QC13040890	Duplicate	Bicarbonate (HCO3)	SM 2320B	1304481-004	184	183	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1304481-004	ND	ND	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1304481-004	ND	ND	mg/L	<1%
		Total Alkalinity	SM 2320B	1304481-004	151	150	mg/L as CaCO3	<1%
QC13040890	Duplicate	Bicarbonate (HCO3)	SM 2320B	1304481-007	145	145	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1304481-007	ND	ND	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1304481-007	ND	ND	mg/L	<1%

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 EPA Lab ID: NV00932

QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD
		Total Alkalinity	SM 2320B	1304481-007	119	119	mg/L as CaCO3	<1%
QC13050101	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1304489-001	45.0	39.0	mg/L	14 %
QC13050101	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1304494-005	213	211	mg/L	1 %
QC13050101	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1304495-005	280	269	mg/L	4 %
QC13050101	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1304529-003	276	277	mg/L	<1%
QC13050101	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1304534-004	143	126	Q mg/L	13 %
QC13050101	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1304501-005	149	140	mg/L	6 %

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC13040964	MS 1	Fluoride	EPA 300.0	1304489-001	ND	1.93	1.95	2.00	mg/L	96	98	1 %
QC13040964	MS 2	Fluoride	EPA 300.0	1304525-005	ND	1.97	2.03	2.00	mg/L	95	98	3 %
QC13040969	MS 1	Chloride	EPA 300.0	1304501-009	4.34	9.62	9.98	5.00	mg/L	106	113	4 %
QC13040969	MS 2	Chloride	EPA 300.0	1304489-001	ND	5.24	5.33	5.00	mg/L	105	107	2 %
QC13040972	MS 1	Nitrite Nitrogen	EPA 300.0	1304501-009	ND	0.497	0.534	0.500	mg/L	98	105	7 %
QC13040972	MS 2	Nitrite Nitrogen	EPA 300.0	1304489-001	ND	0.502	0.512	0.500	mg/L	100	102	2 %
QC13040975	MS 1	Nitrate Nitrogen	EPA 300.0	1304501-009	ND	2.20	2.34	2.00	mg/L	104	111	6 %
QC13040975	MS 2	Nitrate Nitrogen	EPA 300.0	1304489-001	ND	2.10	2.12	2.00	mg/L	103	104	1 %
QC13040980	MS 1	Sulfate	EPA 300.0	1304501-009	5.58	15.9	16.7	10.0	mg/L	103	111	5 %
QC13040980	MS 2	Sulfate	EPA 300.0	1304489-001	6.07	15.9	16.1	10.0	mg/L	98	100	1 %
QC13050006	MS 1	Uranium, Dissolved	EPA 200.8	1304494-001	ND	0.0104	0.0104	0.010	mg/L	104	104	<1%
		Mercury, Dissolved	EPA 200.8	1304494-001	ND	0.000980	0.001018	0.001	mg/L	95	98	4 %
		Antimony, Dissolved	EPA 200.8	1304494-001	0.0076	0.0173	0.0172	0.010	mg/L	98	97	1 %
		Arsenic, Dissolved	EPA 200.8	1304494-001	0.0260	0.0793	0.0776	0.050	mg/L	107	103	2 %
		Lead, Dissolved	EPA 200.8	1304494-001	ND	0.0101	0.0101	0.010	mg/L	100	100	<1%
		Seelenium, Dissolved	EPA 200.8	1304494-001	ND	0.0472	0.0468	0.050	mg/L	92	91	1 %
		Thallium, Dissolved	EPA 200.8	1304494-001	0.0024	0.0123	0.0123	0.010	mg/L	99	99	<1%
QC13050007	MS 1	Uranium, Dissolved	EPA 200.8	1304494-002	ND	0.0104	0.0102	0.010	mg/L	104	102	2 %
		Mercury, Dissolved	EPA 200.8	1304494-002	ND	0.000932	0.000913	0.001	mg/L	91	89	2 %
		Antimony, Dissolved	EPA 200.8	1304494-002	0.0042	0.0138	0.0141	0.010	mg/L	96	99	2 %
		Arsenic, Dissolved	EPA 200.8	1304494-002	0.0135	0.0645	0.0648	0.050	mg/L	102	103	<1%
		Lead, Dissolved	EPA 200.8	1304494-002	ND	0.0099	0.0099	0.010	mg/L	99	99	<1%
		Selenium, Dissolved	EPA 200.8	1304494-002	ND	0.0460	0.0459	0.050	mg/L	91	91	<1%
		Thallium, Dissolved	EPA 200.8	1304494-002	0.0017	0.0118	0.0117	0.010	mg/L	101	100	1 %
QC13050117	MS 1	Aluminum, Dissolved	EPA 200.7	1304494-001	0.073	0.981	0.990	1.00	mg/L	91	92	1 %
		Barium, Dissolved	EPA 200.7	1304494-001	0.050	0.976	0.998	1.00	mg/L	93	95	2 %
		Beryllium, Dissolved	EPA 200.7	1304494-001	ND	0.978	0.988	1.00	mg/L	98	99	1 %
		Bismuth, Dissolved	EPA 200.7	1304494-001	ND	0.937	0.951	1.00	mg/L	96	97	1 %
		Boron, Dissolved	EPA 200.7	1304494-001	ND	0.956	0.980	1.00	mg/L	96	99	2 %
		Cadmium, Dissolved	EPA 200.7	1304494-001	ND	0.932	0.966	1.00	mg/L	93	97	4 %
		Calcium, Dissolved	EPA 200.7	1304494-001	38.4	49.0	49.3	10.0	mg/L	106	109	1 %
		Chromium, Dissolved	EPA 200.7	1304494-001	ND	0.939	0.961	1.00	mg/L	94	96	2 %
		Cobalt, Dissolved	EPA 200.7	1304494-001	ND	0.881	0.912	1.00	mg/L	88	91	3 %
		Copper, Dissolved	EPA 200.7	1304494-001	ND	4.51	4.56	5.00	mg/L	90	91	1 %
		Gallium, Dissolved	EPA 200.7	1304494-001	ND	0.951	0.963	1.00	mg/L	95	96	1 %
		Iron, Dissolved	EPA 200.7	1304494-001	ND	0.960	0.969	1.00	mg/L	96	97	1 %
		Lithium, Dissolved	EPA 200.7	1304494-001	ND	0.921	0.924	1.00	mg/L	92	92	<1%
		Magnesium, Dissolved	EPA 200.7	1304494-001	23.6	32.7	32.5	10.0	mg/L	91	89	1 %
		Manganese, Dissolved	EPA 200.7	1304494-001	ND	0.939	0.959	1.00	mg/L	94	96	2 %
		Molybdenum, Dissolved	EPA 200.7	1304494-001	ND	0.987	1.01	1.00	mg/L	96	99	2 %

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

475 East Greg Street Suite #119
 Sparks, NV 89431 (775) 355-0202
 EPA Lab ID: NV00925 - ELAP No: 25

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 Elko, NV 89801 (775) 777-9933
 EPA Lab ID: NV00926

3230 Polaris Ave #4
 Las Vegas, NV 89102 (702) 475-8899
 EPA Lab ID: NV00932

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC13050118	MS 1	Nickel, Dissolved	EPA 200.7	1304494-001	ND	4.38	4.53	5.00	mg/L	88	91	3 %
		Phosphorus, Dissolved	EPA 200.7	1304494-001	ND	5.08	5.24	5.00	mg/L	100	104	3 %
		Potassium, Dissolved	EPA 200.7	1304494-001	5.58	15.3	15.1	10.0	mg/L	97	95	1 %
		Scandium, Dissolved	EPA 200.7	1304494-001	ND	0.963	0.965	1.00	mg/L	96	96	<1%
		Silver, Dissolved	EPA 200.7	1304494-001	ND	0.086	0.085	0.090	mg/L	95	95	1 %
		Sodium, Dissolved	EPA 200.7	1304494-001	13.3	22.9	22.3	10.0	mg/L	96	90	3 %
		Strontium, Dissolved	EPA 200.7	1304494-001	ND	1.03	1.05	1.00	mg/L	93	95	2 %
		Tin, Dissolved	EPA 200.7	1304494-001	ND	0.969	0.990	1.00	mg/L	101	103	2 %
		Titanium, Dissolved	EPA 200.7	1304494-001	ND	0.995	0.994	1.00	mg/L	99	99	<1%
		Vanadium, Dissolved	EPA 200.7	1304494-001	0.034	0.993	1.01	1.00	mg/L	96	98	2 %
		Zinc, Dissolved	EPA 200.7	1304494-001	ND	0.925	0.966	1.00	mg/L	92	97	4 %
		Aluminum, Dissolved	EPA 200.7	1304494-002	0.149	1.06	1.05	1.00	mg/L	91	90	1 %
		Barium, Dissolved	EPA 200.7	1304494-002	0.041	0.988	0.977	1.00	mg/L	95	94	1 %
		Beryllium, Dissolved	EPA 200.7	1304494-002	ND	0.982	0.975	1.00	mg/L	98	98	1 %
		Bismuth, Dissolved	EPA 200.7	1304494-002	ND	0.930	0.922	1.00	mg/L	95	94	1 %
		Boron, Dissolved	EPA 200.7	1304494-002	ND	0.934	0.924	1.00	mg/L	96	95	1 %
		Cadmium, Dissolved	EPA 200.7	1304494-002	ND	0.962	0.954	1.00	mg/L	96	95	1 %
		Calcium, Dissolved	EPA 200.7	1304494-002	28.3	37.2	37.7	10.0	mg/L	89	94	1 %
		Chromium, Dissolved	EPA 200.7	1304494-002	ND	0.953	0.940	1.00	mg/L	95	94	1 %
		Cobalt, Dissolved	EPA 200.7	1304494-002	ND	0.908	0.900	1.00	mg/L	91	90	1 %
		Copper, Dissolved	EPA 200.7	1304494-002	ND	4.43	4.34	5.00	mg/L	89	87	2 %
		Gallium, Dissolved	EPA 200.7	1304494-002	ND	0.948	0.937	1.00	mg/L	95	94	1 %
		Iron, Dissolved	EPA 200.7	1304494-002	ND	0.961	0.956	1.00	mg/L	96	96	1 %
		Lithium, Dissolved	EPA 200.7	1304494-002	ND	0.895	0.878	1.00	mg/L	90	88	2 %
		Magnesium, Dissolved	EPA 200.7	1304494-002	22.4	30.9	31.4	10.0	mg/L	85	90	2 %
		Manganese, Dissolved	EPA 200.7	1304494-002	ND	0.950	0.935	1.00	mg/L	95	94	2 %
		Molybdenum, Dissolved	EPA 200.7	1304494-002	ND	0.945	0.969	1.00	mg/L	94	96	3 %
		Nickel, Dissolved	EPA 200.7	1304494-002	ND	4.52	4.48	5.00	mg/L	90	90	1 %
		Phosphorus, Dissolved	EPA 200.7	1304494-002	ND	5.17	5.08	5.00	mg/L	102	100	2 %
		Potassium, Dissolved	EPA 200.7	1304494-002	4.31	13.7	13.6	10.0	mg/L	94	93	1 %
		Scandium, Dissolved	EPA 200.7	1304494-002	ND	0.956	0.954	1.00	mg/L	96	95	<1%
		Silver, Dissolved	EPA 200.7	1304494-002	ND	0.084	0.082	0.090	mg/L	93	91	2 %
		Sodium, Dissolved	EPA 200.7	1304494-002	10.6	19.3	19.0	10.0	mg/L	87	84	2 %
		Strontium, Dissolved	EPA 200.7	1304494-002	ND	1.00	1.01	1.00	mg/L	94	95	1 %
Tin, Dissolved	EPA 200.7	1304494-002	ND	0.945	0.975	1.00	mg/L	97	100	3 %		
Titanium, Dissolved	EPA 200.7	1304494-002	ND	0.941	0.973	1.00	mg/L	94	97	3 %		
Vanadium, Dissolved	EPA 200.7	1304494-002	0.030	0.993	0.983	1.00	mg/L	96	95	1 %		
Zinc, Dissolved	EPA 200.7	1304494-002	ND	0.975	0.967	1.00	mg/L	98	97	1 %		



WETLAB

WESTERN ENVIRONMENTAL TESTING LABORATORY

Specializing in Soil, Hazardous Waste and Water Analysis.

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tel (775) 355-0202 | fax (775) 355-0817 | www.WETLaboratory.com

Lab Number 1304490

Report
Due Date: 5/9/13

Page 1 of 1

Client **McClelland Laboratories, Inc.**

Address 1016 Greg Street

City, State & Zip Sparks, NV 89431

Contact Mike Medina

Phone 775-356-1300 Collector's Name Robert

Fax 775-356-8917 Project Name

P.O. Number Project Number 3438

Turnaround Time
Standard 5-Day Other

Billing Address (if different than Client Address):

Company _____
Address _____
City, State & Zip _____
Contact _____
Phone _____
Fax _____
Email _____

Email mli@mettest.com

Additional Information

Fax Results	Y	N	To: Client	Billing
Email Results	Y	N	To: Client	Billing
Compliance Monitoring	Y	N		
Fax Results to State EPA	Y	N		

Sample Type Codes

DW = Drinking Water	SD = Solid
WW = Wastewater	SO = Soil
SW = Surface Water	HW = Hazardous Waste
MW = Monitoring Well	OTHER: _____

SAMPLE ID/LOCATION	DATE	TIME	SAMPLE TYPE	NO OF CONTAINERS	Analyses Requested										Spl. No.				
					Profile II w/o Wat	Uranium													
CF-11-02 (227-367) Wk:44	04/25/13	9:00	WW	2	X	X													1
K-Spar Breccia 5+ Comp																			2
Biotite Breccia 0-5 Comp																			3
K-Spar Breccia 0-5 Comp																			4
Quartz Monzonite 0-5 Comp																			5

Instructions/Comments/Special Requirements:

SAMPLE RECEIPT	DATE	TIME	Samples Relinquished By	Samples Received By
Temperature 21.5°C	4/25/13	17:40	<i>[Signature]</i>	<i>[Signature]</i>
Custody Seals Intact? Y N <u>None</u>				
Number of Containers 10				

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.

To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.



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Lab Number 1304490

Report

Due Date:

5/9/13

Page 1 of 1

Client McClelland Laboratories, Inc.

Address 1016 Greg Street

City, State & Zip Sparks, NV 89431

Contact Mike Medina

Phone 775-356-1300

Collector's Name Robert

Fax 775-356-8917

Project Name

P.O. Number

Project Number 3438

Email mli@mettest.com

Turnaround Time

Standard 5-Day Other

Billing Address (if different than Client Address):

Company

Address

City, State & Zip

Contact

Phone

Fax

Email

Additional Information

Fax Results	Y	N	To: Client	Billing
Email Results	Y	N	To: Client	Billing
Compliance Monitoring	Y	N		
Fax Results to State EPA	Y	N		

Sample Type Codes

DW = Drinking Water	SD = Solid
WW = Wastewater	SO = Soil
SW = Surface Water	HW = Hazardous Waste
MW = Monitoring Well	OTHER:

NO OF SAMPLE CONTAINERS

Analyses Requested

Profile II w/o Wad

Uranium

SAMPLE ID/LOCATION	DATE	TIME	NO OF SAMPLE CONTAINERS	Profile II w/o Wad	Uranium	Spl. No.
CF-11-02 (227-367) Wk:44	04/25/13	9:00	2	X	X	1
K-Spar Breccia 5+ Comp						2
Biotite Breccia 0-5 Comp						3
K-Spar Breccia 0-5 Comp						4
Quartz Monzonite 0-5 Comp						5

Instructions/Comments/Special Requirements:

SAMPLE RECEIPT	DATE	TIME	Samples Relinquished By	Samples Received By
Temperature 21.5°C	4/25/13	11:40	<i>[Signature]</i>	<i>[Signature]</i>
Custody Seals Intact? Y N <u>None</u>				
Number of Containers 10				

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.

To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.

Specializing in Soil, Hazardous Waste and Water Analysis.

5/23/2013

McClelland Laboratory
1016 Greg Street
Sparks, NV 89431
Attn: Mike Medina

OrderID: 1305198

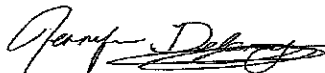
Dear: Mike Medina

This is to transmit the attached analytical report. The analytical data and information contained therein was generated using specified or selected methods contained in references, such as Standard Methods for the Examination of Water and Wastewater, 18th & 19th editions, Methods for Determination of Organic Compounds in Drinking Water, EPA-600/4-79-020, and Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW846) Third Edition.

The samples were received by WETLAB-Western Environmental Testing Laboratory in good condition on 5/9/2013. Additional comments are located on page 2 of this report.

If you should have any questions or comments regarding this report, please do not hesitate to call.

Sincerely,



Jennifer Delaney
QA Specialist

SPARKS

475 E. Greg Street, Suite 119
Sparks, Nevada 89431
tel [775] 355-0202
fax [775] 355-0817

ELKO

1084 Lamoille Hwy.
Elko, Nevada 89801
tel [775] 777-9933
fax [775] 777-9933

LAS VEGAS

3230 Polaris Ave., Suite 4
Las Vegas, Nevada 89102
tel [702] 475-8899
fax [702] 776-6152

Western Environmental Testing Laboratory

Report Comments

McClelland Laboratory - 1305198

General Comments

None

Specific Comments

Due to the sample matrix it was necessary to analyze the following at a dilution:
1305198-002 Potassium
The reporting limits have been adjusted accordingly.

Report Legend

- B -- Blank contamination; Analyte detected above the method reporting limit in an associated blank
- D -- Reporting limit is elevated due to required sample dilution
- DF -- Dilution Factor
- HT -- Sample analyzed beyond the accepted holding time
- J -- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
- M -- Reported value is estimated; The sample matrix interfered with the analysis
- MCL -- State or EPA Maximum Contamination Level
- N -- There was insufficient sample available to perform a spike and/or duplicate on this analytical batch.
- NC -- Not calculated due to matrix interference
- ND -- Non-detect result; Indicates the result was below the reporting limit (RL)
- Q -- Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
- RL -- Reporting Limit or Practical Quantitation Limit
- S -- Surrogate recovery was outside of laboratory acceptance limits due to matrix interference. The associated blank and LCS surrogate recovery was within acceptance limits
- SC -- Spike recovery not calculated. Sample concentration >4X the spike amount; therefore, the spike could not be adequately recovered

Western Environmental Testing Laboratory Analytical Report

McClelland Laboratory

1016 Greg Street

Sparks, NV 89431

Attn: Mike Medina

Phone: (775) 356-1300 Fax: (775) 356-8917

PO\Project: 3438

Date Printed: 5/23/2013

OrderID: 1305198

Customer Sample ID: CF-11-02 (0-27) Wk:52

Collect Date/Time: 5/9/2013 09:00

WETLAB Sample ID: 1305198-001

Receive Date: 5/9/2013 01:55

Analyte	Method	Results	Units	DF	RL	Analyzed
<u>General Chemistry</u>						
pH	SM 4500-H+ B	7.44	pH Units	1		5/9/2013
Bicarbonate (HCO ₃)	SM 2320B	47	mg/L	1	1.0	5/9/2013
Carbonate (CO ₃)	SM 2320B	ND	mg/L	1	1.0	5/9/2013
Hydroxide (OH)	SM 2320B	ND	mg/L	1	1.0	5/9/2013
Total Alkalinity	SM 2320B	39	mg/L as CaCO ₃	1	1.0	5/9/2013
Total Dissolved Solids (TDS)	SM 2540C	64	mg/L	1	10	5/14/2013
<u>Anions by Ion Chromatography</u>						
Chloride	EPA 300.0	ND	mg/L	1	1.00	5/10/2013
Fluoride	EPA 300.0	0.85	mg/L	1	0.10	5/10/2013
Sulfate	EPA 300.0	12	mg/L	1	1.0	5/10/2013
Nitrate Nitrogen	EPA 300.0	ND	mg/L	1	0.10	5/10/2013
Nitrite Nitrogen	EPA 300.0	ND	mg/L	1	0.025	5/10/2013
<u>Trace Metals by ICP-OES</u>						
Aluminum	EPA 200.7	0.054	mg/L	1	0.045	5/17/2013
Barium	EPA 200.7	ND	mg/L	1	0.010	5/17/2013
Beryllium	EPA 200.7	ND	mg/L	1	0.0010	5/17/2013
Bismuth	EPA 200.7	ND	mg/L	1	0.10	5/17/2013
Boron	EPA 200.7	ND	mg/L	1	0.10	5/17/2013
Cadmium	EPA 200.7	ND	mg/L	1	0.0010	5/17/2013
Calcium	EPA 200.7	16	mg/L	1	0.50	5/17/2013
Chromium	EPA 200.7	ND	mg/L	1	0.0050	5/17/2013
Cobalt	EPA 200.7	ND	mg/L	1	0.010	5/17/2013
Copper	EPA 200.7	ND	mg/L	1	0.050	5/17/2013
Gallium	EPA 200.7	ND	mg/L	1	0.10	5/17/2013
Iron	EPA 200.7	0.014	mg/L	1	0.010	5/17/2013
Lithium	EPA 200.7	ND	mg/L	1	0.10	5/17/2013
Magnesium	EPA 200.7	2.6	mg/L	1	0.50	5/17/2013
Manganese	EPA 200.7	0.035	mg/L	1	0.0050	5/17/2013
Molybdenum	EPA 200.7	ND	mg/L	1	0.010	5/17/2013
Nickel	EPA 200.7	ND	mg/L	1	0.010	5/17/2013
Phosphorus	EPA 200.7	ND	mg/L	1	0.50	5/17/2013
Potassium	EPA 200.7	1.3	mg/L	1	0.50	5/17/2013

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

Page 3 of 10

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EPA Lab ID: NV00926

3230 Polaris Ave #4
Las Vegas, NV 89102 (702) 475-8899
EPA Lab ID: NV00932

Customer Sample ID: CF-11-02 (0-27) Wk:52

Collect Date/Time: 5/9/2013 09:00

WETLAB Sample ID: 1305198-001

Receive Date: 5/9/2013 01:55

Analyte	Method	Results	Units	DF	RL	Analyzed
Scandium	EPA 200.7	ND	mg/L	1	0.100	5/17/2013
Silver	EPA 200.7	ND	mg/L	1	0.0050	5/17/2013
Sodium	EPA 200.7	0.60	mg/L	1	0.50	5/17/2013
Strontium	EPA 200.7	0.13	mg/L	1	0.10	5/17/2013
Tin	EPA 200.7	ND	mg/L	1	0.10	5/17/2013
Titanium	EPA 200.7	ND	mg/L	1	0.10	5/17/2013
Vanadium	EPA 200.7	ND	mg/L	1	0.010	5/17/2013
Zinc	EPA 200.7	ND	mg/L	1	0.010	5/17/2013
Trace Metals by ICP-MS						
Mercury	EPA 200.8	ND	mg/L	1	0.00010	5/20/2013
Antimony	EPA 200.8	ND	mg/L	1	0.0025	5/23/2013
Arsenic	EPA 200.8	ND	mg/L	1	0.0050	5/20/2013
Lead	EPA 200.8	ND	mg/L	1	0.0025	5/23/2013
Selenium	EPA 200.8	ND	mg/L	1	0.0050	5/20/2013
Thallium	EPA 200.8	ND	mg/L	1	0.0010	5/23/2013
Uranium	EPA 200.8	ND	mg/L	1	0.0050	5/23/2013
Ion Balance						
Anions	Calculation	1.06	meq/L	1	0.10	
Cations	Calculation	1.08	meq/L	1	0.10	
Error	Calculation	ND	%	1	1.0	
Sample Preparation						
Trace Metals Digestion	EPA 200.2	Complete		1		5/15/2013

Customer Sample ID: CF-11-02 (367-408) Wk:52

Collect Date/Time: 5/9/2013 09:00

WETLAB Sample ID: 1305198-002

Receive Date: 5/9/2013 01:55

Analyte	Method	Results	Units	DF	RL	Analyzed
General Chemistry						
pH	SM 4500-H+ B	7.16	pH Units	1		5/9/2013
Bicarbonate (HCO ₃)	SM 2320B	25	mg/L	1	1.0	5/9/2013
Carbonate (CO ₃)	SM 2320B	ND	mg/L	1	1.0	5/9/2013
Hydroxide (OH)	SM 2320B	ND	mg/L	1	1.0	5/9/2013
Total Alkalinity	SM 2320B	20	mg/L as CaCO ₃	1	1.0	5/9/2013
Total Dissolved Solids (TDS)	SM 2540C	45	mg/L	1	10	5/14/2013
Anions by Ion Chromatography						
Chloride	EPA 300.0	ND	mg/L	1	1.00	5/10/2013
Fluoride	EPA 300.0	0.71	mg/L	1	0.10	5/10/2013
Sulfate	EPA 300.0	7.5	mg/L	1	1.0	5/10/2013
Nitrate Nitrogen	EPA 300.0	ND	mg/L	1	0.10	5/10/2013
Nitrite Nitrogen	EPA 300.0	ND	mg/L	1	0.025	5/10/2013
Trace Metals by ICP-OES						
Aluminum	EPA 200.7	0.12	mg/L	1	0.045	5/17/2013
Barium	EPA 200.7	ND	mg/L	1	0.010	5/17/2013
Beryllium	EPA 200.7	ND	mg/L	1	0.0010	5/17/2013
Bismuth	EPA 200.7	ND	mg/L	1	0.10	5/17/2013

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

Customer Sample ID: CF-11-02 (367-408) Wk:52

Collect Date/Time: 5/9/2013 09:00

WETLAB Sample ID: 1305198-002

Receive Date: 5/9/2013 01:55

Analyte	Method	Results	Units	DF	RL	Analyzed
Boron	EPA 200.7	ND	mg/L	1	0.10	5/17/2013
Cadmium	EPA 200.7	ND	mg/L	1	0.0010	5/17/2013
Calcium	EPA 200.7	11	mg/L	1	0.50	5/17/2013
Chromium	EPA 200.7	ND	mg/L	1	0.0050	5/17/2013
Cobalt	EPA 200.7	ND	mg/L	1	0.010	5/17/2013
Copper	EPA 200.7	ND	mg/L	1	0.050	5/17/2013
Gallium	EPA 200.7	ND	mg/L	1	0.10	5/17/2013
Iron	EPA 200.7	0.016	mg/L	1	0.010	5/17/2013
Lithium	EPA 200.7	ND	mg/L	1	0.10	5/17/2013
Magnesium	EPA 200.7	ND	mg/L	1	0.50	5/17/2013
Manganese	EPA 200.7	0.028	mg/L	1	0.0050	5/17/2013
Molybdenum	EPA 200.7	ND	mg/L	1	0.010	5/17/2013
Nickel	EPA 200.7	ND	mg/L	1	0.010	5/17/2013
Phosphorus	EPA 200.7	ND	mg/L	1	0.50	5/17/2013
Potassium	EPA 200.7	ND	mg/L	5	2.5	5/22/2013
Scandium	EPA 200.7	ND	mg/L	1	0.100	5/17/2013
Silver	EPA 200.7	ND	mg/L	1	0.0050	5/17/2013
Sodium	EPA 200.7	ND	mg/L	1	0.50	5/17/2013
Strontium	EPA 200.7	ND	mg/L	1	0.10	5/17/2013
Tin	EPA 200.7	ND	mg/L	1	0.10	5/17/2013
Titanium	EPA 200.7	ND	mg/L	1	0.10	5/17/2013
Vanadium	EPA 200.7	ND	mg/L	1	0.010	5/17/2013
Zinc	EPA 200.7	ND	mg/L	1	0.010	5/17/2013
<u>Trace Metals by ICP-MS</u>						
Mercury	EPA 200.8	ND	mg/L	1	0.00010	5/20/2013
Antimony	EPA 200.8	ND	mg/L	1	0.0025	5/23/2013
Arsenic	EPA 200.8	ND	mg/L	1	0.0050	5/20/2013
Lead	EPA 200.8	ND	mg/L	1	0.0025	5/23/2013
Seelenium	EPA 200.8	ND	mg/L	1	0.0050	5/20/2013
Thallium	EPA 200.8	ND	mg/L	1	0.0010	5/23/2013
Uranium	EPA 200.8	ND	mg/L	1	0.0050	5/23/2013
<u>Ion Balance</u>						
Anions	Calculation	0.60	meq/L	1	0.10	
Cations	Calculation	0.56	meq/L	1	0.10	
Error	Calculation	3.4	%	1	1.0	
<u>Sample Preparation</u>						
Trace Metals Digestion	EPA 200.2	Complete		1		5/15/2013

Western Environmental Testing Laboratory QC Report

QCBatchID	QCType	Parameter	Method	Result	Units
QC13050410	Blank 1	Fluoride	EPA 300.0	ND	mg/L
QC13050410	Blank 2	Fluoride	EPA 300.0	ND	mg/L
QC13050413	Blank 1	Chloride	EPA 300.0	ND	mg/L
QC13050413	Blank 2	Chloride	EPA 300.0	ND	mg/L
QC13050413	Blank 3	Chloride	EPA 300.0	ND	mg/L
QC13050415	Blank 1	Nitrite Nitrogen	EPA 300.0	ND	mg/L
QC13050415	Blank 2	Nitrite Nitrogen	EPA 300.0	ND	mg/L
QC13050415	Blank 3	Nitrite Nitrogen	EPA 300.0	ND	mg/L
QC13050417	Blank 1	Nitrate Nitrogen	EPA 300.0	ND	mg/L
QC13050417	Blank 2	Nitrate Nitrogen	EPA 300.0	ND	mg/L
QC13050417	Blank 3	Nitrate Nitrogen	EPA 300.0	ND	mg/L
QC13050419	Blank 1	Sulfate	EPA 300.0	ND	mg/L
QC13050419	Blank 2	Sulfate	EPA 300.0	ND	mg/L
QC13050765	Blank 1	Aluminum, Dissolved	EPA 200.7	ND	mg/L
		Barium, Dissolved	EPA 200.7	ND	mg/L
		Beryllium, Dissolved	EPA 200.7	ND	mg/L
		Bismuth, Dissolved	EPA 200.7	ND	mg/L
		Boron, Dissolved	EPA 200.7	ND	mg/L
		Cadmium, Dissolved	EPA 200.7	ND	mg/L
		Calcium, Dissolved	EPA 200.7	ND	mg/L
		Chromium, Dissolved	EPA 200.7	ND	mg/L
		Cobalt, Dissolved	EPA 200.7	ND	mg/L
		Copper, Dissolved	EPA 200.7	ND	mg/L
		Gallium, Dissolved	EPA 200.7	ND	mg/L
		Iron, Dissolved	EPA 200.7	ND	mg/L
		Lithium, Dissolved	EPA 200.7	ND	mg/L
		Magnesium, Dissolved	EPA 200.7	ND	mg/L
		Manganese, Dissolved	EPA 200.7	ND	mg/L
		Molybdenum, Dissolved	EPA 200.7	ND	mg/L
		Nickel, Dissolved	EPA 200.7	ND	mg/L
		Phosphorus, Dissolved	EPA 200.7	ND	mg/L
		Potassium, Dissolved	EPA 200.7	ND	mg/L
		Scandium, Dissolved	EPA 200.7	ND	mg/L
		Silver, Dissolved	EPA 200.7	ND	mg/L
		Sodium, Dissolved	EPA 200.7	ND	mg/L
		Strontium, Dissolved	EPA 200.7	ND	mg/L
		Tin, Dissolved	EPA 200.7	ND	mg/L
		Titanium, Dissolved	EPA 200.7	ND	mg/L
		Vanadium, Dissolved	EPA 200.7	ND	mg/L
		Zinc, Dissolved	EPA 200.7	ND	mg/L
QC13050820	Blank 1	Total Dissolved Solids (TDS)	SM 2540C	ND	mg/L
QC13050820	Blank 2	Total Dissolved Solids (TDS)	SM 2540C	ND	mg/L
QC13050820	Blank 3	Total Dissolved Solids (TDS)	SM 2540C	ND	mg/L
QC13050842	Blank 1	Uranium, Dissolved	EPA 200.8	ND	mg/L
		Mercury, Dissolved	EPA 200.8	ND	mg/L
		Antimony, Dissolved	EPA 200.8	ND	mg/L

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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EPA Lab ID: NV00926

3230 Polaris Ave #4
Las Vegas, NV 89102 (702) 475-8899
EPA Lab ID: NV00932

QCBatchID	QCType	Parameter	Method	Result	Units		
		Arsenic, Dissolved	EPA 200.8	ND	mg/L		
		Lead, Dissolved	EPA 200.8	ND	mg/L		
		Selenium, Dissolved	EPA 200.8	ND	mg/L		
		Thallium, Dissolved	EPA 200.8	ND	mg/L		
QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC13050410	LCS 1	Fluoride	EPA 300.0	1.89	2.00	95	mg/L
QC13050413	LCS 1	Chloride	EPA 300.0	10.4	10.0	104	mg/L
QC13050415	LCS 1	Nitrite Nitrogen	EPA 300.0	0.494	0.500	99	mg/L
QC13050417	LCS 1	Nitrate Nitrogen	EPA 300.0	2.08	2.00	104	mg/L
QC13050419	LCS 1	Sulfate	EPA 300.0	24.2	25.0	97	mg/L
QC13050427	LCS 1	pH	SM 4500-H+ B	7.00	7.00	100	pH Units
QC13050427	LCS 2	pH	SM 4500-H+ B	7.01	7.00	100	pH Units
QC13050427	LCS 3	pH	SM 4500-H+ B	7.03	7.00	100	pH Units
QC13050427	LCS 4	pH	SM 4500-H+ B	7.00	7.00	100	pH Units
QC13050428	LCS 1	Total Alkalinity	SM 2320B	100	100	100	mg/L
QC13050428	LCS 2	Total Alkalinity	SM 2320B	99.7	100	100	mg/L
QC13050428	LCS 3	Total Alkalinity	SM 2320B	99.8	100	100	mg/L
QC13050428	LCS 4	Total Alkalinity	SM 2320B	99.4	100	99	mg/L
QC13050428	LCS 5	Total Alkalinity	SM 2320B	99.6	100	100	mg/L
QC13050765	LCS 1	Aluminum, Dissolved	EPA 200.7	1.01	1.00	101	mg/L
		Barium, Dissolved	EPA 200.7	0.979	1.00	98	mg/L
		Beryllium, Dissolved	EPA 200.7	0.984	1.00	98	mg/L
		Bismuth, Dissolved	EPA 200.7	0.969	1.00	97	mg/L
		Boron, Dissolved	EPA 200.7	0.971	1.00	97	mg/L
		Cadmium, Dissolved	EPA 200.7	0.964	1.00	96	mg/L
		Calcium, Dissolved	EPA 200.7	9.70	10.0	97	mg/L
		Chromium, Dissolved	EPA 200.7	0.976	1.00	98	mg/L
		Cobalt, Dissolved	EPA 200.7	0.975	1.00	98	mg/L
		Copper, Dissolved	EPA 200.7	4.75	5.00	95	mg/L
		Gallium, Dissolved	EPA 200.7	0.999	1.00	100	mg/L
		Iron, Dissolved	EPA 200.7	0.996	1.00	100	mg/L
		Lithium, Dissolved	EPA 200.7	1.04	1.00	104	mg/L
		Magnesium, Dissolved	EPA 200.7	9.40	10.0	94	mg/L
		Manganese, Dissolved	EPA 200.7	0.960	1.00	96	mg/L
		Molybdenum, Dissolved	EPA 200.7	0.991	1.00	99	mg/L
		Nickel, Dissolved	EPA 200.7	4.89	5.00	98	mg/L
		Phosphorus, Dissolved	EPA 200.7	4.93	5.00	99	mg/L
		Potassium, Dissolved	EPA 200.7	10.2	10.0	102	mg/L
		Scandium, Dissolved	EPA 200.7	0.978	1.00	98	mg/L
		Silver, Dissolved	EPA 200.7	0.089	0.090	99	mg/L
		Sodium, Dissolved	EPA 200.7	10.3	10.0	103	mg/L
		Strontium, Dissolved	EPA 200.7	1.03	1.00	103	mg/L
		Tin, Dissolved	EPA 200.7	0.956	1.00	96	mg/L
		Titanium, Dissolved	EPA 200.7	0.986	1.00	99	mg/L
		Vanadium, Dissolved	EPA 200.7	0.980	1.00	98	mg/L
		Zinc, Dissolved	EPA 200.7	0.998	1.00	100	mg/L
QC13050820	LCS 1	Total Dissolved Solids (TDS)	SM 2540C	140	150	93	mg/L
QC13050820	LCS 2	Total Dissolved Solids (TDS)	SM 2540C	153	150	102	mg/L
QC13050820	LCS 3	Total Dissolved Solids (TDS)	SM 2540C	140	150	93	mg/L
QC13050842	LCS 1	Uranium, Dissolved	EPA 200.8	0.0102	0.010	102	mg/L
		Mercury, Dissolved	EPA 200.8	0.000923	0.001	92	mg/L
		Antimony, Dissolved	EPA 200.8	0.0099	0.010	99	mg/L

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 Las Vegas, NV 89102 (702) 475-8899
 EPA Lab ID: NV00932

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
		Arsenic, Dissolved	EPA 200.8	0.0511	0.050	102	mg/L
		Lead, Dissolved	EPA 200.8	0.0101	0.010	101	mg/L
		Selenium, Dissolved	EPA 200.8	0.0479	0.050	96	mg/L
		Thallium, Dissolved	EPA 200.8	0.0102	0.010	102	mg/L

QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD
QC13050427	Duplicate	pH	SM 4500-H+ B	1305125-010	7.06	7.08	pH Units	<1%
QC13050427	Duplicate	pH	SM 4500-H+ B	1305187-002	7.64	7.61	pH Units	<1%
QC13050427	Duplicate	pH	SM 4500-H+ B	1305187-001	7.60	7.60	pH Units	<1%
QC13050427	Duplicate	pH	SM 4500-H+ B	1305187-005	7.46	7.42	pH Units	1 %
QC13050427	Duplicate	pH	SM 4500-H+ B	1305126-001	7.30	7.29	pH Units	<1%
QC13050427	Duplicate	pH	SM 4500-H+ B	1305126-011	9.00	9.05	pH Units	1 %
QC13050427	Duplicate	pH	SM 4500-H+ B	1305192-001	6.20	6.21	pH Units	<1%
QC13050427	Duplicate	pH	SM 4500-H+ B	1305198-002	7.16	7.16	pH Units	<1%
QC13050428	Duplicate	Bicarbonate (HCO3)	SM 2320B	1305125-010	282	280	mg/L	1 %
		Carbonate (CO3)	SM 2320B	1305125-010	ND	ND	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1305125-010	ND	ND	mg/L	<1%
		Total Alkalinity	SM 2320B	1305125-010	231	230	mg/L as CaCO3	1 %
QC13050428	Duplicate	Bicarbonate (HCO3)	SM 2320B	1305187-002	206	206	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1305187-002	ND	ND	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1305187-002	ND	ND	mg/L	<1%
		Total Alkalinity	SM 2320B	1305187-002	169	169	mg/L as CaCO3	<1%
QC13050428	Duplicate	Bicarbonate (HCO3)	SM 2320B	1305187-001	198	200	mg/L	1 %
		Carbonate (CO3)	SM 2320B	1305187-001	ND	ND	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1305187-001	ND	ND	mg/L	<1%
		Total Alkalinity	SM 2320B	1305187-001	163	164	mg/L as CaCO3	1 %
QC13050428	Duplicate	Bicarbonate (HCO3)	SM 2320B	1305187-005	35.2	34.0	mg/L	4 %
		Carbonate (CO3)	SM 2320B	1305187-005	ND	ND	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1305187-005	ND	ND	mg/L	<1%
		Total Alkalinity	SM 2320B	1305187-005	28.9	27.9	mg/L as CaCO3	4 %
QC13050428	Duplicate	Bicarbonate (HCO3)	SM 2320B	1305126-001	230	230	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1305126-001	ND	ND	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1305126-001	ND	ND	mg/L	<1%
		Total Alkalinity	SM 2320B	1305126-001	189	189	mg/L as CaCO3	<1%
QC13050428	Duplicate	Bicarbonate (HCO3)	SM 2320B	1305126-011	183	178	mg/L	3 %
		Carbonate (CO3)	SM 2320B	1305126-011	19.9	22.0	mg/L	10 %
		Hydroxide (OH)	SM 2320B	1305126-011	ND	ND	mg/L	<1%
		Total Alkalinity	SM 2320B	1305126-011	183	183	mg/L as CaCO3	<1%
QC13050428	Duplicate	Bicarbonate (HCO3)	SM 2320B	1305192-001	39.3	39.2	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1305192-001	ND	ND	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1305192-001	ND	ND	mg/L	<1%
		Total Alkalinity	SM 2320B	1305192-001	32.2	32.1	mg/L as CaCO3	<1%

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QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD
QC13050428	Duplicate	Bicarbonate (HCO ₃)	SM 2320B	1305198-002	24.6	26.0	mg/L	5 %
		Carbonate (CO ₃)	SM 2320B	1305198-002	ND	ND	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1305198-002	ND	ND	mg/L	<1%
		Total Alkalinity	SM 2320B	1305198-002	20.2	21.3	mg/L as CaCO ₃	5 %
QC13050820	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1305187-003	201	196	mg/L	3 %
QC13050820	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1305190-001	309	314	mg/L	2 %
QC13050820	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1305205-001	25.0	31.0	mg/L	21 %
QC13050820	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1305224-001	219	213	mg/L	3 %
QC13050820	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1305227-001	36.0	39.0	mg/L	8 %
QC13050820	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1305229-002	190	208	Q mg/L	9 %

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC13050410	MS 1	Fluoride	EPA 300.0	1305173-021	0.127	2.09	2.12	2.00	mg/L	98	100	1 %
QC13050413	MS 1	Chloride	EPA 300.0	1305173-021	ND	5.51	5.55	5.00	mg/L	109	110	1 %
QC13050413	MS 2	Chloride	EPA 300.0	1305198-002	ND	5.27	5.28	5.00	mg/L	104	105	<1%
QC13050415	MS 1	Nitrite Nitrogen	EPA 300.0	1305173-021	ND	0.511	0.515	0.500	mg/L	100	101	1 %
QC13050415	MS 2	Nitrite Nitrogen	EPA 300.0	1305198-002	ND	0.482	0.491	0.500	mg/L	94	96	2 %
QC13050417	MS 1	Nitrate Nitrogen	EPA 300.0	1305173-021	ND	2.27	2.29	2.00	mg/L	111	112	1 %
QC13050417	MS 2	Nitrate Nitrogen	EPA 300.0	1305188-003	5.91	28.7	28.9	2.00	mg/L	114	115	1 %
QC13050419	MS 1	Sulfate	EPA 300.0	1305173-021	38.6	49.7	50.1	10.0	mg/L	111	115	1 %
QC13050765	MS 1	Aluminum, Dissolved	EPA 200.7	1305190-002	ND	1.07	1.07	1.00	mg/L	103	103	<1%
		Barium, Dissolved	EPA 200.7	1305190-002	0.152	1.09	1.10	1.00	mg/L	94	95	1 %
		Beryllium, Dissolved	EPA 200.7	1305190-002	ND	0.987	0.995	1.00	mg/L	99	99	1 %
		Bismuth, Dissolved	EPA 200.7	1305190-002	ND	0.943	0.943	1.00	mg/L	96	96	<1%
		Boron, Dissolved	EPA 200.7	1305190-002	0.140	1.12	1.13	1.00	mg/L	98	99	1 %
		Cadmium, Dissolved	EPA 200.7	1305190-002	0.003	0.927	0.940	1.00	mg/L	92	94	1 %
		Calcium, Dissolved	EPA 200.7	1305190-002	185	SC 212	215	10.0	mg/L	NC	NC	NC
		Chromium, Dissolved	EPA 200.7	1305190-002	ND	0.951	0.958	1.00	mg/L	95	96	1 %
		Cobalt, Dissolved	EPA 200.7	1305190-002	ND	0.862	0.876	1.00	mg/L	86	88	2 %
		Copper, Dissolved	EPA 200.7	1305190-002	ND	4.69	4.71	5.00	mg/L	94	94	<1%
		Gallium, Dissolved	EPA 200.7	1305190-002	ND	1.04	1.04	1.00	mg/L	104	104	<1%
		Iron, Dissolved	EPA 200.7	1305190-002	ND	0.963	0.964	1.00	mg/L	95	96	<1%
		Lithium, Dissolved	EPA 200.7	1305190-002	0.343	1.35	1.38	1.00	mg/L	101	104	2 %
		Magnesium, Dissolved	EPA 200.7	1305190-002	57.2	SC 76.4	75.9	10.0	mg/L	NC	NC	NC
		Manganese, Dissolved	EPA 200.7	1305190-002	ND	0.919	0.924	1.00	mg/L	92	93	1 %
		Molybdenum, Dissolved	EPA 200.7	1305190-002	ND	0.977	0.992	1.00	mg/L	97	99	2 %
		Nickel, Dissolved	EPA 200.7	1305190-002	ND	4.34	4.39	5.00	mg/L	87	88	1 %
		Phosphorus, Dissolved	EPA 200.7	1305190-002	ND	5.20	5.31	5.00	mg/L	102	104	2 %
		Potassium, Dissolved	EPA 200.7	1305190-002	7.29	18.2	18.1	10.0	mg/L	109	108	1 %
		Scandium, Dissolved	EPA 200.7	1305190-002	ND	0.969	0.974	1.00	mg/L	97	97	1 %
Silver, Dissolved	EPA 200.7	1305190-002	ND	0.092	0.093	0.090	mg/L	99	101	1 %		
Sodium, Dissolved	EPA 200.7	1305190-002	84.9	SC 104	106	10.0	mg/L	NC	NC	NC		
Strontium, Dissolved	EPA 200.7	1305190-002	1.30	2.44	2.48	1.00	mg/L	114	118	2 %		
Tin, Dissolved	EPA 200.7	1305190-002	ND	0.962	0.968	1.00	mg/L	97	98	1 %		
Titanium, Dissolved	EPA 200.7	1305190-002	ND	0.972	0.969	1.00	mg/L	98	98	<1%		
Vanadium, Dissolved	EPA 200.7	1305190-002	0.058	1.02	1.03	1.00	mg/L	96	97	1 %		
Zinc, Dissolved	EPA 200.7	1305190-002	0.030	0.959	0.979	1.00	mg/L	93	95	2 %		
QC13050842	MS 1	Uranium, Dissolved	EPA 200.8	1305190-002	ND		NA	0.010	mg/L	NC	NA	NA

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QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
		Mercury, Dissolved	EPA 200.8	1305190-002	0.000143	0.000982	0.001002	0.001	mg/L	84	86	2 %
		Antimony, Dissolved	EPA 200.8	1305190-002	ND	0.0102	0.0102	0.010	mg/L	100	100	<1%
		Arsenic, Dissolved	EPA 200.8	1305190-002	ND	0.0563	0.0561	0.050	mg/L	103	102	<1%
		Lead, Dissolved	EPA 200.8	1305190-002	ND	0.0087	0.0087	0.010	mg/L	87	87	<1%
		Selenium, Dissolved	EPA 200.8	1305190-002	0.0098	0.0548	0.0547	0.050	mg/L	90	90	<1%
		Thallium, Dissolved	EPA 200.8	1305190-002	ND	0.0084	0.0083	0.010	mg/L	84	83	1 %



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Specializing in Soil, Hazardous Waste and Water Analysis.

475 E. Greg Street #119 | Sparks, Nevada 89431

tel (775) 355-0202 | fax (775) 355-0817 | www.WETLaboratory.com

Lab Number 1505198

Report

Due Date: 5/23/13

Page 1 of 1

Client McClelland Laboratories, Inc.

Address 1016 Greg Street

City, State & Zip Sparks, NV 89431

Contact Mike Medina

Phone 775-356-1300 Collector's Name Robert

Fax 775-356-8917 Project Name

P.O. Number. Project Number 3438

Email mi@mettest.com

Additional Information


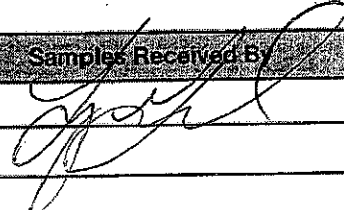
Fax Results	Y	N	To: Client	Billing
Email Results	Y	N	To: Client	Billing
Compliance Monitoring	Y	N		
Fax Results to State EPA	Y	N		

Sample Type Codes

DW = Drinking Water	SD = Solid
WW = Wastewater	SO = Soil
SW = Surface Water	HW = Hazardous Waste
MW = Monitoring Well	OTHER: _____

SAMPLE ID/LOCATION		DATE	TIME	S A M P L E T Y P E	N O O F C O N T A I N E R S	Analyses Requested								Spl. No.
						Profile II w/o Wat	Uranium							
CF-11-02 (0-27)	Wk:52	05/09/13	9:00	WW	2	X	X							1
CF-11-02 (367-408)	↓	↓	↓	↓	↓	↓	↓							2

Instructions/Comments/Special Requirements:

SAMPLE RECEIPT		DATE	TIME	Samples Relinquished By	Samples Received By
Temperature	20.2°C	5/9/13	1355		
Custody Seals Intact?	Y N None				
Number of Containers	4				

1305 1
198 2

WETLAB'S Standard Terms and Conditions apply unless written agreements specify otherwise. Payment terms are Net 30.

To the maximum extent permitted by law, the Client agrees to limit the liability of WETLAB for the Client's damages to the total compensation received, unless other agreements are made in writing. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.



WETLAB
WESTERN ENVIRONMENTAL
TESTING LABORATORY

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Client McClelland Laboratories, Inc.

Address 1016 Greg Street

City, State & Zip Sparks, NV 89431

Contact Mike Medina

Phone 775-356-1300

Collector's Name Robert

Fax 775-356-8917

Project Name

P.O. Number

Project Number 3438

Email ml@mettest.com

Turnaround Time

Standard 5 Day Other

Billing Address (if different than Client Address):

Company

Address

City, State & Zip

Contact

Phone

Fax

Email

Additional Information

Fax Results Y N To: Client Billing
 Email Results Y N To: Client Billing
 Compliance Monitoring Y N
 Fax Results to State EPA Y N

Sample Type Codes

DW = Drinking Water SD = Solid
 WW = Wastewater SO = Soil
 SW = Surface Water HW = Hazardous Waste
 MW = Monitoring Well OTHER:

S A M P L E T Y P E	NO OF C O N T A I N E R S	Analyses Requested										Spl. No.	
		Profile II w/o Wat	Uranium										
WW	2	X	X										1
		↓	↓										2

SAMPLE ID/LOCATION	DATE	TIME											
CF-11-02 (0-27)	05/09/13	9:00	Wk:52										
CF-11-02 (367-408)													

1305 1
198 2

Instructions/Comments/Special Requirements:

SAMPLE RECEIPT	DATE	TIME	Samples Relinquished By	Samples Received By
Temperature 20.2°C	5/9/13	1355	<i>[Signature]</i>	<i>[Signature]</i>
Custody Seals Intact? Y N None				
Number of Containers 4				

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Specializing in Soil, Hazardous Waste and Water Analysis.

5/30/2013

McClelland Laboratory
1016 Greg Street
Sparks, NV 89431
Attn: Mike Medina

OrderID: 1305351

Dear: Mike Medina

This is to transmit the attached analytical report. The analytical data and information contained therein was generated using specified or selected methods contained in references, such as Standard Methods for the Examination of Water and Wastewater, 18th & 19th editions, Methods for Determination of Organic Compounds in Drinking Water, EPA-600/4-79-020, and Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW846) Third Edition.

The samples were received by WETLAB-Western Environmental Testing Laboratory in good condition on 5/16/2013. Additional comments are located on page 2 of this report.

This is an amended report that includes an adjusted reporting limit for Antimony. If you should have any questions or comments regarding this report, please do not hesitate to call.

Sincerely,

Jennifer Delaney
QA Specialist

SPARKS

475 E. Greg Street, Suite 119
Sparks, Nevada 89431
tel [775] 355-0202
fax [775] 355-0817

ELKO

1084 Lamoille Hwy.
Elko, Nevada 89801
tel [775] 777-9933
fax [775] 777-9933

LAS VEGAS

3230 Polaris Ave., Suite 4
Las Vegas, Nevada 89102
tel [702] 475-8899
fax [702] 776-6152

Western Environmental Testing Laboratory

Report Comments

McClelland Laboratory - 1305351

General Comments

None

Specific Comments

Due to the sample matrix it was necessary to analyze the following at a dilution:
1305351-001 Antimony, Arsenic, Mercury, Selenium and Thallium
The reporting limits have been adjusted accordingly.

Report Legend

- B -- Blank contamination; Analyte detected above the method reporting limit in an associated blank
- D -- Reporting limit is elevated due to required sample dilution
- DF -- Dilution Factor
- HT -- Sample analyzed beyond the accepted holding time
- J -- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
- M -- Reported value is estimated; The sample matrix interfered with the analysis
- MCL -- State or EPA Maximum Contamination Level
- N -- There was insufficient sample available to perform a spike and/or duplicate on this analytical batch.
- NC -- Not calculated due to matrix interference
- ND -- Non-detect result; Indicates the result was below the reporting limit (RL)
- Q -- Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
- RL -- Reporting Limit or Practical Quantitation Limit
- S -- Surrogate recovery was outside of laboratory acceptance limits due to matrix interference. The associated blank and LCS surrogate recovery was within acceptance limits
- SC -- Spike recovery not calculated. Sample concentration >4X the spike amount; therefore, the spike could not be adequately recovered

Western Environmental Testing Laboratory Analytical Report

McClelland Laboratory

1016 Greg Street

Sparks, NV 89431

Attn: Mike Medina

Phone: (775) 356-1300 Fax: (775) 356-8917

PO\Project: 3438

Date Printed: 5/30/2013

OrderID: 1305351

Customer Sample ID: 604 673 Wk:120

Collect Date/Time: 5/16/2013 09:00

WETLAB Sample ID: 1305351-001

Receive Date: 5/16/2013 14:20

Analyte	Method	Results	Units	DF	RL	Analyzed
<u>General Chemistrv</u>						
pH	SM 4500-H+ B	4.79	pH Units	1		5/16/2013
Bicarbonate (HCO ₃)	SM 2320B	ND	mg/L	1	1.0	5/16/2013
Carbonate (CO ₃)	SM 2320B	ND	mg/L	1	1.0	5/16/2013
Hydroxide (OH)	SM 2320B	ND	mg/L	1	1.0	5/16/2013
Total Alkalinity	SM 2320B	ND	mg/L as CaCO ₃	1	1.0	5/16/2013
Total Dissolved Solids (TDS)	SM 2540C	66	mg/L	1	10	5/21/2013
<u>Anions by Ion Chromatography</u>						
Chloride	EPA 300.0	ND	mg/L	1	1.00	5/17/2013
Fluoride	EPA 300.0	0.18	mg/L	1	0.10	5/17/2013
Sulfate	EPA 300.0	29	mg/L	1	1.0	5/17/2013
Nitrate Nitrogen	EPA 300.0	ND	mg/L	1	0.10	5/17/2013
Nitrite Nitrogen	EPA 300.0	ND	mg/L	1	0.025	5/17/2013
<u>Trace Metals by ICP-OES</u>						
Aluminum	EPA 200.7	0.20	mg/L	1	0.045	5/24/2013
Barium	EPA 200.7	0.071	mg/L	1	0.010	5/24/2013
Beryllium	EPA 200.7	0.0010	mg/L	1	0.0010	5/24/2013
Bismuth	EPA 200.7	ND	mg/L	1	0.10	5/24/2013
Boron	EPA 200.7	ND	mg/L	1	0.10	5/24/2013
Cadmium	EPA 200.7	0.0014	mg/L	1	0.0010	5/24/2013
Calcium	EPA 200.7	7.7	mg/L	1	0.50	5/24/2013
Chromium	EPA 200.7	ND	mg/L	1	0.0050	5/24/2013
Cobalt	EPA 200.7	ND	mg/L	1	0.010	5/24/2013
Copper	EPA 200.7	3.3	mg/L	1	0.050	5/24/2013
Gallium	EPA 200.7	ND	mg/L	1	0.10	5/24/2013
Iron	EPA 200.7	0.065	mg/L	1	0.010	5/24/2013
Lithium	EPA 200.7	ND	mg/L	1	0.10	5/24/2013
Magnesium	EPA 200.7	1.0	mg/L	1	0.50	5/24/2013
Manganese	EPA 200.7	0.059	mg/L	1	0.0050	5/24/2013
Molybdenum	EPA 200.7	ND	mg/L	1	0.010	5/24/2013
Nickel	EPA 200.7	ND	mg/L	1	0.010	5/24/2013
Phosphorus	EPA 200.7	ND	mg/L	1	0.50	5/24/2013
Potassium	EPA 200.7	1.0	mg/L	1	0.50	5/24/2013

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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475 East Greg Street Suite #119
Sparks, NV 89431 (775) 355-0202
EPA Lab ID: NV00925 - ELAP No: 25

1084 Lamoille Hwy
Elko, NV 89801 (775) 777-9933
EPA Lab ID: NV00926

3230 Polaris Ave #4
Las Vegas, NV 89102 (702) 475-8899
EPA Lab ID: NV00932

Customer Sample ID: 604 673 Wk:120

Collect Date/Time: 5/16/2013 09:00

WETLAB Sample ID: 1305351-001

Receive Date: 5/16/2013 14:20

Analyte	Method	Results	Units	DF	RL	Analyzed
Scandium	EPA 200.7	ND	mg/L	1	0.100	5/24/2013
Silver	EPA 200.7	ND	mg/L	1	0.0050	5/24/2013
Sodium	EPA 200.7	ND	mg/L	1	0.50	5/24/2013
Strontium	EPA 200.7	ND	mg/L	1	0.10	5/24/2013
Tin	EPA 200.7	ND	mg/L	1	0.10	5/24/2013
Titanium	EPA 200.7	ND	mg/L	1	0.10	5/24/2013
Vanadium	EPA 200.7	ND	mg/L	1	0.010	5/24/2013
Zinc	EPA 200.7	0.076	mg/L	1	0.010	5/24/2013
<u>Trace Metals by ICP-MS</u>						
Mercury	EPA 200.8	ND	mg/L	2	0.0002	5/28/2013
Antimony	EPA 200.8	ND	mg/L	2	0.010	5/28/2013
Arsenic	EPA 200.8	ND	mg/L	2	0.010	5/28/2013
Lead	EPA 200.8	0.017	mg/L	2	0.0025	5/28/2013
Selenium	EPA 200.8	ND	mg/L	2	0.010	5/28/2013
Thallium	EPA 200.8	ND	mg/L	2	0.0020	5/28/2013
Uranium	EPA 200.8	0.036	mg/L	2	0.0050	5/28/2013
<u>Ion Balance</u>						
Anions	Calculation	0.61	meq/L	1	0.10	
Cations	Calculation	0.63	meq/L	1	0.10	
Error	Calculation	1.0	%	1	1.0	
<u>Sample Preparation</u>						
Trace Metals Digestion	EPA 200.2	Complete		1		5/22/2013

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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3230 Polaris Ave #4
 Las Vegas, NV 89102 (702) 475-8899
 EPA Lab ID: NV00932

Western Environmental Testing Laboratory QC Report

QCBatchID	QCType	Parameter	Method	Result	Units
QC13050785	Blank 1	Fluoride	EPA 300.0	ND	mg/L
QC13050785	Blank 2	Fluoride	EPA 300.0	ND	mg/L
QC13050785	Blank 3	Fluoride	EPA 300.0	ND	mg/L
QC13050788	Blank 1	Chloride	EPA 300.0	ND	mg/L
QC13050788	Blank 2	Chloride	EPA 300.0	ND	mg/L
QC13050788	Blank 3	Chloride	EPA 300.0	ND	mg/L
QC13050789	Blank 1	Nitrite Nitrogen	EPA 300.0	ND	mg/L
QC13050789	Blank 2	Nitrite Nitrogen	EPA 300.0	ND	mg/L
QC13050789	Blank 3	Nitrite Nitrogen	EPA 300.0	ND	mg/L
QC13050791	Blank 1	Nitrate Nitrogen	EPA 300.0	ND	mg/L
QC13050791	Blank 2	Nitrate Nitrogen	EPA 300.0	ND	mg/L
QC13050791	Blank 3	Nitrate Nitrogen	EPA 300.0	ND	mg/L
QC13050795	Blank 1	Sulfate	EPA 300.0	ND	mg/L
QC13050795	Blank 2	Sulfate	EPA 300.0	ND	mg/L
QC13050795	Blank 3	Sulfate	EPA 300.0	ND	mg/L
QC13051027	Blank 1	Aluminum	EPA 200.7	ND	mg/L
		Barium	EPA 200.7	ND	mg/L
		Beryllium	EPA 200.7	ND	mg/L
		Bismuth	EPA 200.7	ND	mg/L
		Boron	EPA 200.7	ND	mg/L
		Cadmium	EPA 200.7	ND	mg/L
		Calcium	EPA 200.7	ND	mg/L
		Chromium	EPA 200.7	ND	mg/L
		Cobalt	EPA 200.7	ND	mg/L
		Copper	EPA 200.7	ND	mg/L
		Gallium	EPA 200.7	ND	mg/L
		Iron	EPA 200.7	ND	mg/L
		Lithium	EPA 200.7	ND	mg/L
		Magnesium	EPA 200.7	ND	mg/L
		Manganese	EPA 200.7	ND	mg/L
		Molybdenum	EPA 200.7	ND	mg/L
		Nickel	EPA 200.7	ND	mg/L
		Phosphorus	EPA 200.7	ND	mg/L
		Potassium	EPA 200.7	ND	mg/L
		Scandium	EPA 200.7	ND	mg/L
		Silver	EPA 200.7	ND	mg/L
		Sodium	EPA 200.7	ND	mg/L
		Strontium	EPA 200.7	ND	mg/L
		Tin	EPA 200.7	ND	mg/L
		Titanium	EPA 200.7	ND	mg/L
		Vanadium	EPA 200.7	ND	mg/L
		Zinc	EPA 200.7	ND	mg/L
QC13051075	Blank 1	Total Dissolved Solids (TDS)	SM 2540C	ND	mg/L
QC13051075	Blank 2	Total Dissolved Solids (TDS)	SM 2540C	ND	mg/L
QC13051084	Blank 1	Mercury	EPA 200.8	ND	mg/L
		Antimony	EPA 200.8	ND	mg/L

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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Las Vegas, NV 89102 (702) 475-8899
EPA Lab ID: NV00932

QCBatchID	QCType	Parameter	Method	Result	Units		
		Arsenic	EPA 200.8	ND	mg/L		
		Lead	EPA 200.8	ND	mg/L		
		Selenium	EPA 200.8	ND	mg/L		
		Thallium	EPA 200.8	ND	mg/L		
		Uranium	EPA 200.8	ND	mg/L		
QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC13050735	LCS 1	pH	SM 4500-H+ B	7.01	7.00	100	pH Units
QC13050735	LCS 2	pH	SM 4500-H+ B	7.01	7.00	100	pH Units
QC13050735	LCS 3	pH	SM 4500-H+ B	7.01	7.00	100	pH Units
QC13050737	LCS 1	Total Alkalinity	SM 2320B	98.7	100	99	mg/L
QC13050737	LCS 2	Total Alkalinity	SM 2320B	99.8	100	100	mg/L
QC13050737	LCS 3	Total Alkalinity	SM 2320B	98.9	100	99	mg/L
QC13050785	LCS 1	Fluoride	EPA 300.0	1.91	2.00	96	mg/L
QC13050788	LCS 1	Chloride	EPA 300.0	10.6	10.0	106	mg/L
QC13050789	LCS 1	Nitrite Nitrogen	EPA 300.0	0.483	0.500	97	mg/L
QC13050791	LCS 1	Nitrate Nitrogen	EPA 300.0	2.13	2.00	106	mg/L
QC13050795	LCS 1	Sulfate	EPA 300.0	24.4	25.0	98	mg/L
QC13051027	LCS 1	Aluminum	EPA 200.7	0.995	1.00	100	mg/L
		Barium	EPA 200.7	0.975	1.00	98	mg/L
		Beryllium	EPA 200.7	0.974	1.00	97	mg/L
		Bismuth	EPA 200.7	0.988	1.00	99	mg/L
		Boron	EPA 200.7	0.950	1.00	95	mg/L
		Cadmium	EPA 200.7	0.982	1.00	98	mg/L
		Calcium	EPA 200.7	9.66	10.0	97	mg/L
		Chromium	EPA 200.7	0.964	1.00	96	mg/L
		Cobalt	EPA 200.7	0.987	1.00	99	mg/L
		Copper	EPA 200.7	4.69	5.00	94	mg/L
		Gallium	EPA 200.7	1.01	1.00	101	mg/L
		Iron	EPA 200.7	0.983	1.00	98	mg/L
		Lithium	EPA 200.7	0.989	1.00	99	mg/L
		Magnesium	EPA 200.7	9.66	10.0	97	mg/L
		Manganese	EPA 200.7	0.969	1.00	97	mg/L
		Molybdenum	EPA 200.7	0.989	1.00	99	mg/L
		Nickel	EPA 200.7	4.88	5.00	98	mg/L
		Phosphorus	EPA 200.7	5.09	5.00	102	mg/L
		Potassium	EPA 200.7	9.83	10.0	98	mg/L
		Scandium	EPA 200.7	0.970	1.00	97	mg/L
		Silver	EPA 200.7	0.089	0.090	99	mg/L
		Sodium	EPA 200.7	10.0	10.0	100	mg/L
		Strontium	EPA 200.7	1.00	1.00	100	mg/L
		Tin	EPA 200.7	0.997	1.00	100	mg/L
		Titanium	EPA 200.7	0.983	1.00	98	mg/L
		Vanadium	EPA 200.7	0.964	1.00	96	mg/L
		Zinc	EPA 200.7	0.997	1.00	100	mg/L
QC13051075	LCS 1	Total Dissolved Solids (TDS)	SM 2540C	152	150	101	mg/L
QC13051075	LCS 2	Total Dissolved Solids (TDS)	SM 2540C	139	150	92	mg/L
QC13051084	LCS 1	Mercury	EPA 200.8	0.001020	0.001	102	mg/L
		Antimony	EPA 200.8	0.0097	0.010	97	mg/L
		Arsenic	EPA 200.8	0.0494	0.050	99	mg/L
		Lead	EPA 200.8	0.0099	0.010	99	mg/L
		Selenium	EPA 200.8	0.0472	0.050	94	mg/L
		Thallium	EPA 200.8	0.0100	0.010	100	mg/L

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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 EPA Lab ID: NV00932

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
		Uranium	EPA 200.8	0.0099	0.010	99	mg/L

QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD
QC13050735	Duplicate	pH	SM 4500-H+ B	1305293-001	7.91	7.93	pH Units	<1%
QC13050735	Duplicate	pH	SM 4500-H+ B	1305293-011	8.74	8.73	pH Units	<1%
QC13050735	Duplicate	pH	SM 4500-H+ B	1305354-001	8.66	8.66	pH Units	<1%
QC13050735	Duplicate	pH	SM 4500-H+ B	1305349-001	7.77	7.78	pH Units	<1%
QC13050735	Duplicate	pH	SM 4500-H+ B	1305358-004	7.69	7.65	pH Units	1 %
QC13050737	Duplicate	Bicarbonate (HCO3)	SM 2320B	1305293-001	138	138	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1305293-001	ND	ND	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1305293-001	ND	ND	mg/L	<1%
		Total Alkalinity	SM 2320B	1305293-001	113	113	mg/L as CaCO3	<1%
QC13050737	Duplicate	Bicarbonate (HCO3)	SM 2320B	1305293-011	190	193	mg/L	2 %
		Carbonate (CO3)	SM 2320B	1305293-011	14.6	14.6	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1305293-011	ND	ND	mg/L	<1%
		Total Alkalinity	SM 2320B	1305293-011	180	182	mg/L as CaCO3	2 %
QC13050737	Duplicate	Bicarbonate (HCO3)	SM 2320B	1305354-001	133	132	mg/L	1 %
		Carbonate (CO3)	SM 2320B	1305354-001	10.8	10.1	mg/L	6 %
		Hydroxide (OH)	SM 2320B	1305354-001	ND	ND	mg/L	<1%
		Total Alkalinity	SM 2320B	1305354-001	127	125	mg/L as CaCO3	1 %
QC13050737	Duplicate	Bicarbonate (HCO3)	SM 2320B	1305349-001	116	119	mg/L	2 %
		Carbonate (CO3)	SM 2320B	1305349-001	ND	ND	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1305349-001	ND	ND	mg/L	<1%
		Total Alkalinity	SM 2320B	1305349-001	95.3	97.6	mg/L as CaCO3	2 %
QC13050737	Duplicate	Bicarbonate (HCO3)	SM 2320B	1305358-004	207	207	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1305358-004	ND	ND	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1305358-004	ND	ND	mg/L	<1%
		Total Alkalinity	SM 2320B	1305358-004	170	170	mg/L as CaCO3	<1%
QC13051075	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1305292-001	352	355	mg/L	1 %
QC13051075	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1305292-011	167	164	mg/L	2 %
QC13051075	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1305293-010	238	223	mg/L	7 %
QC13051075	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1305337-006	714	727	mg/L	2 %

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC13050785	MS 1	Fluoride	EPA 300.0	1305352-001	ND	2.08	2.03	2.00	mg/L	103	101	2 %
QC13050785	MS 2	Fluoride	EPA 300.0	1305358-005	0.201	4.02	3.91	2.00	mg/L	95	93	3 %
QC13050788	MS 1	Chloride	EPA 300.0	1305352-001	ND	5.43	5.46	5.00	mg/L	108	108	1 %
QC13050788	MS 2	Chloride	EPA 300.0	1305358-005	13.9	24.9	24.9	5.00	mg/L	110	109	<1%
QC13050789	MS 1	Nitrite Nitrogen	EPA 300.0	1305323-003	ND	0.497	0.504	0.500	mg/L	97	99	1 %
QC13050789	MS 2	Nitrite Nitrogen	EPA 300.0	1305352-001	ND	0.497	0.498	0.500	mg/L	97	97	<1%
QC13050791	MS 1	Nitrate Nitrogen	EPA 300.0	1305323-003	ND	2.31	2.34	2.00	mg/L	113	115	1 %
QC13050791	MS 2	Nitrate Nitrogen	EPA 300.0	1305328-006	ND	2.30	2.31	2.00	mg/L	113	114	<1%
QC13050795	MS 1	Sulfate	EPA 300.0	1305261-003	81.5	SC 93.6	93.6	10.0	mg/L	NC	NC	NC
QC13050795	MS 2	Sulfate	EPA 300.0	1305323-003	6.30	16.2	16.3	10.0	mg/L	99	100	1 %

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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 EPA Lab ID: NV00926

3230 Polaris Ave #4
 Las Vegas, NV 89102 (702) 475-8899
 EPA Lab ID: NV00932

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC13051027	MS 1	Aluminum	EPA 200.7	1305337-004	ND	1.01	1.02	1.00	mg/L	98	99	1 %
		Barium	EPA 200.7	1305337-004	0.182	1.16	1.16	1.00	mg/L	98	98	<1%
		Beryllium	EPA 200.7	1305337-004	ND	0.986	0.991	1.00	mg/L	99	99	1 %
		Bismuth	EPA 200.7	1305337-004	ND	1.05	1.06	1.00	mg/L	105	106	1 %
		Boron	EPA 200.7	1305337-004	1.35	2.33	2.37	1.00	mg/L	98	102	2 %
		Cadmium	EPA 200.7	1305337-004	ND	1.01	1.01	1.00	mg/L	101	101	<1%
		Calcium	EPA 200.7	1305337-004	8.55	17.7	17.5	10.0	mg/L	91	90	1 %
		Chromium	EPA 200.7	1305337-004	ND	0.957	0.958	1.00	mg/L	96	96	<1%
		Cobalt	EPA 200.7	1305337-004	ND	0.980	0.984	1.00	mg/L	98	98	<1%
		Copper	EPA 200.7	1305337-004	ND	5.10	5.15	5.00	mg/L	102	103	1 %
		Gallium	EPA 200.7	1305337-004	ND	0.978	0.989	1.00	mg/L	98	99	1 %
		Iron	EPA 200.7	1305337-004	ND	0.991	1.00	1.00	mg/L	NC	NC	NC
		Lithium	EPA 200.7	1305337-004	0.875	1.81	1.83	1.00	mg/L	94	96	1 %
		Magnesium	EPA 200.7	1305337-004	0.977	10.8	10.8	10.0	mg/L	98	98	<1%
		Manganese	EPA 200.7	1305337-004	0.052	1.02	1.02	1.00	mg/L	97	97	<1%
		Molybdenum	EPA 200.7	1305337-004	ND	0.978	0.985	1.00	mg/L	98	98	1 %
		Nickel	EPA 200.7	1305337-004	ND	4.92	4.92	5.00	mg/L	99	99	<1%
		Phosphorus	EPA 200.7	1305337-004	ND	5.19	5.23	5.00	mg/L	101	102	1 %
		Potassium	EPA 200.7	1305337-004	12.4	22.1	22.2	10.0	mg/L	97	98	<1%
		Scandium	EPA 200.7	1305337-004	ND	0.973	0.979	1.00	mg/L	97	98	1 %
		Silver	EPA 200.7	1305337-004	ND	0.087	0.087	0.090	mg/L	96	96	<1%
		Sodium	EPA 200.7	1305337-004	186	SC 192	194	10.0	mg/L	NC	NC	NC
		Strontium	EPA 200.7	1305337-004	0.318	1.29	1.28	1.00	mg/L	97	96	1 %
		Tin	EPA 200.7	1305337-004	ND	0.979	0.983	1.00	mg/L	99	100	<1%
		Titanium	EPA 200.7	1305337-004	ND	0.987	0.991	1.00	mg/L	99	99	<1%
		Vanadium	EPA 200.7	1305337-004	ND	0.968	0.971	1.00	mg/L	96	97	<1%
		Zinc	EPA 200.7	1305337-004	ND	1.08	1.08	1.00	mg/L	108	108	<1%
QC13051084	MS 1	Mercury	EPA 200.8	1305337-004	ND	0.001400	0.001400	0.001	mg/L	90	90	<1%
		Antimony	EPA 200.8	1305337-004	0.0135	0.0235	0.0241	0.010	mg/L	100	106	3 %
		Arsenic	EPA 200.8	1305337-004	ND	0.0660	0.0684	0.050	mg/L	103	108	4 %
		Lead	EPA 200.8	1305337-004	ND	0.0110	0.0113	0.010	mg/L	97	100	3 %
		Selenium	EPA 200.8	1305337-004	ND	0.0508	0.0515	0.050	mg/L	95	96	1 %
		Thallium	EPA 200.8	1305337-004	ND	0.0111	0.0115	0.010	mg/L	98	102	4 %
		Uranium	EPA 200.8	1305337-004	ND	0.0101	0.0105	0.010	mg/L	95	99	4 %

Specializing in Soil, Hazardous Waste and Water Analysis.

6/7/2013

McClelland Laboratory
1016 Greg Street
Sparks, NV 89431
Attn: Mike Medina

OrderID: 1305511

Dear: Mike Medina

This is to transmit the attached analytical report. The analytical data and information contained therein was generated using specified or selected methods contained in references, such as Standard Methods for the Examination of Water and Wastewater, 18th & 19th editions, Methods for Determination of Organic Compounds in Drinking Water, EPA-600/4-79-020, and Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW846) Third Edition.

The samples were received by WETLAB-Western Environmental Testing Laboratory in good condition on 5/23/2013. Additional comments are located on page 2 of this report.

If you should have any questions or comments regarding this report, please do not hesitate to call.

Sincerely,



Jennifer Delaney
QA Specialist

SPARKS

475 E. Greg Street, Suite 119
Sparks, Nevada 89431
tel [775] 355-0202
fax [775] 355-0817

ELKO

1084 Lamoille Hwy.
Elko, Nevada 89801
tel [775] 777-9933
fax [775] 777-9933

LAS VEGAS

3230 Polaris Ave., Suite 4
Las Vegas, Nevada 89102
tel [702] 475-8899
fax [702] 776-6152

Western Environmental Testing Laboratory

Report Comments

McClelland Laboratory - 1305511

General Comments

None

Specific Comments

Due to the sample matrix it was necessary to analyze the following at a dilution:

1305511-003 Molybdenum, Antimony, Arsenic and Selenium

1305511-004 Arsenic

1305511-005 Molybdenum

The reporting limits have been adjusted accordingly.

Report Legend

- B -- Blank contamination; Analyte detected above the method reporting limit in an associated blank
- D -- Reporting limit is elevated due to required sample dilution
- DF -- Dilution Factor
- HT -- Sample analyzed beyond the accepted holding time
- J -- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
- M -- Reported value is estimated; The sample matrix interfered with the analysis
- MCL -- State or EPA Maximum Contamination Level
- N -- There was insufficient sample available to perform a spike and/or duplicate on this analytical batch.
- NC -- Not calculated due to matrix interference
- ND -- Non-detect result; Indicates the result was below the reporting limit (RL)
- Q -- Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
- RL -- Reporting Limit or Practical Quantitation Limit
- S -- Surrogate recovery was outside of laboratory acceptance limits due to matrix interference. The associated blank and LCS surrogate recovery was within acceptance limits
- SC -- Spike recovery not calculated. Sample concentration >4X the spike amount; therefore, the spike could not be adequately recovered

Western Environmental Testing Laboratory Analytical Report

McClelland Laboratory

1016 Greg Street

Sparks, NV 89431

Attn: Mike Medina

Phone: (775) 356-1300 Fax: (775) 356-8917

PO\Project: 3438

Date Printed: 6/7/2013

OrderID: 1305511

Customer Sample ID: CF-11-02 (227-367) Wk:48

Collect Date/Time: 5/23/2013 09:00

WETLAB Sample ID: 1305511-001

Receive Date: 5/23/2013 14:00

Analyte	Method	Results	Units	DF	RL	Analyzed
<u>General Chemistry</u>						
pH	SM 4500-H+ B	7.86 HT	pH Units	1		5/23/2013
Bicarbonate (HCO ₃)	SM 2320B	58	mg/L	1	1.0	5/23/2013
Carbonate (CO ₃)	SM 2320B	ND	mg/L	1	1.0	5/23/2013
Hydroxide (OH)	SM 2320B	ND	mg/L	1	1.0	5/23/2013
Total Alkalinity	SM 2320B	47	mg/L as CaCO ₃	1	1.0	5/23/2013
Total Dissolved Solids (TDS)	SM 2540C	69	mg/L	1	10	5/30/2013
<u>Anions by Ion Chromatography</u>						
Chloride	EPA 300.0	ND	mg/L	1	1.00	5/24/2013
Fluoride	EPA 300.0	0.96	mg/L	1	0.10	5/24/2013
Sulfate	EPA 300.0	3.5	mg/L	1	1.0	5/24/2013
Nitrate Nitrogen	EPA 300.0	ND	mg/L	1	0.10	5/24/2013
Nitrite Nitrogen	EPA 300.0	ND	mg/L	1	0.025	5/24/2013
<u>Trace Metals by ICP-OES</u>						
Aluminum	EPA 200.7	0.16	mg/L	1	0.045	5/31/2013
Barium	EPA 200.7	0.033	mg/L	1	0.010	5/31/2013
Beryllium	EPA 200.7	ND	mg/L	1	0.0010	5/31/2013
Bismuth	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Boron	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Cadmium	EPA 200.7	ND	mg/L	1	0.0010	5/31/2013
Calcium	EPA 200.7	16	mg/L	1	0.50	5/31/2013
Chromium	EPA 200.7	ND	mg/L	1	0.0050	5/31/2013
Cobalt	EPA 200.7	ND	mg/L	1	0.010	5/31/2013
Copper	EPA 200.7	ND	mg/L	1	0.050	5/31/2013
Gallium	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Iron	EPA 200.7	0.092	mg/L	1	0.010	5/31/2013
Lithium	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Magnesium	EPA 200.7	2.1	mg/L	1	0.50	5/31/2013
Manganese	EPA 200.7	0.022	mg/L	1	0.0050	5/31/2013
Molybdenum	EPA 200.7	ND	mg/L	1	0.010	5/31/2013
Nickel	EPA 200.7	ND	mg/L	1	0.010	5/31/2013
Phosphorus	EPA 200.7	ND	mg/L	1	0.50	5/31/2013
Potassium	EPA 200.7	2.1	mg/L	1	0.50	5/31/2013

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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Sparks, NV 89431 (775) 355-0202
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1084 Lamoille Hwy
Elko, NV 89801 (775) 777-9933
EPA Lab ID: NV00926

3230 Polaris Ave #4
Las Vegas, NV 89102 (702) 475-8899
EPA Lab ID: NV00932

Customer Sample ID: CF-11-02 (227-367) Wk:48

Collect Date/Time: 5/23/2013 09:00

WETLAB Sample ID: 1305511-001

Receive Date: 5/23/2013 14:00

Analyte	Method	Results	Units	DF	RL	Analyzed
Scandium	EPA 200.7	ND	mg/L	1	0.100	5/31/2013
Silver	EPA 200.7	ND	mg/L	1	0.0050	5/31/2013
Sodium	EPA 200.7	0.58	mg/L	1	0.50	5/31/2013
Strontium	EPA 200.7	0.14	mg/L	1	0.10	5/31/2013
Tin	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Titanium	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Vanadium	EPA 200.7	ND	mg/L	1	0.010	5/31/2013
Zinc	EPA 200.7	ND	mg/L	1	0.010	5/31/2013
Trace Metals by ICP-MS						
Mercury	EPA 200.8	ND	mg/L	1	0.00010	6/1/2013
Antimony	EPA 200.8	ND	mg/L	1	0.0025	6/4/2013
Arsenic	EPA 200.8	ND	mg/L	1	0.0050	6/4/2013
Lead	EPA 200.8	ND	mg/L	1	0.0025	6/1/2013
Selenium	EPA 200.8	ND	mg/L	1	0.0050	6/1/2013
Thallium	EPA 200.8	ND	mg/L	1	0.0010	6/1/2013
Uranium	EPA 200.8	ND	mg/L	1	0.0050	6/1/2013
Ion Balance						
Anions	Calculation	1.07	meq/L	1	0.10	
Cations	Calculation	1.07	meq/L	1	0.10	
Error	Calculation	ND	%	1	1.0	
Sample Preparation						
Trace Metals Digestion	EPA 200.2	Complete		1		5/30/2013

Customer Sample ID: K-Spar Breccia 5+ Comp Wk:48

Collect Date/Time: 5/23/2013 09:00

WETLAB Sample ID: 1305511-002

Receive Date: 5/23/2013 14:00

Analyte	Method	Results	Units	DF	RL	Analyzed
General Chemistry						
pH	SM 4500-H+ B	7.87 HT	pH Units	1		5/23/2013
Bicarbonate (HCO ₃)	SM 2320B	68	mg/L	1	1.0	5/23/2013
Carbonate (CO ₃)	SM 2320B	ND	mg/L	1	1.0	5/23/2013
Hydroxide (OH)	SM 2320B	ND	mg/L	1	1.0	5/23/2013
Total Alkalinity	SM 2320B	56	mg/L as CaCO ₃	1	1.0	5/23/2013
Total Dissolved Solids (TDS)	SM 2540C	110	mg/L	1	10	5/30/2013
Anions by Ion Chromatography						
Chloride	EPA 300.0	ND	mg/L	1	1.00	5/24/2013
Fluoride	EPA 300.0	1.3	mg/L	1	0.10	5/24/2013
Sulfate	EPA 300.0	22	mg/L	1	1.0	5/24/2013
Nitrate Nitrogen	EPA 300.0	ND	mg/L	1	0.10	5/24/2013
Nitrite Nitrogen	EPA 300.0	ND	mg/L	1	0.025	5/24/2013
Trace Metals by ICP-OES						
Aluminum	EPA 200.7	ND	mg/L	1	0.045	5/31/2013
Barium	EPA 200.7	0.16	mg/L	1	0.010	5/31/2013
Beryllium	EPA 200.7	ND	mg/L	1	0.0010	5/31/2013
Bismuth	EPA 200.7	ND	mg/L	1	0.10	5/31/2013

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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 Sparks, NV 89431 (775) 355-0202
 EPA Lab ID: NV00925 - ELAP No: 25

1084 Lamoille Hwy
 Elko, NV 89801 (775) 777-9933
 EPA Lab ID: NV00926

3230 Polaris Ave #4
 Las Vegas, NV 89102 (702) 475-8899
 EPA Lab ID: NV00932

Customer Sample ID: K-Spar Breccia 5+ Comp Wk:48

Collect Date/Time: 5/23/2013 09:00

WETLAB Sample ID: 1305511-002

Receive Date: 5/23/2013 14:00

Analyte	Method	Results	Units	DF	RL	Analyzed
Boron	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Cadmium	EPA 200.7	ND	mg/L	1	0.0010	5/31/2013
Calcium	EPA 200.7	28	mg/L	1	0.50	5/31/2013
Chromium	EPA 200.7	ND	mg/L	1	0.0050	5/31/2013
Cobalt	EPA 200.7	ND	mg/L	1	0.010	5/31/2013
Copper	EPA 200.7	ND	mg/L	1	0.050	5/31/2013
Gallium	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Iron	EPA 200.7	ND	mg/L	1	0.010	5/31/2013
Lithium	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Magnesium	EPA 200.7	1.9	mg/L	1	0.50	5/31/2013
Manganese	EPA 200.7	0.042	mg/L	1	0.0050	5/31/2013
Molybdenum	EPA 200.7	0.050	mg/L	1	0.010	5/31/2013
Nickel	EPA 200.7	ND	mg/L	1	0.010	5/31/2013
Phosphorus	EPA 200.7	ND	mg/L	1	0.50	5/31/2013
Potassium	EPA 200.7	2.3	mg/L	1	0.50	5/31/2013
Scandium	EPA 200.7	ND	mg/L	1	0.100	5/31/2013
Silver	EPA 200.7	ND	mg/L	1	0.0050	5/31/2013
Sodium	EPA 200.7	0.82	mg/L	1	0.50	5/31/2013
Strontium	EPA 200.7	0.49	mg/L	1	0.10	5/31/2013
Tin	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Titanium	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Vanadium	EPA 200.7	ND	mg/L	1	0.010	5/31/2013
Zinc	EPA 200.7	ND	mg/L	1	0.010	5/31/2013

Trace Metals by ICP-MS

Mercury	EPA 200.8	ND	mg/L	1	0.00010	6/1/2013
Antimony	EPA 200.8	ND	mg/L	1	0.0025	6/4/2013
Arsenic	EPA 200.8	ND	mg/L	1	0.0050	6/4/2013
Lead	EPA 200.8	ND	mg/L	1	0.0025	6/1/2013
Selenium	EPA 200.8	ND	mg/L	1	0.0050	6/1/2013
Thallium	EPA 200.8	ND	mg/L	1	0.0010	6/1/2013
Uranium	EPA 200.8	0.015	mg/L	1	0.0050	6/1/2013

Ion Balance

Anions	Calculation	1.64	meq/L	1	0.10	
Cations	Calculation	1.65	meq/L	1	0.10	
Error	Calculation	ND	%	1	1.0	

Sample Preparation

Trace Metals Digestion	EPA 200.2	Complete		1		5/30/2013
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Customer Sample ID: Biotite Breccia 0-5 Comp Wk:48

Collect Date/Time: 5/23/2013 09:00

WETLAB Sample ID: 1305511-003

Receive Date: 5/23/2013 14:00

Analyte	Method	Results	Units	DF	RL	Analyzed
General Chemistry						
pH	SM 4500-H+ B	7.86 HT	pH Units	1		5/23/2013
Bicarbonate (HCO3)	SM 2320B	68	mg/L	1	1.0	5/23/2013
Carbonate (CO3)	SM 2320B	ND	mg/L	1	1.0	5/23/2013

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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1084 Lamoille Hwy
Elko, NV 89801 (775) 777-9933
EPA Lab ID: NV00926

3230 Polaris Ave #4
Las Vegas, NV 89102 (702) 475-8899
EPA Lab ID: NV00932

Customer Sample ID: Biotite Breccia 0-5 Comp Wk:48

Collect Date/Time: 5/23/2013 09:00

WETLAB Sample ID: 1305511-003

Receive Date: 5/23/2013 14:00

Analyte	Method	Results	Units	DF	RL	Analyzed
Hydroxide (OH)	SM 2320B	ND	mg/L	1	1.0	5/23/2013
Total Alkalinity	SM 2320B	56	mg/L as CaCO3	1	1.0	5/23/2013
Total Dissolved Solids (TDS)	SM 2540C	78	mg/L	1	10	5/30/2013
<u>Anions by Ion Chromatography</u>						
Chloride	EPA 300.0	ND	mg/L	1	1.00	5/24/2013
Fluoride	EPA 300.0	1.4	mg/L	1	0.10	5/24/2013
Sulfate	EPA 300.0	12	mg/L	1	1.0	5/24/2013
Nitrate Nitrogen	EPA 300.0	ND	mg/L	1	0.10	5/24/2013
Nitrite Nitrogen	EPA 300.0	ND	mg/L	1	0.025	5/24/2013
<u>Trace Metals by ICP-OES</u>						
Aluminum	EPA 200.7	ND	mg/L	1	0.045	5/31/2013
Barium	EPA 200.7	0.11	mg/L	1	0.010	5/31/2013
Beryllium	EPA 200.7	ND	mg/L	1	0.0010	5/31/2013
Bismuth	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Boron	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Cadmium	EPA 200.7	ND	mg/L	1	0.0010	5/31/2013
Calcium	EPA 200.7	21	mg/L	1	0.50	5/31/2013
Chromium	EPA 200.7	ND	mg/L	1	0.0050	5/31/2013
Cobalt	EPA 200.7	ND	mg/L	1	0.010	5/31/2013
Copper	EPA 200.7	ND	mg/L	1	0.050	5/31/2013
Gallium	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Iron	EPA 200.7	ND	mg/L	1	0.010	5/31/2013
Lithium	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Magnesium	EPA 200.7	4.0	mg/L	1	0.50	5/31/2013
Manganese	EPA 200.7	0.021	mg/L	1	0.0050	5/31/2013
Molybdenum	EPA 200.7	ND	mg/L	5	0.050	5/31/2013
Nickel	EPA 200.7	ND	mg/L	1	0.010	5/31/2013
Phosphorus	EPA 200.7	ND	mg/L	1	0.50	5/31/2013
Potassium	EPA 200.7	1.4	mg/L	1	0.50	5/31/2013
Scandium	EPA 200.7	ND	mg/L	1	0.100	5/31/2013
Silver	EPA 200.7	ND	mg/L	1	0.0050	5/31/2013
Sodium	EPA 200.7	ND	mg/L	1	0.50	5/31/2013
Strontium	EPA 200.7	0.26	mg/L	1	0.10	5/31/2013
Tin	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Titanium	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Vanadium	EPA 200.7	ND	mg/L	1	0.010	5/31/2013
Zinc	EPA 200.7	ND	mg/L	1	0.010	5/31/2013
<u>Trace Metals by ICP-MS</u>						
Mercury	EPA 200.8	ND	mg/L	1	0.00010	6/1/2013
Antimony	EPA 200.8	ND	mg/L	2	0.0025	6/4/2013
Arsenic	EPA 200.8	ND	mg/L	2	0.010	6/4/2013
Lead	EPA 200.8	ND	mg/L	1	0.0025	6/1/2013
Selenium	EPA 200.8	ND	mg/L	2	0.010	6/4/2013
Thallium	EPA 200.8	ND	mg/L	1	0.0010	6/1/2013
Uranium	EPA 200.8	0.022	mg/L	1	0.0050	6/1/2013
<u>Ion Balance</u>						
Anions	Calculation	1.44	meq/L	1	0.10	

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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475 East Greg Street Suite #119

Sparks, NV 89431 (775) 355-0202

EPA Lab ID: NV00925 - ELAP No: 25

1084 Lamoille Hwy

Elko, NV 89801 (775) 777-9933

EPA Lab ID: NV00926

3230 Polaris Ave #4

Las Vegas, NV 89102 (702) 475-8899

EPA Lab ID: NV00932

Customer Sample ID: Biotite Breccia 0-5 Comp Wk:48

Collect Date/Time: 5/23/2013 09:00

WETLAB Sample ID: 1305511-003

Receive Date: 5/23/2013 14:00

Analyte	Method	Results	Units	DF	RL	Analyzed
Cations	Calculation	1.41	meq/L	1	0.10	
Error	Calculation	ND	%	1	1.0	
Sample Preparation						
Trace Metals Digestion	EPA 200.2	Complete		1		5/30/2013

Customer Sample ID: K-Spar Breccia 0-5 Comp Wk:48

Collect Date/Time: 5/23/2013 09:00

WETLAB Sample ID: 1305511-004

Receive Date: 5/23/2013 14:00

Analyte	Method	Results	Units	DF	RL	Analyzed
General Chemistry						
pH	SM 4500-H+ B	7.84 HT	pH Units	1		5/23/2013
Bicarbonate (HCO ₃)	SM 2320B	63	mg/L	1	1.0	5/23/2013
Carbonate (CO ₃)	SM 2320B	ND	mg/L	1	1.0	5/23/2013
Hydroxide (OH)	SM 2320B	ND	mg/L	1	1.0	5/23/2013
Total Alkalinity	SM 2320B	52	mg/L as CaCO ₃	1	1.0	5/23/2013
Total Dissolved Solids (TDS)	SM 2540C	85	mg/L	1	10	5/30/2013
Anions by Ion Chromatography						
Chloride	EPA 300.0	ND	mg/L	1	1.00	5/24/2013
Fluoride	EPA 300.0	1.4	mg/L	1	0.10	5/24/2013
Sulfate	EPA 300.0	12	mg/L	1	1.0	5/24/2013
Nitrate Nitrogen	EPA 300.0	ND	mg/L	1	0.10	5/24/2013
Nitrite Nitrogen	EPA 300.0	ND	mg/L	1	0.025	5/24/2013
Trace Metals by ICP-OES						
Aluminum	EPA 200.7	ND	mg/L	1	0.045	5/31/2013
Barium	EPA 200.7	0.13	mg/L	1	0.010	5/31/2013
Beryllium	EPA 200.7	ND	mg/L	1	0.0010	5/31/2013
Bismuth	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Boron	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Cadmium	EPA 200.7	ND	mg/L	1	0.0010	5/31/2013
Calcium	EPA 200.7	19	mg/L	1	0.50	5/31/2013
Chromium	EPA 200.7	ND	mg/L	1	0.0050	5/31/2013
Cobalt	EPA 200.7	ND	mg/L	1	0.010	5/31/2013
Copper	EPA 200.7	ND	mg/L	1	0.050	5/31/2013
Gallium	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Iron	EPA 200.7	ND	mg/L	1	0.010	5/31/2013
Lithium	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Magnesium	EPA 200.7	3.9	mg/L	1	0.50	5/31/2013
Manganese	EPA 200.7	0.013	mg/L	1	0.0050	5/31/2013
Molybdenum	EPA 200.7	0.016	mg/L	1	0.010	5/31/2013
Nickel	EPA 200.7	ND	mg/L	1	0.010	5/31/2013
Phosphorus	EPA 200.7	ND	mg/L	1	0.50	5/31/2013
Potassium	EPA 200.7	1.4	mg/L	1	0.50	5/31/2013
Scandium	EPA 200.7	ND	mg/L	1	0.100	5/31/2013
Silver	EPA 200.7	ND	mg/L	1	0.0050	5/31/2013
Sodium	EPA 200.7	0.51	mg/L	1	0.50	5/31/2013
Strontium	EPA 200.7	0.33	mg/L	1	0.10	5/31/2013

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475 East Greg Street Suite #119
Sparks, NV 89431 (775) 355-0202
EPA Lab ID: NV00925 - ELAP No: 25

1084 Lamoille Hwy
Elko, NV 89801 (775) 777-9933
EPA Lab ID: NV00926

3230 Polaris Ave #4
Las Vegas, NV 89102 (702) 475-8899
EPA Lab ID: NV00932

Customer Sample ID: K-Spar Breccia 0-5 Comp Wk:48

Collect Date/Time: 5/23/2013 09:00

WETLAB Sample ID: 1305511-004

Receive Date: 5/23/2013 14:00

Analyte	Method	Results	Units	DF	RL	Analyzed
Tin	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Titanium	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Vanadium	EPA 200.7	ND	mg/L	1	0.010	5/31/2013
Zinc	EPA 200.7	ND	mg/L	1	0.010	5/31/2013
Trace Metals by ICP-MS						
Mercury	EPA 200.8	ND	mg/L	1	0.00010	6/1/2013
Antimony	EPA 200.8	ND	mg/L	1	0.0025	6/1/2013
Arsenic	EPA 200.8	ND	mg/L	2	0.010	6/5/2013
Lead	EPA 200.8	ND	mg/L	1	0.0025	6/1/2013
Selenium	EPA 200.8	ND	mg/L	1	0.0050	6/1/2013
Thallium	EPA 200.8	ND	mg/L	1	0.0010	6/1/2013
Uranium	EPA 200.8	0.020	mg/L	1	0.0050	6/1/2013
Ion Balance						
Anions	Calculation	1.36	meq/L	1	0.10	
Cations	Calculation	1.33	meq/L	1	0.10	
Error	Calculation	1.1	%	1	1.0	
Sample Preparation						
Trace Metals Digestion	EPA 200.2	Complete		1		5/30/2013

Customer Sample ID: Quartz Monzonite 0-5 Comp Wk:48

Collect Date/Time: 5/23/2013 09:00

WETLAB Sample ID: 1305511-005

Receive Date: 5/23/2013 14:00

Analyte	Method	Results	Units	DF	RL	Analyzed
General Chemistry						
pH	SM 4500-H+ B	8.73 HT	pH Units	1		5/23/2013
Bicarbonate (HCO ₃)	SM 2320B	56	mg/L	1	1.0	5/23/2013
Carbonate (CO ₃)	SM 2320B	6.7	mg/L	1	1.0	5/23/2013
Hydroxide (OH)	SM 2320B	ND	mg/L	1	1.0	5/23/2013
Total Alkalinity	SM 2320B	57	mg/L as CaCO ₃	1	1.0	5/23/2013
Total Dissolved Solids (TDS)	SM 2540C	81	mg/L	1	10	5/30/2013
Anions by Ion Chromatography						
Chloride	EPA 300.0	ND	mg/L	1	1.00	5/24/2013
Fluoride	EPA 300.0	1.2	mg/L	1	0.10	5/24/2013
Sulfate	EPA 300.0	14	mg/L	1	1.0	5/24/2013
Nitrate Nitrogen	EPA 300.0	ND	mg/L	1	0.10	5/24/2013
Nitrite Nitrogen	EPA 300.0	ND	mg/L	1	0.025	5/24/2013
Trace Metals by ICP-OES						
Aluminum	EPA 200.7	ND	mg/L	1	0.045	5/31/2013
Barium	EPA 200.7	0.094	mg/L	1	0.010	5/31/2013
Beryllium	EPA 200.7	ND	mg/L	1	0.0010	5/31/2013
Bismuth	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Boron	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Cadmium	EPA 200.7	ND	mg/L	1	0.0010	5/31/2013
Calcium	EPA 200.7	20	mg/L	1	0.50	5/31/2013
Chromium	EPA 200.7	ND	mg/L	1	0.0050	5/31/2013

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 Elko, NV 89801 (775) 777-9933
 EPA Lab ID: NV00926

3230 Polaris Ave #4
 Las Vegas, NV 89102 (702) 475-8899
 EPA Lab ID: NV00932

Customer Sample ID: Quartz Monzonite 0-5 Comp Wk:48

Collect Date/Time: 5/23/2013 09:00

WETLAB Sample ID: 1305511-005

Receive Date: 5/23/2013 14:00

Analyte	Method	Results	Units	DF	RL	Analyzed
Cobalt	EPA 200.7	ND	mg/L	1	0.010	5/31/2013
Copper	EPA 200.7	ND	mg/L	1	0.050	5/31/2013
Gallium	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Iron	EPA 200.7	ND	mg/L	1	0.010	5/31/2013
Lithium	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Magnesium	EPA 200.7	4.2	mg/L	1	0.50	5/31/2013
Manganese	EPA 200.7	0.014	mg/L	1	0.0050	5/31/2013
Molybdenum	EPA 200.7	ND	mg/L	5	0.050	5/31/2013
Nickel	EPA 200.7	ND	mg/L	1	0.010	5/31/2013
Phosphorus	EPA 200.7	ND	mg/L	1	0.50	5/31/2013
Potassium	EPA 200.7	1.4	mg/L	1	0.50	5/31/2013
Scandium	EPA 200.7	ND	mg/L	1	0.100	5/31/2013
Silver	EPA 200.7	ND	mg/L	1	0.0050	5/31/2013
Sodium	EPA 200.7	0.61	mg/L	1	0.50	5/31/2013
Strontium	EPA 200.7	0.26	mg/L	1	0.10	5/31/2013
Tin	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Titanium	EPA 200.7	ND	mg/L	1	0.10	5/31/2013
Vanadium	EPA 200.7	ND	mg/L	1	0.010	5/31/2013
Zinc	EPA 200.7	ND	mg/L	1	0.010	5/31/2013
<u>Trace Metals by ICP-MS</u>						
Mercury	EPA 200.8	ND	mg/L	1	0.00010	6/1/2013
Antimony	EPA 200.8	ND	mg/L	1	0.0025	6/4/2013
Arsenic	EPA 200.8	ND	mg/L	1	0.0050	6/4/2013
Lead	EPA 200.8	ND	mg/L	1	0.0025	6/1/2013
Selenium	EPA 200.8	ND	mg/L	1	0.0050	6/4/2013
Thallium	EPA 200.8	ND	mg/L	1	0.0010	6/1/2013
Uranium	EPA 200.8	0.019	mg/L	1	0.0050	6/1/2013
<u>Ion Balance</u>						
Anions	Calculation	1.50	meq/L	1	0.10	
Cations	Calculation	1.41	meq/L	1	0.10	
Error	Calculation	3.1	%	1	1.0	
<u>Sample Preparation</u>						
Trace Metals Digestion	EPA 200.2	Complete		1		5/30/2013

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 EPA Lab ID: NV00926

3230 Polaris Ave #4
 Las Vegas, NV 89102 (702) 475-8899
 EPA Lab ID: NV00932

Western Environmental Testing Laboratory QC Report

QCBatchID	QCType	Parameter	Method	Result	Units
QC13051110	Blank 1	Fluoride	EPA 300.0	ND	mg/L
QC13051110	Blank 2	Fluoride	EPA 300.0	ND	mg/L
QC13051110	Blank 3	Fluoride	EPA 300.0	ND	mg/L
QC13051115	Blank 1	Chloride	EPA 300.0	ND	mg/L
QC13051115	Blank 2	Chloride	EPA 300.0	ND	mg/L
QC13051115	Blank 3	Chloride	EPA 300.0	ND	mg/L
QC13051120	Blank 1	Nitrite Nitrogen	EPA 300.0	ND	mg/L
QC13051120	Blank 2	Nitrite Nitrogen	EPA 300.0	ND	mg/L
QC13051120	Blank 3	Nitrite Nitrogen	EPA 300.0	ND	mg/L
QC13051125	Blank 1	Nitrate Nitrogen	EPA 300.0	ND	mg/L
QC13051125	Blank 2	Nitrate Nitrogen	EPA 300.0	ND	mg/L
QC13051125	Blank 3	Nitrate Nitrogen	EPA 300.0	ND	mg/L
QC13051129	Blank 1	Sulfate	EPA 300.0	ND	mg/L
QC13051129	Blank 2	Sulfate	EPA 300.0	ND	mg/L
QC13051129	Blank 3	Sulfate	EPA 300.0	ND	mg/L
QC13051328	Blank 1	Aluminum, Dissolved	EPA 200.7	ND	mg/L
		Barium, Dissolved	EPA 200.7	ND	mg/L
		Beryllium, Dissolved	EPA 200.7	ND	mg/L
		Bismuth, Dissolved	EPA 200.7	ND	mg/L
		Boron, Dissolved	EPA 200.7	ND	mg/L
		Cadmium, Dissolved	EPA 200.7	ND	mg/L
		Calcium, Dissolved	EPA 200.7	ND	mg/L
		Chromium, Dissolved	EPA 200.7	ND	mg/L
		Cobalt, Dissolved	EPA 200.7	ND	mg/L
		Copper, Dissolved	EPA 200.7	ND	mg/L
		Gallium, Dissolved	EPA 200.7	ND	mg/L
		Iron, Dissolved	EPA 200.7	ND	mg/L
		Lithium, Dissolved	EPA 200.7	ND	mg/L
		Magnesium, Dissolved	EPA 200.7	ND	mg/L
		Manganese, Dissolved	EPA 200.7	ND	mg/L
		Molybdenum, Dissolved	EPA 200.7	ND	mg/L
		Nickel, Dissolved	EPA 200.7	ND	mg/L
		Phosphorus, Dissolved	EPA 200.7	ND	mg/L
		Potassium, Dissolved	EPA 200.7	ND	mg/L
		Scandium, Dissolved	EPA 200.7	ND	mg/L
		Silver, Dissolved	EPA 200.7	ND	mg/L
		Sodium, Dissolved	EPA 200.7	ND	mg/L
		Strontium, Dissolved	EPA 200.7	ND	mg/L
		Tin, Dissolved	EPA 200.7	ND	mg/L
		Titanium, Dissolved	EPA 200.7	ND	mg/L
		Vanadium, Dissolved	EPA 200.7	ND	mg/L
		Zinc, Dissolved	EPA 200.7	ND	mg/L
QC13051329	Blank 1	Aluminum, Dissolved	EPA 200.7	ND	mg/L
		Barium, Dissolved	EPA 200.7	ND	mg/L
		Beryllium, Dissolved	EPA 200.7	ND	mg/L
		Bismuth, Dissolved	EPA 200.7	ND	mg/L

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EPA Lab ID: NV00926

3230 Polaris Ave #4
Las Vegas, NV 89102 (702) 475-8899
EPA Lab ID: NV00932

QCBatchID	QCType	Parameter	Method	Result	Units
		Boron, Dissolved	EPA 200.7	ND	mg/L
		Cadmium, Dissolved	EPA 200.7	ND	mg/L
		Calcium, Dissolved	EPA 200.7	ND	mg/L
		Chromium, Dissolved	EPA 200.7	ND	mg/L
		Cobalt, Dissolved	EPA 200.7	ND	mg/L
		Copper, Dissolved	EPA 200.7	ND	mg/L
		Gallium, Dissolved	EPA 200.7	ND	mg/L
		Iron, Dissolved	EPA 200.7	ND	mg/L
		Lithium, Dissolved	EPA 200.7	ND	mg/L
		Magnesium, Dissolved	EPA 200.7	ND	mg/L
		Manganese, Dissolved	EPA 200.7	ND	mg/L
		Molybdenum, Dissolved	EPA 200.7	ND	mg/L
		Nickel, Dissolved	EPA 200.7	ND	mg/L
		Phosphorus, Dissolved	EPA 200.7	ND	mg/L
		Potassium, Dissolved	EPA 200.7	ND	mg/L
		Scandium, Dissolved	EPA 200.7	ND	mg/L
		Silver, Dissolved	EPA 200.7	ND	mg/L
		Sodium, Dissolved	EPA 200.7	ND	mg/L
		Strontium, Dissolved	EPA 200.7	ND	mg/L
		Tin, Dissolved	EPA 200.7	ND	mg/L
		Titanium, Dissolved	EPA 200.7	ND	mg/L
		Vanadium, Dissolved	EPA 200.7	ND	mg/L
		Zinc, Dissolved	EPA 200.7	ND	mg/L
QC13060058	Blank 1	Uranium, Dissolved	EPA 200.8	ND	mg/L
		Mercury, Dissolved	EPA 200.8	ND	mg/L
		Antimony, Dissolved	EPA 200.8	ND	mg/L
		Arsenic, Dissolved	EPA 200.8	ND	mg/L
		Lead, Dissolved	EPA 200.8	ND	mg/L
		Selenium, Dissolved	EPA 200.8	ND	mg/L
		Thallium, Dissolved	EPA 200.8	ND	mg/L
QC13060059	Blank 1	Uranium, Dissolved	EPA 200.8	ND	mg/L
		Mercury, Dissolved	EPA 200.8	ND	mg/L
		Antimony, Dissolved	EPA 200.8	ND	mg/L
		Arsenic, Dissolved	EPA 200.8	ND	mg/L
		Lead, Dissolved	EPA 200.8	ND	mg/L
		Selenium, Dissolved	EPA 200.8	ND	mg/L
		Thallium, Dissolved	EPA 200.8	ND	mg/L
QC13060126	Blank 1	Total Dissolved Solids (TDS)	SM 2540C	ND	mg/L
QC13060126	Blank 2	Total Dissolved Solids (TDS)	SM 2540C	ND	mg/L
QC13060126	Blank 3	Total Dissolved Solids (TDS)	SM 2540C	ND	mg/L

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC13051057	LCS 1	pH	SM 4500-H+ B	7.00	7.00	100	pH Units
QC13051057	LCS 2	pH	SM 4500-H+ B	7.01	7.00	100	pH Units
QC13051057	LCS 3	pH	SM 4500-H+ B	7.00	7.00	100	pH Units
QC13051057	LCS 4	pH	SM 4500-H+ B	7.00	7.00	100	pH Units
QC13051058	LCS 1	Total Alkalinity	SM 2320B	98.3	100	98	mg/L
QC13051058	LCS 2	Total Alkalinity	SM 2320B	99.2	100	99	mg/L
QC13051058	LCS 3	Total Alkalinity	SM 2320B	99.2	100	99	mg/L
QC13051058	LCS 4	Total Alkalinity	SM 2320B	99.0	100	99	mg/L
QC13051058	LCS 5	Total Alkalinity	SM 2320B	100	100	100	mg/L
QC13051110	LCS 1	Fluoride	EPA 300.0	1.95	2.00	98	mg/L
QC13051115	LCS 1	Chloride	EPA 300.0	10.3	10.0	103	mg/L

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3230 Polaris Ave #4
 Las Vegas, NV 89102 (702) 475-8899
 EPA Lab ID: NV00932

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC13051120	LCS 1	Nitrite Nitrogen	EPA 300.0	0.484	0.500	97	mg/L
QC13051125	LCS 1	Nitrate Nitrogen	EPA 300.0	2.04	2.00	102	mg/L
QC13051129	LCS 1	Sulfate	EPA 300.0	23.9	25.0	96	mg/L
QC13051328	LCS 1	Aluminum, Dissolved	EPA 200.7	0.969	1.00	97	mg/L
		Barium, Dissolved	EPA 200.7	0.946	1.00	95	mg/L
		Beryllium, Dissolved	EPA 200.7	1.01	1.00	101	mg/L
		Bismuth, Dissolved	EPA 200.7	0.987	1.00	99	mg/L
		Boron, Dissolved	EPA 200.7	0.932	1.00	93	mg/L
		Cadmium, Dissolved	EPA 200.7	0.959	1.00	96	mg/L
		Calcium, Dissolved	EPA 200.7	9.98	10.0	100	mg/L
		Chromium, Dissolved	EPA 200.7	0.939	1.00	94	mg/L
		Cobalt, Dissolved	EPA 200.7	0.940	1.00	94	mg/L
		Copper, Dissolved	EPA 200.7	4.82	5.00	96	mg/L
		Gallium, Dissolved	EPA 200.7	0.955	1.00	96	mg/L
		Iron, Dissolved	EPA 200.7	0.961	1.00	96	mg/L
		Lithium, Dissolved	EPA 200.7	0.943	1.00	94	mg/L
		Magnesium, Dissolved	EPA 200.7	9.22	10.0	92	mg/L
		Manganese, Dissolved	EPA 200.7	0.979	1.00	98	mg/L
		Molybdenum, Dissolved	EPA 200.7	0.894	1.00	89	mg/L
		Nickel, Dissolved	EPA 200.7	4.70	5.00	94	mg/L
		Phosphorus, Dissolved	EPA 200.7	4.58	5.00	92	mg/L
		Potassium, Dissolved	EPA 200.7	9.69	10.0	97	mg/L
		Scandium, Dissolved	EPA 200.7	0.963	1.00	96	mg/L
		Silver, Dissolved	EPA 200.7	0.086	0.090	95	mg/L
		Sodium, Dissolved	EPA 200.7	9.18	10.0	92	mg/L
		Strontium, Dissolved	EPA 200.7	1.01	1.00	101	mg/L
		Tin, Dissolved	EPA 200.7	0.945	1.00	94	mg/L
		Titanium, Dissolved	EPA 200.7	1.00	1.00	100	mg/L
		Vanadium, Dissolved	EPA 200.7	0.936	1.00	94	mg/L
		Zinc, Dissolved	EPA 200.7	0.929	1.00	93	mg/L
QC13051329	LCS 1	Aluminum, Dissolved	EPA 200.7	0.969	1.00	97	mg/L
		Barium, Dissolved	EPA 200.7	0.946	1.00	95	mg/L
		Beryllium, Dissolved	EPA 200.7	1.01	1.00	101	mg/L
		Bismuth, Dissolved	EPA 200.7	0.987	1.00	99	mg/L
		Boron, Dissolved	EPA 200.7	0.932	1.00	93	mg/L
		Cadmium, Dissolved	EPA 200.7	0.959	1.00	96	mg/L
		Calcium, Dissolved	EPA 200.7	9.98	10.0	100	mg/L
		Chromium, Dissolved	EPA 200.7	0.939	1.00	94	mg/L
		Cobalt, Dissolved	EPA 200.7	0.940	1.00	94	mg/L
		Copper, Dissolved	EPA 200.7	4.82	5.00	96	mg/L
		Gallium, Dissolved	EPA 200.7	0.955	1.00	96	mg/L
		Iron, Dissolved	EPA 200.7	0.961	1.00	96	mg/L
		Lithium, Dissolved	EPA 200.7	0.943	1.00	94	mg/L
		Magnesium, Dissolved	EPA 200.7	9.22	10.0	92	mg/L
		Manganese, Dissolved	EPA 200.7	0.979	1.00	98	mg/L
		Molybdenum, Dissolved	EPA 200.7	0.894	1.00	89	mg/L
		Nickel, Dissolved	EPA 200.7	4.70	5.00	94	mg/L
		Phosphorus, Dissolved	EPA 200.7	4.58	5.00	92	mg/L
		Potassium, Dissolved	EPA 200.7	9.69	10.0	97	mg/L
		Scandium, Dissolved	EPA 200.7	0.963	1.00	96	mg/L
		Silver, Dissolved	EPA 200.7	0.086	0.090	95	mg/L
		Sodium, Dissolved	EPA 200.7	9.18	10.0	92	mg/L

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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475 East Greg Street Suite #119
 Sparks, NV 89431 (775) 355-0202
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1084 Lamoille Hwy
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 EPA Lab ID: NV00926

3230 Polaris Ave #4
 Las Vegas, NV 89102 (702) 475-8899
 EPA Lab ID: NV00932

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC13060058	LCS 1	Strontium, Dissolved	EPA 200.7	1.01	1.00	101	mg/L
		Tin, Dissolved	EPA 200.7	0.945	1.00	94	mg/L
		Titanium, Dissolved	EPA 200.7	1.00	1.00	100	mg/L
		Vanadium, Dissolved	EPA 200.7	0.936	1.00	94	mg/L
		Zinc, Dissolved	EPA 200.7	0.929	1.00	93	mg/L
		Uranium, Dissolved	EPA 200.8	0.0100	0.010	100	mg/L
		Mercury, Dissolved	EPA 200.8	0.001077	0.001	108	mg/L
		Antimony, Dissolved	EPA 200.8	0.0094	0.010	94	mg/L
		Arsenic, Dissolved	EPA 200.8	0.0525	0.050	105	mg/L
		Lead, Dissolved	EPA 200.8	0.0098	0.010	98	mg/L
QC13060059	LCS 1	Selenium, Dissolved	EPA 200.8	0.0477	0.050	96	mg/L
		Thallium, Dissolved	EPA 200.8	0.0098	0.010	98	mg/L
		Uranium, Dissolved	EPA 200.8	0.0100	0.010	100	mg/L
		Mercury, Dissolved	EPA 200.8	0.001077	0.001	108	mg/L
		Antimony, Dissolved	EPA 200.8	0.0094	0.010	94	mg/L
		Arsenic, Dissolved	EPA 200.8	0.0525	0.050	105	mg/L
		Lead, Dissolved	EPA 200.8	0.0098	0.010	98	mg/L
QC13060126	LCS 1	Selenium, Dissolved	EPA 200.8	0.0477	0.050	96	mg/L
QC13060126	LCS 2	Thallium, Dissolved	EPA 200.8	0.0098	0.010	98	mg/L
QC13060126	LCS 3	Total Dissolved Solids (TDS)	SM 2540C	153	150	102	mg/L
QC13060126	LCS 2	Total Dissolved Solids (TDS)	SM 2540C	151	150	100	mg/L
QC13060126	LCS 3	Total Dissolved Solids (TDS)	SM 2540C	143	150	95	mg/L

QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD
QC13051057	Duplicate	pH	SM 4500-H+ B	1305455-001	9.17	9.23	HT pH Units	1 %
QC13051057	Duplicate	pH	SM 4500-H+ B	1305379-001	7.94	7.91	pH Units	<1%
QC13051057	Duplicate	pH	SM 4500-H+ B	1305379-002	7.96	7.99	pH Units	<1%
QC13051057	Duplicate	pH	SM 4500-H+ B	1305379-008	7.48	7.48	pH Units	<1%
QC13051057	Duplicate	pH	SM 4500-H+ B	1305379-010	7.70	7.68	pH Units	<1%
QC13051057	Duplicate	pH	SM 4500-H+ B	1305379-011	8.74	8.72	pH Units	<1%
QC13051057	Duplicate	pH	SM 4500-H+ B	1305531-001	7.38	7.40	HT pH Units	<1%
QC13051057	Duplicate	pH	SM 4500-H+ B	1305531-002	7.33	7.31	HT pH Units	<1%
QC13051058	Duplicate	Bicarbonate (HCO3)	SM 2320B	1305455-001	111	108	mg/L	3 %
		Carbonate (CO3)	SM 2320B	1305455-001	44.1	48.0	mg/L	8 %
		Hydroxide (OH)	SM 2320B	1305455-001	ND	ND	mg/L	<1%
		Total Alkalinity	SM 2320B	1305455-001	165	168	mg/L as CaCO3	2 %
QC13051058	Duplicate	Bicarbonate (HCO3)	SM 2320B	1305379-001	168	167	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1305379-001	ND	ND	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1305379-001	ND	ND	mg/L	<1%
		Total Alkalinity	SM 2320B	1305379-001	137	137	mg/L as CaCO3	<1%
QC13051058	Duplicate	Bicarbonate (HCO3)	SM 2320B	1305379-002	162	162	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1305379-002	ND	ND	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1305379-002	ND	ND	mg/L	<1%
		Total Alkalinity	SM 2320B	1305379-002	133	133	mg/L as CaCO3	<1%
QC13051058	Duplicate	Bicarbonate (HCO3)	SM 2320B	1305379-008	226	225	mg/L	1 %
		Carbonate (CO3)	SM 2320B	1305379-008	ND	ND	mg/L	<1%

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 EPA Lab ID: NV00932

QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD
QC13051058	Duplicate	Hydroxide (OH)	SM 2320B	1305379-008	ND	ND	mg/L	<1%
		Total Alkalinity	SM 2320B	1305379-008	185	184	mg/L as CaCO3	1 %
		Bicarbonate (HCO3)	SM 2320B	1305379-010	234	234	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1305379-010	ND	ND	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1305379-010	ND	ND	mg/L	<1%
QC13051058	Duplicate	Total Alkalinity	SM 2320B	1305379-010	192	192	mg/L as CaCO3	<1%
		Bicarbonate (HCO3)	SM 2320B	1305379-011	265	269	mg/L	1 %
		Carbonate (CO3)	SM 2320B	1305379-011	17.1	15.4	mg/L	11 %
		Hydroxide (OH)	SM 2320B	1305379-011	ND	ND	mg/L	<1%
		Total Alkalinity	SM 2320B	1305379-011	246	246	mg/L as CaCO3	<1%
QC13051058	Duplicate	Bicarbonate (HCO3)	SM 2320B	1305531-001	201	201	mg/L	<1%
		Carbonate (CO3)	SM 2320B	1305531-001	ND	ND	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1305531-001	ND	ND	mg/L	<1%
		Total Alkalinity	SM 2320B	1305531-001	165	165	mg/L as CaCO3	<1%
		Bicarbonate (HCO3)	SM 2320B	1305531-002	186	185	mg/L	<1%
QC13051058	Duplicate	Carbonate (CO3)	SM 2320B	1305531-002	ND	ND	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1305531-002	ND	ND	mg/L	<1%
		Total Alkalinity	SM 2320B	1305531-002	152	152	mg/L as CaCO3	<1%
		Total Dissolved Solids (TDS)	SM 2540C	1305509-001	11.0	ND	mg/L	59 %
		Total Dissolved Solids (TDS)	SM 2540C	1305532-003	717	683	mg/L	5 %
QC13060126	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1305535-001	301	301	mg/L	<1%
QC13060126	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1305537-002	345	343	mg/L	1 %
QC13060126	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1305544-001	661	658	mg/L	<1%
QC13060126	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1305554-001	279	276	HT mg/L	1 %

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC13051110	MS 1	Fluoride	EPA 300.0	1305509-001	ND	2.00	2.01	2.00	mg/L	99	100	<1%
QC13051110	MS 2	Fluoride	EPA 300.0	1305530-001	ND	19.6	19.6	2.00	mg/L	95	95	<1%
QC13051115	MS 1	Chloride	EPA 300.0	1305509-001	ND	6.00	6.09	5.00	mg/L	119	120	1 %
QC13051115	MS 2	Chloride	EPA 300.0	1305530-001	822	868	871	5.00	mg/L	92	99	<1%
QC13051120	MS 1	Nitrite Nitrogen	EPA 300.0	1305509-001	ND	0.547	0.555	0.500	mg/L	109	111	1 %
QC13051120	MS 2	Nitrite Nitrogen	EPA 300.0	1305530-001	0.392	5.46	5.50	0.500	mg/L	101	102	1 %
QC13051125	MS 1	Nitrate Nitrogen	EPA 300.0	1305509-001	ND	2.42	2.45	2.00	mg/L	119	121	1 %
QC13051125	MS 2	Nitrate Nitrogen	EPA 300.0	1305530-001	41.9	64.0	64.4	2.00	mg/L	111	113	1 %
QC13051129	MS 1	Sulfate	EPA 300.0	1305509-001	6.35	17.2	17.3	10.0	mg/L	108	110	1 %
QC13051129	MS 2	Sulfate	EPA 300.0	1305530-001	34.7	134	136	10.0	mg/L	100	101	1 %
QC13051328	MS 1	Aluminum, Dissolved	EPA 200.7	1305535-003	ND	0.924	0.910	1.00	mg/L	91	90	2 %
		Barium, Dissolved	EPA 200.7	1305535-003	0.117	1.05	1.03	1.00	mg/L	93	91	2 %
		Beryllium, Dissolved	EPA 200.7	1305535-003	ND	1.02	1.01	1.00	mg/L	102	101	1 %
		Bismuth, Dissolved	EPA 200.7	1305535-003	ND	0.941	0.931	1.00	mg/L	96	95	1 %
		Boron, Dissolved	EPA 200.7	1305535-003	ND	1.03	1.02	1.00	mg/L	98	97	1 %
		Cadmium, Dissolved	EPA 200.7	1305535-003	ND	0.945	0.925	1.00	mg/L	95	93	2 %
		Calcium, Dissolved	EPA 200.7	1305535-003	56.3	65.8	63.8	10.0	mg/L	95	75	3 %
		Chromium, Dissolved	EPA 200.7	1305535-003	ND	0.939	0.924	1.00	mg/L	94	92	2 %
		Cobalt, Dissolved	EPA 200.7	1305535-003	ND	0.907	0.891	1.00	mg/L	91	89	2 %

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 EPA Lab ID: NV00932

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC13051329	MS 1	Copper, Dissolved	EPA 200.7	1305535-003	ND	4.78	4.73	5.00	mg/L	96	95	1 %
		Gallium, Dissolved	EPA 200.7	1305535-003	ND	0.963	0.958	1.00	mg/L	96	95	1 %
		Iron, Dissolved	EPA 200.7	1305535-003	ND	0.990	0.958	1.00	mg/L	99	96	3 %
		Lithium, Dissolved	EPA 200.7	1305535-003	ND	0.929	0.918	1.00	mg/L	92	91	1 %
		Magnesium, Dissolved	EPA 200.7	1305535-003	8.48	17.4	16.8	10.0	mg/L	89	83	4 %
		Manganese, Dissolved	EPA 200.7	1305535-003	ND	0.954	0.936	1.00	mg/L	97	95	2 %
		Molybdenum, Dissolved	EPA 200.7	1305535-003	ND	0.911	0.902	1.00	mg/L	91	90	1 %
		Nickel, Dissolved	EPA 200.7	1305535-003	ND	4.50	4.43	5.00	mg/L	90	89	2 %
		Phosphorus, Dissolved	EPA 200.7	1305535-003	ND	4.76	4.75	5.00	mg/L	94	94	<1%
		Potassium, Dissolved	EPA 200.7	1305535-003	2.90	12.7	12.4	10.0	mg/L	98	95	2 %
		Scandium, Dissolved	EPA 200.7	1305535-003	ND	0.968	0.962	1.00	mg/L	97	96	1 %
		Silver, Dissolved	EPA 200.7	1305535-003	ND	0.086	0.084	0.090	mg/L	95	93	2 %
		Sodium, Dissolved	EPA 200.7	1305535-003	13.4	22.7	22.2	10.0	mg/L	93	88	2 %
		Strontium, Dissolved	EPA 200.7	1305535-003	0.291	1.30	1.25	1.00	mg/L	101	96	4 %
		Tin, Dissolved	EPA 200.7	1305535-003	ND	0.918	0.908	1.00	mg/L	98	97	1 %
		Titanium, Dissolved	EPA 200.7	1305535-003	ND	1.02	1.01	1.00	mg/L	102	101	1 %
		Vanadium, Dissolved	EPA 200.7	1305535-003	0.022	0.978	0.963	1.00	mg/L	96	94	2 %
		Zinc, Dissolved	EPA 200.7	1305535-003	ND	0.927	0.927	1.00	mg/L	93	93	<1%
		Aluminum, Dissolved	EPA 200.7	1305535-004	ND	0.926	0.937	1.00	mg/L	91	92	1 %
		Barium, Dissolved	EPA 200.7	1305535-004	0.110	1.04	1.06	1.00	mg/L	93	95	2 %
		Beryllium, Dissolved	EPA 200.7	1305535-004	ND	1.01	1.01	1.00	mg/L	101	101	<1%
		Bismuth, Dissolved	EPA 200.7	1305535-004	ND	0.934	0.949	1.00	mg/L	95	97	2 %
		Boron, Dissolved	EPA 200.7	1305535-004	ND	1.03	1.05	1.00	mg/L	99	101	2 %
		Cadmium, Dissolved	EPA 200.7	1305535-004	ND	0.935	0.954	1.00	mg/L	94	95	2 %
		Calcium, Dissolved	EPA 200.7	1305535-004	56.2	65.9	66.3	10.0	mg/L	97	101	1 %
		Chromium, Dissolved	EPA 200.7	1305535-004	ND	0.941	0.958	1.00	mg/L	94	96	2 %
		Cobalt, Dissolved	EPA 200.7	1305535-004	ND	0.912	0.921	1.00	mg/L	91	92	1 %
		Copper, Dissolved	EPA 200.7	1305535-004	ND	4.76	4.77	5.00	mg/L	95	95	<1%
		Gallium, Dissolved	EPA 200.7	1305535-004	ND	0.979	0.982	1.00	mg/L	98	98	<1%
		Iron, Dissolved	EPA 200.7	1305535-004	ND	0.968	0.985	1.00	mg/L	97	99	2 %
		Lithium, Dissolved	EPA 200.7	1305535-004	ND	0.937	0.931	1.00	mg/L	93	92	1 %
		Magnesium, Dissolved	EPA 200.7	1305535-004	8.23	16.8	16.9	10.0	mg/L	86	87	1 %
		Manganese, Dissolved	EPA 200.7	1305535-004	ND	0.938	0.955	1.00	mg/L	96	97	2 %
		Molybdenum, Dissolved	EPA 200.7	1305535-004	ND	0.911	0.921	1.00	mg/L	91	92	1 %
		Nickel, Dissolved	EPA 200.7	1305535-004	ND	4.53	4.60	5.00	mg/L	91	92	2 %
Phosphorus, Dissolved	EPA 200.7	1305535-004	ND	4.78	4.85	5.00	mg/L	95	96	1 %		
Potassium, Dissolved	EPA 200.7	1305535-004	2.44	12.4	12.3	10.0	mg/L	100	99	1 %		
Scandium, Dissolved	EPA 200.7	1305535-004	ND	0.973	0.976	1.00	mg/L	97	98	<1%		
Silver, Dissolved	EPA 200.7	1305535-004	ND	0.085	0.087	0.090	mg/L	95	97	2 %		
Sodium, Dissolved	EPA 200.7	1305535-004	14.7	24.2	24.3	10.0	mg/L	95	96	<1%		
Strontium, Dissolved	EPA 200.7	1305535-004	0.301	1.29	1.28	1.00	mg/L	99	98	1 %		
Tin, Dissolved	EPA 200.7	1305535-004	ND	0.898	0.911	1.00	mg/L	95	97	1 %		
Titanium, Dissolved	EPA 200.7	1305535-004	ND	1.01	1.01	1.00	mg/L	101	101	<1%		
Vanadium, Dissolved	EPA 200.7	1305535-004	0.023	0.980	0.998	1.00	mg/L	96	97	2 %		
Zinc, Dissolved	EPA 200.7	1305535-004	ND	0.927	0.937	1.00	mg/L	93	94	1 %		
QC13060058	MS 1	Uranium, Dissolved	EPA 200.8	1305535-003	ND	0.0114	0.0114	0.010	mg/L	99	99	<1%
		Mercury, Dissolved	EPA 200.8	1305535-003	ND	0.001011	0.001057	0.001	mg/L	99	104	4 %
		Antimony, Dissolved	EPA 200.8	1305535-003	ND	0.0093	0.0095	0.010	mg/L	92	94	2 %
		Arsenic, Dissolved	EPA 200.8	1305535-003	ND	0.0567	0.0573	0.050	mg/L	105	106	1 %
		Lead, Dissolved	EPA 200.8	1305535-003	ND	0.0096	0.0097	0.010	mg/L	96	97	1 %
		Selenium, Dissolved	EPA 200.8	1305535-003	ND	0.0483	0.0483	0.050	mg/L	91	91	<1%
		Thallium, Dissolved	EPA 200.8	1305535-003	ND	0.0094	0.0094	0.010	mg/L	94	94	<1%

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QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC13060059	MS 1	Uranium, Dissolved	EPA 200.8	1305535-004	ND	0.0129	0.0129	0.010	mg/L	100	100	<1%
		Mercury, Dissolved	EPA 200.8	1305535-004	ND	0.001030	0.001060	0.001	mg/L	99	102	3 %
		Antimony, Dissolved	EPA 200.8	1305535-004	ND	0.0093	0.0094	0.010	mg/L	92	93	1 %
		Arsenic, Dissolved	EPA 200.8	1305535-004	ND	0.0524	0.0523	0.050	mg/L	98	98	<1%
		Lead, Dissolved	EPA 200.8	1305535-004	ND	0.0097	0.0097	0.010	mg/L	96	97	<1%
		Selenium, Dissolved	EPA 200.8	1305535-004	ND	0.0486	0.0483	0.050	mg/L	92	91	1 %
		Thallium, Dissolved	EPA 200.8	1305535-004	ND	0.0094	0.0095	0.010	mg/L	94	95	1 %

Specializing in Soil, Hazardous Waste and Water Analysis.

6/21/2013

McClelland Laboratory
1016 Greg Street
Sparks, NV 89431
Attn: Mike Medina

OrderID: 1306122

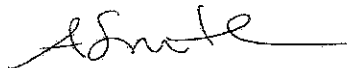
Dear: Mike Medina

This is to transmit the attached analytical report. The analytical data and information contained therein was generated using specified or selected methods contained in references, such as Standard Methods for the Examination of Water and Wastewater, 18th & 19th editions, Methods for Determination of Organic Compounds in Drinking Water, EPA-600/4-79-020, and Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW846) Third Edition.

The samples were received by WETLAB-Western Environmental Testing Laboratory in good condition on 6/6/2013. Additional comments are located on page 2 of this report.

If you should have any questions or comments regarding this report, please do not hesitate to call.

Sincerely,



Andy Smith
QA Manager

Western Environmental Testing Laboratory

Report Comments

McClelland Laboratory - 1306122

General Comments

None

Specific Comments

None

Report Legend

- B -- Blank contamination; Analyte detected above the method reporting limit in an associated blank
- D -- Reporting limit is elevated due to required sample dilution
- DF -- Dilution Factor
- HT -- Sample analyzed beyond the accepted holding time
- J -- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
- M -- Reported value is estimated; The sample matrix interfered with the analysis
- MCL -- State or EPA Maximum Contamination Level
- N -- There was insufficient sample available to perform a spike and/or duplicate on this analytical batch.
- NC -- Not calculated due to matrix interference
- ND -- Non-detect result; Indicates the result was below the reporting limit (RL)
- Q -- Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
- RL -- Reporting Limit or Practical Quantitation Limit
- S -- Surrogate recovery was outside of laboratory acceptance limits due to matrix interference. The associated blank and LCS surrogate recovery was within acceptance limits
- SC -- Spike recovery not calculated. Sample concentration >4X the spike amount; therefore, the spike could not be adequately recovered

Western Environmental Testing Laboratory Analytical Report

McClelland Laboratory

1016 Greg Street

Sparks, NV 89431

Attn: Mike Medina

Phone: (775) 356-1300 Fax: (775) 356-8917

PO\Project: 3438

Date Printed: 6/21/2013

OrderID: 1306122

Customer Sample ID: CF-11-02 (0-27) Wk:56

Collect Date/Time: 6/6/2013 09:00

WETLAB Sample ID: 1306122-001

Receive Date: 6/6/2013 14:15

Analyte	Method	Results	Units	DF	RL	Analyzed
<u>General Chemistry</u>						
Temperature at pH	NA	24	°C	1		6/6/2013
pH	SM 4500-H+ B	6.99 HT	pH Units	1		6/6/2013
Bicarbonate (HCO ₃)	SM 2320B	25	mg/L	1	1.0	6/6/2013
Carbonate (CO ₃)	SM 2320B	ND	mg/L	1	1.0	6/6/2013
Hydroxide (OH)	SM 2320B	ND	mg/L	1	1.0	6/6/2013
Total Alkalinity	SM 2320B	21	mg/L as CaCO ₃	1	1.0	6/6/2013
Total Dissolved Solids (TDS)	SM 2540C	42	mg/L	1	10	6/12/2013
<u>Anions by Ion Chromatography</u>						
Chloride	EPA 300.0	ND	mg/L	1	1.00	6/7/2013
Fluoride	EPA 300.0	0.79	mg/L	1	0.10	6/7/2013
Sulfate	EPA 300.0	9.0	mg/L	1	1.0	6/7/2013
Nitrate Nitrogen	EPA 300.0	ND	mg/L	1	0.10	6/7/2013
Nitrite Nitrogen	EPA 300.0	ND	mg/L	1	0.025	6/7/2013
<u>Trace Metals by ICP-OES</u>						
Aluminum	EPA 200.7	0.13	mg/L	1	0.045	6/17/2013
Barium	EPA 200.7	ND	mg/L	1	0.010	6/17/2013
Beryllium	EPA 200.7	ND	mg/L	1	0.0010	6/17/2013
Bismuth	EPA 200.7	ND	mg/L	1	0.10	6/17/2013
Boron	EPA 200.7	ND	mg/L	1	0.10	6/17/2013
Cadmium	EPA 200.7	ND	mg/L	1	0.0010	6/17/2013
Calcium	EPA 200.7	13	mg/L	1	0.50	6/17/2013
Chromium	EPA 200.7	ND	mg/L	1	0.0050	6/17/2013
Cobalt	EPA 200.7	ND	mg/L	1	0.010	6/17/2013
Copper	EPA 200.7	ND	mg/L	1	0.050	6/17/2013
Gallium	EPA 200.7	ND	mg/L	1	0.10	6/17/2013
Iron	EPA 200.7	ND	mg/L	1	0.010	6/17/2013
Lithium	EPA 200.7	ND	mg/L	1	0.10	6/17/2013
Magnesium	EPA 200.7	ND	mg/L	1	0.50	6/17/2013
Manganese	EPA 200.7	0.028	mg/L	1	0.0050	6/17/2013
Molybdenum	EPA 200.7	ND	mg/L	1	0.010	6/17/2013
Nickel	EPA 200.7	ND	mg/L	1	0.010	6/17/2013
Phosphorus	EPA 200.7	ND	mg/L	1	0.50	6/17/2013

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

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475 East Greg Street Suite #119
Sparks, NV 89431 (775) 355-0202
EPA Lab ID: NV00925 - ELAP No: 25

1084 Lamoille Hwy
Elko, NV 89801 (775) 777-9933
EPA Lab ID: NV00926

3230 Polaris Ave #4
Las Vegas, NV 89102 (702) 475-8899
EPA Lab ID: NV00932

Customer Sample ID: CF-11-02 (0-27) Wk:56

Collect Date/Time: 6/6/2013 09:00

WETLAB Sample ID: 1306122-001

Receive Date: 6/6/2013 14:15

Analyte	Method	Results	Units	DF	RL	Analyzed
Potassium	EPA 200.7	0.50	mg/L	1	0.50	6/17/2013
Scandium	EPA 200.7	ND	mg/L	1	0.100	6/17/2013
Silver	EPA 200.7	ND	mg/L	1	0.0050	6/17/2013
Sodium	EPA 200.7	ND	mg/L	1	0.50	6/17/2013
Strontium	EPA 200.7	ND	mg/L	1	0.10	6/17/2013
Tin	EPA 200.7	ND	mg/L	1	0.10	6/17/2013
Titanium	EPA 200.7	ND	mg/L	1	0.10	6/17/2013
Vanadium	EPA 200.7	ND	mg/L	1	0.010	6/17/2013
Zinc	EPA 200.7	ND	mg/L	1	0.010	6/17/2013

Trace Metals by ICP-MS

Mercury	EPA 200.8	ND	mg/L	1	0.00010	6/19/2013
Antimony	EPA 200.8	ND	mg/L	1	0.0025	6/19/2013
Arsenic	EPA 200.8	ND	mg/L	1	0.0050	6/20/2013
Lead	EPA 200.8	ND	mg/L	1	0.0025	6/19/2013
Selenium	EPA 200.8	ND	mg/L	1	0.0050	6/19/2013
Thallium	EPA 200.8	ND	mg/L	1	0.0010	6/19/2013
Uranium	EPA 200.8	ND	mg/L	1	0.0050	6/19/2013

Ion Balance

Anions	Calculation	0.64	meq/L	1	0.10	
Cations	Calculation	0.68	meq/L	1	0.10	
Error	Calculation	2.9	%	1	1.0	

Sample Preparation

Trace Metals Digestion	EPA 200.2	Complete		1		6/14/2013
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Customer Sample ID: CF-11-02 (367-408) Wk:56

Collect Date/Time: 6/6/2013 09:00

WETLAB Sample ID: 1306122-002

Receive Date: 6/6/2013 14:15

Analyte	Method	Results	Units	DF	RL	Analyzed
Temperature at pH	NA	23.8	°C	1		6/6/2013
pH	SM 4500-H+ B	7.64 HT	pH Units	1		6/6/2013
Bicarbonate (HCO ₃)	SM 2320B	47	mg/L	1	1.0	6/6/2013
Carbonate (CO ₃)	SM 2320B	ND	mg/L	1	1.0	6/6/2013
Hydroxide (OH)	SM 2320B	ND	mg/L	1	1.0	6/6/2013
Total Alkalinity	SM 2320B	39	mg/L as CaCO ₃	1	1.0	6/6/2013
Total Dissolved Solids (TDS)	SM 2540C	64	mg/L	1	10	6/12/2013

Anions by Ion Chromatography

Chloride	EPA 300.0	ND	mg/L	1	1.00	6/7/2013
Fluoride	EPA 300.0	0.94	mg/L	1	0.10	6/7/2013
Sulfate	EPA 300.0	17	mg/L	1	1.0	6/7/2013
Nitrate Nitrogen	EPA 300.0	ND	mg/L	1	0.10	6/7/2013
Nitrite Nitrogen	EPA 300.0	ND	mg/L	1	0.025	6/7/2013

Trace Metals by ICP-OES

Aluminum	EPA 200.7	ND	mg/L	1	0.045	6/17/2013
Barium	EPA 200.7	ND	mg/L	1	0.010	6/17/2013

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 EPA Lab ID: NV00926

3230 Polaris Ave #4
 Las Vegas, NV 89102 (702) 475-8899
 EPA Lab ID: NV00932

Customer Sample ID: CF-11-02 (367-408) Wk:56

Collect Date/Time: 6/6/2013 09:00

WETLAB Sample ID: 1306122-002

Receive Date: 6/6/2013 14:15

Analyte	Method	Results	Units	DF	RL	Analyzed
Beryllium	EPA 200.7	ND	mg/L	1	0.0010	6/17/2013
Bismuth	EPA 200.7	ND	mg/L	1	0.10	6/17/2013
Boron	EPA 200.7	ND	mg/L	1	0.10	6/17/2013
Cadmium	EPA 200.7	ND	mg/L	1	0.0010	6/17/2013
Calcium	EPA 200.7	20	mg/L	1	0.50	6/17/2013
Chromium	EPA 200.7	ND	mg/L	1	0.0050	6/17/2013
Cobalt	EPA 200.7	ND	mg/L	1	0.010	6/17/2013
Copper	EPA 200.7	ND	mg/L	1	0.050	6/17/2013
Gallium	EPA 200.7	ND	mg/L	1	0.10	6/17/2013
Iron	EPA 200.7	ND	mg/L	1	0.010	6/17/2013
Lithium	EPA 200.7	ND	mg/L	1	0.10	6/17/2013
Magnesium	EPA 200.7	3.1	mg/L	1	0.50	6/17/2013
Manganese	EPA 200.7	0.035	mg/L	1	0.0050	6/17/2013
Molybdenum	EPA 200.7	ND	mg/L	1	0.010	6/17/2013
Nickel	EPA 200.7	ND	mg/L	1	0.010	6/17/2013
Phosphorus	EPA 200.7	ND	mg/L	1	0.50	6/17/2013
Potassium	EPA 200.7	0.91	mg/L	1	0.50	6/17/2013
Scandium	EPA 200.7	ND	mg/L	1	0.100	6/17/2013
Silver	EPA 200.7	ND	mg/L	1	0.0050	6/17/2013
Sodium	EPA 200.7	ND	mg/L	1	0.50	6/17/2013
Strontium	EPA 200.7	0.16	mg/L	1	0.10	6/17/2013
Tin	EPA 200.7	ND	mg/L	1	0.10	6/17/2013
Titanium	EPA 200.7	ND	mg/L	1	0.10	6/17/2013
Vanadium	EPA 200.7	ND	mg/L	1	0.010	6/17/2013
Zinc	EPA 200.7	ND	mg/L	1	0.010	6/17/2013
Trace Metals by ICP-MS						
Mercury	EPA 200.8	ND	mg/L	1	0.00010	6/19/2013
Antimony	EPA 200.8	ND	mg/L	1	0.0025	6/19/2013
Arsenic	EPA 200.8	ND	mg/L	1	0.0050	6/20/2013
Lead	EPA 200.8	ND	mg/L	1	0.0025	6/19/2013
Selenium	EPA 200.8	ND	mg/L	1	0.0050	6/19/2013
Thallium	EPA 200.8	ND	mg/L	1	0.0010	6/19/2013
Uranium	EPA 200.8	ND	mg/L	1	0.0050	6/19/2013
Ion Balance						
Anions	Calculation	1.17	meq/L	1	0.10	
Cations	Calculation	1.28	meq/L	1	0.10	
Error	Calculation	4.2	%	1	1.0	
Sample Preparation						
Trace Metals Digestion	EPA 200.2	Complete		1		6/14/2013

Western Environmental Testing Laboratory QC Report

QCBatchID	QCType	Parameter	Method	Result	Units
QC13060271	Blank 1	Fluoride	EPA 300.0	ND	mg/L
QC13060271	Blank 2	Fluoride	EPA 300.0	ND	mg/L
QC13060271	Blank 3	Fluoride	EPA 300.0	ND	mg/L
QC13060273	Blank 1	Chloride	EPA 300.0	ND	mg/L
QC13060273	Blank 2	Chloride	EPA 300.0	ND	mg/L
QC13060273	Blank 3	Chloride	EPA 300.0	ND	mg/L
QC13060275	Blank 1	Nitrite Nitrogen	EPA 300.0	ND	mg/L
QC13060275	Blank 2	Nitrite Nitrogen	EPA 300.0	ND	mg/L
QC13060275	Blank 3	Nitrite Nitrogen	EPA 300.0	ND	mg/L
QC13060278	Blank 1	Nitrate Nitrogen	EPA 300.0	ND	mg/L
QC13060278	Blank 2	Nitrate Nitrogen	EPA 300.0	ND	mg/L
QC13060281	Blank 1	Sulfate	EPA 300.0	ND	mg/L
QC13060281	Blank 2	Sulfate	EPA 300.0	ND	mg/L
QC13060281	Blank 3	Sulfate	EPA 300.0	ND	mg/L
QC13060579	Blank 1	Total Dissolved Solids (TDS)	SM 2540C	ND	mg/L
QC13060579	Blank 2	Total Dissolved Solids (TDS)	SM 2540C	ND	mg/L
QC13060579	Blank 3	Total Dissolved Solids (TDS)	SM 2540C	ND	mg/L
QC13060635	Blank 1	Aluminum	EPA 200.7	ND	mg/L
		Barium	EPA 200.7	ND	mg/L
		Beryllium	EPA 200.7	ND	mg/L
		Bismuth	EPA 200.7	ND	mg/L
		Boron	EPA 200.7	ND	mg/L
		Cadmium	EPA 200.7	ND	mg/L
		Calcium	EPA 200.7	ND	mg/L
		Chromium	EPA 200.7	ND	mg/L
		Cobalt	EPA 200.7	ND	mg/L
		Copper	EPA 200.7	ND	mg/L
		Gallium	EPA 200.7	ND	mg/L
		Iron	EPA 200.7	ND	mg/L
		Lithium	EPA 200.7	ND	mg/L
		Magnesium	EPA 200.7	ND	mg/L
		Manganese	EPA 200.7	ND	mg/L
		Molybdenum	EPA 200.7	ND	mg/L
		Nickel	EPA 200.7	ND	mg/L
		Phosphorus	EPA 200.7	ND	mg/L
		Potassium	EPA 200.7	ND	mg/L
		Scandium	EPA 200.7	ND	mg/L
		Silver	EPA 200.7	ND	mg/L
		Sodium	EPA 200.7	ND	mg/L
		Strontium	EPA 200.7	ND	mg/L
		Tin	EPA 200.7	ND	mg/L
		Titanium	EPA 200.7	ND	mg/L
		Vanadium	EPA 200.7	ND	mg/L
		Zinc	EPA 200.7	ND	mg/L
QC13060763	Blank 1	Mercury	EPA 200.8	ND	mg/L
		Antimony	EPA 200.8	ND	mg/L

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EPA Lab ID: NV00926

3230 Polaris Ave #4
Las Vegas, NV 89102 (702) 475-8899
EPA Lab ID: NV00932

QCBatchID	QCType	Parameter	Method	Result	Units		
		Arsenic	EPA 200.8	ND	mg/L		
		Lead	EPA 200.8	ND	mg/L		
		Selenium	EPA 200.8	ND	mg/L		
		Thallium	EPA 200.8	ND	mg/L		
		Uranium	EPA 200.8	ND	mg/L		
QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
QC13060269	LCS 1	pH	SM 4500-H+ B	7.00	7.00	100	pH Units
QC13060269	LCS 2	pH	SM 4500-H+ B	7.00	7.00	100	pH Units
QC13060269	LCS 3	pH	SM 4500-H+ B	7.01	7.00	100	pH Units
QC13060269	LCS 4	pH	SM 4500-H+ B	7.01	7.00	100	pH Units
QC13060271	LCS 1	Fluoride	EPA 300.0	2.13	2.00	106	mg/L
QC13060273	LCS 1	Chloride	EPA 300.0	10.8	10.0	108	mg/L
QC13060275	LCS 1	Nitrite Nitrogen	EPA 300.0	0.503	0.500	101	mg/L
QC13060278	LCS 1	Nitrate Nitrogen	EPA 300.0	2.18	2.00	109	mg/L
QC13060280	LCS 1	Total Alkalinity	SM 2320B	99.0	100	99	mg/L
QC13060280	LCS 2	Total Alkalinity	SM 2320B	98.9	100	99	mg/L
QC13060280	LCS 3	Total Alkalinity	SM 2320B	99.0	100	99	mg/L
QC13060280	LCS 4	Total Alkalinity	SM 2320B	99.4	100	99	mg/L
QC13060280	LCS 5	Total Alkalinity	SM 2320B	108	100	108	mg/L
QC13060281	LCS 1	Sulfate	EPA 300.0	27.1	25.0	109	mg/L
QC13060579	LCS 1	Total Dissolved Solids (TDS)	SM 2540C	155	150	103	mg/L
QC13060579	LCS 2	Total Dissolved Solids (TDS)	SM 2540C	139	150	92	mg/L
QC13060579	LCS 3	Total Dissolved Solids (TDS)	SM 2540C	149	150	100	mg/L
QC13060635	LCS 1	Aluminum	EPA 200.7	1.01	1.00	101	mg/L
		Barium	EPA 200.7	0.994	1.00	99	mg/L
		Beryllium	EPA 200.7	0.977	1.00	98	mg/L
		Bismuth	EPA 200.7	0.997	1.00	100	mg/L
		Boron	EPA 200.7	0.982	1.00	98	mg/L
		Cadmium	EPA 200.7	1.00	1.00	100	mg/L
		Calcium	EPA 200.7	10.4	10.0	104	mg/L
		Chromium	EPA 200.7	0.972	1.00	97	mg/L
		Cobalt	EPA 200.7	0.978	1.00	98	mg/L
		Copper	EPA 200.7	4.86	5.00	97	mg/L
		Gallium	EPA 200.7	1.00	1.00	100	mg/L
		Iron	EPA 200.7	0.973	1.00	97	mg/L
		Lithium	EPA 200.7	0.972	1.00	97	mg/L
		Magnesium	EPA 200.7	9.70	10.0	97	mg/L
		Manganese	EPA 200.7	0.987	1.00	99	mg/L
		Molybdenum	EPA 200.7	0.985	1.00	98	mg/L
		Nickel	EPA 200.7	4.97	5.00	99	mg/L
		Phosphorus	EPA 200.7	5.01	5.00	100	mg/L
		Potassium	EPA 200.7	10.1	10.0	101	mg/L
		Scandium	EPA 200.7	0.981	1.00	98	mg/L
		Silver	EPA 200.7	0.091	0.090	101	mg/L
		Sodium	EPA 200.7	9.91	10.0	99	mg/L
		Strontium	EPA 200.7	0.999	1.00	100	mg/L
		Tin	EPA 200.7	0.966	1.00	97	mg/L
		Titanium	EPA 200.7	0.975	1.00	98	mg/L
		Vanadium	EPA 200.7	0.990	1.00	99	mg/L
		Zinc	EPA 200.7	0.988	1.00	99	mg/L
QC13060763	LCS 1	Mercury	EPA 200.8	0.000951	0.001	95	mg/L
		Antimony	EPA 200.8	0.0100	0.010	100	mg/L

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 EPA Lab ID: NV00932

QCBatchID	QCType	Parameter	Method	Result	Actual	% Recovery	Units
		Arsenic	EPA 200.8	0.0481	0.050	96	mg/L
		Lead	EPA 200.8	0.0099	0.010	99	mg/L
		Selenium	EPA 200.8	0.0503	0.050	101	mg/L
		Thallium	EPA 200.8	0.0097	0.010	97	mg/L
		Uranium	EPA 200.8	0.0098	0.010	98	mg/L

QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD	
QC13060269	Duplicate	pH	SM 4500-H+ B	1306105-001	7.43	7.48	HT	pH Units	1 %
QC13060269	Duplicate	pH	SM 4500-H+ B	1306113-008	7.26	7.27	HT	pH Units	<1%
QC13060269	Duplicate	pH	SM 4500-H+ B	1306124-001	8.83	8.85	HT	pH Units	<1%
QC13060269	Duplicate	pH	SM 4500-H+ B	1306102-001	7.81	7.80	HT	pH Units	<1%
QC13060269	Duplicate	pH	SM 4500-H+ B	1306102-002	7.99	8.00	HT	pH Units	<1%
QC13060269	Duplicate	pH	SM 4500-H+ B	1306107-011	9.55	9.65	HT	pH Units	1 %
QC13060269	Duplicate	pH	SM 4500-H+ B	1306136-002	7.89	7.89	HT	pH Units	<1%
QC13060269	Duplicate	pH	SM 4500-H+ B	1306136-007	7.11	7.56	HT,Q	pH Units	6 %
QC13060280	Duplicate	Bicarbonate (HCO3)	SM 2320B	1306105-001	170	171		mg/L	<1%
		Carbonate (CO3)	SM 2320B	1306105-001	ND	ND		mg/L	<1%
		Hydroxide (OH)	SM 2320B	1306105-001	ND	ND		mg/L	<1%
		Total Alkalinity	SM 2320B	1306105-001	140	140		mg/L as CaCO3	<1%
QC13060280	Duplicate	Bicarbonate (HCO3)	SM 2320B	1306113-008	371	371		mg/L	<1%
		Carbonate (CO3)	SM 2320B	1306113-008	ND	ND		mg/L	<1%
		Hydroxide (OH)	SM 2320B	1306113-008	ND	ND		mg/L	<1%
		Total Alkalinity	SM 2320B	1306113-008	305	304		mg/L as CaCO3	<1%
QC13060280	Duplicate	Bicarbonate (HCO3)	SM 2320B	1306124-001	154	152		mg/L	1 %
		Carbonate (CO3)	SM 2320B	1306124-001	17.8	19.1		mg/L	7 %
		Hydroxide (OH)	SM 2320B	1306124-001	ND	ND		mg/L	<1%
		Total Alkalinity	SM 2320B	1306124-001	155	156		mg/L as CaCO3	<1%
QC13060280	Duplicate	Bicarbonate (HCO3)	SM 2320B	1306102-001	203	202		mg/L	<1%
		Carbonate (CO3)	SM 2320B	1306102-001	ND	ND		mg/L	<1%
		Hydroxide (OH)	SM 2320B	1306102-001	ND	ND		mg/L	<1%
		Total Alkalinity	SM 2320B	1306102-001	167	166		mg/L as CaCO3	<1%
QC13060280	Duplicate	Bicarbonate (HCO3)	SM 2320B	1306102-002	237	237		mg/L	<1%
		Carbonate (CO3)	SM 2320B	1306102-002	ND	ND		mg/L	<1%
		Hydroxide (OH)	SM 2320B	1306102-002	ND	ND		mg/L	<1%
		Total Alkalinity	SM 2320B	1306102-002	194	194		mg/L as CaCO3	<1%
QC13060280	Duplicate	Bicarbonate (HCO3)	SM 2320B	1306107-011	22.9	20.4		mg/L	12 %
		Carbonate (CO3)	SM 2320B	1306107-011	19.8	21.5		mg/L	8 %
		Hydroxide (OH)	SM 2320B	1306107-011	ND	ND		mg/L	<1%
		Total Alkalinity	SM 2320B	1306107-011	51.7	52.4		mg/L as CaCO3	1 %
QC13060280	Duplicate	Bicarbonate (HCO3)	SM 2320B	1306136-002	139	139		mg/L	<1%
		Carbonate (CO3)	SM 2320B	1306136-002	ND	ND		mg/L	<1%
		Hydroxide (OH)	SM 2320B	1306136-002	ND	ND		mg/L	<1%
		Total Alkalinity	SM 2320B	1306136-002	114	114		mg/L as CaCO3	<1%

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 EPA Lab ID: NV00932

QCBatchID	QCType	Parameter	Method	Duplicate Sample	Sample Result	Duplicate Result	Units	RPD
QC13060280	Duplicate	Bicarbonate (HCO3)	SM 2320B	1306136-007	174	176	mg/L	1 %
		Carbonate (CO3)	SM 2320B	1306136-007	ND	ND	mg/L	<1%
		Hydroxide (OH)	SM 2320B	1306136-007	ND	ND	mg/L	<1%
		Total Alkalinity	SM 2320B	1306136-007	143	145	mg/L as CaCO3	1 %
QC13060579	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1306107-005	1308	1308	mg/L	<1%
QC13060579	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1306107-012	885	870	mg/L	2 %
QC13060579	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1306122-001	42.0	37.0	mg/L	13 %
QC13060579	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1306148-001	797	798	mg/L	<1%
QC13060579	Duplicate	Total Dissolved Solids (TDS)	SM 2540C	1306150-002	932	940	mg/L	1 %

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
QC13060271	MS 1	Fluoride	EPA 300.0	1306075-021	0.154	2.13	2.23	2.00	mg/L	99	104	5 %
QC13060271	MS 2	Fluoride	EPA 300.0	1306122-002	0.939	2.70	2.71	2.00	mg/L	88	89	<1%
QC13060273	MS 1	Chloride	EPA 300.0	1306075-021	ND	5.52	5.72	5.00	mg/L	108	112	4 %
QC13060273	MS 2	Chloride	EPA 300.0	1306122-002	ND	5.17	5.20	5.00	mg/L	102	103	1 %
QC13060275	MS 1	Nitrite Nitrogen	EPA 300.0	1306075-021	ND	0.501	0.518	0.500	mg/L	100	104	3 %
QC13060275	MS 2	Nitrite Nitrogen	EPA 300.0	1306122-002	ND	0.448	0.454	0.500	mg/L	90	91	1 %
QC13060278	MS 1	Nitrate Nitrogen	EPA 300.0	1306122-002	ND	2.06	2.08	2.00	mg/L	102	103	1 %
QC13060281	MS 1	Sulfate	EPA 300.0	1306075-021	39.9	50.4	50.9	10.0	mg/L	105	110	1 %
QC13060281	MS 2	Sulfate	EPA 300.0	1306122-002	17.2	26.5	26.6	10.0	mg/L	93	94	<1%
QC13060635	MS 1	Aluminum	EPA 200.7	1306126-001	ND	1.07	1.05	1.00	mg/L	107	105	2 %
		Barium	EPA 200.7	1306126-001	0.081	1.05	1.03	1.00	mg/L	97	95	2 %
		Beryllium	EPA 200.7	1306126-001	ND	0.964	0.961	1.00	mg/L	96	96	<1%
		Bismuth	EPA 200.7	1306126-001	ND	0.991	0.994	1.00	mg/L	100	100	<1%
		Boron	EPA 200.7	1306126-001	2.52	3.54	3.43	1.00	mg/L	102	91	3 %
		Cadmium	EPA 200.7	1306126-001	ND	0.992	0.973	1.00	mg/L	99	97	2 %
		Calcium	EPA 200.7	1306126-001	36.7	M 36.3	45.3	10.0	mg/L	NC	NC	NC
		Chromium	EPA 200.7	1306126-001	ND	0.921	0.898	1.00	mg/L	92	90	3 %
		Cobalt	EPA 200.7	1306126-001	ND	0.911	0.905	1.00	mg/L	91	91	1 %
		Copper	EPA 200.7	1306126-001	ND	4.88	4.88	5.00	mg/L	98	98	<1%
		Gallium	EPA 200.7	1306126-001	ND	1.04	1.02	1.00	mg/L	104	102	2 %
		Iron	EPA 200.7	1306126-001	ND	M 0.847	1.09	1.00	mg/L	NC	NC	NC
		Lithium	EPA 200.7	1306126-001	0.597	M 1.52	1.90	1.00	mg/L	NC	NC	NC
		Magnesium	EPA 200.7	1306126-001	17.3	M 21.4	26.7	10.0	mg/L	NC	NC	NC
		Manganese	EPA 200.7	1306126-001	0.054	1.00	0.985	1.00	mg/L	95	93	2 %
		Molybdenum	EPA 200.7	1306126-001	ND	0.987	0.990	1.00	mg/L	98	98	<1%
		Nickel	EPA 200.7	1306126-001	ND	4.67	4.59	5.00	mg/L	93	92	2 %
		Phosphorus	EPA 200.7	1306126-001	ND	5.19	5.17	5.00	mg/L	101	100	<1%
		Potassium	EPA 200.7	1306126-001	22.2	M 30.0	37.3	10.0	mg/L	NC	NC	NC
		Scandium	EPA 200.7	1306126-001	ND	0.958	0.955	1.00	mg/L	96	95	<1%
Silver	EPA 200.7	1306126-001	ND	0.090	0.090	0.090	mg/L	100	100	<1%		
Sodium	EPA 200.7	1306126-001	113	SC 101	125	10.0	mg/L	NC	NC	NC		
Strontium	EPA 200.7	1306126-001	0.489	M 1.22	1.54	1.00	mg/L	NC	NC	NC		
Tin	EPA 200.7	1306126-001	ND	0.842	0.842	1.00	mg/L	94	94	<1%		
Titanium	EPA 200.7	1306126-001	ND	M 0.831	1.04	1.00	mg/L	NC	NC	NC		
Vanadium	EPA 200.7	1306126-001	0.046	1.02	1.01	1.00	mg/L	97	96	1 %		
Zinc	EPA 200.7	1306126-001	ND	0.982	0.947	1.00	mg/L	98	95	4 %		
QC13060763	MS 1	Mercury	EPA 200.8	1306126-001	ND	0.000963	0.000938	0.001	mg/L	94	91	3 %
		Antimony	EPA 200.8	1306126-001	ND	0.0106	0.0105	0.010	mg/L	106	105	1 %

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

475 East Greg Street Suite #119
 Sparks, NV 89431 (775) 355-0202
 EPA Lab ID: NV00925 - ELAP No: 25

1084 Lamoille Hwy
 Elko, NV 89801 (775) 777-9933
 EPA Lab ID: NV00926

3230 Polaris Ave #4
 Las Vegas, NV 89102 (702) 475-8899
 EPA Lab ID: NV00932

QCBatchID	QCType	Parameter	Method	Spike Sample	Sample Result	MS Result	MSD Result	Spike Value	Units	MS % Rec.	MSD % Rec.	RPD
		Arsenic	EPA 200.8	1306126-001	0.0876	0.1455	0.1500	0.050	mg/L	116	125	3 %
		Lead	EPA 200.8	1306126-001	ND	0.0094	0.0094	0.010	mg/L	93	92	<1%
		Selenium	EPA 200.8	1306126-001	ND	0.0477	0.0490	0.050	mg/L	91	93	3 %
		Thallium	EPA 200.8	1306126-001	ND	0.0091	0.0092	0.010	mg/L	90	91	1 %
		Uranium	EPA 200.8	1306126-001	0.0077	0.0177	0.0177	0.010	mg/L	100	100	<1%

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Lab Number 1306122Report
Due Date: 6/20/13Page 1 of 1Client McClelland Laboratories, Inc.Address 1016 Greg StreetCity, State & Zip Sparks, NV 89431Contact Mike MedinaPhone 775-356-1300Fax 775-356-8917

P.O. Number

Email mli@mettest.comCollector's Name Robert

Project Name

Project Number 3438

Turnaround Time

Standard 5 Day Other

Billing Address (if different than Client Address):

Company _____

Address _____

City, State & Zip _____

Contact _____

Phone _____

Fax _____

Email _____

Additional Information

Fax Results	Y	N	To: Client	Billing
Email Results	Y	N	To: Client	Billing
Compliance Monitoring	Y	N		
Fax Results to State EPA	Y	N		

Sample Type Codes

DW = Drinking Water	SD = Solid
WW = Wastewater	SO = Soil
SW = Surface Water	HW = Hazardous Waste
MW = Monitoring Well	OTHER: _____

 NO OF CONTAINERS
 SAMPLE TYPE

Analyses Requested

Profile II w/o Wad																			
Uranium																			

SAMPLE ID/LOCATION	Wk	DATE	TIME		NO OF CONTAINERS	Profile II w/o Wad	Uranium													Spl. No.	
CF-11-02 (0-27)	Wk:56	06/06/13	9:00	WW	2	X	X													1	
CF-11-02 (367-408)	↓	↓	↓	↓	↓	↓	↓													2	

1306 5
122 2

Instructions/Comments/Special Requirements:

SAMPLE RECEIPT	DATE	TIME	Samples Relinquished By	Samples Received By
Temperature <u>23.2</u> °C	<u>6/6/13</u>	<u>1415</u>	<i>See [Signature]</i>	<i>[Signature]</i>
Custody Seals Intact? Y N <u>(None)</u>				
Number of Containers <u>4</u>				

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Appendix B – Mineralogy Report for Humidity Cell Test Samples

MINERALOGICAL ANALYSIS OF HUMIDITY CELL SAMPLES FOR THE COPPER FLAT PROJECT, NEW MEXICO

Prepared For
THEMAC Resources Group Ltd.



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SRK Legal Entity:

SRK Consulting (UK) Limited

SRK Address:

5th Floor Churchill House
17 Churchill Way
City and County of Cardiff, CF10 2HH
Wales, United Kingdom.

Date:

January, 2014

Project Number:

U3939

SRK Project Director:

Rob Bowell

Corporate Consultant (Geochemistry)

SRK Project Manager:

Ruth Warrender

Senior Consultant (Geochemistry)

Client Legal Entity:

THEMAC Resources Group Ltd.

Client Address:

2424 Louisiana Blvd, NE, Suite 301,
Albuquerque,
New Mexico, NM 87110,
USA.

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MINERALOGICAL ANALYSIS OF HUMIDITY CELL SAMPLES FOR THE COPPER FLAT PROJECT, NEW MEXICO

1 INTRODUCTION

As part of the assessment of Acid Rock Drainage and Metal Leaching (ARDML) for the Copper Flat project, New Mexico, eight samples of the humidity cell testwork (HCT) material were submitted for mineralogical assessment. These samples were selected to assess the speciation and textures of the sulfide minerals, and in particular to determine what implications these may have for the lack of acid-generation observed in several of the samples during the HCT programme. This assessment forms part of the wider geochemical characterisation study for the Copper Flat Project. Of the eight submitted samples, seven represented humidity cell residues (i.e. post-leach material from the HCT programme), whilst the eighth was a pre-leach sample for one of the humidity cells. A brief summary of the eight samples submitted is provided in Table 1-1, below.

Table 1-1: Samples selected for mineralogical assessment

Sample ID	Details	Material type	Sample selection rationale
SRK 0854	HCT residue	Transitional ore	Sample from the Sternberg lode (mineralised material), which developed moderately acidic pH conditions (pH 5) during the HCT programme.
SRK 0858	HCT residue	Transitional waste	The only truly PAF cell in the HCT program, with HCT results confirming that active sulfide weathering was occurring in this cell.
SRK 0867	HCT residue	Transitional ore	Pre-HCT mineralogical data available. Included for comparison purposes.
SRK 0872	HCT residue	Transitional waste	Predicted PAF by ABA/NAG testwork, but neutral in HCT. Mineralogy required to confirm why no acid generation occurring.
604673	HCT residue	Sulfide waste	Predicted PAF by ABA/NAG testwork, but truly acidic conditions did not develop in the HCT (although pH did decline over course of testwork).
CF-02 (0-27)	HCT residue	Transitional waste	Predicted PAF by ABA/NAG testwork, but neutral in HCT. Mineralogy required to confirm why no acid generation occurring.
604767	HCT residue	Sulfide ore	Predicted PAF by ABA/NAG testwork, but neutral in HCT. Mineralogy required to confirm why no acid generation occurring.
CF-11-02 (0-27)	Original (pre-leach) sample	Transitional waste	Pre-HCT leached material for sample CF-02 0-27

The material types that were submitted for mineralogical analysis consisted of Transitional Waste (4 samples), Transitional Ore (2 samples), Sulfide Waste (1 sample) and Sulfide Ore (1 sample) (Table 1-1). In all cases the major mineralogy consisted of quartz, albite and orthoclase with significant alteration of the feldspar minerals to illite and kaolinite. Clinocllore was also observed as minor mineral within four of the samples. There were no significant differences between the alteration proportions of the feldspar minerals across the varying samples.

2 METHODOLOGY

The mineralogical examination was undertaken using petrographic microscopy (both transmitted and reflected light), scanning electron microscopy (SEM) and fine powder X-Ray Diffraction (XRD). Samples were prepared from the humidity cell residue material as polished thin sections (for optical microscopy and SEM). XRD analysis was carried out on pulverised samples of the residue material.

Optical Microscopy

The principal method of mineralogical analysis used for this study is Optical Microscopy. This was completed on polished thin sections of core material. A Meiji MX9000 microscope fitted with a mounted Canon EOS 600D digital camera has been used in this study.

Scanning Electron Microscopy

Semi-quantitative energy dispersive analysis of minerals present within the polished thin sections was carried out using a S360 Scanning Electron Microscope with INCA wave-and energy-dispersive X-Ray spectroscopy at the Department of Earth Sciences, Cardiff, UK. This method allows micro-chemical data to be collected that reports the chemical composition of the surface of the mineral phase in the polished section. The electron beam utilised to gather the information required is approximately 1 to 5 μm in diameter, so even very small phases can be quantified.

X-Ray Diffraction

X-Ray Diffraction analysis was carried out using a Philips PW1710 Powder Diffractometer at the Department of Earth Science, Cardiff University, UK. Bulk analyses were carried out on samples. Scans were run using Cu $K\alpha$ radiation at 35kV and 40mA, between 2 and 70 $^{\circ}2\theta$ at a scan speed of 0.04 $^{\circ}2\theta/\text{s}$. From the scans, phases were identified and from the peak areas, semi quantitative analysis was performed and a percentage of each phase present calculated.

3 SUMMARY OF FINDINGS

This section provides a summary of the mineralogical results. Detailed descriptions of each of the samples (including photo micrographs of the polished thin sections) are provided in Sections 4 to 11, below.

The main sulfide minerals observed were pyrite (FeS_2) and chalcopyrite (CuFeS_2), which were present in all eight samples submitted for testing (Table 3-2). Galena (PbS) and molybenite (MoS_2) were also observed in two of the samples, with molybdenite in a further third. Covellite (CuS) was observed in both the pre- and post-leach material for sample CF-11-02 (0-27ft). Texturally, there were two clear patterns for the occurrence of chalcopyrite and pyrite. Chalcopyrite tended to be fine-grained and encapsulated within quartz-feldspar composite particles. The only exceptions to this were samples SRK0854 which produced

acidic conditions during the HCT and the pre-leach sample for CF-11-02 (0-27ft). This indicates that the textural occurrence of chalcopyrite in cell SRK084 likely contributed to its breakdown and subsequent acid generation in this cell.

Pyrite within the samples was typically found to occur as either fine-grained crystals encapsulated in quartz-feldspar composite particles or as medium-grained euhedral crystals that are liberated. In general, all medium-grained liberated examples of pyrite showed partial fracturing, occasionally to the point of disaggregation (i.e. fractures were connecting and the grains were beginning to crumble). However, comparison with the pre-leach material demonstrates that the pyrite frequently exhibited this fractured texture *prior* to the humidity cell test, indicating that the fracturing and disaggregation observed in the post-HCT samples may not relate to breakdown of the sulfides during the test, but rather that this is a pre-existing texture. Furthermore, comparison with the humidity cell results demonstrates that this textural occurrence of pyrite only occasionally led to acid-generation (for example in cells SRK0858 and SRK0854), and that sulfate release from the humidity cells was typically slow, with low effluent concentrations.

Sulfate rims around the pyrite grains (indicative of pyrite oxidation) were typically only observed in samples that developed acid conditions during the HCT (i.e., SRK0854, SRK0858 and 604673). Although, limited evidence of sulfide oxidation was observed in several of the other samples (SRK0867, SRK0872 and CF-11-02 (0-27)) from the presence of jarosite and schwertmannite in association with sulfide grains, this was not seen to lead to acid generation in these cells. This may be due to the slow weathering rate of the pyrite grains, their equigranular grain shape and the presence of mafic buffering minerals such as phlogopite in addition to small amounts of calcite in some of the samples.

Identifying potential mineralogical controls that could account for the lack of acid generation in several of the humidity cells is complex but comes down to three factors;

1. The nature of the sulfides as coarse- or well-crystallized grains, meaning they are thermodynamically stable and difficult to weather;
2. The inclusion of many of the finer-grained sulfides (particularly chalcopyrite) in non-reactive silicate gangue;
3. The presence of acid buffering silicate minerals, especially chlorite group minerals and also to a limited extent, the small amounts of calcite concentrations present in the samples.

These factors are discussed in more detail below.

Sulfide mineral texture

Much of the pyrite in the post-HCT samples is present as medium-grained, well-crystallised and liberated crystals, which show evidence of fracturing and partial disaggregation. Although this textural occurrence would theoretically suggest that the pyrite grains are available for weathering/oxidation reactions, acidic conditions were not realized in the majority of cells despite prolonged testing. It is possible that the coarse-grained and equigranular nature of the pyrite in the Copper Flat material means it is more likely to be thermodynamically stable and difficult to weather. Reasons for slow pyrite weathering have also been the topic of recent research and some have suggested that it may also relate to the trace element content of the pyrite, with the presence of cobalt and nickel slowing the rate of reaction (Lehner et al. 2007; Lehner and Savage, 2008; Parbhaker-Fox et al., 2013). Furthermore, there is little evidence of

significant sulfide weathering in the majority of samples, demonstrating that the lack of acid generation may be explained by the stability of the sulfides rather than by significant neutralization in the cells.

Inclusion of sulfides in non-reactive silicate gangue

Encapsulation of chalcopyrite within a silicate (quartz-feldspar) gangue was found to be common within the Copper Flat samples and there was also a limited amount of pyrite encapsulation. This textural occurrence should limit the availability of these sulfide minerals for oxidation/weathering reactions, thus limiting the potential for acid generation. The only post-leach sample in which chalcopyrite occurred as medium-grained and liberated crystals was sample SRK0854, which was one of the only cells to produce acidic conditions during the HCT. This supports the assumption that the textural occurrence of chalcopyrite in cell SRK0854 likely contributed to its breakdown and subsequent acid generation in this cell.

The presence of buffering silicate minerals

Although the occurrence of acid buffering carbonate minerals in the samples was found to be limited, the presence of silicate minerals such as phlogopite and clinocllore were more abundant and may offer some silicate buffering potential. Carbonate minerals in the form of calcite or ankerite were only observed in four of the eight cells at proportions of generally less than one percent (1%) by area. In general the carbonates were very fine-grained and frequently encapsulated within quartz-feldspar composites, indicating they may not be available to contribute to acid buffering reactions, or at least slow to react and their proportions are too low to account for significant acid-neutralization in the cells. The ABA testwork results (SRK, 2013) are consistent with these observations and demonstrate that carbonate proportions are considerably lower than the sulfide proportions. The encapsulation of carbonates may also account for the fact that generally greater than 70% of the original neutralization potential was remaining in the cells at the end of the humidity cell testwork period.

Despite the limited presence of carbonate minerals in the samples, the silicate minerals phlogopite and/or chlinocllore were observed in all eight samples submitted for testing. These minerals are known to offer some buffering capacity and may be one of the reasons why acidic conditions were not achieved in several of the Copper Flat humidity cells.

3.1 Additional Mineralogical Observations

For the three cells that showed evidence of acid-generation during the HCT program (SRK0854, SRK0858 and 604673), there is an interesting correlation with copper release from the humidity cells (Table 3-1). This may relate to the proportion of liberated chalcopyrite or copper sulfate minerals present in the initial (i.e. pre-leach) samples. Coarse liberated chalcopyrite grains were observed in cell SRK0854 which presented the greatest copper release during the HCT. Similarly, the presence of copper sulfate minerals such as brochantite have been previously identified from grab sample assessment as being a likely component of the transitional samples. Although copper sulfate minerals were not identified in the current mineralogical assessment, this likely relates to the flushing of these minerals (i.e. consumption) during the HCT testwork. It may therefore be the breakdown of these copper sulfate minerals that are driving the observed acid-generation in these cells and the apparent slow reactivity of the pyrite grains may lead to increased or eventual initiation of acid-generation over much longer timescales.

Table 3-1: Mineralogy sample HCT copper release

Material type	Sample ID	Final HCT pH	Head Copper Assay (mg/kg)	Residue Copper Assay (mg/kg)	Cumulative Copper Release During HCT (mg/kg)	% of Copper Assay Mobilized During HCT
Sulfide Ore	604 767	7.83	5,972	5,970	2	0.04%
Sulfide Waste	604 673	4.94	1,198	1,150	48	4.04%
Transitional Ore	SRK 0854	5.12	9,780	7,490	2,290	23.4%
	SRK 0867	7.57	2,415	2,400	15	0.64%
Transitional Waste	SRK 0858	2.49	562	249	313	55.7%
	SRK 0872	7.28	875	870	5	0.61%
	CF-11-02 (0-27)	7.80	1,371	1,370	1	0.11%

Indicates acidic conditions achieved in HCT testwork

Table 3-2: Summary of Minerals Found by XRD and in Thin Section and Polished Block

	SRK Sample ID HCT Behaviour Lithology → Ideal chemistry ↓	SRK0854	SRK0858	SRK0867	SRK0872	604673	604767	CF-11-02	CF-11-02 (Pre HCT)
		PAF	PAF	NAF	NAF	PAF	NAF	NAF	NAF
		Transitional Ore	Transitional Waste	Transitional Ore	Transitional Waste	Sulfide Waste	Sulfide Ore	Transitional Waste	Transitional Waste
	Quartz	SiO ₂	XXX	XXX	XXX	XXX	XXX	XXX	XXX
	Thorite	(Th,U)SiO ₄			X				
	Titanite	CaTi(SiO ₄)O			X	X			
	Magnetite	Fe ₃ O ₄	X			X			
	Fluorite	CaF ₂					X		
	Zircon	ZrSiO ₄						X	
	Rutile	TiO ₂	X	X		X	X	X	X
Clay Minerals	Kaolinite	AlSi ₂ O ₅ (OH) ₄		XX	XX	XX		XX	
	Illite	K _{0.65} Al ₂ [(Si,Al) ₄ O ₁₀](OH) ₂	XXX	XX	XXX	XXX	XX	XXX	XXX
	Clinochlore	(Mg,Fe ²⁺) ₅ Al(AlSi ₃ O ₁₀)(OH) ₈	XX			X	XX	X	XX
	Phlogopite	KMg ₃ (AlSi ₃ O ₁₀)(OH,F) ₂		X	X	X		X	X
Feldspars	Albite	NaAlSi ₃ O ₈	XXX	XXX	XXX	XXX	XXX	XXX	XXX
	Orthoclase	(K,Na)AlSi ₃ O ₈	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Phosphates & Sulfates	Monazite	(Ce,La,Nd,Th)(PO ₄)			X				
	Jarosite	KFe ³⁺ ₃ (SO ₄) ₂ (OH) ₆		X	X				
	Schwertmannite	Fe ₈ O ₈ (OH) ₆ (SO ₄) _n H ₂ O	X	X		X	X	X	X
	Fluorapatite	Ca ₅ (PO ₄) ₃ F	X	X		X		X	X
	Baryte	BaSO ₄				X		X	
Carbonates	Ankerite	Ca(Fe ²⁺ ,Mg)(CO ₃) ₂					X		X
	Calcite	CaCO ₃			X			X	
Sulfides	Covellite	CuS						X	X
	Chalcopyrite	CuFeS ₂	X	X	X	X	X	X	X
	Galena	PbS	X					X	
	Molybdenite	MoS	X				X	X	
	Pyrite	FeS ₂	X	X	X	X	X	X	X
X	Trace Minerals (<1% by area)								
XX	Minor Minerals (1-10% by area)								
XXX	Major Minerals (> 10% by area)								

4 SRK0854

This sample represents transitional ore material and predominantly consists of quartz, albite and orthoclase, with the latter feldspar minerals being considerably altered to illite. The sample contains 0.88% sulfide sulfur (SRK, 2013) in the form of chalcopyrite, galena, molybdenite and pyrite. Of these, pyrite and chalcopyrite are the most abundant. Texturally, the pyrite and chalcopyrite grains are either medium-grained and liberated or fine-grained and encapsulated. In contrast to other samples, the chalcopyrite grains are more frequently observed as medium-grained and liberated.

Breakdown of sulfide grains was observed in this sample, with brown sulfate phases being present around the edges of some of the sulfide grains (see Figure 4-1). The iron-sulfate mineral was identified as schwertmannite on the basis of the low sulfur to iron ratio.. This is indicative of sulfide oxidation in this cell and is supported by the moderately acidic pH conditions (pH 5) that developed in this cell during the HCT.

Table 4-1: Table of Minerals Found in Sample SRK 0854 and Their Abundance

Trace Minerals ($\leq 1\%$)	Minor Minerals (1%–10%)	Major Minerals (10% <)
Magnetite	Clinocllore	Quartz
Rutile		Illite
Fluorapatite		Albite
Chalcopyrite		Orthoclase
Galena		
Molybdenite		
Pyrite		
Schwertmannite		

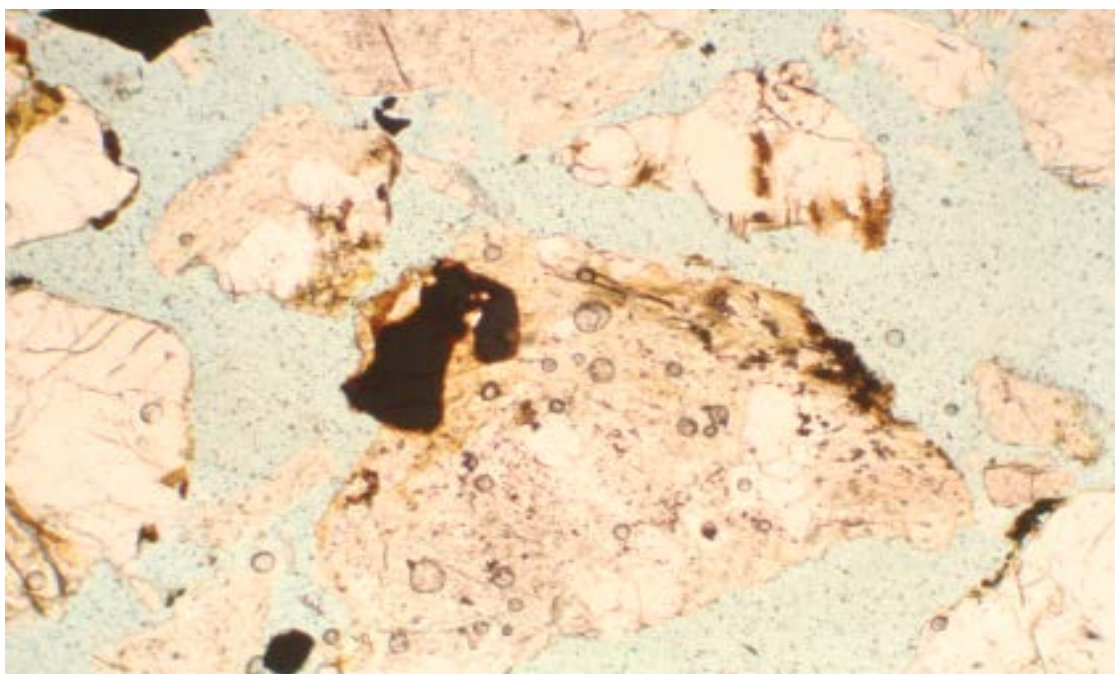


Figure 4-1: Sample SRK 0854 Plane Polarized Image (x5 magnification)

Particles of quartz and feldspar with sulfide inclusions. Just to the left of the centre of the field of view is an opaque pyrite grain showing brown sulfate weathering around the edges. This indicates sulfide breakdown was beginning to occur within the cell.

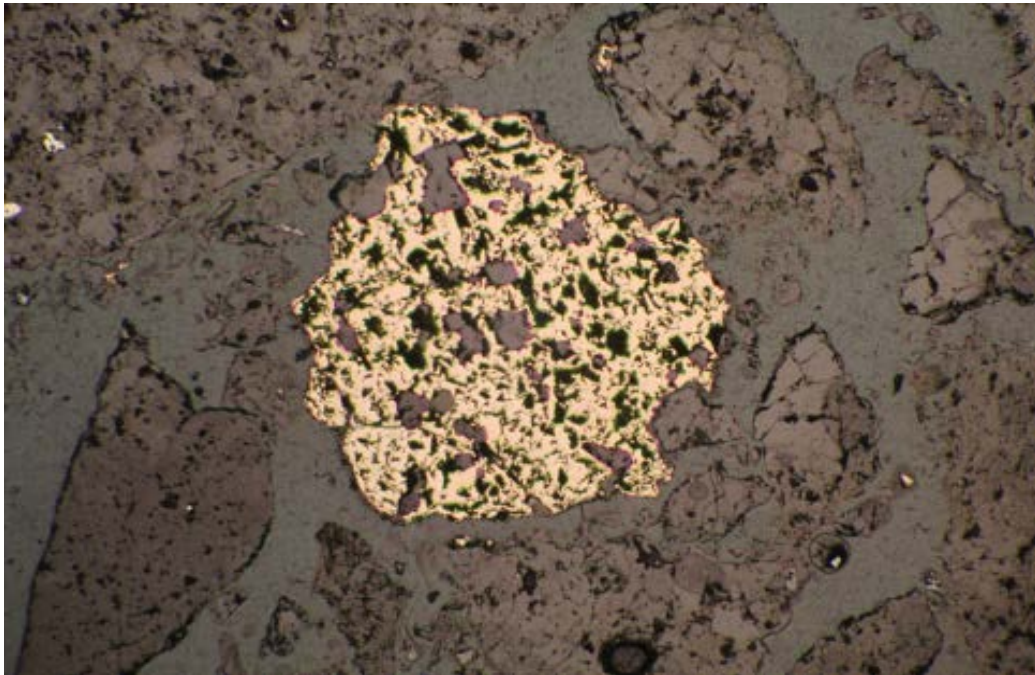


Figure 4-2: Sample SRK 0854 Reflected Light Image (x5 magnification)

Coarse, granular chalcopyrite grain. The chalcopyrite contains minor inclusions of quartz and feldspar and thus form a coarse poikilitic shape.

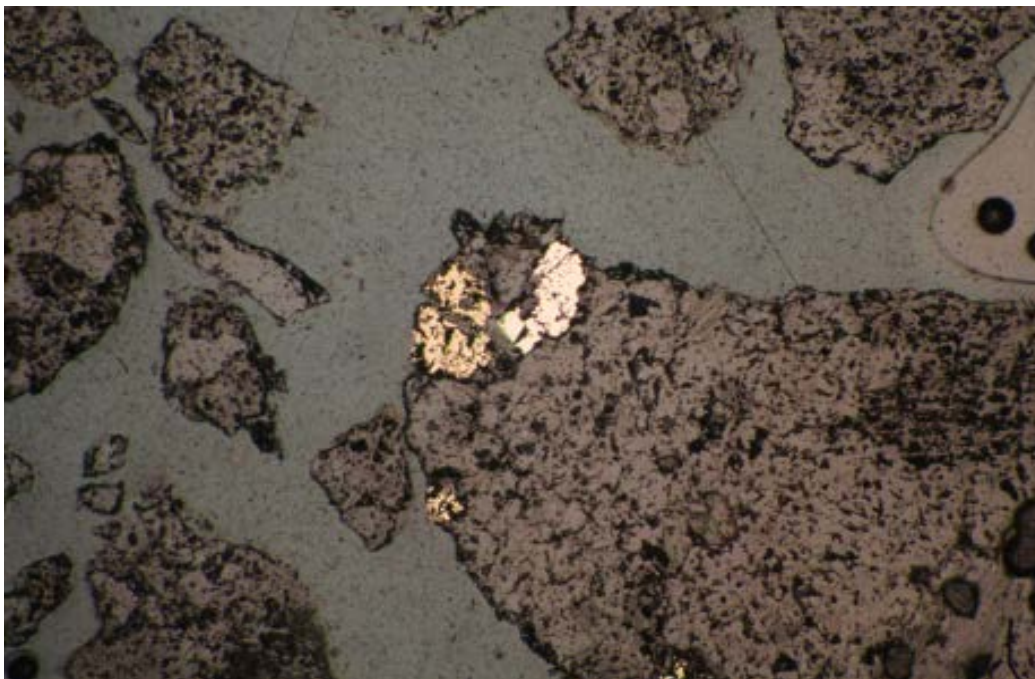


Figure 4-3: Sample SRK 0854 Reflected Light Image (x5 magnification)

Medium-grained chalcopyrite and pyrite grains hosted along the edge of a quartz-feldspar composite particle. These show partial encapsulation but can expect to weather in the long term.

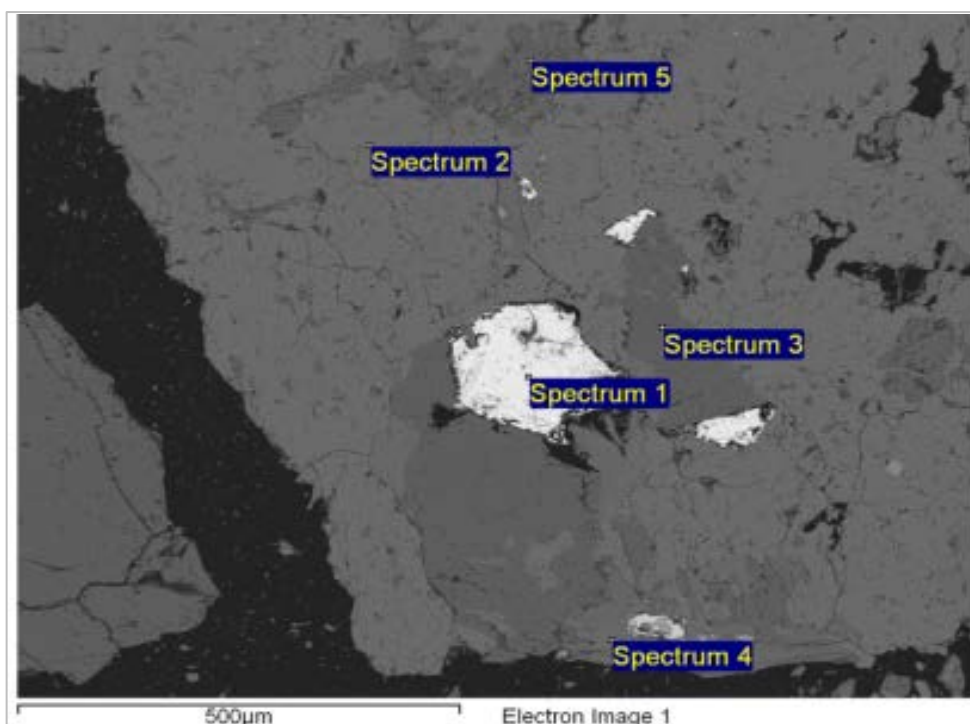


Figure 4-4: Sample SRK 0854 Back Scatter Image

Composite particle consisting of encapsulated chalcopyrite (Spectrum 1) hosted within orthoclase (Spectrum 2), quartz (Spectrum 3), illite (Spectrum 4) and albite (Spectrum 5).

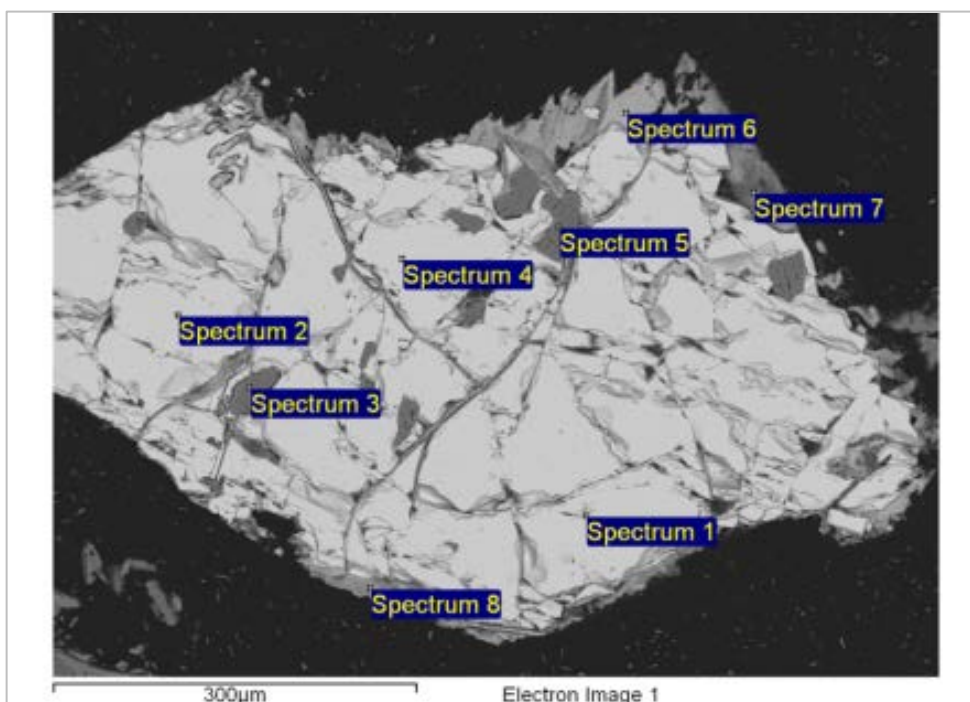


Figure 4-5: Sample SRK 0854 Back Scatter Image

Medium-grained liberated pyrite (Spectra 1, 2 & 4) showing considerable internal fracturing and partial breakdown along the mineral edge. There are inclusions of orthoclase (Spectra 3 & 5). Magnetite is forming on the rim (Spectrum 6), along with some schwertmannite (Spectra 7 & 8).

5 SRK0858

This sample represents transitional waste material and predominantly consists of quartz, albite and orthoclase, with the latter feldspar minerals considerably altered to illite and kaolinite. It contains 0.62% sulfide sulfur (SRK, 2013) in the form of chalcopyrite and pyrite. Chalcopyrite is usually observed as fine-grained and encapsulated within relatively inert silicate gangue. Pyrite may also be fine-grained and encapsulated but is frequently observed as medium-grained, liberated particles, showing partial fracturing and disaggregation. The liberated nature of the sulfide minerals may account for the acidic conditions that developed in this cell during the HCT.

Breakdown of sulfide grains was observed in this sample, with brown sulfate phases being present around the edges of some of the sulfide grains. The iron-sulfate minerals were identified as schwertmannite on the basis of SEM identification of a low sulfur to iron ratio. Jarosite was also identified from the SEM analysis. This is indicative of sulfide oxidation in this cell and is supported by the acidic pH conditions (pH 2.5) that developed in this cell during the HCT. The acidic pH conditions that were attained in the cell indicate that the rate of sulfide oxidation must have been sufficient to overcome any inherent buffering from the mafic gangue mineral phlogopite.

Table 5-1: Table of Minerals Found in Sample SRK 0858 and Their Abundance

Trace Minerals ($\leq 1\%$)	Minor Minerals (1%–10%)	Major Minerals (10% <)
Rutile	Illite	Quartz
Fluorapatite	Kaolinite	Albite
Jarosite		Orthoclase
Schwertmannite		
Phlogopite		
Chalcopyrite		
Pyrite		

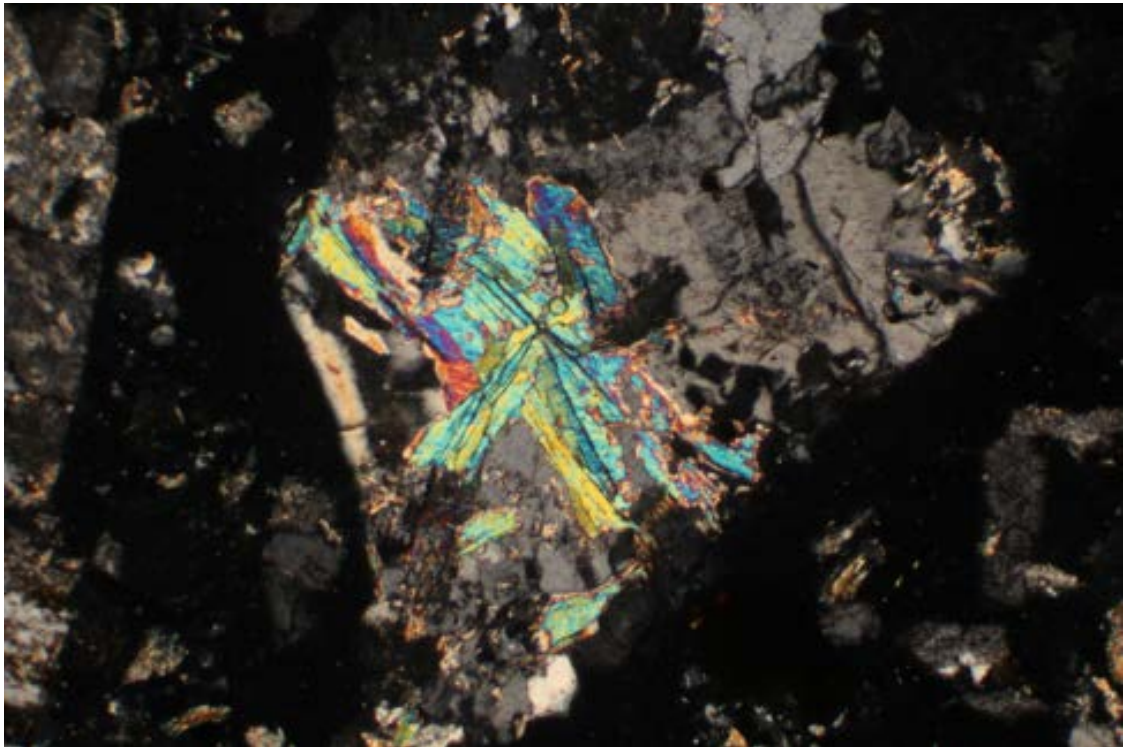


Figure 5-1: Sample SRK 0858 Cross Polarized Image (x5 magnification)

Coarse muscovite grains within a composite particle also consisting of quartz and feldspar.

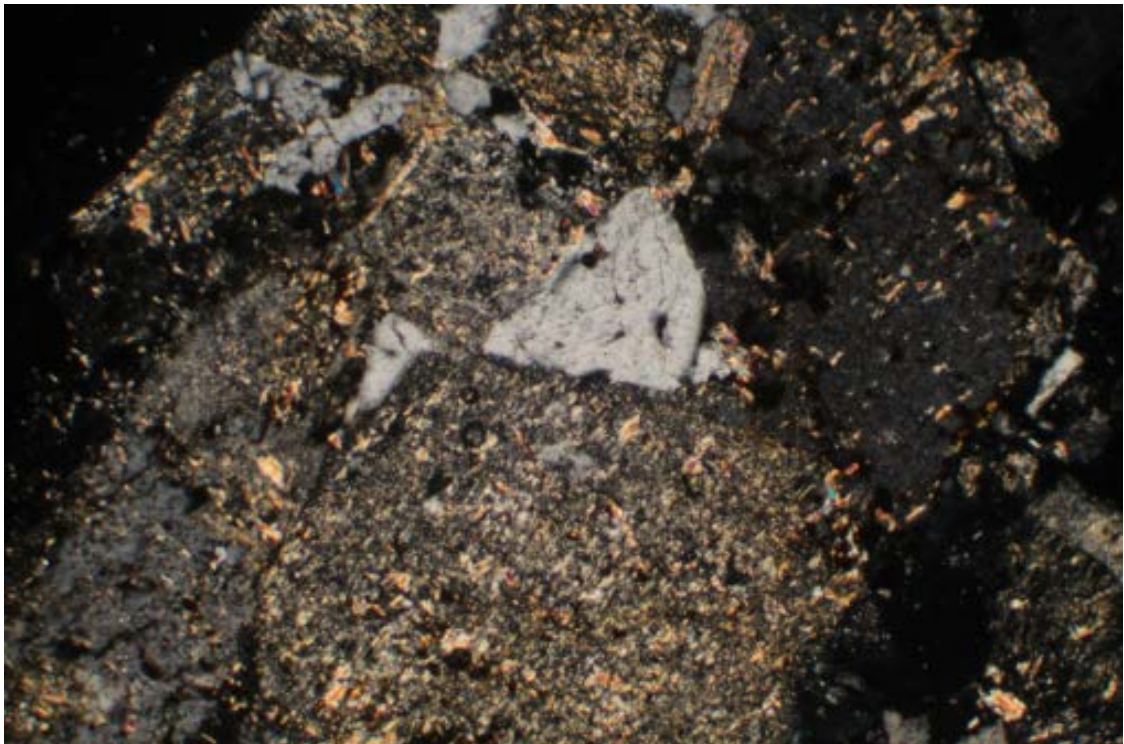


Figure 5-2: Sample SRK 0858 Cross Polarized Image (x5 magnification)

Composite particle of quartz, albite and orthoclase with the feldspar minerals showing pervasive alteration to illite and lesser kaolinite. This degree of alteration was typical across all analysed samples.

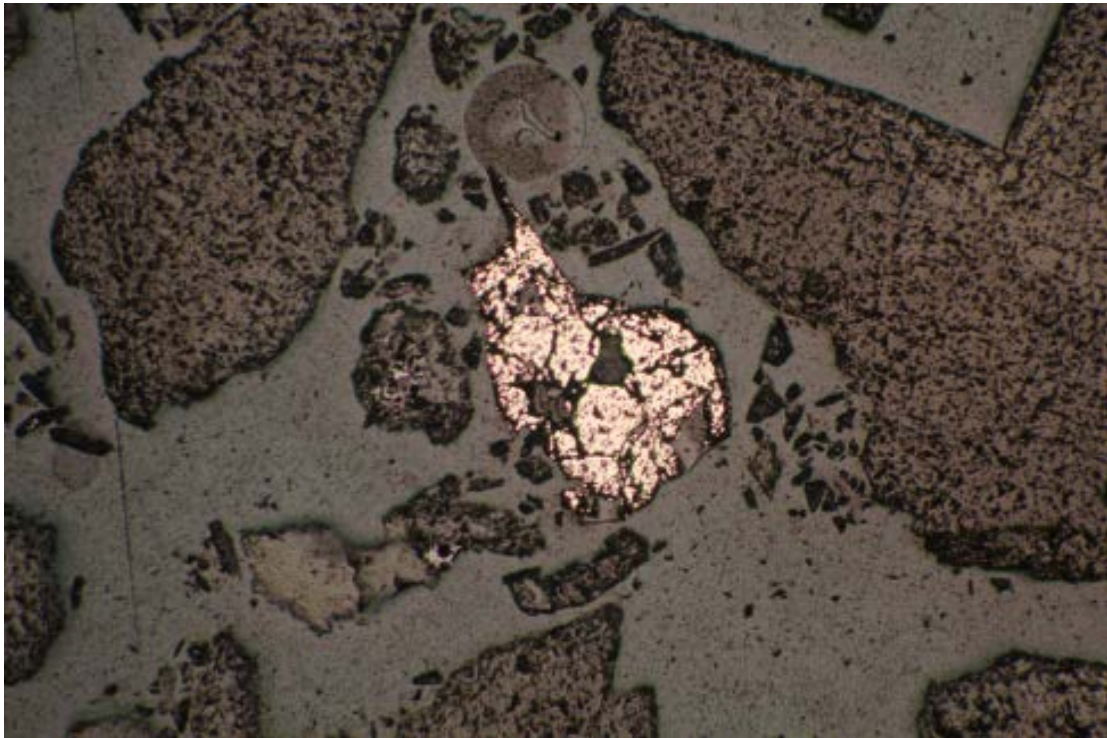


Figure 5-3: Sample SRK 0858 Reflected Light Image (x5 magnification)

Coarse liberated pyrite grain showing a high degree of internal fracturing and granulation.

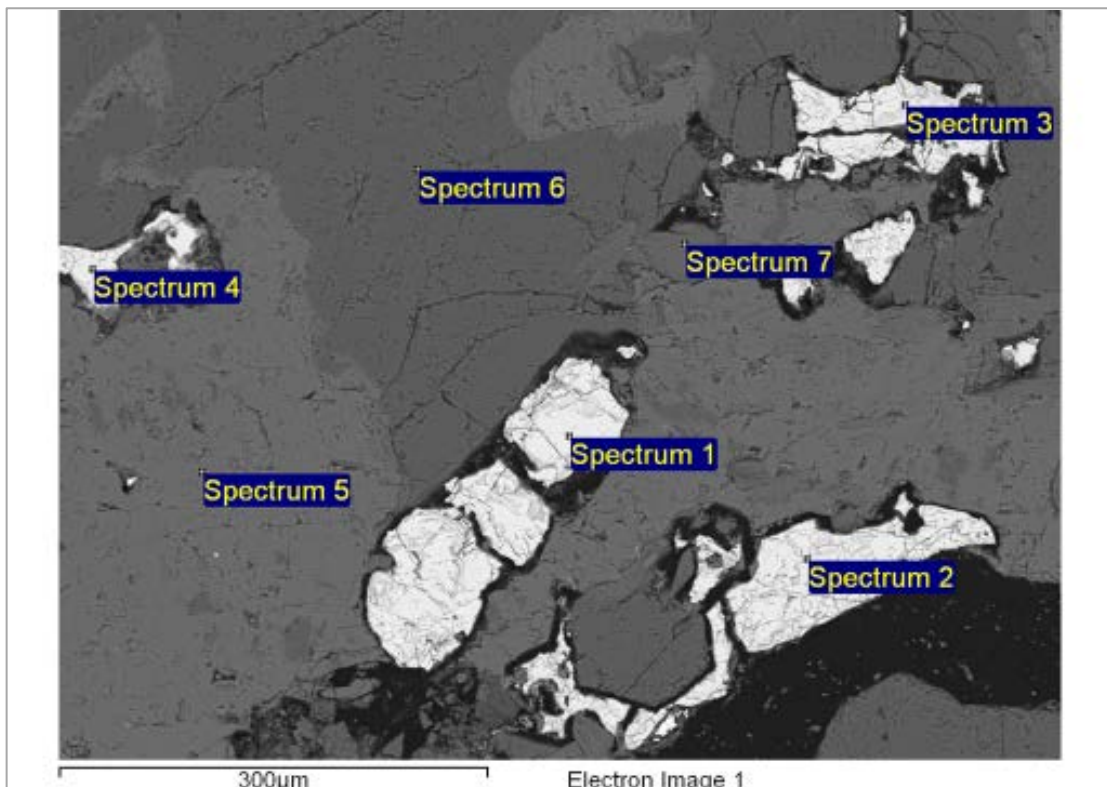


Figure 5-4: Sample SRK 0858 Back Scatter Image

Grains of chalcopyrite (Spectra 1 -4) that are either partially or completely encapsulated within a composite orthoclase-quartz-illite particle (Spectra 5, 6 & 7 respectively).

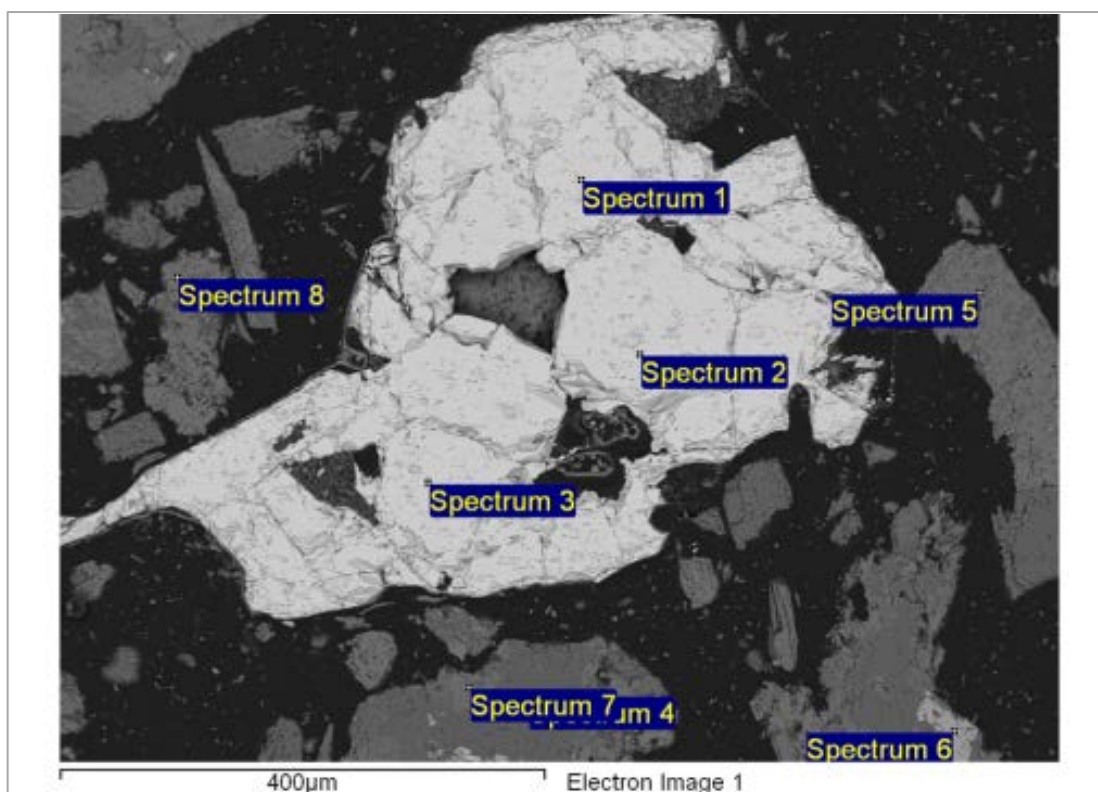


Figure 5-5: Sample SRK 0858 Back Scatter Image

Medium-grained pyrite (Spectra 1 – 3) fragment surrounded by particles of quartz (Spectrum 4), orthoclase (Spectra 5, 7 & 8) and rutile (Spectrum 6). There is little evidence for the formation of Fe-Sulfates along the rim of the particle.

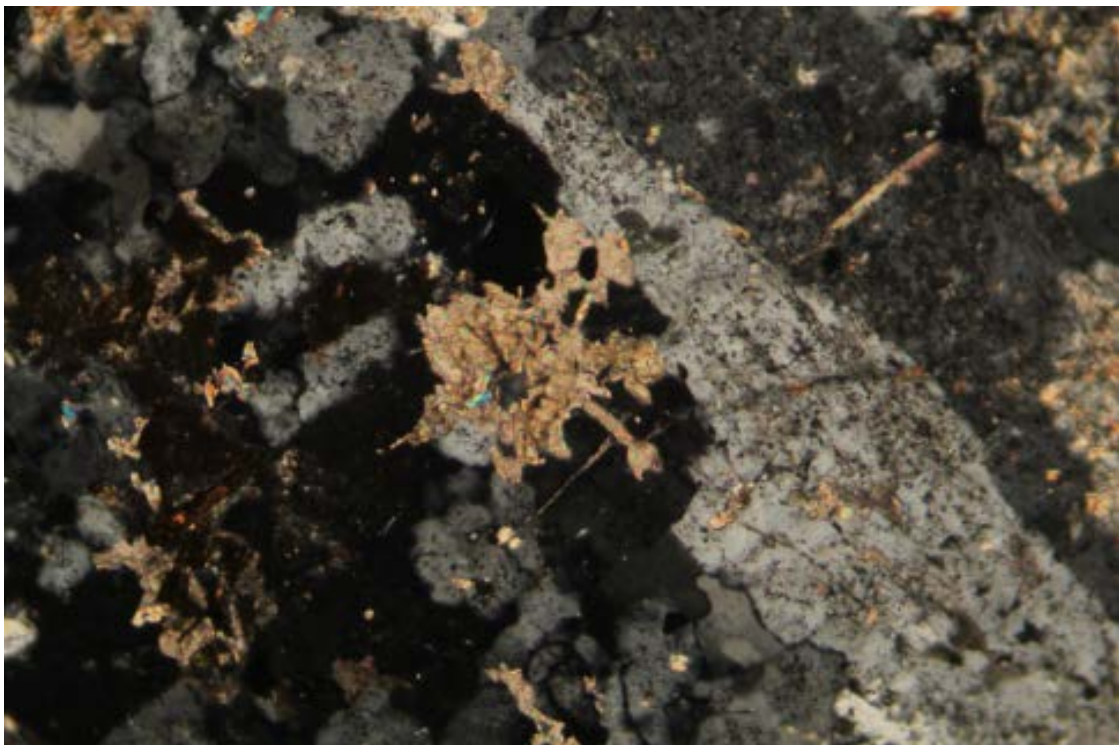
6 SRK0867

This sample represents transitional ore material and predominantly consists of quartz, albite and orthoclase, with these feldspar minerals being considerably altered to illite and kaolinite. It contains 0.77% sulfide sulfur (SRK, 2013) in the form of chalcopyrite and pyrite. Chalcopyrite is usually observed as fine-grained and encapsulated within relatively inert silicate gangue. Pyrite may also be fine-grained and encapsulated but is frequently observed as medium-grained, liberated particles, showing partial fracturing and disaggregation.

Although some sulfide oxidation is observed in this sample, and the presence of jarosite is noted, no acid-generation was apparent. This may be due to the slow weathering rate of the pyrite grains, their equigranular grain shape and the presence of mafic buffering minerals such as phlogopite. Small amounts of calcite (<1% by area) were also observed by SEM within the sample which would provide some buffering potential.

Table 6-1: Table of Minerals Found in Sample SRK 0867 and Their Abundance

Trace Minerals ($\leq 1\%$)	Minor Minerals (1%–10%)	Major Minerals (10% <)
Thorite	Kaolinite	Quartz
Titanite		Albite
Phlogopite		Orthoclase
Monazite		Illite
Jarosite		
Calcite		
Chalcopyrite		
Pyrite		

**Figure 6-1: Sample SRK 0867 Cross Polarized Image (x10 magnification)**

Fine-grained calcite included within a composite particle of quartz and feldspar

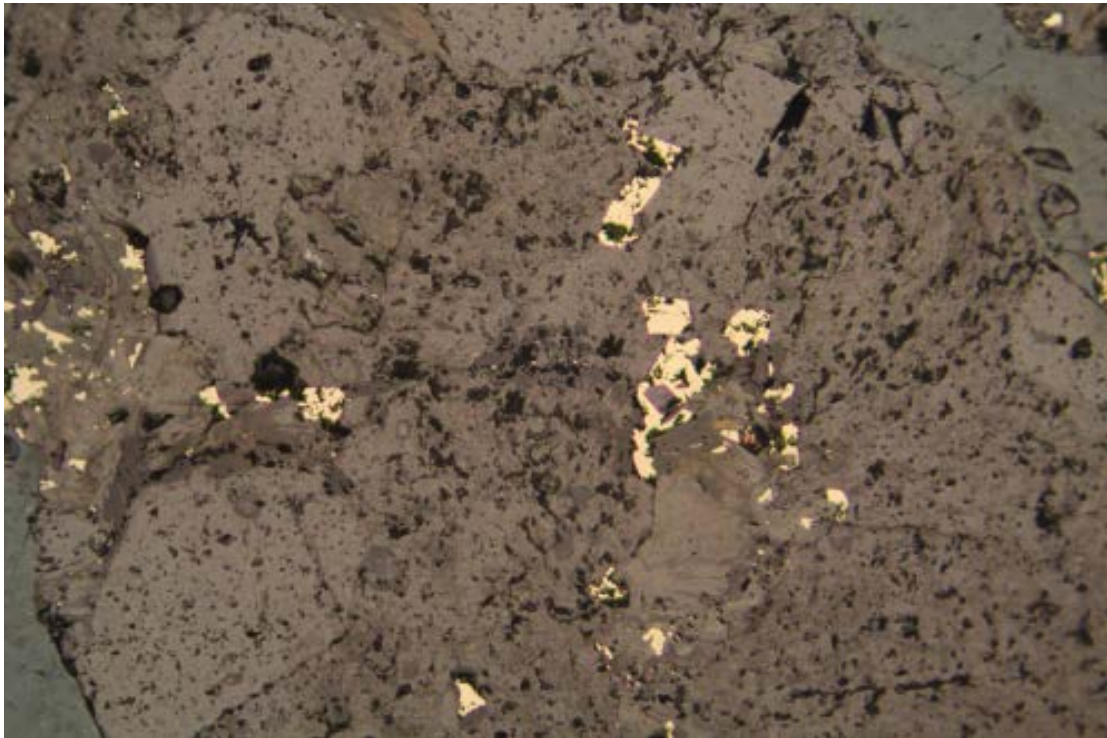


Figure 6-2: Sample SRK 0867 Cross Polarized Image (x5 magnification)

Fine-grained chalcopyrite encapsulated within a composite quartz-feldspar particle.

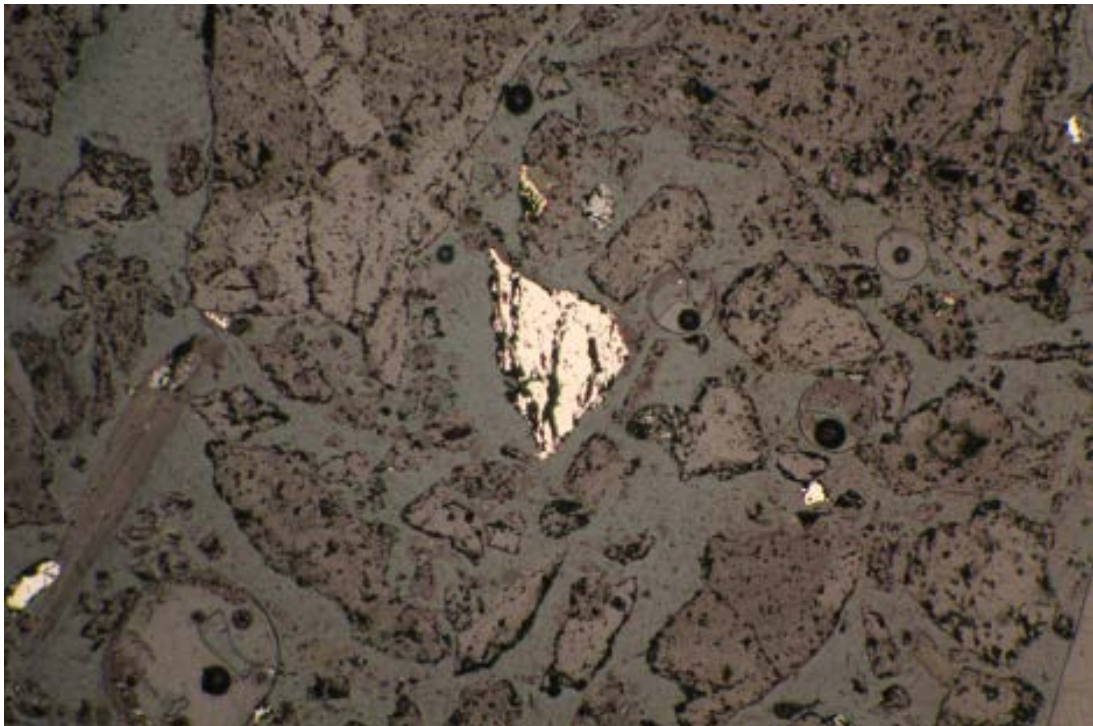


Figure 6-3: Sample SRK 0867 Reflected Light Image (x5 magnification)

Large liberated pyrite grain with internal fracturing.

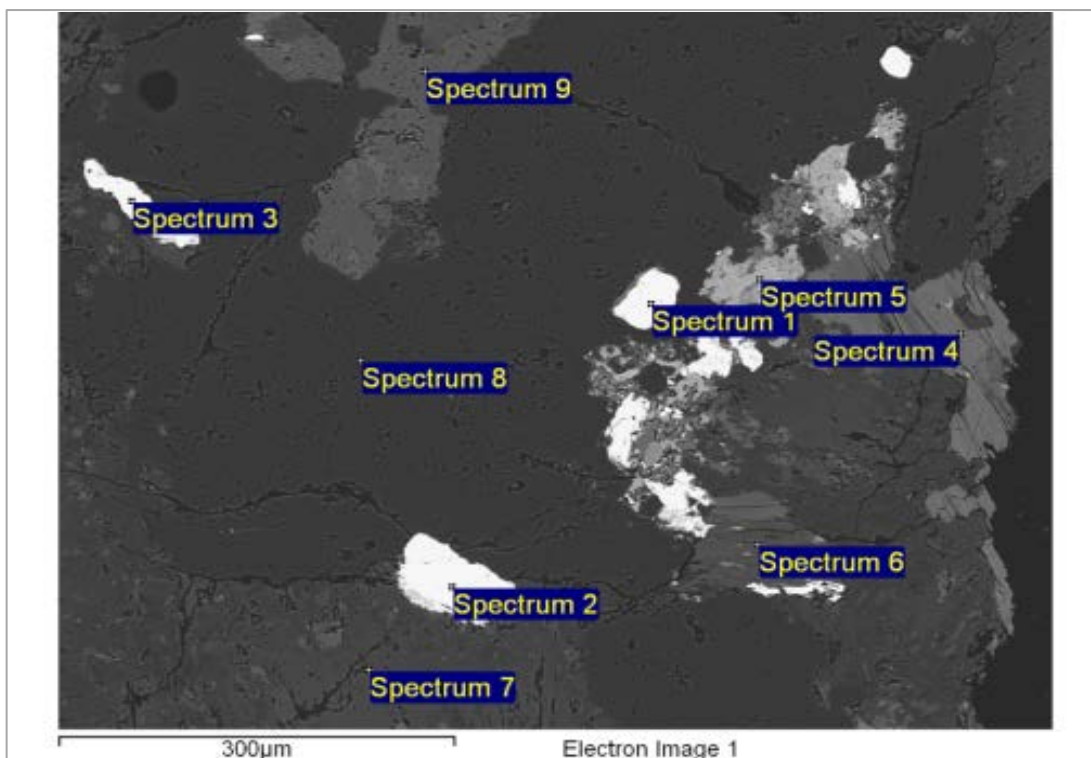


Figure 6-4: Sample SRK 0867 Back Scatter Image

Small grains of pyrite (Spectra 1 & 3), and thorite (Spectrum 3) encapsulated within a composite particle that consists of phlogopite (Spectrum 4), rutile (Spectrum 5), illite (Spectrum 6), albite (Spectrum 7), quartz (Spectrum 8) and orthoclase (Spectrum 9).

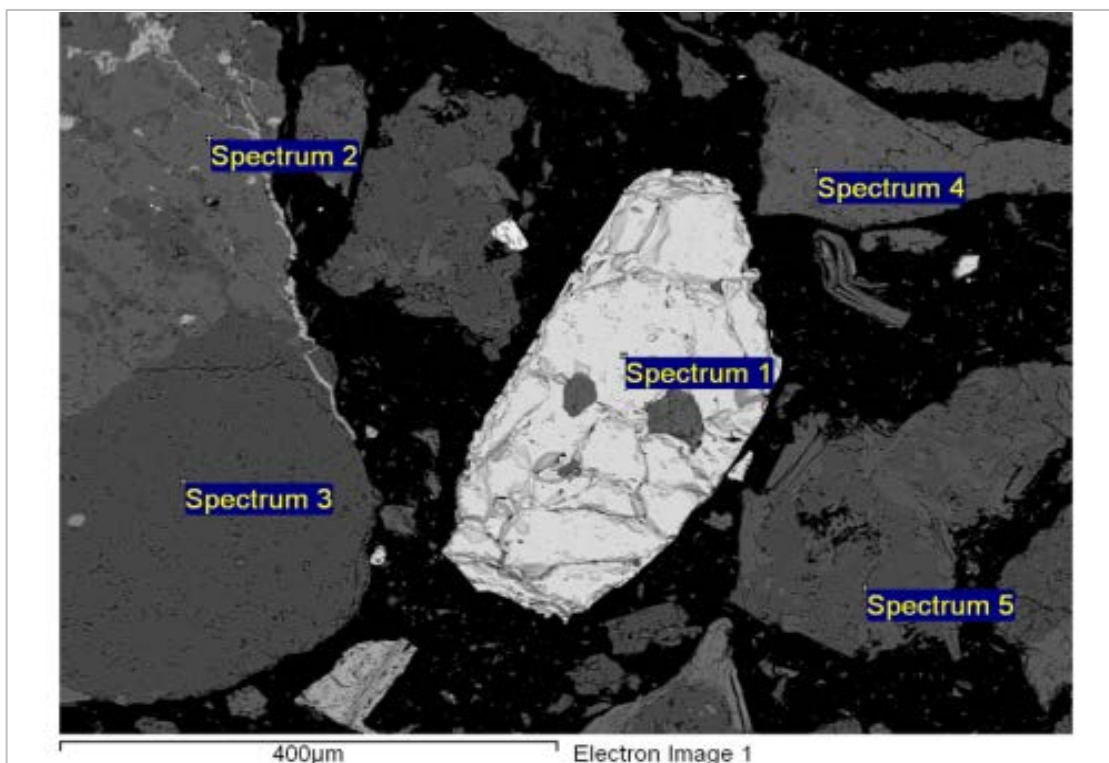


Figure 6-5: Sample SRK 0867 Back Scatter Image

Medium-grained liberated pyrite (Spectrum 1) with inclusions of quartz. This is surrounded by

particles of orthoclase (Spectra 2 & 4), quartz (Spectrum 3) and albite (Spectrum 5).

7 SRK0872

This sample is of transitional waste material and predominantly consists of quartz, albite and orthoclase, with the latter feldspar minerals being considerably altered to illite and kaolinite. It contains about 1.05% sulfide sulfur (SRK, 2013) which is deposited as the minerals chalcopyrite and pyrite. Chalcopyrite is usually observed as fine-grained and encapsulated within relatively inert silicate gangue. Pyrite may also be fine-grained and encapsulated but is frequently observed as medium-grained, liberated particles, showing partial fracturing and disaggregation.

Although some sulfide oxidation is observed in this sample no acid-generation was apparent during the HCT. This may be due to the slow weathering rate of the pyrite grains, their equigranular grain shape and the presence of mafic buffering minerals such as phlogopite and clinocllore. In one instance titanite is observed as inclusions within pyrite and is itself weathering quicker than the pyrite. This means it is acting as a sacrificial anode, actively inhibiting the rate of pyrite oxidation. This may also be occurring in the previous sample where titanite was observed, though not immediately in association with pyrite.

Table 7-1: Table of Minerals Found in Sample SRK 0872 and Their Abundance

Trace Minerals ($\leq 1\%$)	Minor Minerals (1%–10%)	Major Minerals (10% <)
Titanite	Kaolinite	Quartz
Magnetite		Albite
Clinocllore		Orthoclase
Phlogopite		Illite
Fluorapatite		
Schwertmannite		
Baryte		
Chalcopyrite		
Pyrite		

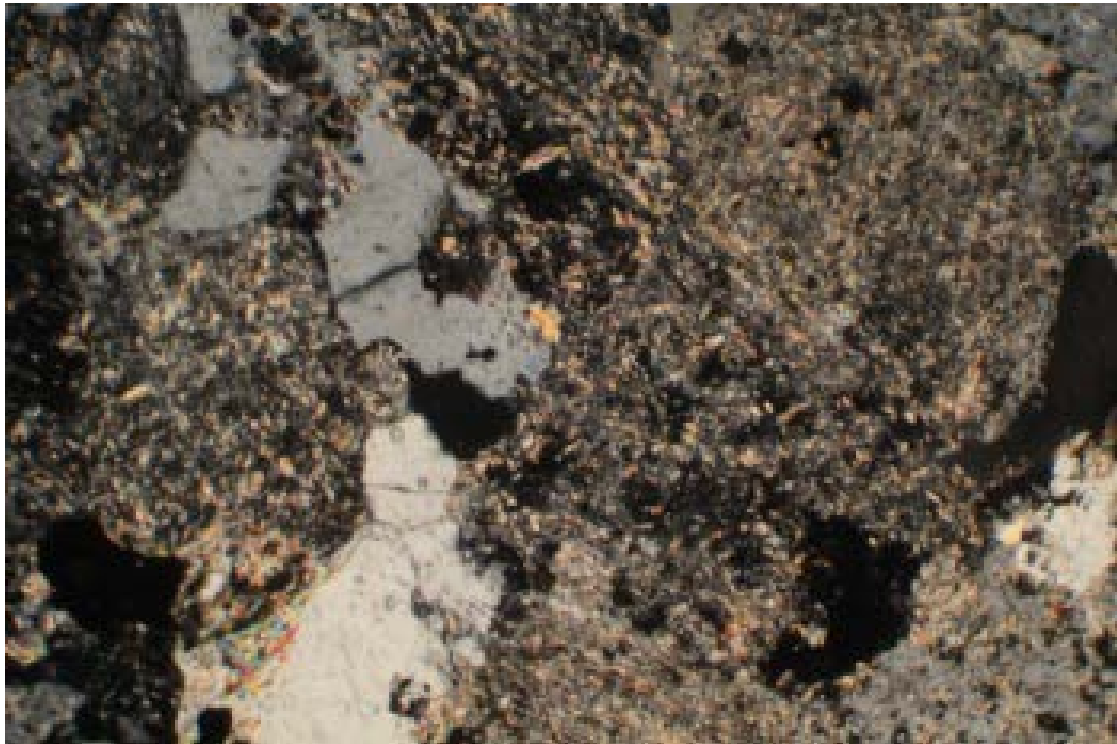


Figure 7-1: Sample SRK 0872 Plane Polarized Image (x5 magnification)

Highly altered quartz-feldspar composite typical of the dominant silicate mineralogy observed throughout the slides. The feldspar grains (albite and orthoclase) show predominant breakdown to illite with subordinate kaolinite formation.

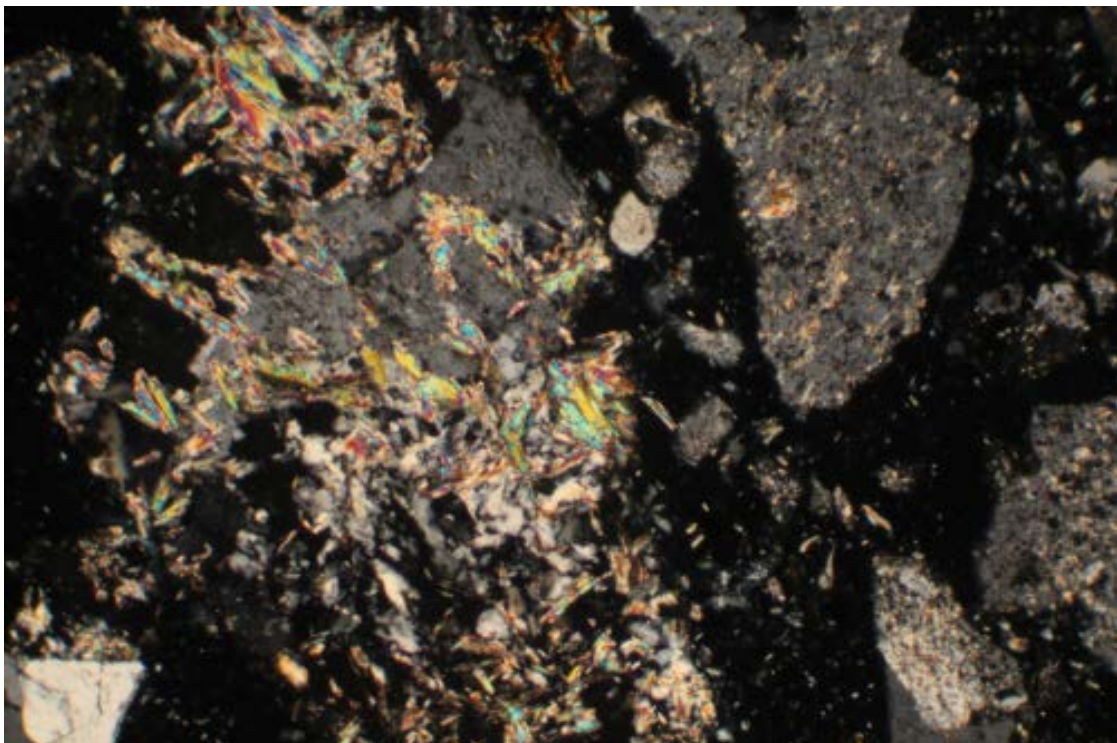


Figure 7-2: Sample SRK 0872 Cross Polarized Image (x5 magnification)

Multiple grains of fine illite to muscovite within quartz-feldspar dominant particles

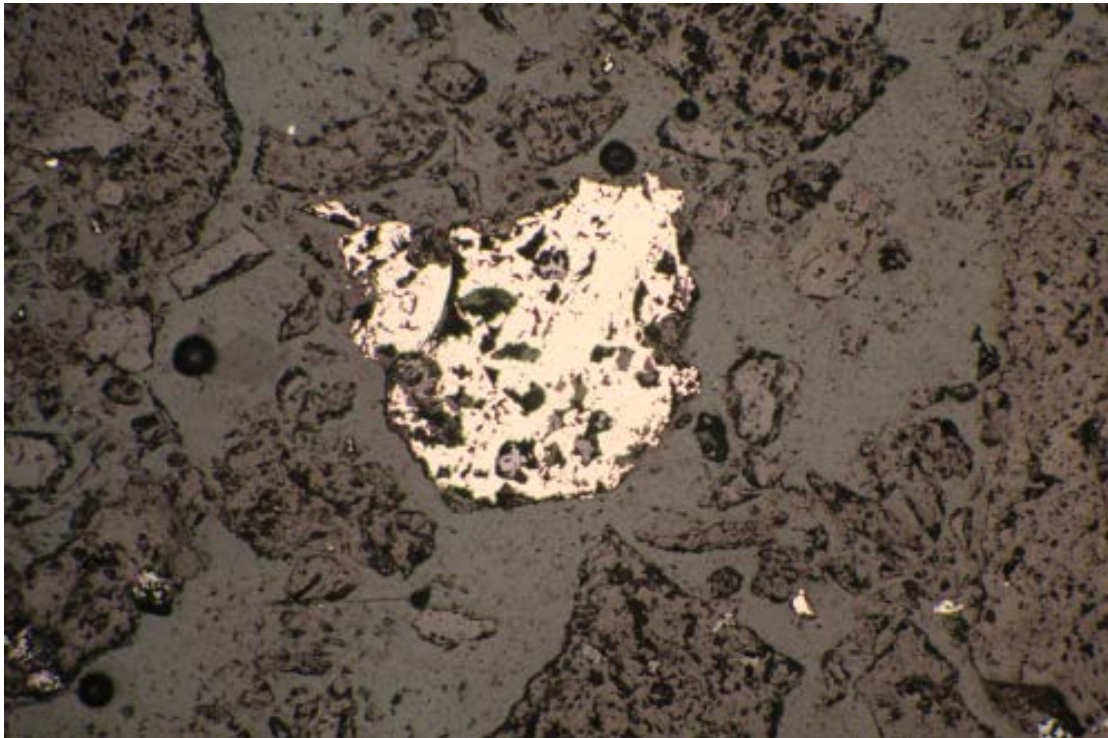


Figure 7-3: Sample SRK 0872 Reflected Light Image (x5 magnification)

Large liberated pyrite grain with internal fracturing.

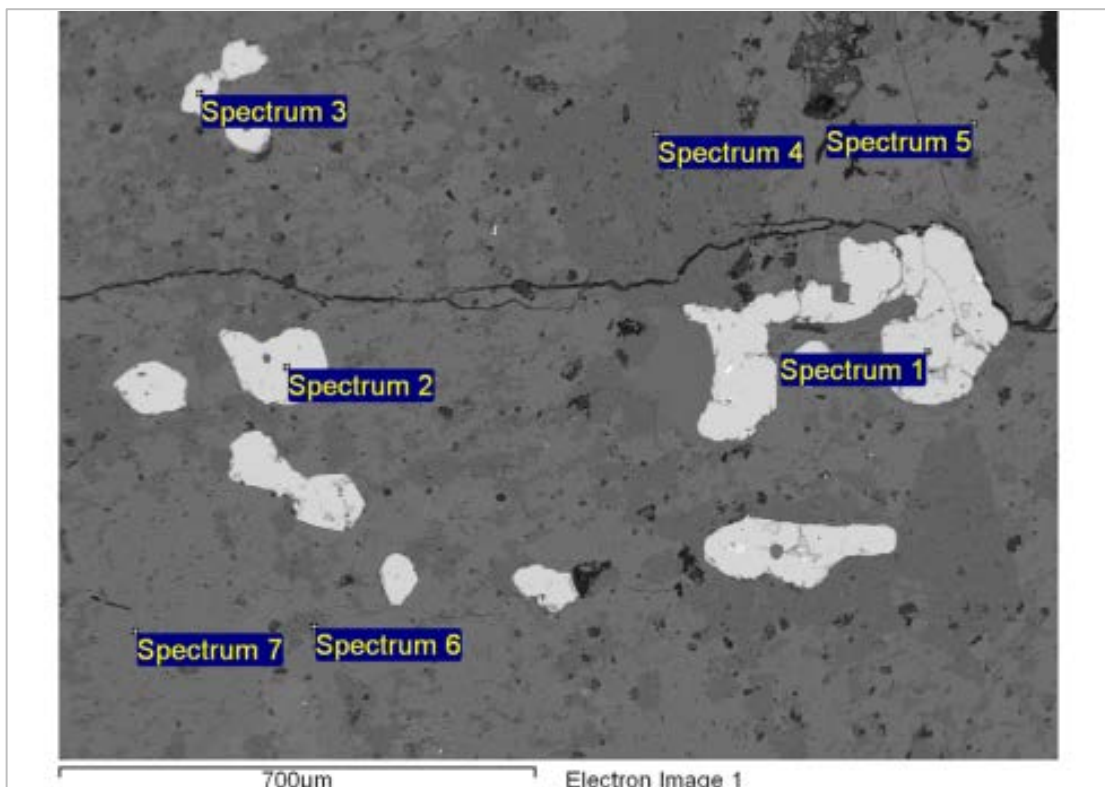


Figure 7-4: Sample SRK 0872 Back Scatter Image

Fine to medium-grained pyrite particles (Spectra 1 – 3) included within a composite particle that consists of albite (Spectra 4 & 5), orthoclase (Spectrum 6) and orthoclase (Spectrum 7).

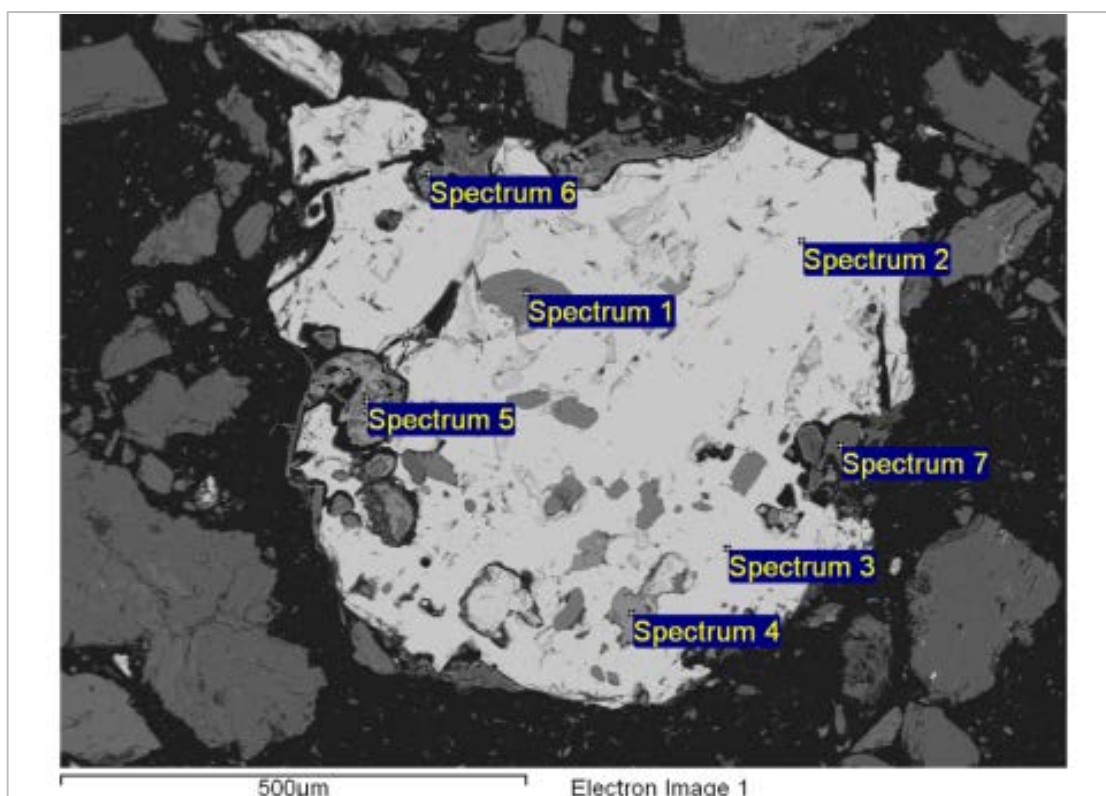


Figure 7-5: Sample SRK 0872 Back Scatter Image

SEM image of the medium-grained pyrite (Spectra 2 & 3) in Figure 7-3. This contains inclusions of phlogopite (Spectrum 1) and titanite (Spectrum 4). Spectra 5 & 6 are of titanite that is progressively breaking down to rutile and kaolinite. Spectrum 7 is albite. In this instance the titanite is weathering faster than the pyrite, thereby acting as a sacrificial anode and inhibiting the rate of pyrite oxidation

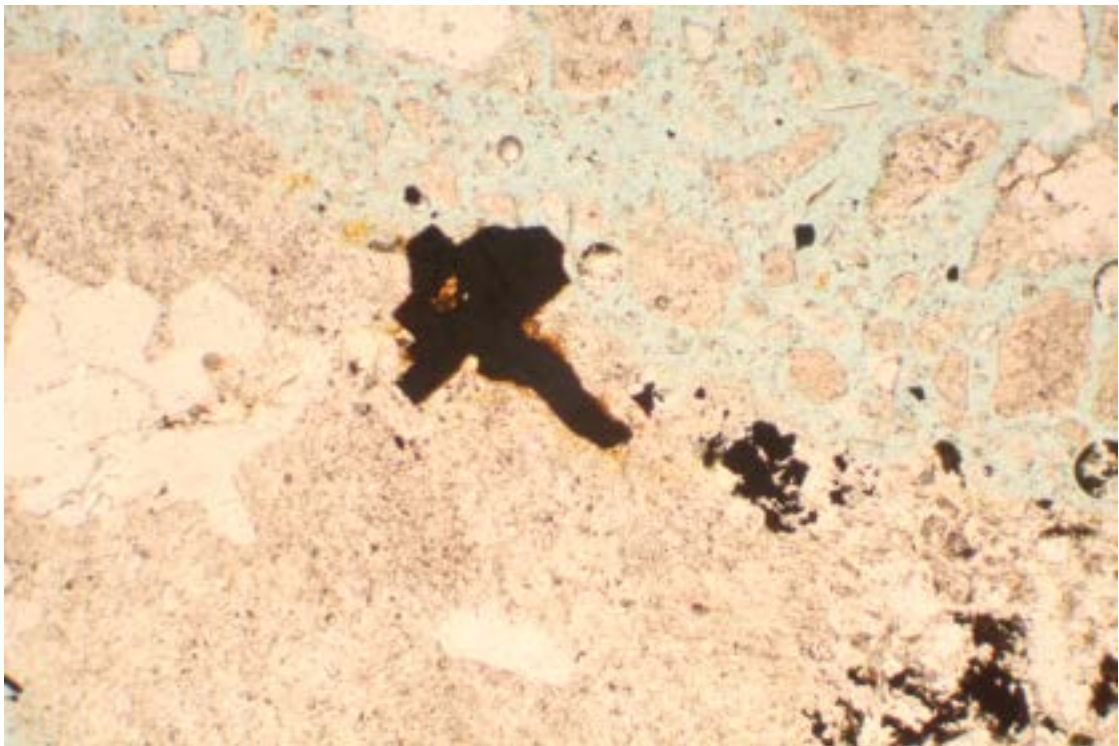
8 604673

This sample is of sulfide waste material and predominantly consists of quartz, albite and orthoclase, with the latter feldspar minerals having been considerably altered to illite and kaolinite. It contains about 0.4% sulfide sulfur in the form of chalcopyrite, molybdenite and pyrite. Chalcopyrite is usually observed as fine-grained and encapsulated within relatively inert silicate gangue. Pyrite may also be fine-grained and encapsulated but is frequently observed as medium-grained, liberated particles, showing partial fracturing and disaggregation.

Breakdown of sulfide grains was observed in this sample, with brown sulfate phases being present around the edges of some of the sulfide grains. The iron-sulfate minerals were identified as schwertmannite on the basis of SEM identification of a low sulfur to iron ratio. This is indicative of sulfide oxidation in this cell and is supported by the moderately acidic pH conditions (pH 5) that developed in this cell during the HCT. The rate of sulfide oxidation must have been sufficient to overcome any inherent buffering from the mafic gangue mineral clinocllore.

Table 8-1: Table of Minerals Found in Sample 604673 and Their Abundance

Trace Minerals ($\leq 1\%$)	Minor Minerals (1%–10%)	Major Minerals (10% <)
Rutile	Illite	Quartz
Chalcopyrite	Clinocllore	Albite
Molybdenite		Orthoclase
Pyrite		
Schwertmannite		

**Figure 8-1: Sample 604673 Plane Polarized Image (x5 magnification)**

Medium-grained pyrite grain showing partial alteration to sulfates, most likely jarosite, along the rim. This is included within a quartz-feldspar composite, where the feldspar grains show considerable alteration to illite and kaolinite.

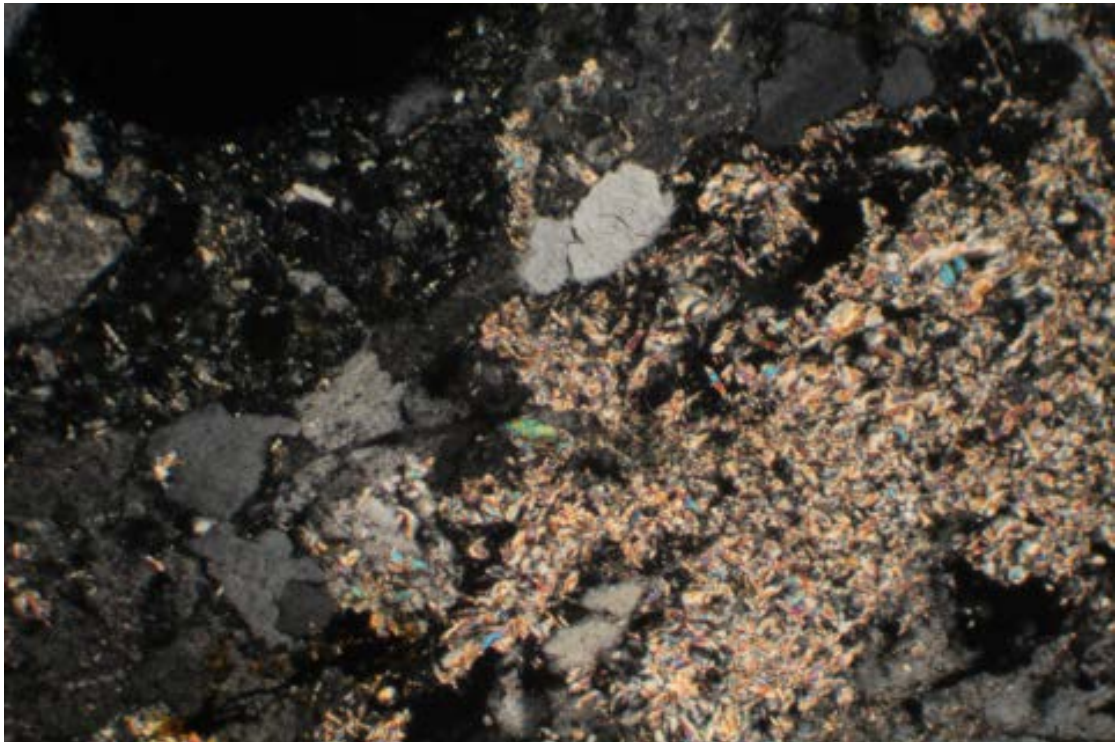


Figure 8-2: Sample 604673 Cross Polarized Image (x5 magnification)

Good example of the alteration of feldspar (albite and orthoclase) to fine-grained illite and kaolinite. This texture is typical of feldspar alteration throughout the sample.

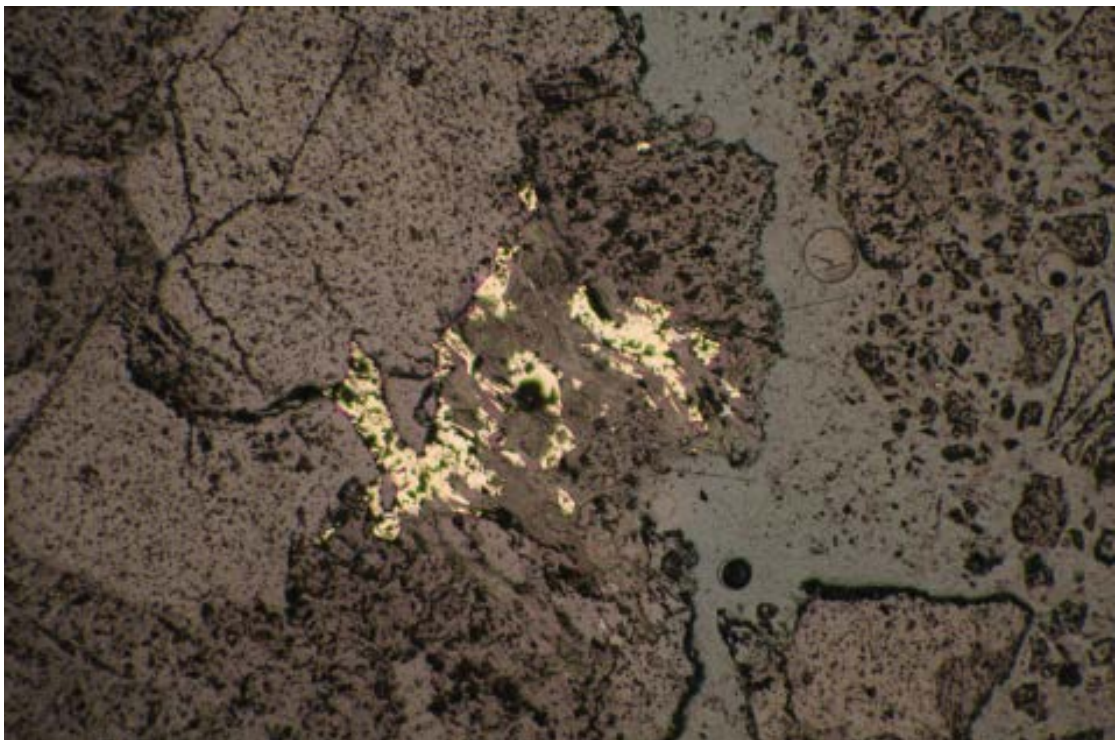


Figure 8-3: Sample 604673 Reflected Light Image (x5 magnification)

Very fine-grained chalcopyrite included within quartz-feldspar grains. This is typical of much of the copper-sulfide mineralisation within this sample.

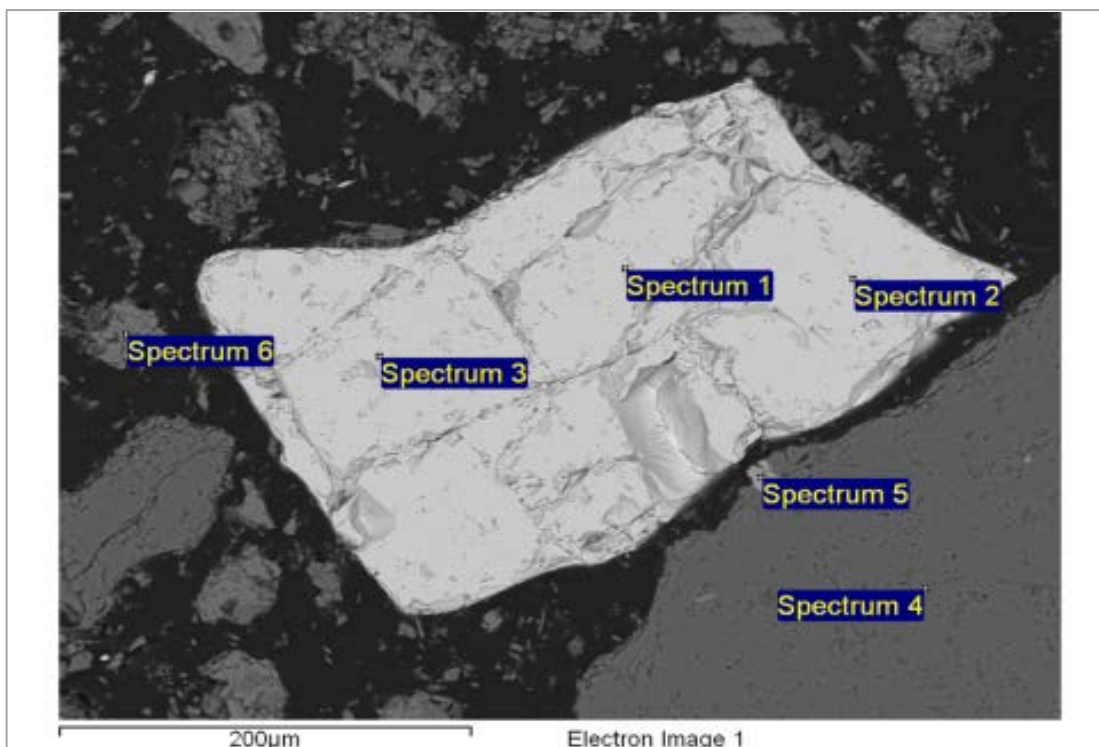


Figure 8-4: Sample 604673 Back Scatter Image

Fully liberated medium-grained pyrite (Spectra 1 – 3) showing internal fracturing but no discernible breakdown to iron-sulfate minerals such as schwertmannite. This is surrounded by particles of quartz (Spectrum 4), rutile (Spectrum 5) and orthoclase (Spectrum 6).

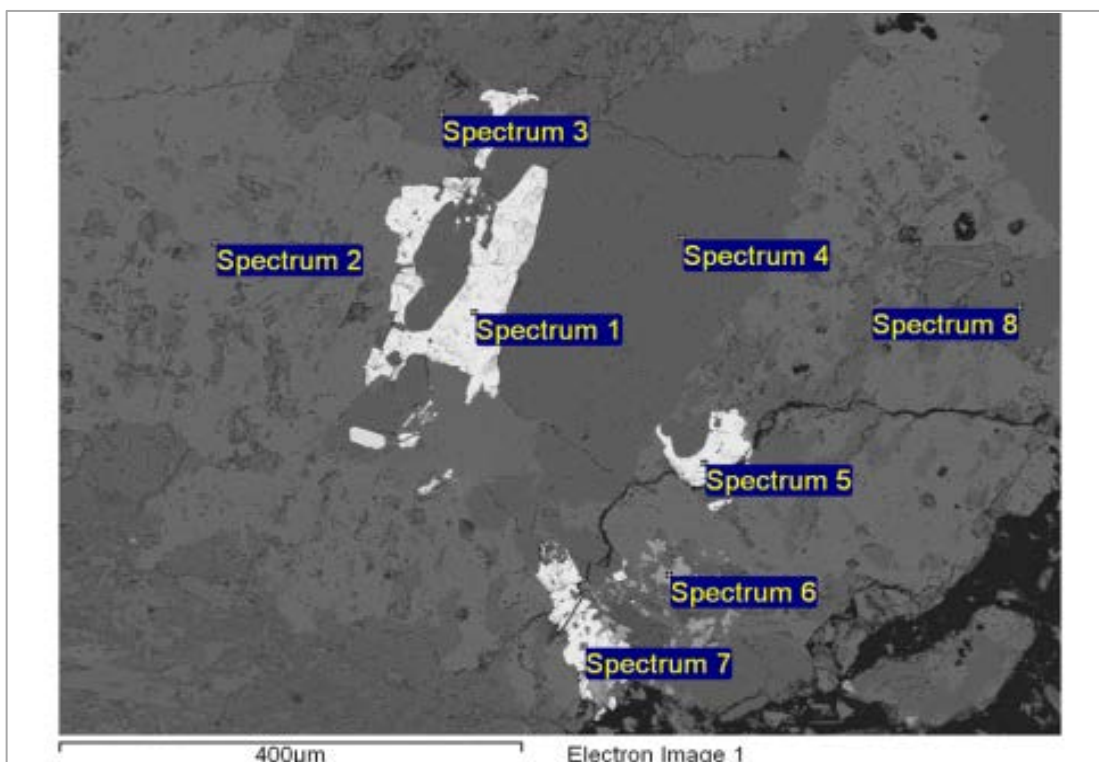


Figure 8-5: Sample 604673 Back Scatter Image

Fine-grained inclusions of chalcopyrite (Spectra 1, 5, 6 & 7) within a composite grain that consists of orthoclase (Spectrum 2), albite (Spectrum 3) and quartz (Spectra 4 & 8).

9 604767

This sample is of sulfide ore material and predominantly consists of quartz, albite and orthoclase, with the feldspar minerals having been considerably altered to illite and kaolinite. It contains 2.13% sulfide sulfur (SRK, 2013) in the form of chalcopyrite, galena, molybdenite and pyrite. Chalcopyrite is usually observed as fine-grained and encapsulated minerals. Pyrite may also be fine-grained and encapsulated but is frequently observed as medium-grained, liberated particles, showing partial fracturing and disaggregation.

Some of the pyrite grains in this sample show increased levels of fracturing (Figure 9-2), which is consistent with longer exposure to weathering during the extended 86 weeks of humidity cell testing. However, despite this there is limited evidence for sulfate formation which is consistent with the lack of acid-generation. This may be due to the slow weathering rate of the pyrite grains and their equigranular grain shape.

Table 9-1: Table of Minerals Found in Sample 604767 and Their Abundance

Trace Minerals ($\leq 1\%$)	Minor Minerals (1%–10%)	Major Minerals (10% <)
Fluorapatite	Kaolinite	Quartz
Fluorite		Albite
Rutile		Orthoclase
Baryte		Illite
Ankerite		
Chalcopyrite		
Galena		
Molybdenite		
Pyrite		
Clinochlore		
Phlogopite		

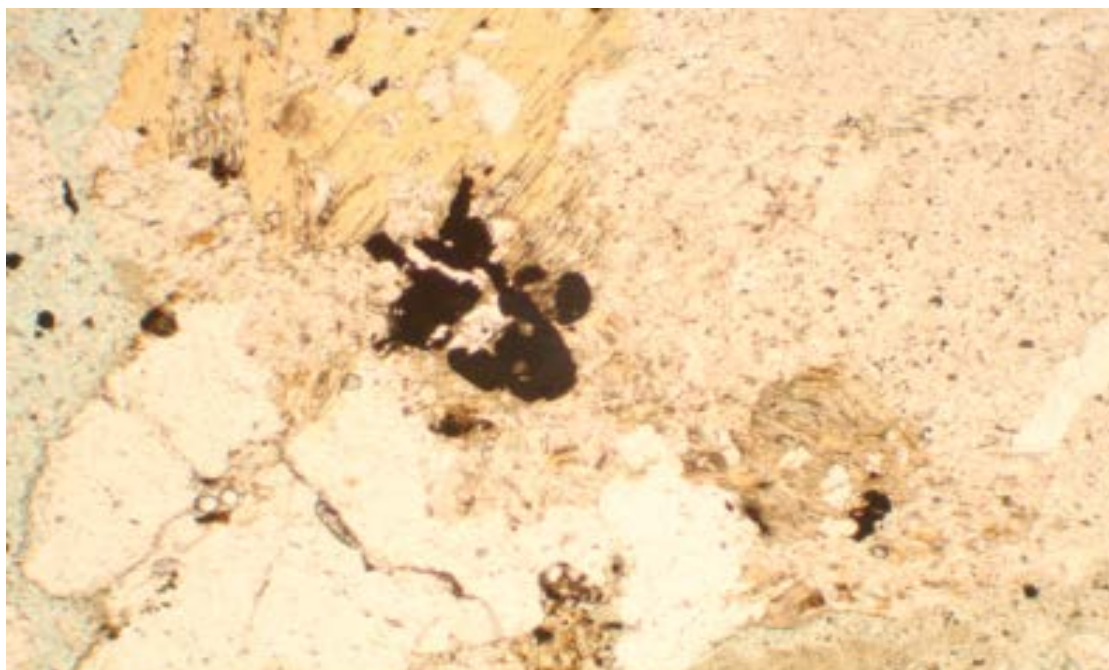


Figure 9-1: Sample 604767 Plane Polarized Image (x5 magnification)

Large opaque sulfide grain nearly fully encapsulated within a composite particle which

consists of quartz, altered feldspar and phlogopite.

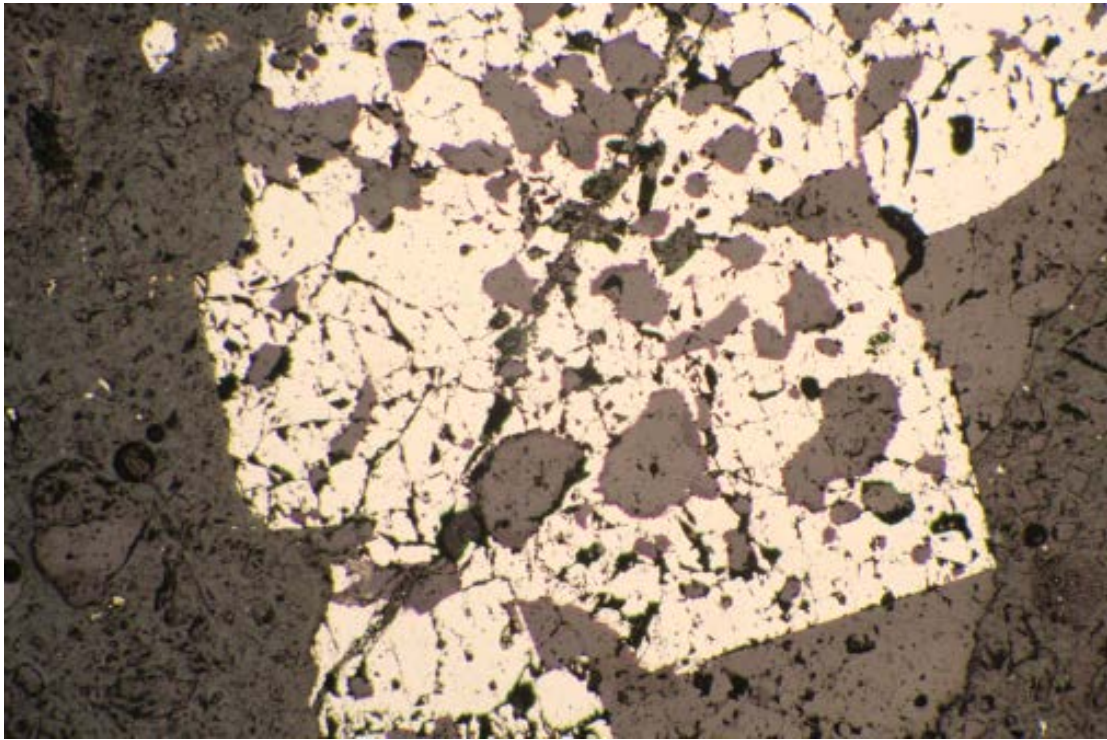


Figure 9-2: Sample 604767 Cross Polarized Image (x5 magnification)

Large poikilitic pyrite grain with good liberation along most of the left hand rim. This also shows increased fracturing consistent with longer exposure to weathering during the humidity cell testing.

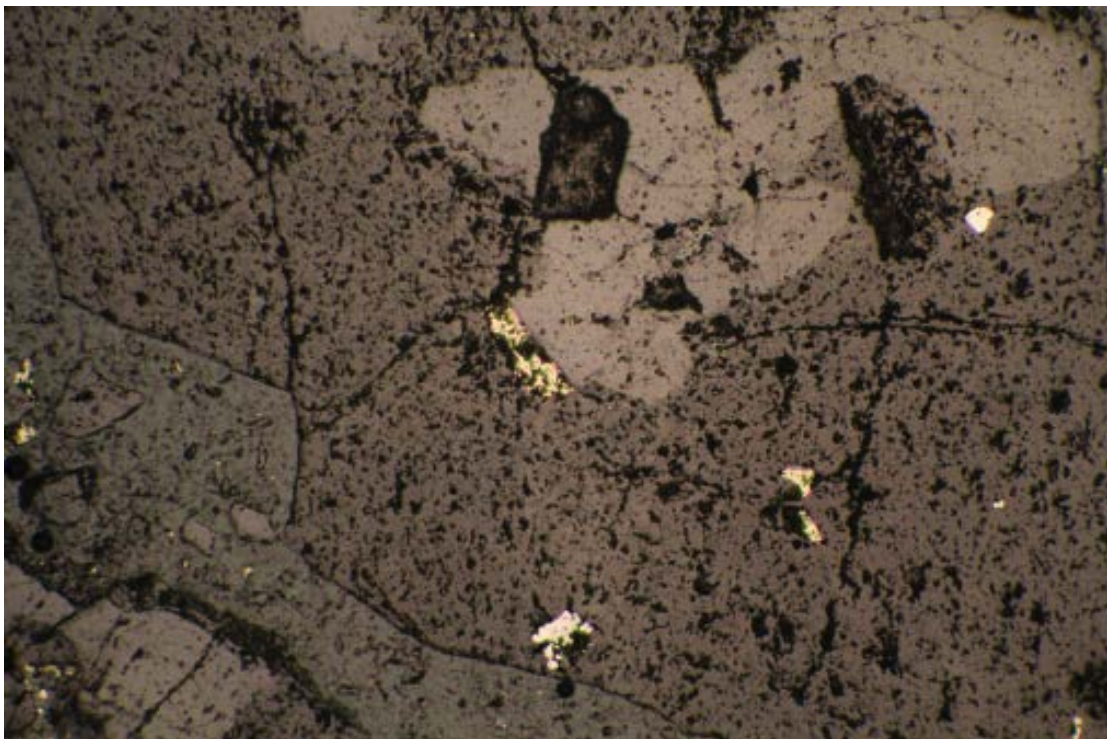


Figure 9-3: Sample 604767 Reflected Light Image (x5 magnification)

Inclusions of fine-grained sulfides with quartz-feldspar composite particles. In the centre of the

field of view is a fully encapsulated chalcopyrite grain whilst to the right and below this grain are inclusions of pyrite.

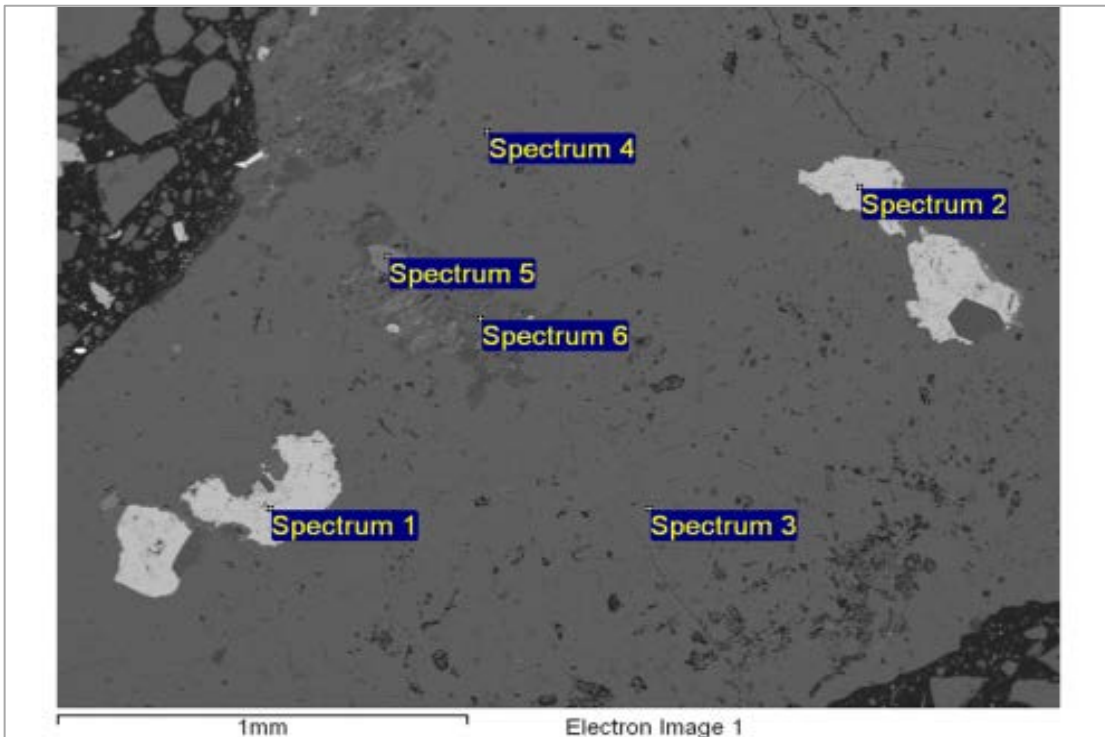


Figure 9-4: Sample 604767 Back Scatter Image

Fine-grained chalcopyrite (Spectra 1 & 2) within a composite grain that consists of orthoclase (Spectra 3 & 4), fluorapatite (Spectrum 5) and ankerite (Spectrum 6).

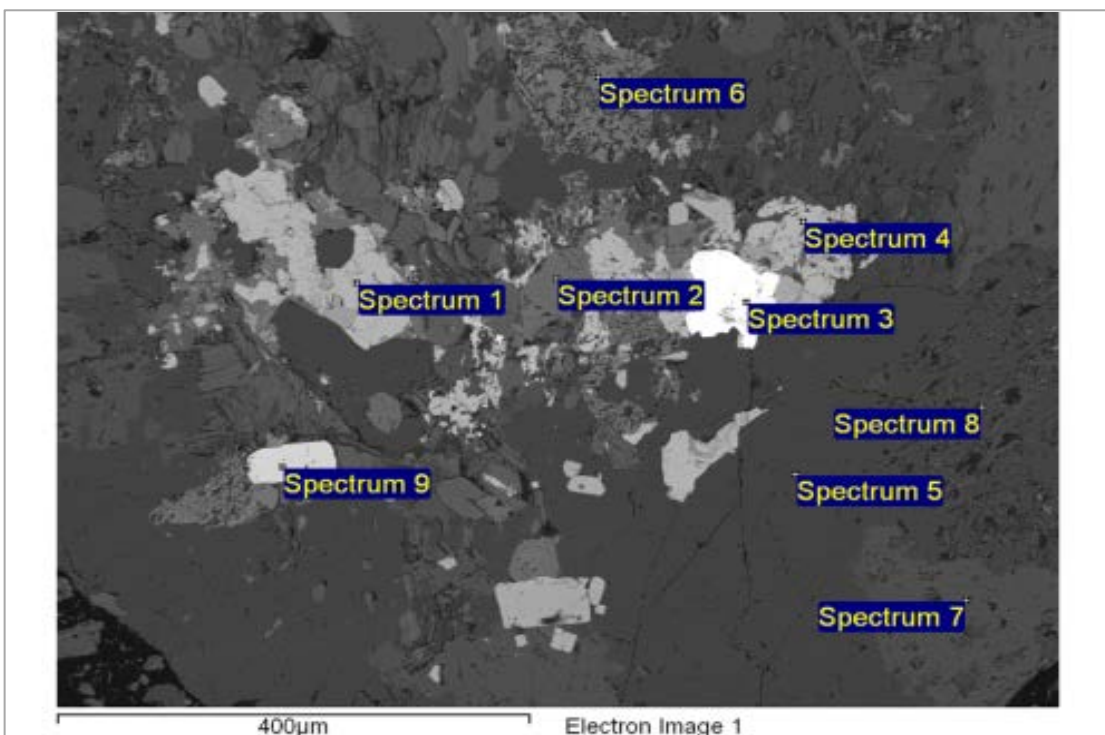


Figure 9-5: Sample 604767 Back Scatter Image

Complex composite grain containing encapsulated chalcopyrite (Spectra 1 & 4), thorite

(Spectrum 3) and molybdenite (Spectrum 9). Associated with these grains are fluorapatite (Spectrum 2) and rutile (Spectrum 6). The main minerals within the composite are quartz (Spectrum 5), orthoclase (Spectrum 7) and illite (Spectrum 8).

10 CF-11-02 (0-27FT) POST-LEACH

This sample represents transitional waste material and predominantly consists of quartz, albite and orthoclase, with the feldspar minerals having been considerably altered to illite. It contains 1.4% sulfide sulfur (SRK, 2013) in the form of chalcopyrite, covellite and pyrite. Chalcopyrite is usually observed as fine-grained and encapsulated minerals. Pyrite may also be fine-grained and encapsulated but is frequently observed as medium-grained, liberated particles, showing partial fracturing and disaggregation.

Small amounts of calcite (<1% by area) were observed by SEM within the sample. This cell still had greater than 90% of this calcite buffering potential remaining after 60 weeks of testing, indicating that the rate of calcite dissolution is very slow. Some sulfide oxidation is observed in this sample, and the presence of schwertmannite is noted, however no acid-generation was apparent. This may be due to the slow weathering rate of the pyrite grains, their equigranular grain shape and the presence of acid-buffering minerals such as calcite, phlogopite and clinocllore.

Table 10-1: Table of Minerals Found in Sample CF-11-02 (0-27ft) Post-Leach and Their Abundance

Trace Minerals ($\leq 1\%$)	Minor Minerals (1%–10%)	Major Minerals (10% <)
Zircon	Clinocllore	Quartz
Rutile		Albite
Fluorapatite		Orthoclase
Calcite		Illite
Covellite		
Chalcopyrite		
Pyrite		
Schwertmannite		

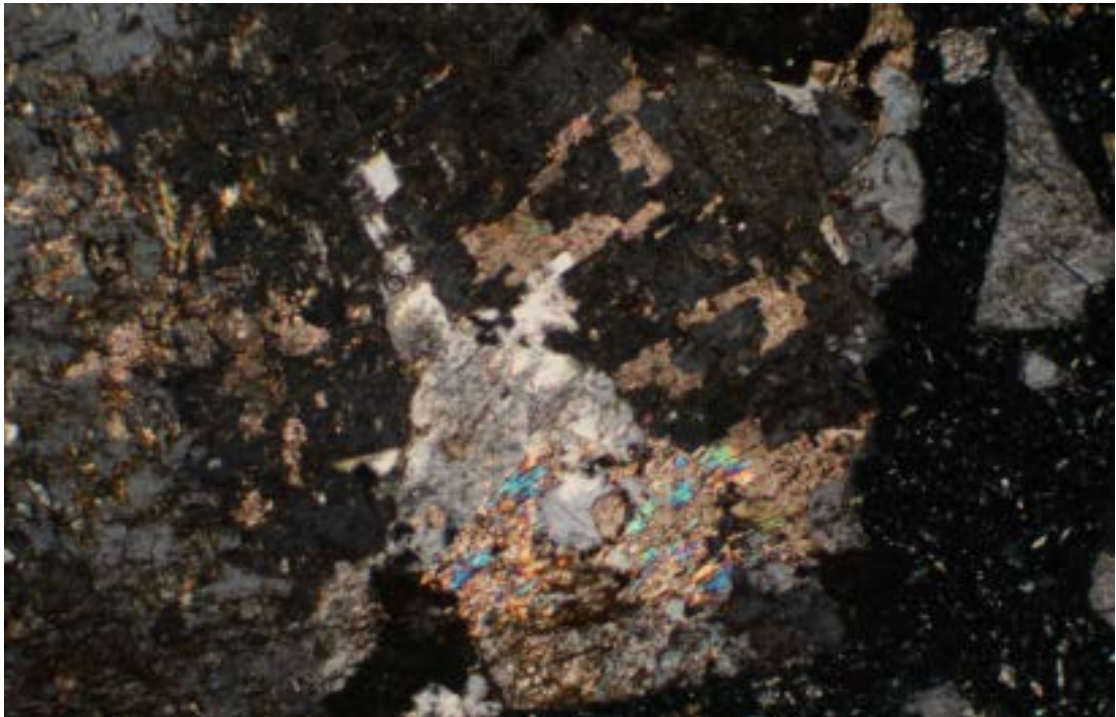


Figure 10-1: Sample CF-11-02 (0-27) Post-Leach Cross Polarized Image (x5 magnification)

Large quartz-feldspar composite with the feldspar showing partial alteration to illite and subordinate kaolinite. Along with the illite is some fine-grained calcite which is also located interstitially to the quartz and feldspar grains.

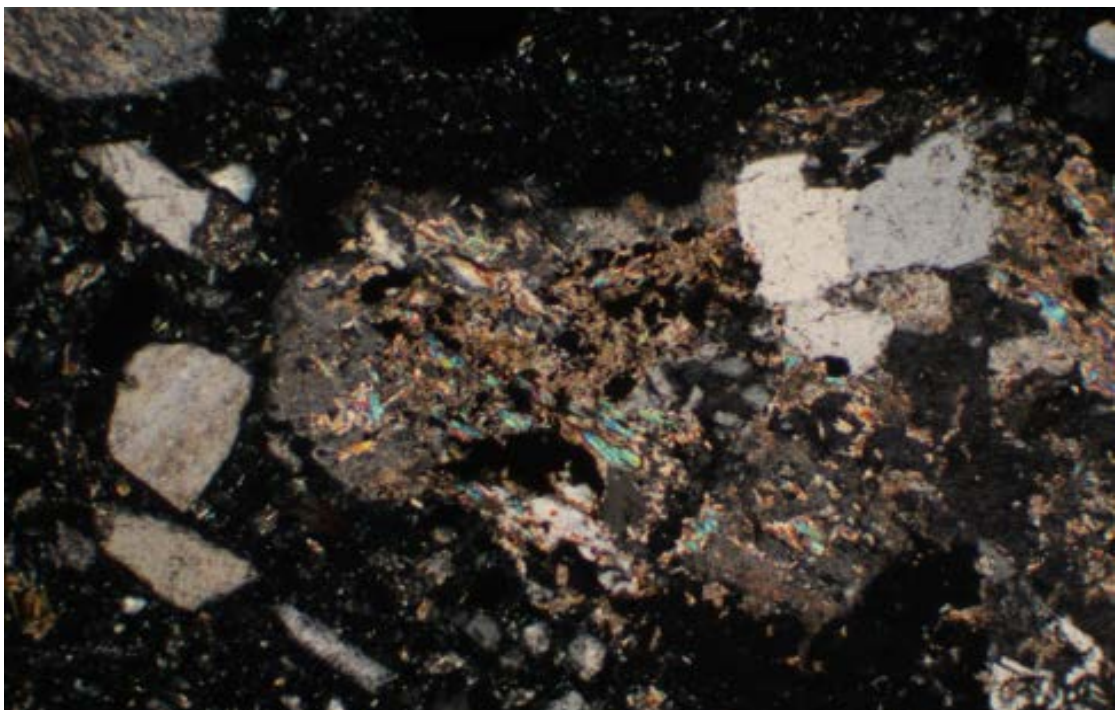


Figure 10-2: Sample CF-11-02 (0-27) Post-Leach Cross Polarized Image (x5 magnification)

Composite particle consisting of quartz and feldspar with partial alteration of the latter to illite. In the centre of the particle are encapsulated opaque sulfide grains partially surrounded by

fine-grained calcite.

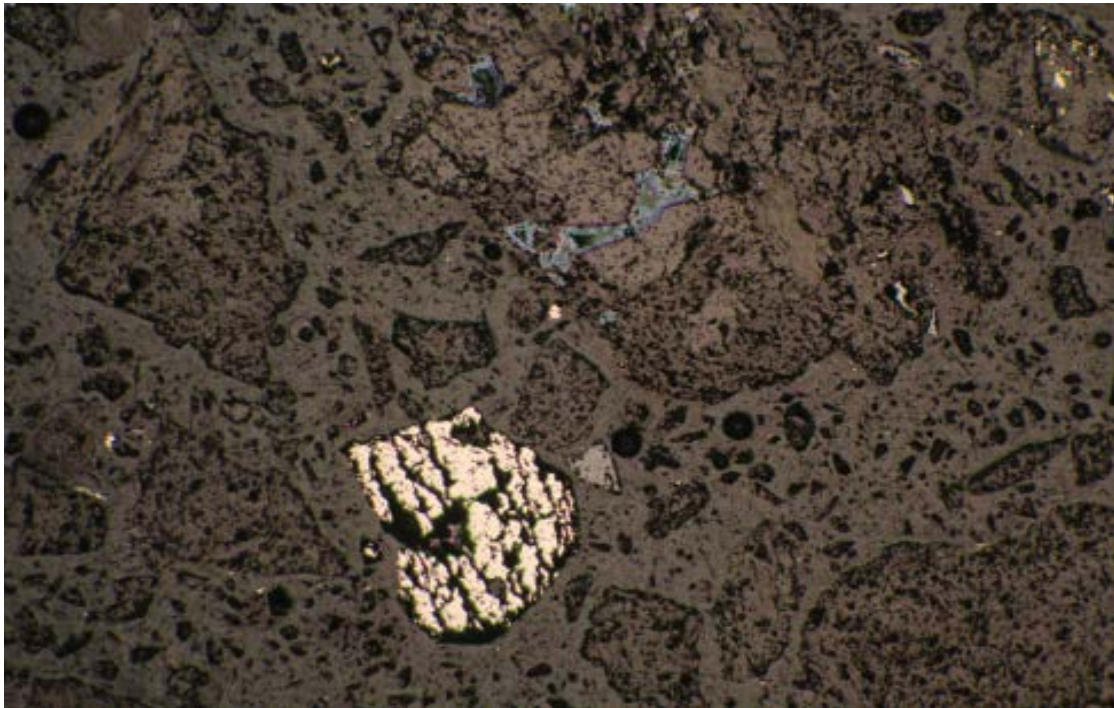


Figure 10-3: Sample CF-11-02 (0-27) Post-Leach Reflected Light Image (x5 magnification)

Coarse pyrite grain in the lower portion of the field of view. This is a fully liberated grain with considerable internal fracturing. To the top of the field of view are some blue copper sulfide minerals (covellite) which are predominantly encapsulated within a quartz-feldspar grain.

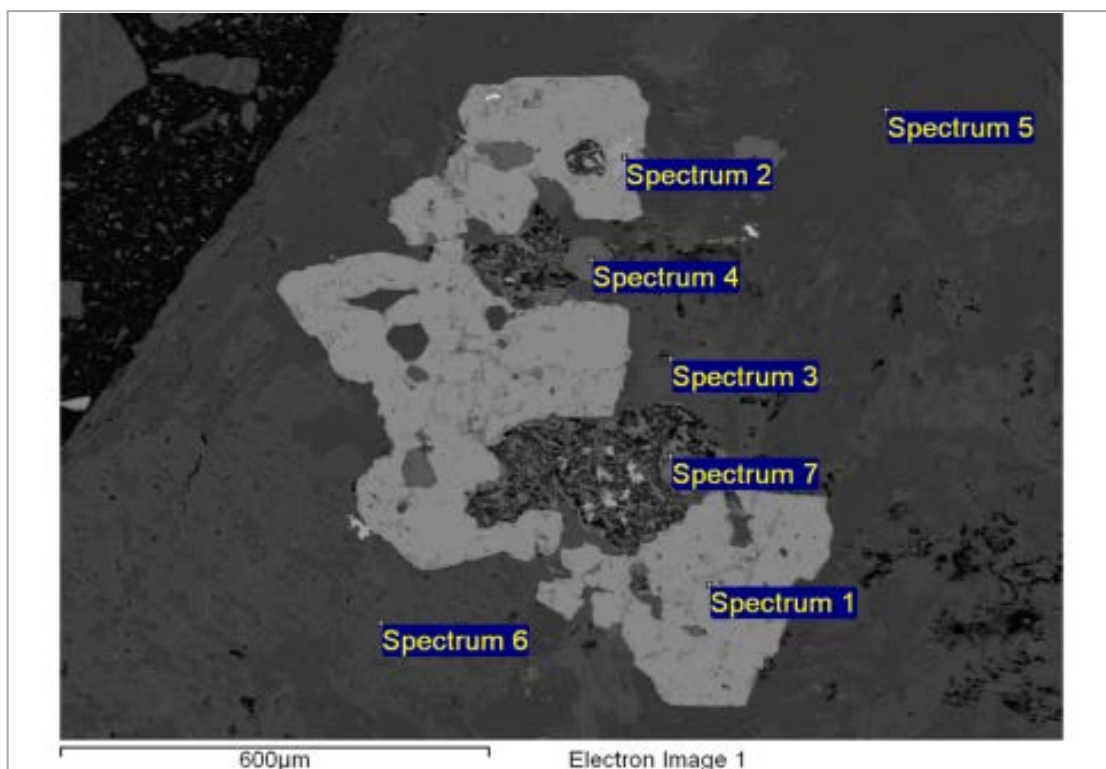


Figure 10-4: Sample CF-11-02 (0-27) Post-Leach Back Scatter Image

Medium-grained pyrite (Spectrum 1), with a small inclusion of zircon (Spectrum 2). This is encapsulated within a composite particles that consists of ankerite (Spectra 3 & 7), fluorapatite (Spectrum 4), quartz (Spectrum 5), orthoclase (Spectrum 6).

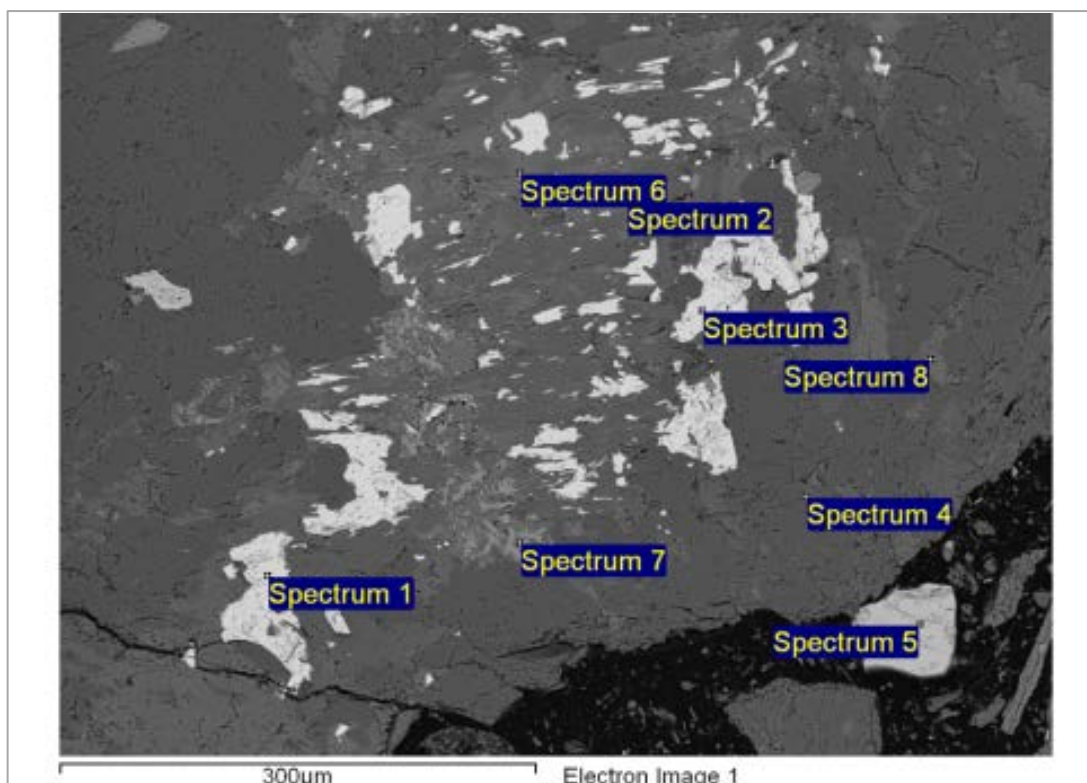


Figure 10-5: Sample CF-11-02 (0-27) Post-Leach Back Scatter Image

Fine-grained chalcopyrite (Spectra 1 & 3) associated with ankerite (Spectra 2, 6 & 8), albite (Spectrum 4) and rutile (Spectrum 7). Spectrum 5 is of a liberated pyrite grain.

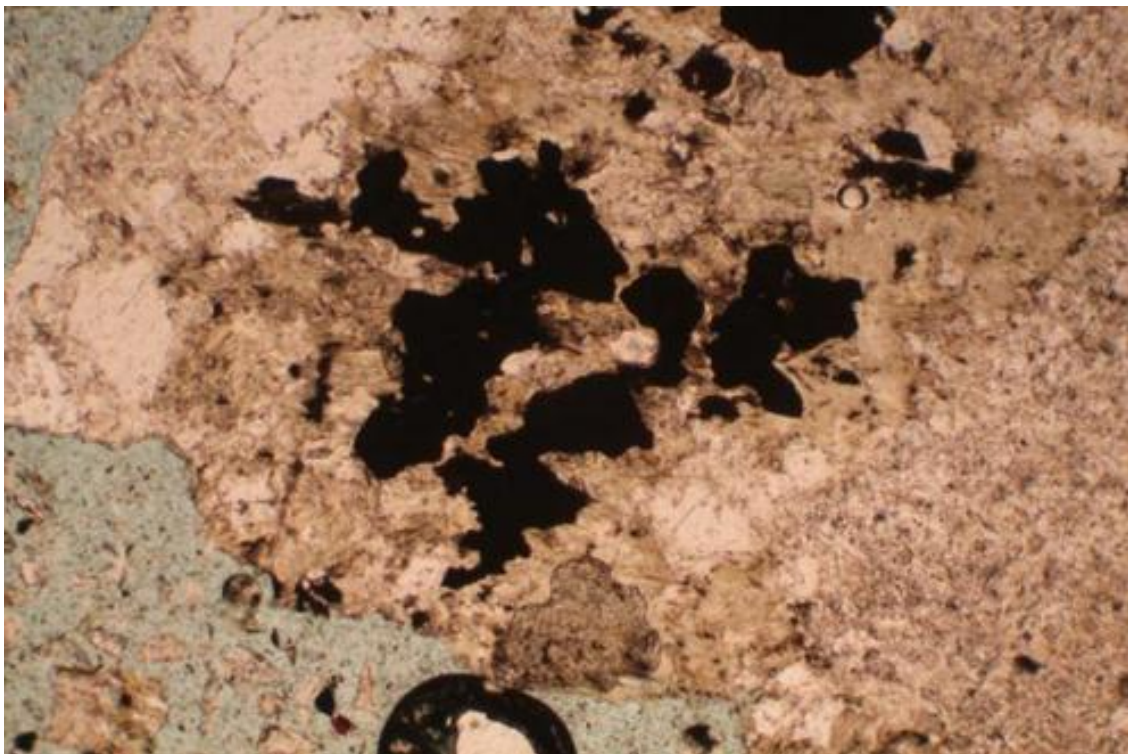
11 CF-11-02 (0-27FT) PRE-LEACH

This sample is of transitional waste material and is the pre-leach/pre-HCT sample for sample CF-11-02 (0-27ft) described in Section 10. The sample predominantly consists of quartz, albite and orthoclase, with the latter feldspar minerals having been considerably altered to illite and kaolinite. It contains 2.13% sulfide sulfur (SRK, 2013) in the form of chalcopyrite and pyrite. Pyrite may be fine-grained and encapsulated but is frequently observed as medium-grained, liberated particles, showing partial fracturing and disaggregation. Coarse copper sulfide minerals (chalcopyrite and covellite) are observed as well liberated and medium-grained, as well as fine-grained and encapsulated.

It is noted that the medium-grained pyrite grains in this pre-leach sample already show partial fracturing and disaggregation. The extent of this fracturing and disaggregation is not too dissimilar to that observed in the humidity cell residue despite having not undergone any testwork itself. This provides added confirmation that the pyrite weathering rate within the analysed samples is generally slow or very slow, and that some (or all) of the fracturing may be pre-existing within the samples, rather than having occurred during the humidity cell test.

Table 11-1: Table of Minerals Found in Sample CF-11-02 (0-27ft) Pre-Leach and Their Abundance

Trace Minerals ($\leq 1\%$)	Minor Minerals (1%–10%)	Major Minerals (10% <)
Rutile	Clinchlore	Quartz
Phlogopite		Albite
Fluorapatite		Orthoclase
Ankerite		Illite
Covellite		
Chalcopyrite		
Pyrite		

**Figure 11-1: Sample CF-11-02 (0-27) Pre-Leach Plane Polarized Image (x5 magnification)**

Large, nearly fully enclosed grain of pyrite associated with phlogopite and hosted within a composite particle predominantly consisting of quartz and feldspar.

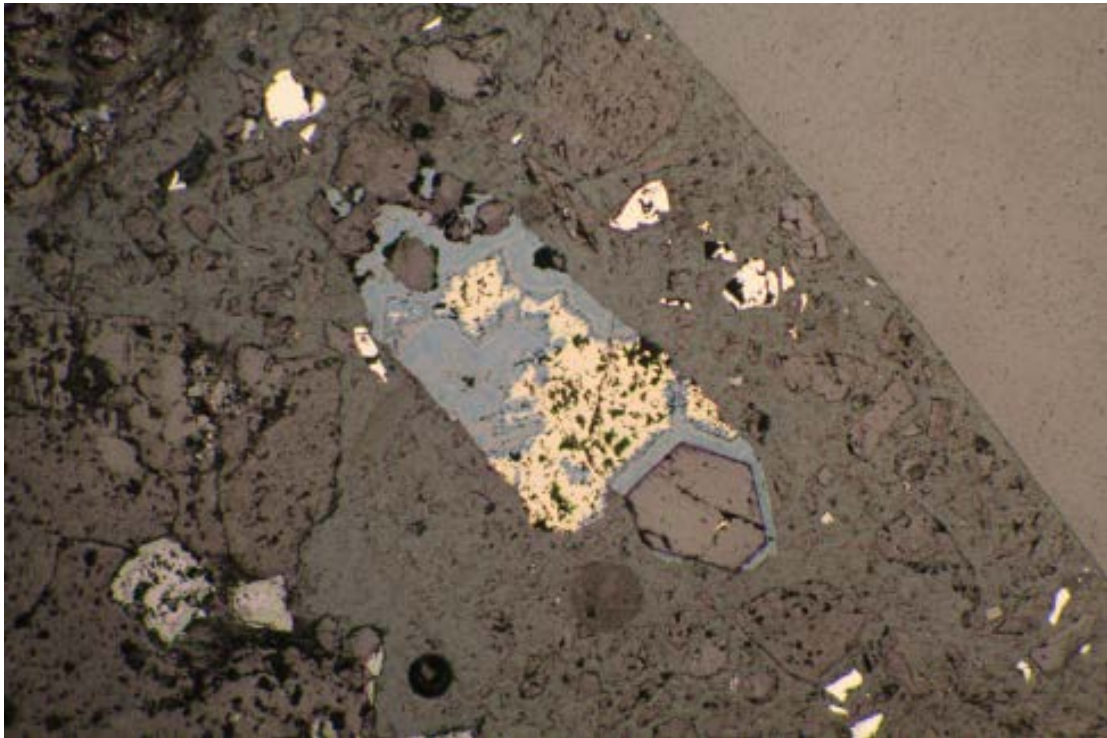


Figure 11-2: Sample CF-11-02 (0-27) Pre-Leach Cross Polarized Image (x5 magnification)

Coarse chalcopyrite grain associated with quartz grains and showing partial alteration to covellite (light blue).

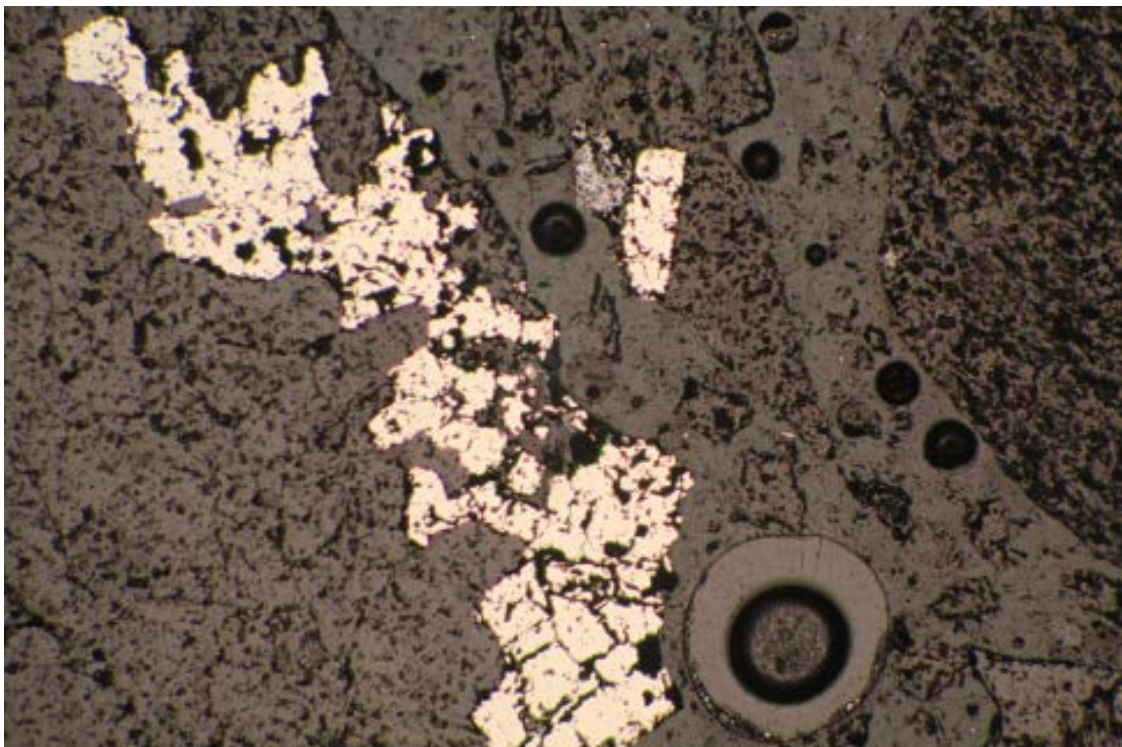


Figure 11-3: Sample CF-11-02 (0-27) Pre-Leach Reflected Light Image (x5 magnification)

Coarse pyrite particle hosted along one edge of composite quartz-feldspar grain. The pyrite is predominantly encapsulated but shows partial liberation and greater fracture density along the

lower right portion of the grain.

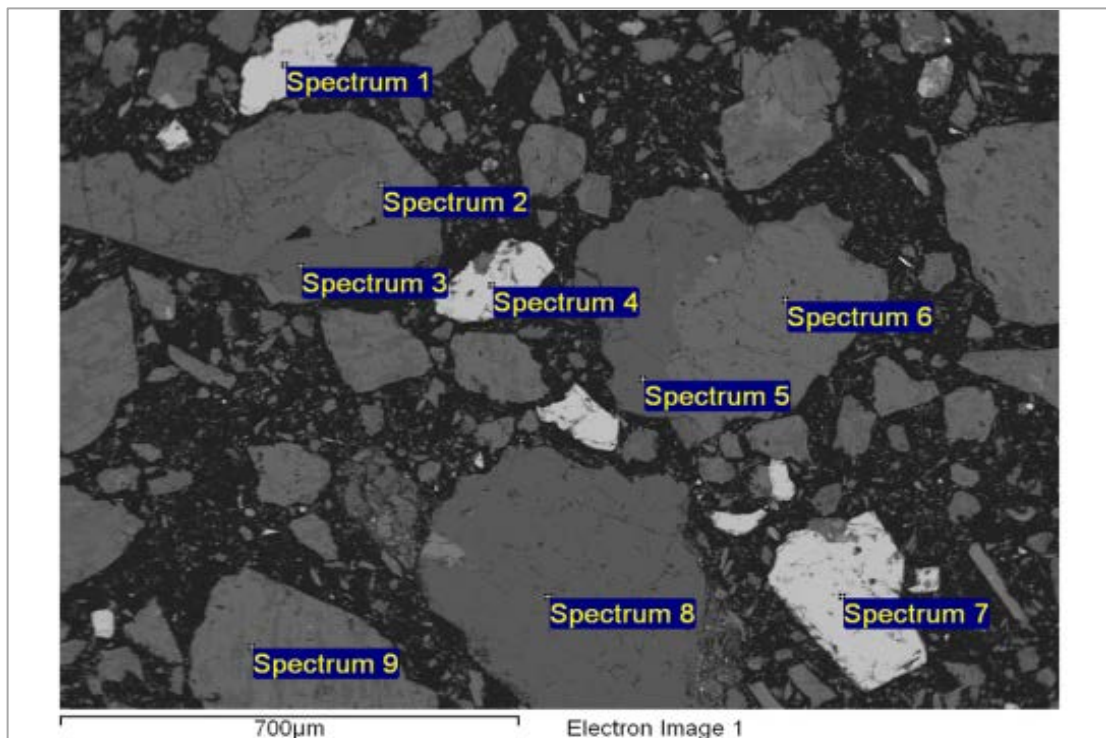


Figure 11-4: Sample CF-11-02 (0-27) Pre-Leach Back Scatter Image

A series of liberated medium-grained pyrite grains (Spectra 1, 4 & 7) associated with particles of orthoclase (Spectra 2, 6 & 9) and quartz (Spectra 3 & 5).

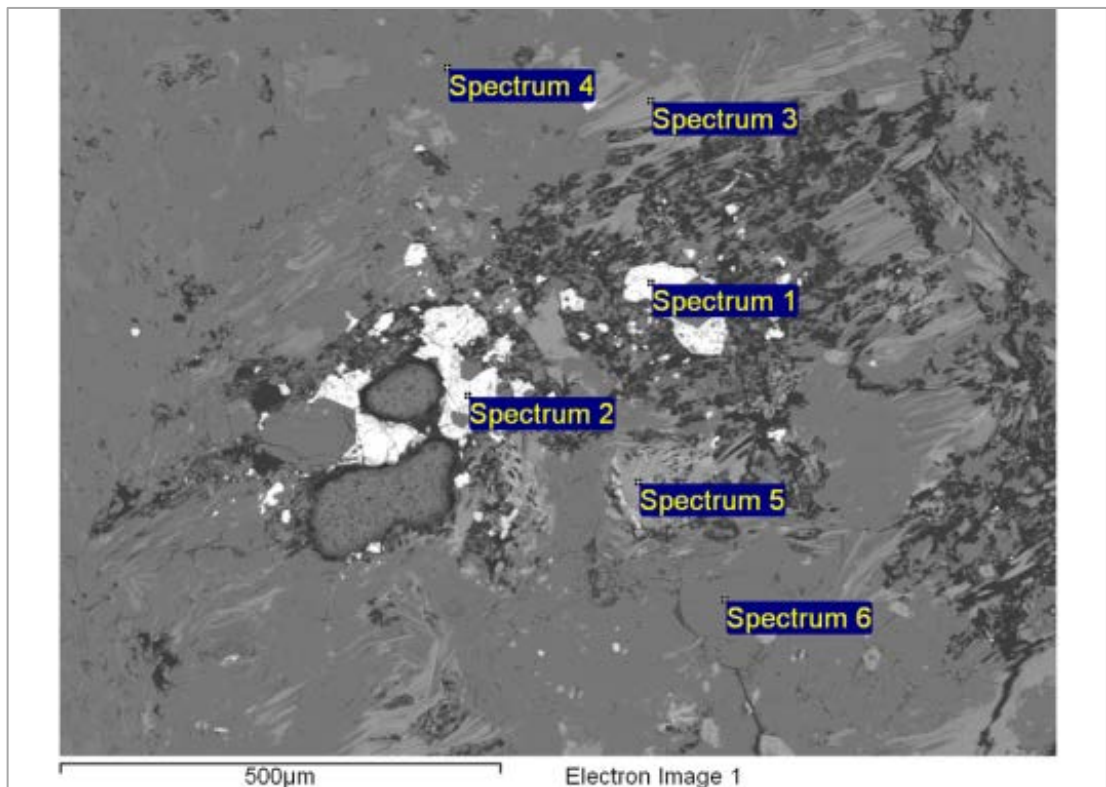


Figure 11-5: Sample CF-11-02 (0-27) Pre-Leach Back Scatter Image

Fine-grained chalcopyrite (Spectra 1 & 2) within a composite of chamosite (Spectra 3 & 5),

albite (Spectrum 4) and quartz (Spectrum 6).

12 XRD RESULTS

A summary of the XRD results are provided in Table 12-1 to Table 12-8 and in Figure 12-1 to Figure 12-8, below.

Table 12-1: Summary of XRD results for sample SRK 0854

Phase Found	Percentage
Quartz	37
Albite	32
Orthoclase	19
Illite	10
Clinochlore	2

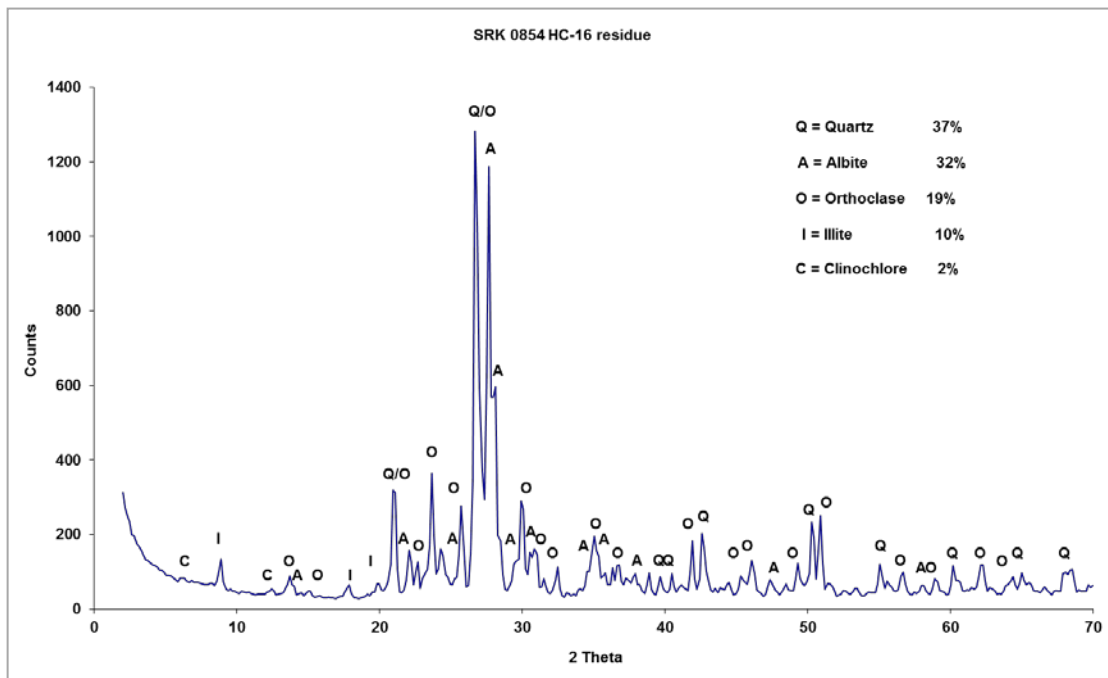


Figure 12-1: XRD scan for sample SRK 0854

Table 12-2: Summary of XRD results for sample SRK 0858

Phase Found	Percentage
Orthoclase	33
Quartz	30
Albite	28
Illite	7
Kaolinite	2

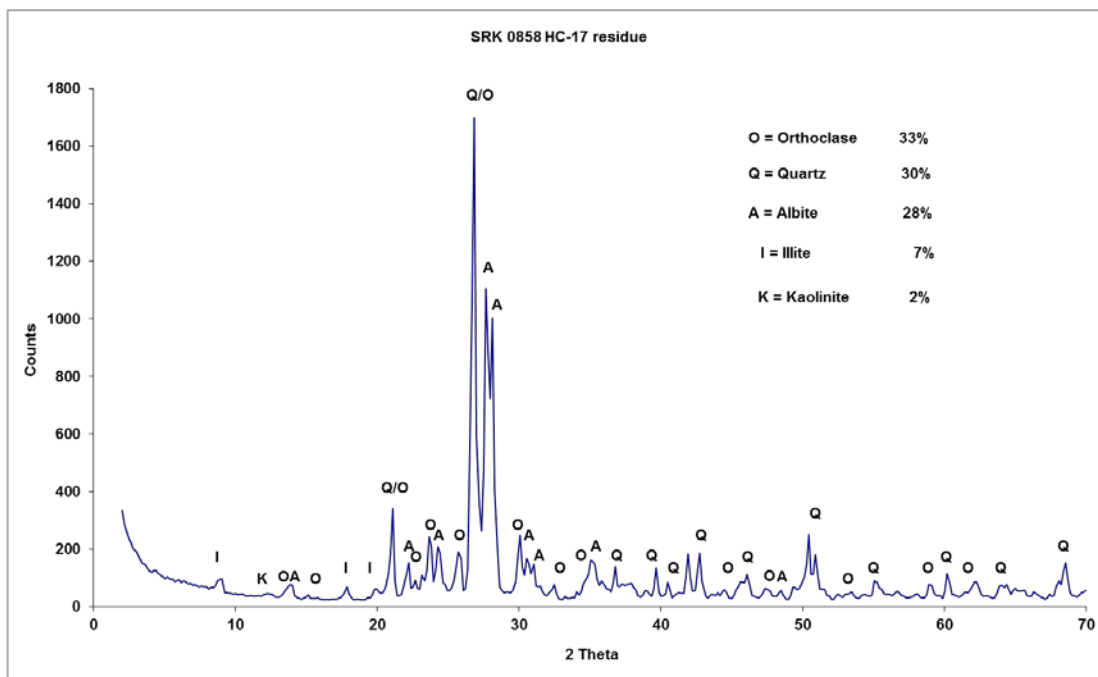


Figure 12-2: XRD scan for sample SRK 0858

Table 12-3: Summary of XRD results for sample SRK 0867

Phase Found	Percentage
Quartz	31
Orthoclase	30
Albite	24
Illite	11
Kaolinite	4

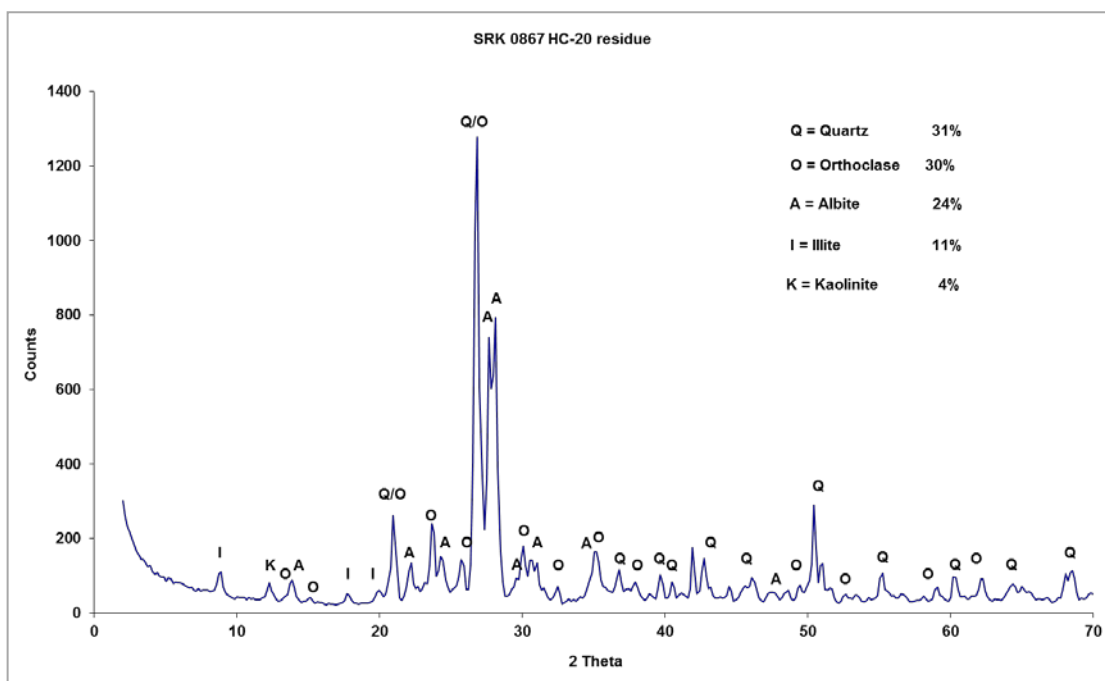


Figure 12-3: XRD scan for sample SRK 0867

Table 12-4: Summary of XRD results for sample SRK 0872

Phase Found	Percentage
Orthoclase	30
Quartz	30
Albite	22
Illite	15
Kaolinite	3

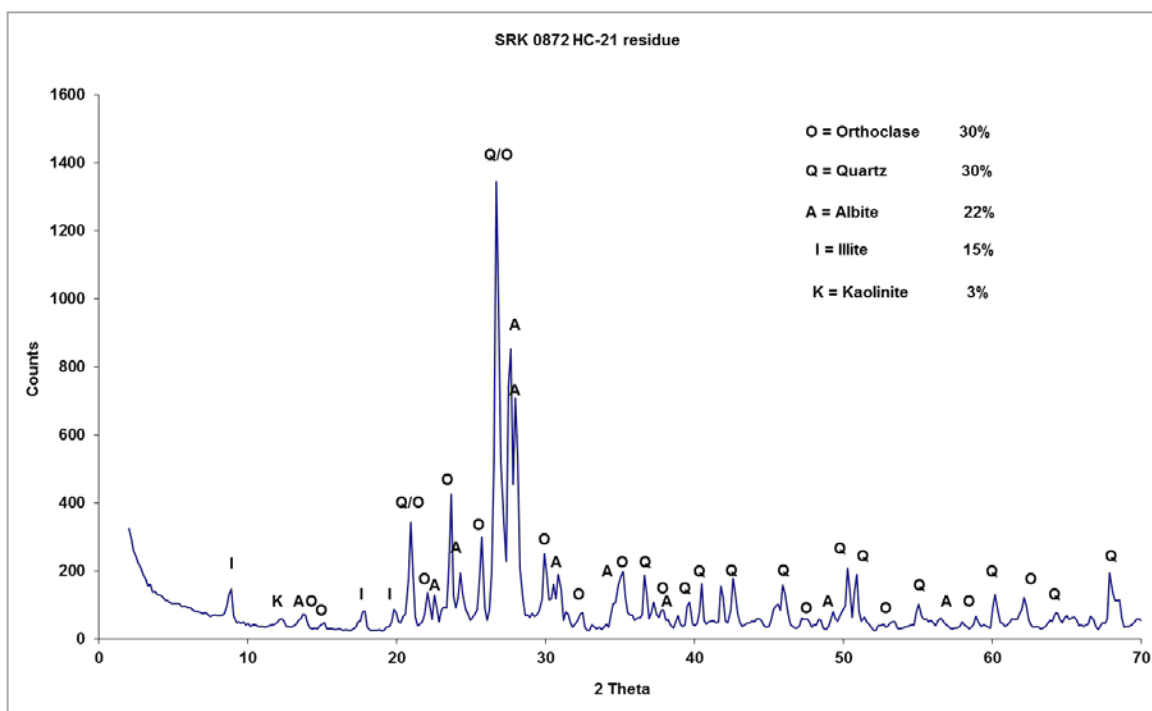


Figure 12-4: XRD scan for sample SRK 0872

Table 12-5: Summary of XRD results for sample 604673

Phase Found	Percentage
Quartz	45
Albite	33
Orthoclase	15
Illite	6
Clinochlore	1

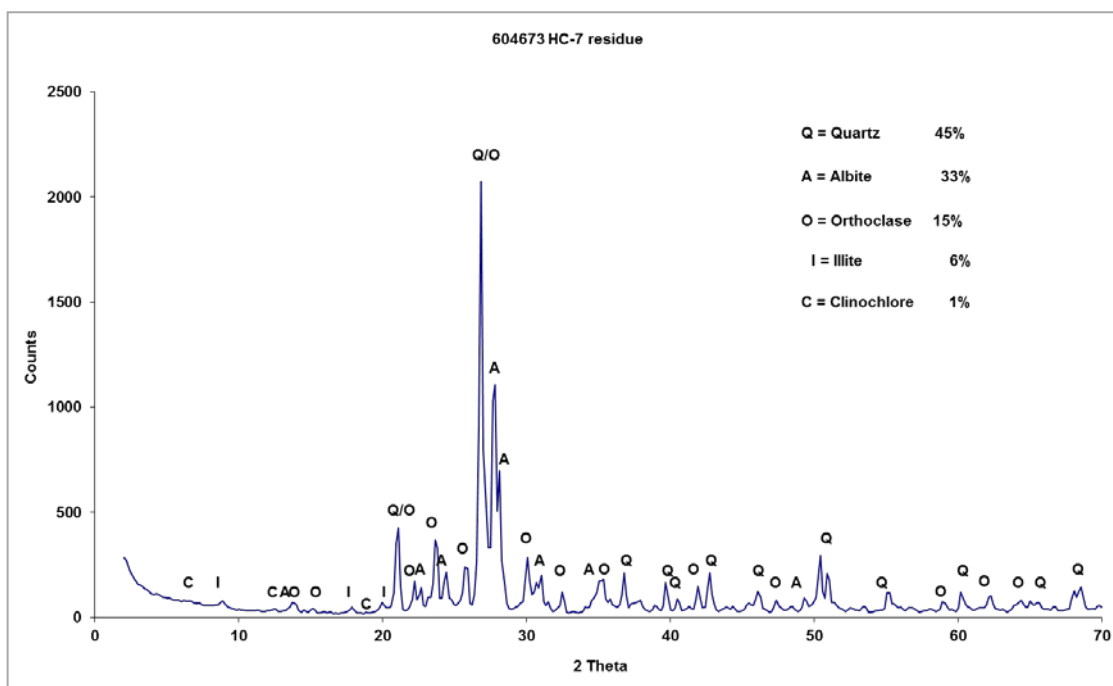


Figure 12-5: XRD scan for sample 604673

Table 12-6: Summary of XRD results for sample CF-11-02 (0-27) post-leach material

Phase Found	Percentage
Albite	41
Quartz	26
Orthoclase	16
Illite	15
Clinochlore	2

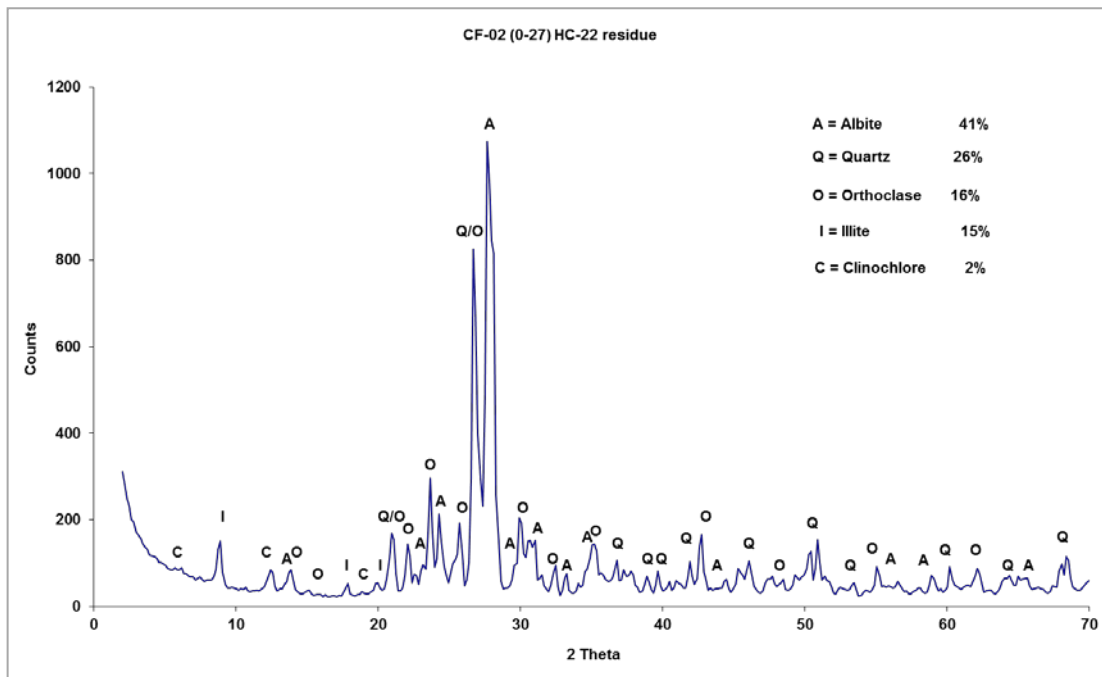


Figure 12-6: XRD scan for sample CF-11-02 (0-27) post-leach material

Table 12-7: Summary of XRD results for sample 604767

Phase Found	Percentage
Albite	36%
Quartz	30
Orthoclase	20
Illite	12
Kaolinite	2

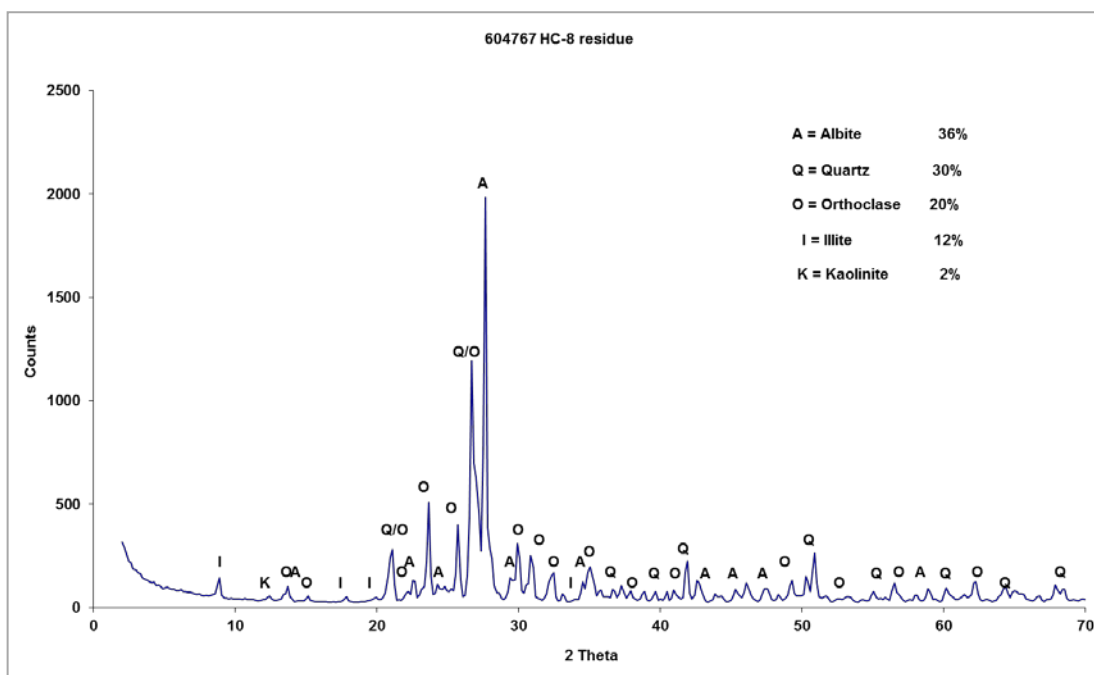


Figure 12-7: XRD scan for sample 604767

Table 12-8: Summary of XRD results for sample CD-11-02 (0-27) pre-leach material

Phase Found	Percentage
Albite	35
Quartz	24
Illite	21
Orthoclase	18
Clinochlore	2

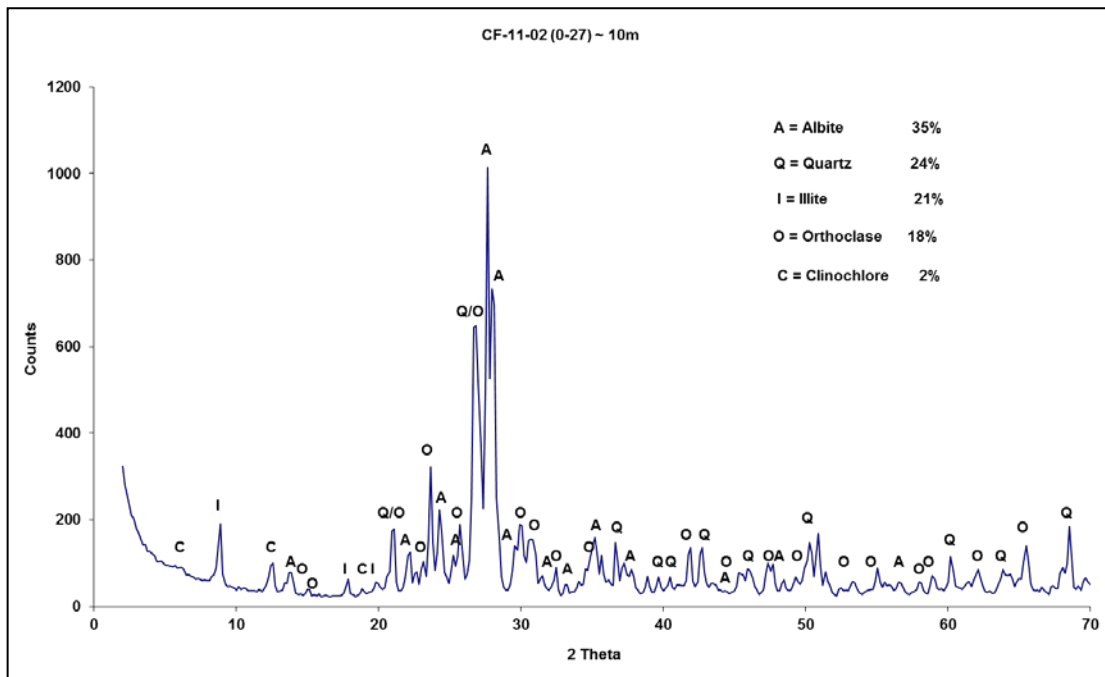


Figure 12-8: XRD scan for sample CD-11-02 (0-27) pre-leach material

13 REFERENCES

Lehner, S., Savage, K., Ciobanu, M., Cliffel, D.E., 2007. The effect of As, Co and Ni impurities on pyrite oxidation kinetics: an electrochemical study of synthetic pyrite. *Geochemica et Cosmochimica Acta* 71, pp 2491–2509.

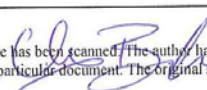
Lehner, S., Savage, K., 2008. The effect of As, Co and Ni impurities on pyrite oxidation kinetics: batch and flow-through reactor experiments with synthetic pyrite. *Geochemica et Cosmochimica Acta* 72, pp 1788–1800.

Parbhaker-Fox, A., Lottermoser, B. & Bradshaw, D. 2013. Evaluating waste rock mineralogy and microtexture during kinetic testing for improved acid rock drainage prediction. *Minerals Engineering*, 52, pp 111 - 124

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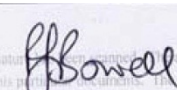
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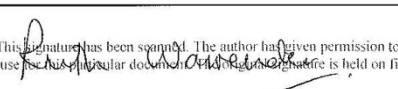
Christopher Brough,
Consultant (Mineralogy/Geochemistry),
SRK Consulting (UK) Limited

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Rob Bowell,
Corporate Consultant (Geochemistry)
SRK Consulting (UK) Limited

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Ruth Warrender,
Senior Consultant (Geochemistry),
SRK Consulting (UK) Limited

Appendix C – Termination Test Results

McClelland Reports

Table . - ICP Metals Analysis Results, Humidity Cell Residues,
Copper Flat Project

Analysis, mg/kg	Sample							
	604 562	604 569	604 606	604 653	604 656	604 669	604 673	
Ag	5.64	1.13	1.25	1.44	1.56	2.27	0.67	
Al	83,400	87,500	80,900	86,900	81,000	77,100	72,200	
As	0.9	0.8	0.5	0.5	0.4	1.9	1.0	
Ba	760	630	580	770	740	520	430	
Be	2.79	3.81	3.75	3.11	2.53	3.30	3.14	
Bi	2.97	0.56	0.67	0.62	0.74	2.00	0.34	
Ca	15,400	11,100	12,500	17,000	24,400	3,200	1,700	
Cd	5.36	0.19	0.12	0.21	<0.02	0.94	0.11	
Ce	84.3	93.8	91.8	76.9	71.7	96.0	90.9	
Co	12.3	8.7	6.1	9.1	7.1	6.8	3	
Cr	7	6	6	7	6	2	<1	
Cs	8.03	7.99	7.36	7.19	6.86	8.41	6.16	
Cu	5,370	1,480	1,605	2,090	2,260	3,260	1,150	
Fe	30,100	29,000	19,400	32,700	23,500	16,600	8,200	
Ga	20.8	22.1	20.0	21.9	20.3	20.3	19.40	
Ge	0.25	0.26	0.24	0.26	0.24	0.08	0.15	
Hf	1.0	1.3	1.3	0.8	0.8	1.9	2.8	
Hg	0.02	<0.01	<0.01	0.01	0.01	0.02	0.01	
In	0.173	0.062	0.046	0.099	0.082	0.083	0.026	
K	48,800	47,300	49,600	47,100	48,100	55,900	50,300	
La	43.0	47.1	48.1	38.1	35.1	48.1	46.6	
Li	20.5	16.2	13.0	14.1	11.5	10.3	6.0	
Mg	5,200	4,100	2,800	4,100	4,400	2,300	1,100	
Mn	650	366	177	532	654	319	31	
Mo	18.50	4.45	11.10	51.4	444	87.6	155.0	
Na	15,900	24,100	21,600	24,800	14,100	14,700	18,800	
Nb	10.9	15.7	16.2	13.9	12.8	15.4	15.4	
Ni	1.9	1.7	1.5	1.9	1.5	1.2	1.0	
P	870	670	470	760	760	430	150	
Pb	416	21.4	17.0	21.4	14.5	111.5	21.3	
Rb	322	312	323	286	274	324	216	
Re	0.036	0.005	0.010	0.100	0.187	0.075	0.172	
S	16,900	12,300	8,900	9,600	7,500	8,200	4,700	
Sb	0.84	0.28	0.22	0.25	0.52	0.37	0.22	
Sc	6.6	5.4	3.9	6.3	5.8	3.5	1.6	
Se	4	3	3	3	3	2	2	
Sn	5.7	4.8	4.3	4.8	3.5	3.6	1.7	
Sr	479	510	420	640	481	271	236	
Ta	0.73	1.03	1.16	0.88	0.80	1.34	1.27	
Te	0.63	0.18	0.19	0.16	0.27	0.26	0.08	
Th	20.3	25.3	32.0	18.3	17.4	29.7	35.3	
Ti	2,190	2,130	1,700	2,420	2,280	1,590	740	
Tl	2.13	1.89	1.85	1.70	1.64	1.98	2.01	
U	4.2	6.5	8.2	4.7	4.6	7.1	7.7	
V	50	40	27	47	44	28	9	
W	15.9	9.6	8.5	7.0	10.5	10.0	7.0	
Y	25.3	28.9	25.5	28.2	27.4	25.0	18.0	
Zn	686	36	25	56	49	112	12	
Zr	20.3	26.3	33.6	16.5	16.3	41.1	64.4	
Chemex Report #	RE11261455	RE11261455	RE11261455	RE11261455	RE11261455	RE112282178	RE13120456	

Table . - ICP Metals Analysis Results, Humidity Cell Residues,
Copper Flat Project Samples

Analysis, mg/kg	Sample							
	604 767	604 787	604 811	604 854	604 862	604 867	605 033	
Ag	5.18	5.01	2.11	3.45	4.67	11.15	2.39	
Al	77,100	73,100	69,700	82,100	71,800	69,900	81,100	
As	15.3	8.9	8.4	17.9	11.0	1.6	4.8	
Ba	1,020	740	800	1,450	1,070	800	980	
Be	2.15	3.19	2.01	1.07	1.95	1.33	1.92	
Bi	1.93	1.43	1.25	0.99	2.07	34.5	3.01	
Ca	4,500	10,500	12,400	8,500	11,100	6,600	14,200	
Cd	2.80	1.22	1.13	1.79	0.44	1.40	0.96	
Ce	64.9	73.8	52.8	196.5	205	>500	47.0	
Co	24.5	9.9	12.6	12.3	14.7	16.3	7.4	
Cr	2	<1	7	4	3	6	7	
Cs	7.15	9.48	6.90	6.31	24.0	24.5	9.17	
Cu	5,970	5,960	2,580	4,490	5,140	14,300	2,080	
Fe	36,200	31,000	27,000	27,700	125,500	109,500	48,300	
Ga	18.00	20.8	17.85	19.35	30.3	31.1	23.4	
Ge	0.14	0.21	0.22	0.26	0.35	0.61	0.21	
Hf	1.0	1.4	0.9	0.8	0.6	0.8	1.5	
Hg	<0.01	0.06	0.01	0.01	0.01	0.01	0.01	
In	0.174	0.146	0.061	0.080	0.115	0.346	0.063	
K	63,300	51,000	47,700	45,600	54,300	49,600	49,400	
La	33.6	38.9	28.1	132.5	155.5	1,020	24.6	
Li	13.3	25.9	20.2	10.5	53.8	45.7	33.7	
Mg	3,500	4,000	3,900	3,300	18,100	16,000	7,700	
Mn	306	269	256	228	747	548	470	
Mo	26.1	135.0	97.0	473	558	496	58.6	
Na	10,500	13,000	8,200	8,700	5,800	6,900	18,700	
Nb	9.9	13.3	9.7	10.2	5.1	4.7	8.8	
Ni	3.9	2.4	3.8	3.8	9.5	12.2	4.5	
P	540	450	670	1,360	890	1,170	500	
Pb	100.5	67.5	50.9	32.8	9.8	10.1	39.7	
Rb	208	277	265	200	436	396	316	
Re	0.045	0.112	0.100	0.590	0.592	0.343	0.059	
S	26,200	13,300	14,600	17,400	15,100	27,400	12,300	
Sb	0.42	0.74	0.36	0.80	0.71	0.17	0.45	
Sc	4.1	4.8	4.2	2.9	18.7	6.3	7.2	
Se	6	5	4	5	5	13	2	
Sn	2.2	3.0	2.5	2.3	2.9	5.2	2.8	
Sr	323	310	251	372	263	295	448	
Ta	0.86	1.06	0.68	0.73	0.27	0.28	0.57	
Te	1.12	0.39	0.52	0.22	0.69	3.94	1.29	
Th	34.3	25.5	24.5	12.1	45.3	93.4	17.5	
Ti	1,360	1,690	1,490	1,510	1,890	1,850	1,910	
Tl	2.25	1.94	1.85	2.32	2.72	2.94	1.69	
U	13.8	9.1	4.9	3.7	5.4	3.7	5.8	
V	50	37	41	39	173	133	105	
W	11.7	10.1	14.2	14.0	6.1	8.3	6.8	
Y	19.1	20.0	16.6	18.3	10.0	13.4	17.5	
Zn	309	155	159	234	123	202	135	
Zr	29.5	34.9	23.6	21.1	17.8	27.0	52.1	
Chemex Report #	RE13143328	RE12056288	RE11261455	RE11261455	RE11261455	RE11261455	RE11261455	

**Table . - ICP Metals Analysis Results, Humidity Cell Residues,
Copper Flat Project Samples**

Analysis, mg/kg	Sample							
	605 153	SRK 0854	SRK 0858	SRK 0864	SRK 0866	SRK 0867	SRK0872	
Ag	0.57	4.80	0.37	0.25	0.13	1.49	0.65	
Al	85,500	79,500	79,600	95,000	95,400	74,600	78,500	
As	0.5	4.1	1.2	0.8	0.9	5.1	2.4	
Ba	1,400	1,150	710	760	720	760	830	
Be	2.58	2.76	3.60	1.75	1.78	3.54	3.20	
Bi	0.42	2.01	2.14	0.19	0.87	1.20	1.53	
Ca	22,200	4,400	4,300	43,900	40,200	5,700	3,700	
Cd	1.10	<0.5	0.04	3.16	0.05	0.40	0.24	
Ce	44.3	102.0	52.8	47.1	55.1	72.7	71.2	
Co	5.8	5.2	5.4	24.4	16.4	8.2	7.2	
Cr	8	4	2	47	14	6	4	
Cs	11.50	5.76	7.66	5.75	4.96	7.11	6.60	
Cu	613	7,490	249	540	175.5	2,400	870	
Fe	23,700	20,100	22,500	61,000	58,200	21,200	22,700	
Ga	19.90	19.60	20.0	21.3	22.9	21.5	19.00	
Ge	0.20	0.20	0.07	0.21	0.24	0.18	0.20	
Hf	1.6	1.5	1.3	3.2	1.3	1.5	1.6	
Hg	0.02	0.04	<0.01	0.01	0.01	0.11	0.02	
In	0.034	0.198	0.039	0.081	0.087	0.077	0.025	
K	34,700	60,900	50,000	26,800	23,600	45,800	52,600	
La	19.5	67.6	26.9	20.5	24.2	39.4	36.5	
Li	31.5	15.2	11.2	12.0	8.0	11.6	11.3	
Mg	4,600	2,500	2,000	17,800	13,700	2,700	2,300	
Mn	894	62	79	1,150	776	166	112	
Mo	21.7	621	5.90	1.78	2.72	66.1	12.30	
Na	25,500	19,000	23,900	23,400	26,800	21,400	19,200	
Nb	8.8	10.2	11.1	8.6	8.4	11.4	9.5	
Ni	3.2	3.3	1.0	25.6	7.3	6.4	1.8	
P	590	590	460	2,330	2,430	490	370	
Pb	28.2	71.8	15.4	10.2	6.9	29.8	35.1	
Rb	229	311	282	110.5	134.5	249	290	
Re	0.021	0.991	0.006	0.003	0.002	0.098	0.018	
S	5,900	9,500	8,500	100	2,300	9,600	15,200	
Sb	0.35	1.15	0.21	0.42	0.30	5.80	0.56	
Sc	4.5	4.0	3.9	18.9	16.4	4.5	4.1	
Se	1	8	2	2	2	3	4	
Sn	2.8	15.1	4.9	2.5	4.4	52.4	5.1	
Sr	597	432	462	855	756	410	338	
Ta	0.58	0.69	0.89	0.53	0.45	0.82	0.61	
Te	0.06	0.64	0.29	<0.05	0.30	0.41	0.24	
Th	10.9	17.7	17.0	5.5	4.9	19.3	16.6	
Ti	1,690	1,520	1,950	6,000	5,180	1,560	1,230	
Tl	1.31	1.98	1.94	1.12	1.15	1.82	2.06	
U	3.2	3.7	4.3	2.2	1.4	5.3	4.0	
V	36	34	37	163	133	31	30	
W	8.1	8.1	9.8	1.6	4.3	8.2	11.1	
Y	17.3	15.8	14.7	28.4	28.4	18.0	13.2	
Zn	192	55	18	131	47	73	32	
Zr	54.7	41.5	26.5	131.0	47.5	39.3	40.4	
Chemex Report #	RE11261455	RE13033765	RE12282178	RE11261455	RE11261455	RE12056288	RE13033765	

Table . - ICP Metals Analysis Results, Humidity Cell Residues,

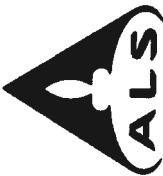
Copper Flat Project Samples

Analysis, mg/kg	Sample						
	CF-11-02 (0-27)	CF-11-02 (367-408)	CF-11-02 (227-367) Flotation Tailings	CF-11-02 (52-117) Flotation Tailings	K-Spar Breccia 5+ Comp. Flotation Tailings	Biotite Breccia 5+ Comp. Flotation Tailings	Quartz Monzonite 5+ Comp. Flotation Tailings
Ag	1.47	1.38	0.70	0.59	1.44	0.88	0.76
Al	83,700	82,600	85,900	80,000	74,000	73,400	75,500
As	3.6	1.8	1.4	0.5	2.2	1.2	<0.2
Ba	820	750	830	880	900	1,080	850
Be	3.83	4.25	4.26	3.94	3.00	2.34	3.45
Bi	5.42	0.50	0.64	0.83	1.11	0.44	0.48
Ca	12,100	15,700	16,900	15,400	14,800	11,300	12,900
Cd	0.31	0.24	0.16	0.13	0.55	0.31	0.12
Ce	88.7	88.8	70.6	76.7	51.3	90.2	79.7
Co	8.7	7.9	1.4	1.4	6.2	3.5	1.2
Cr	1	1	8	9	15	7	10
Cs	9.96	7.37	9.08	10.15	11.80	10.65	9.29
Cu	1,370	1,470	273	269	881	747	396
Fe	33,800	31,500	26,000	26,600	13,900	20,500	15,100
Ga	24.2	23.7	21.4	22.0	16.25	19.75	19.05
Ge	0.19	0.24	0.14	0.19	0.13	0.19	0.18
Hf	1.5	1.3	1.3	1.4	1.1	1.1	1.3
Hg	0.01	0.05	<0.1	0.01	0.01	0.01	0.01
In	0.070	0.084	0.049	0.062	0.036	0.021	0.023
K	51,900	48,700	47,200	50,800	47,500	64,100	52,200
La	40.0	41.0	32.9	33.9	24.4	50.8	40.6
Li	16.3	13.5	14.0	13.4	20.2	21.2	21.5
Mg	4,600	4,900	5,300	5,700	3,700	7,500	4,800
Mn	286	369	359	355	214	398	231
Mo	2.60	4.75	2.89	2.90	49.8	14.20	35.1
Na	25,100	27,000	28,700	27,100	17,000	15,800	21,500
Nb	11.8	14.7	13.5	14.3	8.2	10.1	12.9
Ni	2.3	3.5	3.6	3.7	5.8	5.4	5.7
P	870	730	880	900	430	1,010	550
Pb	21.4	18.2	24.1	16.7	62.2	15.1	12.6
Rb	316	295	302	319	272	363	309
Re	<0.002	0.002	<0.002	<0.002	0.053	0.016	0.041
S	17,300	11,000	400	500	3,600	2,400	700
Sb	0.96	0.83	0.23	0.19	0.35	0.35	0.29
Sc	6.8	6.5	6.0	6.4	3.2	4.3	3.6
Se	3	3	2	2	1	2	2
Sn	6.7	5.4	5.9	6.6	2.7	2.4	3.6
Sr	601	672	789	731	333	350	466
Ta	0.80	1.00	0.85	0.88	0.61	0.71	0.87
Te	2.89	0.17	0.42	0.17	0.30	0.08	0.09
Th	18.2	20.9	13.9	15.9	20.3	22.3	21.0
Ti	2,450	2,450	2,660	2,800	1,300	1,760	1,810
Tl	2.42	1.97	1.93	2.26	1.49	2.03	1.74
U	4.9	5.7	4.7	4.8	6.1	5.2	5.4
V	57	47	55	59	29	48	36
W	25.9	18.6	16.4	24.5	10.7	7.0	11.6
Y	28.1	34.6	29.3	29.8	16.8	18.9	23.2
Zn	46	42	41	35	77	54	30
Zr	23.8	21.7	20.9	25.2	34.9	31.0	34.1
Chemex Report #	RE13143042	RE13143042	RE13143328	RE13082519	RE13143328	RE13082519	RE13082519

**Table . - ICP Metals Analysis Results, Humidity Cell Residues,
Copper Flat Project Samples**

Analysis, mg/kg	Sample			
	Biotite Breccia 0-5 Comp. Flotation Tailings	K-Spar Breccia 0-5 Comp. Flotation Tailings	Quartz Monzonite 0-5 Comp. Flotation Tailings	Cu R. Tail
Ag	0.72	0.69	0.60	1.07
Al	72,900	80,800	78,600	75,100
As	7.9	6.7	3.2	5.2
Ba	850	930	740	800
Be	2.53	3.13	3.81	3.16
Bi	0.67	0.76	0.56	0.61
Ca	13,200	13,700	14,400	15,200
Cd	0.75	0.57	0.77	0.79
Ce	59.5	75.1	73.7	64.6
Co	12.4	11.4	9.3	7.6
Cr	280	284	269	17
Cs	8.06	7.84	7.97	8.28
Cu	180.0	216	191.5	740
Fe	31,900	24,600	21,400	25,200
Ga	18.00	18.10	17.90	20.2
Ge	0.16	0.15	0.18	0.10
Hf	1.1	1.2	1.2	1.0
Hg	0.01	0.01	0.01	0.03
In	0.019	0.022	0.022	0.037
K	53,400	53,100	49,600	52,500
La	31.7	40.1	37.4	31.0
Li	23.3	17.3	14.7	21.3
Mg	4,900	3,800	3,300	4,600
Mn	391	281	299	454
Mo	37.3	32.1	27.9	17.25
Na	13,900	17,200	20,100	17,400
Nb	9.1	9.8	12.0	10.5
Ni	181.5	196.5	174.5	13.0
P	520	520	550	640
Pb	34.5	29.0	33.1	57.5
Rb	318	311	296	313
Re	0.038	0.019	0.019	0.016
S	10,700	10,000	7,600	7,700
Sb	0.43	0.33	0.42	0.46
Sc	4.3	3.8	3.8	4.8
Se	3	3	2	1
Sn	2.5	3.2	3.7	3.3
Sr	329	407	435	363
Ta	0.66	0.71	0.86	0.82
Te	0.21	0.25	0.21	0.22
Th	21.2	21.2	21.0	22.6
Ti	1,560	1,540	1,700	1,740
Tl	1.69	1.75	1.74	1.86
U	5.5	5.0	5.3	6.0
V	55	42	34	47
W	7.8	8.6	8.5	9.1
Y	18.6	20.6	22.6	20.1
Zn	103	78	97	117
Zr	28.8	32.6	30.3	25.7
Chemex Report #	RE13143328	RE13143328	RE13143328	RE12282178

Chemex Reports



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ALS Minerals

CERTIFICATE RE11261455

Project: 3438

P.O. No.:

This report is for 13 Crushed Rock samples submitted to our lab in Reno, NV, USA on 13-DEC-2011.

The following have access to data associated with this certificate:

CHRISTINE DEBURLE

JACK MCPARTLAND

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
PUL- QC	Pulverizing QC Test
PUL- 31	Pulverize split to 85% < 75 um

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
Cu- OG62	Ore Grade Cu - Four Acid	VARIABLE
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS

The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim, or deposit has been determined based on the results of assays of multiple samples of geological materials collected by the prospective investor or by a qualified person selected by him/her and based on an evaluation of all engineering data which is available concerning any proposed project Statement required by Nevada State Law NRS 519

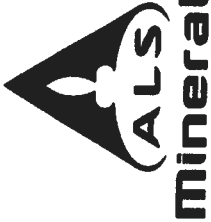
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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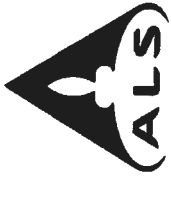
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CERTIFICATE OF ANALYSIS RE11261455

Method Analyte Units LOR	WEI-21 Recvd Wt. kg	ME-MS61 Ag ppm	ME-MS61 Al %	ME-MS61 As ppm	ME-MS61 Ba ppm	ME-MS61 Be ppm	ME-MS61 Bi ppm	ME-MS61 Ca %	ME-MS61 Cd ppm	ME-MS61 Ce ppm	ME-MS61 Co ppm	ME-MS61 Cr ppm	ME-MS61 Cs ppm	ME-MS61 Cu ppm	ME-MS61 Fe %
3438-SRK- 0864	0.22	0.25	9.50	0.8	760	1.75	0.19	4.39	3.16	47.1	24.4	47	5.75	540	6.10
3438-SRK- 0866	0.22	0.13	9.54	0.9	720	1.78	0.87	4.02	0.05	55.1	16.4	14	4.96	175.5	5.82
3438-604- 033	0.22	2.39	8.11	4.8	980	1.92	3.01	1.42	0.96	47.0	7.4	7	9.17	2080	4.83
3438-604- 153	0.20	0.57	8.55	0.5	1400	2.58	0.42	2.22	1.10	44.3	5.8	8	11.50	613	2.37
3438-604- 562	0.24	5.64	8.34	0.9	760	2.79	2.97	1.54	5.36	84.3	12.3	7	8.03	5370	3.01
3438-604- 569	0.24	1.13	8.75	0.8	630	3.81	0.56	1.11	0.19	93.8	8.7	6	7.99	1480	2.90
3438-604- 606	0.22	1.25	8.09	0.5	580	3.75	0.67	1.25	0.12	91.8	6.1	6	7.36	1605	1.94
3438-604- 653	0.22	1.44	8.69	0.5	770	3.11	0.62	1.70	0.21	76.9	9.1	7	7.19	2090	3.27
3438-604- 656	0.24	1.56	8.10	0.4	740	2.53	0.74	2.44	<0.02	71.7	7.1	6	6.86	2260	2.35
3438-604- 811	0.22	2.11	6.97	8.4	800	2.01	1.25	1.24	1.13	52.8	12.6	7	6.90	2580	2.70
3438-604- 854	0.22	3.45	8.21	17.9	1450	1.07	0.99	0.85	1.79	196.5	12.3	4	6.31	4490	2.77
3438-604- 862	0.24	4.67	7.18	11.0	1070	1.95	2.07	1.11	0.44	205	14.7	3	24.0	5140	12.55
3438-604- 867	0.22	11.15	6.99	1.6	800	1.33	34.5	0.66	1.40	>500	16.3	6	24.5	>10000	10.95



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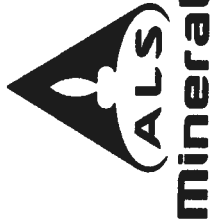
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CERTIFICATE OF ANALYSIS RE11261455

Method Analyte Units LOR	ME-MS61 Ga ppm	ME-MS61 Ge ppm	ME-MS61 Hf ppm	ME-MS61 Hg-CV41 ppm	ME-MS61 In ppm	ME-MS61 K %	ME-MS61 La ppm	ME-MS61 Li ppm	ME-MS61 Mg %	ME-MS61 Mn ppm	ME-MS61 Mo ppm	ME-MS61 Na %	ME-MS61 Nb ppm	ME-MS61 Ni ppm	ME-MS61 P ppm
3438-SRK- 0864	21.3	0.21	3.2	0.01	0.081	2.68	20.5	12.0	1.78	1150	1.78	2.34	8.6	25.6	2330
3438-SRK- 0866	22.9	0.24	1.3	0.01	0.087	2.36	24.2	8.0	1.37	776	2.72	2.68	8.4	7.3	2430
3438-604- 033	23.4	0.21	1.5	0.01	0.063	4.94	24.6	33.7	0.77	470	58.6	1.87	8.8	4.5	500
3438-604- 153	19.90	0.20	1.6	0.02	0.034	3.47	19.5	31.5	0.46	894	21.7	2.55	8.8	3.2	590
3438-604- 562	20.8	0.25	1.0	0.02	0.173	4.88	43.0	20.5	0.52	650	18.50	1.59	10.9	1.9	870
3438-604- 569	22.1	0.26	1.3	<0.01	0.062	4.73	47.1	16.2	0.41	366	4.45	2.41	15.7	1.7	670
3438-604- 606	20.0	0.24	1.3	<0.01	0.046	4.96	48.1	13.0	0.28	177	11.10	2.16	16.2	1.5	470
3438-604- 653	21.9	0.26	0.8	0.01	0.089	4.71	38.1	14.1	0.41	532	51.4	2.48	13.9	1.9	760
3438-604- 656	20.3	0.24	0.8	0.01	0.082	4.81	35.1	11.5	0.44	654	44.4	1.41	12.8	1.5	760
3438-604- 811	17.85	0.22	0.9	0.01	0.061	4.77	28.1	20.2	0.39	256	97.0	0.82	9.7	3.8	670
3438-604- 854	19.35	0.26	0.8	0.01	0.080	4.56	132.5	10.5	0.33	228	473	0.87	10.2	3.8	1360
3438-604- 862	30.3	0.35	0.6	0.01	0.115	5.43	155.5	53.8	1.81	747	558	0.58	5.1	9.5	890
3438-604- 867	31.1	0.61	0.8	0.01	0.346	4.96	1020	45.7	1.60	548	496	0.69	4.7	12.2	1170



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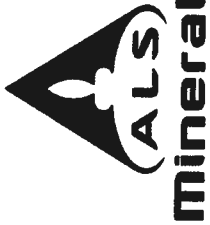
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Project: 3438

CERTIFICATE OF ANALYSIS RE11261455

Sample Description	Method Analyte Units LOR	ME-MS61 Pb ppm	ME-MS61 Re ppm	ME-MS61 S %	ME-MS61 Sb ppm	ME-MS61 Sc ppm	ME-MS61 Se ppm	ME-MS61 Sn ppm	ME-MS61 Sr ppm	ME-MS61 Ta ppm	ME-MS61 Te ppm	ME-MS61 Th ppm	ME-MS61 TI %	ME-MS61 TI ppm	ME-MS61 U ppm
3438-SRK- 0864		10.2	0.003	0.01	0.42	18.9	2	2.5	855	0.53	<0.05	5.5	0.600	1.12	2.2
3438-SRK- 0866		6.9	0.002	0.23	0.30	16.4	2	4.4	756	0.45	0.30	4.9	0.518	1.15	1.4
3438-604- 033		39.7	0.059	1.23	0.45	7.2	2	2.8	448	0.57	1.29	17.5	0.191	1.69	5.8
3438-604- 153		28.2	0.021	0.59	0.35	4.5	1	2.8	597	0.58	0.06	10.9	0.169	1.31	3.2
3438-604- 562		416	0.036	1.69	0.84	6.6	4	5.7	479	0.73	0.63	20.3	0.219	2.13	4.2
3438-604- 569		21.4	0.005	1.23	0.28	5.4	3	4.8	510	1.03	0.18	25.3	0.213	1.89	6.5
3438-604- 606		17.0	0.010	0.89	0.22	3.9	3	4.3	420	1.16	0.19	32.0	0.170	1.85	8.2
3438-604- 653		21.4	0.100	0.96	0.25	6.3	3	4.8	640	0.88	0.16	18.3	0.242	1.70	4.7
3438-604- 656		14.5	0.187	0.75	0.52	5.8	3	3.5	481	0.80	0.27	17.4	0.228	1.64	4.6
3438-604- 811		50.9	0.100	1.46	0.36	4.2	4	2.5	251	0.68	0.52	24.5	0.149	1.85	4.9
3438-604- 854		32.8	0.590	1.74	0.80	2.9	5	2.3	372	0.73	0.22	12.1	0.151	2.32	3.7
3438-604- 862		9.8	0.592	1.51	0.71	18.7	5	2.9	263	0.27	0.69	45.3	0.189	2.72	5.4
3438-604- 867		10.1	0.343	2.74	0.17	6.3	13	5.2	295	0.28	3.94	93.4	0.185	2.94	3.7



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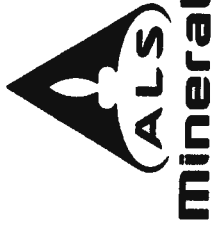
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 Account: EIM

Project: 3438

CERTIFICATE OF ANALYSIS RE11261455

Sample Description	Method Analyte Units LOR	ME: MS61 V ppm	ME: MS61 W ppm	ME: MS61 Y ppm	ME: MS61 Zn ppm	ME: MS61 Zr ppm	Cu: OG62 Cu %
3438-SRK- 0864		163	1.6	28.4	131	131.0	
3438-SRK- 0866		133	4.3	28.4	47	47.5	
3438-604- 033		105	6.8	17.5	135	52.1	
3438-604- 153		36	8.1	17.3	192	54.7	
3438-604- 562		50	15.9	25.3	686	20.3	
3438-604- 569		40	9.6	28.9	36	26.3	
3438-604- 606		27	8.5	25.5	25	33.6	
3438-604- 653		47	7.0	28.2	56	16.5	
3438-604- 656		44	10.5	27.4	49	16.3	
3438-604- 811		41	14.2	16.6	159	23.6	
3438-604- 854		39	14.0	18.3	234	21.1	
3438-604- 862		173	6.1	10.0	123	17.8	
3438-604- 867		133	8.3	13.4	202	27.0	1.430



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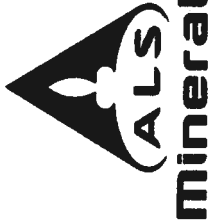
Project: 3438

CERTIFICATE OF ANALYSIS RE11261455

CERTIFICATE COMMENTS

Method
ME- MS61
ME- MS61

Interference: Mo > 400ppm on ICP- MS Cd, ICP- AES results shown.
REE's may not be totally soluble in this method.



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Page: 1
 Finalized Date: 25- MAR- 2012
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CERTIFICATE RE12056288

Project: 3438
 P.O. No.:
 This report is for 2 Crushed Rock samples submitted to our lab in Reno, NV, USA on
 13- MAR- 2012.
 The following have access to data associated with this certificate:

CHRISTINE DEBURLE
 JACK MCPARTLAND

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
PUL- 31	Pulverize split to 85% < 75 um

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- MS61	48 element four acid ICP- MS	
<small>The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim, or deposit has been determined based on the results of assays of multiple samples of geological materials collected by the prospective investor or by a qualified person selected by him/her and based on an evaluation of all engineering data which is available concerning any proposed project. Statement required by Nevada State Law NRS 519</small>		

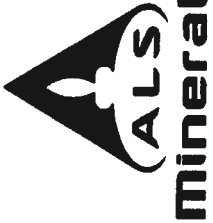
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 ATTN: JACK MCPARTLAND
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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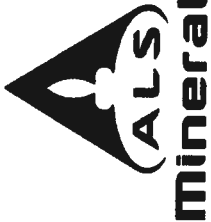
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 Account: EIM

Project: 3438

CERTIFICATE OF ANALYSIS REI2056288

Method Analyte Units LOR	Sample Description	WEI-21 Recvd Wt. kg	ME-MS61 Ag ppm	ME-MS61 Al %	ME-MS61 As ppm	ME-MS61 Ba ppm	ME-MS61 Be ppm	ME-MS61 Bi ppm	ME-MS61 Ca %	ME-MS61 Cd ppm	ME-MS61 Ce ppm	ME-MS61 Co ppm	ME-MS61 Cr ppm	ME-MS61 Cs ppm	ME-MS61 Cu ppm	ME-MS61 Fe %
	3438-SRK-0867-(HC-20)	0.20	1.49	7.46	5.1	760	3.54	1.20	0.57	0.40	72.7	8.2	6	7.11	2400	2.12
	3438-604-787-(HC-9)	0.20	5.01	7.31	8.9	740	3.19	1.43	1.05	1.22	73.8	9.9	<1	9.48	5860	3.10



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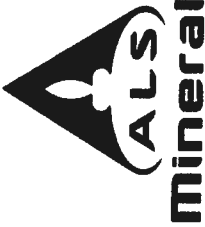
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Project: 3438

CERTIFICATE OF ANALYSIS RE12056288

Method Analyte Units LOR	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
Sample Description	Ga	Ce	Hf	Hg	CV41	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P	
	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	
3438-SRK-0867-(HC-20)	21.5	0.18	1.5	0.11	0.077	0.077	4.58	39.4	11.6	0.27	166	66.1	2.14	11.4	6.4	490	
3438-604-787-(HC-9)	20.8	0.21	1.4	0.06	0.146	0.146	5.10	38.9	25.9	0.40	269	135.0	1.30	13.3	2.4	450	



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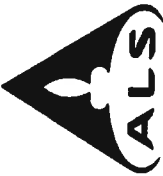
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Project: 3438

CERTIFICATE OF ANALYSIS RE12056288

Method Analyte Units LOR	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	
Sample Description	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Ti	Ti	Ti	U	
	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	
3438-SRK-0867-(HC-20)	29.8	249	0.098	0.96	5.80	4.5	3	52.4	410	0.82	0.41	19.3	0.156	0.005	0.02	0.02	0.1	
3438-604-787-(HC-9)	67.5	277	0.112	1.33	0.74	4.8	5	3.0	310	1.06	0.39	25.5	0.169			1.82	5.3	
																	1.94	9.1



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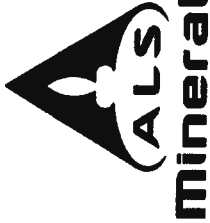
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CERTIFICATE OF ANALYSIS RE12056288

Method Analyte Units LOR	ME-MS61 V ppm	ME-MS61 W ppm	ME-MS61 Y ppm	ME-MS61 Zn ppm	ME-MS61 Zr ppm
3438-SRK-0867-(HC-20)	31	8.2	18.0	73	39.3
3438-604-787-(HC-9)	37	10.1	20.0	155	34.9



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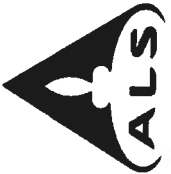
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Project: 3438

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CERTIFICATE OF ANALYSIS RE12056288

Method	CERTIFICATE COMMENTS
ME- MS61	REE's may not be totally soluble in this method.



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minerals

CERTIFICATE RE13082519

Project: 3438
P.O. No.:
This report is for 3 Crushed Rock samples submitted to our lab in Reno, NV, USA on
6- MAY- 2013.

The following have access to data associated with this certificate:

CHRISTINE DEBURLE JACK MCPARTLAND

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
PUL- 31	Pulverize split to 85% < 75 um

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- MS61	48 element four acid ICP- MS	

The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim, or deposit has been determined based on the results of assays of multiple samples of geological materials collected by the prospective investor or by a qualified person selected by him/her and based on an evaluation of all engineering data which is available concerning any proposed project. Statement required by Nevada State Law NRS 519

To: MCCLELLAND LABS
ATTN: JACK MCPARTLAND
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SPARKS NV 89431

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.
***** See Appendix Page for comments regarding this certificate *****

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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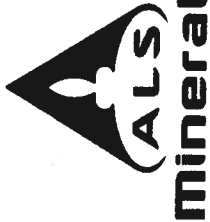
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Project: 3438

CERTIFICATE OF ANALYSIS RE13082519

Method Analyte Units LOR	WEI-21 Recvd Wt. kg	ME-MS61 Ag ppm	ME-MS61 Al %	ME-MS61 As ppm	ME-MS61 Ba ppm	ME-MS61 Be ppm	ME-MS61 Bi ppm	ME-MS61 Ca %	ME-MS61 Cd ppm	ME-MS61 Ce ppm	ME-MS61 Co ppm	ME-MS61 Cr ppm	ME-MS61 Cs ppm	ME-MS61 Cu ppm	ME-MS61 Fe %
3438-HC-25-Residue	0.28	0.59	8.00	0.5	880	3.94	0.83	1.54	0.13	76.7	1.4	9	10.15	269	2.66
3438-HC-27-Residue	0.26	0.88	7.34	1.2	1080	2.34	0.44	1.13	0.31	90.2	3.5	7	10.65	747	2.05
3438-HC-28-Residue	0.27	0.76	7.55	<0.2	850	3.45	0.48	1.29	0.12	79.7	1.2	10	9.29	396	1.51



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Project: 3438

CERTIFICATE OF ANALYSIS RE13082519

Method Analyte Units LOR	ME-MS61 Ga ppm	ME-MS61 Ge ppm	ME-MS61 Hf ppm	Hg-CV41 Hg ppm	ME-MS61 In ppm	ME-MS61 K %	ME-MS61 La ppm	ME-MS61 Li ppm	ME-MS61 Mg %	ME-MS61 Mn ppm	ME-MS61 Mo ppm	ME-MS61 Na %	ME-MS61 Nb ppm	ME-MS61 Ni ppm	ME-MS61 P ppm
3438- HC- 25- Residue	22.0	0.19	1.4	0.01	0.062	5.08	33.9	13.4	0.57	355	2.90	2.71	14.3	3.7	900
3438- HC- 27- Residue	19.75	0.19	1.1	0.01	0.021	6.41	50.8	21.2	0.75	398	14.20	1.58	10.1	5.4	1010
3438- HC- 28- Residue	19.05	0.18	1.3	0.01	0.023	5.22	40.6	21.5	0.48	231	35.1	2.15	12.9	5.7	550

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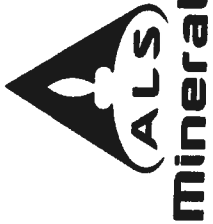
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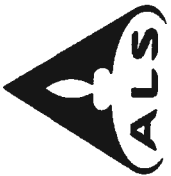
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Account: EIM

Project: 3438

CERTIFICATE OF ANALYSIS RE13082519

Method Analyte Units LOR	ME-MS61 Pb ppm	ME-MS61 Rb ppm	ME-MS61 Re ppm	ME-MS61 S %	ME-MS61 Sb ppm	ME-MS61 Sc ppm	ME-MS61 Se ppm	ME-MS61 Sn ppm	ME-MS61 Sr ppm	ME-MS61 Ta ppm	ME-MS61 Te ppm	ME-MS61 Th ppm	ME-MS61 Tl %	ME-MS61 Tl ppm	ME-MS61 U ppm
3438- HC- 25- Residue	16.7	319	<0.002	0.05	0.19	6.4	2	6.6	731	0.88	0.17	15.9	0.280	2.26	4.8
3438- HC- 27- Residue	15.1	363	0.016	0.24	0.35	4.3	2	2.4	350	0.71	0.08	22.3	0.176	2.03	5.2
3438- HC- 28- Residue	12.6	309	0.041	0.07	0.29	3.6	2	3.6	466	0.87	0.09	21.0	0.181	1.74	5.4





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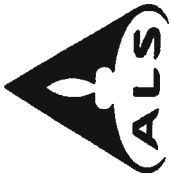
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Project: 3438

CERTIFICATE OF ANALYSIS RE13082519

Sample Description	Method Analyte Units LOR	ME-MS61 V ppm	ME-MS61 W ppm	ME-MS61 Y ppm	ME-MS61 Zn ppm	ME-MS61 Zr ppm
3438-HC-25- Residue		59	24.5	29.8	35	25.2
3438-HC-27- Residue		48	7.0	18.9	54	31.0
3438-HC-28- Residue		36	11.6	23.2	30	34.1



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Project: 3438

CERTIFICATE OF ANALYSIS RE13082519

CERTIFICATE COMMENTS

ANALYTICAL COMMENTS

REE's may not be totally soluble in this method.
 ME- MS61

Applies to Method:

LABORATORY ADDRESSES

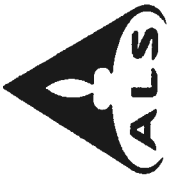
Processed at ALS Reno located at 4977 Energy Way, Reno, NV, USA.
 LOG- 22 PUL- 31

Applies to Method:

WEI- 21

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.
 Hg- CV41 ME- MS61

Applies to Method:



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Page: 1
Finalized Date: 12-JUL-2013
Account: EIM

CERTIFICATE RE13120456

Project: 3438

P.O. No.:

This report is for 1 Crushed Rock sample submitted to our lab in Reno, NV, USA on 1-JUL-2013.

The following have access to data associated with this certificate:

CHRISTINE DEBURLE

JACK MCPARTLAND

SAMPLE PREPARATION

ALS CODE DESCRIPTION

WEI- 21 Received Sample Weight
LOG- 22 Sample login - Rcd w/o BarCode
PUL- 31 Pulverize split to 85% < 75 um

ANALYTICAL PROCEDURES

ALS CODE DESCRIPTION INSTRUMENT

Hg- CV41 Trace Hg - cold vapor/AAS
ME- MS61 48 element four acid ICP- MS

The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim, or deposit has been determined based on the results of assays of multiple samples of geological materials collected by the prospective investor or by a qualified person selected by him/her and based on an evaluation of all engineering data which is available concerning any proposed project. Statement required by Nevada State Law NRS 519

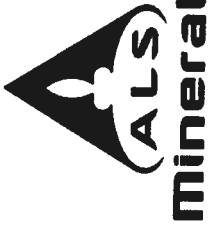
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***** See Appendix Page for comments regarding this certificate *****

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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CERTIFICATE OF ANALYSIS REI3120456

Method Analyte Units LOR	Sample Description	WEI- 21 Recvd Wt. kg	ME- MS61 Ag ppm	ME- MS61 Al %	ME- MS61 As ppm	ME- MS61 Ba ppm	ME- MS61 Be ppm	ME- MS61 Bi ppm	ME- MS61 Ca %	ME- MS61 Cd ppm	ME- MS61 Ce ppm	ME- MS61 Co ppm	ME- MS61 Cr ppm	ME- MS61 Cs ppm	ME- MS61 Cu ppm	ME- MS61 Fe %
3438-604673- HC- 7- Residue		0.27	0.67	7.22	1.0	430	3.14	0.34	0.17	0.11	90.9	3.0	<1	6.16	1150	0.82



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Project: 3438

CERTIFICATE OF ANALYSIS RE13120456

Method Analyte Units LOR	ME-MS61 Ga ppm	ME-MS61 Ge ppm	ME-MS61 Hf ppm	Hg-CV41 Hg ppm	ME-MS61 In ppm	ME-MS61 K %	ME-MS61 La ppm	ME-MS61 Li ppm	ME-MS61 Mg %	ME-MS61 Mn ppm	ME-MS61 Mo ppm	ME-MS61 Na %	ME-MS61 Nb ppm	ME-MS61 Ni ppm	ME-MS61 P ppm
3438-604673-HC-7-Residue	19.40	0.15	2.8	0.01	0.026	5.03	46.6	6.0	0.11	31	155.0	1.88	15.4	1.0	150



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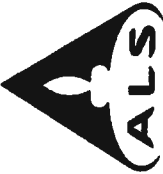
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Project: 3438

CERTIFICATE OF ANALYSIS RE13120456

Method Analyte Units LOR	ME-MS61 Pb ppm 0.5	ME-MS61 Rb ppm 0.1	ME-MS61 Re ppm 0.002	ME-MS61 S %	ME-MS61 Sb ppm 0.05	ME-MS61 Sc ppm 0.1	ME-MS61 Se ppm 1	ME-MS61 Sn ppm 0.2	ME-MS61 Sr ppm 0.2	ME-MS61 Ta ppm 0.05	ME-MS61 Te ppm 0.05	ME-MS61 Th ppm 0.2	ME-MS61 Ti %	ME-MS61 Tl ppm 0.02	ME-MS61 U ppm 0.1
3438-604673-HC-7-Residue	21.3	216	0.172	0.47	0.22	1.6	2	1.7	236	1.27	0.08	35.3	0.074	2.01	7.7



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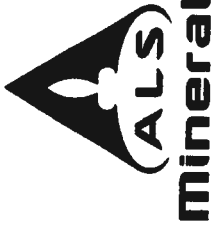
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Account: EIM

Project: 3438

CERTIFICATE OF ANALYSIS RE13120456

Method Analyte Units LOR	ME-MS61 V ppm	ME-MS61 W ppm	ME-MS61 Y ppm	ME-MS61 Zn ppm	ME-MS61 Zr ppm
3438-604673-HC-7-Residue	9	7.0	18.0	12	64.4



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 Account: EIM

Project: 3438

CERTIFICATE OF ANALYSIS RE13120456

CERTIFICATE COMMENTS

ANALYTICAL COMMENTS

REE's may not be totally soluble in this method.
 ME- MS61

LABORATORY ADDRESSES

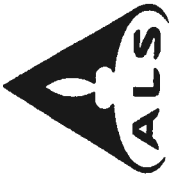
Processed at ALS Reno located at 4977 Energy Way, Reno, NV, USA.
 LOG- 22 PUL- 31 WEI- 21

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.
 Hg- CV41 ME- MS61

Applies to Method:

Applies to Method:

Applies to Method:



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CERTIFICATE RE13143042

Project: 3438

P.O. No.:

This report is for 2 Crushed Rock samples submitted to our lab in Reno, NV, USA on 7- AUG- 2013.

The following have access to data associated with this certificate:

CHRISTINE DEBURLE JACK MCPARTLAND

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
PUL- 31	Pulverize split to 85% < 75 um

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- MS61	48 element four acid ICP- MS	

The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim, or deposit has been determined based on the results of assays of multiple samples of geological materials collected by the prospective investor or by a qualified person selected by him/her and based on an evaluation of all engineering data which is available concerning any proposed project. Statement required by Nevada State Law NRS 519

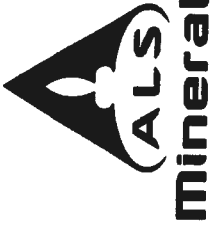
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 ATTN: JACK MCPARTLAND
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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Project: 3438

CERTIFICATE OF ANALYSIS REI3143042

Method Analyte Units LOR	Sample Description	WEI-21 Recvd Wt. kg	ME-MS61 Ag ppm	ME-MS61 Al %	ME-MS61 As ppm	ME-MS61 Ba ppm	ME-MS61 Be ppm	ME-MS61 Bi ppm	ME-MS61 Ca %	ME-MS61 Cd ppm	ME-MS61 Ce ppm	ME-MS61 Co ppm	ME-MS61 Cr ppm	ME-MS61 Cs ppm	ME-MS61 Cu ppm	ME-MS61 Fe %
	3438-HC-22-Residue	0.28	1.47	8.37	3.6	820	3.83	5.42	1.21	0.31	88.7	8.7	1	9.96	1370	3.38
	3438-HC-23-Residue	0.28	1.38	8.26	1.8	750	4.25	0.50	1.57	0.24	88.8	7.9	1	7.37	1470	3.15



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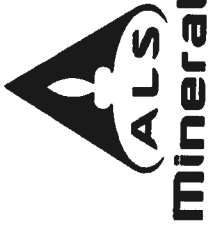
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CERTIFICATE OF ANALYSIS RE13143042

Method Analyte Units LOR	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
Sample Description	Ca	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Nb	Ni	Na	Ni	Nb	Na	Ni	P
	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm
3438- HC- 22- Residue	24.2	0.19	1.5	0.01	0.070	5.19	40.0	16.3	0.46	286	2.60	11.8	2.3	2.51	2.3	11.8	2.51	2.3	870
3438- HC- 23- Residue	23.7	0.24	1.3	0.05	0.084	4.87	41.0	13.5	0.49	369	4.75	14.7	3.5	2.70	3.5	14.7	2.70	3.5	730



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CERTIFICATE OF ANALYSIS RE13143042

Method Analyte Units LOR	ME-MS61 Pb ppm	ME-MS61 Rb ppm	ME-MS61 Re ppm	ME-MS61 S %	ME-MS61 Sb ppm	ME-MS61 Sc ppm	ME-MS61 Se ppm	ME-MS61 Sn ppm	ME-MS61 Sr ppm	ME-MS61 Ta ppm	ME-MS61 Te ppm	ME-MS61 Th ppm	ME-MS61 Tl %	ME-MS61 Tl ppm	ME-MS61 U ppm
3438-HC-22-Residue	21.4	316	<0.002	1.73	0.96	6.8	3	6.7	601	0.80	2.89	18.2	0.245	2.42	4.9
3438-HC-23-Residue	18.2	295	0.002	1.10	0.83	6.5	3	5.4	672	1.00	0.17	20.9	0.245	1.97	5.7



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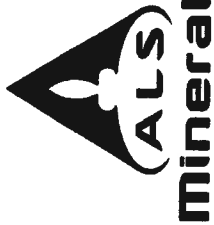
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CERTIFICATE OF ANALYSIS RE13143042

Method Analyte Units LOR	ME-MS61 V ppm	ME-MS61 W ppm	ME-MS61 Y ppm	ME-MS61 Zn ppm	ME-MS61 Zr ppm
3438- HC- 22- Residue	57	25.9	28.1	46	23.8
3438- HC- 23- Residue	47	18.6	34.6	42	21.7



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CERTIFICATE OF ANALYSIS RE13143042

CERTIFICATE COMMENTS

ANALYTICAL COMMENTS

REE's may not be totally soluble in this method.
ME- MS61

Applies to Method:

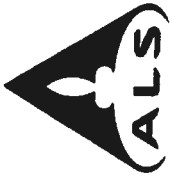
LABORATORY ADDRESSES

Processed at ALS Reno located at 4977 Energy Way, Reno, NV, USA.
LOG- 22 PUL- 31 WEI- 21

Applies to Method:

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.
Hg- CV41 ME- MS61

Applies to Method:



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Page: 1
 Finalized Date: 26- FEB- 2013
 Account: EIM

CERTIFICATE RE13033765

Project: 3438

P.O. No.:

This report is for 2 Crushed Rock samples submitted to our lab in Reno, NV, USA on 20- FEB- 2013.

The following have access to data associated with this certificate:

CHRISTINE DEBURLE

JACK MCPARTLAND

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEH- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
PUL- 31	Pulverize split to 85% < 75 um

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- MS61	48 element four acid ICP- MS	

The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim, or deposit has been determined based on the results of assays of multiple samples of geological materials collected by the prospective investor or by a qualified person selected by him/her and based on an evaluation of all engineering data which is available concerning any proposed project. Statement required by Nevada State Law NRS 519

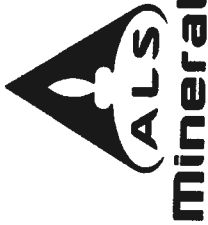
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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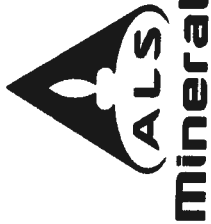
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Project: 3438

CERTIFICATE OF ANALYSIS REI3033765

Method Analyte Units LOR	WEI-21 Recvd Wt. kg	ME-MS61 Ag ppm	ME-MS61 Al %	ME-MS61 As ppm	ME-MS61 Ba ppm	ME-MS61 Be ppm	ME-MS61 Bi ppm	ME-MS61 Ca %	ME-MS61 Cd ppm	ME-MS61 Ce ppm	ME-MS61 Co ppm	ME-MS61 Cr ppm	ME-MS61 Cs ppm	ME-MS61 Cu ppm	ME-MS61 Fe %
3438-SRK-0854-HC-16-Residue	0.27	4.80	7.95	4.1	1150	2.76	2.01	0.44	<0.5	102.0	5.2	4	5.76	7490	2.01
3438-SRK-0872-HC-21-Residue	0.27	0.65	7.85	2.4	830	3.20	1.53	0.37	0.24	71.2	7.2	4	6.60	870	2.27



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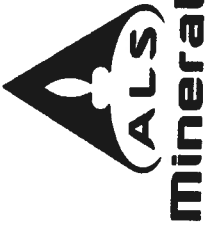
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Project: 3438

CERTIFICATE OF ANALYSIS RE13033765

Method Analyte Units LOR	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
Sample Description	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P			
	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm			
3438-SRK-0854-HC-16-Residue	19.60	0.20	1.5	0.04	0.198	6.09	67.6	15.2	0.25	62	621	1.90	10.2	3.3	590			
3438-SRK-0872-HC-21-Residue	19.00	0.20	1.6	0.02	0.025	5.26	36.5	11.3	0.23	112	12.30	1.92	9.5	1.8	370			



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CERTIFICATE OF ANALYSIS REI3033765

Method Analyte Units LOR	ME-MS61 Pb ppm	ME-MS61 Rb ppm	ME-MS61 Re ppm	ME-MS61 S %	ME-MS61 Sb ppm	ME-MS61 Sc ppm	ME-MS61 Se ppm	ME-MS61 Sn ppm	ME-MS61 Sr ppm	ME-MS61 Ta ppm	ME-MS61 Te ppm	ME-MS61 Th ppm	ME-MS61 Tl %	ME-MS61 Tl ppm	ME-MS61 U ppm
3438-SRK-0854-HC-16-Residue	71.8	311	0.991	0.95	1.15	4.0	8	15.1	432	0.69	0.64	17.7	0.152	1.98	3.7
3438-SRK-0872-HC-21-Residue	35.1	290	0.018	1.52	0.56	4.1	4	5.1	338	0.61	0.24	16.6	0.123	2.06	4.0



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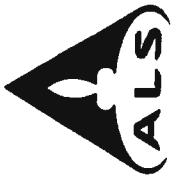
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CERTIFICATE OF ANALYSIS RE13033765

Method Analyte Units LOR	ME: MS61 V ppm	ME: MS61 W ppm	ME: MS61 Y ppm	ME: MS61 Zn ppm	ME: MS61 Zr ppm
3438- SRK- 0854- HC- 16- Residue	34	8.1	15.8	55	41.5
3438- SRK- 0872- HC- 21- Residue	30	11.1	13.2	32	40.4



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Project: 3438

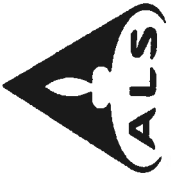
CERTIFICATE OF ANALYSIS RE13033765

Method

ME- MS61
 ME- MS61

CERTIFICATE COMMENTS

Interference: Mo > 400ppm on ICP-MS Cd, ICP- AES results shown.
 REE's may not be totally soluble in this method.



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Page: 1
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minerals

CERTIFICATE RE12282178

Project: 3438

P.O. No.:

This report is for 3 Crushed Rock samples submitted to our lab in Reno, NV, USA on 29-NOV-2012.

The following have access to data associated with this certificate:

CHRISTINE DEBURLE JACK MCPARTLAND

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEH-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% < 75 um

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- MS61	48 element four acid ICP- MS	

The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim, or deposit has been determined based on the results of assays of multiple samples of geological materials collected by the prospective investor or by a qualified person selected by him/her and based on an evaluation of all engineering data which is available concerning any proposed project. Statement required by Nevada State Law NRS 519

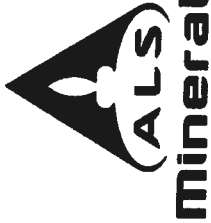
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***** See Appendix Page for comments regarding this certificate *****

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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CERTIFICATE OF ANALYSIS RE12282178

Method Analyte Units LOR	Sample Description	WEI-21 Recvd Wt. kg	ME-MS61 Ag ppm	ME-MS61 Al %	ME-MS61 As ppm	ME-MS61 Ba ppm	ME-MS61 Be ppm	ME-MS61 Bi ppm	ME-MS61 Ca %	ME-MS61 Cd ppm	ME-MS61 Ce ppm	ME-MS61 Co ppm	ME-MS61 Cr ppm	ME-MS61 Cs ppm	ME-MS61 Cu ppm	ME-MS61 Fe %
3438-HC-1-Copper-Filt-Cu-Ro-Tail		0.22	1.07	7.51	5.2	800	3.16	0.61	1.52	0.79	64.6	7.6	17	8.28	740	2.52
3438-HC-6-604669		0.23	2.27	7.71	1.9	520	3.30	2.00	0.32	0.94	96.0	6.8	2	8.41	3260	1.66
3438-HC-17-SRK0858		0.23	0.37	7.96	1.2	710	3.60	2.14	0.43	0.04	52.8	5.4	2	7.66	249	2.25

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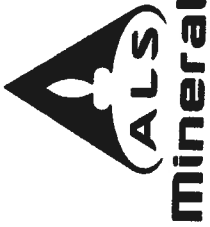
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Project: 3438

CERTIFICATE OF ANALYSIS RE12282178

Method Analyte Units LOR	ME-MS61 Ca ppm	ME-MS61 Ge ppm	ME-MS61 Hf ppm	Hg-CV41 Hg ppm	ME-MS61 In ppm	ME-MS61 K %	ME-MS61 La ppm	ME-MS61 Li ppm	ME-MS61 Mg %	ME-MS61 Mn ppm	ME-MS61 Mo ppm	ME-MS61 Na %	ME-MS61 Nb ppm	ME-MS61 Ni ppm	ME-MS61 P ppm
3438-HC-1-Copper-Flat-Cu-Ro-Tail	20.2	0.10	1.0	0.03	0.037	5.25	31.0	21.3	0.46	454	17.25	1.74	10.5	13.0	640
3438-HC-6-604669	20.3	0.08	1.9	0.02	0.083	5.59	48.1	10.3	0.23	319	87.6	1.47	15.7	1.2	430
3438-HC-17-SRK0858	20.0	0.07	1.3	<0.01	0.039	5.00	26.9	11.2	0.20	79	5.90	2.39	11.1	1.0	460



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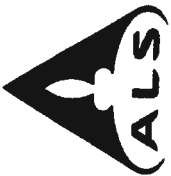
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Project: 3438

CERTIFICATE OF ANALYSIS RE12282178

Method Analyte Units LOR	ME-MS61 Pb ppm	ME-MS61 Rb ppm	ME-MS61 Re ppm	ME-MS61 S %	ME-MS61 Sb ppm	ME-MS61 Sc ppm	ME-MS61 Se ppm	ME-MS61 Sn ppm	ME-MS61 Sr ppm	ME-MS61 Ta ppm	ME-MS61 Te ppm	ME-MS61 Th ppm	ME-MS61 Ti %	ME-MS61 TI ppm	ME-MS61 U ppm
3438-HC-1-Copper-Filtr-Cu-ResTail	57.5	313	0.016	0.77	0.46	4.8	1	3.3	363	0.82	0.22	22.6	0.174	1.86	6.0
3438-HC-6-604669	111.5	324	0.075	0.82	0.37	3.5	2	3.6	271	1.34	0.26	29.7	0.159	1.98	7.1
3438-HC-17-SRK0858	15.4	282	0.006	0.85	0.21	3.9	2	4.9	462	0.89	0.29	17.0	0.195	1.94	4.3



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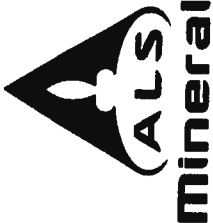
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SPARKS NV 89431

Page: 2 - D
Total # Pages: 2 (A - D)
Plus Appendix Pages
Finalized Date: 10- DEC- 2012
Account: EIM

Project: 3438

CERTIFICATE OF ANALYSIS RE12282178

Sample Description	Method Analyte Units LOR	ME: MS61 V ppm	ME: MS61 W ppm	ME: MS61 Y ppm	ME: MS61 Zn ppm	ME: MS61 Zr ppm
3438- HC- 1- Copper- Flt- Cu- Ro-Tail		47	9.1	20.1	117	25.7
3438- HC- 6- 604669		28	10.0	25.0	112	41.1
3438- HC- 17- SRK0858		37	9.8	14.7	18	26.5



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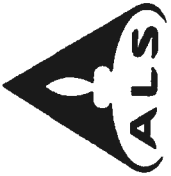
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CERTIFICATE OF ANALYSIS RE12282178

Method	CERTIFICATE COMMENTS
ME- MS61	REE's may not be totally soluble in this method.



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minerals

CERTIFICATE RE13143328

Project: 3438

P.O. No.:

This report is for 6 Crushed Rock samples submitted to our lab in Reno, NV, USA on 8- AUG- 2013.

The following have access to data associated with this certificate:

CHRISTINE DEBURLE

JACK MCPARTLAND

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
PUL- 31	Pulverize split to 85% < 75 um

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- MS61	48 element four acid ICP- MS	

The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim or deposit has been determined based on the results of assays of multiple samples of geological materials collected by the prospective investor or by a qualified person selected by him/her and based on an evaluation of all engineering data which is available concerning any proposed project. Statement required by Nevada State Law NRS 519

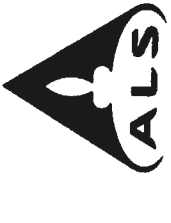
To: MCCLELLAND LABS
 ATTN: JACK MCPARTLAND
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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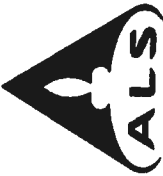
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 Account: EIM

Project: 3438

CERTIFICATE OF ANALYSIS REI3143328

Method Analyte Units LOR	WEI-21 Recvd Wt. kg	ME-MS61 Ag ppm	ME-MS61 Al %	ME-MS61 As ppm	ME-MS61 Ba ppm	ME-MS61 Be ppm	ME-MS61 Bi ppm	ME-MS61 Ca %	ME-MS61 Cd ppm	ME-MS61 Ce ppm	ME-MS61 Co ppm	ME-MS61 Cr ppm	ME-MS61 Cs ppm	ME-MS61 Cu ppm	ME-MS61 Fe %
3438-HC-24- Residue	0.28	0.70	8.59	1.4	830	4.26	0.64	1.69	0.16	70.6	1.4	8	9.08	273	2.60
3438-HC-26- Residue	0.27	1.44	7.40	2.2	900	3.00	1.11	1.48	0.55	51.3	6.2	15	11.80	881	1.39
3438-HC-29- Residue	0.27	0.72	7.29	7.9	850	2.53	0.67	1.32	0.75	59.5	12.4	280	8.06	180.0	3.19
3438-HC-30- Residue	0.27	0.69	8.08	6.7	930	3.13	0.76	1.37	0.57	75.1	11.4	284	7.84	216	2.46
3438-HC-31- Residue	0.27	0.60	7.86	3.2	740	3.81	0.56	1.44	0.77	73.7	9.3	269	7.97	191.5	2.14
3438-HC-8- Residue	0.27	5.18	7.71	15.3	1020	2.15	1.93	0.45	2.80	64.9	24.5	2	7.15	5970	3.62



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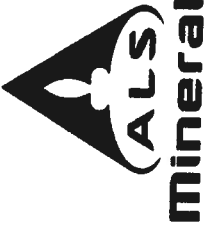
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Project: 3438

CERTIFICATE OF ANALYSIS RE13143328

Method Analyte Units LOR	ME-MS61 Ga ppm	ME-MS61 Ce ppm	ME-MS61 HF ppm	ME-MS61 Hg-CV41 ppm	ME-MS61 In ppm	ME-MS61 K %	ME-MS61 La ppm	ME-MS61 Li ppm	ME-MS61 Mg %	ME-MS61 Mn ppm	ME-MS61 Mo ppm	ME-MS61 Na %	ME-MS61 Nb ppm	ME-MS61 Ni ppm	ME-MS61 P ppm
3438-HC-24-Residue	21.4	0.14	1.3	<0.1	0.049	4.72	32.9	14.0	0.53	359	2.89	2.87	13.5	3.6	880
3438-HC-26-Residue	16.25	0.13	1.1	0.01	0.036	4.75	24.4	20.2	0.37	214	49.8	1.70	8.2	5.8	430
3438-HC-29-Residue	18.00	0.16	1.1	0.01	0.019	5.34	31.7	23.3	0.49	391	37.3	1.39	9.1	181.5	520
3438-HC-30-Residue	18.10	0.15	1.2	0.01	0.022	5.31	40.1	17.3	0.38	281	32.1	1.72	9.8	196.5	520
3438-HC-31-Residue	17.90	0.18	1.2	0.01	0.022	4.96	37.4	14.7	0.33	299	27.9	2.01	12.0	174.5	550
3438-HC-8-Residue	18.00	0.14	1.0	<0.01	0.174	6.33	33.6	13.3	0.35	306	26.1	1.05	9.9	3.9	540



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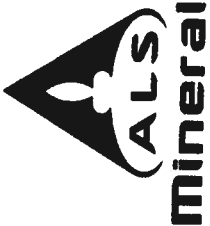
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Project: 3438

CERTIFICATE OF ANALYSIS RE13143328

Method Analyte Units LOR	ME-MS61 Pb ppm	ME-MS61 Rb ppm	ME-MS61 Re ppm	ME-MS61 S %	ME-MS61 Sb ppm	ME-MS61 Sc ppm	ME-MS61 Se ppm	ME-MS61 Sn ppm	ME-MS61 Sr ppm	ME-MS61 Ta ppm	ME-MS61 Te ppm	ME-MS61 Th ppm	ME-MS61 Tl %	ME-MS61 Tl ppm	ME-MS61 U ppm
3438-HC-24-Residue	24.1	302	<0.002	0.04	0.23	6.0	2	5.9	789	0.85	0.42	13.9	0.005	0.02	0.1
3438-HC-26-Residue	62.2	272	0.053	0.36	0.35	3.2	1	2.7	333	0.61	0.30	20.3	0.130	1.93	4.7
3438-HC-29-Residue	34.5	318	0.038	1.07	0.43	4.3	3	2.5	329	0.66	0.21	21.2	0.156	1.49	6.1
3438-HC-30-Residue	29.0	311	0.019	1.00	0.33	3.8	3	3.2	407	0.71	0.25	21.2	0.154	1.69	5.5
3438-HC-31-Residue	33.1	296	0.019	0.76	0.42	3.8	2	3.7	435	0.86	0.21	21.0	0.170	1.75	5.0
3438-HC-8-Residue	100.5	208	0.045	2.62	0.42	4.1	6	2.2	323	0.86	1.12	34.3	0.136	1.74	5.3
														2.25	13.8



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CERTIFICATE OF ANALYSIS RE13143328

Sample Description	Method Analyte Units LOR	ME-MS61 V ppm	ME-MS61 W ppm	ME-MS61 Y ppm	ME-MS61 Zn ppm	ME-MS61 Zr ppm
3438- HC- 24- Residue		55	16.4	29.3	41	20.9
3438- HC- 26- Residue		29	10.7	16.8	77	34.9
3438- HC- 29- Residue		55	7.8	18.6	103	28.8
3438- HC- 30- Residue		42	8.6	20.6	78	32.6
3438- HC- 31- Residue		34	8.5	22.6	97	30.3
3438- HC- 8- Residue		50	11.7	19.1	309	29.5

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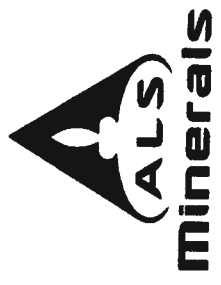
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Finalized Date: 16- AUG- 2013
Account: EIM

Project: 3438

CERTIFICATE OF ANALYSIS RE13143328



CERTIFICATE COMMENTS

ANALYTICAL COMMENTS

REE's may not be totally soluble in this method.
ME- MS61

Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.
Hg- CV41

LABORATORY ADDRESSES

Processed at ALS Reno located at 4977 Energy Way, Reno, NV, USA.
LOG- 22
PUL- 31

WEI- 21

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.
Hg- CV41
ME- MS61

Applies to Method:

Applies to Method:

Applies to Method:

Applies to Method:

SVL Reports



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W4A0022**
Reported: 17-Jan-14 08:59

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Sampled By	Date Received
3438 SRK0854 HC-16 RESIDUE	W4A0022-01	Soil	30-Dec-13 09:00	TJ	03-Jan-2014
3438 SRK0872 HC-21 RESIDUE	W4A0022-02	Soil	30-Dec-13 09:00	TJ	03-Jan-2014

Solid samples are analyzed on an as-received, wet-weight basis, unless otherwise requested. Non-Detects are reported at the MDL.

Sample preparation is defined by the client as per their Data Quality Objectives.

This report supercedes any previous reports for this Work Order. The complete report includes pages for each sample, a full QC report, and a notes section.

The results presented in this report relate only to the samples, and meet all requirements of the NELAC Standards unless otherwise noted.

(Q6) SVL received the following containers outside of published EPA guidelines for preservation temperatures (0-6°C).

The guidelines do not pertain to nitric-preserved metals.

Default Cooler (Received Temperature: 9.8°C)

<u>Labnumber</u>	<u>Container</u>	<u>Client ID</u>	<u>Labnumber</u>	<u>Container</u>	<u>Client ID</u>
W4A0022-01 A	Bag	3438 SRK0854 HC-16 RESIDUE	W4A0022-01 B	Manila Pulverize	3438 SRK0854 HC-16 RESIDUE
W4A0022-02 A	Bag	3438 SRK0872 HC-21 RESIDUE	W4A0022-02 B	Manila Pulverize	3438 SRK0872 HC-21 RESIDUE

Case Narrative

Nevada does not accredit for NAG titration.



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Kellogg ID 83837-0929

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McClelland Laboratories Inc
1016 Greg Street
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Project Name: MLI: 3438
Work Order: **W4A0022**
Reported: 17-Jan-14 08:59

Client Sample ID: **3438 SRK0854 HC-16 RESIDUE**

SVL Sample ID: **W4A0022-01 (Soil)**

Sample Report Page 1 of 1

Sampled: 30-Dec-13 09:00
Received: 03-Jan-14
Sampled By: TJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Classical Chemistry Parameters

NAG	NAG pH @20.3°C	4.01	pH Units				W403132	AGF	01/16/14 14:25	
NAG	NAG@pH 4.5	0	kg H2SO4/T	0.1			W403132	AGF	01/16/14 14:25	
NAG	NAG@pH 7	0	kg H2SO4/T	0.1			W403132	AGF	01/16/14 14:25	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

John Kern
Laboratory Director



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Project Name: MLI: 3438
Work Order: **W4A0022**
Reported: 17-Jan-14 08:59

Client Sample ID: **3438 SRK0872 HC-21 RESIDUE**

SVL Sample ID: **W4A0022-02 (Soil)**

Sample Report Page 1 of 1

Sampled: 30-Dec-13 09:00
Received: 03-Jan-14
Sampled By: TJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Classical Chemistry Parameters

NAG	NAG pH @20.5°C	2.82	pH Units				W403132	AGF	01/16/14 14:25	
NAG	NAG@pH 4.5	15.4	kg H2SO4/T	0.1			W403132	AGF	01/16/14 14:25	
NAG	NAG@pH 7	10.0	kg H2SO4/T	0.1			W403132	AGF	01/16/14 14:25	

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Laboratory Director



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Project Name: MLI: 3438
Work Order: **W4A0022**
Reported: 17-Jan-14 08:59

Quality Control - LABORATORY CONTROL SAMPLE Data

Method	Analyte	Units	LCS Result	LCS True	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes
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Classical Chemistry Parameters

NAG	NAG pH	pH Units	7.33	7.93	92.4	90 - 110	W403132	16-Jan-14	
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Quality Control - DUPLICATE Data

Method	Analyte	Units	Duplicate Result	Sample Result	RPD	RPD Limit	Batch ID	Analyzed	Notes
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Classical Chemistry Parameters

NAG	NAG pH	pH Units	3.74	3.72	0.5	20	W403132	16-Jan-14	
NAG	NAG@pH 4.5	kg H2SO4/T	0.6	0.6	0.0	20	W403132	16-Jan-14	
NAG	NAG@pH 7	kg H2SO4/T	20.2	20.6	1.9	20	W403132	16-Jan-14	

Notes and Definitions

LCS	Laboratory Control Sample (Blank Spike)
RPD	Relative Percent Difference
UDL	A result is less than the detection limit
R > 4S	% recovery not applicable, sample concentration more than four times greater than spike level
<RL	A result is less than the reporting limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
N/A	Not Applicable



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Project Name: MLI: 3438
Work Order: **W3L0454**
Reported: 13-Jan-14 15:29

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
3438 HC-25 RESIDUE	W3L0454-01	Solid	06-May-13 09:00	27-Dec-2013
3438 HC-27 RESIDUE	W3L0454-02	Solid	06-May-13 09:00	27-Dec-2013
3438 HC-28 RESIDUE	W3L0454-03	Solid	06-May-13 09:00	27-Dec-2013
3438 604669 HC-6	W3L0454-04	Solid	—	27-Dec-2013
3438 604787 HC-9	W3L0454-05	Solid	—	27-Dec-2013
3438 SRK 0858 HC-17	W3L0454-06	Solid	—	27-Dec-2013
3438 SRK 0867 HC-20	W3L0454-07	Solid	—	27-Dec-2013
3438-01 COPPER FLAT CU R TAIL HC-1	W3L0454-08	Solid	—	27-Dec-2013
3438-604673 HC-7 RESIDUE	W3L0454-09	Solid	—	27-Dec-2013
HC-24 RESIDUE	W3L0454-10	Solid	08-Aug-13 11:00	27-Dec-2013
HC-29 RESIDUE	W3L0454-11	Solid	08-Aug-13 11:00	27-Dec-2013
HC-26 RESIDUE	W3L0454-12	Solid	08-Aug-13 11:00	27-Dec-2013
HC-30 RESIDUE	W3L0454-13	Solid	08-Aug-13 11:00	27-Dec-2013
HC-31 RESIDUE	W3L0454-14	Solid	08-Aug-13 11:00	27-Dec-2013
HC-8 RESIDUE	W3L0454-15	Solid	08-Aug-13 11:00	27-Dec-2013
HC-22 RESIDUE	W3L0454-16	Solid	07-Aug-13 11:00	27-Dec-2013
HC-23 RESIDUE	W3L0454-17	Solid	07-Aug-13 11:00	27-Dec-2013

Solid samples are analyzed on an as-received, wet-weight basis, unless otherwise requested. Non-Detects are reported at the MDL. Sample preparation is defined by the client as per their Data Quality Objectives.

This report supercedes any previous reports for this Work Order. The complete report includes pages for each sample, a full QC report, and a notes section.

The results presented in this report relate only to the samples, and meet all requirements of the NELAC Standards unless otherwise noted.

Case Narrative

Nevada does not accredit for NAG.



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Kellogg ID 83837-0929

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Fax (208) 783-0891

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Project Name: MLI: 3438
Work Order: **W3L0454**
Reported: 13-Jan-14 15:29

Client Sample ID: **3438 HC-25 RESIDUE**

SVL Sample ID: **W3L0454-01 (Solid)**

Sample Report Page 1 of 1

Sampled: 06-May-13 09:00
Received: 27-Dec-13
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

NAG	NAG pH @21.3°C	8.00	pH Units				W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 4.5	0	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 7	0	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

John Kern
Laboratory Director



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Kellogg ID 83837-0929

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Project Name: MLI: 3438
Work Order: **W3L0454**
Reported: 13-Jan-14 15:29

Client Sample ID: **3438 HC-27 RESIDUE**

SVL Sample ID: **W3L0454-02 (Solid)**

Sample Report Page 1 of 1

Sampled: 06-May-13 09:00
Received: 27-Dec-13
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Classical Chemistry Parameters

NAG	NAG pH @21.0°C	8.20	pH Units				W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 4.5	0	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 7	0	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	

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Project Name: MLI: 3438
Work Order: **W3L0454**
Reported: 13-Jan-14 15:29

Client Sample ID: **3438 HC-28 RESIDUE**

SVL Sample ID: **W3L0454-03 (Solid)**

Sample Report Page 1 of 1

Sampled: 06-May-13 09:00
Received: 27-Dec-13
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

NAG	NAG pH @21.5°C	8.74	pH Units				W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 4.5	0	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 7	0	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	

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Project Name: MLI: 3438
Work Order: **W3L0454**
Reported: 13-Jan-14 15:29

Client Sample ID: **3438 604669 HC-6**

SVL Sample ID: **W3L0454-04 (Solid)**

Sample Report Page 1 of 1

Sampled: —
Received: 27-Dec-13
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Classical Chemistry Parameters

NAG	NAG pH @21.4°C	2.95	pH Units				W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 4.5	4.5	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 7	5.8	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

John Kern
Laboratory Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3L0454**
Reported: 13-Jan-14 15:29

Client Sample ID: **3438 604787 HC-9**

SVL Sample ID: **W3L0454-05 (Solid)**

Sample Report Page 1 of 1

Sampled: —
Received: 27-Dec-13
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Classical Chemistry Parameters

NAG	NAG pH @21.3°C	4.96	pH Units				W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 4.5	0	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 7	0	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	

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John Kern
Laboratory Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3L0454**
Reported: 13-Jan-14 15:29

Client Sample ID: **3438 SRK 0858 HC-17**

SVL Sample ID: **W3L0454-06 (Solid)**

Sample Report Page 1 of 1

Sampled: —
Received: 27-Dec-13
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Classical Chemistry Parameters

NAG	NAG pH @20.2°C	2.59	pH Units				W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 4.5	14.4	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 7	1.9	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	

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Laboratory Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3L0454**
Reported: 13-Jan-14 15:29

Client Sample ID: **3438 SRK 0867 HC-20**

SVL Sample ID: **W3L0454-07 (Solid)**

Sample Report Page 1 of 1

Sampled: —
Received: 27-Dec-13
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Classical Chemistry Parameters

NAG	NAG pH @19.8°C	2.81	pH Units				W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 4.5	6.4	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 7	5.2	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	

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John Kern
Laboratory Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3L0454**
Reported: 13-Jan-14 15:29

Client Sample ID: **3438-01 COPPER FLAT CU R TAIL HC-1**

SVL Sample ID: **W3L0454-08 (Solid)**

Sample Report Page 1 of 1

Sampled: —
Received: 27-Dec-13
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Classical Chemistry Parameters

NAG	NAG pH @20.0°C	9.88	pH Units				W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 4.5	0	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 7	0	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	

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John Kern
Laboratory Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3L0454**
Reported: 13-Jan-14 15:29

Client Sample ID: **3438-604673 HC-7 RESIDUE**

SVL Sample ID: **W3L0454-09 (Solid)**

Sample Report Page 1 of 1

Sampled: —
Received: 27-Dec-13
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Classical Chemistry Parameters

NAG	NAG pH @19.8°C	2.78	pH Units				W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 4.5	6.8	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 7	2.9	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	

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John Kern
Laboratory Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3L0454**
Reported: 13-Jan-14 15:29

Client Sample ID: **HC-24 RESIDUE**

SVL Sample ID: **W3L0454-10 (Solid)**

Sample Report Page 1 of 1

Sampled: 08-Aug-13 11:00
Received: 27-Dec-13
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Classical Chemistry Parameters

NAG	NAG pH @21.0°C	6.99	pH Units				W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 4.5	0	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 7	0	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	

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Laboratory Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3L0454**
Reported: 13-Jan-14 15:29

Client Sample ID: **HC-29 RESIDUE**
SVL Sample ID: **W3L0454-11 (Solid)**

Sampled: 08-Aug-13 11:00
Received: 27-Dec-13
Sampled By:

Sample Report Page 1 of 1

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Classical Chemistry Parameters

NAG	NAG pH @20.6°C	8.40	pH Units				W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 4.5	0	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 7	0	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	

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John Kern
Laboratory Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3L0454**
Reported: 13-Jan-14 15:29

Client Sample ID: **HC-26 RESIDUE**

SVL Sample ID: **W3L0454-12 (Solid)**

Sample Report Page 1 of 1

Sampled: 08-Aug-13 11:00
Received: 27-Dec-13
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Classical Chemistry Parameters

NAG	NAG pH @21.0°C	9.64	pH Units				W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 4.5	0	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 7	0	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	

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John Kern
Laboratory Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3L0454**
Reported: 13-Jan-14 15:29

Client Sample ID: **HC-30 RESIDUE**
SVL Sample ID: **W3L0454-13 (Solid)**

Sampled: 08-Aug-13 11:00
Received: 27-Dec-13
Sampled By:

Sample Report Page 1 of 1

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Classical Chemistry Parameters

NAG	NAG pH @20.2°C	8.25	pH Units				W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 4.5	0	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 7	0	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	

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John Kern
Laboratory Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3L0454**
Reported: 13-Jan-14 15:29

Client Sample ID: **HC-31 RESIDUE**

SVL Sample ID: **W3L0454-14 (Solid)**

Sample Report Page 1 of 1

Sampled: 08-Aug-13 11:00
Received: 27-Dec-13
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Classical Chemistry Parameters

NAG	NAG pH @19.9°C	8.20	pH Units				W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 4.5	0	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 7	0	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	

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Laboratory Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3L0454**
Reported: 13-Jan-14 15:29

Client Sample ID: **HC-8 RESIDUE**

SVL Sample ID: **W3L0454-15 (Solid)**

Sample Report Page 1 of 1

Sampled: 08-Aug-13 11:00
Received: 27-Dec-13
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Classical Chemistry Parameters

NAG	NAG pH @19.4°C	2.63	pH Units				W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 4.5	8.0	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 7	9.5	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	

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Laboratory Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3L0454**
Reported: 13-Jan-14 15:29

Client Sample ID: **HC-22 RESIDUE**

SVL Sample ID: **W3L0454-16 (Solid)**

Sample Report Page 1 of 1

Sampled: 07-Aug-13 11:00
Received: 27-Dec-13
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Classical Chemistry Parameters

NAG	NAG pH @19.6°C	2.69	pH Units				W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 4.5	13.2	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 7	3.9	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	

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John Kern
Laboratory Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3L0454**
Reported: 13-Jan-14 15:29

Client Sample ID: **HC-23 RESIDUE**
SVL Sample ID: **W3L0454-17 (Solid)**

Sampled: 07-Aug-13 11:00
Received: 27-Dec-13
Sampled By:

Sample Report Page 1 of 1

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Classical Chemistry Parameters

NAG	NAG pH @19.7°C	2.85	pH Units				W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 4.5	6.6	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	
NAG	NAG@pH 7	5.8	kg H2SO4/T	0.1			W402104	AGF	01/13/14 12:30	

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Laboratory Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3L0454**
Reported: 13-Jan-14 15:29

Quality Control - LABORATORY CONTROL SAMPLE Data

Method	Analyte	Units	LCS Result	LCS True	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes
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Classical Chemistry Parameters

NAG	NAG pH	pH Units	7.34	7.93	92.6	90 - 110	W402104	13-Jan-14	
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Quality Control - DUPLICATE Data

Method	Analyte	Units	Duplicate Result	Sample Result	RPD	RPD Limit	Batch ID	Analyzed	Notes
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Classical Chemistry Parameters

NAG	NAG pH	pH Units	7.98	8.00	0.3	20	W402104	13-Jan-14	
NAG	NAG@pH 4.5	kg H2SO4/T	0	0	UDL	20	W402104	13-Jan-14	
NAG	NAG@pH 7	kg H2SO4/T	0	0	UDL	20	W402104	13-Jan-14	

Notes and Definitions

LCS	Laboratory Control Sample (Blank Spike)
RPD	Relative Percent Difference
UDL	A result is less than the detection limit
R > 4S	% recovery not applicable, sample concentration more than four times greater than spike level
<RL	A result is less than the reporting limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
N/A	Not Applicable



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3H0326**
Reported: 27-Aug-13 10:14

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Sampled By	Date Received
HC-22 RESIDUE	W3H0326-01	Soil	07-Aug-13 11:00	CK	13-Aug-2013
HC-23 RESIDUE	W3H0326-02	Soil	07-Aug-13 11:00	CK	13-Aug-2013

Solid samples are analyzed on an as-received, wet-weight basis, unless otherwise requested. Non-Detects are reported at the MDL.

Sample preparation is defined by the client as per their Data Quality Objectives.

This report supercedes any previous reports for this Work Order. The complete report includes pages for each sample, a full QC report, and a notes section.

The results presented in this report relate only to the samples, and meet all requirements of the NELAC Standards unless otherwise noted.

Case Narrative

Nevada does not accredit for ABA and Sulfur Forms. HCl wash added per NDEP directive.



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3H0326**
Reported: 27-Aug-13 10:14

Client Sample ID: **HC-22 RESIDUE**
SVL Sample ID: **W3H0326-01 (Soil)**

Sample Report Page 1 of 1

Sampled: 07-Aug-13 11:00
Received: 13-Aug-13
Sampled By: CK

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms										
Modified Sobek	ABA	-23.7	TCaCO3/kT	0.3			N/A		08/22/13 15:26	
Modified Sobek	AGP	45.6	TCaCO3/kT	0.3			N/A		08/22/13 15:26	
Modified Sobek	ANP	21.9	TCaCO3/kT	0.3	0.1		W334117	MCE	08/22/13 15:11	A5
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.006		W334117	MCE	08/22/13 15:26	
Modified Sobek	Non-Sulfate Sulfur	1.46	%	0.01	0.006		W334117	MCE	08/22/13 14:08	
Modified Sobek	Pyritic Sulfur	1.46	%	0.01			N/A		08/22/13 15:26	
Modified Sobek	Sulfate Sulfur	0.25	%	0.01			N/A		08/22/13 14:08	
Modified Sobek	Total Sulfur	1.71	%	0.01	0.006		W334117	MCE	08/20/13 12:47	
Acid/Base Accounting & Sulfur Forms (HCl Wash)										
Modified Sobek	ABA-HCl	-12.8	TCaCO3/kT	0.3			N/A		08/22/13 16:39	
Modified Sobek	AGP-HCl	34.7	TCaCO3/kT	0.3			N/A		08/22/13 16:39	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.006		W334117	MCE	08/22/13 15:26	
Modified Sobek	Non-Sulfate Sulfur-HCl	1.11	%	0.01	0.006		W334117	MCE	08/22/13 16:39	
Modified Sobek	Pyritic Sulfur-HCl	1.11	%	0.01			N/A		08/22/13 16:39	
Modified Sobek	Sulfate Sulfur-HCl	0.60	%	0.01			N/A		08/22/13 16:39	
Modified Sobek	Total Sulfur	1.71	%	0.01	0.006		W334117	MCE	08/20/13 12:47	
Classical Chemistry Parameters										
USDA HB60(21a)	Paste pH @21.7°C	8.11	pH Units				W334297	AGF	08/27/13 08:19	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

John Kern
Laboratory Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3H0326**
Reported: 27-Aug-13 10:14

Client Sample ID: **HC-23 RESIDUE**

SVL Sample ID: **W3H0326-02 (Soil)**

Sample Report Page 1 of 1

Sampled: 07-Aug-13 11:00
Received: 13-Aug-13
Sampled By: CK

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms										
Modified Sobek	ABA	-1.8	TCaCO3/kT	0.3			N/A		08/22/13 15:29	
Modified Sobek	AGP	19.2	TCaCO3/kT	0.3			N/A		08/22/13 15:29	
Modified Sobek	ANP	17.4	TCaCO3/kT	0.3	0.1		W334117	MCE	08/22/13 15:11	A5
Modified Sobek	Non-extractable Sulfur	0.01	%	0.01	0.006		W334117	MCE	08/22/13 15:29	
Modified Sobek	Non-Sulfate Sulfur	0.63	%	0.01	0.006		W334117	MCE	08/22/13 14:11	
Modified Sobek	Pyritic Sulfur	0.61	%	0.01			N/A		08/22/13 15:29	
Modified Sobek	Sulfate Sulfur	0.46	%	0.01			N/A		08/22/13 14:11	
Modified Sobek	Total Sulfur	1.09	%	0.01	0.006		W334117	MCE	08/20/13 12:50	
Acid/Base Accounting & Sulfur Forms (HCl Wash)										
Modified Sobek	ABA-HCl	12.8	TCaCO3/kT	0.3			N/A		08/22/13 16:41	
Modified Sobek	AGP-HCl	4.6	TCaCO3/kT	0.3			N/A		08/22/13 16:41	
Modified Sobek	Non-extractable Sulfur	0.01	%	0.01	0.006		W334117	MCE	08/22/13 15:29	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.16	%	0.01	0.006		W334117	MCE	08/22/13 16:41	
Modified Sobek	Pyritic Sulfur-HCl	0.15	%	0.01			N/A		08/22/13 16:41	
Modified Sobek	Sulfate Sulfur-HCl	0.93	%	0.01			N/A		08/22/13 16:41	
Modified Sobek	Total Sulfur	1.09	%	0.01	0.006		W334117	MCE	08/20/13 12:50	
Classical Chemistry Parameters										
USDA HB60(21a)	Paste pH @22.0°C	8.34	pH Units				W334297	AGF	08/27/13 08:19	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

John Kern
Laboratory Director



McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3H0326**
Reported: 27-Aug-13 10:14

Quality Control - BLANK Data

Method	Analyte	Units	Result	MDL	MRL	Batch ID	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms								
Modified Sobek	ANP	TCaCO3/kT	<0.3	0.1	0.3	W334117	22-Aug-13	
Modified Sobek	Non-Sulfate Sulfur	%	<0.01	0.006	0.01	W334117	22-Aug-13	
Modified Sobek	Non-Sulfate Sulfur	%	<0.01	0.006	0.01	W334117	23-Aug-13	
Modified Sobek	Total Sulfur	%	<0.01	0.006	0.01	W334117	20-Aug-13	
Modified Sobek	Non-extractable Sulfur	%	<0.01	0.006	0.01	W334117	22-Aug-13	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	Non-Sulfate Sulfur-HCl	%	<0.01	0.006	0.01	W334117	22-Aug-13	
Modified Sobek	Total Sulfur	%	<0.01	0.006	0.01	W334117	20-Aug-13	
Modified Sobek	Non-extractable Sulfur	%	<0.01	0.006	0.01	W334117	22-Aug-13	

Quality Control - LABORATORY CONTROL SAMPLE Data

Method	Analyte	Units	LCS Result	LCS True	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms									
Modified Sobek	ANP	TCaCO3/kT	219	216	101	80 - 120	W334117	22-Aug-13	
Modified Sobek	Total Sulfur	%	0.89	0.00		80 - 120	W334117	20-Aug-13	
Acid/Base Accounting & Sulfur Forms (HCl Wash)									
Modified Sobek	Total Sulfur	%	0.89	0.00		80 - 120	W334117	20-Aug-13	
Classical Chemistry Parameters									
USDA HB60(21a)	Paste pH	pH Units	7.47	7.40	101	93.7 - 106.3	W334297	27-Aug-13	

Quality Control - DUPLICATE Data

Method	Analyte	Units	Duplicate Result	Sample Result	RPD	RPD Limit	Batch ID	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms									
Modified Sobek	ANP	TCaCO3/kT	6.0	6.0	0.0	20	W334117	22-Aug-13	
Modified Sobek	Non-Sulfate Sulfur	%	0.05	0.04	12.5	20	W334117	23-Aug-13	
Modified Sobek	Non-Sulfate Sulfur	%	0.05	0.06	12.4	20	W334117	22-Aug-13	
Modified Sobek	Total Sulfur	%	<0.01	<0.01	<RL	20	W334117	20-Aug-13	
Modified Sobek	Non-extractable Sulfur	%	<0.01	<0.01	UDL	20	W334117	22-Aug-13	
Acid/Base Accounting & Sulfur Forms (HCl Wash)									
Modified Sobek	Non-Sulfate Sulfur-HCl	%	0.10	0.08	21.5	20	W334117	22-Aug-13	R2B
Modified Sobek	Total Sulfur	%	<0.01	<0.01	<RL	20	W334117	20-Aug-13	
Modified Sobek	Non-extractable Sulfur	%	<0.01	<0.01	UDL	20	W334117	22-Aug-13	
Classical Chemistry Parameters									
USDA HB60(21a)	Paste pH	pH Units	8.42	8.51	1.1	20	W334297	27-Aug-13	



McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3H0326**
Reported: 27-Aug-13 10:14

Notes and Definitions

A5	5 g of sample used in ANP analysis
R2B	RPD exceeded the laboratory acceptance limit.
LCS	Laboratory Control Sample (Blank Spike)
RPD	Relative Percent Difference
UDL	A result is less than the detection limit
R > 4S	% recovery not applicable, sample concentration more than four times greater than spike level
<RL	A result is less than the reporting limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
N/A	Not Applicable



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3H0280**
Reported: 26-Aug-13 12:59

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Sampled By	Date Received
HC-24 RESIDUE	W3H0280-01	Soil	08-Aug-13 11:00	CK	12-Aug-2013
HC-29 RESIDUE	W3H0280-02	Soil	08-Aug-13 11:00	CK	12-Aug-2013
HC-26 RESIDUE	W3H0280-03	Soil	08-Aug-13 11:00	CK	12-Aug-2013
HC-30 RESIDUE	W3H0280-04	Soil	08-Aug-13 11:00	CK	12-Aug-2013
HC-31 RESIDUE	W3H0280-05	Soil	08-Aug-13 11:00	CK	12-Aug-2013
HC-8 RESIDUE	W3H0280-06	Soil	08-Aug-13 11:00	CK	12-Aug-2013

Solid samples are analyzed on an as-received, wet-weight basis, unless otherwise requested. Non-Detects are reported at the MDL.
Sample preparation is defined by the client as per their Data Quality Objectives.

This report supercedes any previous reports for this Work Order. The complete report includes pages for each sample, a full QC report, and a notes section.

The results presented in this report relate only to the samples, and meet all requirements of the NELAC Standards unless otherwise noted.

Case Narrative

Nevada does not accredit for ABA and Sulfur Forms. HCl wash added per NDEP directive.



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3H0280**
Reported: 26-Aug-13 12:59

Client Sample ID: **HC-24 RESIDUE**
SVL Sample ID: **W3H0280-01 (Soil)**

Sampled: 08-Aug-13 11:00
Received: 12-Aug-13
Sampled By: CK

Sample Report Page 1 of 1

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms										
Modified Sobek	ABA	20.5	TCaCO3/kT	0.3			N/A		08/22/13 15:11	
Modified Sobek	AGP	0.9	TCaCO3/kT	0.3			N/A		08/22/13 15:03	
Modified Sobek	ANP	21.4	TCaCO3/kT	0.3	0.1		W334117	MCE	08/22/13 15:11	A5
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.006		W334117	MCE	08/22/13 15:03	
Modified Sobek	Non-Sulfate Sulfur	0.03	%	0.01	0.006		W334117	MCE	08/22/13 13:39	
Modified Sobek	Pyritic Sulfur	0.03	%	0.01			N/A		08/22/13 15:03	
Modified Sobek	Sulfate Sulfur	0.01	%	0.01			N/A		08/22/13 13:39	
Modified Sobek	Total Sulfur	0.04	%	0.01	0.006		W334117	MCE	08/20/13 12:29	
Acid/Base Accounting & Sulfur Forms (HCl Wash)										
Modified Sobek	ABA-HCl	20.8	TCaCO3/kT	0.3			N/A		08/22/13 16:15	
Modified Sobek	AGP-HCl	0.6	TCaCO3/kT	0.3			N/A		08/22/13 16:15	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.006		W334117	MCE	08/22/13 15:03	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.02	%	0.01	0.006		W334117	MCE	08/22/13 16:15	
Modified Sobek	Pyritic Sulfur-HCl	0.02	%	0.01			N/A		08/22/13 16:15	
Modified Sobek	Sulfate Sulfur-HCl	0.02	%	0.01			N/A		08/22/13 16:15	
Modified Sobek	Total Sulfur	0.04	%	0.01	0.006		W334117	MCE	08/20/13 12:29	
Classical Chemistry Parameters										
USDA HB60(21a)	Paste pH @22.2°C	8.38	pH Units				W334274	MCE	08/23/13 15:44	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

John Kern
Laboratory Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3H0280**
Reported: 26-Aug-13 12:59

Client Sample ID: **HC-29 RESIDUE**

SVL Sample ID: **W3H0280-02 (Soil)**

Sample Report Page 1 of 1

Sampled: 08-Aug-13 11:00
Received: 12-Aug-13
Sampled By: CK

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms										
Modified Sobek	ABA	9.1	TCaCO3/kT	0.3			N/A		08/22/13 15:11	
Modified Sobek	AGP	25.2	TCaCO3/kT	0.3			N/A		08/22/13 15:06	
Modified Sobek	ANP	34.3	TCaCO3/kT	0.3	0.1		W334117	MCE	08/22/13 15:11	A5
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.006		W334117	MCE	08/22/13 15:06	
Modified Sobek	Non-Sulfate Sulfur	0.81	%	0.01	0.006		W334117	MCE	08/22/13 13:43	
Modified Sobek	Pyritic Sulfur	0.81	%	0.01			N/A		08/22/13 15:06	
Modified Sobek	Sulfate Sulfur	0.19	%	0.01			N/A		08/22/13 13:43	
Modified Sobek	Total Sulfur	1.00	%	0.01	0.006		W334117	MCE	08/20/13 12:32	
Acid/Base Accounting & Sulfur Forms (HCl Wash)										
Modified Sobek	ABA-HCl	16.7	TCaCO3/kT	0.3			N/A		08/22/13 16:24	
Modified Sobek	AGP-HCl	17.7	TCaCO3/kT	0.3			N/A		08/22/13 16:24	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.006		W334117	MCE	08/22/13 15:06	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.56	%	0.01	0.006		W334117	MCE	08/22/13 16:24	
Modified Sobek	Pyritic Sulfur-HCl	0.56	%	0.01			N/A		08/22/13 16:24	
Modified Sobek	Sulfate Sulfur-HCl	0.44	%	0.01			N/A		08/22/13 16:24	
Modified Sobek	Total Sulfur	1.00	%	0.01	0.006		W334117	MCE	08/20/13 12:32	
Classical Chemistry Parameters										
USDA HB60(21a)	Paste pH @21.9°C	8.14	pH Units				W334274	MCE	08/23/13 15:44	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

John Kern
Laboratory Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3H0280**
Reported: 26-Aug-13 12:59

Client Sample ID: **HC-26 RESIDUE**

SVL Sample ID: **W3H0280-03 (Soil)**

Sample Report Page 1 of 1

Sampled: 08-Aug-13 11:00
Received: 12-Aug-13
Sampled By: CK

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms										
Modified Sobek	ABA	26.9	TCaCO3/kT	0.3			N/A		08/22/13 15:15	
Modified Sobek	AGP	7.9	TCaCO3/kT	0.3			N/A		08/22/13 15:15	
Modified Sobek	ANP	34.8	TCaCO3/kT	0.3	0.1		W334117	MCE	08/22/13 15:11	A5
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.006		W334117	MCE	08/22/13 15:15	
Modified Sobek	Non-Sulfate Sulfur	0.25	%	0.01	0.006		W334117	MCE	08/22/13 13:46	
Modified Sobek	Pyritic Sulfur	0.25	%	0.01			N/A		08/22/13 15:15	
Modified Sobek	Sulfate Sulfur	0.07	%	0.01			N/A		08/22/13 13:46	
Modified Sobek	Total Sulfur	0.32	%	0.01	0.006		W334117	MCE	08/20/13 12:35	
Acid/Base Accounting & Sulfur Forms (HCl Wash)										
Modified Sobek	ABA-HCl	28.8	TCaCO3/kT	0.3			N/A		08/22/13 16:27	
Modified Sobek	AGP-HCl	6.0	TCaCO3/kT	0.3			N/A		08/22/13 16:27	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.006		W334117	MCE	08/22/13 15:15	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.19	%	0.01	0.006		W334117	MCE	08/22/13 16:27	
Modified Sobek	Pyritic Sulfur-HCl	0.19	%	0.01			N/A		08/22/13 16:27	
Modified Sobek	Sulfate Sulfur-HCl	0.13	%	0.01			N/A		08/22/13 16:27	
Modified Sobek	Total Sulfur	0.32	%	0.01	0.006		W334117	MCE	08/20/13 12:35	
Classical Chemistry Parameters										
USDA HB60(21a)	Paste pH @21.9°C	8.09	pH Units				W334274	MCE	08/23/13 15:44	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

John Kern
Laboratory Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3H0280**
Reported: 26-Aug-13 12:59

Client Sample ID: **HC-30 RESIDUE**

SVL Sample ID: **W3H0280-04 (Soil)**

Sample Report Page 1 of 1

Sampled: 08-Aug-13 11:00
Received: 12-Aug-13
Sampled By: CK

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms										
Modified Sobek	ABA	8.5	TCaCO3/kT	0.3			N/A		08/22/13 15:18	
Modified Sobek	AGP	22.3	TCaCO3/kT	0.3			N/A		08/22/13 15:18	
Modified Sobek	ANP	30.8	TCaCO3/kT	0.3	0.1		W334117	MCE	08/22/13 15:11	A5
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.006		W334117	MCE	08/22/13 15:18	
Modified Sobek	Non-Sulfate Sulfur	0.71	%	0.01	0.006		W334117	MCE	08/22/13 13:56	
Modified Sobek	Pyritic Sulfur	0.71	%	0.01			N/A		08/22/13 15:18	
Modified Sobek	Sulfate Sulfur	0.18	%	0.01			N/A		08/22/13 13:56	
Modified Sobek	Total Sulfur	0.90	%	0.01	0.006		W334117	MCE	08/20/13 12:38	
Acid/Base Accounting & Sulfur Forms (HCl Wash)										
Modified Sobek	ABA-HCl	12.9	TCaCO3/kT	0.3			N/A		08/22/13 16:30	
Modified Sobek	AGP-HCl	17.9	TCaCO3/kT	0.3			N/A		08/22/13 16:30	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.006		W334117	MCE	08/22/13 15:18	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.57	%	0.01	0.006		W334117	MCE	08/22/13 16:30	
Modified Sobek	Pyritic Sulfur-HCl	0.57	%	0.01			N/A		08/22/13 16:30	
Modified Sobek	Sulfate Sulfur-HCl	0.33	%	0.01			N/A		08/22/13 16:30	
Modified Sobek	Total Sulfur	0.90	%	0.01	0.006		W334117	MCE	08/20/13 12:38	
Classical Chemistry Parameters										
USDA HB60(21a)	Paste pH @21.7°C	8.11	pH Units				W334274	MCE	08/23/13 15:44	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

John Kern
Laboratory Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3H0280**
Reported: 26-Aug-13 12:59

Client Sample ID: **HC-31 RESIDUE**
SVL Sample ID: **W3H0280-05 (Soil)**

Sampled: 08-Aug-13 11:00
Received: 12-Aug-13
Sampled By: CK

Sample Report Page 1 of 1

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms										
Modified Sobek	ABA	13.8	TCaCO3/kT	0.3			N/A		08/22/13 15:21	
Modified Sobek	AGP	18.0	TCaCO3/kT	0.3			N/A		08/22/13 15:21	
Modified Sobek	ANP	31.8	TCaCO3/kT	0.3	0.1		W334117	MCE	08/22/13 15:11	A5
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.006		W334117	MCE	08/22/13 15:21	
Modified Sobek	Non-Sulfate Sulfur	0.58	%	0.01	0.006		W334117	MCE	08/22/13 13:59	
Modified Sobek	Pyritic Sulfur	0.58	%	0.01			N/A		08/22/13 15:21	
Modified Sobek	Sulfate Sulfur	0.16	%	0.01			N/A		08/22/13 13:59	
Modified Sobek	Total Sulfur	0.73	%	0.01	0.006		W334117	MCE	08/20/13 12:41	
Acid/Base Accounting & Sulfur Forms (HCl Wash)										
Modified Sobek	ABA-HCl	18.1	TCaCO3/kT	0.3			N/A		08/22/13 16:33	
Modified Sobek	AGP-HCl	13.7	TCaCO3/kT	0.3			N/A		08/22/13 16:33	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.006		W334117	MCE	08/22/13 15:21	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.44	%	0.01	0.006		W334117	MCE	08/22/13 16:33	
Modified Sobek	Pyritic Sulfur-HCl	0.44	%	0.01			N/A		08/22/13 16:33	
Modified Sobek	Sulfate Sulfur-HCl	0.29	%	0.01			N/A		08/22/13 16:33	
Modified Sobek	Total Sulfur	0.73	%	0.01	0.006		W334117	MCE	08/20/13 12:41	
Classical Chemistry Parameters										
USDA HB60(21a)	Paste pH @21.9°C	8.00	pH Units				W334274	MCE	08/23/13 15:44	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

John Kern
Laboratory Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3H0280**
Reported: 26-Aug-13 12:59

Client Sample ID: **HC-8 RESIDUE**
SVL Sample ID: **W3H0280-06 (Soil)**

Sampled: 08-Aug-13 11:00
Received: 12-Aug-13
Sampled By: CK

Sample Report Page 1 of 1

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms										
Modified Sobek	ABA	-51.6	TCaCO3/kT	0.3			N/A		08/22/13 15:23	
Modified Sobek	AGP	67.5	TCaCO3/kT	0.3			N/A		08/22/13 15:23	
Modified Sobek	ANP	15.9	TCaCO3/kT	0.3	0.1		W334117	MCE	08/22/13 15:11	A5
Modified Sobek	Non-extractable Sulfur	0.02	%	0.01	0.006		W334117	MCE	08/22/13 15:23	
Modified Sobek	Non-Sulfate Sulfur	2.18	%	0.01	0.006		W334117	MCE	08/22/13 14:04	
Modified Sobek	Pyritic Sulfur	2.16	%	0.01			N/A		08/22/13 15:23	
Modified Sobek	Sulfate Sulfur	0.30	%	0.01			N/A		08/22/13 14:04	
Modified Sobek	Total Sulfur	2.48	%	0.01	0.006		W334117	MCE	08/20/13 12:44	
Acid/Base Accounting & Sulfur Forms (HCl Wash)										
Modified Sobek	ABA-HCl	-16.9	TCaCO3/kT	0.3			N/A		08/22/13 16:36	
Modified Sobek	AGP-HCl	32.8	TCaCO3/kT	0.3			N/A		08/22/13 16:36	
Modified Sobek	Non-extractable Sulfur	0.02	%	0.01	0.006		W334117	MCE	08/22/13 15:23	
Modified Sobek	Non-Sulfate Sulfur-HCl	1.07	%	0.01	0.006		W334117	MCE	08/22/13 16:36	
Modified Sobek	Pyritic Sulfur-HCl	1.05	%	0.01			N/A		08/22/13 16:36	
Modified Sobek	Sulfate Sulfur-HCl	1.41	%	0.01			N/A		08/22/13 16:36	
Modified Sobek	Total Sulfur	2.48	%	0.01	0.006		W334117	MCE	08/20/13 12:44	
Classical Chemistry Parameters										
USDA HB60(21a)	Paste pH @21.7°C	7.68	pH Units				W334274	MCE	08/23/13 15:44	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

John Kern
Laboratory Director



McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3H0280**
Reported: 26-Aug-13 12:59

Quality Control - BLANK Data

Method	Analyte	Units	Result	MDL	MRL	Batch ID	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms								
Modified Sobek	ANP	TCaCO3/kT	<0.3	0.1	0.3	W334117	22-Aug-13	
Modified Sobek	Non-Sulfate Sulfur	%	<0.01	0.006	0.01	W334117	22-Aug-13	
Modified Sobek	Non-Sulfate Sulfur	%	<0.01	0.006	0.01	W334117	23-Aug-13	
Modified Sobek	Total Sulfur	%	<0.01	0.006	0.01	W334117	20-Aug-13	
Modified Sobek	Non-extractable Sulfur	%	<0.01	0.006	0.01	W334117	22-Aug-13	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	Non-Sulfate Sulfur-HCl	%	<0.01	0.006	0.01	W334117	22-Aug-13	
Modified Sobek	Total Sulfur	%	<0.01	0.006	0.01	W334117	20-Aug-13	
Modified Sobek	Non-extractable Sulfur	%	<0.01	0.006	0.01	W334117	22-Aug-13	

Quality Control - LABORATORY CONTROL SAMPLE Data

Method	Analyte	Units	LCS Result	LCS True	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms									
Modified Sobek	ANP	TCaCO3/kT	219	216	101	80 - 120	W334117	22-Aug-13	
Modified Sobek	Total Sulfur	%	0.89	0.00		80 - 120	W334117	20-Aug-13	
Acid/Base Accounting & Sulfur Forms (HCl Wash)									
Modified Sobek	Total Sulfur	%	0.89	0.00		80 - 120	W334117	20-Aug-13	
Classical Chemistry Parameters									
USDA HB60(21a)	Paste pH	pH Units	7.32	7.40	98.9	93.7 - 106.3	W334274	23-Aug-13	

Quality Control - DUPLICATE Data

Method	Analyte	Units	Duplicate Result	Sample Result	RPD	RPD Limit	Batch ID	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms									
Modified Sobek	ANP	TCaCO3/kT	6.0	6.0	0.0	20	W334117	22-Aug-13	
Modified Sobek	Non-Sulfate Sulfur	%	0.05	0.04	12.5	20	W334117	23-Aug-13	
Modified Sobek	Non-Sulfate Sulfur	%	0.05	0.06	12.4	20	W334117	22-Aug-13	
Modified Sobek	Total Sulfur	%	<0.01	<0.01	<RL	20	W334117	20-Aug-13	
Modified Sobek	Non-extractable Sulfur	%	<0.01	<0.01	UDL	20	W334117	22-Aug-13	
Acid/Base Accounting & Sulfur Forms (HCl Wash)									
Modified Sobek	Non-Sulfate Sulfur-HCl	%	0.10	0.08	21.5	20	W334117	22-Aug-13	R2B
Modified Sobek	Total Sulfur	%	<0.01	<0.01	<RL	20	W334117	20-Aug-13	
Modified Sobek	Non-extractable Sulfur	%	<0.01	<0.01	UDL	20	W334117	22-Aug-13	
Classical Chemistry Parameters									
USDA HB60(21a)	Paste pH	pH Units	7.31	7.25	0.8	20	W334274	23-Aug-13	



McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3H0280**
Reported: 26-Aug-13 12:59

Notes and Definitions

A5	5 g of sample used in ANP analysis
R2B	RPD exceeded the laboratory acceptance limit.
LCS	Laboratory Control Sample (Blank Spike)
RPD	Relative Percent Difference
UDL	A result is less than the detection limit
R > 4S	% recovery not applicable, sample concentration more than four times greater than spike level
<RL	A result is less than the reporting limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
N/A	Not Applicable



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

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1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3G0094**
Reported: 15-Jul-13 11:50

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Sampled By	Date Received
3438-604673 HC-7 RESIDUE	W3G0094-01	Soil	—	Gene McClelland	03-Jul-2013

Solid samples are analyzed on an as-received, wet-weight basis, unless otherwise requested. Non-Detects are reported at the MDL.

Sample preparation is defined by the client as per their Data Quality Objectives.

This report supercedes any previous reports for this Work Order. The complete report includes pages for each sample, a full QC report, and a notes section.

The results presented in this report relate only to the samples, and meet all requirements of the NELAC Standards unless otherwise noted.

Case Narrative

Nevada does not accredit for ABA and Sulfur Forms. HCl wash added per NDEP directive.



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3G0094**
Reported: 15-Jul-13 11:50

Client Sample ID: **3438-604673 HC-7 RESIDUE**

SVL Sample ID: **W3G0094-01 (Soil)**

Sample Report Page 1 of 1

Sampled: —
Received: 03-Jul-13
Sampled By: Gene McClelland

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms										
Modified Sobek	ABA	-8.6	TCaCO3/kT	0.3			N/A		07/11/13 10:46	
Modified Sobek	AGP	9.6	TCaCO3/kT	0.3			N/A		07/10/13 14:37	
Modified Sobek	ANP	1.0	TCaCO3/kT	0.3	0.1		W328085	AGF	07/11/13 10:46	A5
Modified Sobek	Non-extractable Sulfur	0.02	%	0.01	0.006		W328085	AGF	07/10/13 14:37	
Modified Sobek	Non-Sulfate Sulfur	0.33	%	0.01	0.006		W328085	AGF	07/10/13 14:01	
Modified Sobek	Pyritic Sulfur	0.31	%	0.01			N/A		07/10/13 14:37	
Modified Sobek	Sulfate Sulfur	0.18	%	0.01			N/A		07/10/13 14:01	
Modified Sobek	Total Sulfur	0.51	%	0.01	0.006		W328085	AGF	07/09/13 12:27	
Acid/Base Accounting & Sulfur Forms (HCl Wash)										
Modified Sobek	ABA-HCl	-8.1	TCaCO3/kT	0.3			N/A		07/11/13 10:46	
Modified Sobek	AGP-HCl	9.1	TCaCO3/kT	0.3			N/A		07/10/13 15:08	
Modified Sobek	Non-extractable Sulfur	0.02	%	0.01	0.006		W328085	AGF	07/10/13 14:37	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.31	%	0.01	0.006		W328085	AGF	07/10/13 15:08	
Modified Sobek	Pyritic Sulfur-HCl	0.29	%	0.01			N/A		07/10/13 15:08	
Modified Sobek	Sulfate Sulfur-HCl	0.20	%	0.01			N/A		07/10/13 15:08	
Modified Sobek	Total Sulfur	0.51	%	0.01	0.006		W328085	AGF	07/09/13 12:27	
Classical Chemistry Parameters										
USDA HB60(21a)	Paste pH @21.2°C	5.39	pH Units				W328149	AGF	07/10/13 08:40	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

John Kern
Laboratory Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3G0094**
Reported: 15-Jul-13 11:50

Quality Control - BLANK Data

Method	Analyte	Units	Result	MDL	MRL	Batch ID	Analyzed	Notes
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Acid/Base Accounting & Sulfur Forms

Modified Sobek	ANP	TCaCO3/kT	<0.3	0.1	0.3	W328085	11-Jul-13	
Modified Sobek	Non-Sulfate Sulfur	%	<0.01	0.006	0.01	W328085	10-Jul-13	
Modified Sobek	Total Sulfur	%	<0.01	0.006	0.01	W328085	09-Jul-13	
Modified Sobek	Non-extractable Sulfur	%	<0.01	0.006	0.01	W328085	10-Jul-13	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	Non-Sulfate Sulfur-HCl	%	<0.01	0.006	0.01	W328085	10-Jul-13	
Modified Sobek	Total Sulfur	%	<0.01	0.006	0.01	W328085	09-Jul-13	
Modified Sobek	Non-extractable Sulfur	%	<0.01	0.006	0.01	W328085	10-Jul-13	

Quality Control - LABORATORY CONTROL SAMPLE Data

Method	Analyte	Units	LCS Result	LCS True	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes
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Acid/Base Accounting & Sulfur Forms

Modified Sobek	ANP	TCaCO3/kT	205	216	94.8	80 - 120	W328085	11-Jul-13	
Modified Sobek	Total Sulfur	%	0.94	0.00		80 - 120	W328085	09-Jul-13	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	Total Sulfur	%	0.94	0.00		80 - 120	W328085	09-Jul-13	
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Classical Chemistry Parameters

USDA HB60(21a)	Paste pH	pH Units	7.50	7.40	101	93.7 - 106.3	W328149	10-Jul-13	
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Quality Control - DUPLICATE Data

Method	Analyte	Units	Duplicate Result	Sample Result	RPD	RPD Limit	Batch ID	Analyzed	Notes
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Acid/Base Accounting & Sulfur Forms

Modified Sobek	ANP	TCaCO3/kT	307	302	1.6	20	W328085	11-Jul-13	
Modified Sobek	Non-Sulfate Sulfur	%	2.34	2.36	0.9	20	W328085	10-Jul-13	D2
Modified Sobek	Non-Sulfate Sulfur	%	<0.01	<0.01	UDL	20	W328085	09-Jul-13	
Modified Sobek	Total Sulfur	%	<0.01	<0.01	UDL	20	W328085	09-Jul-13	
Modified Sobek	Non-extractable Sulfur	%	0.06	0.08	33.8	20	W328085	10-Jul-13	R2B
Modified Sobek	Non-extractable Sulfur	%	<0.01	<0.01	UDL	20	W328085	09-Jul-13	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	Non-Sulfate Sulfur-HCl	%	1.05	1.23	15.5	20	W328085	10-Jul-13	D2
Modified Sobek	Non-Sulfate Sulfur-HCl	%	<0.01	<0.01	UDL	20	W328085	09-Jul-13	
Modified Sobek	Total Sulfur	%	<0.01	<0.01	UDL	20	W328085	09-Jul-13	
Modified Sobek	Non-extractable Sulfur	%	0.06	0.08	33.8	20	W328085	10-Jul-13	R2B
Modified Sobek	Non-extractable Sulfur	%	<0.01	<0.01	UDL	20	W328085	09-Jul-13	

SVL holds the following certifications:

AZ:0538, CA:2080, FL(NELAC):E87993, ID:ID00019 & ID00965 (Microbiology), NV:ID000192007A, WA:C573



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

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1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3G0094**
Reported: 15-Jul-13 11:50

Quality Control - DUPLICATE Data (Continued)

Method	Analyte	Units	Duplicate Result	Sample Result	RPD	RPD Limit	Batch ID	Analyzed	Notes
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Classical Chemistry Parameters

USDA HB60(21a)	Paste pH	pH Units	5.43	5.39	0.7	20	W328149	10-Jul-13	
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Notes and Definitions

A5	5 g of sample used in ANP analysis
D2	Sample required dilution due to high concentration of target analyte.
R2B	RPD exceeded the laboratory acceptance limit.
LCS	Laboratory Control Sample (Blank Spike)
RPD	Relative Percent Difference
UDL	A result is less than the detection limit
R > 4S	% recovery not applicable, sample concentration more than four times greater than spike level
<RL	A result is less than the reporting limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
N/A	Not Applicable



McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438-01
Work Order: **W3E0635**
Reported: 11-Jun-13 08:55

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
3438 604669 HC-6	W3E0635-01	Solid	—	29-May-2013
3438 604787 HC-9	W3E0635-02	Solid	—	29-May-2013
3438 SRK 0858 HC-17	W3E0635-03	Solid	—	29-May-2013
3438 SRK 0867 HC-20	W3E0635-04	Solid	—	29-May-2013
3438-01 COPPER FLAT CU R TAIL HC-1	W3E0635-05	Solid	—	29-May-2013

Solid samples are analyzed on an as-received, wet-weight basis, unless otherwise requested. Non-Detects are reported at the MDL. Sample preparation is defined by the client as per their Data Quality Objectives. This report supercedes any previous reports for this Work Order. The complete report includes pages for each sample, a full QC report, and a notes section. The results presented in this report relate only to the samples, and meet all requirements of the NELAC Standards unless otherwise noted.

Case Narrative

Nevada does not accredit for ABA and Sulfur Forms. HCl wash added per NDEP directive.



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438-01
Work Order: **W3E0635**
Reported: 11-Jun-13 08:55

Client Sample ID: **3438 604669 HC-6**

SVL Sample ID: **W3E0635-01 (Solid)**

Sample Report Page 1 of 1

Sampled: —
Received: 29-May-13
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms										
Modified Sobek	ABA	-15.7	TCaCO3/kT	0.3			N/A		06/05/13 14:51	
Modified Sobek	AGP	19.2	TCaCO3/kT	0.3			N/A		06/04/13 13:33	
Modified Sobek	ANP	3.5	TCaCO3/kT	0.3	0.1		W322115	AGF	06/05/13 14:51	A5
Modified Sobek	Non-extractable Sulfur	0.05	%	0.01	0.006		W322115	MCE	06/04/13 13:33	
Modified Sobek	Non-Sulfate Sulfur	0.66	%	0.01	0.006		W322115	MCE	06/04/13 12:54	
Modified Sobek	Pyritic Sulfur	0.61	%	0.01			N/A		06/04/13 13:33	
Modified Sobek	Sulfate Sulfur	0.17	%	0.01			N/A		06/04/13 12:54	
Modified Sobek	Total Sulfur	0.83	%	0.01	0.006		W322115	MCE	06/03/13 10:26	
Acid/Base Accounting & Sulfur Forms (HCl Wash)										
Modified Sobek	ABA-HCl	-8.6	TCaCO3/kT	0.3			N/A		06/05/13 14:51	
Modified Sobek	AGP-HCl	12.1	TCaCO3/kT	0.3			N/A		06/04/13 14:09	
Modified Sobek	Non-extractable Sulfur	0.05	%	0.01	0.006		W322115	MCE	06/04/13 13:33	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.43	%	0.01	0.006		W322115	MCE	06/04/13 14:09	
Modified Sobek	Pyritic Sulfur-HCl	0.39	%	0.01			N/A		06/04/13 14:09	
Modified Sobek	Sulfate Sulfur-HCl	0.40	%	0.01			N/A		06/04/13 14:09	
Modified Sobek	Total Sulfur	0.83	%	0.01	0.006		W322115	MCE	06/03/13 10:26	
Classical Chemistry Parameters										
USDA HB60(21a)	Paste pH @20.8°C	7.51	pH Units				W322198	MCE	06/07/13 14:30	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Nan Wilson
Deputy Technical Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438-01
Work Order: **W3E0635**
Reported: 11-Jun-13 08:55

Client Sample ID: **3438 604787 HC-9**

SVL Sample ID: **W3E0635-02 (Solid)**

Sample Report Page 1 of 1

Sampled: —
Received: 29-May-13
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms										
Modified Sobek	ABA	-5.0	TCaCO3/kT	0.3			N/A		06/05/13 14:51	
Modified Sobek	AGP	35.9	TCaCO3/kT	0.3			N/A		06/04/13 13:36	
Modified Sobek	ANP	31.0	TCaCO3/kT	0.3	0.1		W322115	AGF	06/05/13 14:51	A5
Modified Sobek	Non-extractable Sulfur	0.09	%	0.01	0.006		W322115	MCE	06/04/13 13:36	
Modified Sobek	Non-Sulfate Sulfur	1.24	%	0.01	0.006		W322115	MCE	06/04/13 12:58	
Modified Sobek	Pyritic Sulfur	1.15	%	0.01			N/A		06/04/13 13:36	
Modified Sobek	Sulfate Sulfur	0.27	%	0.01			N/A		06/04/13 12:58	
Modified Sobek	Total Sulfur	1.51	%	0.01	0.006		W322115	MCE	06/03/13 10:29	
Acid/Base Accounting & Sulfur Forms (HCl Wash)										
Modified Sobek	ABA-HCl	12.2	TCaCO3/kT	0.3			N/A		06/05/13 14:51	
Modified Sobek	AGP-HCl	18.8	TCaCO3/kT	0.3			N/A		06/04/13 14:12	
Modified Sobek	Non-extractable Sulfur	0.09	%	0.01	0.006		W322115	MCE	06/04/13 13:36	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.69	%	0.01	0.006		W322115	MCE	06/04/13 14:12	
Modified Sobek	Pyritic Sulfur-HCl	0.60	%	0.01			N/A		06/04/13 14:12	
Modified Sobek	Sulfate Sulfur-HCl	0.82	%	0.01			N/A		06/04/13 14:12	
Modified Sobek	Total Sulfur	1.51	%	0.01	0.006		W322115	MCE	06/03/13 10:29	
Classical Chemistry Parameters										
USDA HB60(21a)	Paste pH @20.7°C	7.75	pH Units				W322198	MCE	06/07/13 14:30	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Nan Wilson
Deputy Technical Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438-01
Work Order: **W3E0635**
Reported: 11-Jun-13 08:55

Client Sample ID: **3438 SRK 0858 HC-17**

SVL Sample ID: **W3E0635-03 (Solid)**

Sample Report Page 1 of 1

Sampled: —
Received: 29-May-13
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms										
Modified Sobek	ABA	-16.1	TCaCO3/kT	0.3			N/A		06/05/13 14:51	
Modified Sobek	AGP	16.1	TCaCO3/kT	0.3			N/A		06/04/13 13:39	
Modified Sobek	ANP	< 0.3	TCaCO3/kT	0.3	0.1		W322115	AGF	06/05/13 14:51	A5
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.006		W322115	MCE	06/04/13 13:39	
Modified Sobek	Non-Sulfate Sulfur	0.52	%	0.01	0.006		W322115	MCE	06/04/13 13:02	
Modified Sobek	Pyritic Sulfur	0.52	%	0.01			N/A		06/04/13 13:39	
Modified Sobek	Sulfate Sulfur	0.30	%	0.01			N/A		06/04/13 13:02	
Modified Sobek	Total Sulfur	0.82	%	0.01	0.006		W322115	MCE	06/03/13 10:32	
Acid/Base Accounting & Sulfur Forms (HCl Wash)										
Modified Sobek	ABA-HCl	-17.1	TCaCO3/kT	0.3			N/A		06/05/13 14:51	
Modified Sobek	AGP-HCl	17.1	TCaCO3/kT	0.3			N/A		06/04/13 14:14	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.006		W322115	MCE	06/04/13 13:39	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.55	%	0.01	0.006		W322115	MCE	06/04/13 14:14	
Modified Sobek	Pyritic Sulfur-HCl	0.55	%	0.01			N/A		06/04/13 14:14	
Modified Sobek	Sulfate Sulfur-HCl	0.27	%	0.01			N/A		06/04/13 14:14	
Modified Sobek	Total Sulfur	0.82	%	0.01	0.006		W322115	MCE	06/03/13 10:32	
Classical Chemistry Parameters										
USDA HB60(21a)	Paste pH @20.6°C	3.95	pH Units				W322198	MCE	06/07/13 14:30	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Nan Wilson
Deputy Technical Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438-01
Work Order: **W3E0635**
Reported: 11-Jun-13 08:55

Client Sample ID: **3438 SRK 0867 HC-20**

SVL Sample ID: **W3E0635-04 (Solid)**

Sample Report Page 1 of 1

Sampled: —
Received: 29-May-13
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms										
Modified Sobek	ABA	-18.2	TCaCO3/kT	0.3			N/A		06/05/13 14:51	
Modified Sobek	AGP	24.7	TCaCO3/kT	0.3			N/A		06/04/13 13:42	
Modified Sobek	ANP	6.5	TCaCO3/kT	0.3	0.1		W322115	AGF	06/05/13 14:51	A5
Modified Sobek	Non-extractable Sulfur	0.02	%	0.01	0.006		W322115	MCE	06/04/13 13:42	
Modified Sobek	Non-Sulfate Sulfur	0.81	%	0.01	0.006		W322115	MCE	06/04/13 13:07	
Modified Sobek	Pyritic Sulfur	0.79	%	0.01			N/A		06/04/13 13:42	
Modified Sobek	Sulfate Sulfur	0.27	%	0.01			N/A		06/04/13 13:07	
Modified Sobek	Total Sulfur	1.08	%	0.01	0.006		W322115	MCE	06/03/13 10:35	
Acid/Base Accounting & Sulfur Forms (HCl Wash)										
Modified Sobek	ABA-HCl	-14.9	TCaCO3/kT	0.3			N/A		06/05/13 14:51	
Modified Sobek	AGP-HCl	21.4	TCaCO3/kT	0.3			N/A		06/04/13 14:17	
Modified Sobek	Non-extractable Sulfur	0.02	%	0.01	0.006		W322115	MCE	06/04/13 13:42	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.70	%	0.01	0.006		W322115	MCE	06/04/13 14:17	
Modified Sobek	Pyritic Sulfur-HCl	0.68	%	0.01			N/A		06/04/13 14:17	
Modified Sobek	Sulfate Sulfur-HCl	0.38	%	0.01			N/A		06/04/13 14:17	
Modified Sobek	Total Sulfur	1.08	%	0.01	0.006		W322115	MCE	06/03/13 10:35	
Classical Chemistry Parameters										
USDA HB60(21a)	Paste pH @20.7°C	7.57	pH Units				W322198	MCE	06/07/13 14:30	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Nan Wilson
Deputy Technical Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438-01
Work Order: **W3E0635**
Reported: 11-Jun-13 08:55

Client Sample ID: **3438-01 COPPER FLAT CU R TAIL HC-1**

SVL Sample ID: **W3E0635-05 (Solid)**

Sample Report Page 1 of 1

Sampled: —
Received: 29-May-13
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms										
Modified Sobek	ABA	15.6	TCaCO3/kT	0.3			N/A		06/05/13 14:51	
Modified Sobek	AGP	17.9	TCaCO3/kT	0.3			N/A		06/04/13 13:44	
Modified Sobek	ANP	33.5	TCaCO3/kT	0.3	0.1		W322115	AGF	06/05/13 14:51	A5
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.006		W322115	MCE	06/04/13 13:44	
Modified Sobek	Non-Sulfate Sulfur	0.57	%	0.01	0.006		W322115	MCE	06/04/13 13:10	
Modified Sobek	Pyritic Sulfur	0.57	%	0.01			N/A		06/04/13 13:44	
Modified Sobek	Sulfate Sulfur	0.23	%	0.01			N/A		06/04/13 13:10	
Modified Sobek	Total Sulfur	0.80	%	0.01	0.006		W322115	MCE	06/03/13 10:38	
Acid/Base Accounting & Sulfur Forms (HCl Wash)										
Modified Sobek	ABA-HCl	16.8	TCaCO3/kT	0.3			N/A		06/05/13 14:51	
Modified Sobek	AGP-HCl	16.7	TCaCO3/kT	0.3			N/A		06/04/13 14:20	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.006		W322115	MCE	06/04/13 13:44	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.54	%	0.01	0.006		W322115	MCE	06/04/13 14:20	
Modified Sobek	Pyritic Sulfur-HCl	0.54	%	0.01			N/A		06/04/13 14:20	
Modified Sobek	Sulfate Sulfur-HCl	0.27	%	0.01			N/A		06/04/13 14:20	
Modified Sobek	Total Sulfur	0.80	%	0.01	0.006		W322115	MCE	06/03/13 10:38	
Classical Chemistry Parameters										
USDA HB60(21a)	Paste pH @20.7°C	8.09	pH Units				W322198	MCE	06/07/13 14:30	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Nan Wilson
Deputy Technical Director



McClelland Laboratories Inc 1016 Greg Street Sparks, NV 89431	Project Name: MLI: 3438-01 Work Order: W3E0635 Reported: 11-Jun-13 08:55
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Quality Control - BLANK Data									
Method	Analyte	Units	Result	MDL	MRL	Batch ID	Analyzed	Notes	

Acid/Base Accounting & Sulfur Forms

Modified Sobek	ANP	TCaCO3/kT	<0.3	0.1	0.3	W322115	05-Jun-13		
Modified Sobek	Non-Sulfate Sulfur	%	<0.01	0.006	0.01	W322115	04-Jun-13		
Modified Sobek	Total Sulfur	%	<0.01	0.006	0.01	W322115	03-Jun-13		
Modified Sobek	Non-extractable Sulfur	%	<0.01	0.006	0.01	W322115	04-Jun-13		

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	Non-Sulfate Sulfur-HCl	%	<0.01	0.006	0.01	W322115	04-Jun-13		
Modified Sobek	Total Sulfur	%	<0.01	0.006	0.01	W322115	03-Jun-13		
Modified Sobek	Non-extractable Sulfur	%	<0.01	0.006	0.01	W322115	04-Jun-13		

Quality Control - LABORATORY CONTROL SAMPLE Data									
Method	Analyte	Units	LCS Result	LCS True	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes

Acid/Base Accounting & Sulfur Forms

Modified Sobek	ANP	TCaCO3/kT	210	216	97.2	80 - 120	W322115	05-Jun-13	
Modified Sobek	Total Sulfur	%	1.07	0.00		80 - 120	W322115	03-Jun-13	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	Total Sulfur	%	1.07	0.00		80 - 120	W322115	03-Jun-13	
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Classical Chemistry Parameters

USDA HB60(21a)	Paste pH	pH Units	7.56	7.40	102	93.7 - 106.3	W322198	07-Jun-13	
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Quality Control - DUPLICATE Data									
Method	Analyte	Units	Duplicate Result	Sample Result	RPD	RPD Limit	Batch ID	Analyzed	Notes

Acid/Base Accounting & Sulfur Forms

Modified Sobek	ANP	TCaCO3/kT	15.0	14.5	3.4	20	W322115	05-Jun-13	
Modified Sobek	Non-Sulfate Sulfur	%	<0.01	<0.01	UDL	20	W322115	04-Jun-13	
Modified Sobek	Non-Sulfate Sulfur	%	<0.01	<0.01	UDL	20	W322115	03-Jun-13	
Modified Sobek	Total Sulfur	%	<0.01	<0.01	UDL	20	W322115	03-Jun-13	
Modified Sobek	Non-extractable Sulfur	%	<0.01	<0.01	UDL	20	W322115	04-Jun-13	
Modified Sobek	Non-extractable Sulfur	%	<0.01	<0.01	UDL	20	W322115	03-Jun-13	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	Non-Sulfate Sulfur-HCl	%	0.03	0.03	10.3	20	W322115	04-Jun-13	
Modified Sobek	Non-Sulfate Sulfur-HCl	%	<0.01	<0.01	UDL	20	W322115	03-Jun-13	
Modified Sobek	Total Sulfur	%	<0.01	<0.01	UDL	20	W322115	03-Jun-13	
Modified Sobek	Non-extractable Sulfur	%	<0.01	<0.01	UDL	20	W322115	04-Jun-13	
Modified Sobek	Non-extractable Sulfur	%	<0.01	<0.01	UDL	20	W322115	03-Jun-13	



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438-01
Work Order: **W3E0635**
Reported: 11-Jun-13 08:55

Quality Control - DUPLICATE Data (Continued)

Method	Analyte	Units	Duplicate Result	Sample Result	RPD	RPD Limit	Batch ID	Analyzed	Notes
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Classical Chemistry Parameters

USDA HB60(21a)	Paste pH	pH Units	7.43	7.51	1.1	20	W322198	07-Jun-13	
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Notes and Definitions

A5	5 g of sample used in ANP analysis
LCS	Laboratory Control Sample (Blank Spike)
RPD	Relative Percent Difference
UDL	A result is less than the detection limit
R > 4S	% recovery not applicable, sample concentration more than four times greater than spike level
<RL	A result is less than the reporting limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
N/A	Not Applicable



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3E0194**
Reported: 16-May-13 13:59

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
3438 HC-25 RESIDUE	W3E0194-01	Soil	06-May-13 09:00	08-May-2013
3438 HC-27 RESIDUE	W3E0194-02	Soil	06-May-13 09:00	08-May-2013
3438 HC-28 RESIDUE	W3E0194-03	Soil	06-May-13 09:00	08-May-2013

Solid samples are analyzed on an as-received, wet-weight basis, unless otherwise requested. Non-Detects are reported at the MDL.

Sample preparation is defined by the client as per their Data Quality Objectives.

This report supercedes any previous reports for this Work Order. The complete report includes pages for each sample, a full QC report, and a notes section.

The results presented in this report relate only to the samples, and meet all requirements of the NELAC Standards unless otherwise noted.

Case Narrative

Nevada does not accredit for ABA and Sulfur Forms. HCl wash added per NDEP directive.



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3E0194**
Reported: 16-May-13 13:59

Client Sample ID: **3438 HC-25 RESIDUE**

SVL Sample ID: **W3E0194-01 (Soil)**

Sample Report Page 1 of 1

Sampled: 06-May-13 09:00
Received: 08-May-13
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Acid/Base Accounting & Sulfur Forms

Modified Sobek	ABA	23.3	TCaCO3/kT	0.3			N/A		05/14/13 14:36	
Modified Sobek	AGP	0.7	TCaCO3/kT	0.3			N/A		05/14/13 13:47	
Modified Sobek	ANP	24.0	TCaCO3/kT	0.3	0.1		W319299	AGF	05/14/13 14:36	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.006		W319299	MCE	05/14/13 13:47	
Modified Sobek	Non-Sulfate Sulfur	0.02	%	0.01	0.006		W319299	MCE	05/14/13 13:11	
Modified Sobek	Pyritic Sulfur	0.02	%	0.01			N/A		05/14/13 13:47	
Modified Sobek	Sulfate Sulfur	0.02	%	0.01			N/A		05/14/13 13:11	
Modified Sobek	Total Sulfur	0.05	%	0.01	0.006		W319299	MCE	05/13/13 09:49	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	ABA-HCl	23.2	TCaCO3/kT	0.3			N/A		05/14/13 14:36	
Modified Sobek	AGP-HCl	0.8	TCaCO3/kT	0.3			N/A		05/14/13 14:02	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.006		W319299	MCE	05/14/13 13:47	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.03	%	0.01	0.006		W319299	MCE	05/14/13 14:02	
Modified Sobek	Pyritic Sulfur-HCl	0.03	%	0.01			N/A		05/14/13 14:02	
Modified Sobek	Sulfate Sulfur-HCl	0.02	%	0.01			N/A		05/14/13 14:02	
Modified Sobek	Total Sulfur	0.05	%	0.01	0.006		W319299	MCE	05/13/13 09:49	

Classical Chemistry Parameters

USDA HB60(21a)	Paste pH @21.2°C	8.28		pH Units			W320015	AGF	05/16/13 11:45	
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This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

John Kern
Laboratory Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3E0194**
Reported: 16-May-13 13:59

Client Sample ID: **3438 HC-27 RESIDUE**

SVL Sample ID: **W3E0194-02 (Soil)**

Sample Report Page 1 of 1

Sampled: 06-May-13 09:00
Received: 08-May-13
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms										
Modified Sobek	ABA	26.8	TCaCO3/kT	0.3			N/A		05/14/13 14:36	
Modified Sobek	AGP	4.1	TCaCO3/kT	0.3			N/A		05/14/13 13:50	
Modified Sobek	ANP	30.9	TCaCO3/kT	0.3	0.1		W319299	AGF	05/14/13 14:36	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.006		W319299	MCE	05/14/13 13:50	
Modified Sobek	Non-Sulfate Sulfur	0.13	%	0.01	0.006		W319299	MCE	05/14/13 13:15	
Modified Sobek	Pyritic Sulfur	0.13	%	0.01			N/A		05/14/13 13:50	
Modified Sobek	Sulfate Sulfur	0.08	%	0.01			N/A		05/14/13 13:15	
Modified Sobek	Total Sulfur	0.21	%	0.01	0.006		W319299	MCE	05/13/13 09:52	
Acid/Base Accounting & Sulfur Forms (HCl Wash)										
Modified Sobek	ABA-HCl	27.2	TCaCO3/kT	0.3			N/A		05/14/13 14:36	
Modified Sobek	AGP-HCl	3.7	TCaCO3/kT	0.3			N/A		05/14/13 14:05	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.006		W319299	MCE	05/14/13 13:50	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.12	%	0.01	0.006		W319299	MCE	05/14/13 14:05	
Modified Sobek	Pyritic Sulfur-HCl	0.12	%	0.01			N/A		05/14/13 14:05	
Modified Sobek	Sulfate Sulfur-HCl	0.10	%	0.01			N/A		05/14/13 14:05	
Modified Sobek	Total Sulfur	0.21	%	0.01	0.006		W319299	MCE	05/13/13 09:52	
Classical Chemistry Parameters										
USDA HB60(21a)	Paste pH @20.5°C	8.39		pH Units			W320015	AGF	05/16/13 11:45	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

John Kern
Laboratory Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3E0194**
Reported: 16-May-13 13:59

Client Sample ID: **3438 HC-28 RESIDUE**

SVL Sample ID: **W3E0194-03 (Soil)**

Sample Report Page 1 of 1

Sampled: 06-May-13 09:00
Received: 08-May-13
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Acid/Base Accounting & Sulfur Forms

Modified Sobek	ABA	25.4	TCaCO3/kT	0.3			N/A		05/14/13 14:36	
Modified Sobek	AGP	1.1	TCaCO3/kT	0.3			N/A		05/14/13 13:53	
Modified Sobek	ANP	26.5	TCaCO3/kT	0.3	0.1		W319299	AGF	05/14/13 14:36	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.006		W319299	MCE	05/14/13 13:53	
Modified Sobek	Non-Sulfate Sulfur	0.03	%	0.01	0.006		W319299	MCE	05/14/13 13:17	
Modified Sobek	Pyritic Sulfur	0.03	%	0.01			N/A		05/14/13 13:53	
Modified Sobek	Sulfate Sulfur	0.04	%	0.01			N/A		05/14/13 13:17	
Modified Sobek	Total Sulfur	0.07	%	0.01	0.006		W319299	MCE	05/13/13 09:55	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	ABA-HCl	25.7	TCaCO3/kT	0.3			N/A		05/14/13 14:36	
Modified Sobek	AGP-HCl	0.8	TCaCO3/kT	0.3			N/A		05/14/13 14:13	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.006		W319299	MCE	05/14/13 13:53	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.03	%	0.01	0.006		W319299	MCE	05/14/13 14:13	
Modified Sobek	Pyritic Sulfur-HCl	0.03	%	0.01			N/A		05/14/13 14:13	
Modified Sobek	Sulfate Sulfur-HCl	0.04	%	0.01			N/A		05/14/13 14:13	
Modified Sobek	Total Sulfur	0.07	%	0.01	0.006		W319299	MCE	05/13/13 09:55	

Classical Chemistry Parameters

USDA HB60(21a)	Paste pH @20.6°C	8.34	pH Units				W320015	AGF	05/16/13 11:45	
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This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

John Kern
Laboratory Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3E0194**
Reported: 16-May-13 13:59

Quality Control - BLANK Data

Method	Analyte	Units	Result	MDL	MRL	Batch ID	Analyzed	Notes
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Acid/Base Accounting & Sulfur Forms

Modified Sobek	ANP	TCaCO3/kT	<0.3	0.1	0.3	W319299	14-May-13	
Modified Sobek	Non-Sulfate Sulfur	%	<0.01	0.006	0.01	W319299	14-May-13	
Modified Sobek	Total Sulfur	%	<0.01	0.006	0.01	W319299	13-May-13	
Modified Sobek	Non-extractable Sulfur	%	<0.01	0.006	0.01	W319299	14-May-13	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	Non-Sulfate Sulfur-HCl	%	<0.01	0.006	0.01	W319299	14-May-13	
Modified Sobek	Total Sulfur	%	<0.01	0.006	0.01	W319299	13-May-13	
Modified Sobek	Non-extractable Sulfur	%	<0.01	0.006	0.01	W319299	14-May-13	

Quality Control - LABORATORY CONTROL SAMPLE Data

Method	Analyte	Units	LCS Result	LCS True	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes
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Acid/Base Accounting & Sulfur Forms

Modified Sobek	ANP	TCaCO3/kT	223	216	103	80 - 120	W319299	14-May-13	
Modified Sobek	Total Sulfur	%	1.02	0.00		80 - 120	W319299	13-May-13	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	Total Sulfur	%	1.02	0.00		80 - 120	W319299	13-May-13	
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Classical Chemistry Parameters

USDA HB60(21a)	Paste pH	pH Units	7.43	7.40	100	93.7 - 106.3	W320015	16-May-13	
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Quality Control - DUPLICATE Data

Method	Analyte	Units	Duplicate Result	Sample Result	RPD	RPD Limit	Batch ID	Analyzed	Notes
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Acid/Base Accounting & Sulfur Forms

Modified Sobek	ANP	TCaCO3/kT	26.0	24.0	7.8	20	W319299	14-May-13	
Modified Sobek	Non-Sulfate Sulfur	%	0.02	0.02	5.6	20	W319299	14-May-13	
Modified Sobek	Total Sulfur	%	0.05	0.05	4.7	20	W319299	13-May-13	
Modified Sobek	Non-extractable Sulfur	%	<0.01	<0.01	UDL	20	W319299	14-May-13	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	Non-Sulfate Sulfur-HCl	%	0.01	0.03	51.6	20	W319299	14-May-13	R2B
Modified Sobek	Total Sulfur	%	0.05	0.05	4.7	20	W319299	13-May-13	
Modified Sobek	Non-extractable Sulfur	%	<0.01	<0.01	UDL	20	W319299	14-May-13	

Classical Chemistry Parameters

USDA HB60(21a)	Paste pH	pH Units	8.24	8.28	0.5	20	W320015	16-May-13	
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SVL holds the following certifications:

AZ:0538, CA:2080, FL(NELAC):E87993, ID:ID00019 & ID00965 (Microbiology), NV:ID000192007A, WA:1268

Work order Report Page 5 of 6



McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3E0194**
Reported: 16-May-13 13:59

Notes and Definitions

R2B	RPD exceeded the laboratory acceptance limit.
LCS	Laboratory Control Sample (Blank Spike)
RPD	Relative Percent Difference
UDL	A result is less than the detection limit
R > 4S	% recovery not applicable, sample concentration more than four times greater than spike level
<RL	A result is less than the reporting limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
N/A	Not Applicable



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3B0421**
Reported: 07-Mar-13 12:09

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
3438 SRK 0854 HC-16 RESIDUE	W3B0421-01	Soil	21-Feb-13 09:00	25-Feb-2013
3438 SRK 0872 HC-21 RESIDUE	W3B0421-02	Soil	21-Feb-13 09:00	25-Feb-2013

Solid samples are analyzed on an as-received, wet-weight basis, unless otherwise requested. Non-Detects are reported at the MDL.

Sample preparation is defined by the client as per their Data Quality Objectives.

This report supercedes any previous reports for this Work Order. The complete report includes pages for each sample, a full QC report, and a notes section.

The results presented in this report relate only to the samples, and meet all requirements of the NELAC Standards unless otherwise noted.

Case Narrative

Nevada does not accredit for ABA and Sulfur Forms. HCl wash added per NDEP directive.



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3B0421**
Reported: 07-Mar-13 12:09

Client Sample ID: **3438 SRK 0854 HC-16 RESIDUE**

SVL Sample ID: **W3B0421-01 (Soil)**

Sample Report Page 1 of 1

Sampled: 21-Feb-13 09:00
Received: 25-Feb-13
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Acid/Base Accounting & Sulfur Forms

Modified Sobek	ABA	-18.2	TCaCO3/kT	0.3			N/A		03/04/13 13:36	
Modified Sobek	AGP	19.8	TCaCO3/kT	0.3			N/A		03/04/13 13:36	
Modified Sobek	ANP	1.5	TCaCO3/kT	0.3	0.1		W309098	AGF	03/01/13 14:15	
Modified Sobek	Non-extractable Sulfur	0.05	%	0.01	0.004		W309098	MCE	03/04/13 13:36	
Modified Sobek	Non-Sulfate Sulfur	0.68	%	0.01	0.004		W309098	MCE	03/04/13 12:33	
Modified Sobek	Pyritic Sulfur	0.63	%	0.01			N/A		03/04/13 13:36	
Modified Sobek	Sulfate Sulfur	0.33	%	0.01			N/A		03/04/13 12:33	
Modified Sobek	Total Sulfur	1.01	%	0.01	0.004		W309098	MCE	02/27/13 12:56	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	ABA-HCl	-10.2	TCaCO3/kT	0.3			N/A		03/04/13 14:34	
Modified Sobek	AGP-HCl	11.7	TCaCO3/kT	0.3			N/A		03/04/13 14:34	
Modified Sobek	Non-extractable Sulfur	0.05	%	0.01	0.004		W309098	MCE	03/04/13 13:36	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.42	%	0.01	0.004		W309098	MCE	03/04/13 14:34	
Modified Sobek	Pyritic Sulfur-HCl	0.38	%	0.01			N/A		03/04/13 14:34	
Modified Sobek	Sulfate Sulfur-HCl	0.59	%	0.01			N/A		03/04/13 14:34	
Modified Sobek	Total Sulfur	1.01	%	0.01	0.004		W309098	MCE	02/27/13 12:56	

Classical Chemistry Parameters

USDA HB60(21a)	Paste pH @20.6°C	5.45	pH Units				W309281	MCE	03/06/13 11:45	
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This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

John Kern
Laboratory Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3B0421**
Reported: 07-Mar-13 12:09

Client Sample ID: **3438 SRK 0872 HC-21 RESIDUE**

SVL Sample ID: **W3B0421-02 (Soil)**

Sample Report Page 1 of 1

Sampled: 21-Feb-13 09:00
Received: 25-Feb-13
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Acid/Base Accounting & Sulfur Forms

Modified Sobek	ABA	-34.5	TCaCO3/kT	0.3			N/A		03/04/13 13:39	
Modified Sobek	AGP	36.1	TCaCO3/kT	0.3			N/A		03/04/13 13:39	
Modified Sobek	ANP	1.5	TCaCO3/kT	0.3	0.1		W309098	AGF	03/01/13 14:15	
Modified Sobek	Non-extractable Sulfur	0.02	%	0.01	0.004		W309098	MCE	03/04/13 13:39	
Modified Sobek	Non-Sulfate Sulfur	1.17	%	0.01	0.004		W309098	MCE	03/04/13 12:37	
Modified Sobek	Pyritic Sulfur	1.15	%	0.01			N/A		03/04/13 13:39	
Modified Sobek	Sulfate Sulfur	0.45	%	0.01			N/A		03/04/13 12:37	
Modified Sobek	Total Sulfur	1.62	%	0.01	0.004		W309098	MCE	02/27/13 12:59	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	ABA-HCl	-26.7	TCaCO3/kT	0.3			N/A		03/04/13 14:37	
Modified Sobek	AGP-HCl	28.2	TCaCO3/kT	0.3			N/A		03/04/13 14:37	
Modified Sobek	Non-extractable Sulfur	0.02	%	0.01	0.004		W309098	MCE	03/04/13 13:39	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.92	%	0.01	0.004		W309098	MCE	03/04/13 14:37	
Modified Sobek	Pyritic Sulfur-HCl	0.90	%	0.01			N/A		03/04/13 14:37	
Modified Sobek	Sulfate Sulfur-HCl	0.70	%	0.01			N/A		03/04/13 14:37	
Modified Sobek	Total Sulfur	1.62	%	0.01	0.004		W309098	MCE	02/27/13 12:59	

Classical Chemistry Parameters

USDA HB60(21a)	Paste pH @20.5°C	7.37	pH Units				W309281	MCE	03/06/13 11:45	
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This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

John Kern
Laboratory Director



McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3B0421**
Reported: 07-Mar-13 12:09

Quality Control - BLANK Data

Method	Analyte	Units	Result	MDL	MRL	Batch ID	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms								
Modified Sobek	ANP	TCaCO3/kT	<0.3	0.1	0.3	W309098	01-Mar-13	
Modified Sobek	Non-Sulfate Sulfur	%	<0.01	0.004	0.01	W309098	04-Mar-13	
Modified Sobek	Non-Sulfate Sulfur	%	<0.01	0.004	0.01	W309098	06-Mar-13	
Modified Sobek	Total Sulfur	%	<0.01	0.004	0.01	W309098	27-Feb-13	
Modified Sobek	Non-extractable Sulfur	%	<0.01	0.004	0.01	W309098	04-Mar-13	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	Non-Sulfate Sulfur-HCl	%	<0.01	0.004	0.01	W309098	04-Mar-13	
Modified Sobek	Total Sulfur	%	<0.01	0.004	0.01	W309098	27-Feb-13	
Modified Sobek	Non-extractable Sulfur	%	<0.01	0.004	0.01	W309098	04-Mar-13	

Quality Control - LABORATORY CONTROL SAMPLE Data

Method	Analyte	Units	LCS Result	LCS True	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms									
Modified Sobek	ANP	TCaCO3/kT	209	216	96.8	80 - 120	W309098	01-Mar-13	
Modified Sobek	Total Sulfur	%	1.02	0.942	108	80 - 120	W309098	27-Feb-13	
Acid/Base Accounting & Sulfur Forms (HCl Wash)									
Modified Sobek	Total Sulfur	%	1.02	0.942	108	80 - 120	W309098	27-Feb-13	
Classical Chemistry Parameters									
USDA HB60(21a)	Paste pH	pH Units	7.48	7.40	101	93.7 - 106.3	W309281	06-Mar-13	

Quality Control - DUPLICATE Data

Method	Analyte	Units	Duplicate Result	Sample Result	RPD	RPD Limit	Batch ID	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms									
Modified Sobek	ANP	TCaCO3/kT	762	762	0.0	20	W309098	01-Mar-13	
Modified Sobek	Non-Sulfate Sulfur	%	0.15	0.18	18.3	20	W309098	06-Mar-13	
Modified Sobek	Total Sulfur	%	<0.02	<0.02	UDL	20	W309098	27-Feb-13	D1
Modified Sobek	Non-extractable Sulfur	%	0.12	0.13	10.4	20	W309098	04-Mar-13	
Acid/Base Accounting & Sulfur Forms (HCl Wash)									
Modified Sobek	Non-Sulfate Sulfur-HCl	%	0.15	0.17	13.2	20	W309098	04-Mar-13	
Modified Sobek	Total Sulfur	%	<0.02	<0.02	UDL	20	W309098	27-Feb-13	D1
Modified Sobek	Non-extractable Sulfur	%	0.12	0.13	10.4	20	W309098	04-Mar-13	
Classical Chemistry Parameters									
USDA HB60(21a)	Paste pH	pH Units	8.20	8.19	0.1	20	W309281	06-Mar-13	



McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W3B0421**
Reported: 07-Mar-13 12:09

Notes and Definitions

D1	Sample required dilution due to matrix.
LCS	Laboratory Control Sample (Blank Spike)
RPD	Relative Percent Difference
UDL	A result is less than the detection limit
R > 4S	% recovery not applicable, sample concentration more than four times greater than spike level
<RL	A result is less than the reporting limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
N/A	Not Applicable



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W1L0313**
Reported: 06-Jan-12 17:07

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Sampled By	Date Received
SRK 0866	W1L0313-01	Soil	13-Dec-11 09:00	TJ	15-Dec-2011
SRK 0864	W1L0313-02	Soil	13-Dec-11 09:00	TJ	15-Dec-2011
604 033	W1L0313-03	Soil	13-Dec-11 09:00	TJ	15-Dec-2011
604 153	W1L0313-04	Soil	13-Dec-11 09:00	TJ	15-Dec-2011
604 562	W1L0313-05	Soil	13-Dec-11 09:00	TJ	15-Dec-2011
604 569	W1L0313-06	Soil	13-Dec-11 09:00	TJ	15-Dec-2011
604 606	W1L0313-07	Soil	13-Dec-11 09:00	TJ	15-Dec-2011
604 653	W1L0313-08	Soil	13-Dec-11 09:00	TJ	15-Dec-2011
604 656	W1L0313-09	Soil	13-Dec-11 09:00	TJ	15-Dec-2011
604 811	W1L0313-10	Soil	13-Dec-11 09:00	TJ	15-Dec-2011
604 854	W1L0313-11	Soil	13-Dec-11 09:00	TJ	15-Dec-2011
604 862	W1L0313-12	Soil	13-Dec-11 09:00	TJ	15-Dec-2011
604 867	W1L0313-13	Soil	13-Dec-11 09:00	TJ	15-Dec-2011

Solid samples are analyzed on an as-received, wet-weight basis, unless otherwise requested. Non-Detects are reported at the MDL.

Sample preparation is defined by the client as per their Data Quality Objectives.

This report supercedes any previous reports for this Work Order. The complete report includes pages for each sample, a full QC report, and a notes section.

The results presented in this report relate only to the samples, and meet all requirements of the NELAC Standards unless otherwise noted.

Case Narrative

Nevada does not accredit for NAG, ABA and Sulfur Forms. HCl wash added per NDEP directive.



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W1L0313**
Reported: 06-Jan-12 17:07

Client Sample ID: **SRK 0866**

SVL Sample ID: **W1L0313-01 (Soil)**

Sample Report Page 1 of 1

Sampled: 13-Dec-11 09:00
Received: 15-Dec-11
Sampled By: TJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Acid/Base Accounting & Sulfur Forms

Modified Sobek	ABA	9.3	TCaCO3/kT	0.3			N/A		12/22/11 09:09	
Modified Sobek	AGP	5.5	TCaCO3/kT	0.3			N/A		12/22/11 09:09	
Modified Sobek	ANP	14.8	TCaCO3/kT	0.3	0.1		W152101	AGF	12/21/11 14:24	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.004		W152101	MAD	12/22/11 09:09	
Modified Sobek	Non-Sulfate Sulfur	0.18	%	0.01	0.004		W152101	MAD	12/21/11 11:41	
Modified Sobek	Pyritic Sulfur	0.18	%	0.01			N/A		12/22/11 09:09	
Modified Sobek	Sulfate Sulfur	0.08	%	0.01			N/A		12/21/11 11:41	
Modified Sobek	Total Sulfur	0.26	%	0.01	0.004		W152101	MAD	12/20/11 14:07	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	ABA-HCl	9.7	TCaCO3/kT	0.3			N/A		12/22/11 09:09	
Modified Sobek	AGP-HCl	5.1	TCaCO3/kT	0.3			N/A		12/22/11 09:09	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.004		W152101	MAD	12/22/11 09:09	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.16	%	0.01	0.004		W152101	MAD	12/22/11 08:18	
Modified Sobek	Pyritic Sulfur-HCl	0.16	%	0.01			N/A		12/22/11 09:09	
Modified Sobek	Sulfate Sulfur-HCl	0.09	%	0.01			N/A		12/22/11 08:18	
Modified Sobek	Total Sulfur	0.26	%	0.01	0.004		W152101	MAD	12/20/11 14:07	

Classical Chemistry Parameters

NAG	NAG pH @26.8°C	3.83	pH Units				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 4.5	3.54	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 7	2.16	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
USDA HB60(21a)	Paste pH @20.4°C	8.04	pH Units				W152266	MAD	12/27/11 10:12	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W1L0313**
Reported: 06-Jan-12 17:07

Client Sample ID: **SRK 0864**

SVL Sample ID: **W1L0313-02 (Soil)**

Sample Report Page 1 of 1

Sampled: 13-Dec-11 09:00
Received: 15-Dec-11
Sampled By: TJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Acid/Base Accounting & Sulfur Forms

Modified Sobek	ABA	22.3	TCaCO3/kT	0.3			N/A		12/22/11 09:18	
Modified Sobek	AGP	< 0.3	TCaCO3/kT	0.3			N/A		12/22/11 09:18	
Modified Sobek	ANP	22.3	TCaCO3/kT	0.3	0.1		W152101	AGF	12/21/11 14:24	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.004		W152101	MAD	12/22/11 09:18	
Modified Sobek	Non-Sulfate Sulfur	0.01	%	0.01	0.004		W152101	MAD	12/21/11 11:44	
Modified Sobek	Pyritic Sulfur	< 0.01	%	0.01			N/A		12/22/11 09:18	
Modified Sobek	Sulfate Sulfur	0.01	%	0.01			N/A		12/21/11 11:44	
Modified Sobek	Total Sulfur	0.01	%	0.01	0.004		W152101	MAD	12/20/11 14:10	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	ABA-HCl	22.3	TCaCO3/kT	0.3			N/A		12/22/11 09:18	
Modified Sobek	AGP-HCl	< 0.3	TCaCO3/kT	0.3			N/A		12/22/11 09:18	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.004		W152101	MAD	12/22/11 09:18	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.01	%	0.01	0.004		W152101	MAD	12/22/11 08:20	
Modified Sobek	Pyritic Sulfur-HCl	< 0.01	%	0.01			N/A		12/22/11 09:18	
Modified Sobek	Sulfate Sulfur-HCl	0.01	%	0.01			N/A		12/22/11 08:20	
Modified Sobek	Total Sulfur	0.01	%	0.01	0.004		W152101	MAD	12/20/11 14:10	

Classical Chemistry Parameters

NAG	NAG pH @27.8°C	7.04	pH Units				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 4.5	N/A	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 7	N/A	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
USDA HB60(21a)	Paste pH @19.9°C	8.19	pH Units				W152266	MAD	12/27/11 10:12	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W1L0313**
Reported: 06-Jan-12 17:07

Client Sample ID: **604 033**

SVL Sample ID: **W1L0313-03 (Soil)**

Sample Report Page 1 of 1

Sampled: 13-Dec-11 09:00
Received: 15-Dec-11
Sampled By: TJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Acid/Base Accounting & Sulfur Forms

Modified Sobek	ABA	-3.7	TCaCO3/kT	0.3			N/A		12/22/11 09:21	
Modified Sobek	AGP	28.5	TCaCO3/kT	0.3			N/A		12/22/11 09:21	
Modified Sobek	ANP	24.7	TCaCO3/kT	0.3	0.1		W152101	AGF	12/21/11 14:24	
Modified Sobek	Non-extractable Sulfur	0.01	%	0.01	0.004		W152101	MAD	12/22/11 09:21	
Modified Sobek	Non-Sulfate Sulfur	0.91	%	0.01	0.004		W152101	MAD	12/21/11 11:47	
Modified Sobek	Pyritic Sulfur	0.91	%	0.01			N/A		12/22/11 09:21	
Modified Sobek	Sulfate Sulfur	0.30	%	0.01			N/A		12/21/11 11:47	
Modified Sobek	Total Sulfur	1.21	%	0.01	0.004		W152101	MAD	12/20/11 14:13	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	ABA-HCl	-1.2	TCaCO3/kT	0.3			N/A		12/22/11 09:21	
Modified Sobek	AGP-HCl	25.9	TCaCO3/kT	0.3			N/A		12/22/11 09:21	
Modified Sobek	Non-extractable Sulfur	0.01	%	0.01	0.004		W152101	MAD	12/22/11 09:21	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.83	%	0.01	0.004		W152101	MAD	12/22/11 08:23	
Modified Sobek	Pyritic Sulfur-HCl	0.83	%	0.01			N/A		12/22/11 09:21	
Modified Sobek	Sulfate Sulfur-HCl	0.38	%	0.01			N/A		12/22/11 08:23	
Modified Sobek	Total Sulfur	1.21	%	0.01	0.004		W152101	MAD	12/20/11 14:13	

Classical Chemistry Parameters

NAG	NAG pH @25.3°C	8.04	pH Units				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 4.5	N/A	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 7	N/A	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
USDA HB60(21a)	Paste pH @19.9°C	8.05	pH Units				W152266	MAD	12/27/11 10:12	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W1L0313**
Reported: 06-Jan-12 17:07

Client Sample ID: **604 153**

SVL Sample ID: **W1L0313-04 (Soil)**

Sample Report Page 1 of 1

Sampled: 13-Dec-11 09:00
Received: 15-Dec-11
Sampled By: TJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Acid/Base Accounting & Sulfur Forms

Modified Sobek	ABA	23.6	TCaCO3/kT	0.3			N/A		12/22/11 09:24	
Modified Sobek	AGP	14.5	TCaCO3/kT	0.3			N/A		12/22/11 09:24	
Modified Sobek	ANP	38.1	TCaCO3/kT	0.3	0.1		W152101	AGF	12/21/11 14:24	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.004		W152101	MAD	12/22/11 09:24	
Modified Sobek	Non-Sulfate Sulfur	0.46	%	0.01	0.004		W152101	MAD	12/21/11 11:51	
Modified Sobek	Pyritic Sulfur	0.46	%	0.01			N/A		12/22/11 09:24	
Modified Sobek	Sulfate Sulfur	0.09	%	0.01			N/A		12/21/11 11:51	
Modified Sobek	Total Sulfur	0.56	%	0.01	0.004		W152101	MAD	12/20/11 14:16	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	ABA-HCl	23.1	TCaCO3/kT	0.3			N/A		12/22/11 09:24	
Modified Sobek	AGP-HCl	15.0	TCaCO3/kT	0.3			N/A		12/22/11 09:24	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.004		W152101	MAD	12/22/11 09:24	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.48	%	0.01	0.004		W152101	MAD	12/22/11 08:26	
Modified Sobek	Pyritic Sulfur-HCl	0.48	%	0.01			N/A		12/22/11 09:24	
Modified Sobek	Sulfate Sulfur-HCl	0.07	%	0.01			N/A		12/22/11 08:26	
Modified Sobek	Total Sulfur	0.56	%	0.01	0.004		W152101	MAD	12/20/11 14:16	

Classical Chemistry Parameters

NAG	NAG pH @25.5°C	7.97	pH Units				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 4.5	N/A	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 7	N/A	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
USDA HB60(21a)	Paste pH @19.6°C	8.11	pH Units				W152266	MAD	12/27/11 10:12	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W1L0313**
Reported: 06-Jan-12 17:07

Client Sample ID: **604 562**

SVL Sample ID: **W1L0313-05 (Soil)**

Sample Report Page 1 of 1

Sampled: 13-Dec-11 09:00
Received: 15-Dec-11
Sampled By: TJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Acid/Base Accounting & Sulfur Forms

Modified Sobek	ABA	-11.7	TCaCO3/kT	0.3			N/A		12/22/11 09:27	
Modified Sobek	AGP	44.9	TCaCO3/kT	0.3			N/A		12/22/11 09:27	
Modified Sobek	ANP	33.1	TCaCO3/kT	0.3	0.1		W152101	AGF	12/21/11 14:24	
Modified Sobek	Non-extractable Sulfur	0.03	%	0.01	0.004		W152101	MAD	12/22/11 09:27	
Modified Sobek	Non-Sulfate Sulfur	1.47	%	0.01	0.004		W152101	MAD	12/21/11 12:01	
Modified Sobek	Pyritic Sulfur	1.44	%	0.01			N/A		12/22/11 09:27	
Modified Sobek	Sulfate Sulfur	0.27	%	0.01			N/A		12/21/11 12:01	
Modified Sobek	Total Sulfur	1.74	%	0.01	0.004		W152101	MAD	12/20/11 14:19	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	ABA-HCl	-1.1	TCaCO3/kT	0.3			N/A		12/22/11 09:27	
Modified Sobek	AGP-HCl	34.2	TCaCO3/kT	0.3			N/A		12/22/11 09:27	
Modified Sobek	Non-extractable Sulfur	0.03	%	0.01	0.004		W152101	MAD	12/22/11 09:27	
Modified Sobek	Non-Sulfate Sulfur-HCl	1.13	%	0.01	0.004		W152101	MAD	12/22/11 08:29	
Modified Sobek	Pyritic Sulfur-HCl	1.10	%	0.01			N/A		12/22/11 09:27	
Modified Sobek	Sulfate Sulfur-HCl	0.61	%	0.01			N/A		12/22/11 08:29	
Modified Sobek	Total Sulfur	1.74	%	0.01	0.004		W152101	MAD	12/20/11 14:19	

Classical Chemistry Parameters

NAG	NAG pH @25.5°C	8.10	pH Units				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 4.5	N/A	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 7	N/A	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
USDA HB60(21a)	Paste pH @20.0°C	7.84	pH Units				W152266	MAD	12/27/11 10:12	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W1L0313**
Reported: 06-Jan-12 17:07

Client Sample ID: **604 569**

SVL Sample ID: **W1L0313-06 (Soil)**

Sample Report Page 1 of 1

Sampled: 13-Dec-11 09:00
Received: 15-Dec-11
Sampled By: TJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Acid/Base Accounting & Sulfur Forms

Modified Sobek	ABA	-15.4	TCaCO3/kT	0.3			N/A		12/22/11 09:30	
Modified Sobek	AGP	32.2	TCaCO3/kT	0.3			N/A		12/22/11 09:30	
Modified Sobek	ANP	16.8	TCaCO3/kT	0.3	0.1		W152101	AGF	12/21/11 14:24	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.004		W152101	MAD	12/22/11 09:30	
Modified Sobek	Non-Sulfate Sulfur	1.03	%	0.01	0.004		W152101	MAD	12/21/11 12:05	
Modified Sobek	Pyritic Sulfur	1.03	%	0.01			N/A		12/22/11 09:30	
Modified Sobek	Sulfate Sulfur	0.28	%	0.01			N/A		12/21/11 12:05	
Modified Sobek	Total Sulfur	1.31	%	0.01	0.004		W152101	MAD	12/20/11 14:28	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	ABA-HCl	-12.1	TCaCO3/kT	0.3			N/A		12/22/11 09:30	
Modified Sobek	AGP-HCl	28.9	TCaCO3/kT	0.3			N/A		12/22/11 09:30	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.004		W152101	MAD	12/22/11 09:30	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.92	%	0.01	0.004		W152101	MAD	12/22/11 08:32	
Modified Sobek	Pyritic Sulfur-HCl	0.92	%	0.01			N/A		12/22/11 09:30	
Modified Sobek	Sulfate Sulfur-HCl	0.39	%	0.01			N/A		12/22/11 08:32	
Modified Sobek	Total Sulfur	1.31	%	0.01	0.004		W152101	MAD	12/20/11 14:28	

Classical Chemistry Parameters

NAG	NAG pH @25.2°C	8.01	pH Units				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 4.5	N/A	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 7	N/A	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
USDA HB60(21a)	Paste pH @20.3°C	8.19	pH Units				W152266	MAD	12/27/11 10:12	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W1L0313**
Reported: 06-Jan-12 17:07

Client Sample ID: **604 606**

SVL Sample ID: **W1L0313-07 (Soil)**

Sample Report Page 1 of 1

Sampled: 13-Dec-11 09:00
Received: 15-Dec-11
Sampled By: TJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Acid/Base Accounting & Sulfur Forms

Modified Sobek	ABA	-1.8	TCaCO3/kT	0.3			N/A		12/22/11 09:32	
Modified Sobek	AGP	22.1	TCaCO3/kT	0.3			N/A		12/22/11 09:32	
Modified Sobek	ANP	20.3	TCaCO3/kT	0.3	0.1		W152101	AGF	12/21/11 14:24	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.004		W152101	MAD	12/22/11 09:32	
Modified Sobek	Non-Sulfate Sulfur	0.71	%	0.01	0.004		W152101	MAD	12/21/11 12:08	
Modified Sobek	Pyritic Sulfur	0.71	%	0.01			N/A		12/22/11 09:32	
Modified Sobek	Sulfate Sulfur	0.26	%	0.01			N/A		12/21/11 12:08	
Modified Sobek	Total Sulfur	0.96	%	0.01	0.004		W152101	MAD	12/20/11 14:31	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	ABA-HCl	1.6	TCaCO3/kT	0.3			N/A		12/22/11 09:32	
Modified Sobek	AGP-HCl	18.7	TCaCO3/kT	0.3			N/A		12/22/11 09:32	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.004		W152101	MAD	12/22/11 09:32	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.60	%	0.01	0.004		W152101	MAD	12/22/11 08:35	
Modified Sobek	Pyritic Sulfur-HCl	0.60	%	0.01			N/A		12/22/11 09:32	
Modified Sobek	Sulfate Sulfur-HCl	0.37	%	0.01			N/A		12/22/11 08:35	
Modified Sobek	Total Sulfur	0.96	%	0.01	0.004		W152101	MAD	12/20/11 14:31	

Classical Chemistry Parameters

NAG	NAG pH @25.6°C	8.13	pH Units				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 4.5	N/A	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 7	N/A	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
USDA HB60(21a)	Paste pH @20.2°C	8.10	pH Units				W152266	MAD	12/27/11 10:12	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W1L0313**
Reported: 06-Jan-12 17:07

Client Sample ID: **604 653**

SVL Sample ID: **W1L0313-08 (Soil)**

Sample Report Page 1 of 1

Sampled: 13-Dec-11 09:00
Received: 15-Dec-11
Sampled By: TJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Acid/Base Accounting & Sulfur Forms

Modified Sobek	ABA	-3.2	TCaCO3/kT	0.3			N/A		12/22/11 09:35	
Modified Sobek	AGP	24.0	TCaCO3/kT	0.3			N/A		12/22/11 09:35	
Modified Sobek	ANP	20.8	TCaCO3/kT	0.3	0.1		W152101	AGF	12/21/11 14:24	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.004		W152101	MAD	12/22/11 09:35	
Modified Sobek	Non-Sulfate Sulfur	0.77	%	0.01	0.004		W152101	MAD	12/21/11 12:12	
Modified Sobek	Pyritic Sulfur	0.77	%	0.01			N/A		12/22/11 09:35	
Modified Sobek	Sulfate Sulfur	0.19	%	0.01			N/A		12/21/11 12:12	
Modified Sobek	Total Sulfur	0.96	%	0.01	0.004		W152101	MAD	12/20/11 14:34	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	ABA-HCl	< 0.3	TCaCO3/kT	0.3			N/A		12/22/11 09:35	
Modified Sobek	AGP-HCl	20.9	TCaCO3/kT	0.3			N/A		12/22/11 09:35	
Modified Sobek	Non-extractable Sulfur	< 0.01	%	0.01	0.004		W152101	MAD	12/22/11 09:35	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.67	%	0.01	0.004		W152101	MAD	12/22/11 08:44	
Modified Sobek	Pyritic Sulfur-HCl	0.67	%	0.01			N/A		12/22/11 09:35	
Modified Sobek	Sulfate Sulfur-HCl	0.29	%	0.01			N/A		12/22/11 08:44	
Modified Sobek	Total Sulfur	0.96	%	0.01	0.004		W152101	MAD	12/20/11 14:34	

Classical Chemistry Parameters

NAG	NAG pH @25.3°C	8.17	pH Units				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 4.5	N/A	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 7	N/A	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
USDA HB60(21a)	Paste pH @20.3°C	8.01	pH Units				W152266	MAD	12/27/11 10:12	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W1L0313**
Reported: 06-Jan-12 17:07

Client Sample ID: **604 656**

SVL Sample ID: **W1L0313-09 (Soil)**

Sample Report Page 1 of 1

Sampled: 13-Dec-11 09:00
Received: 15-Dec-11
Sampled By: TJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms										
Modified Sobek	ABA	32.1	TCaCO3/kT	0.3			N/A		12/22/11 09:38	
Modified Sobek	AGP	19.4	TCaCO3/kT	0.3			N/A		12/22/11 09:38	
Modified Sobek	ANP	51.4	TCaCO3/kT	0.3	0.1		W152101	AGF	12/21/11 14:24	
Modified Sobek	Non-extractable Sulfur	0.04	%	0.01	0.004		W152101	MAD	12/22/11 09:38	
Modified Sobek	Non-Sulfate Sulfur	0.66	%	0.01	0.004		W152101	MAD	12/21/11 12:15	
Modified Sobek	Pyritic Sulfur	0.62	%	0.01			N/A		12/22/11 09:38	
Modified Sobek	Sulfate Sulfur	0.04	%	0.01			N/A		12/21/11 12:15	
Modified Sobek	Total Sulfur	0.70	%	0.01	0.004		W152101	MAD	12/20/11 14:37	
Acid/Base Accounting & Sulfur Forms (HCl Wash)										
Modified Sobek	ABA-HCl	37.8	TCaCO3/kT	0.3			N/A		12/22/11 09:38	
Modified Sobek	AGP-HCl	13.7	TCaCO3/kT	0.3			N/A		12/22/11 09:38	
Modified Sobek	Non-extractable Sulfur	0.04	%	0.01	0.004		W152101	MAD	12/22/11 09:38	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.48	%	0.01	0.004		W152101	MAD	12/22/11 08:46	
Modified Sobek	Pyritic Sulfur-HCl	0.44	%	0.01			N/A		12/22/11 09:38	
Modified Sobek	Sulfate Sulfur-HCl	0.22	%	0.01			N/A		12/22/11 08:46	
Modified Sobek	Total Sulfur	0.70	%	0.01	0.004		W152101	MAD	12/20/11 14:37	
Classical Chemistry Parameters										
NAG	NAG pH @24.7°C	7.97	pH Units				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 4.5	N/A	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 7	N/A	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
USDA HB60(21a)	Paste pH @20.0°C	7.62	pH Units				W152266	MAD	12/27/11 10:12	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W1L0313**
Reported: 06-Jan-12 17:07

Client Sample ID: **604 811**

SVL Sample ID: **W1L0313-10 (Soil)**

Sample Report Page 1 of 1

Sampled: 13-Dec-11 09:00
Received: 15-Dec-11
Sampled By: TJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Acid/Base Accounting & Sulfur Forms

Modified Sobek	ABA	-13.3	TCaCO3/kT	0.3			N/A		12/22/11 09:41	
Modified Sobek	AGP	42.5	TCaCO3/kT	0.3			N/A		12/22/11 09:41	
Modified Sobek	ANP	29.2	TCaCO3/kT	0.3	0.1		W152101	AGF	12/21/11 14:24	
Modified Sobek	Non-extractable Sulfur	0.03	%	0.01	0.004		W152101	MAD	12/22/11 09:41	
Modified Sobek	Non-Sulfate Sulfur	1.39	%	0.01	0.004		W152101	MAD	12/21/11 12:19	
Modified Sobek	Pyritic Sulfur	1.36	%	0.01			N/A		12/22/11 09:41	
Modified Sobek	Sulfate Sulfur	0.15	%	0.01			N/A		12/21/11 12:19	
Modified Sobek	Total Sulfur	1.54	%	0.01	0.004		W152101	MAD	12/20/11 14:39	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	ABA-HCl	-4.2	TCaCO3/kT	0.3			N/A		12/22/11 09:41	
Modified Sobek	AGP-HCl	33.4	TCaCO3/kT	0.3			N/A		12/22/11 09:41	
Modified Sobek	Non-extractable Sulfur	0.03	%	0.01	0.004		W152101	MAD	12/22/11 09:41	
Modified Sobek	Non-Sulfate Sulfur-HCl	1.10	%	0.01	0.004		W152101	MAD	12/22/11 08:49	
Modified Sobek	Pyritic Sulfur-HCl	1.07	%	0.01			N/A		12/22/11 09:41	
Modified Sobek	Sulfate Sulfur-HCl	0.44	%	0.01			N/A		12/22/11 08:49	
Modified Sobek	Total Sulfur	1.54	%	0.01	0.004		W152101	MAD	12/20/11 14:39	

Classical Chemistry Parameters

NAG	NAG pH @24.3°C	7.94	pH Units				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 4.5	N/A	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 7	N/A	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
USDA HB60(21a)	Paste pH @20.1°C	7.79	pH Units				W152266	MAD	12/27/11 10:12	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W1L0313**
Reported: 06-Jan-12 17:07

Client Sample ID: **604 854**

SVL Sample ID: **W1L0313-11 (Soil)**

Sample Report Page 1 of 1

Sampled: 13-Dec-11 09:00
Received: 15-Dec-11
Sampled By: TJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Acid/Base Accounting & Sulfur Forms

Modified Sobek	ABA	-18.1	TCaCO3/kT	0.3			N/A		12/22/11 09:44	
Modified Sobek	AGP	40.3	TCaCO3/kT	0.3			N/A		12/22/11 09:44	
Modified Sobek	ANP	22.3	TCaCO3/kT	0.3	0.1		W152101	AGF	12/21/11 14:24	
Modified Sobek	Non-extractable Sulfur	0.02	%	0.01	0.004		W152101	MAD	12/22/11 09:44	
Modified Sobek	Non-Sulfate Sulfur	1.31	%	0.01	0.004		W152101	MAD	12/21/11 12:24	
Modified Sobek	Pyritic Sulfur	1.29	%	0.01			N/A		12/22/11 09:44	
Modified Sobek	Sulfate Sulfur	0.45	%	0.01			N/A		12/21/11 12:24	
Modified Sobek	Total Sulfur	1.76	%	0.01	0.004		W152101	MAD	12/20/11 14:42	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	ABA-HCl	-4.4	TCaCO3/kT	0.3			N/A		12/22/11 09:44	
Modified Sobek	AGP-HCl	26.6	TCaCO3/kT	0.3			N/A		12/22/11 09:44	
Modified Sobek	Non-extractable Sulfur	0.02	%	0.01	0.004		W152101	MAD	12/22/11 09:44	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.87	%	0.01	0.004		W152101	MAD	12/22/11 08:52	
Modified Sobek	Pyritic Sulfur-HCl	0.85	%	0.01			N/A		12/22/11 09:44	
Modified Sobek	Sulfate Sulfur-HCl	0.89	%	0.01			N/A		12/22/11 08:52	
Modified Sobek	Total Sulfur	1.76	%	0.01	0.004		W152101	MAD	12/20/11 14:42	

Classical Chemistry Parameters

NAG	NAG pH @24.1°C	5.66	pH Units				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 4.5	N/A	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 7	N/A	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
USDA HB60(21a)	Paste pH @20.0°C	8.03	pH Units				W152266	MAD	12/27/11 10:12	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W1L0313**
Reported: 06-Jan-12 17:07

Client Sample ID: **604 862**

SVL Sample ID: **W1L0313-12 (Soil)**

Sample Report Page 1 of 1

Sampled: 13-Dec-11 09:00
Received: 15-Dec-11
Sampled By: TJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Acid/Base Accounting & Sulfur Forms

Modified Sobek	ABA	-4.5	TCaCO3/kT	0.3			N/A		12/22/11 09:53	
Modified Sobek	AGP	41.1	TCaCO3/kT	0.3			N/A		12/22/11 09:53	
Modified Sobek	ANP	36.6	TCaCO3/kT	0.3	0.1		W152101	AGF	12/21/11 14:24	
Modified Sobek	Non-extractable Sulfur	0.03	%	0.01	0.004		W152101	MAD	12/22/11 09:53	
Modified Sobek	Non-Sulfate Sulfur	1.34	%	0.01	0.004		W152101	MAD	12/21/11 12:28	
Modified Sobek	Pyritic Sulfur	1.31	%	0.01			N/A		12/22/11 09:53	
Modified Sobek	Sulfate Sulfur	0.32	%	0.01			N/A		12/21/11 12:28	
Modified Sobek	Total Sulfur	1.66	%	0.01	0.004		W152101	MAD	12/20/11 14:45	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	ABA-HCl	12.4	TCaCO3/kT	0.3			N/A		12/22/11 09:53	
Modified Sobek	AGP-HCl	24.2	TCaCO3/kT	0.3			N/A		12/22/11 09:53	
Modified Sobek	Non-extractable Sulfur	0.03	%	0.01	0.004		W152101	MAD	12/22/11 09:53	
Modified Sobek	Non-Sulfate Sulfur-HCl	0.80	%	0.01	0.004		W152101	MAD	12/22/11 08:55	
Modified Sobek	Pyritic Sulfur-HCl	0.77	%	0.01			N/A		12/22/11 09:53	
Modified Sobek	Sulfate Sulfur-HCl	0.86	%	0.01			N/A		12/22/11 08:55	
Modified Sobek	Total Sulfur	1.66	%	0.01	0.004		W152101	MAD	12/20/11 14:45	

Classical Chemistry Parameters

NAG	NAG pH @23.6°C	7.78	pH Units				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 4.5	N/A	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 7	N/A	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
USDA HB60(21a)	Paste pH @20.1°C	7.64	pH Units				W152266	MAD	12/27/11 10:12	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W1L0313**
Reported: 06-Jan-12 17:07

Client Sample ID: **604 867**

SVL Sample ID: **W1L0313-13 (Soil)**

Sample Report Page 1 of 1

Sampled: 13-Dec-11 09:00
Received: 15-Dec-11
Sampled By: TJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Acid/Base Accounting & Sulfur Forms

Modified Sobek	ABA	-57.9	TCaCO3/kT	0.3			N/A		12/22/11 09:56	
Modified Sobek	AGP	81.6	TCaCO3/kT	0.3			N/A		12/22/11 09:56	
Modified Sobek	ANP	23.7	TCaCO3/kT	0.3	0.1		W152101	AGF	12/21/11 14:24	
Modified Sobek	Non-extractable Sulfur	0.05	%	0.01	0.004		W152101	MAD	12/22/11 09:56	
Modified Sobek	Non-Sulfate Sulfur	2.66	%	0.01	0.004		W152101	MAD	12/21/11 12:32	
Modified Sobek	Pyritic Sulfur	2.61	%	0.01			N/A		12/22/11 09:56	
Modified Sobek	Sulfate Sulfur	0.22	%	0.01			N/A		12/21/11 12:32	
Modified Sobek	Total Sulfur	2.88	%	0.01	0.004		W152101	MAD	12/20/11 14:48	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	ABA-HCl	-13.2	TCaCO3/kT	0.3			N/A		12/22/11 09:56	
Modified Sobek	AGP-HCl	37.0	TCaCO3/kT	0.3			N/A		12/22/11 09:56	
Modified Sobek	Non-extractable Sulfur	0.05	%	0.01	0.004		W152101	MAD	12/22/11 09:56	
Modified Sobek	Non-Sulfate Sulfur-HCl	1.23	%	0.01	0.004		W152101	MAD	12/22/11 08:58	
Modified Sobek	Pyritic Sulfur-HCl	1.18	%	0.01			N/A		12/22/11 09:56	
Modified Sobek	Sulfate Sulfur-HCl	1.65	%	0.01			N/A		12/22/11 08:58	
Modified Sobek	Total Sulfur	2.88	%	0.01	0.004		W152101	MAD	12/20/11 14:48	

Classical Chemistry Parameters

NAG	NAG pH @23.8°C	4.21	pH Units				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 4.5	N/A	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
NAG	NAG@pH 7	N/A	kg H2SO4/T				W152256	MAD	12/23/11 12:32	
USDA HB60(21a)	Paste pH @19.9°C	7.66	pH Units				W152266	MAD	12/27/11 10:12	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



McClelland Laboratories Inc 1016 Greg Street Sparks, NV 89431	Project Name: MLI: 3438 Work Order: W1L0313 Reported: 06-Jan-12 17:07
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Quality Control - BLANK Data									
Method	Analyte	Units	Result	MDL	MRL	Batch ID	Analyzed	Notes	

Acid/Base Accounting & Sulfur Forms

Modified Sobek	ANP	TCaCO3/kT	<0.3	0.1	0.3	W152101	21-Dec-11	
Modified Sobek	Non-Sulfate Sulfur	%	<0.01	0.004	0.01	W152101	21-Dec-11	
Modified Sobek	Total Sulfur	%	<0.01	0.004	0.01	W152101	20-Dec-11	
Modified Sobek	Non-extractable Sulfur	%	<0.01	0.004	0.01	W152101	22-Dec-11	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	Non-Sulfate Sulfur-HCl	%	<0.01	0.004	0.01	W152101	22-Dec-11	
Modified Sobek	Total Sulfur	%	<0.01	0.004	0.01	W152101	20-Dec-11	
Modified Sobek	Non-extractable Sulfur	%	<0.01	0.004	0.01	W152101	22-Dec-11	

Quality Control - LABORATORY CONTROL SAMPLE Data									
Method	Analyte	Units	LCS Result	LCS True	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes

Acid/Base Accounting & Sulfur Forms

Modified Sobek	ANP	TCaCO3/kT	35.1	33.2	106	80 - 120	W152101	21-Dec-11	
Modified Sobek	Total Sulfur	%	0.96	0.942	102	80 - 120	W152101	20-Dec-11	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	Total Sulfur	%	0.96	0.942	102	80 - 120	W152101	20-Dec-11	
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Classical Chemistry Parameters

USDA HB60(21a)	Paste pH	pH Units	8.12	8.18	99.3	93.7 - 106.3	W152266	27-Dec-11	
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Quality Control - DUPLICATE Data									
Method	Analyte	Units	Duplicate Result	Sample Result	RPD	RPD Limit	Batch ID	Analyzed	Notes

Acid/Base Accounting & Sulfur Forms

Modified Sobek	ANP	TCaCO3/kT	12.9	14.8	14.3	20	W152101	21-Dec-11	
Modified Sobek	Non-Sulfate Sulfur	%	0.20	0.18	9.7	20	W152101	21-Dec-11	
Modified Sobek	Total Sulfur	%	0.24	0.26	7.7	20	W152101	20-Dec-11	
Modified Sobek	Non-extractable Sulfur	%	<0.01	<0.01	UDL	20	W152101	22-Dec-11	

Acid/Base Accounting & Sulfur Forms (HCl Wash)

Modified Sobek	Non-Sulfate Sulfur-HCl	%	0.21	0.16	25.5	20	W152101	22-Dec-11	R2
Modified Sobek	Total Sulfur	%	0.24	0.26	7.7	20	W152101	20-Dec-11	
Modified Sobek	Non-extractable Sulfur	%	<0.01	<0.01	UDL	20	W152101	22-Dec-11	

Classical Chemistry Parameters

NAG	NAG pH	pH Units	6.14	6.15	0.2	20	W152256	23-Dec-11	
NAG	NAG@pH 4.5	kg H2SO4/T	N/A	0.00		20	W152256	23-Dec-11	
NAG	NAG@pH 7	kg H2SO4/T	N/A	0.00		20	W152256	23-Dec-11	
USDA HB60(21a)	Paste pH	pH Units	7.99	8.04	0.6	20	W152266	27-Dec-11	



McClelland Laboratories Inc
1016 Greg Street
Sparks, NV 89431

Project Name: MLI: 3438
Work Order: **W1L0313**
Reported: 06-Jan-12 17:07

Notes and Definitions

R2	RPD exceeded the laboratory acceptance limit.
LCS	Laboratory Control Sample (Blank Spike)
RPD	Relative Percent Difference
UDL	A result is less than the detection limit
R > 4S	% recovery not applicable, sample concentration more than four times greater than spike level
<RL	A result is less than the reporting limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
N/A	Not Applicable
