Summary of 2016 Field Investigation – Site-wide Geochemical Monitoring

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Overview

The purpose of this technical memorandum is to provide an overview of the geochemical field investigations conducted in 2016, including the objectives, general scope, methods, and summary of results. Interpretation of the 2016 geochemical data will be included in the Comprehensive Design Roadmap Report (CH2M HILL Canada Limited [CH2M], 2016).

This TM summarizes the geochemical monitoring field investigations completed at the Faro Mine Complex during the 2016 field season. The data collected will support the understanding of site-wide geochemical properties, waste rock dump (WRD) pore gas and temperature profiles, groundwater elevation and hydraulic gradients, seep and groundwater quality, water quality in the Faro Pit Lake, and ground temperatures in the Rose Creek Tailings Area (RCTA). The information obtained from this field investigation will be used to help guide future design efforts, geochemical evaluation, or modelling as needed, and to support the required regulatory compliance monitoring and documentation.

Field Investigation

The site-wide geochemical investigation was designed to supplement historical data, identify and evaluate change in conditions over the period of record, and provide data that will be used to address the following gaps in the data set:

- Geochemical and hydraulic properties of the WRDs and the nature and rate of the geochemical reactions occurring in the waste rock
- Groundwater elevation and hydraulic gradient seasonal variability in the WRDs and underlying bedrock
- Groundwater quality in the WRDs, including the groundwater quality seasonal variations and potential impacts on underlying bedrock groundwater quality
- Chemical and physical characteristics of water in the Faro Pit Lake
- Seasonal ground temperature variations in the RCTA

The field program was designed to address these gaps and included the following components:

- WRD groundwater, pore gas, and thermistor monitoring at select monitoring wells. Two sampling events were completed, one in February 2016 (winter 2016) and another in June 2016 (spring 2016).
- Seep sampling or monitoring at various locations within the Faro Mine Complex, completed in May 2016.

- Water quality profiling and depth specific sampling at Faro Pit Lake conducted by Laberge Environmental Services (Laberge) in March 2016.
- Thermistor monitoring at five thermistors ports in the RCTA winter and spring, 2016.

The seep and monitoring well locations (including thermistor monitoring ports) are shown on Figures 1, 2, and 3 (figures are located at the end of this TM).

Waste Rock Dump Groundwater Monitoring Well Sampling

Groundwater sampling was conducted at WRD monitoring installations twice in 2016, between February 17 and 22, 2016 (winter monitoring event) and between June 1 and 6, 2016 (spring monitoring event).

The groundwater samples were collected in accordance with Yukon Environment Protocol No. 7: Groundwater Monitoring Well Installation, Sampling and Decommissioning. Submersible pumps were used for sample collection at all locations except CH14-104-MW008. At most locations, a Grundfos Rediflo 2 submersible pump was used; however, at CH12-014-MW003 and CH12-014-MW012, a QED Sample Pro submersible bladder pump was used because the wells' recharge rates were too slow to allow purging with the Grundfos Rediflo 2 pump. During the winter monitoring event, the water column at CH14-104-MW008 was not sufficiently deep to allow purging, so a sample was not collected. During the June monitoring event, the static water level in CH14-104-MW008 was higher, but the water column was not deep enough to allow purging with a submersible pump; a disposable polyethylene bailer was used to purge the well and collect a sample. All groundwater samples collected during the 2016 field season are listed in Table 1 (tables are located at the end of this TM), and the locations are shown on Figures 1, 2 and 3. Photographs taken at each groundwater sampling location have been compiled in Attachment 1. The groundwater purge logs are included in Attachment 2. Water levels measured at the monitoring wells prior to sampling are plotted in Figure 4.

During low-flow sampling, field parameters for temperature, pH, specific conductivity, oxidation-reduction potential, and dissolved oxygen were monitored with an YSI water quality meter. Water samples were collected after water quality parameters stabilized within the tolerances established by the United States Environmental Protection Agency for three consecutive measurements. If one or more parameters were not stable after an extended period of monitoring and did not look like they would stabilize, this was noted in the logs and samples were collected.

Waste Rock Dump Pore Gas and Ground Temperature Monitoring

WRD pore gas and temperature monitoring was completed in winter and spring 2016. The 2016 winter pore gas and temperature sampling event took place between February 17 and 22, 2016. The spring sampling event was completed between June 1 and 6, 2016. The results are provided in Tables 2 and 4; soil temperature profiles are provided on Figures 2 and 3. The results are discussed in the Summary of Field Investigations section of this TM.

Temperature monitoring was completed at WRD monitoring locations installed by CH2M by deploying an RST Instruments, Inc. (RST) 16-point, 42-metre (m) thermistor string into each of the WRD thermistor ports to measure the WRD temperature profiles. After allowing the temperatures to equilibrate for at least 2 hours, measurements were recorded from each thermistor bead by using an RST TH2016 readout unit, which directly reports results in degrees Celsius (°C). The readout unit failed on June 5, 2016, so the measurement at CH14-104-MW008 was completed by measuring the electrical resistance of each thermistor bead using an ohmmeter and temperature values were obtained by applying appropriate calibration calculations to the resistance values.

During the same sampling events, temperatures were also measured at historical monitoring locations (10M3, 10M4, 30M1, 30M4, and 60M1) installed by SRK Consulting. Temperature monitoring facilities at

these locations consist of a permanently deployed RST thermistor string with either five beads (10M3 and 10M4), seven beads (30M1 and 30M4), or nine beads (60M1), depending on the depth of the borehole. Temperature monitoring was completed at these installations by measuring the electrical resistance from each thermistor bead by using an ohmmeter. Temperatures were obtained by applying appropriate calibration calculations to the resistance results. The calibration coefficients for each of the thermistor strings is provided in Attachment 3.

Pore-gas monitoring was completed in conjunction with thermistor monitoring. Gas monitoring was performed at each location using either an RKI Eagle 2 or a Landtec GEM 2000 gas monitor. The vacuum in each port was monitored using a Dwyer Series 477A-2 or Dwyer Series 475 manometer. Each gas port was purged until the readings stabilized. Pore-gas monitoring results are provided in Table 3; graphs showing the relationships between depth and oxygen concentrations are provided on Figures 5 and 6. Pore-gas monitoring field logs are provided in Attachment 4.

Faro Pit Lake Profiling

Laberge completed under-ice profiling and depth-discrete sampling of the Faro Pit Lake on March 3, 2016. A summary of the event, including discussion of the methods and equipment used is provided in the TM presented in Attachment 5.

Rose Creek Tailings Area Ground Temperature Monitoring

Ground temperature monitoring in the four thermistor ports in the Intermediate Impoundment was completed in winter and spring 2016. The 2016 winter monitoring event took place on February 23 and 24, 2016. The spring sampling event was completed on June 4 and 5, 2016. The results are provided in Table 4; soil temperature profiles are provided on Figure 6. The results are discussed in the Summary of Field Investigations section.

Temperature monitoring was completed by deploying RST thermistor strings into the thermistor ports at monitoring locations CH14-201-TH001 through CH14-201-TH006. An 8-point, 9-m-long thermistor string was used to monitor locations CH14-201-TH003, CH14-201-TH004, and CH14-201-TH006. A 14-point, 22-m-long thermistor string was used to monitor locations CH14-201-TH001 and CH14-201-TH002. After allowing the temperatures to equilibrate for at least 2 hours, measurements were recorded from each thermistor bead by measuring the electrical resistance of each thermistor bead using an ohmmeter; temperature values were obtained by applying appropriate calibration calculations to the resistance values.

Seep Monitoring and Sampling

The 2016 spring seep monitoring and sampling events were between May 17 and 23, 2016. Seep sampling sites were located using a mapping application on a tablet computer connected to a Garmin GLO global positioning system (GPS) antenna. Where new seep locations were established, coordinates were surveyed using the tablet and GPS antenna. GPS accuracy ranged from ±1.8 to ±4 m. Seep stations were photographed to document general appearance. Field parameters were measured (seep monitoring) using an YSI 556 handheld multiparameter probe that was calibrated daily.

There are 180 previously established foot accessible seep stations that were monitored in 2016. Field parameters and observations were to be collected at all locations, and a smaller subset was targeted for sampling. Seeps were selected for analytical sampling based on the frequency of historical sampling and environmental monitoring needs.

At locations selected for laboratory analysis (seep sampling locations), sample bottles were filled using one of the following methods:

- Where channel or pool depths allowed, sample bottles were filled either by immersing the bottles directly in the flow or by using one of the smaller bottles as a dipper to fill each bottle.
- Where seepage channels were too shallow to use these methods, bottles were filled either by placing them at the flowing spout of a funnel in the seepage flow or by using a syringe to draw water from the seepage flow and discharge it to the bottles.

The locations of the seeps are indicated on Figures 1, 2 and 3. Table 5 provides a summary of the seep locations, their observed 2016 conditions, and identification of which seeps were sampled for laboratory analysis. Photographs of each seep location have been compiled into the photo log in Attachment 1.

Laboratory Analyses and Field Parameters

Laboratory analyses were conducted for samples collected from monitoring wells and seeps. The water samples collected were analyzed for one or more of the following:

- Acidity or hot peroxide acidity
- Alkalinity
- Ammonia
- Anions
- Dissolved metals
- Dissolved organic carbon
- Ferrous iron
- Total dissolved solids
- Total suspended solids
- Unfiltered free cyanide

Field parameters measured at all monitored seep locations included the following:

- Temperature
- pH
- Specific conductance
- Dissolved oxygen
- Oxidation-reduction potential
- Turbidity (groundwater samples only)

Laboratory results are provided in Attachment 6 and summarized in Tables 6 through 8. Data validation was performed on all geochemical analytical data. A summary of the validation methodologies, issues encountered, and flags assigned to data are provided in the 2016 Faro Mine Water Monitoring Investigation Data Quality Evaluation, which is included in Attachment 7.

Summary of Field Investigation Findings

This section summarizes the findings from the 2016 field investigation. Although a suite of parameters was analysed, only the selected key indicators are discussed.

Waste Rock Dump Pore Gas and Temperature Profiles

WRD pore-gas and temperature data were collected from all locations where gas ports and thermistor ports or permanent thermistor strings were installed. Pore-gas and temperature sampling events occurred in February 2016 and June 2016. The results are reported in Tables 2 and 4; temperature and pore gas profiles are plotted on Figures 5, 6, and 7.

Pore gas and temperature in the Intermediate Dump were monitored at 30M1, 60M1, and CH12-014-MW007. During both sampling events, pore gas oxygen concentrations ranged from 6.1 to 20.3 percent by volume and temperatures ranged from 1.11 to 37.37°C. Results were generally consistent with historical measurements (see Figure 5). Oxygen concentrations at CH12-014-MW007 fluctuate with depth, whereas temperature consistently increases with depth. Oxygen concentrations from below 20 m below ground surface (mbgs) at 30M1 are lower than in the top 20 mbgs, which coincides with the depth at which the temperature stops increasing. The oxygen concentrations in 60M1 fluctuate up and down through the monitored depth; the temperature increases until a depth of 20 mbgs and decreases below 20 mbgs.

Pore gas and temperature in the Main Dump were monitored at CH12-014-MW003 and CH14-106-MW009. During both events, pore gas oxygen concentrations ranged from 0 to 18.3 percent volume and temperatures ranged from -1.14 to 18.9°C Oxygen concentrations at these locations appear to decrease with depth, and temperatures were relatively consistent with depth.

Pore gas and temperature in the Zone II East WRD were monitored at CH12-014-MW005. During both monitoring events, pore gas oxygen concentrations ranged from 8.1 to 20.4 percent volume and temperatures ranged from 2.89 to 8.12°C.

Pore gas and temperature in the Middle Northwest WRD were monitored at CH14-015-MW004. During both sampling events, pore gas oxygen concentrations ranged from 0 to 20.4 percent volume and temperatures ranged from -2.52 to 9.62°C. The lowest oxygen concentrations were measured in Port C (8.53 mbgs), which correlates with the depth where temperature increases.

Pore gas and temperature in the Northeast WRD were monitored at CH14-015-MW006. During both sampling events, pore gas oxygen concentrations ranged from 17.1 to 21 percent volume and temperatures ranged from 0.16 to 13.31°C. Port A was plugged during both sampling events, and produced water when gas purging was attempted.

Pore gas and temperature in the Oxide Fines Stockpile were monitored at CH14-104-MW008. During both sampling events, pore gas oxygen concentrations ranged from 8.1 to 19.6 percent volume and temperatures ranged from 3.76 to 7.95°C. Port A (1.52 mbgs) was plugged during both sampling events, and produced water when gas purging was attempted.

Pore gas and temperature in the Grum Waste Dump were monitored at 10M3, CH12-014-MW011, and CH12-014-MW012. During both sampling events, pore gas oxygen concentrations ranged from 0.81 to 17.77 percent volume and temperatures ranged from -22.5 to 22.91 C. Results were generally consistent with historical measurements (see Figure 6).

Pore gas and temperature in the Vangorda Waste Dump were monitored at 10M4, 30M4, and CH12-014-MW013. During the 2016 sampling events, pore gas oxygen concentrations ranged from 0 to 21.7 percent volume and temperatures ranged from 0.22 to 20.94°C. Results were generally consistent with historical measurements (see Figure 6). A few ports were plugged during the sampling events, as noted on Table 3.

Groundwater Levels

The list of all groundwater sampling locations for the 2016 field season and the reported depths to water at each monitoring well are presented in Table 1. During the February sampling event, pressure transducers were retrieved and downloaded from CH12-014-MW003, CH12-015-MW006, CH12-014-MW007, CH12-014-MW011, and CH12-014-MW013. The pressure transducer retrieved from CH12-014-MW013 was found to have been suspended above the water table after it was last monitored in October 2015. The measurements recorded by the instrument after October 2015 were discarded. Transducers were redeployed at CH14-015-MW006 and CH12-014-MW007 in February 2016, and were

again downloaded during the June 2016 monitoring event. A record of water levels measured at the WRD groundwater monitoring wells, including pressure transducer records from previous field seasons, is provided on Figure 4. At the Main Dump, water level measurements from CH12-014-MW003 indicate the water table fluctuates within the native soil and weathered bedrock. At the Intermediate Dump and Northeast WRD, water level measurements from CH14-015-MW006 and CH12-014-MW007 indicate the water table fluctuates above the interface with the native soil within the bottom depths of the WRDs. In the Grum Waste Dump and Vangorda Waste Dump, the water table fluctuates within the native soil, except at CH12-014-MW012, where the water table fluctuates above the native interface within the bottom depths of the WRD.

Groundwater Monitoring Results

Groundwater samples collected from WRD monitoring wells in winter and spring 2016 were submitted to ALS Laboratories for analysis. The groundwater analytical results were compared to the *Guidance Document on Federal on Interim Groundwater Quality Guidelines for Federal Contaminated Sites* (Public Works and Government Services of Canada, 2012). Analytical results for selected key indicator parameters are summarized for the different areas of the Faro Mine Complex as follows:

- The pH values measured at CH12-014-MW003, located in the Main Dump, were 6.51 and 6.47 in winter and spring, respectively. Total alkalinity, expressed as milligrams per litre (mg/L) of calcium carbonate ($CaCO_3$) equivalents, was 620 and 579 in winter and spring, respectively. Sulphate concentrations were 1,970 and 1740 mg/L in winter and spring, respectively. Dissolved iron concentrations were 0.534 and 0.628 mg/L in winter and spring, respectively. Dissolved magnesium concentrations were 167 and 147 mg/L in winter and spring, respectively. Dissolved zinc concentrations were 2.6 and 1.68 mg/L in winter and spring, respectively.
- The pH values measured at CH12-014-MW007, located in the Intermediate Dump, was 6.35 and 6.02 in winter and spring, respectively. Total alkalinity, expressed as mg/L of $CaCO_3$ equivalents, was 621 and 517 in winter and spring, respectively. Sulphate concentrations were 4,680 and 4,820 mg/L in winter and spring, respectively. Dissolved iron concentrations were 2.38 and 1.86 mg/L in winter and spring, respectively. Dissolved magnesium concentrations were 779 and 830 mg/L in winter and spring, respectively. Dissolved zinc concentrations were 142 and 234 mg/L in winter and spring, respectively.
- The pH values measured at CH14-015-MW006, located in the Northeast WRD, was 4.79 and 5.91 in winter and spring, respectively. Total alkalinity, expressed as mg/L of $CaCO_3$ equivalents, was 11.1 and 77.7 in winter and spring, respectively. Sulphate concentrations were 3,380 and 1,370 mg/L in winter and spring, respectively. Dissolved iron concentrations were 87.9 and 86.9 mg/L in winter and spring, respectively. Dissolved magnesium concentrations were 607 and 238 mg/L in winter and spring, respectively. Dissolved zinc concentrations were 104 and 36.8 mg/L in winter and spring, respectively.
- The pH values measured at CH14-104-MW008, located in the Oxide Fines Stockpile, was 6.56 during the spring monitoring event. Total alkalinity, expressed as mg/L of $CaCO_3$ equivalents, was 1,560. Dissolved iron was not detected. Concentrations of sulphate, dissolved magnesium, and dissolved zinc were 13,500, 3,500, and 3.08 mg/L, respectively.
- During the winter monitoring event, the pH values at the CH12-014-MW011 and CH12-014-MW012, located in the Grum Waste Dump, were 7.19 and 7.59, respectively; values during the spring monitoring event were 6.59 and 7.50, respectively. Total alkalinity measured during the winter monitoring event at CH12-014-MW011 and CH12-014-MW012 was 686 and 394 mg/L as $CaCO_3$ equivalents, respectively; total alkalinity measured during the spring monitoring event was 688 and 396 mg/L as $CaCO_3$ equivalents, respectively. Dissolved iron measured during the winter monitoring

event at CH12-014-MW011 and CH12-014-MW012 was 0.221 and 6.69 mg/L, respectively; dissolved iron measured during the spring monitoring event was 2.94 and 6.96 mg/L respectively. Dissolved magnesium measured during the winter monitoring event was 318 and 106 mg/L at CH12-014-MW011 and CH12-014-MW012, respectively; dissolved magnesium measured during the spring monitoring event was 337 and 116 mg/L, respectively. Dissolved zinc measured during the winter monitoring event was 0.568 and 0.0059 mg/L at CH12-014-MW011 and CH12-014-MW012, respectively. Dissolved zinc concentration at CH12-014-MW011 was measured at 0.684 mg/L and was not detected at CH12-014-MW012 during the spring monitoring event.

- The pH measured at CH12-014-MW013, located in the Vangorda Waste Dump, was 6.49 and 6.21 during the winter and spring monitoring events, respectively. Total alkalinity was 1,180 and 1,160 mg/L as $CaCO_3$ equivalents during the winter and spring monitoring events, respectively. Dissolved magnesium was 116 and 596 mg/L during the winter and spring monitoring events, respectively. Dissolved iron was 5.57 and 6.8 mg/L during the winter and spring monitoring events, respectively. Sulphate was 3,780 and 3,450 mg/L, during the winter and spring monitoring events, respectively. Dissolved zinc was 6.21 and 7.85 mg/L during the winter and spring monitoring events, respectively.

Analytical results for all groundwater samples collected are presented in Table 6. Detailed laboratory reports are included in Attachment 6.

Seep Monitoring Results

Seeps were monitored throughout the Faro Mine Complex in Spring 2016. Table 5 provides a summary of the locations visited, the general observed condition of each seep (e.g., flowing, stagnant, or dry), estimated flow rates, where applicable, and an indication of which seeps were sampled for laboratory analysis. Analytical results for selected key indicator parameters at each area of the Faro Mine Complex are summarized as follows:

1. Five seeps are associated with the Northwest WRDs: CH-FD-75, SRK-FD16, SRK-FD17, SRK-FD18, and SRK-FD19. Total alkalinity, expressed as mg/L of $CaCO_3$ equivalents, ranged from 61.9 mg/L (SRK-FD18) to 354 mg/L (SRK-FD19). The pH values ranged from 6.73 (SRK-FD19) to 7.73 (SRK-FD17). Dissolved sulphate concentrations ranged from 18.6 mg/L (SRK-FD18) to 5,570 mg/L (SRK-FD19). Dissolved iron concentrations ranged from less than the reportable detection limit in SRK-FD18 and CH-FD-75 to 1,010 mg/L in SRK-FD19 in the spring and ranged from less than the reportable detection limit (SRK-FD18 and CH-FD-75) to 0.13 mg/L (SRK-FD19). Dissolved magnesium concentrations ranged from 4.06 mg/L (SRK-FD18) to 901 mg/L (SRK-FD19). Dissolved zinc concentrations ranged from 0.0967 mg/L (SRK-FD18) to 159 mg/L (SRK-FD19).
2. The Northeast WRDs have 15 seep locations that were monitored in spring 2016, and 8 were sampled. The pH values at the Northeast WRDs ranged from 2.88 (CH-FD-62) to 7.66 (NE1). Total alkalinity ranged from 95.7 mg/L (NE1) to 211 mg/L (NE2) as $CaCO_3$ equivalents. Dissolved sulphate concentrations ranged from 134 mg/L (NE1) to 1,300 mg/L (SRK-FD24). Dissolved iron was only detected in SRK-FD23 and SRK-FD24, with concentrations 25.9 and 97.1 mg/L, respectively. Dissolved magnesium ranged from 19.7 mg/L (NE1) to 189 mg/L (SRK-FD05). Dissolved zinc concentrations ranged from non-detect (NE1) to 63.3 mg/L (SRK-FD24).
3. The north wall of Faro Pit (Faro Valley Waste Dump) has 11 seep locations. Monitoring was completed at 10 of the seep locations and sampled at 9. The pH ranged from 2.57 (CH-FP-29) to 7.96 (CH-FP-33). Total alkalinity ranged from 3.5 mg/L (CH-FP-36) to 108 mg/L (CH-FP-33) as $CaCO_3$ equivalents. Dissolved sulphate concentrations ranged from 88.8 mg/L (CH-FP-34) to 1,010 mg/L (A30). Dissolved iron was only detected at A30, with concentration 25.9 mg/L. Dissolved magnesium

ranged from 12.1 mg/L (CH-FP-34) to 112 mg/L (A30). Dissolved zinc concentrations ranged from 1.01 mg/L (CH-FP-33) to 93.6 mg/L (A30).

4. Seven seeps (CH-FP-25, CH-FP-37, CH-FP-42, FP05, FP07, FP11, and FP18) at the northwest wall of Faro Pit were monitored. Field parameters were recorded at two of the seeps (FP11 and CH-FP-37), and no samples were collected for laboratory analysis. The pH values were 6 (FP11) and 6.71 mg/L (CH-FP-37).
5. Seven seep locations at the Main Dump were monitored. Four samples were collected for laboratory analysis (SRK-FD31, SRK-FD30, SRK-FD09, and X23). The pH values for seeps at the Main Dump ranged from 5.36 (CH-FD-57) to 7.28 (SRK-FD30. Total alkalinity ranged from non-detect (SRK-FD09 and X23) to 191 mg/L as $CaCO_3$ equivalents (SRK-FD30). Sulphate concentrations ranged from 556 mg/L (SRK-FD30) to 8,930 mg/L (SRK-FD31). Dissolved iron ranged from non-detect (SRK-FD30) to 488 mg/L (SRK-FD31). Dissolved magnesium concentrations ranged from 129 mg/L (SRK-FD30) to 1,320 mg/L (X23). Dissolved zinc ranged from 3.78 mg/L (SRK-FD30) to 918 mg/L (X23).
6. Six seep locations at the Intermediate Dump were monitored and sampled for laboratory analysis (SRK-FD13, SRK-FD08, SRK-FD54, CH-FD-56, CH-FD-80, and SRK-FD55). The pH values ranged from 2.39 (SRK-FD13) to 6.7 (SRK-FD55). Total alkalinity ranged from below the detection limit (SRK-FD08, CH-FD-56, and SRK-FD54) to 83.3 mg/L as $CaCO_3$ equivalents (SRK-FD55). Sulphate concentrations ranged from 669 mg/L (SRK-FD08) to 38,200 mg/L (SRK-FD13). Dissolved iron ranged from less than the detection limit (SRK-FD55) to 6,670 mg/L (SRK-FD13). Dissolved magnesium ranged from 143 (SRK-FD08) to 3,140 mg/L (SRK-FD13). Dissolved zinc ranged from 6.15 mg/L (SRK-FD08) to 4,550 mg/L (SRK-FD13).
7. One seep at the medium-grade ore stockpile (SRK-FD37) was monitored and sampled for laboratory analysis. The pH value was 1.92. The sulphate concentration was 108,000 mg/L. The dissolved iron concentration was 17,000 mg/L. The dissolved magnesium concentration was 1,320 mg/L. The dissolved zinc concentration was 27,700 mg/L.
8. Two seep locations (SRK-FD04, CH-FD-81) were monitored at the Oxide Fines Stockpile. No samples were collected for analyses, because the water at this location was stagnant. The pH values were 1.66 and 2.06 for CH-FD-81 and SRK-FD04, respectively. The conductivity values measured were 8.836 and 32.64 milliSiemens per centimetre (mS/cm) for SRK-FD04 and CH-FD-81, respectively.
9. Three locations in the Faro Mill were monitored (CH-MILL-02, CH-MILL-03, and CH-MILL-04). No samples were collected for laboratory analysis. The pH values in the Faro Mill area ranged from 2.92 (CH-MILL-04) to 7.97 (CH-MILL-02) Specific conductivity ranged from 5.937 mS/cm (CH-MILL-02) to 13.52 mS/cm (CH-MILL-04).
10. Five locations at the Emergency Tailings Area (ETA) were monitored (CH-ETA-01, CH-ETA-02, FCS-2, FCS-3, and FCS-4), and three were sampled (FCS-2, FCS-3, and FCS-4). The pH values in the ETA ranged from 3.81 (FCS-2) to 6.63 (CH-ETA-02). Total alkalinity was less than the detection limit at all three sampled locations. Sulphate concentrations ranged from 6,450 mg/L (FCS-2) to 8,250 mg/L (FCS-3). Dissolved iron concentrations ranged from 216 mg/L (FCS-2) to 1,340 mg/L (FCS-3). Dissolved magnesium concentrations ranged from 968 mg/L (FCS-3) to 1,170 mg/L (FCS-2). Dissolved zinc concentrations ranged from 535 mg/L (FCS-4) to 617 mg/L (FCS-2)
11. One location was monitored upgradient of the Faro Valley Waste Dump at the edge of the Faro Creek Diversion (SRK-FD20). No samples were collected for laboratory analysis. The pH value measured was 7.88. Specific conductivity was 0.111 mS/cm.
12. Three locations in the parking lot dump areas were monitored (SRK-FD01, SRK-FD02, and CH-FD-65). One sample collected from SRK-FD01 was collected for laboratory analysis. The pH values ranged from 5.59 (CH-FD-65) to 6.68 (SRK-FD01). Total alkalinity measured at SRK-FD01 was 209 mg/L as

$CaCO_3$ equivalents. The sulphate concentration was 2,890 mg/L. The dissolved iron concentration was 3.05 mg/L. The dissolved magnesium concentration was 457 mg/L. The dissolved zinc concentration was 92.9 mg/L.

13. One location in the Ramp Zone Dump, SRK-FD14, was monitored. The measured pH was 6.45. Total alkalinity was 94.2 mg/L as $CaCO_3$ equivalents. The sulphate concentration was 2,720 mg/L. The dissolved iron concentration was 0.099 mg/L. The dissolved magnesium concentration was 552 mg/L. The dissolved zinc concentration was 8.58 mg/L.
14. Eighteen seeps were monitored at the Grum Waste Dump. Samples were collected for laboratory analysis from 10 locations. The pH values ranged from 6.13 (SRK-GD24) to 8.21 (WTA02). Total alkalinity ranged from 125 mg/L (SRK-GD24) to 610 mg/L (SRK-GD13) as $CaCO_3$ equivalents. Sulphate concentrations ranged from 34.2 (WTA02) to 2,590 mg/L (SRK-GD24). Dissolved iron concentrations ranged from below reportable detection limits at eight locations, to 11 mg/L (SRK-GD24). Dissolved magnesium concentrations ranged from 10 mg/L (WTA02) to 406 mg/L (SRK-GD05). Dissolved zinc concentrations ranged from 0.0032 mg/L (WTA02) to 93.5 mg/L (SRK-GD24).
15. Ten seeps were monitored at the Vangorda Waste Dump. Samples were collected from eight locations for laboratory analysis. Measured pH values ranged from 1.97 (SRK-VD07) to 5.70 (SRK-VD02). Total alkalinity was only measured at five of the locations and ranged from undetected (SRK-VD10) to 143 mg/L (SRK-VD02) as $CaCO_3$ equivalents. Sulphate concentrations ranged from 1,840 (SRK-VD12) to 77,800 mg/L (SRK-VD05). Dissolved iron concentrations ranged from 0.16 (SRK-VD01) to 14,500 mg/L (SRK-VD04). Dissolved magnesium concentrations ranged from 268 (SRK-VD12) to 7,440 mg/L (SRK-VD05). Dissolved zinc concentrations ranged from 106 mg/L (SRK-VD01) to 11,900 mg/L (SRK-VD04).
16. Eighteen seeps were monitored in Grum Pit. Samples were collected from four locations for laboratory analysis. The pH values ranged from 2.97 (CH-GP-26) to 8.49 (CH-GP-23). Total alkalinity ranged from below the reportable detection limit (GP12) to 433 mg/L as $CaCO_3$ equivalents (CH-GP-19). Dissolved sulphate concentrations ranged from 285 mg/L (GP02) to 795 mg/L (GP12). Dissolved iron concentrations ranged from below the reportable detection limit (GP09) to 105 mg/L (GP12). Dissolved magnesium concentrations ranged from 37.3 mg/L (GP02) to 169 mg/L (GP09). Dissolved zinc concentrations ranged from 0.0067 mg/L (GP02) to 55.8 mg/L (GP12).
17. Seven seeps were monitored in Vangorda Pit. Samples were collected from two locations for laboratory analysis (VP09 and CH-VP-17). The pH values ranged from 2.03 (VP10) to 5.81 (CH-VP-19). Alkalinity, only measured at VP09, was below the reportable detection limit. Sulphate concentrations ranged from 3,840 mg/L (VP09) to 4,690 mg/L (CH-VP-17). Dissolved iron concentrations ranged from 1,140 mg/L (CH-VP-17) to 1,160 mg/L (VP09). Dissolved magnesium ranged from 192 mg/L (VP09) to 256 mg/L (CH-VP-17). Dissolved zinc concentrations ranged from 422 mg/L (VP09) to 561 mg/L (CH-VP-17).
18. One location, VP11, was monitored at the Vangorda In-pit WRDs. No sample was collected for laboratory analysis. Measured pH was 2.96. Specific conductivity was 6.704 mS/cm.

Analytical results for all seep samples collected in 2016 are presented in Table 7. Detailed laboratory reports are included in Attachment 6.

Faro Pit Lake Water Quality Profiling

Water quality profiling and depth-specific sampling at the Faro Pit Lake was conducted by Laberge in March 2016; the results of the investigations were summarized in the TM in Attachment 5. The TM notes that Faro Pit Lake appears relatively well mixed in temperature with the exception of reverse stratification occurring within the upper 4 m of the profile. This is expected during under-ice conditions.

There is also a slight increase in temperature in the bottom 5 m of the lake, which is attributed to contact with slightly warmer sediments. The specific conductivity results suggest the lake is unstratified in salinity, other than some lower conductivity measurements measured very close to the ice surface. These measurements are attributed to the presence of fresh water very close to the surface, which likely results from localized ice melt in the auger hole. The lack of conductivity stratification in Faro Pit Lake is consistent with data from fall 2015.

Rose Creek Tailings Area Ground Temperature Monitoring Results

The results from ground temperature monitoring conducted in the Intermediate Tailings Area in February and June 2016 are provided in Table 4. Plotted temperature profiles, including profiles from previous monitoring events, are provided on Figure 7. The results are similar between monitoring locations, with February temperatures ranging from -4.06°C (CH14-201-TH003, 0.28-m depth) to 4.01°C (CH14-201-TH001, 6.64-m depth), and June temperatures ranging from 1.78°C (CH14-201-TH006, 4.26 m depth) to 12.85°C (CH14-201-TH003, 0.28-m depth). Seasonal temperature variations are greatest between surface and 4- to 8-m depths.

References

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Tables

Table 1. Groundwater Sampling Locations in the 2016 Field Season

Faro Mine Remediation Project

Monitoring Event	Location Identifier	Date Collected	Depth to Bottom (mbtoc)	Depth to Water (mbtoc)
Winter Monitoring (February 17 - February 21)	CH12-014-MW003	2/20/2016	35.3	29.88
	CH12-014-MW007	2/17/2016	63.11	48.414
	CH12-014-MW011	2/21/2016	35.4	28.322
	CH12-014-MW012	2/22/2016	38	23.015
	CH12-014-MW013	2/22/2016	39.2	34.488
	CH14-015-MW006	2/20/2016	31.09	26.252
Spring Monitoring (October 2 - October 11)	CH12-014-MW003	6/2/2016	35.3	29.915
	CH12-014-MW007	6/1/2016	63.11	48.271
	CH12-014-MW011	6/4/2016	35.4	27.452
	CH12-014-MW012	6/3/2016	38	22.625
	CH12-014-MW013	6/4/2016	39.2	34.661
	CH14-015-MW006	6/1/2016	31.09	26.236
	CH14-104-MW008	6/6/2016	32.61	33.239

Note:

mbtoc = metres below top of casing

Table 2. Soil Temperature Data – WRD

Faro Mine Remediation Project

Location Identifier	Date and Time Collected	Depth Below Ground Surface	Temperature (°C)
10M3	2016-02-22 14:13:43	0.7	-0.22
10M3	2016-02-22 14:13:43	1.4	0.64
10M3	2016-02-22 14:13:43	2.8	2.26
10M3	2016-02-22 14:13:43	5.6	3.58
10M3	2016-02-22 14:13:43	10	4.01
10M3	2016-06-03 12:17:06	0.7	7.36
10M3	2016-06-03 12:17:06	1.4	5.55
10M3	2016-06-03 12:17:06	2.8	3.23
10M3	2016-06-03 12:17:06	5.6	2.91
10M3	2016-06-03 12:17:06	10	3.91
10M4	2016-02-22 11:44:15	0.7	-2.44
10M4	2016-02-22 11:44:15	1.4	0.21
10M4	2016-02-22 11:44:15	2.8	2.57
10M4	2016-02-22 11:44:15	5.6	7.7
10M4	2016-02-22 11:44:15	10	16.93
10M4	2016-06-04 11:15:54	0.7	11
10M4	2016-06-04 11:15:54	1.4	10.11
10M4	2016-06-04 11:15:54	2.8	9.24
10M4	2016-06-04 11:15:54	5.6	9.52
10M4	2016-06-04 11:15:54	10	16.24
30M1	2016-02-18 16:08:16	0.7	3.65
30M1	2016-02-18 16:08:16	1.4	7.04
30M1	2016-02-18 16:08:16	2.8	11.27
30M1	2016-02-18 16:08:16	5.6	19.29
30M1	2016-02-18 16:08:16	10	28.43
30M1	2016-02-18 16:08:16	20	36.02
30M1	2016-02-18 16:08:16	30	38.33
30M1	2016-06-02 16:01:16	0.7	10.37
30M1	2016-06-02 16:01:16	1.4	10.59
30M1	2016-06-02 16:01:16	2.8	11.88
30M1	2016-06-02 16:01:16	5.6	18.68
30M1	2016-06-02 16:01:16	10	28.36
30M1	2016-06-02 16:01:16	20	36.62
30M1	2016-06-02 16:01:16	30	37.45
30M4	2016-02-21 16:37:00	0.7	-2.14
30M4	2016-02-21 16:37:00	1.4	-0.17
30M4	2016-02-21 16:37:00	2.8	5.82
30M4	2016-02-21 16:37:00	5.6	13.98
30M4	2016-02-21 16:37:00	10	19.79
30M4	2016-02-21 16:37:00	20	23.15
30M4	2016-02-21 16:37:00	30	21.4
30M4	2016-06-04 11:55:11	0.7	9.32
30M4	2016-06-04 11:55:11	1.4	8.52
30M4	2016-06-04 11:55:11	2.8	8.26
30M4	2016-06-04 11:55:11	5.6	12.3
30M4	2016-06-04 11:55:11	10	19.61
30M4	2016-06-04 11:55:11	20	23.51
30M4	2016-06-04 11:55:11	30	20.65

Table 2. Soil Temperature Data – WRD

Faro Mine Remediation Project

Location Identifier	Date and Time Collected	Depth Below Ground Surface	Temperature (°C)
60M1	2016-02-18 15:20:33	0.7	2.76
60M1	2016-02-18 15:20:33	1.4	5.89
60M1	2016-02-18 15:20:33	2.8	12.23
60M1	2016-02-18 15:20:33	5.6	19.95
60M1	2016-02-18 15:20:33	10	25.64
60M1	2016-02-18 15:20:33	20	34
60M1	2016-02-18 15:20:33	30	34.03
60M1	2016-02-18 15:20:33	40	29.63
60M1	2016-02-18 15:20:33	60	0.4
60M1	2016-06-02 14:54:14	0.7	11.25
60M1	2016-06-02 14:54:14	1.4	12.06
60M1	2016-06-02 14:54:14	2.8	13.88
60M1	2016-06-02 14:54:14	5.6	19.1
60M1	2016-06-02 14:54:14	10	25.35
60M1	2016-06-02 14:54:14	20	33.78
60M1	2016-06-02 14:54:14	30	33.83
60M1	2016-06-02 14:54:14	40	29.55
CH12-014-MW003	2016-02-17 16:38:43	0.27	-2.01
CH12-014-MW003	2016-02-17 16:38:43	2.77	3.02
CH12-014-MW003	2016-02-17 16:38:43	5.27	5.24
CH12-014-MW003	2016-02-17 16:38:43	7.77	6.25
CH12-014-MW003	2016-02-17 16:38:43	10.27	6.62
CH12-014-MW003	2016-02-17 16:38:43	12.77	6.86
CH12-014-MW003	2016-02-17 16:38:43	15.27	7.04
CH12-014-MW003	2016-02-17 16:38:43	17.77	6.93
CH12-014-MW003	2016-02-17 16:38:43	20.27	7.24
CH12-014-MW003	2016-02-17 16:38:43	25.27	6.78
CH12-014-MW003	2016-06-02 10:03:04	0.27	7.7
CH12-014-MW003	2016-06-02 10:03:04	2.77	2.39
CH12-014-MW003	2016-06-02 10:03:04	5.27	4.42
CH12-014-MW003	2016-06-02 10:03:04	10.27	6.56
CH12-014-MW003	2016-06-02 10:03:04	12.77	6.93
CH12-014-MW003	2016-06-02 10:03:04	15.27	6.92
CH12-014-MW003	2016-06-02 10:03:04	17.77	7.25
CH12-014-MW003	2016-06-02 10:03:04	20.27	7.3
CH12-014-MW003	2016-06-02 10:03:04	25.27	6.85
CH12-014-MW005	2016-02-21 09:48:17	1.46	0.46
CH12-014-MW005	2016-02-21 09:48:17	3.96	3.85
CH12-014-MW005	2016-02-21 09:48:17	6.46	5.78
CH12-014-MW005	2016-02-21 09:48:17	8.96	6.84
CH12-014-MW005	2016-02-21 09:48:17	11.46	7.41
CH12-014-MW005	2016-02-21 09:48:17	13.96	7.89
CH12-014-MW005	2016-02-21 09:48:17	16.46	8.02
CH12-014-MW005	2016-02-21 09:48:17	18.96	7.99
CH12-014-MW005	2016-02-21 09:48:17	21.46	7.98
CH12-014-MW005	2016-02-21 09:48:17	23.96	7.97
CH12-014-MW005	2016-02-21 09:48:17	28.96	7.78
CH12-014-MW005	2016-06-03 10:35:50	1.46	4.95

Table 2. Soil Temperature Data – WRD

Faro Mine Remediation Project

Location Identifier	Date and Time Collected	Depth Below Ground Surface	Temperature (°C)
CH12-014-MW005	2016-06-03 10:35:50	3.96	3.34
CH12-014-MW005	2016-06-03 10:35:50	6.46	4.93
CH12-014-MW005	2016-06-03 10:35:50	8.96	6.54
CH12-014-MW005	2016-06-03 10:35:50	11.46	7.31
CH12-014-MW005	2016-06-03 10:35:50	13.96	7.93
CH12-014-MW005	2016-06-03 10:35:50	16.46	8.1
CH12-014-MW005	2016-06-03 10:35:50	18.96	8.04
CH12-014-MW005	2016-06-03 10:35:50	21.46	8.02
CH12-014-MW005	2016-06-03 10:35:50	23.96	7.98
CH12-014-MW005	2016-06-03 10:35:50	28.96	7.82
CH12-014-MW007	2016-02-17 12:50:00	0.21	-1.92
CH12-014-MW007	2016-02-17 12:50:00	2.71	3.11
CH12-014-MW007	2016-02-17 12:50:00	5.21	6.21
CH12-014-MW007	2016-02-17 12:50:00	7.71	10.44
CH12-014-MW007	2016-02-17 12:50:00	10.21	13.71
CH12-014-MW007	2016-02-17 12:50:00	12.71	15.59
CH12-014-MW007	2016-02-17 12:50:00	15.21	16.82
CH12-014-MW007	2016-02-17 12:50:00	17.71	17.66
CH12-014-MW007	2016-02-17 12:50:00	20.21	18.4
CH12-014-MW007	2016-02-17 12:50:00	22.71	18.56
CH12-014-MW007	2016-02-17 12:50:00	25.21	18.24
CH12-014-MW007	2016-02-17 12:50:00	27.71	18.34
CH12-014-MW007	2016-02-17 12:50:00	30.21	19.2
CH12-014-MW007	2016-02-17 12:50:00	32.71	19.94
CH12-014-MW007	2016-02-17 12:50:00	35.21	20.49
CH12-014-MW007	2016-02-17 12:50:00	40.21	20.75
CH12-014-MW007	2016-06-01 12:42:24	0.21	9.24
CH12-014-MW007	2016-06-01 12:42:24	2.71	6.24
CH12-014-MW007	2016-06-01 12:42:24	5.21	7.16
CH12-014-MW007	2016-06-01 12:42:24	7.71	10.03
CH12-014-MW007	2016-06-01 12:42:24	10.21	13.62
CH12-014-MW007	2016-06-01 12:42:24	12.71	15.85
CH12-014-MW007	2016-06-01 12:42:24	15.21	17.09
CH12-014-MW007	2016-06-01 12:42:24	17.71	18.03
CH12-014-MW007	2016-06-01 12:42:24	20.21	18.89
CH12-014-MW007	2016-06-01 12:42:24	22.71	18.92
CH12-014-MW007	2016-06-01 12:42:24	25.21	18.85
CH12-014-MW007	2016-06-01 12:42:24	27.71	19
CH12-014-MW007	2016-06-01 12:42:24	30.21	19.68
CH12-014-MW007	2016-06-01 12:42:24	32.71	20.37
CH12-014-MW007	2016-06-01 12:42:24	35.21	20.92
CH12-014-MW007	2016-06-01 12:42:24	40.21	20.8
CH12-014-MW011	2016-02-22 10:33:37	0.41	-2.86
CH12-014-MW011	2016-02-22 10:33:37	2.91	0.91
CH12-014-MW011	2016-02-22 10:33:37	5.41	3.14
CH12-014-MW011	2016-02-22 10:33:37	7.91	3.93
CH12-014-MW011	2016-02-22 10:33:37	10.41	4.03
CH12-014-MW011	2016-02-22 10:33:37	12.91	3.9

Table 2. Soil Temperature Data – WRD

Faro Mine Remediation Project

Location Identifier	Date and Time Collected	Depth Below Ground Surface	Temperature (°C)
CH12-014-MW011	2016-02-22 10:33:37	15.41	3.81
CH12-014-MW011	2016-02-22 10:33:37	17.91	3.74
CH12-014-MW011	2016-02-22 10:33:37	22.91	3.32
CH12-014-MW011	2016-06-04 09:33:09	0.41	9.5
CH12-014-MW011	2016-06-04 09:33:09	2.91	2.43
CH12-014-MW011	2016-06-04 09:33:09	10.41	3.18
CH12-014-MW011	2016-06-04 09:33:09	12.91	3.73
CH12-014-MW011	2016-06-04 09:33:09	15.41	3.74
CH12-014-MW011	2016-06-04 09:33:09	17.91	3.79
CH12-014-MW011	2016-06-04 09:33:09	22.91	3.33
CH12-014-MW012	2016-02-21 13:57:45	0	-3.2
CH12-014-MW012	2016-02-21 13:57:45	2.5	1.25
CH12-014-MW012	2016-02-21 13:57:45	5	3.28
CH12-014-MW012	2016-02-21 13:57:45	7.5	4.28
CH12-014-MW012	2016-02-21 13:57:45	10	4.58
CH12-014-MW012	2016-02-21 13:57:45	12.5	4.63
CH12-014-MW012	2016-02-21 13:57:45	17.5	4.65
CH12-014-MW012	2016-06-03 13:44:36	0	13.43
CH12-014-MW012	2016-06-03 13:44:36	5	2.63
CH12-014-MW012	2016-06-03 13:44:36	7.5	3.55
CH12-014-MW012	2016-06-03 13:44:36	10	4.25
CH12-014-MW012	2016-06-03 13:44:36	12.5	4.6
CH12-014-MW012	2016-06-03 13:44:36	17.5	4.77
CH12-014-MW013	2016-02-22 12:42:54	2.45	2.19
CH12-014-MW013	2016-02-22 12:42:54	4.95	6.65
CH12-014-MW013	2016-02-22 12:42:54	7.45	14.23
CH12-014-MW013	2016-02-22 12:42:54	9.95	19.48
CH12-014-MW013	2016-02-22 12:42:54	12.45	20.51
CH12-014-MW013	2016-02-22 12:42:54	14.95	16.97
CH12-014-MW013	2016-02-22 12:42:54	17.45	16.87
CH12-014-MW013	2016-02-22 12:42:54	19.95	16.88
CH12-014-MW013	2016-02-22 12:42:54	24.95	14.72
CH12-014-MW013	2016-06-04 13:07:18	2.45	10.96
CH12-014-MW013	2016-06-04 13:07:18	4.95	10.95
CH12-014-MW013	2016-06-04 13:07:18	7.45	13.98
CH12-014-MW013	2016-06-04 13:07:18	12.45	19.77
CH12-014-MW013	2016-06-04 13:07:18	14.95	17.39
CH12-014-MW013	2016-06-04 13:07:18	17.45	17.02
CH12-014-MW013	2016-06-04 13:07:18	19.95	16.86
CH12-014-MW013	2016-06-04 13:07:18	24.95	14.83
CH14-015-MW004	2016-02-20 11:17:12	1	0.52
CH14-015-MW004	2016-02-20 11:17:12	3.5	5
CH14-015-MW004	2016-02-20 11:17:12	6	7.98
CH14-015-MW004	2016-02-20 11:17:12	8.5	9.46
CH14-015-MW004	2016-02-20 11:17:12	11	9.82
CH14-015-MW004	2016-02-20 11:17:12	13.5	9.6
CH14-015-MW004	2016-02-20 11:17:12	16	9.27
CH14-015-MW004	2016-02-20 11:17:12	18.5	8.83

Table 2. Soil Temperature Data – WRD

Faro Mine Remediation Project

Location Identifier	Date and Time Collected	Depth Below Ground Surface	Temperature (°C)
CH14-015-MW004	2016-02-20 11:17:12	21	8.29
CH14-015-MW004	2016-02-20 11:17:12	23.5	7.46
CH14-015-MW004	2016-02-20 11:17:12	26	6.69
CH14-015-MW004	2016-02-20 11:17:12	28.5	5.91
CH14-015-MW004	2016-02-20 11:17:12	31	5.29
CH14-015-MW004	2016-02-20 11:17:12	33.5	5.28
CH14-015-MW004	2016-02-20 11:17:12	36	5.29
CH14-015-MW004	2016-02-20 11:17:12	41	4.65
CH14-015-MW004	2016-06-02 16:29:50	1	7.88
CH14-015-MW004	2016-06-02 16:29:50	3.5	5.54
CH14-015-MW004	2016-06-02 16:29:50	6	7.21
CH14-015-MW004	2016-06-02 16:29:50	8.5	8.94
CH14-015-MW004	2016-06-02 16:29:50	11	9.45
CH14-015-MW004	2016-06-02 16:29:50	13.5	9.61
CH14-015-MW004	2016-06-02 16:29:50	16	9.26
CH14-015-MW004	2016-06-02 16:29:50	18.5	8.89
CH14-015-MW004	2016-06-02 16:29:50	21	8.32
CH14-015-MW004	2016-06-02 16:29:50	23.5	7.56
CH14-015-MW004	2016-06-02 16:29:50	26	6.81
CH14-015-MW004	2016-06-02 16:29:50	28.5	6.08
CH14-015-MW004	2016-06-02 16:29:50	31	5.49
CH14-015-MW004	2016-06-02 16:29:50	33.5	5.28
CH14-015-MW004	2016-06-02 16:29:50	36	5.3
CH14-015-MW004	2016-06-02 16:29:50	41	4.69
CH14-015-MW006	2016-02-20 14:39:37	1.09	0.28
CH14-015-MW006	2016-02-20 14:39:37	3.59	-1.56
CH14-015-MW006	2016-02-20 14:39:37	6.09	1.68
CH14-015-MW006	2016-02-20 14:39:37	8.59	3.24
CH14-015-MW006	2016-02-20 14:39:37	11.09	4.02
CH14-015-MW006	2016-02-20 14:39:37	13.59	4.05
CH14-015-MW006	2016-02-20 14:39:37	16.09	4.03
CH14-015-MW006	2016-02-20 14:39:37	18.59	4.01
CH14-015-MW006	2016-02-20 14:39:37	21.09	3.76
CH14-015-MW006	2016-02-20 14:39:37	23.59	3.54
CH14-015-MW006	2016-02-20 14:39:37	26.09	3.33
CH14-015-MW006	2016-02-20 14:39:37	31.09	3.09
CH14-015-MW006	2016-06-01 15:24:10	3.59	11.19
CH14-015-MW006	2016-06-01 15:24:10	6.09	2.84
CH14-015-MW006	2016-06-01 15:24:10	8.59	1.62
CH14-015-MW006	2016-06-01 15:24:10	11.09	3.88
CH14-015-MW006	2016-06-01 15:24:10	13.59	4.18
CH14-015-MW006	2016-06-01 15:24:10	16.09	4.38
CH14-015-MW006	2016-06-01 15:24:10	18.59	4.61
CH14-015-MW006	2016-06-01 15:24:10	21.09	3.91
CH14-015-MW006	2016-06-01 15:24:10	23.59	2.35
CH14-015-MW006	2016-06-01 15:24:10	26.09	3.09
CH14-015-MW006	2016-06-01 15:24:10	31.09	3.52
CH14-104-MW008	2016-02-19 13:49:38	0.91	0.8

Table 2. Soil Temperature Data – WRD

Faro Mine Remediation Project

Location Identifier	Date and Time Collected	Depth Below Ground Surface	Temperature (°C)
CH14-104-MW008	2016-02-19 13:49:38	3.41	2.79
CH14-104-MW008	2016-02-19 13:49:38	5.91	5
CH14-104-MW008	2016-02-19 13:49:38	8.41	6.34
CH14-104-MW008	2016-02-19 13:49:38	10.91	7.06
CH14-104-MW008	2016-02-19 13:49:38	13.41	7.09
CH14-104-MW008	2016-02-19 13:49:38	15.91	6.78
CH14-104-MW008	2016-02-19 13:49:38	18.41	6.64
CH14-104-MW008	2016-02-19 13:49:38	20.91	6.54
CH14-104-MW008	2016-02-19 13:49:38	25.91	6.17
CH14-104-MW008	2016-06-05 13:16:21	0.91	8.71
CH14-104-MW008	2016-06-05 13:16:21	3.41	5.04
CH14-104-MW008	2016-06-05 13:16:21	5.91	4.46
CH14-104-MW008	2016-06-05 13:16:21	8.41	6.3
CH14-104-MW008	2016-06-05 13:16:21	10.91	6.16
CH14-104-MW008	2016-06-05 13:16:21	13.41	6.56
CH14-104-MW008	2016-06-05 13:16:21	15.91	6.71
CH14-104-MW008	2016-06-05 13:16:21	18.41	6.82
CH14-104-MW008	2016-06-05 13:16:21	20.91	6.94
CH14-104-MW008	2016-06-05 13:16:21	25.91	7.06
CH14-106-MW009	2016-02-18 14:24:49	1	-0.4
CH14-106-MW009	2016-02-18 14:24:49	3.5	3.93
CH14-106-MW009	2016-02-18 14:24:49	6	6.77
CH14-106-MW009	2016-02-18 14:24:49	8.5	8.53
CH14-106-MW009	2016-02-18 14:24:49	11	9.48
CH14-106-MW009	2016-02-18 14:24:49	13.5	10.34
CH14-106-MW009	2016-02-18 14:24:49	16	11.18
CH14-106-MW009	2016-02-18 14:24:49	18.5	11.95
CH14-106-MW009	2016-02-18 14:24:49	21	12.85
CH14-106-MW009	2016-02-18 14:24:49	23.5	14.01
CH14-106-MW009	2016-02-18 14:24:49	26	15.24
CH14-106-MW009	2016-02-18 14:24:49	28.5	16.48
CH14-106-MW009	2016-02-18 14:24:49	31	17.34
CH14-106-MW009	2016-02-18 14:24:49	33.5	18.23
CH14-106-MW009	2016-02-18 14:24:49	36	19.04
CH14-106-MW009	2016-02-18 14:24:49	41	18.08
CH14-106-MW009	2016-06-02 13:15:25	1	6.63
CH14-106-MW009	2016-06-02 13:15:25	3.5	3.95
CH14-106-MW009	2016-06-02 13:15:25	6	6.23
CH14-106-MW009	2016-06-02 13:15:25	8.5	8.47
CH14-106-MW009	2016-06-02 13:15:25	11	9.73
CH14-106-MW009	2016-06-02 13:15:25	13.5	10.73
CH14-106-MW009	2016-06-02 13:15:25	16	11.51
CH14-106-MW009	2016-06-02 13:15:25	18.5	12.23
CH14-106-MW009	2016-06-02 13:15:25	21	13.43
CH14-106-MW009	2016-06-02 13:15:25	23.5	14.2
CH14-106-MW009	2016-06-02 13:15:25	26	15.69
CH14-106-MW009	2016-06-02 13:15:25	28.5	16.86
CH14-106-MW009	2016-06-02 13:15:25	31	17.79

Table 2. Soil Temperature Data – WRD

Faro Mine Remediation Project

Location Identifier	Date and Time Collected	Depth Below Ground Surface	Temperature (°C)
CH14-106-MW009	2016-06-02 13:15:25	33.5	18.78
CH14-106-MW009	2016-06-02 13:15:25	36	19.56
CH14-106-MW009	2016-06-02 13:15:25	41	18.6

Notes:
°C = degrees Celsius
WRD = waste rock dump

Table 3. Waste Rock Dump Pore Gas Monitoring

Faro Mine Remediation Project

					Vacuum Test		Stabilized Readings		
Location ID	Port	Screen Centre Depth (mbgs)	Sand Pack Length (m)	Date and Time Sampled	Vacuum in mmhg	Flow Rate in L/Min	O_2 (% Vol)	CO_2 (% Vol)	Notes
10M3	0.7B	0.70		2016-02-22 14:20:34	1.64	0.5	20.9	0.1	
10M3	0.7A	0.70		2016-02-22 14:21:19	1.55	0.5	20.9	0.1	
10M3	1.4B	1.40		2016-02-22 14:16:37	1.1	0.5	19.9	0.9	
10M3	1.4A	1.40		2016-02-22 14:19:16	1.73	0.5	19.7	1.1	
10M3	2.8B	2.80		2016-02-22 14:10:34	0	0.5	2.3	17.7	
10M3	2.8A	2.80		2016-02-22 14:14:50	1.78	0.5	17.2	3.4	
10M3	5.6A	5.60		2016-02-22 14:08:28					Plugged
10M3	5.6B	5.60		2016-02-22 14:08:11					Plugged
10M3	10A	10.00		2016-02-22 14:06:15					Plugged
10M3	10B	10.00		2016-02-22 14:08:00					Plugged
10M4	0.7	0.70		2016-02-22 12:45:48					Plugged
10M4	1.4	1.40		2016-02-22 12:45:37					Plugged
10M4	2.8B	2.80		2016-02-22 12:44:26	4.88	0.5	20.4	0.2	
10M4	2.8A	2.80		2016-02-22 12:46:09					Plugged
10M4	5.6A	5.60		2016-02-22 12:42:58					Plugged
10M4	5.6B	5.60		2016-02-22 12:43:26					Plugged
30M1	0.7A	0.70		2016-02-18 16:24:28	1.03	0.5	19.1	1.4	
30M1	1.4A	1.40		2016-02-18 16:20:27					Plugged
30M1	1.4B	1.40		2016-02-18 16:22:40	1.56	0.5	19.1	1.4	
30M1	2.8A	2.80		2016-02-18 16:18:28					Blocked
30M1	2.8B	2.80		2016-02-18 16:19:18	2.63	0.5	18.8	1.4	
30M1	5.6A	5.60		2016-02-18 16:17:07					Plugged
30M1	5.6B	5.60		2016-02-18 16:17:23	1.83	0.5	19.1	1.3	
30M1	10A	10.00		2016-02-18 16:14:35	9.63	0.5	18.8	1.4	
30M1	10B	10.00		2016-02-18 16:16:07					Plugged
30M1	20	20.00		2016-02-18 16:12:56	17.23	0.5	20.1	0.6	
30M1	30	30.00		2016-02-18 16:08:06					Plugged
30M4	0.7B	0.70		2016-02-21 16:48:10					Plugged
30M4	0.7A	0.70		2016-02-21 16:48:28					Plugged
30M4	1.4B	1.40		2016-02-21 16:43:42	24.96	0.5	1	8.3	
30M4	1.4A	1.40		2016-02-21 16:47:07	31.54	0.5	1.4	8.1	
30M4	2.8B	2.80		2016-02-21 16:43:18					Plugged
30M4	2.8A	2.80		2016-02-21 16:43:31					Plugged
30M4	5.6B	5.60		2016-02-21 16:42:49					Plugged
30M4	5.6A	5.60		2016-02-21 16:43:06					Plugged
30M4	10B	10.00		2016-02-21 16:42:17					Plugged
30M4	10A	10.00		2016-02-21 16:42:34					Plugged
30M4	20	20.00		2016-02-21 16:42:02					Plugged
30M4	30	30.00		2016-02-21 16:41:45					Plugged
60M1	2.8A	2.80		2016-02-18 16:46:00	4.93	0.5	16.7	1.4	
60M1	5.6A	5.60		2016-02-18 16:41:20					Plugged
60M1	5.6B	5.60		2016-02-18 16:42:57	3.64	0.5	15.7	2.2	
60M1	10A	10.00		2016-02-18 15:37:43	8.42	0.5	14	1.9	
60M1	10B	10.00		2016-02-18 16:40:26					Plugged

Table 3. Waste Rock Dump Pore Gas Monitoring

Faro Mine Remediation Project

					Vacuum Test		Stabilized Readings		
Location ID	Port	Screen Centre Depth (mbgs)	Sand Pack Length (m)	Date and Time Sampled	Vacuum in mmhg	Flow Rate in L/Min	O_2 (% Vol)	CO_2 (% Vol)	Notes
60M1	20	20.00		2016-02-18 15:35:12	11.06	0.5	11.5	4.2	
60M1	30	30.00		2016-02-18 15:32:34	4.44	0.5	5.9	7.5	
60M1	40	40.00		2016-02-18 15:29:39	4.92	0.5	9	5.4	
60M1	60	60.00		2016-02-18 15:23:27	7.84	0.5	15.8	2.1	
CH12-014-MW003	A	5.03	0.61	2016-02-17 17:14:59	4.14	0.5	19.8	0.6	
CH12-014-MW003	B	10.06	0.61	2016-02-17 17:10:08	0.9	0.5	4.7	6.7	
CH12-014-MW003	C	14.94	0.61	2016-02-17 17:02:06	0.92	0.5	2	8.7	
CH12-014-MW003	D	19.96	0.61	2016-02-17 16:55:04	0.95	0.5	1.8	9.9	
CH12-014-MW005	A	10.06	2.438	2016-02-21 10:31:11	0.07	0.5	20.9	0.2	
CH12-014-MW005	B	15.85	2.438	2016-02-21 10:21:53	0.26	0.5	16.8	2.9	
CH12-014-MW005	C	20.57	2.134	2016-02-21 10:15:20	0.07	0.5	20.9	0.2	
CH12-014-MW005	D	38.56	16.764	2016-02-21 09:43:12	0.28	0.5	3.8	14.7	
CH12-014-MW007	A	4.57	1.219	2016-02-17 15:07:13	0.85	0.5	20.9	0.7	
CH12-014-MW007	B	12.19	0.610	2016-02-17 14:53:44	4.47	0.5	0.9	15.7	
CH12-014-MW007	C	19.81	0.610	2016-02-17 14:28:41	0.79	0.5	19.4	1	
CH12-014-MW007	D	29.87	0.610	2016-02-17 14:18:37	1.4	0.5	20.3	1.5	
CH12-014-MW007	E	39.93	0.610	2016-02-17 14:12:10	0.92	0.5	1.5	13.7	
CH12-014-MW011	A	4.88	0.610	2016-02-21 14:22:25	0.85	0.5	20	0.8	
CH12-014-MW011	B	9.75	0.610	2016-02-21 14:12:06	0.13	0.5	19.3	1.2	
CH12-014-MW011	C	14.94	0.61	2016-02-21 14:04:57	0.07	0.5	20	0.8	
CH12-014-MW011	D	19.81	0.610	2016-02-21 13:48:36	0.06	0.5	20.9	0.4	
CH12-014-MW011	E	22.86	0.610	2016-02-21 13:37:34	20.32	0.5	20.9	0	
CH12-014-MW012	A	4.27	0.610	2016-02-22 14:57:14	0	0.5	12	7.3	
CH12-014-MW012	B	9.14	0.610	2016-02-22 14:54:11					Plugged
CH12-014-MW012	C	14.02	0.610	2016-02-22 14:48:54	1.86	0.5	4	9.9	
CH12-014-MW012	D	17.37	0.61	2016-02-22 14:42:04	1.79	0.5	20.9	0	
CH12-014-MW013	A	4.88	0.610	2016-02-22 12:26:16	17.28	0.5	20.9	0	
CH12-014-MW013	B	9.75	0.610	2016-02-22 12:19:52	17.01	0.5	18.6	1	
CH12-014-MW013	C	14.94	0.610	2016-02-22 12:13:42	17.12	0.5	19.6	0.5	
CH12-014-MW013	D	19.81	0.610	2016-02-22 11:49:38	31.78	0.5	12	4.2	
CH12-014-MW013	E	24.69	0.610	2016-02-22 11:39:22	33.73	0.5	1.3	15.4	
CH14-015-MW004	A	1.52	1.22	2016-02-20 11:43:14	12.69	0.5	17.1	1.3	
CH14-015-MW004	B	3.96	1.22	2016-02-20 11:41:15	1.01	0.5	11.8	3.5	
CH14-015-MW004	C	8.53	1.22	2016-02-20 11:38:27	1.97	0.5	0	6	
CH14-015-MW004	D	17.68	1.22	2016-02-20 11:32:22	3.36	0.5	12.6	7.2	
CH14-015-MW004	E	23.77	1.22	2016-02-20 11:28:16	9.69	0.5	20.9	0.1	
CH14-015-MW004	F	29.87	1.22	2016-02-20 11:19:34	5.16	0.5	20.9	0	
CH14-015-MW006	B	4.57	1.22	2016-02-20 14:53:44	15.01	0.5	18.6	2.2	
CH14-015-MW006	C	9.14	1.22	2016-02-20 14:47:43	9.61	0.5	20.7	0.8	
CH14-015-MW006	D	13.72	1.22	2016-02-20 14:37:46	7.88	0.5	20.9	0.4	
CH14-015-MW006	E	18.29	1.22	2016-02-20 14:31:47	8.75	0.5	20.9	0.4	
CH14-104-MW008	A	1.52	1.22	2016-02-19 14:02:08					Plugged
CH14-104-MW008	B	3.05	1.22	2016-02-19 14:09:00	35.04	0.5	12	10.3	
CH14-104-MW008	C	9.14	1.22	2016-02-19 14:06:25	36.09	0.5	16.9	2.2	

Table 3. Waste Rock Dump Pore Gas Monitoring

Faro Mine Remediation Project

Location ID	Port	Screen Centre Depth (mbgs)	Sand Pack Length (m)	Date and Time Sampled	Vacuum Test		Stabilized Readings		Notes
					Vacuum in mmhg	Flow Rate in L/Min	O_2 (% Vol)	CO_2 (% Vol)	
CH14-104-MW008	D	13.72	1.22	2016-02-19 14:00:13	14.03	0.5	12.5	7.1	
CH14-104-MW008	E	18.29	1.22	2016-02-19 13:55:28	4.92	0.5	14.9	4.9	
CH14-104-MW008	F	22.86	1.22	2016-02-19 13:52:29	6.98	0.5	20.9	0.3	
CH14-106-MW009	A	3.05	1.22	2016-02-18 14:40:42					Plugged
CH14-106-MW009	B	13.72	1.22	2016-02-18 14:39:17	15.11	0.5	19.8	1	
CH14-106-MW009	C	24.38	1.22	2016-02-18 14:36:13	15.47	0.5	16	3.5	
CH14-106-MW009	D	35.05	1.22	2016-02-18 14:32:45	23.07	0.5	15.5	1.9	
CH14-106-MW009	E	47.24	1.22	2016-02-18 14:29:15	8.46	0.5	4.4	9.3	
CH14-106-MW009	F	56.69	1.22	2016-02-18 14:26:26	10.28	0.5	12.4	4.8	
10M3	0.7A	0.70		2016-06-03 13:16:57	0.93	0.5	21.7	0.3	
10M3	0.7B	0.70		2016-06-03 13:18:29	0.93	0.5	21.7	0.3	
10M3	1.4A	1.40		2016-06-03 13:13:35	0	0.5	20.7	1.2	
10M3	1.4B	1.40		2016-06-03 13:14:35	0	0.5	20.6	1.3	
10M3	2.8A	2.80		2016-06-03 13:06:39	0.93	0.5	16.4	5.9	
10M3	2.8B	2.80		2016-06-03 13:08:16	1.31	0.5	16.3	6	
10M3	5.6B	5.60		2016-06-03 12:40:17	0.9	0.5	20.4	1.5	
10M3	5.6A	5.60		2016-06-03 12:57:53	1.31	0.5	19	3.3	
10M3	5.6B	5.60		2016-06-03 12:59:26	1.68	0.5	18.9	3.6	
10M3	10B	10.00		2016-06-03 12:31:03	1.1	0.5	18.9	3.8	
10M3	10A	10.00		2016-06-03 12:35:20	2.06	0.5	18.4	4.3	
10M3	10B	10.00		2016-06-03 12:37:14	2.06	0.5	18.3	4.3	
10M4	0.7	0.70		2016-06-04 11:40:29	0	0.5	15.5	2.8	
10M4	1.4	1.40		2016-06-04 11:36:41	0	0.5	20.6	0.6	
10M4	2.8A	2.80		2016-06-04 11:30:04	4.48	0.5	21.3	0.3	
10M4	2.8B	2.80		2016-06-04 11:33:31	3.92	0.5	21.3	0.3	
10M4	10	10.00		2016-06-04 11:19:25	73.99	0.5	20.7	0.6	
30M1	0.7A	0.70		2016-06-02 16:16:39	0.93	0.5	17.8	3	
30M1	0.7B	0.70		2016-06-02 16:18:14	4.67	0.5	17.8	3	
30M1	1.4A	1.40		2016-06-02 16:12:43	1.49	0.5	17.9	3	
30M1	1.4B	1.40		2016-06-02 16:14:40	2.24	0.5	17.9	3	
30M1	2.8A	2.80		2016-06-02 16:09:45	1.31	0.5	18	2.8	
30M1	2.8B	2.80		2016-06-02 16:11:04	2.24	0.5	18	2.8	
30M1	5.6A	5.60		2016-06-02 16:13:06	1.68	0.5	18	2.6	
30M1	5.6B	5.60		2016-06-02 16:14:48	2.8	0.5	18	2.6	
30M1	10A	10.00		2016-06-02 16:08:05	5.6	0.5	17.7	2.8	
30M1	10B	10.00		2016-06-02 16:10:34	5.79	0.5	17.7	2.8	
30M1	20	20.00		2016-06-02 16:05:11	11.02	0.5	17.3	3.2	
30M1	30	30.00		2016-06-02 16:02:21	5.98	0.5	0	11.5	
30M4	0.7B	0.70		2016-06-04 12:41:28	0	0.5	17.9	3.5	
30M4	0.7A	0.70		2016-06-04 12:42:44	0	0.5	17.9	3.5	
30M4	1.4A	1.40		2016-06-04 12:38:27	0	0.5	8.2	10.7	
30M4	2.8B	2.80		2016-06-04 12:16:08					Plugged
30M4	2.8A	2.80		2016-06-04 12:19:33	0	0.5	0	15.7	
30M4	5.6B	5.60		2016-06-04 12:12:17	0	0.5	1.9	11.3	

Table 3. Waste Rock Dump Pore Gas Monitoring

Faro Mine Remediation Project

					Vacuum Test		Stabilized Readings		
Location ID	Port	Screen Centre Depth (mbgs)	Sand Pack Length (m)	Date and Time Sampled	Vacuum in mmhg	Flow Rate in L/Min	O_2 (% Vol)	CO_2 (% Vol)	Notes
30M4	5.6A	5.60		2016-06-04 12:15:17	1.12	0.5	2	11.2	
30M4	10B	10.00		2016-06-04 12:02:03	1.49	0.5	6	10.1	
30M4	10A	10.00		2016-06-04 12:08:25	196.55				Plugged
30M4	20	20.00		2016-06-04 11:59:10	3.18	0.5	0	14.7	
30M4	30	30.00		2016-06-04 11:54:42	4.67	0.5	0	16.4	
60M1	0.7A	0.70		2016-06-02 15:41:55	0	0.5	7.2	9.5	
60M1	0.7B	0.70		2016-06-02 15:44:08	0	0.5	7.4	9.4	
60M1	1.4A	1.40		2016-06-02 15:37:59	0	0.5	5.3	10.5	
60M1	1.4B	1.40		2016-06-02 15:40:05	0	0.5	5.3	10.5	
60M1	2.8A	2.80		2016-06-02 15:34:39	0.93	0.5	3.2	12.1	
60M1	2.8B	2.80		2016-06-02 15:36:23	1.12	0.5	3.4	12.1	
60M1	5.6A	5.60		2016-06-02 15:32:00	2.24	0.5	3.9	12.7	
60M1	5.6B	5.60		2016-06-02 15:32:34	2.99	0.5	3.9	12.7	
60M1	10A	10.00		2016-06-02 15:21:32	1.87	0.5	5.4	8.6	
60M1	10B	10.00		2016-06-02 15:27:07	2.06	0.5	8.1	9.7	
60M1	20	20.00		2016-06-02 15:17:56	1.87	0.5	8.7	9.4	
60M1	30	30.00		2016-06-02 15:12:30	3.18	0.5	7.4	10.4	
60M1	40	40.00		2016-06-02 15:05:24	3.36	0.5	8.3	10	
60M1	60	60.00		2016-06-02 14:59:46	6.35	0.5	14	6.4	
CH12-014-MW003	A	5.03	0.61	2016-06-02 12:13:48	2.24	0.5	13.8	4	
CH12-014-MW003	B	10.06	0.61	2016-06-02 10:44:23	0	0.5	17.3	2	
CH12-014-MW003	C	14.94	0.61	2016-06-02 10:35:11	0	0.5	3.6	11.8	
CH12-014-MW003	D	19.96	0.61	2016-06-02 10:19:00	4.3	0.5	3.2	15.6	
CH12-014-MW005	A	10.06	2.44	2016-06-05 11:20:26	0	0.5	21.4	0.3	
CH12-014-MW005	B	15.85	2.44	2016-06-05 11:10:56	0	0.5	16.4	5.1	
CH12-014-MW005	C	20.57	2.13	2016-06-05 11:01:01	0	0.5	21.2	0.1	
CH12-014-MW005	D	38.56	16.76	2016-06-05 10:52:05	0	0.5			Atmospheric air leak. Measurement discarded.
CH12-014-MW007	A	4.57	1.22	2016-06-01 12:44:18	0	0.5	21	0.6	
CH12-014-MW007	B	12.19	0.61	2016-06-01 12:36:08	0	0.5	0	20.3	
CH12-014-MW007	C	19.81	0.61	2016-06-01 12:27:47	0	0.5	19.1	2.2	
CH12-014-MW007	D	29.87	0.61	2016-06-01 12:06:03	0	0.5	18.6	1.6	
CH12-014-MW007	E	39.93	0.61	2016-06-01 11:43:46	0	0.5	2.5	10	
CH12-014-MW011	A	4.88	0.61	2016-06-04 14:48:47	0	0.5	22.3	0.3	
CH12-014-MW011	B	9.75	0.61	2016-06-04 14:36:24		0.5	21.5	0.9	
CH12-014-MW011	C	14.94	0.61	2016-06-04 14:20:02	0	0.5	19.6	2.3	
CH12-014-MW011	D	19.81	0.61	2016-06-04 14:10:20	0	0.5	19.8	1.8	
CH12-014-MW011	E	22.86	0.61	2016-06-04 13:56:27	14.39	0.5	21.8	0	
CH12-014-MW012	A	4.27	0.61	2016-06-03 12:05:42	1.12	0.5	19.7	1.8	
CH12-014-MW012	B	9.14	0.61	2016-06-03 11:45:56	11.96	0.5	2.7	12.5	
CH12-014-MW012	C	14.02	0.61	2016-06-03 11:34:15	1.68	0.5	5	13.3	
CH12-014-MW012	D	17.37	0.61	2016-06-03 11:22:51	75.67	0.5			Plugged
CH12-014-MW013	A	4.88	0.61	2016-06-04 11:07:25	0	0.5	21.8	0.3	
CH12-014-MW013	B	9.75	0.61	2016-06-04 10:53:54	0	0.5	19.8	1.3	
CH12-014-MW013	C	14.94	0.61	2016-06-04 10:43:05	0	0.5	20	0.9	

Table 3. Waste Rock Dump Pore Gas Monitoring

Faro Mine Remediation Project

Location ID	Port	Screen Centre Depth (mbgs)	Sand Pack Length (m)	Date and Time Sampled	Vacuum Test		Stabilized Readings		Notes
					Vacuum in mmhg	Flow Rate in L/Min	O_2 (% Vol)	CO_2 (% Vol)	
CH12-014-MW013	D	19.81	0.61	2016-06-04 10:27:32	0	0.5	18.8	2.4	
CH12-014-MW013	E	24.69	0.61	2016-06-04 10:17:13	3.55	0.5	1.2	20.2	
CH14-015-MW004	A	1.52	1.22	2016-06-05 12:23:25	1.31	0.5	18.2	2.8	
CH14-015-MW004	B	3.96	1.22	2016-06-05 12:21:17	1.12	0.5	14.6	4.1	
CH14-015-MW004	C	8.53	1.22	2016-06-05 12:18:00	1.49	0.5	2.4	7.3	
CH14-015-MW004	D	17.68	1.22	2016-06-05 12:11:20	2.62	0.5	14.8	8.5	
CH14-015-MW004	E	23.77	1.22	2016-06-05 12:05:08	3.55	0.5	20.9	0.8	
CH14-015-MW004	F	29.87	1.22	2016-06-05 11:56:06	4.3	0.5	20.9	0.8	
CH14-015-MW006	A	1.52	1.22	2016-06-01 14:53:51					Plugged, produced water during attempted purge
CH14-015-MW006	B	4.57	1.22	2016-06-01 14:39:33	0	0.5	20.2	2.5	
CH14-015-MW006	C	9.14	1.22	2016-06-01 14:22:45	1.31	0.5	18.9	3.2	
CH14-015-MW006	D	13.72	1.22	2016-06-01 14:14:06	2.8	0.5	21.2	0.9	
CH14-015-MW006	E	18.29	1.22	2016-06-01 13:57:56	2.99	0.5	20.8	0.6	
CH14-104-MW008	A	1.52	1.22	2016-06-05 13:06:51					Plugged, produced water during attempted purge
CH14-104-MW008	B	3.05	1.22	2016-06-05 13:04:20	1.12	0.5	16.3	7.4	
CH14-104-MW008	C	9.14	1.22	2016-06-05 12:57:31	1.68	0.5	18.1	3	
CH14-104-MW008	D	13.72	1.22	2016-06-05 12:49:22	2.24	0.5	9.4	13.2	
CH14-104-MW008	E	18.29	1.22	2016-06-05 12:45:57	2.99	0.5	13.8	8.1	
CH14-104-MW008	F	22.86	1.22	2016-06-05 12:40:53	3.55	0.5	20.6	1.7	
CH14-106-MW009	A	3.05	1.22	2016-06-02 13:48:20	0	0.5	18.9	3.6	
CH14-106-MW009	B	13.72	1.22	2016-06-02 13:46:01	1.87	0.5	17.1	3.8	
CH14-106-MW009	C	24.38	1.22	2016-06-02 13:43:15	3.55	0.5	11.3	9.8	
CH14-106-MW009	D	35.05	1.22	2016-06-02 13:39:59	5.04	0.5	8.2	9.4	
CH14-106-MW009	E	47.24	1.22	2016-06-02 13:19:25	6.73	0.5	0	20.9	
CH14-106-MW009	F	56.69	1.22	2016-06-02 13:11:38	7.47	0.5	0.1	17.7	

Notes:

% vol = percent volume
CO_2 = carbon dioxide
L/min = litre per minute
m = metre
mgbs = metre below ground surface
mmhg = millimetres of mercury
O2 = oxygen

Table 4. Soil Temperature Data – RCTA

Faro Mine Remediation Project

Location Identifier	Date and Time Collected	Depth Below Ground Surface	Temperature (°C)
CH14-201-TH001	2016-02-23 14:47:23	0.64	-1.35
CH14-201-TH001	2016-02-23 14:47:23	2.14	1.07
CH14-201-TH001	2016-02-23 14:47:23	3.64	2.76
CH14-201-TH001	2016-02-23 14:47:23	5.14	3.69
CH14-201-TH001	2016-02-23 14:47:23	6.64	4.01
CH14-201-TH001	2016-02-23 14:47:23	8.14	3.97
CH14-201-TH001	2016-02-23 14:47:23	9.64	3.78
CH14-201-TH001	2016-02-23 14:47:23	11.14	3.64
CH14-201-TH001	2016-02-23 14:47:23	12.64	3.45
CH14-201-TH001	2016-02-23 14:47:23	14.14	3.39
CH14-201-TH001	2016-02-23 14:47:23	15.64	3.27
CH14-201-TH001	2016-02-23 14:47:23	17.14	2.91
CH14-201-TH001	2016-02-23 14:47:23	18.64	3.07
CH14-201-TH001	2016-02-23 14:47:23	20.14	3
CH14-201-TH001	2016-06-04 16:07:37	0.64	10.21
CH14-201-TH001	2016-06-04 16:07:37	2.14	4.09
CH14-201-TH001	2016-06-04 16:07:37	3.64	2.41
CH14-201-TH001	2016-06-04 16:07:37	5.14	2.84
CH14-201-TH001	2016-06-04 16:07:37	6.64	3.24
CH14-201-TH001	2016-06-04 16:07:37	8.14	3.5
CH14-201-TH001	2016-06-04 16:07:37	9.64	3.6
CH14-201-TH001	2016-06-04 16:07:37	11.14	3.55
CH14-201-TH001	2016-06-04 16:07:37	12.64	3.48
CH14-201-TH001	2016-06-04 16:07:37	14.14	3.44
CH14-201-TH001	2016-06-04 16:07:37	15.64	3.31
CH14-201-TH001	2016-06-04 16:07:37	17.14	3.13
CH14-201-TH001	2016-06-04 16:07:37	18.64	3.09
CH14-201-TH001	2016-06-04 16:07:37	20.14	2.99
CH14-201-TH002	2016-02-23 12:38:22	1.08	0.01
CH14-201-TH002	2016-02-23 12:38:22	2.08	0.75
CH14-201-TH002	2016-02-23 12:38:22	3.08	2.19
CH14-201-TH002	2016-02-23 12:38:22	4.08	3.19
CH14-201-TH002	2016-02-23 12:38:22	5.08	3.53
CH14-201-TH002	2016-02-23 12:38:22	6.08	3.85
CH14-201-TH002	2016-02-23 12:38:22	7.08	4
CH14-201-TH002	2016-02-23 12:38:22	8.08	3.98
CH14-201-TH002	2016-02-23 16:51:14	1.08	-1.19
CH14-201-TH002	2016-02-23 16:51:14	2.08	0.96
CH14-201-TH002	2016-02-23 16:51:14	3.08	2.74
CH14-201-TH002	2016-02-23 16:51:14	4.08	3.67
CH14-201-TH002	2016-02-23 16:51:14	5.08	4
CH14-201-TH002	2016-02-23 16:51:14	6.08	3.73
CH14-201-TH002	2016-02-23 16:51:14	7.08	3.76
CH14-201-TH002	2016-02-23 16:51:14	8.08	3.52
CH14-201-TH002	2016-06-05 09:38:20	1.11	4.31
CH14-201-TH002	2016-06-05 09:38:20	2.61	2.58
CH14-201-TH002	2016-06-05 09:38:20	4.11	2.67
CH14-201-TH002	2016-06-05 09:38:20	5.61	3.1
CH14-201-TH002	2016-06-05 09:38:20	7.11	3.36

Table 4. Soil Temperature Data – RCTA

Faro Mine Remediation Project

Location Identifier	Date and Time Collected	Depth Below Ground Surface	Temperature (°C)
CH14-201-TH002	2016-06-05 09:38:20	8.61	3.46
CH14-201-TH002	2016-06-05 09:38:20	10.11	3.46
CH14-201-TH002	2016-06-05 09:38:20	11.61	3.36
CH14-201-TH002	2016-06-05 09:38:20	13.11	3.91
CH14-201-TH002	2016-06-05 09:38:20	14.61	3.12
CH14-201-TH002	2016-06-05 09:38:20	16.11	2.74
CH14-201-TH002	2016-06-05 09:38:20	17.61	2.88
CH14-201-TH002	2016-06-05 09:38:20	19.11	3.05
CH14-201-TH003	2016-02-24 11:19:43	0.28	-4.06
CH14-201-TH003	2016-02-24 11:19:43	1.28	-1.22
CH14-201-TH003	2016-02-24 11:19:43	2.28	-0.18
CH14-201-TH003	2016-02-24 11:19:43	3.28	0.81
CH14-201-TH003	2016-06-05 13:35:04	0.28	12.85
CH14-201-TH003	2016-06-05 13:35:04	1.28	6.25
CH14-201-TH003	2016-06-05 13:35:04	2.28	3.41
CH14-201-TH003	2016-06-05 13:35:04	3.28	2.01
CH14-201-TH004	2016-02-23 15:05:27	0.22	-1.77
CH14-201-TH004	2016-02-23 15:05:27	1.22	0.32
CH14-201-TH004	2016-02-23 15:05:27	2.22	1.41
CH14-201-TH004	2016-02-23 15:05:27	3.22	2.14
CH14-201-TH004	2016-02-23 15:05:27	4.22	2.67
CH14-201-TH004	2016-02-23 15:05:27	5.22	2.93
CH14-201-TH004	2016-02-23 15:05:27	6.22	3.05
CH14-201-TH004	2016-06-05 09:49:04	0.22	10.27
CH14-201-TH004	2016-06-05 09:49:04	1.22	5.94
CH14-201-TH004	2016-06-05 09:49:04	2.22	3.12
CH14-201-TH004	2016-06-05 09:49:04	3.22	2.19
CH14-201-TH004	2016-06-05 09:49:04	4.22	1.96
CH14-201-TH004	2016-06-05 09:49:04	5.22	1.9
CH14-201-TH004	2016-06-05 09:49:04	6.22	2.08
CH14-201-TH006	2016-02-24 14:27:05	0.26	0.07
CH14-201-TH006	2016-02-24 14:27:05	1.26	1.78
CH14-201-TH006	2016-02-24 14:27:05	2.26	1.03
CH14-201-TH006	2016-02-24 14:27:05	3.26	2.86
CH14-201-TH006	2016-02-24 14:27:05	4.26	2.69
CH14-201-TH006	2016-02-24 14:27:05	5.26	2.65
CH14-201-TH006	2016-06-04 16:25:27	0.26	12.78
CH14-201-TH006	2016-06-04 16:25:27	1.26	6.36
CH14-201-TH006	2016-06-04 16:25:27	2.26	3.31
CH14-201-TH006	2016-06-04 16:25:27	3.26	2.14
CH14-201-TH006	2016-06-04 16:25:27	4.26	1.78
CH14-201-TH006	2016-06-04 16:25:27	5.26	1.92

Notes:
°C = degrees Celsius
WRD = waste rock dump

Table 5. Seep Monitoring Summary

Faro Mine Remediation Project

Seep Location ID	Coordinates (NAD83 CSRS 2002 UTM Zone 8N)		General Location	Condition Observed in May 2016	Flow Rate (L/s)	Flow Rate Measurement Method	Sampled for Analytical Testing
	X	Y					
A30	584546.2	6915450.7	Faro Pit - Nort Wall	Flowing	2	Visual Estimate	Sampled
CH-ETA-01	582809.3	6913964.9	ETA - Faro Creek Canyon	Flowing	0.1	Visual Estimate	
CH-ETA-02	582778.9	6913972.9	ETA - Faro Creek Canyon	Flowing	0.1	Visual Estimate	
CH-FD-56	584514.7	6913149.4	Intermediate Dump / S-Wells Area	Flowing	0.026	Volumetric Calculation	Sampled
CH-FD-57	583780.6	6914474.5	Main Dump	Stagnant Pool			
CH-FD-58	583248	6914434.9	Oxide Fines Stockpile	Dry			
CH-FD-59	585013.8	6914592.6	Faro Pit - Southeast Wall	Flowing	0.1	Visual Estimate	
CH-FD-60	585027	6914578.1	Faro Pit - Southeast Wall	Flowing	0.1	Visual Estimate	
CH-FD-61	585029.9	6914534.8	Faro Pit - Southeast Wall	Flowing	0.5	Visual Estimate	
CH-FD-62	585031.9	6914581.1	Faro Pit - Southeast Wall	Flowing	0.1	Visual Estimate	
CH-FD-63	585029	6914556	Faro Pit - Southeast Wall	Flowing	0.01	Visual Estimate	
CH-FD-64	583074.9	6914155.7	Mill Area	Dry			
CH-FD-65	582886	6914582	Parking Lot Dumps	Flowing	0.01	Visual Estimate	
CH-FD-66	584172.1	6914532.2	Low Grade Ore Stockpile C	Dry			
CH-FD-67	583433	6914382.4	Medium Grade Ore Stockpile	Dry			
CH-FD-68	585426.9	6914513.2	Northeast Dumps	Flowing	.03	Visual Estimate	
CH-FD-69	585101.3	6914205.4	Zone II Dump	Dry			
CH-FD-70	585121	6914282.1	Northeast Dumps	Flowing	20	Visual Estimate	Sampled
CH-FD-71	583071	6914163	Mill Area	Dry			
CH-FD-72	584510	6913154	Intermediate Dump / S-Wells Area	Dry			
CH-FD-73	584132.2	6913287	Intermediate Dump	Dry			
CH-FD-74	585145	6913786	Zone II Dump	Dry			
CH-FD-75	583218	6915104.8	Northwest Dumps	Stagnant Pool			Sampled
CH-FD-76	585007.4	6914603.9	Faro Pit - Southeast Wall	Flowing	.1	Visual Estimate	
CH-FD-77	585036	6914568	Faro Pit - Southeast Wall	Flowing	0.1	Visual Estimate	
CH-FD-78	585025	6914610	Faro Pit - Southeast Wall	Flowing	0.1	Visual Estimate	
CH-FD-80	584541	6913144	Intermediate Dump / S-Wells Area	Flowing	0.5	Visual Estimate	
CH-FD-81	583309	6914474	Oxide Fines Stockpile	Stagnant Pool			
CH-FP-23	584944.7	6914659.2	Faro Pit - Southeast Wall	Inundated			
CH-FP-24	584166.9	6914936.9	Faro Pit - West Ramp	Inundated			
CH-FP-25	584806	6914401	Faro Pit - South Ramp	Inundated			
CH-FP-28	584784.2	6914377.1	Faro Pit - South Ramp	Inundated			
CH-FP-29	584551.4	6915567.9	Faro Pit - Nort Wall	Flowing	0.1	Visual Estimate	
CH-FP-30	584584.5	6915436	Faro Pit - Nort Wall	Unsafe to Access			
CH-FP-31	584499.6	6915422.1	Faro Pit - Nort Wall	Flowing	0.517	Volumetric Calculation	Sampled
CH-FP-32	584742.9	6914372.1	Faro Pit - South Ramp	Inundated			
CH-FP-33	584344	6915475.8	Faro Pit - Nort Wall	Flowing	0.486	Volumetric Calculation	Sampled
CH-FP-34	584375.6	6915466.1	Faro Pit - Nort Wall	Flowing	1.000	Volumetric Calculation	Sampled
CH-FP-35	584416.1	6915435.7	Faro Pit - Nort Wall	Flowing	0.820	Volumetric Calculation	Sampled
CH-FP-36	584456.1	6915414.9	Faro Pit - Nort Wall	Flowing			Sampled
CH-FP-37	583986	6915352.3	Faro Pit - Northwest Wall	Stagnant Pool			
CH-FP-38	584934	6914645	Faro Pit - Southeast Wall	Inundated			
CH-FP-39	584447	6915426	Faro Pit - Nort Wall	Flowing	0.400	Volumetric Calculation	
CH-FP-41	584948	6914682	Faro Pit - Southeast Wall	Inundated			
CH-FP-42	584008	6915508	Faro Pit - Northwest Wall	Flowing - Unsafe to Access			
CH-GD-25	592340	6903259	Grum Waste Rock Dump	Stagnant Pool			
CH-GP-19	592642.6	6904505.4	Grum Pit - South Wall	Flowing	0.233	Volumetric Calculation	Sampled
CH-GP-22	592552.9	6905071.2	Grum Pit - East Wall	Flowing	0.1	Visual Estimate	
CH-GP-23	592526	6905288.1	Grum Pit - East Wall	Flowing	0.6	Visual Estimate	
CH-GP-24	592515.6	6905329.7	Grum Pit - East Wall	Flowing	5	Visual Estimate	

Table 5. Seep Monitoring Summary

Faro Mine Remediation Project

Seep Location ID	Coordinates (NAD83 CSRS 2002 UTM Zone 8N)		General Location	Condition Observed in May 2016	Flow Rate (L/s)	Flow Rate Measurement Method	Sampled for Analytical Testing
	X	Y					
CH-GP-25	592359.4	6904832.1	Grum Pit - South Wall	Flowing	0.07	Visual Estimate	
CH-GP-26	592362.5	6904832.7	Grum Pit - South Wall	Flowing	0.05	Visual Estimate	
CH-GP-27	592205.5	6905414	Grum Pit - Northwest Wall	Dry			
CH-GP-28	592408	6904852	Grum Pit - South Wall	Flowing	0.5	Visual Estimate	
CH-GP-29	592156	6905458	Grum Pit - Northwest Wall	Stagnant Pool			
CH-GP-30	592363	6904841	Grum Pit - South Wall	Flowing	0.05	Visual Estimate	
CH-GP-31	592176	6905500	Grum Pit - Northwest Wall	Flowing	.5	Visual Estimate	
CH-MILL-01	582982.2	6914167.7	Mill Area	Dry			
CH-MILL-02	582899.5	6914576.1	Mill Area	Stagnant Pool			
CH-MILL-03	583045.9	6914266.8	Mill Area	Flowing	0.034	Volumetric Calculation	
CH-MILL-04	583038.3	6914322.7	Mill Area	Flowing	0.03	Visual Estimate	
CH-RCTA-01	581437.7	6914176.6	Slope North of RCTA	Dry			
CH-RCTA-02	581174.6	6914223.5	Slope North of RCTA	Dry			
CH-RCTA-03	582210	6913055	Secondary Tailings Impoundment Dam	Flowing	0.001	Visual Estimate	Sampled
CH-RCTA-04	581962.6	6913198.7	Intermediate Tailings	Flowing	35	Visual Estimate	
CH-RCTA-05	581331	6913392	Rose Creek Diversion	Flowing	0.1	Visual Estimate	
CH-RCTA-06	581345.1	6913421.9	Intermediate Tailings	Stagnant Pool			
CH-RCTA-08	582210	6913054	Secondary Tailings Impoundment Dam	Flowing	0.001	Visual Estimate	
CH-RCTA-09	582420	6912982	Secondary Tailings Impoundment Dam	Flowing	21.503	Volumetric Calculation	
CH-RCTA-10	582376	6913008	Secondary Tailings Impoundment Dam	Flowing	6.019	Volumetric Calculation	Sampled
CH-VP-17	594032.7	6903424	Vangorda Pit	Flowing	5.000	Volumetric Calculation	Sampled
CH-VP-18	593980	6903326	Vangorda Pit	Inundated			
CH-VP-19	593767.8	6903707.1	Vangorda Pit	Flowing	0.3	Visual Estimate	
CH-VP-20	594293.6	6903058.9	Vangorda Pit	Flowing	0.03	Visual Estimate	
FCS-2	582845.6	6913951.7	ETA - Faro Creek Canyon	Flowing			Sampled
FCS-3	582798	6913979	ETA - Faro Creek Canyon	Flowing	3	Visual Estimate	Sampled
FCS-4	582686.3	6913788.4	ETA - Faro Creek Canyon	Flowing	3	Visual Estimate	Sampled
FCS-5	581974.3	6913823	Secondary Tailings Impoundment Dam	Flowing	2	Visual Estimate	Sampled
FP05	584047.9	6915527	Faro Pit - Northwest Wall	Flowing. Unsafe to access			
FP07	583976.7	6915396.1	Faro Pit - Northwest Wall	Dry			
FP08	585144	6914759	Northeast Dumps	Dry			
FP10	584927.4	6914548.8	Faro Pit - Southeast Wall	Inundated			
FP11	583995.3	6915488.9	Faro Pit - Northwest Wall	Flowing	0.1	Visual Estimate	
FP18	584037.3	6915523.1	Faro Pit - Northwest Wall	Flowing. Unsafe to access			
GD05 D-S	592543	6903026	Grum Waste Rock Dump	Flowing	2	Visual Estimate	Sampled
GDHSCK	581682.1	6914054.1	Slope North of RCTA	Flowing	5	Visual Estimate	
GP02	592593	6904925.1	Grum Pit - East Wall	Flowing	0.1	Visual Estimate	Sampled
GP04	592180.3	6905492.4	Grum Pit - Northwest Wall	Flowing			
GP05	592167.6	6905484.6	Grum Pit - Northwest Wall	Dry			
GP06	592109.6	6905414.3	Grum Pit - Northwest Wall	Flowing	0.01	Visual Estimate	
GP07	592133.6	6905444.6	Grum Pit - Northwest Wall	Dry			
GP08	592031.8	6905317.7	Grum Pit - Northwest Wall	Flowing	.01	Visual Estimate	
GP09	591981.3	6905257.9	Grum Pit - Northwest Wall	Flowing	.01	Visual Estimate	Sampled
GP10	591963.2	6905219.8	Grum Pit - Northwest Wall	Flowing	0.2	Visual Estimate	
GP12	592358.2	6904841.7	Grum Pit - South Wall	Flowing	0.05	Visual Estimate	Sampled
GP14	592463	6904882.2	Grum Pit - South Wall	Flowing	0.001	Visual Estimate	
NE1	585987.4	6914352.9	Northeast Dumps	Flowing	0.1	Visual Estimate	Sampled
NE2	585787	6914149	Northeast Dumps	Flowing	0.181	Volumetric Calculation	Sampled
NE3	585620.9	6913959.1	Northeast Dumps	Dry			
Sheep Creek	592367	6902923	Grum Waste Rock Dump	Flowing	0.250	Volumetric Calculation	Sampled

Table 5. Seep Monitoring Summary

Faro Mine Remediation Project

Seep Location ID	Coordinates (NAD83 CSRS 2002 UTM Zone 8N)		General Location	Condition Observed in May 2016	Flow Rate (L/s)	Flow Rate Measurement Method	Sampled for Analytical Testing
	X	Y					
SRK-FD01	582896	6914584	Parking Lot Dumps	Flowing	1.042	Volumetric Calculation	Sampled
SRK-FD02	583013.6	6914626.9	Parking Lot Dumps	Flowing	0.01	Visual Estimate	
SRK-FD04	583308.1	6914410.2	Oxide Fines Stockpile	Stagnant Pool			
SRK-FD05	585750	6914242.1	Northeast Dumps	Flowing	0.258	Volumetric Calculation	Sampled
SRK-FD06	585717.9	6914197.9	Northeast Dumps	Flowing			Sampled
SRK-FD08	584929.9	6913419.2	Intermediate Dump	Stagnant Pool			Sampled
SRK-FD09	583280.8	6914066.1	Main Dump	Stagnant Pool			Sampled
SRK-FD10	583269.7	6914094.3	Main Dump	Flowing	3	Visual Estimate	
SRK-FD12	583273.9	6914079	Main Dump	Flowing	3	Visual Estimate	
SRK-FD13	584520	6914062	Intermediate Dump	Flowing	0.02	Visual Estimate	Sampled
SRK-FD14	584840	6914188.1	Ramp Zone Dump	Flowing	0.005	Volumetric Calculation	Sampled
SRK-FD16	583224.7	6915455.1	Northwest Dumps	Flowing	20	Visual Estimate	
SRK-FD17	583233.7	6915430.7	Northwest Dumps	Flowing	0.1	Visual Estimate	
SRK-FD18	583245.7	6915410.5	Northwest Dumps	Flowing	0.2	Visual Estimate	Sampled
SRK-FD19	583392.2	6914738.8	Northwest Dumps	Flowing	.5	Visual Estimate	Sampled
SRK-FD20	585176	6916290.5	FCD	Flowing	0.1	Visual Estimate	
SRK-FD21	585412.2	6914523.9	Northeast Dumps	Dry			
SRK-FD22	585170.9	6914672	Northeast Dumps	Dry			
SRK-FD23	585091.9	6914717.9	Northeast Dumps	Stagnant Pool			Sampled
SRK-FD24	585017.8	6914587.6	Faro Pit - Southeast Wall	Flowing			Sampled
SRK-FD26	585083.3	6914215.6	Northeast Dumps	Flowing	10	Visual Estimate	Sampled
SRK-FD30	584053.4	6913542.4	Main Dump	Stagnant Pool			Sampled
SRK-FD31	583263.1	6914107.6	Main Dump	Flowing	0.05	Visual Estimate	Sampled
SRK-FD32	583093	6914198.2	Mill Area	Dry			
SRK-FD35	583017.1	6914248.1	Mill Area	Dry			
SRK-FD37	583475.7	6914407.7	Medium Grade Ore Stockpile	Flowing	0.001	Visual Estimate	Sampled
SRK-FD38	584181.8	6914545.1	Low Grade Ore Stockpile C	Dry			
SRK-FD40	584499.9	6915551.5	Faro Pit - Nort Wall	Dry			
SRK-FD44	584776	6913992	Intermediate Dump	Dry			
SRK-FD46	583083.9	6914163.9	Mill Area	Dry			
SRK-FD47	584422.9	6913333.9	Intermediate Dump	Dry			
SRK-FD48	584707	6914036	Intermediate Dump	Dry			
SRK-FD49	584168.5	6913196.5	Intermediate Dump	Buried by recent earthworks			
SRK-FD50	585044.3	6914031.8	Zone II Dump	Dry			
SRK-FD51	585109.6	6914763.3	Northeast Dumps	Flowing	0.01	Visual Estimate	
SRK-FD52	584555.2	6913141.5	Intermediate Dump / S-Wells Area	Dry			
SRK-FD53	584054.8	6913415.5	Main Dump	Dry			
SRK-FD54	584528	6913140.3	Intermediate Dump / S-Wells Area	Flowing	0.1	Visual Estimate	Sampled
SRK-FD55	584377	6913184.5	#N/A	Flowing	0.01	Visual Estimate	Sampled
SRK-GD01	592599.7	6903996.7	Grum Waste Rock Dump	Flowing	10	Visual Estimate	Sampled
SRK-GD02	592596.5	6903984.1	Grum Waste Rock Dump	Flowing	0.2	Visual Estimate	
SRK-GD04	592553	6903440	Grum Waste Rock Dump	Dry			
SRK-GD05	592454	6903279.3	Grum Waste Rock Dump	Flowing	0.019	Volumetric Calculation	Sampled
SRK-GD06	592389	6903254	Grum Waste Rock Dump	Flowing	0.031	Volumetric Calculation	
SRK-GD07	591899.5	6904749	Grum Waste Rock Dump	Stagnant Pool			Sampled
SRK-GD08	591482.6	6905029.6	Grum Waste Rock Dump	Flowing	0.096	Volumetric Calculation	
SRK-GD09	591351	6904781	Grum Waste Rock Dump	Dry			
SRK-GD10	591483.5	6904532.8	Grum Waste Rock Dump	Flowing	.5	Visual Estimate	
SRK-GD11	592035.6	6904422.6	Grum Waste Rock Dump	Flowing	0.467	Volumetric Calculation	Sampled
SRK-GD12	591492.1	6904558.1	Grum Waste Rock Dump	Flowing	1	Visual Estimate	

Table 5. Seep Monitoring Summary

Faro Mine Remediation Project

Seep Location ID	Coordinates (NAD83 CSRS 2002 UTM Zone 8N)		General Location	Condition Observed in May 2016	Flow Rate (L/s)	Flow Rate Measurement Method	Sampled for Analytical Testing
	X	Y					
SRK-GD13	591012.5	6904388	Grum Waste Rock Dump	Flowing	0.5	Visual Estimate	Sampled
SRK-GD16	592297.9	6903247.1	Grum Waste Rock Dump	Dry			
SRK-GD18	591082.3	6904265.7	Grum Waste Rock Dump	Snow Covered			
SRK-GD19	592361	6904390	Grum Waste Rock Dump	Dry			
SRK-GD20	592363	6904400	Grum Waste Rock Dump	Flowing	0.062	Volumetric Calculation	
SRK-GD21	592538	6903383.2	Grum Waste Rock Dump	Dry			
SRK-GD22	591895.9	6903822.9	Grum Waste Rock Dump	Dry			
SRK-GD23	592031.5	6905965.4	Ore Transfer Pad	Snow Covered			
SRK-GD24	592167.8	6903367	Grum Waste Rock Dump	Flowing	0.01	Visual Estimate	Sampled
SRK-VD01	593864.2	6902622.1	Vangorda Waste Rock Dump	Stagnant Pool			Sampled
SRK-VD02	593465.6	6902506.9	Vangorda Waste Rock Dump	Flowing	0.007	Volumetric Calculation	Sampled
SRK-VD03	593208.6	6902579.7	Vangorda Waste Rock Dump	Flowing	0.188	Volumetric Calculation	Sampled
SRK-VD04	593422.9	6903046.5	Vangorda Waste Rock Dump	Flowing	0.001	Visual Estimate	Sampled
SRK-VD05	593510.3	6903086.2	Vangorda Waste Rock Dump	Flowing	0.100	Volumetric Calculation	Sampled
SRK-VD06	593535.8	6903004.2	Vangorda Waste Rock Dump	Flowing			
SRK-VD07	593929	6902628.3	Vangorda Waste Rock Dump	Stagnant Pool			
SRK-VD08	593861	6902878	Vangorda Waste Rock Dump	Dry			
SRK-VD09	593920.3	6902991.7	Vangorda Waste Rock Dump	Flowing	0.05	Visual Estimate	Sampled
SRK-VD10	593314.2	6902990.4	Vangorda Waste Rock Dump	Flowing	0.035	Volumetric Calculation	Sampled
SRK-VD12	593783.8	6902517.7	Vangorda Waste Rock Dump	Stagnant Pool			Sampled
Sweet Creek	592471	6902968	Grum Waste Rock Dump	Flowing	0.139	Volumetric Calculation	Sampled
V15	592636	6903391	Grum Waste Rock Dump	Flowing	0.5	Visual Estimate	
VP07	594058.4	6903411.4	Vangorda Pit	Flowing	0.02	Visual Estimate	
VP08	594074	6903361	Vangorda Pit	Flowing	0.1	Visual Estimate	
VP09	594286.3	6903070.8	Vangorda Pit	Flowing	0.400	Volumetric Calculation	Sampled
VP10	594149	6903219	Vangorda Pit	Flowing	0.0001	Visual Estimate	
VP11	594362.9	6902993.3	Vangorda In-Pit Waste Rock Dumps	Flowing	0.05	Visual Estimate	
WGD01	591990.1	6903317.5	Grum Waste Rock Dump	Flowing	0.5	Visual Estimate	Sampled
WTA02	591811.8	6903040.9	Grum Waste Rock Dump	Flowing	1.5	Visual Estimate	Sampled
X23	583227.6	6914085.7	Main Dump	Flowing	0.250	Volumetric Calculation	Sampled

Table 6. Groundwater Analytical Results

Faro Mine Remediation Project

		Location ID	CH12-014-MW003	CH12-014-MW003	CH12-014-MW007	CH12-014-MW007	CH12-014-MW011	CH12-014-MW011	CH12-014-MW012	CH12-014-MW012	CH12-014-MW013	CH12-014-MW013	CH14-015-MW006	CH14-015-MW006	CH14-104-MW008
		General Location													
		Date	2/20/2016	6/2/2016	2/17/2016	6/1/2016	2/21/2016	6/4/2016	2/22/2016	6/3/2016	2/22/2016	6/4/2016	2/20/2016	6/1/2016	6/6/2016
Analyses ID	**Units**	**Screening Level**													
General Chemistry															
pH, Field	pH Units	6.5 - 9.0	**6.51**	**6.47**	**6.35**	**6.02**	**7.19**	**6.59**	**7.59**	**7.5**	**6.49**	**6.21**	**4.79**	**5.91**	**6.56**
Temperature, Field	deg C	-	**6.61**	**7.7**	**18.85**	**17.09**	**9.81**	**6.93**	**2.68**	**13.43**	**16.02**	**13.9**	**6.67**	**3.88**	**7.19**
Hardness (as $CaCO_3$)	mg/L	-	**2380**	**2200**	**4580**	**4700**		**2390**	**1190**	**1230**	**4060**	**4810**	**3280**	**1380**	**15600**
Total Suspended Solids	mg/L	-	**95.2**	**6**	**35**	**261**	**5.8**	**33.2**	**266**	**328**	**31.6**	**57.6**	**83.6**	**182**	**69.2 J**
Anions and Nutrients															
Acidity, Hot Peroxide	mg/L	-	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	**549**	**68**	25 U
Alkalinity, Bicarbonate (as CaCO	mg/L	-	**620**	**579**	**621**	**517**	**686**	**688**	**394**	**396**	**1180**	**1160**	**11.1**	**77.7**	**1560**
Alkalinity, Carbonate (as $CaCO_3$)	mg/L	-	20 U	1 U	20 U	1 U	20 U	1 U	2 U	1 U	20 U	1 U	2 U	1 U	1 U
Alkalinity, Hydroxide (as $CaCO_3$)	mg/L	-	20 U	1 U	20 U	1 U	20 U	1 U	2 U	1 U	20 U	1 U	2 U	1 U	1 U
Alkalinity, Total (as $CaCO_3$)	mg/L	-	**620**	**579**	**621**	**517**	**686**	**688**	**394**	**396**	**1180**	**1160**	**11.1**	**77.7**	**1560**
Ammonia	mg/L	Variable[a]	**0.0416**	**0.0266**	**0.28**	**0.31**	**0.197**	**0.459**	**0.0624**	**0.0645**	**0.0537**	**0.0637**	**1.04**	**1.16**	
Chloride (Cl)	mg/L	120	**15**	**13.7**	**16**	**14**	5 U	5 U	1 U	2.5 U	10 U	10 U	10 U	**2.8**	10 U
Fluoride	mg/L	0.12	0.4 U	0.2 U	**0.9**	**0.92**	0.2 U	0.2 U	**0.163**	**0.18**	0.4 U	0.4 U	**7.4**	**1.75**	**0.6**
Nitrate (as N)	mg/L	13	**1.22**	**0.239 J**	0.1 U	0.1 U	**2.67**	**3.86**	0.01 U	0.025 U	0.1 U	0.1 U	**2.45**	**0.901**	0.1 U
Nitrite (as N)	mg/L	0.06	**0.102**	0.01 UJ	0.02 U	0.02 U	**0.022**	0.01 U	0.002 U	0.005 U	0.02 U	0.02 U	**0.075**	**0.0256**	0.02 U
Phosphorus	mg/L		0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.382	0.409	0.0239	0.02 U	0.02 U	0.2 U	
Sulfate	mg/L	100	**1970**	**1740**	**4680**	**4820**	**1980**	**1560**	**873**	**841**	**3780**	**3450**	**3880**	**1370**	**13500**
Dissolved Organic Carbon	mg/L	-	**3.61**	**4.48**	**7.25**	**7.47**	**3.03**	**4.36**	**2.38**	**3.32**	**11.8**	**13.1**	**6.78**	**5.68**	
Dissolved Metals															
Aluminum, Dissolved	mg/L	0.005 to 0.1[b]	**0.0054**	0.005 U	**0.147**	**0.177**	**0.0121 J**	0.0036 U	**0.0038**	0.002 U	**0.0328**	0.0065 U	**47**	**2**	**0.025**
Antimony (Sb), Dissolved	mg/L	1.6	0.0005 U	0.0005 U	0.002 U	0.005 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.002 U	0.0005 U	0.002 U
Arsenic (As), Dissolved	mg/L	0.005	0.0005 U	0.0005 U	0.002 U	0.005 U	0.0002 U	**0.00044**	**0.0154**	**0.0145**	**0.00169**	**0.00136**	**0.0267**	**0.0402**	0.002 U
Barium (Ba), Dissolved	mg/L	2.3	**0.0247**	**0.022**	**0.0203**	**0.0233**	**0.0176**	**0.021**	**0.0352**	**0.0358**	**0.0161**	**0.0158**	**0.069**	**0.0849**	**0.0425**
Beryllium (Be), Dissolved	mg/L	0.0053	0.0005 U	0.0005 U	0.002 U	0.005 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0005 U	0.0005 U	**0.0185**	**0.00186**	0.002 U
Boron (B), Dissolved	mg/L	1.5	0.05 U	0.05 U	0.2 U	0.5 U	0.02 U	0.02 U	0.02 U	0.02 U	0.05 U	0.05 U	0.2 U	0.05 U	0.2 U
Cadmium (Cd), Dissolved	mg/L	Variable[c]	**0.000941**	**0.000713**	**0.187**	**0.316**	**0.000232**	**0.000325**	0.00001 U	0.00001 U	**0.00428**	**0.00518**	**0.144**	**0.0316**	**0.00258**
Calcium, Dissolved	mg/L	-	**678**	**639**	**551**	**515**	**446**	**400**	**302**	**302**	**644**	**738**	**313**	**159**	**467**
Chromium (Cr), Dissolved	mg/L	0.0089	**0.00191**	0.0005 U	**0.002**	0.005 U	**0.00398**	**0.00116**	0.0002 U	0.0002 U	**0.00305**	**0.00115**	**0.004**	**0.00102**	0.002 U
Cobalt (Co), Dissolved	mg/L	-	**0.0289**	**0.00925**	**0.683**	**0.969**	**0.00272**	**0.00466**	**0.00032**	**0.00025**	**0.0617**	**0.0583**	**1.07**	**0.397**	**0.0294**
Iron, Dissolved	mg/L	0.3	**0.534**	**0.628**	**2.38**	**1.86**	**0.221**	**2.94**	**6.69**	**6.96**	**5.57**	**6.8**	**87.9**	**86.9**	0.15 U
Ferrous Iron, Dissolved (Fe2+)	mg/l	-	**0.2**	**0.644**	**2.54**	**2**	**0.261 J**	**3.67**	**7.2**	**8.03**	**6.5**	**6.05**	**95.3**	**97.2**	0.02 U
Lead (Pb), Dissolved	mg/L	0.001[e]	**0.00068**	0.00025 U	**0.0114**	**0.0096**	**0.00165**	**0.00161**	0.0001 U	0.0001 U	**0.0174**	**0.0173**	**0.0395**	**0.0014**	**0.0233**
Lithium	mg/L														
Lithium, Dissolved	mg/L	-	**0.1**	**0.077**	**0.112**	**0.117**	**0.0341**	**0.0373**	**0.0156**	**0.0152**	**0.0308**	**0.0339**	**0.242**	**0.0866**	**0.082**
Magnesium, Dissolved	mg/L	-	**167**	**147**	**779**	**830**	**318**	**337**	**106**	**116**	**596**	**719**	**607**	**238**	**3500**
Manganese, Dissolved	mg/L	-	**3.96**	**3.1**	**48.7**	**70.4**	**1.65**	**2.44**	**0.267**	**0.255**	**12.2**	**14**	**31.3**	**16.1**	**26.7**
Mercury, Dissolved	mg/L	0.000026	0.000005 U	0.000005 U	0.000005 U	0.000005 U	0.000005 U	0.000005 U	0.000005 U	0.000005 U	**0.0000121**	0.000005 U	**0.0000089**	0.000005 U	0.000005 U
Molybdenum (Mo), Dissolved	mg/L	0.073	**0.00233**	0.00025 U	**0.0017**	0.0025 U	**0.00138**	**0.00143**	**0.00141**	**0.00137**	**0.00188**	**0.00173**	0.001 U	**0.00078**	**0.0022**
Nickel (Ni), Dissolved	mg/L	0.025[f]	**0.144**	**0.0951**	**1.11**	**1.63**	**0.0615**	**0.0713**	0.001 U	0.001 U	**0.109**	**0.122**	**0.966**	**0.28**	**0.354**
Phosphorus, Dissolved	mg/L	0.004 to 0.10[g]	0.3 U	0.3 U	0.6 U	0.6 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.6 U	0.6 U	0.3 U	1.5 U
Potassium, Dissolved	mg/L	-	**12.9**	**11.6**	**10.5**	**12.5**	**6.62**	**6.81**	**3.61**	**3.35**	**3.15**	**3.15**	**5.2**	**5.26**	**28.6**
Selenium (Se), Dissolved	mg/L	0.001	0.00025 U	0.00025 U	0.001 U	0.0025 U	0.0001 U	**0.0001**	0.0001 U	0.0001 U	0.00025 U	0.00025 U	0.001 U	0.00025 U	0.001 U
Silica, Dissolved (Si)	mg/L	-	**20.2**	**19.5**	**28.1**	**26.8**	**9.81**	**10.1**	**10.9**	**11**	**22.4**	**26.2**	**30.7**	**21.3**	**17.5**
Silicon, Dissolved (SiO_2)	mg/L	-	**9.46**	**9.09**	**13.2**	**12.5**	**4.59**	**4.72**	**5.1**	**5.14**	**10.5**	**12.3**	**14.3**	**9.94**	**8.18**
Silver (Ag), Dissolved	mg/L	0.0001	0.00005 U	0.00005 U	0.0002 U	0.0005 U	0.00002 U	0.00002 U	0.00002 U	0.00002 U	0.00005 U	0.00005 U	0.0002 U	0.00005 U	0.0002 U
Sodium (Na), Dissolved	mg/L	-	**36.9**	**32.5**	**17.5**	**23.8**	**11.6**	**10**	**8.02**	**7.49**	**15.8**	**16.4**	**17.6**	**12**	**57.6**
Strontium, Dissolved	mg/L	-	**2.31**	**2.23**	**1.28**	**1.43**	**1.07**	**1.05**	**1.72**	**1.75**	**1.95**	**2.11**	**1.29**	**0.746**	**12.5**
Sulfur, Dissolved	mg/L	-	**585**	**529**	**1410**	**1500**	**560**	**533**	**253**	**266**	**912**	**1210**	**1260**	**463**	**4740**
Thallium (Tl), Dissolved	mg/L	0.0008	0.00005 U	0.00005 U	**0.00022**	0.0005 U	0.00002 U	**0.000021**	0.00002 U	0.00002 U	**0.000173**	**0.000183**	**0.00026**	0.00005 U	0.0002 U
Titanium, Dissolved	mg/L	0.1	0.0015 U	0.0015 U	0.006 U	0.015 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0015 U	0.0015 U	0.006 U	0.0015 U	0.006 U
Uranium (U), Dissolved	mg/L	0.015	**0.0194**	**0.0167**	**0.0623**	**0.0648**	**0.0441**	**0.0476**	**0.0315**	**0.0321**	**0.0841**	**0.0935**	**0.0837**	**0.00463**	**0.113**
Vanadium (V), Dissolved	mg/L	-	0.0025 U	0.0025 U	0.01 U	0.025 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0025 U	0.0025 U	0.01 U	0.0025 U	0.01 U
Zinc (Zn), Dissolved	mg/L	0.03	**2.6**	**1.68**	**142**	**234**	**0.568**	**0.684**	**0.0059**	0.002 U	**6.21**	**7.85**	**104**	**36.8**	**3.08**
Conductivity, Field	mS/cm/ deg C		**3.876**	**3.086**	**5.6**	**6.06**	**3.534**	**3.415**	**1.956**	**1.893**	**5.676**	**5.628**	**5.294**	**2.121**	**14.24**
DO, Field	mg/L		**7.27**	**2.35**	**0.44**	**1.58**	**0.27**	**1.8**	**0.15**	**-1.16**	**0.3**	**1.58**	**1.79**	**1.56**	**4.12**
ORP, Field	mV		**41.6**	**67.3**	**38.3**	**88.5**	**52**	**-6.3**	**-134.3**	**-143.2**	**-14.6**	**-5.7**	**188.6**	**47.8**	**288.5**
pH	Ph		**6.82**		**6.31**		**7.15**		**7.66**		**6.71**		**4.53**		

Table 6. Groundwater Analytical Results

Faro Mine Remediation Project

		Location ID	CH12-014-MW003	CH12-014-MW003	CH12-014-MW007	CH12-014-MW007	CH12-014-MW011	CH12-014-MW011	CH12-014-MW012	CH12-014-MW012	CH12-014-MW013	CH12-014-MW013	CH14-015-MW006	CH14-015-MW006	CH14-104-MW008
		General Location													
		Date	2/20/2016	6/2/2016	2/17/2016	6/1/2016	2/21/2016	6/4/2016	2/22/2016	6/3/2016	2/22/2016	6/4/2016	2/20/2016	6/1/2016	6/6/2016
Analyses ID	**Units**	**Screening Level**													

Notes:

Bold indicates the analyte was detected.

Concentration exceeds FMC discharge criteria

Concentration exceeds FIGQG

Detection limit exceeds FIGQG.

pH reported is the field parameter value.

J = Analyte was present but the reported value may not be accurate or precise.

R = Result has been rejected for use.

U = Analyte was analyzed for but not detected at the specified detection limit.

UJ = Analyte was not detected above the detection limit; however, the reported detection limit is approximate and may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

[a] CCME guideline is pH and temperature dependent;p guidelines used here assume 5°C typical laboratory storage temperature.

[b] CCME guideline is pH dependent; 0.005 mg/L if pH < 6.5; 0.1 mg/L if pH ≥ 6.5.

[c] CCME guideline is hardness dependent; if hardness is > 0 to < 17 mg/L, the CWQG is 0.04 µg/L; at hardness > 280 mg/L, the CWQG is 0.37 µg/L; at hardness ≥ 17 to ≤ 280 mg/L cadmium concentration = $10^{0.83[\log10(\text{hardness})]-2.46}$/1000 mg/L.

[d] CCME guideline is hardness dependent; If hardness is 0 to < 82 mg/L, the CWQG is 2 µg/L; At hardness >180 mg/L, the CWQG is 4 µg/L; At hardness ≥82 to ≤180 mg/L the CWQG= $e^{0.8545[\ln(\text{hardness})]-1.465}$ * 0.2 / 1000 mg/L.

[e] CCME guideline is hardness dependent; 0 to ≤ 60 mg/L, the CWQG is 1 µg/L; at hardness >180 mg/L, the CWQG is 7 µg/L; at hardness >60 to ≤ 180 mg/L the CWQG = $e^{1.273[\ln(\text{hardness})]-4.705}$ / 1000 mg/L.

[f] CCME guideline is hardness dependent; At hardness is 0 to ≤ 60 mg/L, the CWQG is 25 µg/L; At hardness >180 mg/L, the CWQG is 150 µg/L; At hardness > 60 to ≤ 180 mg/L the CWQG is = $e^{0.76[\ln(\text{hardness})]+1.06}$ / 1000 mg/L.

[g] CCME trigger range for oligotrophic phosphorous.

Table 7. Seep Analytical Results

Faro Mine Remediation Project

		Location ID	A30	CH-ETA-01	CH-ETA-02	CH-FD-56	CH-FD-57	CH-FD-59	CH-FD-60	CH-FD-61	CH-FD-62	CH-FD-63	CH-FD-65	CH-FD-68	CH-FD-70	CH-FD-75	CH-FD-76	CH-FD-77
		General Location																
		Date	5/19/2016	5/19/2016	5/19/2016	5/20/2016	5/18/2016	5/19/2016	5/19/2016	5/19/2016	5/19/2016	5/19/2016	5/18/2016	5/19/2016	5/19/2016	5/20/2016	5/20/2016	5/19/2016
Analyses ID	**Units**	**Screening Level**																
General Chemistry																		
pH, Field	pH Units	6.5 - 9.0	**3.12**	**6.14**	**6.63**	**5.21**	**5.36**	**5.99**	**3.28**	**6.53**	**2.88**	**6.52**	**5.59**	**6.22**	**6.6**	**7.14**	**6.83**	**5.72**
Temperature, Field	deg C	-	**4.15**	**4.09**	**3.45**	**0.44**	**4.1**	**3.25**	**9.84**	**2.2**	**1.88**	**9.85**	**3.44**	**5.32**	**3.03**	**3.42**	**11.1**	**7.15**
Hardness (as $CaCO_3$)	mg/L	-	**707**			**8190**									**776**	**254**		
Total Suspended Solids	mg/L	-	**4.8**			**59.2**									**1**	**9.9**		
Anions and Nutrients																		
Acidity, Hot Peroxide	mg/L	-	**400**			**856**									25 U	25 U		
Alkalinity, Bicarbonate (as $CaCO_3$)	mg/L	-				1 U									**199**	**126**		
Alkalinity, Carbonate (as $CaCO_3$)	mg/L	-				1 U									1 U	1 U		
Alkalinity, Hydroxide (as $CaCO_3$)	mg/L	-				1 U									1 U	1 U		
Alkalinity, Total (as $CaCO_3$)	mg/L	-				1 U									**199**	**126**		
Ammonia	mg/L	Variable[a]	**0.0202**			**0.626**									0.005 U	**0.006**		
Chloride (Cl)	mg/L	120	2.5 U			10 U									**1.1**	0.5 U		
Fluoride	mg/L	0.12	**1.23**			**2.07**									**0.212**	**0.065**		
Nitrate (as N)	mg/L	13	**0.207 J**			**0.99 J**									**4.55 J**	**0.0308 J**		
Nitrite (as N)	mg/L	0.06	0.005 UJ			0.02 UJ									0.002 UJ	0.001 UJ		
Phosphorus	mg/L		0.02 U			0.2 U									0.383	0.02 U		
Sulfate	mg/L	100	**1010**			**7470**									**544**	**96.2**		
Dissolved Organic Carbon	mg/L	-	**2.14**			**4.78**									**2.07**	**11.5**		
Dissolved Metals																		
Aluminum, Dissolved	mg/L	0.005 to 0.1[b]	**29.1**			**6.28**									**0.0521**	**0.0271**		
Antimony (Sb), Dissolved	mg/L	1.6	0.002 U			0.005 U									0.0001 U	**0.00011**		
Arsenic (As), Dissolved	mg/L	0.005	0.002 U			0.005 U									**0.00034**	**0.00045**		
Barium (Ba), Dissolved	mg/L	2.3	**0.0366**			**0.0133**									**0.0228**	**0.0482**		
Beryllium (Be), Dissolved	mg/L	0.0053	**0.0093**			0.005 U									0.0001 U	0.0001 U		
Boron (B), Dissolved	mg/L	1.5	0.2 U			0.5 U									0.01 U	0.01 U		
Cadmium (Cd), Dissolved	mg/L	Variable[c]	**0.154**			**0.203**									**0.00348**	**0.000319**		
Calcium, Dissolved	mg/L	-	**97.9**			**392**									**126**	**88.8**		
Chromium (Cr), Dissolved	mg/L	0.0089	**0.0188**			0.005 U									0.0001 U	**0.00011**		
Cobalt (Co), Dissolved	mg/L	-	**0.291**			**1.22**									**0.00488**	0.0001 U		
Iron, Dissolved	mg/L	0.3	**25.9**			**10.8**									0.03 U	0.03 U		
Ferrous Iron, Dissolved (Fe2+)	mg/l	-	**1.02**			**12.6**									**0.024**	**0.058**		
Lead (Pb), Dissolved	mg/L	0.001[e]	**0.824**			**0.189**									**0.00111**	**0.0019**		
Lithium, Dissolved	mg/L	-	**0.06**			**0.32**									**0.0352**	**0.0012**		
Magnesium, Dissolved	mg/L	-	**112**			**1750**									**112**	**7.74**		
Manganese, Dissolved	mg/L	-	**6.42**			**76.3**									**0.209**	**0.00577**		
Mercury, Dissolved	mg/L	0.000026	**0.0000228**			0.000005 U									**0.0000056**	**0.000007**		
Molybdenum (Mo), Dissolved	mg/L	0.073	0.001 U			0.0025 U									0.00005 U	**0.000234**		
Nickel (Ni), Dissolved	mg/L	0.025[f]	**0.271**			**2.13**									**0.0434**	**0.00089**		
Phosphorus, Dissolved	mg/L	0.004 to 0.10[g]	0.3 U			0.9 U									0.3 U	0.3 U		
Potassium, Dissolved	mg/L	-	**2.4**			**15.4**									**4.44**	**2.44**		
Selenium (Se), Dissolved	mg/L	0.001	0.001 U			0.0025 U									**0.000891**	**0.000217**		
Silica, Dissolved (Si)	mg/L	-	**37.1**			**14.4**									**12.8**	**12**		
Silicon, Dissolved (SiO_2)	mg/L	-	**17.3**			**6.71**									**5.98**	**5.6**		
Silver (Ag), Dissolved	mg/L	0.0001	**0.00059**			0.0005 U									0.00001 U	0.00001 U		
Sodium (Na), Dissolved	mg/L	-	**3.9**			**91.6**									**6.45**	**2.35**		
Strontium, Dissolved	mg/L	-	**0.401**			**1.73**									**0.481**	**0.246**		
Sulfur, Dissolved	mg/L	-	**364**			**2950**									**187**	**38.5**		
Thallium (Tl), Dissolved	mg/L	0.0008	**0.00021**			**0.00402**									**0.000055**	0.00001 U		
Titanium, Dissolved	mg/L	0.1	0.006 U			0.015 U									0.0003 U	0.0003 U		
Uranium (U), Dissolved	mg/L	0.015	**0.0294**			**0.0243**									**0.00436**	**0.00129**		
Vanadium (V), Dissolved	mg/L	-	0.01 U			0.025 U									0.0005 U	0.0005 U		
Zinc (Zn), Dissolved	mg/L	0.03	**93.6**			**388**									**3.56**	**0.223**		
Conductivity, Field	mS/cm/ deg C		**1.761**	**7.392**	**2.615**	**8.94**	**2.734**	**1.925**	**2.014**	**1.79**	**2.692**	**1.957**	**3.817**	**3.651**	**1.27**	**0.663**	**1.176**	**1.914**
DO, Field	mg/L		**13.49**	**6.74**	**8.37**	**10.48**	**10.81**	**6.17**	**0.37**	**3.8**	**5.38**	**9.33**	**7.92**	**12.61**	**9.25**	**8.59**	**10.23**	**10.03**
ORP, Field	mV		**444.8**	**100.2**	**196.9**	**228.7**	**139.7**	**39.1**	**384.2**	**207.2**	**382.2**	**205.5**	**196.4**	**279.5**	**142.1**	**125**	**67.1**	**247.4**

Table 7. Seep Analytical Results

Faro Mine Remediation Project

		Location ID	CH-FD-78	CH-FD-80	CH-FD-81	CH-FP-29	CH-FP-31	CH-FP-33	CH-FP-34	CH-FP-35	CH-FP-36	CH-FP-37	CH-FP-39	CH-GD-25	CH-GP-19	CH-GP-22	CH-GP-23	CH-GP-24
		General Location																
		Date	5/19/2016	5/23/2016	5/23/2016	5/19/2016	5/19/2016	5/19/2016	5/19/2016	5/20/2016	5/19/2016	5/19/2016	5/19/2016	5/22/2016	5/20/2016	5/21/2016	5/22/2016	5/22/2016
Analyses ID	**Units**	**Screening Level**																
General Chemistry																		
pH, Field	pH Units	6.5 - 9.0	**6.15**	**6.08**	**1.66**	**2.57**	**6.62**	**7.96**	**7.85**	**7.45**	**6.41**	**6.71**	**7.76**	**7.43**	**7.18**	**8.33**	**8.49**	**8.16**
Temperature, Field	deg C	-	**2.82**	**6.66**	**10.8**	**2.43**	**5.82**	**7.59**	**4**	**10.91**	**6.07**	**11.27**	**13.42**	**6.76**	**10.86**	**21.11**	**3.8**	**3.49**
Hardness (as $CaCO_3$)	mg/L	-					**335**	**330**	**192**	**392**	**491**				**878**			
Total Suspended Solids	mg/L	-					1 U	**1.1**	**1.7**	**32.8**	**13.5**				**67.9**			
Anions and Nutrients																		
Acidity, Hot Peroxide	mg/L	-					25 U	25 U	25 U	25 U	**55**				25 U			
Alkalinity, Bicarbonate (as $CaCO_3$)	mg/L	-					**40.3**	**108**	**95.5**	**42.3**	**3.5**				**433**			
Alkalinity, Carbonate (as $CaCO_3$)	mg/L	-					1 U	1 U	1 U	1 U	1 U				1 U			
Alkalinity, Hydroxide (as $CaCO_3$)	mg/L	-					1 U	1 U	1 U	1 U	1 U				1 U			
Alkalinity, Total (as $CaCO_3$)	mg/L	-					**40.3**	**108**	**95.5**	**42.3**	**3.5**				**433**			
Ammonia	mg/L	Variable[a]					0.005 U	0.005 U	0.005 U	0.005 U	0.005 U				**0.668**			
Chloride (Cl)	mg/L	120					0.5 U	0.5 U	0.5 U	0.5 U	1 U				1 U			
Fluoride	mg/L	0.12					**0.208**	**0.257**	**0.191**	**0.431**	**0.66**				**0.114**			
Nitrate (as N)	mg/L	13					**0.281 J**	**0.0381 J**	**0.131 J**	**0.193 J**	**0.328 J**				**0.034 J**			
Nitrite (as N)	mg/L	0.06					0.001 UJ	0.001 UJ	0.001 UJ	0.001 UJ	0.002 UJ				**0.0041 J**			
Phosphorus	mg/L						0.02 U	0.02 U	0.02 U	0.032	0.02 U				0.2 U			
Sulfate	mg/L	100					**289**	**208**	**88.8**	**347**	**512**				**448**			
Dissolved Organic Carbon	mg/L	-					**0.77**	**0.96**	**1.54**	**0.91**	**0.85**				**9.88**			
Dissolved Metals																		
Aluminum, Dissolved	mg/L	0.005 to 0.1[b]					**0.0615**	**0.0013**	**0.0067**	**0.0746**	**0.247**				**0.0195**			
Antimony (Sb), Dissolved	mg/L	1.6					0.0002 U	0.0001 U	0.0001 U	0.0005 U	0.0005 U				0.0005 U			
Arsenic (As), Dissolved	mg/L	0.005					0.0002 U	**0.00013**	0.0001 U	0.0005 U	0.0005 U				**0.00191**			
Barium (Ba), Dissolved	mg/L	2.3					**0.0165**	**0.0311**	**0.0289**	**0.0163**	**0.0131**				**0.109**			
Beryllium (Be), Dissolved	mg/L	0.0053					**0.0003**	0.0001 U	0.0001 U	0.0005 U	**0.0015**				0.0005 U			
Boron (B), Dissolved	mg/L	1.5					0.02 U	0.01 U	0.01 U	0.05 U	0.05 U				0.05 U			
Cadmium (Cd), Dissolved	mg/L	Variable[c]					**0.0159**	**0.000779**	**0.00164**	**0.0376**	**0.0581**				**0.000027**			
Calcium, Dissolved	mg/L	-					**75.2**	**96.2**	**56.9**	**88.4**	**94.4**				**231**			
Chromium (Cr), Dissolved	mg/L	0.0089					**0.0003**	0.0001 U	**0.0002**	0.0005 U	0.0005 U				0.0005 U			
Cobalt (Co), Dissolved	mg/L	-					**0.00116**	0.0001 U	0.0001 U	**0.02**	**0.05**				**0.0305**			
Iron, Dissolved	mg/L	0.3					0.03 U	0.03 U	0.03 U	0.03 U	0.03 U				**14.7**			
Ferrous Iron, Dissolved (Fe2+)	mg/l	-					0.02 U	0.02 U	0.02 U	0.02 U	0.02 U				**14**			
Lead (Pb), Dissolved	mg/L	0.001[e]					**0.00068**	**0.000172**	**0.000501**	**0.00108**	**0.0207**				0.00025 U			
Lithium, Dissolved	mg/L	-					**0.0292**	**0.0201**	**0.0152**	**0.0297**	**0.0311**				0.005 U			
Magnesium, Dissolved	mg/L	-					**35.7**	**21.7**	**12.1**	**41.7**	**61.9**				**73**			
Manganese, Dissolved	mg/L	-					**0.0982**	**0.00153**	**0.00749**	**1.55**	**2.15**				**21.5**			
Mercury, Dissolved	mg/L	0.000026					0.000005 U	0.000005 U	**0.0000091**	0.000005 U	0.000005 U				**0.0000203**			
Molybdenum (Mo), Dissolved	mg/L	0.073					0.0001 U	**0.000783**	**0.000341**	0.00025 U	0.00025 U				**0.00326**			
Nickel (Ni), Dissolved	mg/L	0.025[f]					**0.0566**	**0.00733**	**0.00581**	**0.096**	**0.143**				**0.009**			
Phosphorus, Dissolved	mg/L	0.004 to 0.10[g]					0.3 U	0.3 U	0.3 U	0.3 U	0.3 U				0.3 U			
Potassium, Dissolved	mg/L	-					**1.66**	**1.87**	**1.09**	**1.79**	**2.02**				**3.27**			
Selenium (Se), Dissolved	mg/L	0.001					**0.00023**	**0.000159**	**0.000135**	0.00025 U	0.00025 U				0.00025 U			
Silica, Dissolved (Si)	mg/L	-					**24.9**	**19**	**19.1**	**23.6**	**28.4**				**12.5**			
Silicon, Dissolved (SiO_2)	mg/L	-					**11.7**	**8.9**	**8.92**	**11.1**	**13.3**				**5.86**			
Silver (Ag), Dissolved	mg/L	0.0001					0.00002 U	0.00001 U	0.00001 U	0.00005 U	0.00005 U				0.00005 U			
Sodium (Na), Dissolved	mg/L	-					**4.35**	**5.21**	**4.46**	**4.87**	**4.61**				**15.3**			
Strontium, Dissolved	mg/L	-					**0.251**	**0.285**	**0.199**	**0.26**	**0.282**				**0.839**			
Sulfur, Dissolved	mg/L	-					**102**	**74.3**	**31.9**	**126**	**175**				**151**			
Thallium (Tl), Dissolved	mg/L	0.0008					0.00002 U	**0.000022**	0.00001 U	0.00005 U	0.00005 U				**0.000059**			
Titanium, Dissolved	mg/L	0.1					0.0006 U	0.0003 U	0.0003 U	0.0015 U	0.0015 U				0.0015 U			
Uranium (U), Dissolved	mg/L	0.015					**0.00153**	**0.00326**	**0.00277**	**0.00154**	**0.00151**				**0.0365**			
Vanadium (V), Dissolved	mg/L	-					0.001 U	0.0005 U	0.0005 U	0.0025 U	0.0025 U				0.0025 U			
Zinc (Zn), Dissolved	mg/L	0.03					**15.4**	**1.01**	**1.32**	**21.6**	**39.1**				**0.0095**			
Conductivity, Field	mS/cm/ deg C		**0.949**	**9.405**	**32.64**	**2.86**	**0.555**	**0.606**	**0.364**	**0.77**	**0.963**	**2.131**	**0.469**	**3.594**	**1.337**	**0.523**	**0.322**	**0.201**
DO, Field	mg/L		**1.91**	**9.02**	**1.71**	**9.57**	**12.59**	**10.97**	**13.19**	**10.09**	**12.96**	**10.32**	**10.57**	**8.48**	**7.49**	**7.17**	**1.02**	**8.81**
ORP, Field	mV		**7.5**	**329.3**	**444.7**	**338.2**	**320.1**	**230.6**	**268.2**	**277**	**303.8**	**-35.9**	**272.3**	**185.8**	**-113.7**	**-17.3**	**34.3**	**37.3**

Table 7. Seep Analytical Results

Faro Mine Remediation Project

		Location ID	CH-GP-25	CH-GP-26	CH-GP-28	CH-GP-29	CH-GP-30	CH-GP-31	CH-MILL-02	CH-MILL-03	CH-MILL-04	CH-RCTA-03	CH-RCTA-04	CH-RCTA-05	CH-RCTA-06	CH-RCTA-10	CH-RCTA-08	CH-RCTA-09
		General Location																
		Date	5/21/2016	5/21/2016	5/21/2016	5/21/2016	5/21/2016	5/21/2016	5/18/2016	5/18/2016	5/18/2016	5/18/2016	5/18/2016	5/18/2016	5/18/2016	5/18/2016	5/18/2016	5/18/2016
Analyses ID	**Units**	**Screening Level**																
General Chemistry																		
pH, Field	pH Units	6.5 - 9.0	**5.85**	**2.97**	**7.16**	**6.6**	**5.63**	**7.91**	**7.97**	**3.2**	**2.92**	**5.62**	**6.28**	**7.44**	**2.59**	**6.8**	**7.08**	**6.14**
Temperature, Field	deg C	-	**2.6**	**6.87**	**10.05**	**19.41**	**3.32**	**6.82**	**7.39**	**7.15**	**6.18**	**4.4**	**8.51**	**1.83**	**11.94**	**3.01**	**5.08**	**2.11**
Hardness (as $CaCO_3$)	mg/L	-										**762**				**264**		
Total Suspended Solids	mg/L	-										**95.6**				**38.8**		
Anions and Nutrients																		
Acidity, Hot Peroxide	mg/L	-										**340**				25 U		
Alkalinity, Bicarbonate (as $CaCO_3$)	mg/L	-										1 U				**83**		
Alkalinity, Carbonate (as $CaCO_3$)	mg/L	-										1 U				1 U		
Alkalinity, Hydroxide (as $CaCO_3$)	mg/L	-										1 U				1 U		
Alkalinity, Total (as $CaCO_3$)	mg/L	-										1 U				**83**		
Ammonia	mg/L	Variable[a]										**0.232**				**0.0414**		
Chloride (Cl)	mg/L	120										2.5 U				0.5 U		
Fluoride	mg/L	0.12										**0.14**				**0.289**		
Nitrate (as N)	mg/L	13										0.025 U				0.005 U		
Nitrite (as N)	mg/L	0.06										0.005 U				0.001 U		
Phosphorus	mg/L											0.2 U				0.02 U		
Sulfate	mg/L	100										**1110**				**176**		
Dissolved Organic Carbon	mg/L	-										**2.27**				**1.4**		
Dissolved Metals																		
Aluminum, Dissolved	mg/L	0.005 to 0.1[b]										**3.32**				**0.151**		
Antimony (Sb), Dissolved	mg/L	1.6										0.0002 U				0.0001 U		
Arsenic (As), Dissolved	mg/L	0.005										**0.00092**				**0.00042**		
Barium (Ba), Dissolved	mg/L	2.3										**0.00911**				**0.0185**		
Beryllium (Be), Dissolved	mg/L	0.0053										**0.00042**				0.0001 U		
Boron (B), Dissolved	mg/L	1.5										0.02 U				0.01 U		
Cadmium (Cd), Dissolved	mg/L	Variable[c]										**0.00182**				**0.000222**		
Calcium, Dissolved	mg/L	-										**250**				**86.6**		
Chromium (Cr), Dissolved	mg/L	0.0089										0.0002 U				0.0001 U		
Cobalt (Co), Dissolved	mg/L	-										**0.109**				**0.0121**		
Iron, Dissolved	mg/L	0.3										**193**				**34.4**		
Ferrous Iron, Dissolved (Fe2+)	mg/l	-										**213**				**36.8**		
Lead (Pb), Dissolved	mg/L	0.001[e]										**0.00029**				**0.000589**		
Lithium, Dissolved	mg/L	-										**0.0289**				**0.0056**		
Magnesium, Dissolved	mg/L	-										**33.7**				**11.5**		
Manganese, Dissolved	mg/L	-										**16.9**				**1.35**		
Mercury, Dissolved	mg/L	0.000026										0.000005 U				0.000005 U		
Molybdenum (Mo), Dissolved	mg/L	0.073										**0.00019**				**0.000085**		
Nickel (Ni), Dissolved	mg/L	0.025[f]										**0.081**				**0.0089**		
Phosphorus, Dissolved	mg/L	0.004 to 0.10[g]										0.3 U				0.3 U		
Potassium, Dissolved	mg/L	-										**4.21**				**1.94**		
Selenium (Se), Dissolved	mg/L	0.001										0.0001 U				0.00005 U		
Silica, Dissolved (Si)	mg/L	-										**25.2**				**8.75**		
Silicon, Dissolved (SiO_2)	mg/L	-										**11.8**				**4.09**		
Silver (Ag), Dissolved	mg/L	0.0001										0.00002 U				0.00001 U		
Sodium (Na), Dissolved	mg/L	-										**13.8**				**2.43**		
Strontium, Dissolved	mg/L	-										**0.811**				**0.339**		
Sulfur, Dissolved	mg/L	-										**354**				**59.6**		
Thallium (Tl), Dissolved	mg/L	0.0008										**0.000145**				**0.000046**		
Titanium, Dissolved	mg/L	0.1										0.0006 U				0.0003 U		
Uranium (U), Dissolved	mg/L	0.015										**0.00109**				**0.000607**		
Vanadium (V), Dissolved	mg/L	-										0.001 U				0.0005 U		
Zinc (Zn), Dissolved	mg/L	0.03										**7.22**				**0.866**		
Conductivity, Field	mS/cm/ deg C		**1.287**	**1.657**	**0.423**	**2.591**	**1.923**	**1.698**	**5.937**	**9.954**	**13.52**	**1.516**	**0.534**	**0.442**	**2.057**	**0.49**	**0.812**	**0.493**
DO, Field	mg/L		**2.64**	**2.96**	**8.88**	**6.91**	**5.05**	**13.26**	**7.77**	**6.88**	**1.25**	**0.66**	**7.89**	**10.22**	**8.99**	**4.63**	**9.5**	**3.64**
ORP, Field	mV		**92.1**	**230.4**	**4.2**	**-17.5**	**88.3**	**58.5**	**238.4**	**350.3**	**322.7**	**323.5**	**-36.2**	**38.9**	**464.6**	**-10.9**	**-75.5**	**23.8**

Table 7. Seep Analytical Results

Faro Mine Remediation Project

		Location ID	CH-VP-17	CH-VP-19	CH-VP-20	FCS-2	FCS-3	FCS-4	FCS-5	FP11	GD05 D/S	GDHSECK	GP02	GP04	GP06	GP08	GP09	GP10
		General Location																
		Date	5/21/2016	5/21/2016	5/21/2016	5/19/2016	5/18/2016	5/19/2016	5/18/2016	5/19/2016	5/22/2016	5/18/2016	5/21/2016	5/21/2016	5/21/2016	5/21/2016	5/21/2016	5/21/2016
Analyses ID	**Units**	**Screening Level**																
General Chemistry																		
pH, Field	pH Units	6.5 - 9.0	**3.28**	**5.81**	**4.03**	**3.81**	**5.76**	**6.16**	**6.37**	**6**	**7.92**	**6.72**	**8.18**	**7.52**	**7.76**	**7.84**	**7.67**	**8.13**
Temperature, Field	deg C	-	**3.18**	**2.44**	**9.14**	**7.11**	**6.5**	**7.21**	**10.73**	**8.77**	**5.36**	**1.16**	**11.11**	**5.68**	**19.78**	**3.68**	**3.9**	**12.15**
Hardness (as $CaCO_3$)	mg/L	-	**1690**			**5710**	**5000**	**5120**	**1930**		**2060**		**483**				**954**	
Total Suspended Solids	mg/L	-	**92.1**			**38.3**	**305**	**280**	**485**		**3.9**		**29200**				**4.9**	
Anions and Nutrients																		
Acidity, Hot Peroxide	mg/L	-	**3080**			**1560**	**3340**	**1840**	**486**								25 U	
Alkalinity, Bicarbonate (as $CaCO_3$)	mg/L	-					1 U	1 U	1 U		**456**		**183**				**382**	
Alkalinity, Carbonate (as $CaCO_3$)	mg/L	-					1 U	1 U	1 U		1 U		1 U				1 U	
Alkalinity, Hydroxide (as $CaCO_3$)	mg/L	-					1 U	1 U	1 U		1 U		1 U				1 U	
Alkalinity, Total (as $CaCO_3$)	mg/L	-					1 U	1 U	1 U		**456**		**183**				**382**	
Ammonia	mg/L	Variable[a]	**0.0809**			**0.607**	**1.06**	**0.747**	**0.894**		0.005 U		**0.38**				0.005 U	
Chloride (Cl)	mg/L	120	10 U			10 U	**10**	**12**	5 U		5 U		2.5 U				2.5 U	
Fluoride	mg/L	0.12	**2.42**			**0.49**	**1.04**	**0.46**	**0.38**		0.2 U		**0.25**				**0.22**	
Nitrate (as N)	mg/L	13	0.1 U			**0.25 J**	0.1 U	**0.18 J**	**0.16**		**1.11**		**0.797**				**0.182**	
Nitrite (as N)	mg/L	0.06	0.02 U			0.02 UJ	0.02 U	0.02 UJ	0.01 U		0.01 U		0.005 U				0.005 U	
Phosphorus	mg/L		20 U			2 U	2 U	2 U	0.02 U		0.02 U		8.8				0.02 U	
Sulfate	mg/L	100	**4690**			**6450**	**8250**	**6790**	**2500**		**1440**		**285**				**534**	
Dissolved Organic Carbon	mg/L	-	**1.68**			**5.16**	**6.24**	**5.12**	**3.24**		**3.73**		**5.23**				**0.53**	
Dissolved Metals																		
Aluminum, Dissolved	mg/L	0.005 to 0.1[b]	**15.3**			**10.3**	**1.94**	0.1 U	0.02 U		**0.0041**		**0.0146**				0.001 U	
Antimony (Sb), Dissolved	mg/L	1.6	0.01 U			0.01 U	0.01 U	0.01 U	0.002 U		**0.00022**		**0.00078**				**0.00015**	
Arsenic (As), Dissolved	mg/L	0.005	**0.422**			**0.06**	**0.094**	**0.02**	0.002 U		**0.00112**		**0.00283**				**0.00036**	
Barium (Ba), Dissolved	mg/L	2.3	**0.0054**			**0.0093**	**0.0137**	**0.0094**	**0.0229**		**0.0283**		**0.0261**				**0.0137**	
Beryllium (Be), Dissolved	mg/L	0.0053	0.01 U			0.01 U	0.01 U	0.01 U	0.002 U		0.0002 U		0.0001 U				0.0001 U	
Boron (B), Dissolved	mg/L	1.5	1 U			1 U	1 U	1 U	0.2 U		0.02 U		0.01 U				0.01 U	
Cadmium (Cd), Dissolved	mg/L	Variable[c]	**0.622**			**0.11**	**0.0182**	**0.0575**	**0.0273**		0.00001 U		**0.0000231**				**0.0000227**	
Calcium, Dissolved	mg/L	-	**256**			**361**	**405**	**407**	**257**		**351**		**132**				**103**	
Chromium (Cr), Dissolved	mg/L	0.0089	0.01 U			0.01 U	0.01 U	0.01 U	0.002 U		0.0002 U		**0.00014**				0.0001 U	
Cobalt (Co), Dissolved	mg/L	-	**2.73**			**1.55**	**1.65**	**1.45**	**0.42**		0.0002 U		**0.00019**				**0.0002**	
Iron, Dissolved	mg/L	0.3	**1140**			**216**	**1340**	**582**	**124**		0.03 U		**0.046**				0.03 U	
Ferrous Iron, Dissolved (Fe2+)	mg/l	-	**1250**			**236**	**1050**	**673**	**143**		0.02 U		0.02 U				0.02 U	
Lead (Pb), Dissolved	mg/L	0.001[e]	**1.21**			**0.48**	**0.0099**	**0.0153**	**0.124**		**0.00012**		**0.00141**				**0.000144**	
Lithium, Dissolved	mg/L	-	0.1 U			**0.18**	**0.14**	**0.14**	**0.079**		**0.021**		**0.0024**				**0.0359**	
Magnesium, Dissolved	mg/L	-	**256**			**1170**	**968**	**997**	**312**		**288**		**37.3**				**169**	
Manganese, Dissolved	mg/L	-	**149**			**105**	**118**	**113**	**33.9**		**0.0009**		**0.0248**				**0.00191**	
Mercury, Dissolved	mg/L	0.000026	**0.0000083**			**0.0000324**	**0.0000078**	**0.0000874**	**0.0000136**		0.000005 U		0.000005 U				0.000005 U	
Molybdenum (Mo), Dissolved	mg/L	0.073	0.005 U			0.005 U	0.005 U	0.005 U	0.001 U		**0.00061**		**0.00133**				**0.00154**	
Nickel (Ni), Dissolved	mg/L	0.025[f]	**1.56**			**1.59**	**1.36**	**1.31**	**0.417**		**0.0012**		**0.00217**				**0.0139**	
Phosphorus, Dissolved	mg/L	0.004 to 0.10[g]	0.6 U			0.9 U	0.9 U	0.9 U	0.3 U		0.3 U		0.3 U				0.3 U	
Potassium, Dissolved	mg/L	-	5 U			**12.8**	**12**	**12.2**	**8.6**		**4.6**		**3.55**				**2.9**	
Selenium (Se), Dissolved	mg/L	0.001	0.005 U			0.005 U	0.005 U	0.005 U	0.001 U		**0.00015**		**0.00123**				**0.000408**	
Silica, Dissolved (Si)	mg/L	-	**27**			**41.8**	**34.1**	**32.2**	**13.1**		**13.5**		**12.7**				**2.89**	
Silicon, Dissolved (SiO_2)	mg/L	-	**12.6**			**19.6**	**15.9**	**15.1**	**6.13**		**6.33**		**5.94**				**1.35**	
Silver (Ag), Dissolved	mg/L	0.0001	0.001 U			0.001 U	0.001 U	0.001 U	0.0002 U		0.00002 U		0.00001 U				0.00001 U	
Sodium (Na), Dissolved	mg/L	-	5 U			**50.5**	**126**	**58.7**	**46**		**12**		**10.7**				**3.29**	
Strontium, Dissolved	mg/L	-	**0.751**			**2.97**	**3.83**	**3.45**	**1.44**		**1.33**		**0.477**				**0.496**	
Sulfur, Dissolved	mg/L	-	**1590**			**2460**	**2730**	**2380**	**802**		**504**		**96.4**				**178**	
Thallium (Tl), Dissolved	mg/L	0.0008	**0.0038**			**0.0023**	0.001 U	**0.0011**	**0.00162**		0.00002 U		**0.000025**				**0.00008**	
Titanium, Dissolved	mg/L	0.1	0.03 U			0.03 U	0.03 U	0.03 U	0.006 U		0.0006 U		**0.0003**				0.0003 U	
Uranium (U), Dissolved	mg/L	0.015	**0.0232**			**0.0054**	**0.0135**	**0.0032**	**0.00229**		**0.0392**		**0.028**				**0.0197**	
Vanadium (V), Dissolved	mg/L	-	0.05 U			0.05 U	0.05 U	0.05 U	0.01 U		0.001 U		**0.00102**				0.0005 U	
Zinc (Zn), Dissolved	mg/L	0.03	**561**			**617**	**611**	**535**	**147**		0.002 U		**0.0067**				**0.0128**	
Conductivity, Field	mS/cm/ deg C		**5.739**	**0.325**	**5.853**	**8.066**	**8.823**	**7.807**	**3.285**	**4.508**	**2.813**	**1.42**	**0.607**	**1.758**	**1.629**	**1.275**	**1.506**	**1.164**
DO, Field	mg/L		**81.3**	**11.79**	**8.4**	**10.57**	**8.26**	**10.62**	**10.48**	**9.48**	**9.91**	**14.06**	**9.49**	**11.88**	**9.46**	**13.52**	**49.6**	**11.02**
ORP, Field	mV		**353.9**	**188.3**	**320.6**	**233.8**	**27.1**	**-18.4**	**-22.6**	**-35.7**	**142**	**341**	**-8.7**	**29**	**227.3**	**202**	**219.6**	**233.7**

Table 7. Seep Analytical Results

Faro Mine Remediation Project

		Location ID	GP12	GP14	NE1	NE2	Sheep Creek	SRK-FD01	SRK-FD02	SRK-FD04	SRK-FD05	SRK-FD06	SRK-FD08	SRK-FD09	SRK-FD10	SRK-FD12	SRK-FD13	SRK-FD14
		General Location																
		Date	5/21/2016	5/21/2016	5/20/2016	5/20/2016	5/22/2016	5/18/2016	5/18/2016	5/17/2016	5/20/2016	5/20/2016	5/20/2016	5/18/2016	5/18/2016	5/18/2016	5/19/2016	5/19/2016
Analyses ID	**Units**	**Screening Level**																
General Chemistry																		
pH, Field	pH Units	6.5 - 9.0	**5.84**	**7.11**	**7.66**	**7.28**	**8.1**	**6.68**	**6.43**	**2.06**	**7.21**	**7.3**	**4.82**	**5.75**	**5.94**	**5.9**	**2.39**	**6.45**
Temperature, Field	deg C	-	**9.64**	**14.1**	**4.39**	**6.44**	**2.13**	**1.94**	**0.67**	**13.34**	**2.33**	**4.25**	**9.21**	**4.49**	**7.99**	**7.66**	**12.47**	**14.02**
Hardness (as $CaCO_3$)	mg/L	-	**535**		**247**	**1130**	**473**	**3010**			**1200**	**1010**	**741**	**4760**			**14000**	**3090**
Total Suspended Solids	mg/L	-	**190**		**5**	**2.6 J**	**11**	**40 J**			**2.6**	**30**	**2.2**	**796**			**177**	**358**
Anions and Nutrients																		
Acidity, Hot Peroxide	mg/L	-	**400**		25 U	25 U		25 U			25 U	25 U	**32**	**1290**			**25300**	25 U
Alkalinity, Bicarbonate (as $CaCO_3$)	mg/L	-	1 U		**95.7**	**209**	**232**	**225**			**196**	**209**	1 UJ	1 U				**94.2**
Alkalinity, Carbonate (as $CaCO_3$)	mg/L	-	1 U		1 U	1 U	1 U	1 U			1 U	1 U	1 UJ	1 U				1 U
Alkalinity, Hydroxide (as $CaCO_3$)	mg/L	-	1 U		1 U	1 U	1 U	1 U			1 U	1 U	1 UJ	1 U				1 U
Alkalinity, Total (as $CaCO_3$)	mg/L	-	1 U		**95.7**	**209**	**232**	**225**			**196**	**209**	1 UJ	1 U				**94.2**
Ammonia	mg/L	Variable[a]	**0.193**		0.005 U	0.005 U	0.005 U	**0.0187**			0.005 U	0.005 U	0.005 U	**0.579**			0.005 U	0.005 U
Chloride (Cl)	mg/L	120	2.5 U		0.5 U	2.5 U	0.5 U	10 U			2.5 U	2.5 U	1 U	**11**			50 U	10 U
Fluoride	mg/L	0.12	**0.49**		**0.234**	**0.34**	**0.06**	0.4 U			**0.3**	**0.29**	**0.724**	**0.82**			**47.2**	**3.52**
Nitrate (as N)	mg/L	13	0.025 U		0.005 UJ	**9.37 J**	**0.552**	**1.31**			**12.5 J**	**10.1 J**	0.01 UJ	**6.8**			0.5 UJ	**0.13 J**
Nitrite (as N)	mg/L	0.06	0.005 U		0.001 UJ	**0.0063 J**	0.001 U	0.02 U			0.005 UJ	0.005 UJ	0.002 UJ	**0.084**			0.1 UJ	0.02 UJ
Phosphorus	mg/L		0.02 U		0.02 U	0.02 U	0.02 U	0.02 U			0.02 U	0.02 U	0.02 U	2 U			8.72	0.037
Sulfate	mg/L	100	**795**		**134**	**846**	**202**	**2890**			**885**	**729**	**669**	**5570**			**38300**	**2720**
Dissolved Organic Carbon	mg/L	-	**1**		**3.83**	**3.85**	**2.89**	**5.15**			**2.71**	**2.48**	**1.67**	**6.29**			**19.5**	**0.86**
Dissolved Metals																		
Aluminum, Dissolved	mg/L	0.005 to 0.1[b]	**1.21**		**0.0024**	**0.0082**	**0.009**	**0.094**			**0.0017**	**0.0024**	**5.06**	0.1 U			**574**	**0.131**
Antimony (Sb), Dissolved	mg/L	1.6	**0.0027**		0.0001 U	0.0001 U	**0.00011**	0.002 U			0.0001 U	0.0002 U	0.0001 U	0.01 U			0.1 U	**0.00028**
Arsenic (As), Dissolved	mg/L	0.005	**0.28**		**0.00016**	**0.00017**	**0.0003**	0.002 U			**0.00018**	**0.00023**	**0.00059**	0.01 U			**8.52**	**0.00036**
Barium (Ba), Dissolved	mg/L	2.3	**0.0121**		**0.0146**	**0.0701**	**0.165**	**0.0222**			**0.0206**	**0.021**	**0.0293**	**0.014**			0.05 U	**0.0108**
Beryllium (Be), Dissolved	mg/L	0.0053	0.001 U		0.0001 U	0.0001 U	0.0001 U	0.002 U			0.0001 U	0.0002 U	**0.00151**	0.01 U			**0.2**	0.0002 U
Boron (B), Dissolved	mg/L	1.5	0.1 U		0.01 U	0.01 U	0.01 U	0.2 U			0.01 U	0.02 U	0.01 U	1 U			10 U	0.02 U
Cadmium (Cd), Dissolved	mg/L	Variable[c]	**0.0693**		**0.0000093**	**0.00019**	**0.0000398**	**0.0674**			**0.00469**	**0.00741**	**0.00732**	**0.117**			**5.58**	**0.0228**
Calcium, Dissolved	mg/L	-	**122**		**66.2**	**150**	**138**	**450**			**170**	**126**	**61.4**	**352**			**424**	**327**
Chromium (Cr), Dissolved	mg/L	0.0089	**0.0024**		0.0001 U	0.0001 U	**0.00023**	0.002 U			0.0001 U	0.0002 U	**0.00018**	0.01 U			**0.83**	0.0002 U
Cobalt (Co), Dissolved	mg/L	-	**0.183**		0.0001 U	**0.00017**	0.0001 U	**0.066**			**0.00069**	0.0002 U	**0.0356**	**1.21**			**9.83**	**0.0162**
Iron, Dissolved	mg/L	0.3	**105**		0.03 U	0.03 U	0.03 U	**3.1**			0.03 U	0.03 U	**3.03**	**190**			**6670**	**0.099**
Ferrous Iron, Dissolved (Fe2+)	mg/l	-	**102**		**0.023**	0.1 UJ	0.02 U	**3.51**			0.02 U	0.02 U	**3.26**	**222**			**4020**	**0.042**
Lead (Pb), Dissolved	mg/L	0.001[e]	**0.814**		0.00005 U	**0.00126 J**	**0.000156**	**0.0051**			**0.000161**	**0.00046**	**0.0154**	**0.0075**			**0.15**	**0.0134**
Lithium, Dissolved	mg/L	-	**0.015**		**0.0098**	**0.0281**	**0.0027**	**0.048**			**0.0334**	**0.0325**	**0.04**	**0.19**			**1.5**	**0.199**
Magnesium, Dissolved	mg/L	-	**56.2**		**19.7**	**184**	**31.2**	**457**			**189**	**169**	**143**	**943**			**3140**	**552**
Manganese, Dissolved	mg/L	-	**7.45**		**0.00032**	**0.0089 J**	**0.0011**	**7.73**			**0.0246**	**0.00047**	**1.57**	**79.3**			**410**	**1.12**
Mercury, Dissolved	mg/L	0.000026	0.000005 U		0.000005 U	**0.0000053**	0.000005 U	**0.000005**			0.000005 U	0.000005 U	0.000005 U	**0.0000078**			**0.0000859**	0.000005 U
Molybdenum (Mo), Dissolved	mg/L	0.073	0.0005 U		**0.00566**	**0.000433**	**0.000979**	0.001 U			**0.00015**	0.0001 U	0.00005 U	0.005 U			0.05 U	**0.00187**
Nickel (Ni), Dissolved	mg/L	0.025[f]	**0.106**		**0.00091**	**0.00952**	**0.00052**	**0.306**			**0.0741**	**0.088**	**0.184**	**1.48**			**14.3**	**0.132**
Phosphorus, Dissolved	mg/L	0.004 to 0.10[g]	0.3 U		0.3 U	0.3 U	0.3 U	0.3 U			0.3 U	0.3 U	0.3 U	0.6 U			**11.7**	0.6 U
Potassium, Dissolved	mg/L	-	**1.3**		**2.48**	**4.01**	**0.788**	**9.1**			**4.05**	**4.02**	**4.62**	**15.3**			50 U	**17.4**
Selenium (Se), Dissolved	mg/L	0.001	0.0005 U		**0.000566**	**0.00195**	**0.00198**	**0.0019**			**0.00284**	**0.00244**	**0.000297**	0.005 U			0.05 U	**0.00687**
Silica, Dissolved (Si)	mg/L	-	**13**		**8.73**	**11.1**	**10.5**	**12**			**12.5**	**13.4**	**29.6**	**10.2**			**110**	**4.44**
Silicon, Dissolved (SiO_2)	mg/L	-	**6.07**		**4.08**	**5.21**	**4.93**	**5.6**			**5.86**	**6.27**	**13.8**	**4.75**			**51.3**	**2.08**
Silver (Ag), Dissolved	mg/L	0.0001	0.0001 U		0.00001 U	0.00001 U	0.00001 U	0.0002 U			0.00001 U	0.00002 U	0.00001 U	0.001 U			0.01 U	0.00002 U
Sodium (Na), Dissolved	mg/L	-	**10.3**		**3.51**	**7.92**	**2.52**	**31.1**			**8.32**	**6.85**	**2.26**	**123**			50 U	**62.2**
Strontium, Dissolved	mg/L	-	**0.503**		**0.276**	**0.654**	**0.505**	**2.55**			**0.716**	**0.538**	**0.43**	**3.22**			**0.63**	**3.6**
Sulfur, Dissolved	mg/L	-	**274**		**47.9**	**282**	**71.1**	**963**			**310**	**243**	**245**	**1970**			**13000**	**1010**
Thallium (Tl), Dissolved	mg/L	0.0008	**0.00983**		0.00001 U	0.00001 U	0.00001 U	**0.00053**			**0.000227**	**0.000211**	**0.000168**	**0.002**			0.01 U	**0.00129**
Titanium, Dissolved	mg/L	0.1	0.003 U		0.0003 U	0.0003 U	**0.00046**	0.006 U			0.0003 U	0.0006 U	0.0003 U	0.03 U			0.3 U	**0.0015**
Uranium (U), Dissolved	mg/L	0.015	**0.00604**		**0.00101**	**0.0129**	**0.00654**	**0.00534**			**0.0136**	**0.0111**	**0.000512**	**0.0047**			**0.511**	**0.103**
Vanadium (V), Dissolved	mg/L	-	0.005 U		0.0005 U	0.0005 U	0.0005 U	0.01 U			0.0005 U	0.001 U	0.0005 U	0.05 U			0.5 U	0.001 U
Zinc (Zn), Dissolved	mg/L	0.03	**55.8**		0.001 U	**0.223**	**0.0099**	**92.9**			**8.62**	**10.5**	**6.15**	**549**			**4550**	**8.58**
Conductivity, Field	mS/cm/ deg C		**0.903**	**1.474**	**0.422**	**1.625**	**0.76**	**3.901**	**1.775**	**8.836**	**1.899**	**1.492**	**1.248**	**6.942**	**9.796**	**9.82**	**25.79**	**4.175**
DO, Field	mg/L		**9.55**	**1.2**	**9.51**	**9.23**	**12.3**	**9.84**	**10.28**	**8**	**9.58**	**10.15**	**2.31**	**1.51**	**3.68**	**3.46**	**2.4**	**7.78**
ORP, Field	mV		**23.6**	**22.1**	**185.6**	**152.2**	**176.1**	**162.8**	**210.5**	**501.1**	**191.3**	**177.5**	**305.3**	**116.1**	**50**	**63.5**	**412.6**	**274.8**

Table 7. Seep Analytical Results

Faro Mine Remediation Project

		Location ID	SRK-FD16	SRK-FD17	SRK-FD18	SRK-FD19	SRK-FD20	SRK-FD23	SRK-FD24	SRK-FD26	SRK-FD30	SRK-FD31	SRK-FD37	SRK-FD51	SRK-FD54	SRK-FD55	SRK-GD01	SRK-GD02
		General Location																
		Date	5/20/2016	5/20/2016	5/20/2016	5/18/2016	5/19/2016	5/19/2016	5/19/2016	5/19/2016	5/18/2016	5/18/2016	5/17/2016	5/19/2016	5/20/2016	5/20/2016	5/20/2016	5/20/2016
Analyses ID	**Units**	**Screening Level**																
General Chemistry																		
pH, Field	pH Units	6.5 - 9.0	**7.64**	**7.73**	**7.35**	**6.73**	**7.88**	**3.46**	**3.56**	**7**	**7.28**	**6.21**	**1.92**	**3.73**	**4.47**	**6.7**	**7.03**	**7.06**
Temperature, Field	deg C	-	**1.18**	**0.8**	**1.77**	**0.01**	**0.37**	**20.86**	**8.78**	**6.76**	**6.54**	**7.28**	**10.09**	**16.99**	**8.39**	**11.26**	**3.03**	**4.46**
Hardness (as $CaCO_3$)	mg/L	-			**79.1**	**5030**		**702**	**1170**	**748**	**730**	**6400**	**6420**		**12000**	**2370 J**	**2560**	
Total Suspended Solids	mg/L	-			**3.6**	**6.2**		**12.8**	**51.4**	**5**	**77.4**	**84**	**57.2**		**78.7**	**5.7**	**4.9**	
Anions and Nutrients																		
Acidity, Hot Peroxide	mg/L	-			25 U	**40**		**235**	**240**	25 U	25 U	**2140**	**95300**		**2120**	25 U	25 U	
Alkalinity, Bicarbonate (as $CaCO_3$)	mg/L	-			**61.9**	**341**				**191**	**191**	**15.9**			1 U	**80.3**	**597**	
Alkalinity, Carbonate (as $CaCO_3$)	mg/L	-			1 U	1 U				1 U	1 U	1 U			1 U	1 U	1 U	
Alkalinity, Hydroxide (as $CaCO_3$)	mg/L	-			1 U	1 U				1 U	1 U	1 U			1 U	1 U	1 U	
Alkalinity, Total (as $CaCO_3$)	mg/L	-			**61.9**	**341**				**191**	**191**	**15.9**			1 U	**80.3**	**597**	
Ammonia	mg/L	Variable[a]			**0.0062**	**0.0663**		**0.238**	**0.0458**	0.005 U	0.005 U	**0.737**	**0.522**		**2.51**	**0.0069**	0.005 U	
Chloride (Cl)	mg/L	120			0.5 U	10 U		2.5 U	2.5 U	**1.2**	1 U	**12**	50 U		25 U	10 U	10 U	
Fluoride	mg/L	0.12			**0.133**	0.4 U		**0.42**	**0.66**	**0.207**	**1.48**	**0.69**	**25.8**		**2.5**	**2.35**	0.4 U	
Nitrate (as N)	mg/L	13			**0.0815 J**	**1.34**		0.025 UJ	0.025 UJ	**5.12 J**	**0.062**	**3.49**	0.5 U		0.25 UJ	0.1 UJ	**8.6 J**	
Nitrite (as N)	mg/L	0.06			0.001 UJ	**0.028**		0.005 UJ	0.005 UJ	0.002 UJ	0.002 U	0.02 U	0.1 U		0.05 UJ	0.02 UJ	0.02 UJ	
Phosphorus	mg/L				0.033	0.2 U		2 U	0.476	0.02 U	0.02 U	2 U	57		0.052	0.02 U	0.02 U	
Sulfate	mg/L	100			**18.6**	**4430**		**818**	**1300**	**519**	**556**	**8930**	**108000**		**11200**	**2080**	**1780**	
Dissolved Organic Carbon	mg/L	-			**3.74**	**9.83**		**1.15**	**1.46**	**2.37**	**0.75**	**6.96**	**44.2**		**9.22**	**4.74**	**2.89**	
Dissolved Metals																		
Aluminum, Dissolved	mg/L	0.005 to 0.1[b]			**0.0091**	**0.172**		**3.43**	**9.89**	**0.0653**	**0.0035**	0.2 U	**1060**		**17.4**	**0.025 J**	**0.0031**	
Antimony (Sb), Dissolved	mg/L	1.6			0.0001 U	0.002 U		0.0005 U	0.001 U	0.0001 U	0.0001 U	0.02 U	**2.98**		0.02 U	0.001 U	**0.00077**	
Arsenic (As), Dissolved	mg/L	0.005			**0.00011**	0.002 U		0.0005 U	0.001 U	**0.00027**	**0.00022**	0.02 U	**595**		0.02 U	0.001 U	**0.00323**	
Barium (Ba), Dissolved	mg/L	2.3			**0.074**	**0.0526**		**0.0134**	**0.00903**	**0.0233**	**0.0184**	**0.017**	0.25 U		**0.025**	**0.0198**	**0.0313**	
Beryllium (Be), Dissolved	mg/L	0.0053			0.0001 U	0.002 U		**0.00162**	**0.0034**	0.0001 U	0.0001 U	0.02 U	0.5 U		0.02 U	0.001 U	0.0002 U	
Boron (B), Dissolved	mg/L	1.5			0.01 U	0.2 U		0.05 U	0.1 U	0.01 U	0.01 U	2 U	50 U		2 U	0.1 U	0.02 U	
Cadmium (Cd), Dissolved	mg/L	Variable[c]			**0.000255**	**0.0535**		**0.159**	**0.0766**	**0.00417**	**0.00363**	**0.154**	**44.3**		**1**	**0.0707**	**0.00187**	
Calcium, Dissolved	mg/L	-			**25**	**527**		**90**	**212**	**122**	**80.2**	**422**	**387**		**423**	**231**	**370**	
Chromium (Cr), Dissolved	mg/L	0.0089			0.0001 U	0.002 U		0.0005 U	**0.0062**	0.0001 U	0.0001 U	0.02 U	**0.89**		0.02 U	0.001 U	0.0002 U	
Cobalt (Co), Dissolved	mg/L	-			0.0001 U	**0.525**		**0.351**	**0.235**	**0.00622**	**0.00584**	**1.92**	**18.2**		**5.59**	**0.214**	**0.0026**	
Iron, Dissolved	mg/L	0.3			0.03 U	**0.128**		**97.1**	**25.9**	0.03 U	0.03 U	**488**	**17000**		**21.5**	0.06 U	0.03 U	
Ferrous Iron, Dissolved (Fe2+)	mg/l	-			**0.034**	**0.108**		**107**	**18.2**	**0.032**	0.02 U	**445**	**12500**		**24.7**	0.02 U	**0.027**	
Lead (Pb), Dissolved	mg/L	0.001[e]			**0.00343**	**0.0084**		**0.288**	**0.595**	**0.00112**	**0.00121**	0.01 U	**5.13**		**0.055**	**0.00115**	**0.00118**	
Lithium, Dissolved	mg/L	-			**0.0019**	**0.051**		**0.0782**	**0.073**	**0.0316**	**0.048**	**0.22**	5 U		**0.25**	**0.263**	**0.0448**	
Magnesium, Dissolved	mg/L	-			**4.06**	**901**		**116**	**156**	**107**	**129**	**1300**	**1320**		**2650**	**435 J**	**398**	
Manganese, Dissolved	mg/L	-			**0.00854**	**51.4**		**6.69**	**7.41**	**0.21**	**0.204**	**130**	**667**		**335**	**10.7**	**0.0788**	
Mercury, Dissolved	mg/L	0.000026			**0.0000309**	**0.0000117**		**0.0000343**	**0.0000071**	0.000005 U	0.000005 U	**0.0000076**	**0.00234**		**0.0000073**	0.000005 U	0.000005 U	
Molybdenum (Mo), Dissolved	mg/L	0.073			**0.000666**	0.001 U		0.00025 U	0.0005 U	0.00005 U	**0.000319**	0.01 U	0.25 U		0.01 U	0.0005 U	**0.00096**	
Nickel (Ni), Dissolved	mg/L	0.025[f]			**0.0008**	**0.823**		**0.349**	**0.252**	**0.0405**	**0.0484**	**2.26**	**13.5**		**6.6**	**0.518**	**0.377**	
Phosphorus, Dissolved	mg/L	0.004 to 0.10[g]			0.3 U	0.6 U		0.3 U	0.3 U	0.3 U	0.3 U	0.9 U	**40**		3 U	0.6 U	0.3 U	
Potassium, Dissolved	mg/L	-			**0.946**	**10.6**		**3.8**	**4.93**	**4.23**	**6.63**	**17**	250 U		**15**	**14.1**	**7.54**	
Selenium (Se), Dissolved	mg/L	0.001			**0.000108**	**0.0064**		0.00025 U	0.0005 U	**0.000927**	**0.0006**	0.01 U	0.25 U		0.01 U	**0.0011**	**0.00192**	
Silica, Dissolved (Si)	mg/L	-			**12.6**	**14.1**		**15.6**	**21.1**	**13**	**2.1**	**17.4**	**121**		**58.6**	**6.91**	**9.04**	
Silicon, Dissolved (SiO_2)	mg/L	-			**5.87**	**6.6**		**7.29**	**9.88**	**6.06**	**0.98**	**8.14**	**56.3**		**27.4**	**3.23**	**4.22**	
Silver (Ag), Dissolved	mg/L	0.0001			0.00001 U	0.0002 U		**0.000112**	**0.00013**	0.00001 U	0.00001 U	0.002 U	0.05 U		0.002 U	0.0001 U	0.00002 U	
Sodium (Na), Dissolved	mg/L	-			**1.78**	**20.7**		**3.76**	**4.76**	**6.88**	**2.37**	**64**	250 U		**46**	**46.8**	**10.5**	
Strontium, Dissolved	mg/L	-			**0.0879**	**3.29**		**0.265**	**0.564**	**0.453**	**0.281**	**3.74**	1 U		**2.17**	**1.16**	**1.32**	
Sulfur, Dissolved	mg/L	-			**6.61**	**1600**		**308**	**445**	**178**	**168**	**2830**	**33100**		**4720**	**773 J**	**601**	
Thallium (Tl), Dissolved	mg/L	0.0008			**0.000064**	0.0002 U		**0.00171**	**0.00185**	**0.000057**	**0.000421**	**0.0027**	0.05 U		0.002 U	**0.00068**	**0.000283**	
Titanium, Dissolved	mg/L	0.1			0.0003 U	0.006 U		0.0015 U	0.003 U	0.0003 U	0.0003 U	0.06 U	1.5 U		0.06 U	0.003 U	0.0006 U	
Uranium (U), Dissolved	mg/L	0.015			**0.000439**	**0.00841**		**0.00298**	**0.00662**	**0.00378**	**0.00115**	**0.0133**	**2.14**		**0.0064**	**0.00113**	**0.0553**	
Vanadium (V), Dissolved	mg/L	-			0.0005 U	0.01 U		0.0025 U	0.005 U	0.0005 U	0.0005 U	0.1 U	2.5 U		0.1 U	0.005 U	0.001 U	
Zinc (Zn), Dissolved	mg/L	0.03			**0.0967**	**159**		**35.5**	**63.3**	**3.86**	**3.78**	**864**	**27700**		**1170**	**56.4**	**5.12**	
Conductivity, Field	mS/cm/ deg C		**0.77**	**0.174**	**0.121**	**6.391**	**0.111**	**1.522**	**2.097**	**1.23**	**1.295**	**9.762**	**47.68**	**0.867**	**8.977**	**3.927**	**3.471**	**3.791**
DO, Field	mg/L		**14.34**	**13.94**	**8.96**	**9.01**	**12.71**	**6.22**	**10.08**	**12.25**	**10.01**	**6.14**	**1.1**	**8.51**	**9.2**	**7.13**	**9.13**	**5.91**
ORP, Field	mV		**115.9**	**120.6**	**131**	**113.2**	**250.8**	**246.7**	**248.2**	**133.6**	**37.2**	**10.6**	**399.7**	**278.1**	**369.1**	**258.3**	**88**	**83.9**

Table 7. Seep Analytical Results

Faro Mine Remediation Project

		Location ID	SRK-GD05	SRK-GD06	SRK-GD07	SRK-GD08	SRK-GD10	SRK-GD11	SRK-GD12	SRK-GD13	SRK-GD20	SRK-GD24	SRK-VD01	SRK-VD02	SRK-VD03	SRK-VD04	SRK-VD05	SRK-VD06
		General Location																
		Date	5/22/2016	5/22/2016	5/21/2016	5/22/2016	5/21/2016	5/21/2016	5/21/2016	5/22/2016	5/20/2016	5/22/2016	5/21/2016	5/21/2016	5/21/2016	5/21/2016	5/21/2016	5/21/2016
Analyses ID	**Units**	**Screening Level**																
General Chemistry																		
pH, Field	pH Units	6.5 - 9.0	**7.74**	**7.66**	**6.64**	**8.11**	**7.76**	**6.62**	**7.61**	**7.46**	**6.86**	**6.13**	**5.05**	**5.79**	**5.49**	**3.5**	**4.19**	**5.61**
Temperature, Field	deg C	-	**5.2**	**3.65**	**7.62**	**0.35**	**2.03**	**2.45**	**2.09**	**3.36**	**8.24**	**12.56**	**4.94**	**12.3**	**6.49**	**11.76**	**11.51**	**5.73**
Hardness (as $CaCO_3$)	mg/L	-	**2690**		**986**			**1640**		**2560**		**2620**	**2820**	**3000**	**4340**	**21300**	**31400**	
Total Suspended Solids	mg/L	-	**25.1**		**46.1**			**1.5**		**6.2**		**98.6**	**628**	**30.9**	**30.6**	**268**	**65**	
Anions and Nutrients																		
Acidity, Hot Peroxide	mg/L	-	25 U		25 U			25 U		25 U		**47**	**177**	**410**	**2340**	**51100**	**41700**	
Alkalinity, Bicarbonate (as $CaCO_3$)	mg/L	-	**610**		**585**			**434**		**610**		**125**	**1.3**	**143**	**30.7**			
Alkalinity, Carbonate (as $CaCO_3$)	mg/L	-	1 U		1 U			1 U		1 U		1 U	1 U	1 U	1 U			
Alkalinity, Hydroxide (as $CaCO_3$)	mg/L	-	1 U		1 U			1 U		1 U		1 U	1 U	1 U	1 U			
Alkalinity, Total (as $CaCO_3$)	mg/L	-	**610**		**585**			**434**		**610**		**125**	**1.3**	**143**	**30.7**			
Ammonia	mg/L	Variable[a]	0.005 U		**0.849**			0.005 U		0.005 U		**1.07**	**0.0242**	**2.5**	**3.32**	**1.02**	**3.34**	
Chloride (Cl)	mg/L	120	10 U		2.5 U			5 U		10 U		10 U	10 U	10 U	10 U	25 U	25 U	
Fluoride	mg/L	0.12	0.4 U		0.1 U			0.2 U		0.4 U		0.4 U	0.4 U	0.4 U	**0.48**	**57.7**	**25.5**	
Nitrate (as N)	mg/L	13	**2.02**		**0.031**			**5.37**		**18.2**		**0.18**	0.1 U	0.1 U	0.1 U	0.25 U	0.25 U	
Nitrite (as N)	mg/L	0.06	0.02 U		0.005 U			0.01 U		0.02 U		**0.068**	0.02 U	0.02 U	0.02 U	0.05 U	0.05 U	
Phosphorus	mg/L		0.027		2 U			0.02 U		0.02 U		0.263	0.295	2 U	2 U	20 U	0.2 U	
Sulfate	mg/L	100	**1960**		**357**			**1150**		**1800**		**2590**	**2780**	**3460**	**5220**	**66200**	**56800 J**	
Dissolved Organic Carbon	mg/L	-	**2.99**		**7.19**			**2.7**		**5.54**		**2.98**	**0.74**	**3.12**	**4.49**	**47.6**	**27.5**	
Dissolved Metals																		
Aluminum, Dissolved	mg/L	0.005 to 0.1[b]	**0.0024**		**0.0038**			**0.0024**		**0.0021**		**0.201**	**0.379**	**0.213 J**	**0.44**	**1070**	**570**	
Antimony (Sb), Dissolved	mg/L	1.6	**0.00144**		0.0002 U			**0.00056**		**0.00033**		0.001 U	0.002 U	0.005 U	0.01 U	0.1 U	0.1 U	
Arsenic (As), Dissolved	mg/L	0.005	**0.00454**		**0.001**			**0.00102**		**0.00277**		**0.0017**	0.002 U	**0.0054**	**0.1**	**0.23**	**0.14**	
Barium (Ba), Dissolved	mg/L	2.3	**0.0137**		**0.2**			**0.0193**		**0.0273**		**0.0081**	**0.009**	**0.0117**	**0.013**	0.05 U	0.05 U	
Beryllium (Be), Dissolved	mg/L	0.0053	0.0002 U		0.0002 U			0.0001 U		0.0002 U		0.001 U	0.002 U	0.005 U	0.01 U	0.1 U	0.1 U	
Boron (B), Dissolved	mg/L	1.5	0.02 U		0.02 U			0.01 U		0.02 U		0.1 U	0.2 U	0.5 U	1 U	10 U	10 U	
Cadmium (Cd), Dissolved	mg/L	Variable[c]	**0.000401**		**0.000126**			**0.00345**		**0.000079**		**0.129**	**0.159**	**0.0874**	**0.193**	**9.73**	**4.84**	
Calcium, Dissolved	mg/L	-	**409**		**263**			**234**		**360**		**454**	**248**	**422**	**351**	**470**	**447**	
Chromium (Cr), Dissolved	mg/L	0.0089	0.0002 U		0.0002 U			0.0001 U		0.0002 U		0.001 U	0.002 U	0.005 U	0.01 U	0.1 U	0.1 U	
Cobalt (Co), Dissolved	mg/L	-	**0.00047**		**0.0273**			**0.00728**		**0.00049**		**0.586**	**0.3**	**1.52**	**3.28**	**24.7**	**16.9**	
Iron, Dissolved	mg/L	0.3	0.03 U		**7.33**			0.03 U		0.03 U		**11**	**0.16**	**142**	**370**	**14500**	**10300**	
Ferrous Iron, Dissolved (Fe2+)	mg/l	-	0.02 U		**7.81**			**0.021**		0.02 U		**1.1**	**0.169**	**160**	**387**	**15300**	**11100**	
Lead (Pb), Dissolved	mg/L	0.001[e]	**0.00073**		**0.00017**			**0.00557**		**0.00011**		**0.0155**	**0.301**	**0.0067**	**0.0525**	**0.496**	**2.52**	
Lithium, Dissolved	mg/L	-	**0.0392**		**0.0034**			**0.0242**		**0.0256**		**0.056**	**0.063**	**0.066**	**0.11**	**1.4**	**1.2**	
Magnesium, Dissolved	mg/L	-	**406**		**79.7**			**256**		**402**		**360**	**536**	**473**	**841**	**4880**	**7360**	
Manganese, Dissolved	mg/L	-	**0.00401**		**12**			**0.406**		**0.00198**		**23.9**	**26.4**	**86**	**194**	**3580**	**3570**	
Mercury, Dissolved	mg/L	0.000026	0.000005 U		0.000005 U			**0.0000059**		0.000005 U		**0.00018**	0.000005 U	**0.0000111**	0.000005 U	**0.0000081**	**0.0000161**	
Molybdenum (Mo), Dissolved	mg/L	0.073	**0.00085**		**0.00043**			**0.000475**		**0.0013**		0.0005 U	0.001 U	0.0025 U	0.005 U	0.05 U	0.05 U	
Nickel (Ni), Dissolved	mg/L	0.025[f]	**0.291**		**0.0237**			**0.207**		**0.126**		**0.549**	**0.85**	**2.75**	**4.75**	**16.1**	**15.9**	
Phosphorus, Dissolved	mg/L	0.004 to 0.10[g]	0.3 U		0.3 U			0.3 U		0.3 U		0.3 U	0.3 U	0.6 U	0.9 U	15 U	15 U	
Potassium, Dissolved	mg/L	-	**6.89**		**2.36**			**3.77**		**5.44**		**8.66**	**3.9**	**11.6**	**11.3**	50 U	50 U	
Selenium (Se), Dissolved	mg/L	0.001	**0.00036**		0.0001 U			**0.00081**		**0.00299**		0.0005 U	**0.0016**	0.0025 U	0.005 U	0.05 U	0.05 U	
Silica, Dissolved (Si)	mg/L	-	**10.5**		**16.6**			**7.07**		**10.6**		**10.9**	**6.5**	**12.6**	**17.6**	**30.4**	**21.5**	
Silicon, Dissolved (SiO_2)	mg/L	-	**4.92**		**7.76**			**3.3**		**4.94**		**5.11**	**3.04**	**5.87**	**8.22**	**14.2**	**10.1**	
Silver (Ag), Dissolved	mg/L	0.0001	0.00002 U		0.00002 U			0.00001 U		0.00002 U		0.0001 U	0.0002 U	0.0005 U	0.001 U	0.01 U	0.01 U	
Sodium (Na), Dissolved	mg/L	-	**13.4**		**3.95**			**4.92**		**8.85**		**63.8**	**1.8**	**7.8**	**8.9**	50 U	50 U	
Strontium, Dissolved	mg/L	-	**1.65**		**0.97**			**0.915**		**1.54**		**2.05**	**0.919**	**1.66**	**1.41**	**1.32**	**1.89**	
Sulfur, Dissolved	mg/L	-	**650**		**116**			**377**		**585**		**869**	**955**	**1140**	**1980**	**24900**	**24300**	
Thallium (Tl), Dissolved	mg/L	0.0008	**0.00036**		**0.000031**			**0.000521**		**0.00008**		**0.00509**	**0.00179**	**0.00229**	**0.003**	**0.011**	0.01 U	
Titanium, Dissolved	mg/L	0.1	0.0006 U		0.0006 U			0.0003 U		0.0006 U		0.003 U	0.006 U	0.015 U	0.03 U	0.3 U	0.3 U	
Uranium (U), Dissolved	mg/L	0.015	**0.0566**		**0.00949**			**0.0162**		**0.0665**		**0.0159**	**0.0015**	**0.00834**	**0.004**	**1.65**	**1.26**	
Vanadium (V), Dissolved	mg/L	-	0.001 U		0.001 U			0.0005 U		0.001 U		0.005 U	0.01 U	0.025 U	0.05 U	0.5 U	0.5 U	
Zinc (Zn), Dissolved	mg/L	0.03	**1.13**		**0.122**			**6.13**		**0.0899**		**93.5**	**106**	**220**	**599**	**11900**	**9540**	
Conductivity, Field	mS/cm/ deg C		**3.67**	**3.727**	**1.773**	**0.511**	**0.371**	**2.539**	**0.556**	**3.468**	**0.904**	**2.678**	**2.739**	**4.911**	**7.05**	**40.09**	**40.45**	**1.146**
DO, Field	mg/L		**10.03**	**10.62**	**8.13**	**11.63**	**10.25**	**4.66**	**11.32**	**10.97**	**9.6**	**4.22**	**7.79**	**2.31**	**1.45**	**0.98**	**4.14**	**6.47**
ORP, Field	mV		**181.9**	**186.6**	**71.1**	**128.9**	**73.4**	**188.8**	**66.3**	**64**	**236**	**144.1**	**335.3**	**107.3**	**88.5**	**249.6**	**191.1**	**137.7**

Table 7. Seep Analytical Results

Faro Mine Remediation Project

		Location ID	SRK-VD07	SRK-VD09	SRK-VD10	SRK-VD12	Sweet Creek	V15	VP07	VP08	VP09	VP10	VP11	WGD01	WTA02	X23
		General Location														
		Date	5/21/2016	5/21/2016	5/21/2016	5/21/2016	5/22/2016	5/22/2016	5/21/2016	5/21/2016	5/21/2016	5/21/2016	5/21/2016	5/22/2016	5/22/2016	5/18/2016
Analyses ID	**Units**	**Screening Level**														
General Chemistry																
pH, Field	pH Units	6.5 - 9.0	**1.87**	**2.94**	**4.84**	**2.76**	**8.1**	**7.21**	**5.68**	**5.12**	**4.73**	**2.03**	**2.96**	**7.84**	**8.21**	**6.77**
Temperature, Field	deg C	-	**17.37**	**13.37**	**6.79**	**13.81**	**4.72**	**4.15**	**5.23**	**3.91**	**3.99**	**6.02**	**3.78**	**7.32**	**14.12**	**11.18**
Hardness (as $CaCO_3$)	mg/L	-		**2600**	**9060**	**1360**	**2060**				**1180**			**1030**	**269**	**6510**
Total Suspended Solids	mg/L	-		**7.8**	**90.2**	**3.6**	**2**				**186**			**6.2**	**53.9**	**137**
Anions and Nutrients																
Acidity, Hot Peroxide	mg/L	-		**1760**	**6880**	**709**					**6440**			25 U		**2200**
Alkalinity, Bicarbonate (as $CaCO_3$)	mg/L	-			1 U		**482**				1 U			**284**	**218**	1 U
Alkalinity, Carbonate (as $CaCO_3$)	mg/L	-			1 U		1 U				1 U			1 U	**5.2**	1 U
Alkalinity, Hydroxide (as $CaCO_3$)	mg/L	-			1 U		1 U				1 U			1 U	1 U	1 U
Alkalinity, Total (as $CaCO_3$)	mg/L	-			1 U		**482**				1 U			**284**	**224**	1 U
Ammonia	mg/L	Variable[a]		0.005 U	**6.59**	0.005 U	0.005 U				**0.105**			**0.005**	0.005 U	**0.728**
Chloride (Cl)	mg/L	120		10 U	25 U	5 U	5 U				10 U			2.5 U	0.5 U	**12**
Fluoride	mg/L	0.12		**3.13**	**2.4**	**1**	0.2 U				**1.41**			0.1 U	**0.048**	**0.59**
Nitrate (as N)	mg/L	13		0.1 U	0.25 U	**0.293**	**1.47**				0.1 U			**6.17**	**0.007**	**3.46**
Nitrite (as N)	mg/L	0.06		0.02 U	0.05 U	0.01 U	0.01 U				0.02 U			0.005 U	0.001 U	**0.043**
Phosphorus	mg/L			2 U	20 U	2 U	0.02 U				2 U			0.02 U	0.022	2 U
Sulfate	mg/L	100		**3800**	**15300**	**1840**	**1330**				**3840**			**689**	**34.7**	**8840**
Dissolved Organic Carbon	mg/L	-		**2.03**	**15.1**	**1.04**	**2.72**				**2.37**			**3.33**	**2.42**	**7.15**
Dissolved Metals																
Aluminum, Dissolved	mg/L	0.005 to 0.1[b]		**82.4**	**13.3**	**18.8**	**0.0026**				**12.4**			**0.0044**	**0.0033**	0.1 U
Antimony (Sb), Dissolved	mg/L	1.6		0.005 U	0.02 U	0.005 U	**0.00025**				0.01 U			**0.00014**	**0.00013**	0.01 U
Arsenic (As), Dissolved	mg/L	0.005		**0.0242**	**0.053**	**0.0123**	**0.00031**				**0.099**			**0.00021**	**0.00019**	0.01 U
Barium (Ba), Dissolved	mg/L	2.3		**0.0155**	**0.016**	**0.0178**	**0.0311**				0.005 U			**0.0665**	**0.102**	**0.0165**
Beryllium (Be), Dissolved	mg/L	0.0053		**0.0123**	0.02 U	0.005 U	0.0002 U				0.01 U			0.0001 U	0.0001 U	0.01 U
Boron (B), Dissolved	mg/L	1.5		0.5 U	2 U	0.5 U	0.02 U				1 U			0.01 U	0.01 U	1 U
Cadmium (Cd), Dissolved	mg/L	Variable[c]		**0.471**	**0.109**	**0.184**	**0.000012**				**0.663**			**0.0000189**	**0.0000072**	**0.158**
Calcium, Dissolved	mg/L	-		**399**	**408**	**104**	**386**				**158**			**262**	**91.1**	**424**
Chromium (Cr), Dissolved	mg/L	0.0089		0.005 U	0.02 U	**0.0106**	0.0002 U				0.01 U			0.0001 U	0.0001 U	0.01 U
Cobalt (Co), Dissolved	mg/L	-		**1.73**	**7.16**	**1.05**	0.0002 U				**2.48**			0.0001 U	0.0001 U	**2.04**
Iron, Dissolved	mg/L	0.3		**272**	**1930**	**16.2**	0.03 U				**1160**			0.03 U	0.03 U	**472**
Ferrous Iron, Dissolved (Fe2+)	mg/l	-		**246**	**2120**	**5.93**	0.02 U				**1280**			0.02 U	0.02 U	**401**
Lead (Pb), Dissolved	mg/L	0.001[e]		**0.982**	**0.022**	**0.129**	**0.00047**				**1.36**			**0.000119**	**0.000184**	0.005 U
Lithium, Dissolved	mg/L	-		**0.222**	0.2 U	**0.061**	**0.0162**				0.1 U			**0.0089**	**0.0013**	**0.24**
Magnesium, Dissolved	mg/L	-		**388**	**1950**	**268**	**266**				**192**			**91.4**	**10**	**1320**
Manganese, Dissolved	mg/L	-		**70.4**	**747**	**56.2**	**0.00102**				**180**			**0.00012**	**0.00223**	**138**
Mercury, Dissolved	mg/L	0.000026		**0.0000259**	**0.0000115**	0.000005 U	0.000005 U				**0.0000094**			0.000005 U	0.000005 U	**0.0000055**
Molybdenum (Mo), Dissolved	mg/L	0.073		0.0025 U	0.01 U	0.0025 U	**0.00097**				0.005 U			**0.00051**	**0.000801**	0.005 U
Nickel (Ni), Dissolved	mg/L	0.025[f]		**2.24**	**4.38**	**1.8**	**0.0056**				**0.889**			**0.00092**	0.0005 U	**2.37**
Phosphorus, Dissolved	mg/L	0.004 to 0.10[g]		0.6 U	3 U	0.3 U	0.3 U				0.6 U			0.3 U	0.3 U	0.9 U
Potassium, Dissolved	mg/L	-		2.5 U	**15**	**2.5**	**3.45**				5 U			**1.31**	**0.495**	**15.9**
Selenium (Se), Dissolved	mg/L	0.001		0.0025 U	0.01 U	**0.003**	**0.00063**				0.005 U			**0.00191**	**0.000885**	0.005 U
Silica, Dissolved (Si)	mg/L	-		**48.1**	**26.5**	**14.1**	**12.5**				**29**			**10.3**	**9.36**	**16.5**
Silicon, Dissolved (SiO_2)	mg/L	-		**22.5**	**12.4**	**6.61**	**5.85**				**13.6**			**4.83**	**4.37**	**7.72**
Silver (Ag), Dissolved	mg/L	0.0001		**0.00053**	0.002 U	0.0005 U	0.00002 U				0.001 U			0.00001 U	0.00001 U	0.001 U
Sodium (Na), Dissolved	mg/L	-		2.5 U	**14**	2.5 U	**11.7**				5 U			**4.67**	**1.57**	**125**
Strontium, Dissolved	mg/L	-		**1.06**	**1.74**	**0.323**	**1.28**				**0.324**			**1.03**	**0.299**	**3.95**
Sulfur, Dissolved	mg/L	-		**1390**	**5320**	**658**	**485**				**1380**			**230**	**11.9**	**2910**
Thallium (Tl), Dissolved	mg/L	0.0008		**0.00312**	**0.0041**	0.0005 U	0.00002 U				**0.0088**			0.00001 U	0.00001 U	**0.0024**
Titanium, Dissolved	mg/L	0.1		0.015 U	0.06 U	0.015 U	0.0006 U				0.03 U			0.0003 U	0.0003 U	0.03 U
Uranium (U), Dissolved	mg/L	0.015		**0.103**	**0.0085**	**0.0284**	**0.0376**				**0.0147**			**0.0146**	**0.00232**	**0.0103**
Vanadium (V), Dissolved	mg/L	-		0.025 U	0.1 U	0.025 U	0.001 U				0.05 U			0.0005 U	0.0005 U	0.05 U
Zinc (Zn), Dissolved	mg/L	0.03		**364**	**1400**	**232**	**0.0032**				**422**			**0.0052**	**0.0045**	**918**
Conductivity, Field	mS/cm/ deg C		**6.945**	**5.164**	**14.5**	**3.539**	**2.731**	**3.408**	**1.994**	**2.027**	**5.219**	**18.81**	**6.704**	**1.62**	**0.442**	**9.788**
DO, Field	mg/L		**7.05**	**4.92**	**1.05**	**14.63**	**10.93**	**11.11**	**9.5**	**11.24**	**4.43**	**7**	**5.8**	**9.58**	**8.55**	**8.65**
ORP, Field	mV		**553.5**	**402.3**	**105**	**412.3**	**143.7**	**172.9**	**103.1**	**112.8**	**166**	**491.7**	**384.2**	**129.3**	**86.4**	**-59.7**

Table 7. Seep Analytical Results

Faro Mine Remediation Project

Notes:

Bold indicates the analyte was detected

Concentration exceeds FIGQG

Detection limit exceeds FIGQG

pH reported is the field parameter value.

J = Analyte was present but the reported value may not be accurate or precise.

R = Result has been rejected for use.

U = Analyte was analyzed for but not detected at the specified detection limit.

UJ = Analyte was not detected above the detection limit; however, the reported detection limit is approximate and may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

[a] CCME guideline is pH and temperature dependent;p guidelines used here assume 5°C typical laboratory storage temperature.

[b] CCME guideline is pH dependent; 0.005 mg/L if pH < 6.5; 0.1 mg/L if pH ≥ 6.5.

[c] CCME guideline is hardness dependent; if hardness is > 0 to < 17 mg/L, the CWQG is 0.04 µg/L; at hardness > 280 mg/L, the CWQG is 0.37 µg/L; at hardness ≥ 17 to ≤ 280 mg/L cadmium concentration = $10^{0.83[\log10(\text{hardness})]-2.46}$/1000 mg/L.

[d] CCME guideline is hardness dependent; if hardness is 0 to < 82 mg/L, the CWQG is 2 µg/L; at hardness >180 mg/L, the CWQG is 4 µg/L; at hardness ≥82 to ≤180 mg/L the CWQG= $e^{0.8545[\ln(\text{hardness})]-1.465} * 0.2$ /1000 mg/L.

[e] CCME guideline is hardness dependent; 0 to ≤ 60 mg/L, the CWQG is 1 µg/L; at hardness >180 mg/L, the CWQG is 7 µg/L; at hardness >60 to ≤ 180 mg/L the CWQG = $e^{1.273[\ln(\text{hardness})]-4.705}$ /1000 mg/L.

[f] CCME guideline is hardness dependent; at hardness is 0 to ≤ 60 mg/L, the CWQG is 25 µg/L; at hardness >180 mg/L, the CWQG is 150 µg/L; at hardness > 60 to ≤ 180 mg/L the CWQG is = $e^{0.76[\ln(\text{hardness})]+1.06}$ /1000 mg/L.

[g] CCME trigger range for oligotrophic phosphorous.

Table 8. Faro Pit Analytical Results

Faro Mine Remediation Project

		Location ID	CH13-016-FAROPL	CH13-016-FAROPL	CH13-016-FAROPL	CH13-016-FAROPL
		Depth (m)	10	50	70	90
		Date	3/3/2016	3/3/2016	3/3/2016	3/3/2016
Analyses ID	**Units**	**Screening Level**				
General Chemistry						
pH, Field	pH Units	6.5 - 9.0	**5.84**	**6.01**	**6.05**	**6.07**
Temperature, Field	deg C	-	**3.45**	**3.42**	**3.42**	**3.43**
Hardness (as $CaCO_3$)	mg/L	-	**891**	**873**	**909**	**882**
Total Suspended Solids	mg/L	-	1 U	**1.2**	**1 J**	1 U
Anions and Nutrients						
Acidity, Hot Peroxide	mg/L	-	25 U	25 U	25 U	25 U
Alkalinity, Bicarbonate (as $CaCO_3$)	mg/L	-	**61.9**	**63.7**	**63.1**	**63**
Alkalinity, Carbonate (as $CaCO_3$)	mg/L	-	1 U	1 U	1 U	1 U
Alkalinity, Hydroxide (as $CaCO_3$)	mg/L	-	1 U	1 U	1 U	1 U
Alkalinity, Total (as $CaCO_3$)	mg/L	-	**61.9**	**63.7**	**63.1**	**63**
Ammonia	mg/L	Variable[a]	**1.37**	**1.38**	**1.4**	**1.39**
Chloride (Cl)	mg/L	120	**1.3**	2.5 U	2.5 U	2.5 U
Fluoride	mg/L	0.12	**0.467**	**0.54**	**0.55**	**0.54**
Nitrate (as N)	mg/L	13	**0.152**	**0.152**	**0.158**	**0.154**
Nitrite (as N)	mg/L	0.06	**0.0025**	0.005 U	0.005 U	0.005 U
Phosphorus	mg/L		0.3 U	0.3 U	0.3 U	0.3 U
Sulfate	mg/L	100	**902**	**931**	**940**	**935**
Dissolved Organic Carbon	mg/L	-	**1.92**	**1.78**	**1.87**	**1.83**
Dissolved Metals						
Aluminum, Dissolved	mg/L	0.005 to 0.1[b]	**0.0072**	**0.0091**	**0.0095**	**0.0123**
Antimony (Sb), Dissolved	mg/L	1.6	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Arsenic (As), Dissolved	mg/L	0.005	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Barium (Ba), Dissolved	mg/L	2.3	**0.0126**	**0.0126**	**0.0124**	**0.0121**
Beryllium (Be), Dissolved	mg/L	0.0053	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Boron (B), Dissolved	mg/L	1.5	0.05 U	0.05 U	0.05 U	0.05 U
Cadmium (Cd), Dissolved	mg/L	Variable[c]	**0.0117**	**0.0128**	**0.0123**	**0.0116**
Calcium, Dissolved	mg/L	-	**198**	**193**	**197**	**195**
Chromium (Cr), Dissolved	mg/L	0.0089	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Cobalt (Co), Dissolved	mg/L	-	**0.0873**	**0.0895**	**0.0877**	**0.0855**
Iron, Dissolved	mg/L	0.3	**0.589**	**0.732**	**0.873**	**0.863**
Ferrous Iron, Dissolved (Fe2+)	mg/l	-	**0.696**	**0.803**	**0.867**	**0.896**
Lead (Pb), Dissolved	mg/L	0.001[e]	0.00025 U	0.00025 U	0.00025 U	0.00025 U
Lithium, Dissolved	mg/L	-	**0.067**	**0.0654**	**0.0672**	**0.0638**
Magnesium, Dissolved	mg/L	-	**96.5**	**94.9**	**101**	**96**
Manganese, Dissolved	mg/L	-	**7.59**	**7.68**	**7.44**	**7.37**
Mercury, Dissolved	mg/L	0.000026	0.000005 U	0.000005 U	0.000005 U	0.000005 U
Molybdenum (Mo), Dissolved	mg/L	0.073	0.00025 U	0.00025 U	0.00025 U	0.00025 U
Nickel (Ni), Dissolved	mg/L	0.025[f]	**0.161**	**0.165**	**0.159**	**0.158**
Phosphorus, Dissolved	mg/L	0.004 to 0.10[g]	0.3 U	0.3 U	0.3 U	0.3 U
Potassium, Dissolved	mg/L	-	**10.8**	**10.8**	**10.2**	**10.3**

Table 8. Faro Pit Analytical Results

Faro Mine Remediation Project

		Location ID	CH13-016-FAROPL	CH13-016-FAROPL	CH13-016-FAROPL	CH13-016-FAROPL
		Depth (m)	10	50	70	90
		Date	3/3/2016	3/3/2016	3/3/2016	3/3/2016
Analyses ID	**Units**	**Screening Level**				
Selenium (Se), Dissolved	mg/L	0.001	0.00025 U	0.00025 U	0.00025 U	0.00025 U
Silica, Dissolved (Si)	mg/L	-	**7.33**	**6.99**	**7.46**	**7.05**
Silicon, Dissolved (SiO_2)	mg/L	-	**3.43**	**3.27**	**3.49**	**3.29**
Silver (Ag), Dissolved	mg/L	0.0001	0.00005 U	0.00005 U	0.00005 U	0.00005 U
Sodium (Na), Dissolved	mg/L	-	**23**	**23.3**	**22.2**	**22.1**
Strontium, Dissolved	mg/L	-	**0.791**	**0.799**	**0.806**	**0.774**
Sulfur, Dissolved	mg/L	-	**290**	**287**	**301**	**287**
Thallium (Tl), Dissolved	mg/L	0.0008	**0.000557**	**0.000568**	**0.000551**	**0.000542**
Titanium, Dissolved	mg/L	0.1	0.0015 U	0.0015 U	0.0015 U	0.0015 U
Uranium (U), Dissolved	mg/L	0.015	**0.000394**	**0.000444**	**0.000419**	**0.000439**
Vanadium (V), Dissolved	mg/L	-	0.0025 U	0.0025 U	0.0025 U	0.0025 U
Zinc (Zn), Dissolved	mg/L	0.03	**25.7**	**26.2**	**26.2**	**25**
Conductivity, Field	mS/cm/deg C		**1.64**	**1.644**	**1.6453**	**1.646**
DO, Field	mg/L		**4.91**	**4.23**	**4.15**	**4.08**
ORP, Field	mV		**180**	**148.3**	**141.7**	**137.6**

Notes:

Bold indicates the analyte was detected

Concentration exceeds FIGQG

Detection limit exceeds FIGQG

pH reported is the field parameter value.

J = Analyte was present but the reported value may not be accurate or precise.

R = Result has been rejected for use.

U = Analyte was analyzed for but not detected at the specified detection limit.

UJ = Analyte was not detected above the detection limit; however, the reported detection limit is approximate and may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

[a] CCME guideline is pH and temperature dependent; guidelines used here assume 5°C typical laboratory storage temperature.

[b] CCME guideline is pH dependent; 0.005 mg/L if pH < 6.5; 0.1 mg/L if pH ≥ 6.5.

[c] CCME guideline is hardness dependent; if hardness is > 0 to < 17 mg/L, the CWQG is 0.04 µg/L; at hardness > 280 mg/L, the CWQG is 0.37 µg/L; at hardness ≥ 17 to ≤ 280 mg/L cadmium concentration = $10^{0.83[\log10(\text{hardness})]-2.46}$/1000 mg/L.

[d]CCME guideline is hardness dependent; if hardness is 0 to < 82 mg/L, the CWQG is 2 µg/L; at hardness >180 mg/L, the CWQG is 4 µg/L; at hardness ≥82 to ≤180 mg/L the CWQG= $e^{0.8545[\ln(\text{hardness})]-1.465} * 0.2$ /1000 mg/L.

[e] CCME guideline is hardness dependent; 0 to ≤ 60 mg/L, the CWQG is 1 µg/L; at hardness >180 mg/L, the CWQG is 7 µg/L; at hardness >60 to ≤ 180 mg/L the CWQG = $e^{1.273[\ln(\text{hardness})]-4.705}$ /1000 mg/L

[f]CCME guideline is hardness dependent; at hardness is 0 to ≤ 60 mg/L, the CWQG is 25 µg/L; at hardness >180 mg/L, the CWQG is 150 µg/L; at hardness > 60 to ≤ 180 mg/L the CWQG is = $e^{0.76[\ln(\text{hardness})]+1.06}$ /1000 mg/L.

[g] CCME trigger range for oligotrophic phosphorous.

Figures

VICINITY MAP



- Monitoring Well
- Thermistor Port
- Seep
- Stream
- Reservoir, Lake, or Pond
- Waste Rock Dump

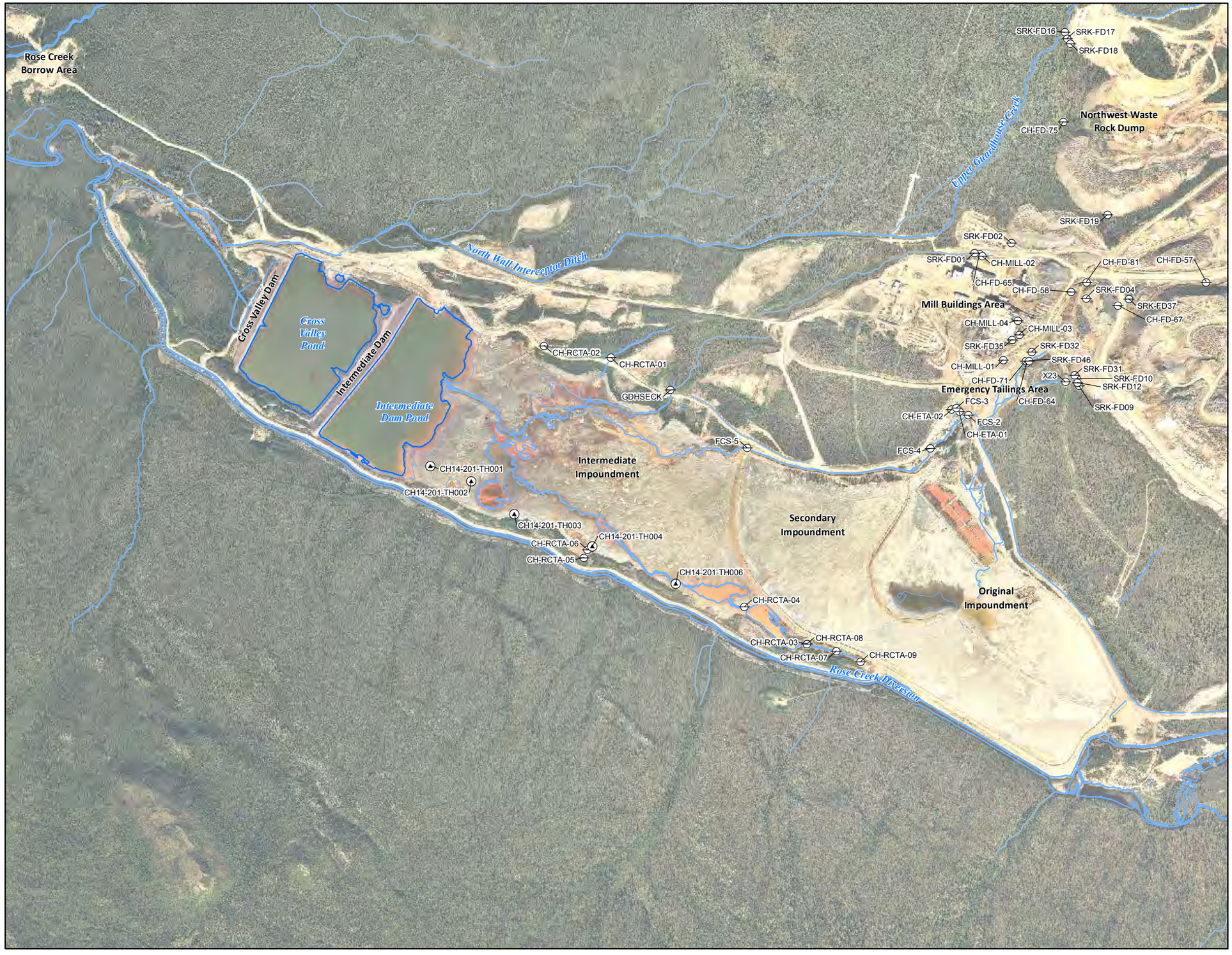
Notes:
1. Aerial photography acquired by Peregrine Aerial Surveyors Inc. and Eagle Mapping in August 2012.
2. Orthophotography prepared by Critigen Canada Corp.

N

0 125 250 375 500
Metres

Figure 1
Faro Mine Area Monitoring Locations
Faro Mine Remediation Project

\\WATERLOO\GIS\PROJECTS\FARO\GIS\MAPFILES\2016_FY_SITEWIDEMONITORING\FAROMINEAREA_MONITORINGLOCATIONS.MXD SLAW3 7/13/2016 6:33:49 PM



VICINITY MAP



- Thermistor Port
- Seep
- Stream
- Reservoir, Lake, or Pond

Notes:
1. Aerial photography acquired by Peregrine Aerial Surveyors Inc. and Eagle Mapping in August 2012.
2. Orthophotography prepared by Critigen Canada Corp.

N

0 125 250 375 500
Metres

Figure 2
Rose Creek Tailings Area Monitoring Locations
Faro Mine Remediation Project

\\WATERLOO\GIS\PROJECTS\FARO\GIS\MAPFILES\2016_FY_SITEWIDEMONITORING\RCTA_MONITORINGLOCATIONS.MXD SLAW3 7/13/2016 7:08:53 PM

ch2m



VICINITY MAP



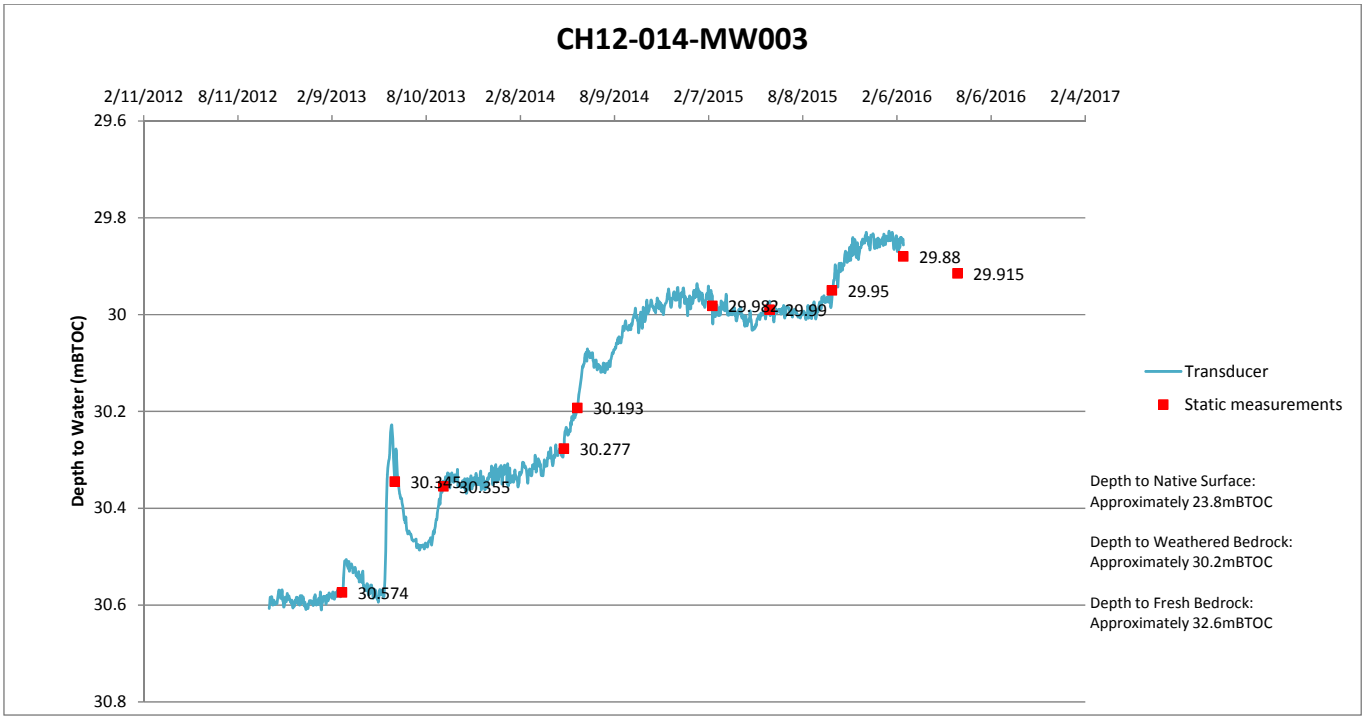
- Seep
- Stream
- Reservoir, Lake, or Pond
- Waste Rock Dump

Notes:
1. Aerial photography acquired by Peregrine Aerial Surveyors Inc. and Eagle Mapping in August 2012.
2. Orthophotography prepared by Critigen Canada Corp.

N

0 125 250 375 500
Metres

Figure 3
Vangorda Grum Mine Area Monitoring Locations
Faro Mine Remediation Project



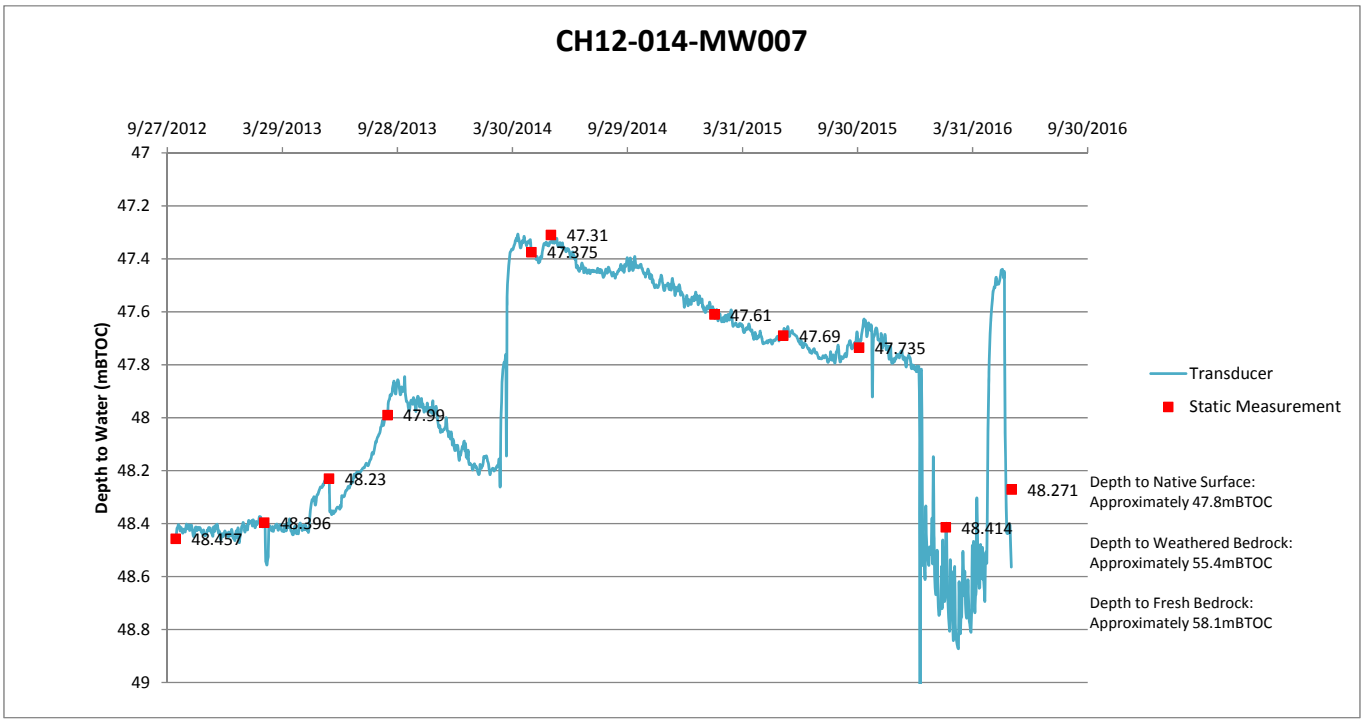
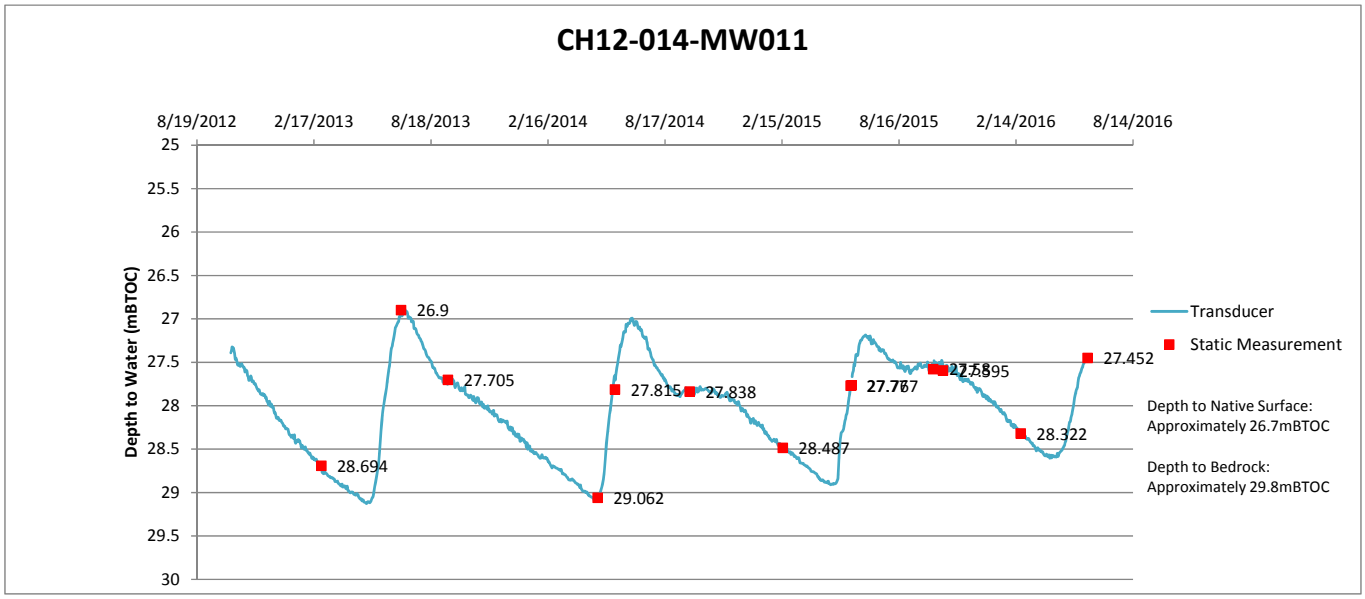


FIGURE 4a
Water Levels
Faro Mine Remediation Project



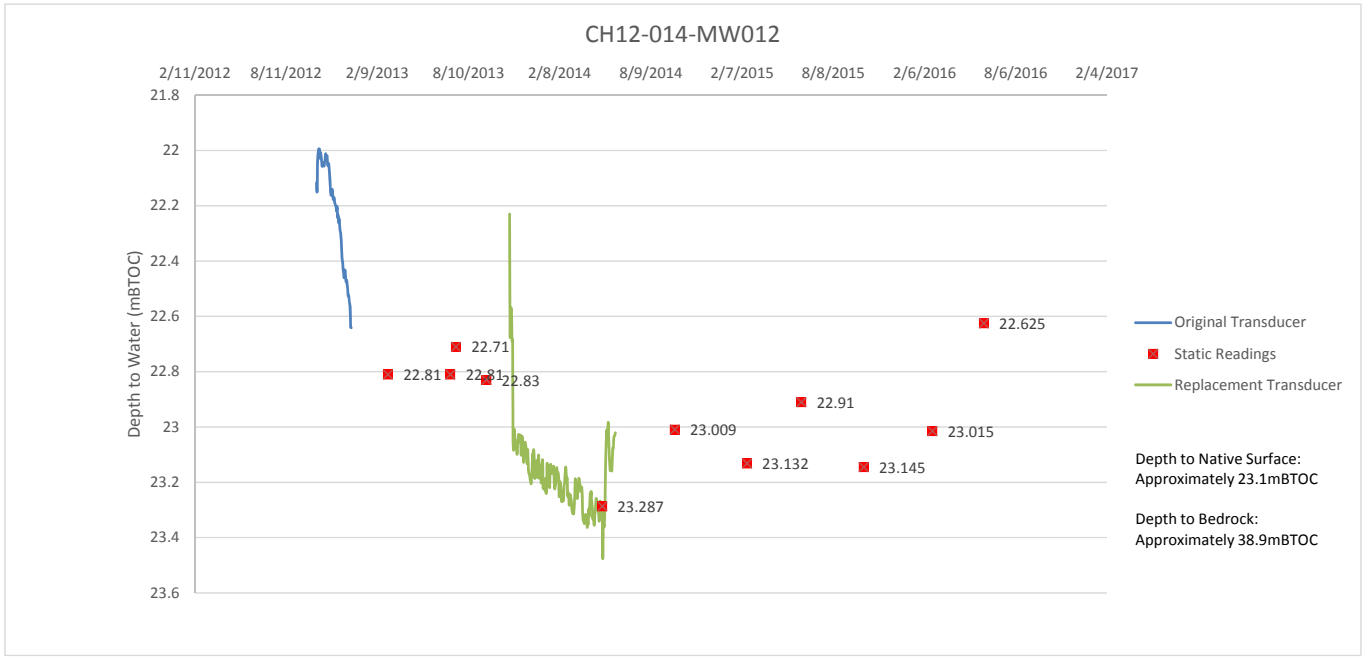
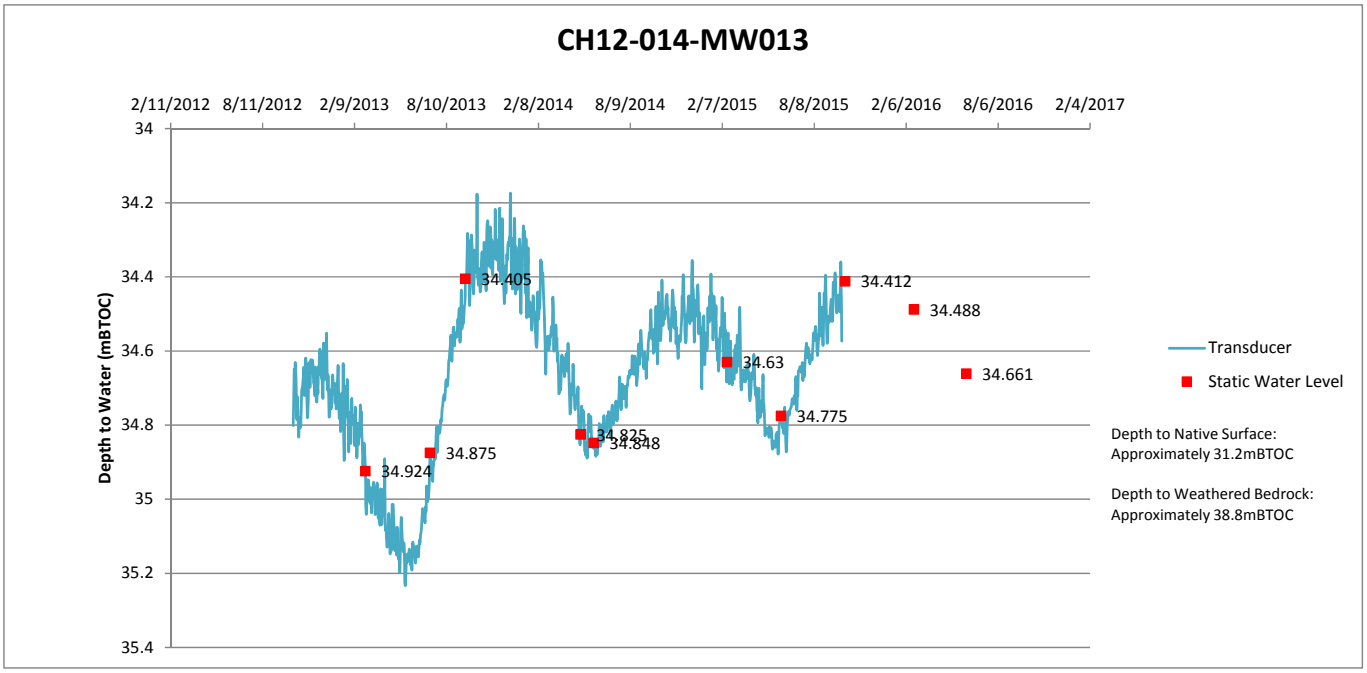


FIGURE 4b
Water Levels
Faro Mine Remediation Project



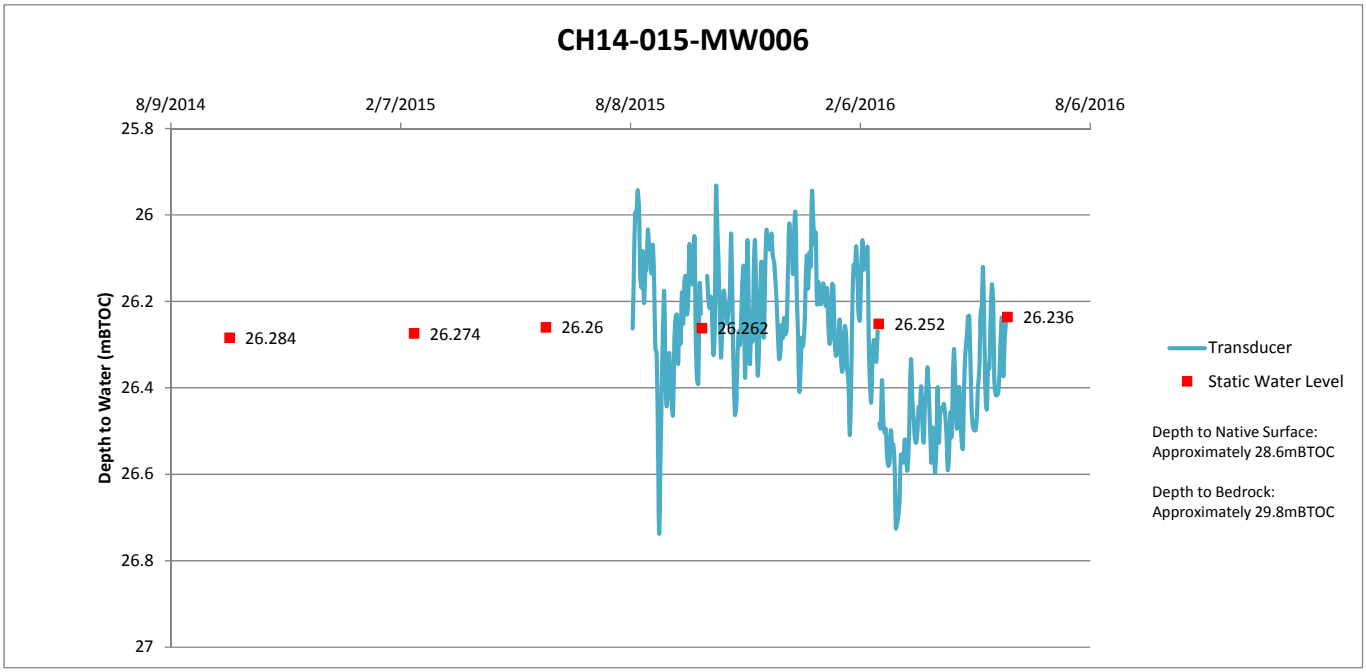


FIGURE 4c
Water Levels
Faro Mine Remediation Project

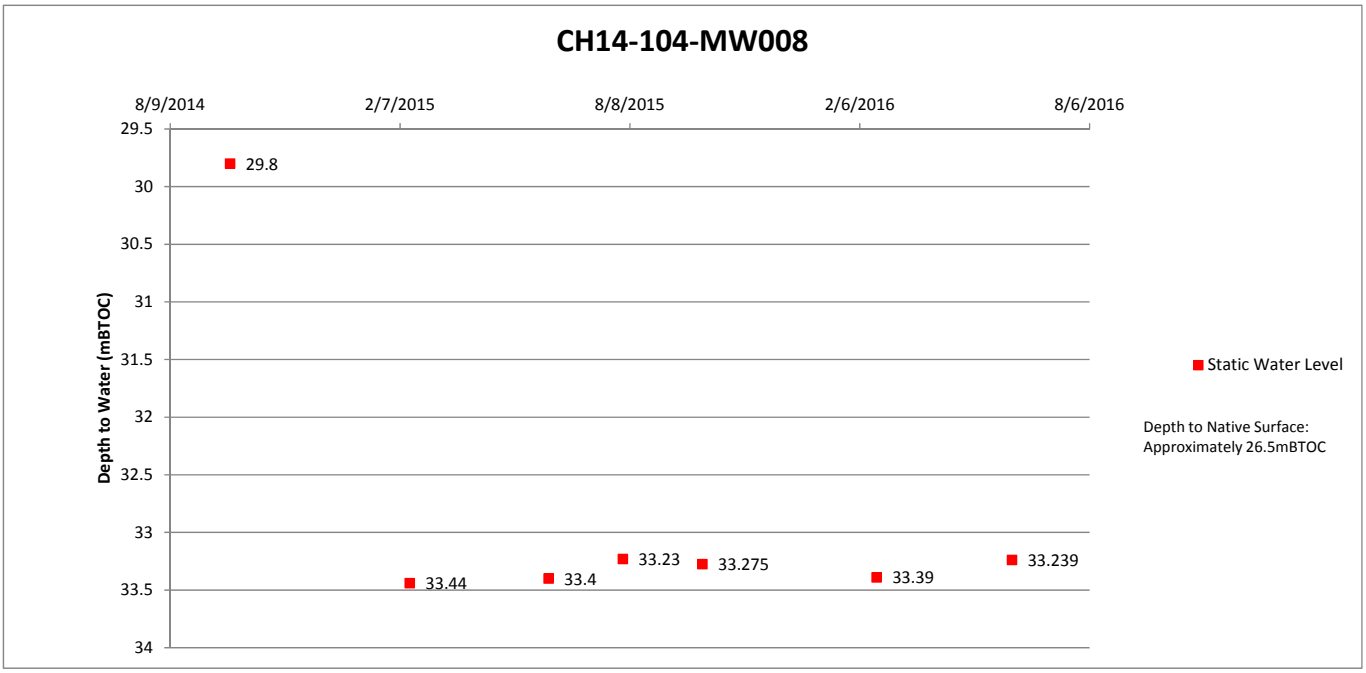


FIGURE 4d
Water Levels
Faro Mine Remediation Project

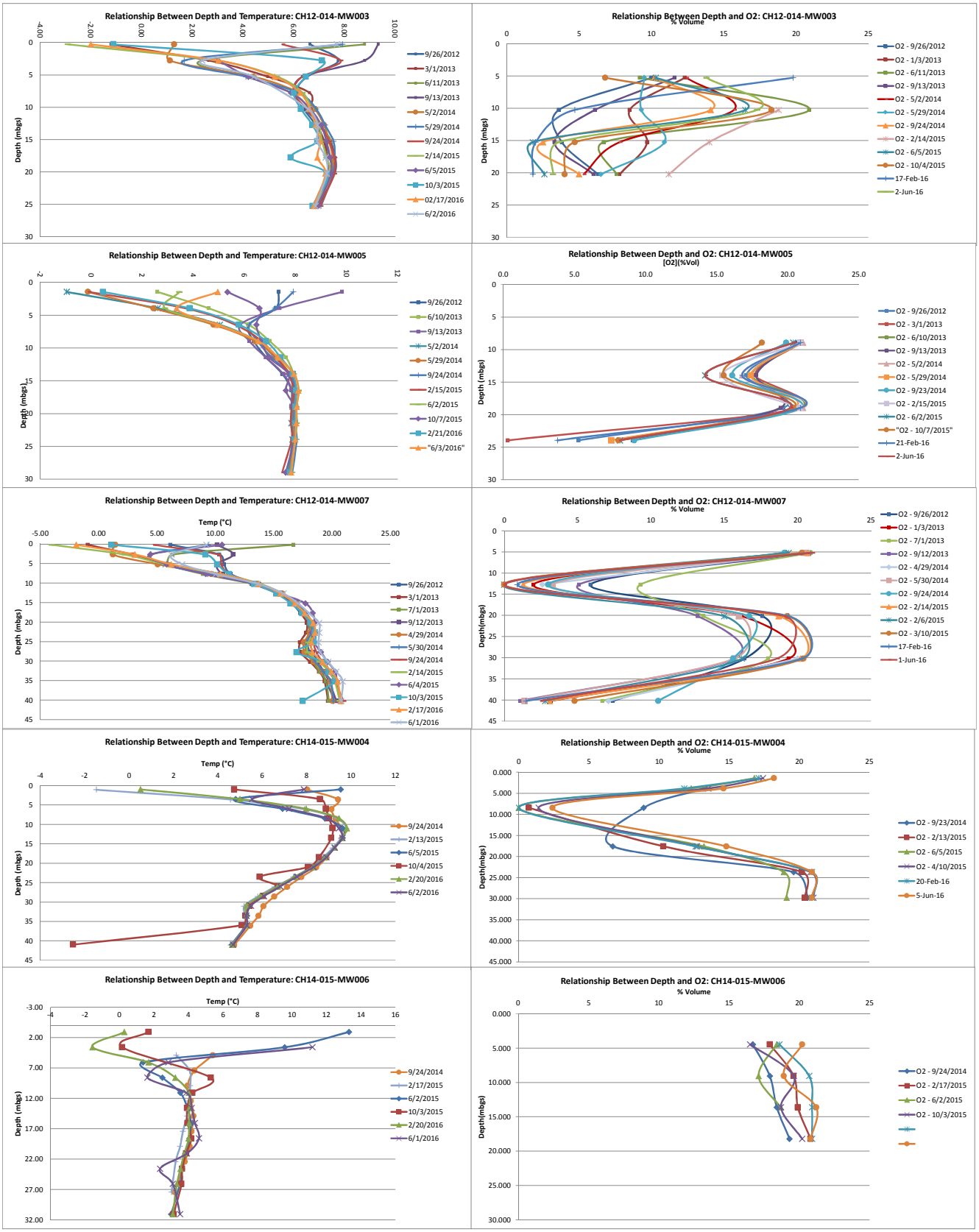


FIGURE 5a
Waste Rock Dump Temperature
Faro Mine Remediation Project

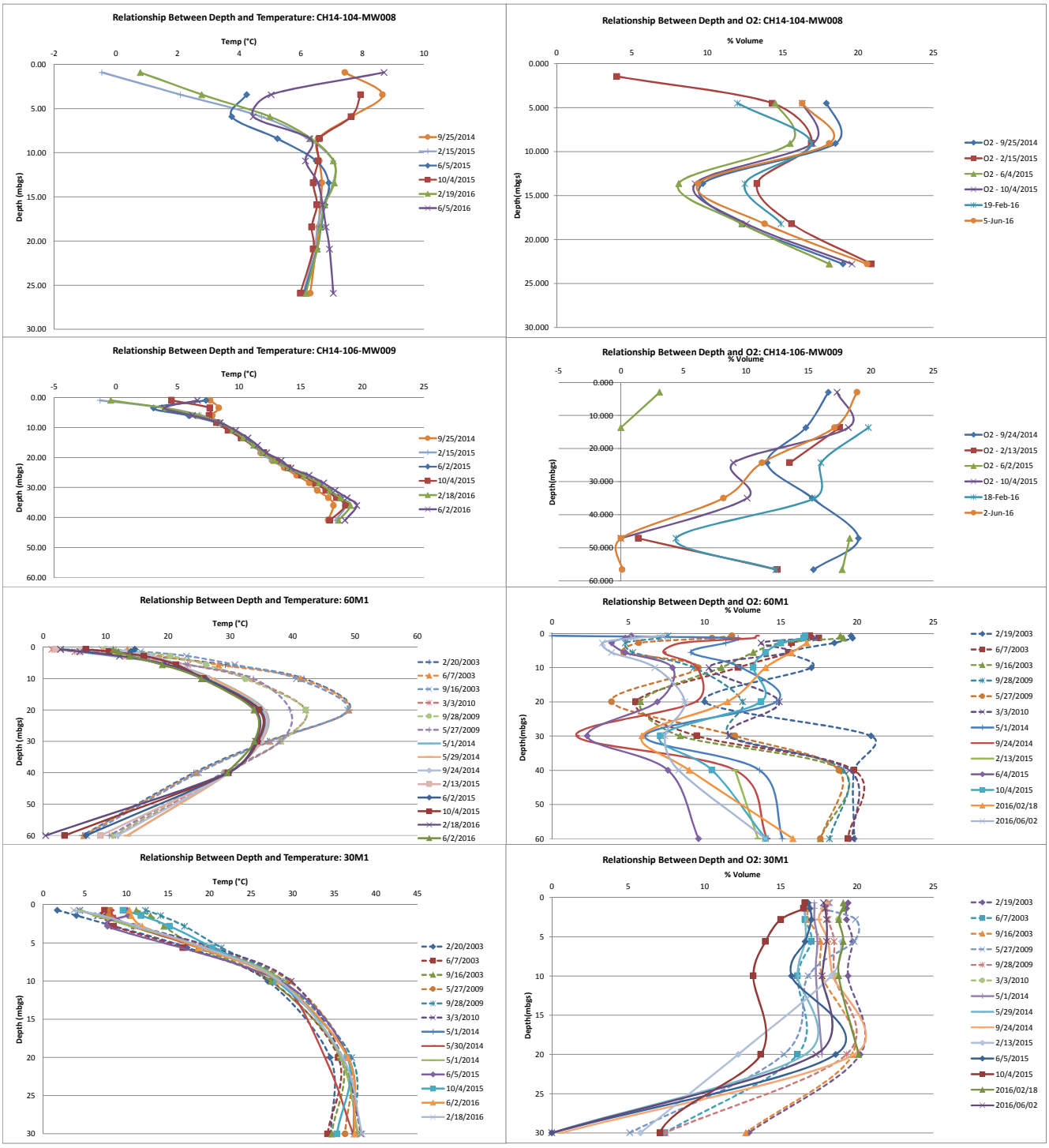


FIGURE 5b
Waste Rock Dump Temperature and Pore Gas Profiles
Faro Mine Remediation Project

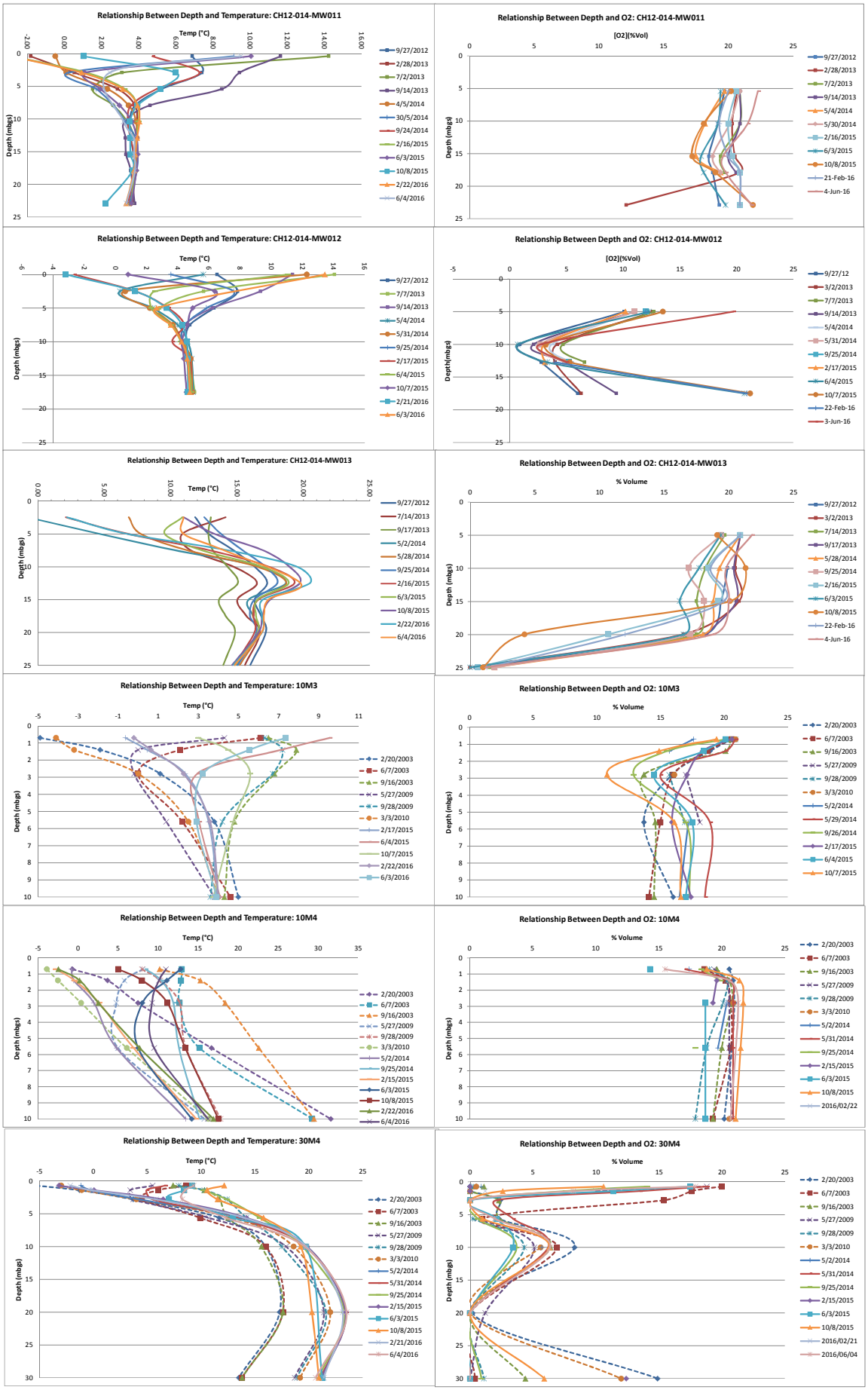
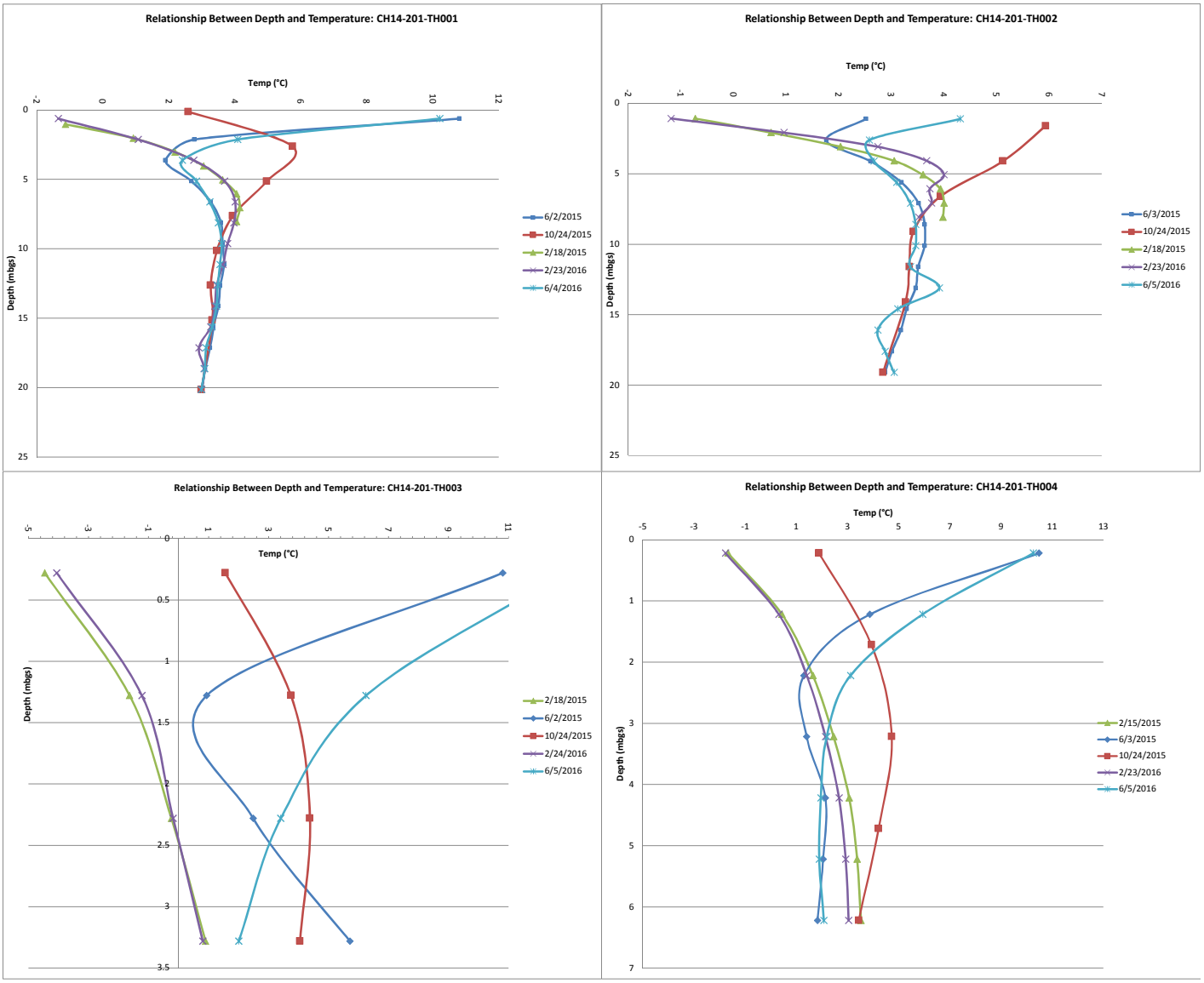


FIGURE 6
Waste Rock Dump Gas Temperature Grum Vangorda
Faro Mine Remediation Project



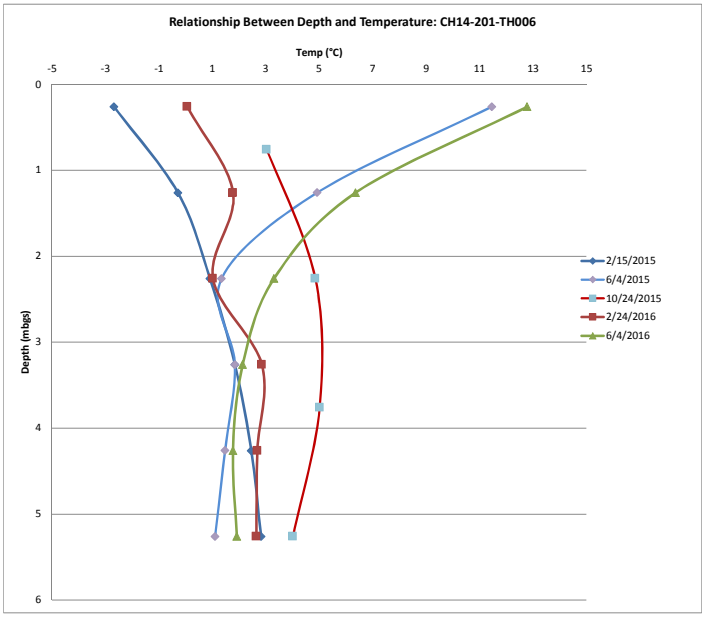


FIGURE 7
Rose Creek Tailings Area Temperature
Faro Mine Remediation Project

Attachment 1
Photologs

2016-02-19 14:38:45

Field Team A. Campbell

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
583526.0	6914974.0	6.0

Looking east from Northwest WRD.



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/_2016-02-19_143845.jpg

2016-02-19 14:39:18

Field Team A. Campbell

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
583526.0	6914974.0	6.0

Looking at Main and Intermediate WRDs from Northwest WRD.



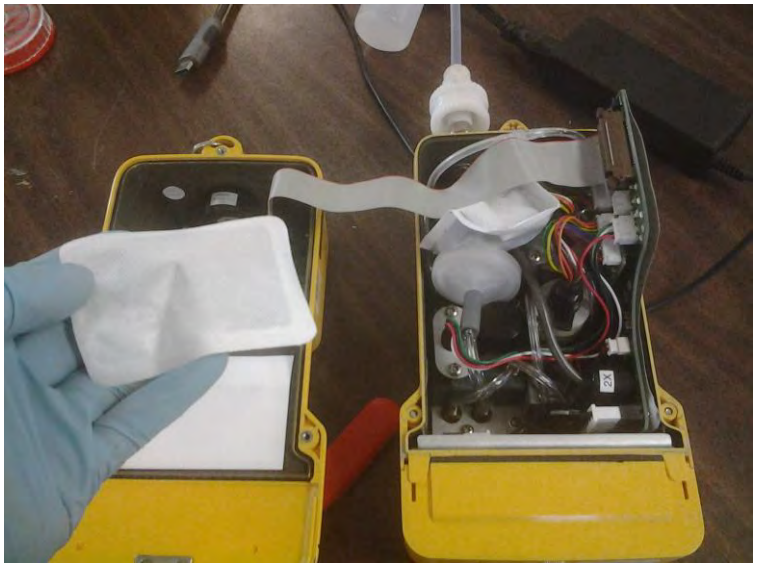
https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/_2016-02-19_143919.jpg

2016-02-20 10:47:30

Field Team A. Campbell

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
582620.0	6914518.0	7.5

Put hand warmers inside gas monitor to prevent hydrophobic filter from freezing.



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/_2016-02-20_104730.jpg

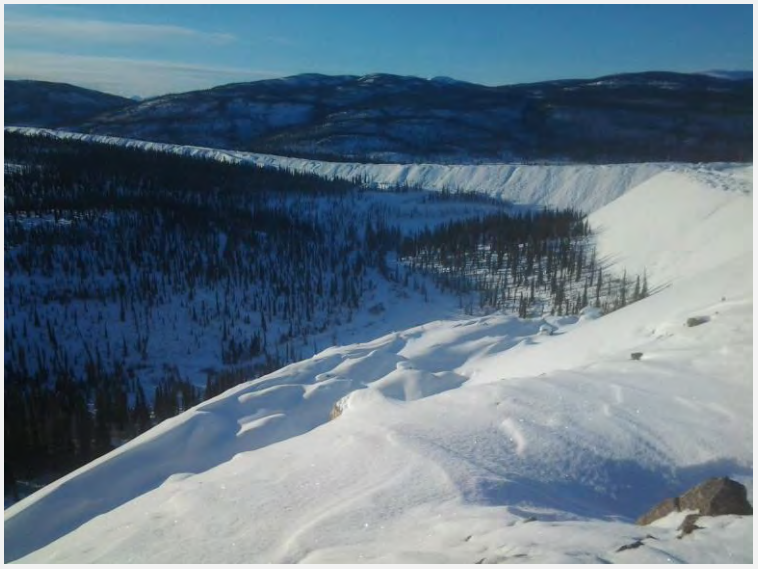
2016-02-21 10:00:05

Field Team A. Campbell, J. Stroh

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
585204.0	6914010.0	6.0

Looking at Rock Drain.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/_2016-02-21_100005.jpg



2016-05-21 09:36:44

Field Team J. Rooney, B. Edwards

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
584827.0	6915572.0	6.0

Moose in Faro Creek Diversion.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/MOOSE_2016-05-21_093644.jpg



2016-06-05 14:38:20

Field Team A. Campbell

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
584958.0	6915906.0	6.0

Thermistor string connector.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/_2016-06-05_143820.jpg



10M3

2016-02-22 14:22:54

Field Team A. Campbell, J. Stroh

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592488.5066 6903481.722

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/10M3_2016-02-22_142254.jpg



10M4

2016-02-22 11:39:38

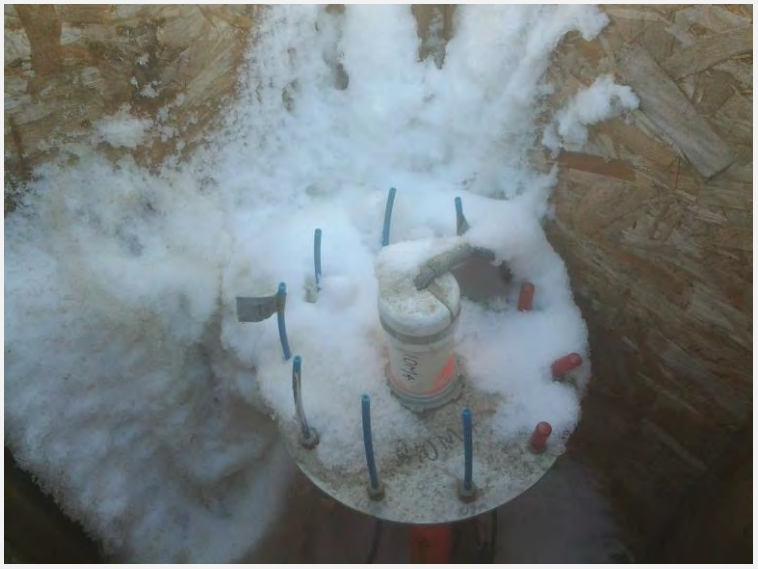
Field Team A. Campbell, J. Stroh

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

593640.515 6902880.733

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/10M4_2016-02-22_113938.jpg



30M4

2016-02-21 16:46:21

Field Team A. Campbell, J. Stroh

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

593719.27 6902748.82

Gas sampling.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/30M4_2016-02-21_164621.jpg



30M4

2016-02-21 16:46:47

Field Team A. Campbell, J. Stroh

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

593719.27 6902748.82

Gas sampling.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/30M4_2016-02-21_164647.jpg



60M1

2016-02-18 15:19:29

Field Team A. Campbell, P. Mamo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584315.5248 6913692.569

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/60M1_2016-02-18_151929.jpg



A30

2016-05-19 10:01:39

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584546.2 6915450.7

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/A30_2016-05-19_100139.jpg



CH12-014-MW003

2016-02-17 16:39:48

Field Team A. Campbell, P. Mamo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584040.11 6914506.33

Thermistor measurement.



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW003_2016-02-17_163948.jpg

CH12-014-MW003

2016-02-19 12:20:52

Field Team A. Campbell, P. Mamo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584040 6914506

Groundwater purge. Turbid water at start of purge. Clearing up now.



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW003_2016-02-19_122052.jpg

CH12-014-MW003

2016-02-19 15:41:02

Field Team A. Campbell, P. Mamo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584040 6914506

Groundwater purge.



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW003_2016-02-19_154102.jpg

CH12-014-MW003

2016-02-20 09:46:06

Field Team A. Campbell, P. Mamo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584040 6914506

Groundwater purge.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW003_2016-02-20_094606.jpg



CH12-014-MW003

2016-02-20 10:11:14

Field Team A. Campbell, P. Mamo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584040 6914506

Collected sample.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW003_2016-02-20_101114.jpg



CH12-014-MW003

2016-06-02 09:39:18

Field Team A. Campbell, C. Blair

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584040 6914506

Groundwater purge.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW003_2016-06-02_093918.jpg



CH12-014-MW003

2016-06-02 09:39:30

Field Team A. Campbell, C. Blair

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584040 6914506

Groundwater purge.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW003_2016-06-02_093930.jpg



CH12-014-MW003

2016-06-02 10:04:05

Field Team A. Campbell, C. Blair

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584040.11 6914506.33

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW003_2016-06-02_100405.jpg



CH12-014-MW005

2016-02-21 09:49:42

Field Team A. Campbell, J. Stroh

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585165.6879 6914070.676

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW005_2016-02-21_094943.jpg



CH12-014-MW005

2016-02-21 09:58:07

Field Team A. Campbell, J. Stroh

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585165.6879 6914070.676

Thermistor measurement. Coiling thermistor string.



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW005_2016-02-21_095807.jpg

CH12-014-MW005

2016-06-03 10:36:38

Field Team A. Campbell, C. Blair

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585165.688 6914070.676

Thermistor measurement.



https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW005_2016-06-03_103638.jpg

CH12-014-MW007

2016-02-17 12:53:50

Field Team A. Campbell, P. Mamo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584494.0731 6913305.995

Thermistor measurement.



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW007_2016-02-17_125350.jpg

CH12-014-MW007

2016-02-17 14:12:52

Field Team A. Campbell, P. Mamo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584494 6913306

Groundwater purge.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW007_2016-02-17_141252.jpg



CH12-014-MW007

2016-06-01 11:13:17

Field Team A. Campbell, C. Blair

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584494 6913306

Groundwater purge.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW007_2016-06-01_111317.jpg



CH12-014-MW007

2016-06-01 11:13:33

Field Team A. Campbell, C. Blair

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584494 6913306

Groundwater purge.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW007_2016-06-01_111333.jpg



CH12-014-MW007

2016-06-01 12:43:43

Field Team A. Campbell, C. Blair

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584494.0731 6913305.995

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW007_2016-06-01_124344.jpg



CH12-014-MW011

2016-02-21 13:22:36

Field Team J. Stroh, A. Campbell

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592549 6904282

Groundwater purge.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW011_2016-02-21_132237.jpg



CH12-014-MW011

2016-02-21 13:35:53

Field Team J. Stroh, A. Campbell

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592549 6904282

Groundwater purge setup.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW011_2016-02-21_133553.jpg



CH12-014-MW011

2016-02-21 13:37:04

Field Team A. Campbell, J. Stroh

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592549.0462 6904282.161

Gas sampling.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW011_2016-02-21_133704.jpg



CH12-014-MW011

2016-02-21 15:07:39

Field Team J. Stroh, A. Campbell

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592549 6904282

Collected sample and duplicate.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW011_2016-02-21_150739.jpg



CH12-014-MW011

2016-02-22 10:35:18

Field Team A. Campbell, J. Stroh

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592549.0462 6904282.161

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW011_2016-02-22_103519.jpg



CH12-014-MW011

2016-02-22 10:35:41

Field Team A. Campbell, J. Stroh

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592549.0462 6904282.161

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW011_2016-02-22_103541.jpg



CH12-014-MW011

2016-06-04 13:47:26

Field Team A. Campbell, C. Blair

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592549 6904282

Groundwater purge.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW011_2016-06-04_134727.jpg



CH12-014-MW011

2016-06-04 15:14:48

Field Team A. Campbell, C. Blair

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592549 6904282

Collected sample.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW011_2016-06-04_151448.jpg



CH12-014-MW012

2016-02-21 12:14:09

Field Team J. Stroh, A. Campbell

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592479 6903617

Groundwater purge. Start of purge. Turbid water.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW012_2016-02-21_121409.jpg



CH12-014-MW012

2016-02-21 13:58:57

Field Team A. Campbell, J. Stroh

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592479.3608 6903617.452

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW012_2016-02-21_135857.jpg



CH12-014-MW012

2016-02-22 13:39:48

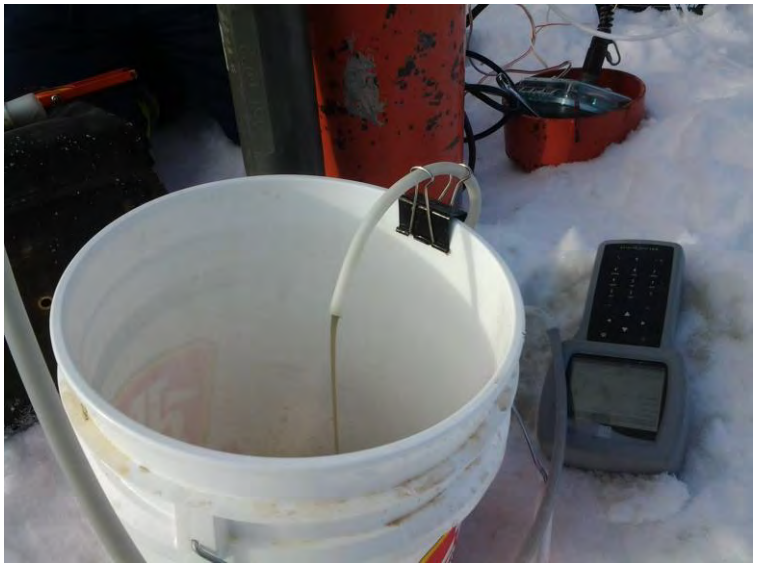
Field Team J. Stroh, A. Campbell

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592479.3608 6903617.452

Groundwater purge.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW012_2016-02-22_133948.jpg



CH12-014-MW012

2016-02-22 15:51:48

Field Team J. Stroh, A. Campbell

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592479 6903617

Groundwater purge.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW012_2016-02-22_155148.jpg



CH12-014-MW012

2016-02-22 16:12:13

Field Team J. Stroh, A. Campbell

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592479 6903617

Collected sample.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW012_2016-02-22_161214.jpg



CH12-014-MW012

2016-06-03 11:26:36

Field Team A. Campbell, C. Blair

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592479 6903617

Groundwater purge.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW012_2016-06-03_112636.jpg



CH12-014-MW012

2016-06-03 12:59:40

Field Team A. Campbell, C. Blair

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592479 6903617

Groundwater purge.



https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW012_2016-06-03_125940.jpg

CH12-014-MW013

2016-02-21 16:04:17

Field Team J. Stroh, A. Campbell

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

593620.876 6902876.532

Found water level transducer installed upside down. Desiccant pack was submerged in well; instrument was suspended in air in top of casing. Removed from well for repair or replacement.



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW013_2016-02-21_160417.jpg

CH12-014-MW013

2016-02-22 10:51:06

Field Team J. Stroh, A. Campbell

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

593621 6902877

Groundwater purge.



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW013_2016-02-22_105106.jpg

CH12-014-MW013

2016-02-22 10:51:44

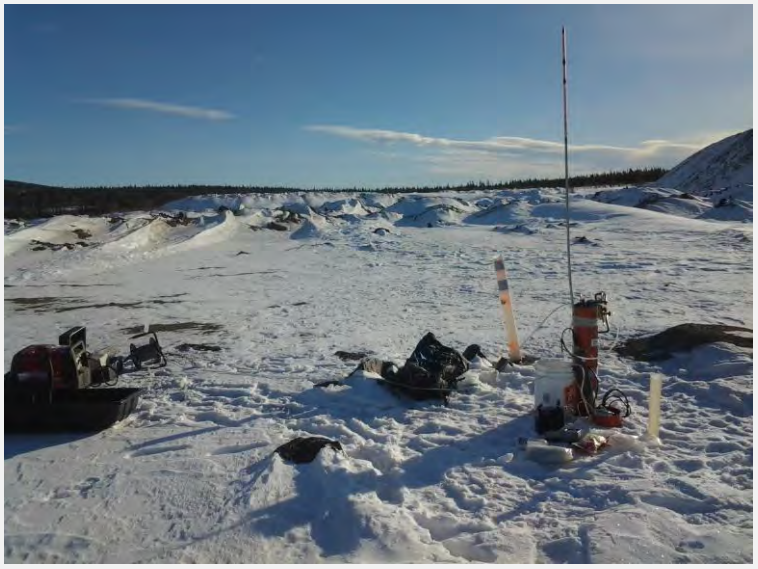
Field Team J. Stroh, A. Campbell

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

593621 6902877

Groundwater purge.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW013_2016-02-22_105144.jpg



CH12-014-MW013

2016-02-22 12:15:59

Field Team J. Stroh, A. Campbell

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

593621 6902877

Collected sample.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW013_2016-02-22_121600.jpg



CH12-014-MW013

2016-02-22 12:44:00

Field Team A. Campbell, J. Stroh

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

593620.876 6902876.532

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW013_2016-02-22_124400.jpg



CH12-014-MW013

2016-06-04 10:18:58

Field Team A. Campbell, C. Blair

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

593621 6902877

Groundwater purge.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW013_2016-06-04_101858.jpg



CH12-014-MW013

2016-06-04 10:19:11

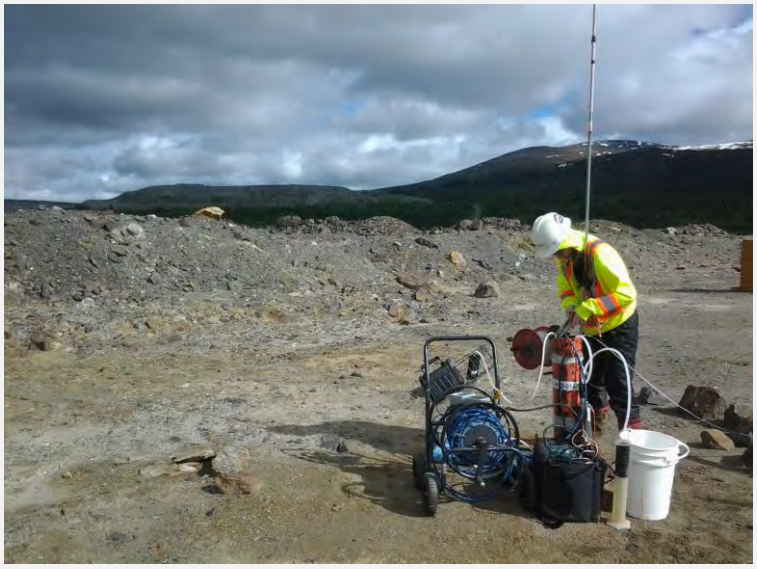
Field Team A. Campbell, C. Blair

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

593621 6902877

Groundwater purge.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW013_2016-06-04_101911.jpg



CH12-014-MW013

2016-06-04 13:08:19

Field Team A. Campbell, C. Blair

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

593620.876 6902876.532

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW013_2016-06-04_130819.jpg



CH12-014-MW013

2016-06-04 14:35:25

Field Team A. Campbell, C. Blair

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

593621 6902877

Collected sample.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW013_2016-06-04_143525.jpg



CH14-015-MW004

2016-02-19 14:35:32

Field Team A. Campbell

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583444.5823 6914963.211

Thermistor string deployed.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-015-MW004_2016-02-19_143533.jpg



CH14-015-MW004

2016-02-20 11:18:23

Field Team A. Campbell

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583444.5823 6914963.211

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-015-MW004_2016-02-20_111823.jpg



CH14-015-MW004

2016-02-20 11:21:07

Field Team A. Campbell

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583444.5823 6914963.211

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-015-MW004_2016-02-20_112108.jpg



CH14-015-MW006

2016-02-20 14:08:46

Field Team A. Campbell

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585150.4 6914427.182

Groundwater purge.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-015-MW006_2016-02-20_140846.jpg



CH14-015-MW006

2016-02-20 14:09:06

Field Team A. Campbell

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585150.4 6914427.182

Groundwater purge.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-015-MW006_2016-02-20_140906.jpg



CH14-015-MW006

2016-02-20 14:40:50

Field Team A. Campbell

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585150.3955 6914427.182

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-015-MW006_2016-02-20_144051.jpg



CH14-015-MW006

2016-02-20 15:37:54

Field Team A. Campbell

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585150.4 6914427.182

Groundwater purge.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-015-MW006_2016-02-20_153754.jpg



CH14-015-MW006

2016-02-20 16:13:39

Field Team A. Campbell

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585150.4 6914427.182

Collected sample.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-015-MW006_2016-02-20_161339.jpg



CH14-015-MW006

2016-06-01 13:44:40

Field Team A. Campbell, C. Blair

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585150.4 6914427.182

Groundwater purge.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH14-015-MW006_2016-06-01_134440.jpg



CH14-015-MW006

2016-06-01 15:24:58

Field Team A. Campbell, C. Blair

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585150.3955 6914427.182

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH14-015-MW006_2016-06-01_152458.jpg



CH14-104-MW008

2016-02-19 13:50:38

Field Team A. Campbell, P. Mamo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583280.4668 6914407.859

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-104-MW008_2016-02-19_135105.jpg



CH14-104-MW008

2016-02-19 13:57:47

Field Team A. Campbell, P. Mamo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583280.4668 6914407.859

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-104-MW008_2016-02-19_135747.jpg



CH14-104-MW008

2016-06-05 15:48:19

Field Team A. Campbell, C. Blair

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583280.47 6914407.859

Groundwater purge.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH14-104-MW008_2016-06-05_154819.jpg



CH14-104-MW008

2016-06-05 15:48:34

Field Team A. Campbell, C. Blair

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583280.47 6914407.859

Groundwater purge.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH14-104-MW008_2016-06-05_154834.jpg



CH14-104-MW008

2016-06-06 08:59:50

Field Team A. Campbell, C. Blair

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583280.47 6914407.859

Collected sample.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH14-104-MW008_2016-06-06_085950.jpg



CH14-106-MW009

2016-02-18 14:25:49

Field Team A. Campbell, P. Mamo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583977.4412 6913998.072

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-106-MW009_2016-02-18_142549.jpg



CH14-106-MW009

2016-06-02 13:16:44

Field Team A. Campbell, C. Blair

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583977.4412 6913998.072

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH14-106-MW009_2016-06-02_131645.jpg



CH14-201-TH001

2016-02-23 10:00:15

Field Team J. Stroh, R. Sanders

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
580730.0	6913754.0	4.0

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-201-TH001_2016-02-23_100016.jpg



CH14-201-TH001

2016-02-23 10:00:49

Field Team J. Stroh, R. Sanders

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
580728.0	6913753.0	8.0

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-201-TH001_2016-02-23_100049.jpg



CH14-201-TH001

2016-02-23 10:01:15

Field Team J. Stroh, R. Sanders

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
580728.0	6913752.0	6.0

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-201-TH001_2016-02-23_100116.jpg



CH14-201-TH001

2016-02-23 14:49:14

Field Team J. Stroh, R. Sanders

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
580725.0	6913754.0	4.0

Thermistor measurement. Second measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-201-TH001_2016-02-23_144914.jpg



CH14-201-TH002

2016-02-23 10:11:32

Field Team J. Stroh, R. Sanders

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
580883.0	6913698.0	6.0

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-201-TH002_2016-02-23_101133.jpg



CH14-201-TH002

2016-02-23 10:13:11

Field Team J. Stroh, R. Sanders

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
580890.0	6913700.0	6.0

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-201-TH002_2016-02-23_101312.jpg



CH14-201-TH002

2016-02-23 10:15:40

Field Team J. Stroh, R. Sanders

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
580884.0	6913674.0	6.0

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-201-TH002_2016-02-23_101540.jpg



CH14-201-TH002

2016-02-23 10:16:26

Field Team J. Stroh, R. Sanders

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
580887.0	6913693.0	8.0

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-201-TH002_2016-02-23_101626.jpg



CH14-201-TH002

2016-02-23 12:45:58

Field Team J. Stroh, R. Sanders

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
580889.5824	6913692.474	

Thermistor measurement. Label added to casing.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-201-TH002_2016-02-23_124559.jpg



CH14-201-TH002

2016-02-23 14:55:32

Field Team J. Stroh, R. Sanders

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

580892.0 6913697.0 8.0

Thermistor measurement. Second test using 22 m string.



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-201-TH002_2016-02-23_145532.jpg

CH14-201-TH002

2016-02-23 16:53:05

Field Team J. Stroh, R. Sanders

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

580889.5824 6913692.474

Thermistor measurement.



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-201-TH002_2016-02-23_165305.jpg

CH14-201-TH003

2016-02-24 08:51:51

Field Team J. Stroh, R. Sanders

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

581058.6015 6913563.743 8.0

Thermistor measurement.



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-201-TH003_2016-02-24_085151.jpg

CH14-201-TH003

2016-02-24 08:53:59

Field Team J. Stroh, R. Sanders

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
581059.0	6913560.0	8.0

New seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-201-TH003_2016-02-24_085359.jpg



CH14-201-TH004

2016-02-23 13:01:30

Field Team J. Stroh, R. Sanders

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
581365.2581	6913436.825	6.0

Thermistor measurement. Confirmed location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-201-TH004_2016-02-23_130130.jpg



CH14-201-TH004

2016-02-23 13:02:23

Field Team J. Stroh, R. Sanders

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
581363.0	6913434.0	4.0

Thermistor measurement, coil in place. Label added.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-201-TH004_2016-02-23_130223.jpg



CH14-201-TH006

2016-02-24 11:41:54

Field Team J. Stroh, R. Sanders

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

581691.0 6913297.0 4.0

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-201-TH006_2016-02-24_114154.jpg



CH14-201-TH006

2016-02-24 11:43:38

Field Team J. Stroh, R. Sanders

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

581693.6401 6913289.035

Thermistor measurement.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-201-TH006_2016-02-24_114339.jpg



CH15-107-MW032

2016-06-02 08:35:52

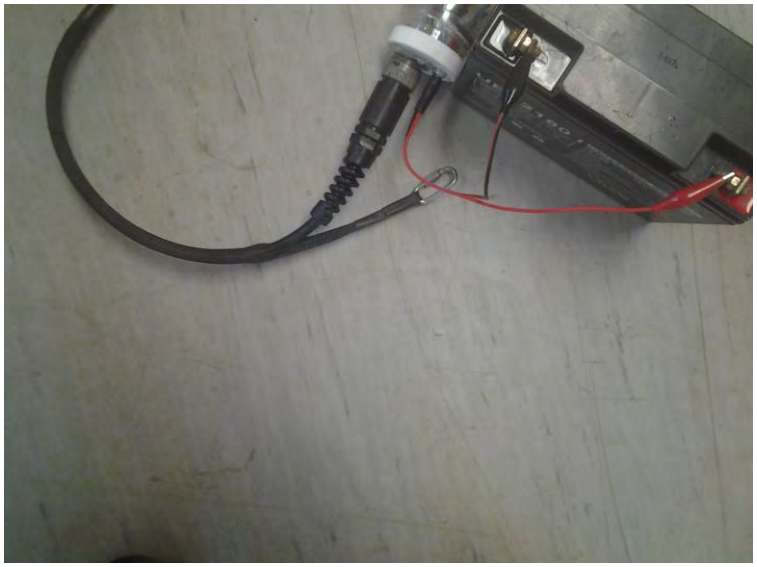
Field Team J. Muir, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585764 6914249

Groundwater purge.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH15-107-MW032_2016-06-02_083552.jpg



CH16-102-MW006

2016-06-05 10:32:11

Field Team A. Campbell, C. Blair

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584962.4272 6915902.996 6.0

Monitoring well. Looking northwest standing water and seepage on ground surface in this area.



https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH16-102-MW006_2016-06-05_103211.jpg

CH-ETA-01

2016-05-19 09:02:32

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

582809.33 6913964.88

Seep location.



https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-ETA-01_2016-05-19_090232.jpg

CH-ETA-02

2016-05-19 08:58:09

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

582778.93 6913972.93

Seep location.



https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-ETA-02_2016-05-19_085809.jpg

CH-FD-56

2016-05-20 09:41:35

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584514.65 6913149.42

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-56_2016-05-20_094136.jpg



CH-FD-57

2016-05-18 15:34:05

Field Team C. Blair, E. Aaujo, C. Shewen

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583780.61 6914474.52

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-57_2016-05-18_153405.jpg



CH-FD-58

2016-05-17 16:36:13

Field Team J. Rooney, E. Araujo, C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583248.03 6914434.93

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-58_2016-05-17_163613.jpg



CH-FD-59

2016-05-19 13:51:38

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585009.73 6914599.91

Seep location. SRK-FD24 on right.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-59_2016-05-19_135138.jpg



CH-FD-60

2016-05-19 14:33:17

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585026.96 6914578.06

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-60_2016-05-19_143317.jpg



CH-FD-61

2016-05-19 14:55:09

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585029.87 6914534.77

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-61_2016-05-19_145509.jpg



CH-FD-62

2016-05-19 14:19:27

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585031.86 6914581.08

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-62_2016-05-19_141927.jpg



CH-FD-63

2016-05-19 14:50:46

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585029.02 6914556.04

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-63_2016-05-19_145047.jpg



CH-FD-64

2016-05-18 11:00:18

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583074.88 6914155.68

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-64_2016-05-18_110018.jpg



CH-FD-65

2016-05-18 09:32:16

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
582886.0	6914582.0	2.1

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-56_2016-05-18_093216.jpg



CH-FD-66

2016-05-18 15:43:22

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
584172.11	6914532.15	

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-66_2016-05-18_154322.jpg



CH-FD-67

2016-05-17 16:25:04

Field Team J. Rooney, E. Araujo, C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
583432.95	6914382.36	

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-67_2016-05-17_162504.jpg



CH-FD-68

2016-05-19 14:32:25

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585426.9 6914513.23

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-68_2016-05-19_143225.jpg



CH-FD-69

2016-05-19 16:36:51

Field Team J. Rooney, C. Gillis, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585101.33 6914205.35

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-69_2016-05-19_163652.jpg



CH-FD-70

2016-05-19 16:53:56

Field Team J. Rooney, C. Gillis, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585121.03 6914282.09

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-70_2016-05-19_165356.jpg



CH-FD-71

2016-05-18 10:58:50

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583071 6914163

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-71_2016-05-18_105850.jpg



CH-FD-72

2016-05-20 10:03:10

Field Team J. Rooney, C. Gillis, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584510.03 6913154.04

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-72_2016-05-20_100311.jpg



CH-FD-73

2016-05-20 10:49:03

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584132.2437 6913286.996

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-73_2016-05-20_104903.jpg



CH-FD-74

2016-05-19 16:41:21

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585145.0291 6913786.032

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-74_2016-05-19_164122.jpg



CH-FD-75

2016-05-20 12:24:28

Field Team J. Rooney, C. Gillis, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583218.0087 6915104.814

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-75_2016-05-20_122428.jpg



CH-FD-76

2016-05-20 14:22:25

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585004.0 6914605.0 6.0

YSI screen is lying on a dry seep, dark red staining. Probes are in a flowing seep though it looks like most of this flow comes from the next higher bench. Flagging at CH-FD-59 and stake at SRK-FD24 are visible on the right side of photograph.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-76_2016-05-20_142225.jpg



CH-FD-76

2016-05-20 14:26:42

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
585004.0	6914605.0	6.0

Close up of parameter location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-76_2016-05-20_142643.jpg



CH-FD-77

2016-05-19 14:37:40

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
585036	6914568	

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-77_2016-05-19_143740.jpg



CH-FD-78

2016-05-19 13:28:23

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
585025	6914610	

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-78_2016-05-19_132823.jpg



CH-FD-80

2016-05-23 08:42:28

Field Team C.Gillis, E. Aaujo

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
584534.0	6913138.0	6.0

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-80_2016-05-23_084228.jpg



CH-FD-81

2016-05-17 16:54:13

Field Team J. Rooney, E. Araujo, C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
583316.0	6914476.0	8.0

New seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/_2016-05-17_165413.jpg



CH-FD-81

2016-05-23 08:16:05

Field Team C.Gillis, E. Aaujo

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
583309.0	6914474.0	4.0

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FD-81_2016-05-23_081605.jpg



CH-FP-24

2016-05-18 15:50:01

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584166.9 6914936.93

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FP-24_2016-05-18_155002.jpg



CH-FP-24

2016-05-19 14:06:56

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584166.9 6914936.93

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FP-24_2016-05-19_140656.jpg



CH-FP-25

2016-05-18 16:06:25

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584805.95 6914401.04

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FP-25_2016-05-18_160625.jpg



CH-FP-28

2016-05-18 16:05:51

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584784.23 6914377.08

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FP-28_2016-05-18_160551.jpg



CH-FP-29

2016-05-19 09:40:18

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584551.38 6915567.92

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FP-29_2016-05-19_094018.jpg



CH-FP-30

2016-05-19 10:32:01

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584584.52 6915435.95

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FP-30_2016-05-19_103201.jpg



CH-FP-31

2016-05-19 10:45:25

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584499.55 6915422.09

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FP-31_2016-05-19_104525.jpg



CH-FP-32

2016-05-18 16:05:21

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584742.92 6914372.13

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FP-32_2016-05-18_160521.jpg



CH-FP-33

2016-05-19 12:45:56

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584343.98 6915475.82

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FP-33_2016-05-19_124556.jpg



CH-FP-34

2016-05-19 12:10:26

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584375.57 6915466.12

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FP-34_2016-05-19_121026.jpg



CH-FP-35

2016-05-19 11:50:38

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584416.13 6915435.73

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FP-35_2016-05-19_115038.jpg



CH-FP-36

2016-05-19 11:11:27

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584456.09 6915414.86

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FP-36_2016-05-19_111127.jpg



CH-FP-37

2016-05-19 11:10:09

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583986 6915352.33

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FP-37_2016-05-19_111009.jpg



CH-FP-39

2016-05-19 11:42:08

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584447 6915426

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FP-39_2016-05-19_114208.jpg



CH-FP-42

2016-05-19 11:32:06

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584008 6915508

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-FP-42_2016-05-19_113207.jpg



CH-GD-25

2016-05-22 09:04:36

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592340 6903259

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-GD-25_2016-05-22_090436.jpg



CH-GP-19

2016-05-20 15:51:21

Field Team C. Blair, E. Aaujo, C. Greene

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592642.56 6904505.42

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-GP-19_2016-05-20_155121.jpg



CH-GP-22

2016-05-21 16:12:41

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592552.87 6905071.16

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-GP-22_2016-05-21_161241.jpg



CH-GP-24

2016-05-22 13:44:37

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592515.55 6905329.74

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-GP-24_2016-05-22_134437.jpg



CH-GP-24

2016-05-22 13:55:49

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592515.55 6905329.74

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-GP-24_2016-05-22_135549.jpg



CH-GP-25

2016-05-21 14:07:25

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592359.43 6904832.12

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-GP-25_2016-05-21_140725.jpg



CH-GP-26

2016-05-21 14:04:41

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592362.49 6904832.69

Seep location.



https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-GP-26_2016-05-21_140441.jpg

CH-GP-27

2016-05-21 13:35:52

Field Team J. Rooney, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592190.0 6905414.0 6.0

Seep location. The wall is dry along the length of the ditch. All water is from pipe in top left corner of photograph.



https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-GP-27_2016-05-21_133553.jpg

CH-GP-28

2016-05-21 15:02:01

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592408.0 6904852.0 1.8

Seep location.



https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-GP-28_2016-05-21_150201.jpg

CH-GP-29

2016-05-21 14:34:54

Field Team J. Rooney, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592156.0 6905458.0 8.0

Seep location. Sampled at flagging.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-GP-29_2016-05-21_143454.jpg



CH-GP-30

2016-05-21 14:10:52

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592363 6904841

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-GP-30_2016-05-21_141052.jpg



CH-GP-31

2016-05-21 15:04:16

Field Team J. Rooney, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592176.0 6905500.0

Seep location. GP04 flag on the right. CH-GP-31 on the left.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-GP-31_2016-05-21_150416.jpg



CH-MILL-01

2016-05-18 11:09:48

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

582982.23 6914167.65

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-MILL-01_2016-05-18_110948.jpg



CH-MILL-02

2016-05-18 09:16:07

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

582899.5 6914576.07

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-MILL-02_2016-05-18_091607.jpg



CH-MILL-02

2016-05-18 09:16:39

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

582899.5 6914576.07

Seep path shows it previously flowed down into ditch. Only puddle remains now.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-MILL-02_2016-05-18_091639.jpg



CH-MILL-03

2016-05-18 10:44:36

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583045.87 6914266.75

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-MILL-03_2016-05-18_104436.jpg



CH-MILL-04

2016-05-18 10:32:24

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583038.31 6914322.73

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-MILL-04_2016-05-18_103224.jpg



CH-RCTA-01

2016-05-18 14:19:13

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

581437.74 6914176.62

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-RCTA-01_2016-05-18_141914.jpg



CH-RCTA-02

2016-05-18 14:12:26

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

581174.56 6914223.52

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-RCTA-02_2016-05-18_141227.jpg



CH-RCTA-03

2016-05-18 11:55:53

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

582210 6913055

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-RCTA-03_2016-05-18_115611.jpg



CH-RCTA-04

2016-05-18 13:00:38

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

581962.57 6913198.67

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-RCTA-04_2016-05-18_130107.jpg



CH-RCTA-05

2016-05-18 13:50:29

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

581331 6913392

Seep location downstream.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-RCTA-05_2016-05-18_135132.jpg

CH-RCTA-06

2016-05-18 13:55:15

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

581345.12 6913421.89

Seep location.



https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-RCTA-06_2016-05-18_135515.jpg

CH-RCTA-08

2016-05-18 11:30:45

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

582210 6913054

Seep location where probe is, CH-RCTA-03 is pool above boots.



https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-RCTA-08_2016-05-18_113045.jpg

CH-RCTA-09

2016-05-18 09:19:32

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

582420.0264 6912981.996

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-RCTA-09_2016-05-18_092009.jpg



CH-RCTA-10

2016-05-18 10:29:53

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

582375 6913007

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-RCTA-07_2016-05-18_103214.jpg



CH-VP-17

2016-05-21 08:55:57

Field Team C. Greene, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

594032.71 6903423.98

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-VP-17_2016-05-21_085557.jpg



CH-VP-18

2016-05-21 08:53:09

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

593980.0 6903326.0 4.2

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-VP-18_2016-05-21_085310.jpg



CH-VP-19

2016-05-21 13:31:11

Field Team C. Greene, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

593767.81 6903707.05

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-VP-19_2016-05-21_133111.jpg



CH-VP-20

2016-05-21 09:57:29

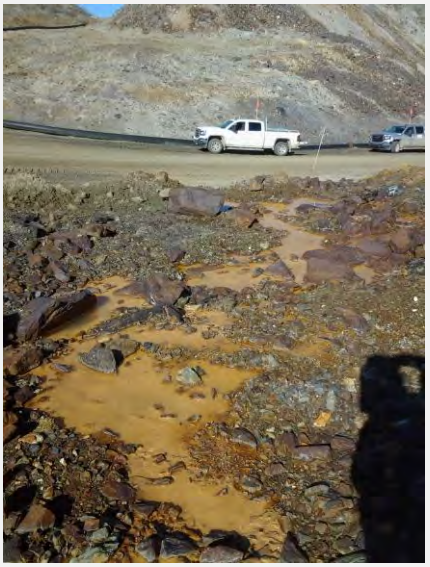
Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

594293.56 6903058.9

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH-VP-20_2016-05-21_095730.jpg



FCS-2

2016-05-19 09:35:56

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

582845.55 6913951.73

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/FCS-2_2016-05-19_093556.jpg



FCS-3

2016-05-18 16:54:38

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

582798 6913978.97

Seep location; upstream.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/FCS-3_2016-05-18_165438.jpg



FCS-4

2016-05-18 16:06:38

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

582686.31 6913788.42

Seep location; upstream.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/FCS-4_2016-05-18_160638.jpg



FCS-4

2016-05-19 10:02:33

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

582686.31 6913788.42

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/FCS-4_2016-05-19_100234.jpg



FCS-5

2016-05-18 15:17:51

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

581974.26 6913822.99

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/FCS-5_2016-05-18_151751.jpg



FP05

2016-05-19 11:34:48

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584047.89 6915526.97

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/FP05_2016-05-19_113448.jpg



FP05

2016-05-19 11:36:47

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584047.89 6915526.97

Faro Pit Wall.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/FP05_2016-05-19_113647.jpg



FP07

2016-05-19 11:18:44

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583976.72 6915396.12

Seep location. Dry, but trickle to right.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/FP07_2016-05-19_111954.jpg



FP08

2016-05-19 15:58:54

Field Team J. Rooney, C. Gillis, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585143.97 6914759.02

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/FP08_2016-05-19_155855.jpg



FP11

2016-05-19 11:23:49

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583995.26 6915488.87

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/FP11_2016-05-19_112349.jpg



FP18

2016-05-19 11:33:39

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584037.3245 6915523.075

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/FP18_2016-05-19_113340.jpg



GD05 D-S

2016-05-22 10:24:56

Field Team C. Greene, E. Aaujo, B.Edwards

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592543 6903026

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/GD05 D-S_2016-05-22_102456.jpg



GDHSCK

2016-05-18 14:40:29

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

581682.1246 6914054.095

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/GDHSCK_2016-05-18_144030.jpg



GP02

2016-05-21 16:05:36

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592592.98 6904925.07

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/GP02_2016-05-21_160537.jpg



GP04

2016-05-21 14:41:42

Field Team J. Rooney, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592180.28 6905492.4

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/GP04_2016-05-21_144142.jpg



GP05

2016-05-21 14:37:53

Field Team J. Rooney, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592167.56 6905484.58

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/GP05_2016-05-21_143753.jpg



GP06

2016-05-21 14:27:03

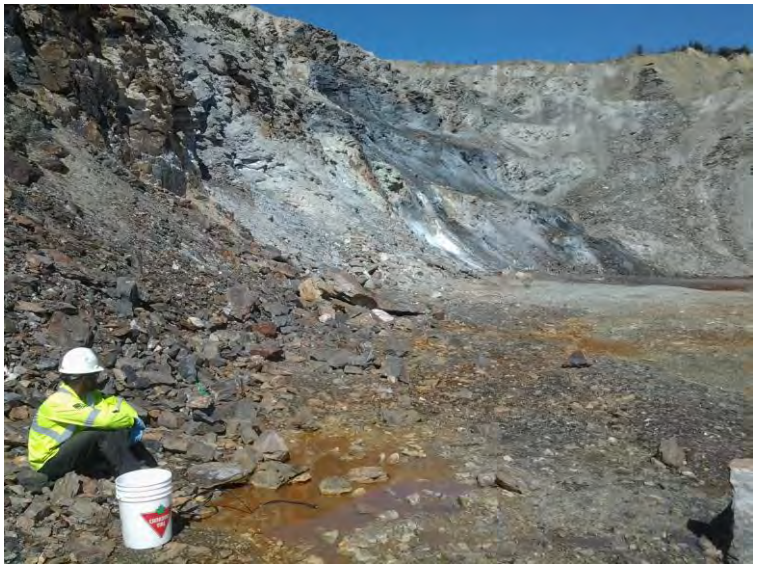
Field Team J. Rooney, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592109.55 6905414.33

Seep location. Orange staining.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/GP06_2016-05-21_142704.jpg



GP07

2016-05-21 14:30:11

Field Team J. Rooney, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592133.6 6905444.64

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/GP07_2016-05-21_143012.jpg



GP08

2016-05-21 13:47:37

Field Team J. Rooney, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592031.75 6905317.68

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/GP08_2016-05-21_134738.jpg



GP09

2016-05-21 14:05:19

Field Team J. Rooney, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

591981.29 6905257.89

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/GP09_2016-05-21_140520.jpg



GP10

2016-05-21 14:18:44

Field Team J. Rooney, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

591963.23 6905219.81

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/GP10_2016-05-21_141845.jpg



GP12

2016-05-21 14:51:53

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592358.17 6904841.68

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/GP12_2016-05-21_145154.jpg



GP14

2016-05-21 15:23:03

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592462.96 6904882.15

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/GP14_2016-05-21_152303.jpg



NE1

2016-05-20 13:35:39

Field Team C. Blair, E. Aaujo, C. Greene

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585987.38 6914352.93

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/NE1_2016-05-20_133539.jpg



NE2

2016-05-20 11:53:53

Field Team C. Blair, E. Aaujo, C. Greene

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585735.48 6914100.1

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/NE2_2016-05-20_115354.jpg



NE2

2016-05-20 12:23:33

Field Team C. Blair, E. Aaujo, C. Greene

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585787.0 6914149.0 3.6

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/NE2_2016-05-20_122333.jpg



NE3

2016-05-20 11:44:34

Field Team C. Blair, E. Aaujo, C. Greene

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585620.92 6913959.09

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/NE3_2016-05-20_114434.jpg



NEW SWELLS

2016-05-20 09:34:54

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
584541.0	6913144.0	2.7

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/NEW SWELLS_2016-05-20_093454.jpg



NEW SWELLS

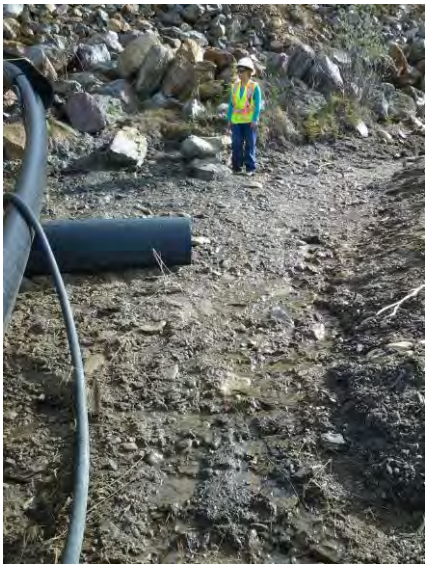
2016-05-20 09:35:15

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
584541.0	6913144.0	2.7

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/NEW SWELLS_2016-05-20_093515.jpg



Sheep Creek

2016-05-22 09:21:07

Field Team C. Greene, E. Aaujo, B.Edwards

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
592367	6902923	

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/Sheep Creek_2016-05-22_092107.jpg



SRK-FD01

2016-05-18 08:41:49

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

582896.0 6914584.0 1.5

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD01_2016-05-18_084149.jpg



SRK-FD02

2016-05-18 10:14:29

Field Team C. Blair, E. Aaujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583013.63 6914626.93

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD02_2016-05-18_101429.jpg



SRK-FD05

2016-05-20 12:52:34

Field Team C. Blair, E. Araujo, C. Greene

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585750.04 6914242.08

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD05_2016-05-20_125234.jpg



SRK-FD06

2016-05-20 13:19:01

Field Team C. Blair, E. Araujo, C. Greene

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585717.92 6914197.9

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD06_2016-05-20_131902.jpg



SRK-FD08

2016-05-20 14:12:16

Field Team C. Blair, E. Araujo, C. Greene

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584929.93 6913419.16

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD08_2016-05-20_141216.jpg



SRK-FD09

2016-05-18 12:25:36

Field Team C. Blair, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583280.83 6914066.07

Seep location. Water deep in hole.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD09_2016-05-18_122536.jpg



SRK-FD09

2016-05-18 12:27:32

Field Team C. Blair, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583280.83 6914066.07

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD09_2016-05-18_122732.jpg



SRK-FD10

2016-05-18 13:00:25

Field Team C. Blair, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583269.71 6914094.32

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD10_2016-05-18_130025.jpg



SRK-FD12

2016-05-18 12:52:59

Field Team C. Blair, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583273.93 6914079.04

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD12_2016-05-18_125259.jpg



SRK-FD12

2016-05-18 12:53:26

Field Team C. Blair, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583273.93 6914079.04

Seep location downstream.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD12_2016-05-18_125326.jpg



SRK-FD13

2016-05-19 15:42:03

Field Team C. Blair, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584520 6914062

Seep location. Sampled downstream from stake.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD13_2016-05-19_154203.jpg



SRK-FD14

2016-05-19 16:27:08

Field Team C. Blair, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584839.98 6914188.13

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD14_2016-05-19_162709.jpg



SRK-FD16

2016-05-20 11:44:03

Field Team J. Rooney, C. Gillis, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583224.68 6915455.13

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD16_2016-05-20_114403.jpg



SRK-FD17

2016-05-20 11:11:05

Field Team J. Rooney, C. Gillis, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583233.73 6915430.72

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD17_2016-05-20_111105.jpg



SRK-FD18

2016-05-20 11:24:08

Field Team J. Rooney, C. Gillis, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583245.67 6915410.51

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD18_2016-05-20_112408.jpg



SRK-FD19

2016-05-18 15:00:09

Field Team C. Blair, E. Araujo, C. Shewen

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583392.22 6914738.77

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD19_2016-05-18_150009.jpg



SRK-FD20

2016-05-19 14:10:41

Field Team C. Blair, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585175.989 6916290.484

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD20_2016-05-19_141041.jpg



SRK-FD21

2016-05-19 14:25:24

Field Team C. Blair, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585412.23 6914523.89

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD21_2016-05-19_142524.jpg



SRK-FD22

2016-05-19 16:02:19

Field Team J. Rooney, C. Gillis, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585170.94 6914671.99

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD22_2016-05-19_160219.jpg



SRK-FD23

2016-05-19 15:31:54

Field Team J. Rooney, C. Gillis, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585091.88 6914717.91

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD23_2016-05-19_153154.jpg



SRK-FD24

2016-05-19 14:12:19

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585017.81 6914587.63

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD24_2016-05-19_141219.jpg



SRK-FD26

2016-05-19 16:33:29

Field Team J. Rooney, C. Gillis, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585083.3 6914215.59

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD26_2016-05-19_163329.jpg



SRK-FD30

2016-05-18 14:21:15

Field Team C. Blair, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584053.44 6913542.38

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD30_2016-05-18_142115.jpg



SRK-FD31

2016-05-18 13:07:43

Field Team C. Blair, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583263.06 6914107.64

Seep location. Dry at stake but flow a few metres away.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD31_2016-05-18_130743.jpg



SRK-FD32

2016-05-18 10:54:30

Field Team C. Blair, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583093.04 6914198.15

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD32_2016-05-18_105430.jpg



SRK-FD35

2016-05-18 10:41:14

Field Team C. Blair, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583017.07 6914248.09

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD35_2016-05-18_104114.jpg



SRK-FD37

2016-05-17 15:29:42

Field Team J. Rooney, E. Araujo, C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583475.67 6914407.72

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD37_2016-05-17_152942.jpg



SRK-FD38

2016-05-18 15:41:12

Field Team C. Blair, E. Araujo, C. Shewen

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584181.83 6914545.1

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD38_2016-05-18_154112.jpg



SRK-FD40

2016-05-19 13:07:15

Field Team C. Blair, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584499.85 6915551.5

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD40_2016-05-19_130715.jpg



SRK-FD44

2016-05-19 16:34:51

Field Team C. Blair, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584775.96 6913992.03

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD44_2016-05-19_163451.jpg



SRK-FD46

2016-05-18 10:57:05

Field Team C. Blair, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583083.85 6914163.93

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD46_2016-05-18_105706.jpg



SRK-FD47

2016-05-18 15:57:54

Field Team C. Blair, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584422.94 6913333.94

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD47_2016-05-18_155754.jpg



SRK-FD48

2016-05-19 15:57:20

Field Team C. Blair, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584707 6914036

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD48_2016-05-19_155721.jpg



SRK-FD49

2016-05-20 10:33:45

Field Team C. Blair, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584168.54 6913196.53

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD49_2016-05-20_103346.jpg



SRK-FD50

2016-05-20 14:06:14

Field Team J. Rooney, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585044.26 6914031.83

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD50_2016-05-20_140615.jpg



SRK-FD51

2016-05-19 15:45:33

Field Team J. Rooney, C. Gillis, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

585109.57 6914763.27

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD51_2016-05-19_154533.jpg



SRK-FD52

2016-05-20 09:33:33

Field Team C. Blair, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584555.16 6913141.53

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD52_2016-05-20_093333.jpg



SRK-FD53

2016-05-20 11:05:35

Field Team C. Blair, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584054.78 6913415.52

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD53_2016-05-20_110536.jpg



SRK-FD54

2016-05-20 09:44:28

Field Team J. Rooney, C. Gillis, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584528.04 6913140.28

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD54_2016-05-20_094428.jpg



SRK-FD55

2016-05-20 10:11:53

Field Team J. Rooney, C. Gillis, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

584368.0 6913192.0 8.0

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-FD55_2016-05-20_101153.jpg



SRK-GD01

2016-05-20 15:29:44

Field Team J. Rooney, C. Gillis, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592599.66 6903996.67

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-GD01_2016-05-20_152944.jpg



SRK-GD02

2016-05-20 15:24:03

Field Team J. Rooney, C. Gillis, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592596.53 6903984.1

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-GD02_2016-05-20_152403.jpg



SRK-GD04

2016-05-22 09:40:09

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592553 6903440

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-GD04_2016-05-22_094009.jpg



SRK-GD05

2016-05-22 09:30:25

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592454 6903279.27

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-GD05_2016-05-22_093026.jpg



SRK-GD06

2016-05-22 09:12:16

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592389.0 6903254.0 2.4

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-GD06_2016-05-22_091216.jpg



SRK-GD07

2016-05-21 15:14:16

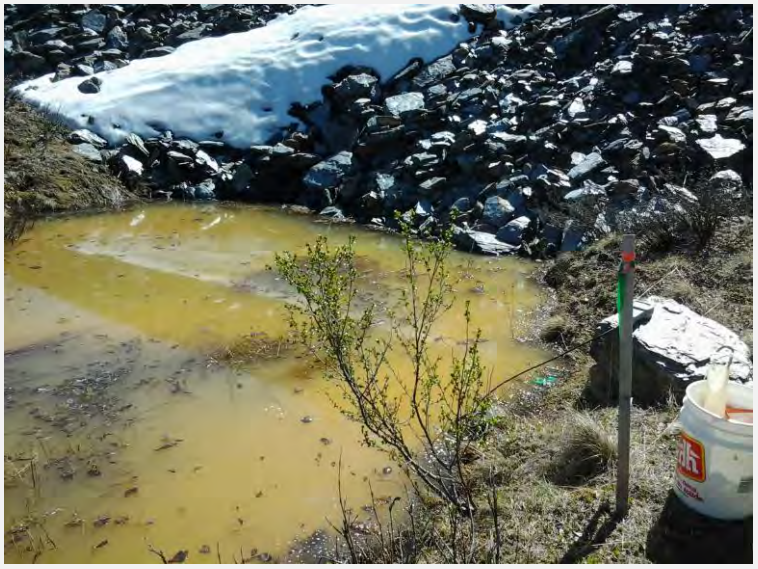
Field Team C. Greene, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

591899.53 6904748.97

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-GD07_2016-05-21_151416.jpg



SRK-GD08

2016-05-22 13:15:10

Field Team C. Greene, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

591482.63 6905029.61

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-GD08 KLOPSTOCK_2016-05-22_131511.jpg



SRK-GD08

2016-05-22 13:18:17

Field Team C. Greene, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

591482.63 6905029.61

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-GD08_2016-05-22_131818.jpg



SRK-GD08

2016-05-22 13:18:51

Field Team C. Greene, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

591482.63 6905029.61

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-GD08_2016-05-22_131851.jpg



SRK-GD09

2016-05-22 12:56:54

Field Team C. Greene, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

591351 6904781

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-GD09_2016-05-22_125655.jpg



SRK-GD10

2016-05-21 16:04:06

Field Team C. Greene, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

591483.53 6904532.75

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-GD10_2016-05-21_160406.jpg



SRK-GD11

2016-05-21 14:31:13

Field Team C. Greene, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592035.59 6904422.55

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-GD11_2016-05-21_143113.jpg



SRK-GD12

2016-05-21 15:52:44

Field Team C. Greene, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

591492.14 6904558.07

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-GD12_2016-05-21_155244.jpg



SRK-GD13

2016-05-22 12:28:35

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

591012.5 6904388

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-GD13_2016-05-22_122835.jpg



SRK-GD16

2016-05-22 08:50:38

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592297.87 6903247.05

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-GD16_2016-05-22_085038.jpg



SRK-GD18

2016-05-22 12:13:24

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

591082.27 6904265.72

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-GD18_2016-05-22_121325.jpg



SRK-GD19

2016-05-20 15:20:04

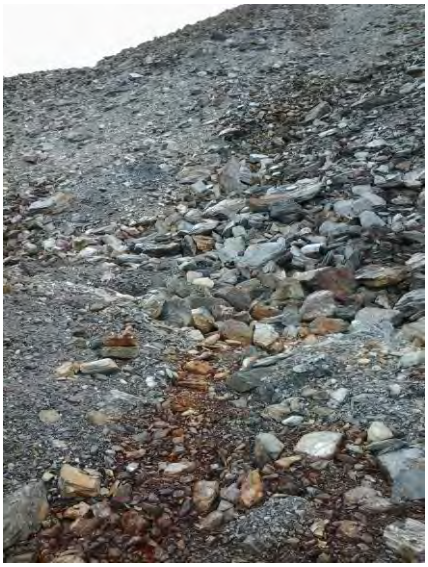
Field Team C. Blair, E. Araujo, C. Greene

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592361.0 6904390.0 1.8

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-GD19_2016-05-20_152004.jpg



SRK-GD20

2016-05-20 15:24:55

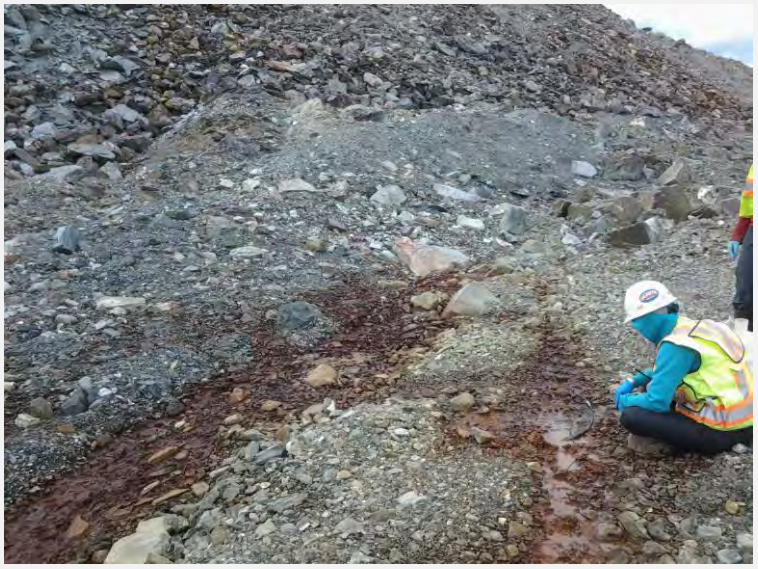
Field Team C. Blair, E. Araujo, C. Greene

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592363.0 6904400.0 1.8

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-GD20_2016-05-20_152455.jpg



SRK-GD21

2016-05-22 09:37:44

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592538.03 6903383.17

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-GD21_2016-05-22_093745.jpg



SRK-GD22

2016-05-20 15:59:35

Field Team J. Rooney, C. Gillis, D. Brown

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

591895.86 6903822.87

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-GD22_2016-05-20_155935.jpg



SRK-GD23

2016-05-20 16:06:54

Field Team C. Blair, E. Aaujo, C. Greene

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592031.45 6905965.36

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-GD23_2016-05-20_160655.jpg



SRK-GD24

2016-05-22 11:23:04

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592167.77 6903366.98

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-GD24_2016-05-22_112305.jpg



SRK-VD01

2016-05-21 11:46:47

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

593864.19 6902622.07

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-VD01_2016-05-21_114648.jpg



SRK-VD02

2016-05-21 12:34:39

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

593465.61 6902506.9

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-VD02_2016-05-21_123439.jpg



SRK-VD03

2016-05-21 12:53:17

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

593208.6 6902579.68

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-VD03_2016-05-21_125317.jpg



SRK-VD04

2016-05-21 12:07:45

Field Team C. Greene, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

593422.86 6903046.52

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-VD04_2016-05-21_120745.jpg



SRK-VD05

2016-05-21 12:52:42

Field Team C. Greene, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

593510.32 6903086.17

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-VD05_2016-05-21_125242.jpg



SRK-VD06

2016-05-21 11:20:05

Field Team C. Greene, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

593535.76 6903004.16

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-VD06_2016-05-21_112006.jpg



SRK-VD07

2016-05-21 11:11:55

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

593929 6902628.3

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-VD07_2016-05-21_111156.jpg



SRK-VD08

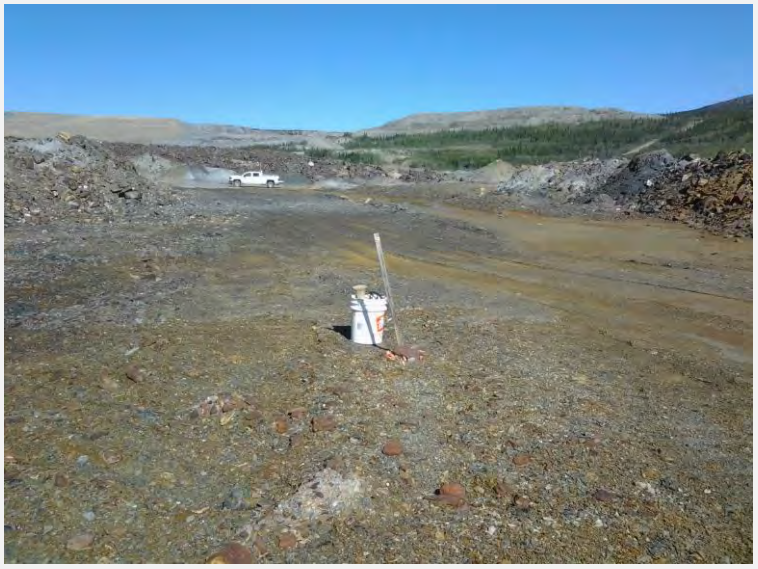
2016-05-21 11:03:13

Field Team C. Greene, E. Aaujo

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
593861.0	6902878.0	4.0

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-VD08_2016-05-21_110313.jpg



SRK-VD09

2016-05-21 10:35:43

Field Team C. Greene, E. Aaujo

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
593920.26	6902991.71	

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-VD09_2016-05-21_103543.jpg



SRK-VD10

2016-05-21 13:16:22

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
593314.17	6902990.44	

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-VD10_2016-05-21_131622.jpg



SRK-VD12

2016-05-21 10:42:10

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

593783.79 6902517.72

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-VD12_2016-05-21_104211.jpg



SRK-VD12

2016-05-21 10:51:56

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

593783.79 6902517.72

Seep location. Dry at flagging; sampled from bigger pond downstream.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-VD12_2016-05-21_105157.jpg



SRK-VD12

2016-05-21 10:52:29

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

593783.79 6902517.72

Seep location. Sampled from pond.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/SRK-VD12_2016-05-21_105229.jpg



Sweet Creek

2016-05-22 09:46:07

Field Team C. Greene, E. Araujo, B. Edwards

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592471 6902968

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/Sweet Creek_2016-05-22_094607.jpg



V15

2016-05-22 09:50:25

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

592635.9703 6903390.977

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/V15_2016-05-22_095025.jpg



VP07

2016-05-21 09:19:35

Field Team C. Greene, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

594058.42 6903411.44

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/VP07_2016-05-21_091936.jpg



VP08

2016-05-21 09:00:01

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
594074	6903361	

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/VP08_2016-05-21_090001.jpg



VP09

2016-05-21 10:19:07

Field Team C. Greene, E. Araujo

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
594286.31	6903070.84	

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/VP09_2016-05-21_101907.jpg



VP10

2016-05-21 09:41:10

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
594149.0	6903219.0	3.6

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/VP10_2016-05-21_094200.jpg



VP11

2016-05-21 10:22:51

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

594362.9462 6902993.343

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/VP11_2016-05-21_102252.jpg



VP11

2016-05-21 10:24:05

Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

594362.9462 6902993.343

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/VP11_2016-05-21_102405.jpg



WGD01

2016-05-22 10:45:47

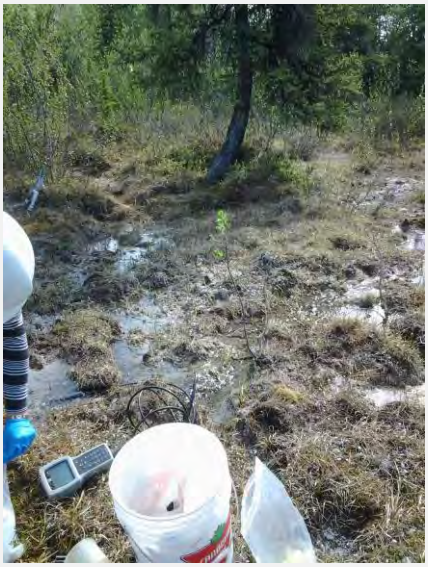
Field Team C. Blair, C. Gillis

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

591990.1434 6903317.467

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/WGD01_2016-05-22_104547.jpg



WTA02

2016-05-22 12:02:03

Field Team C. Greene, E. Araujo, B. Edwards

Coordinates (UTM NAD83 Zone 8N)	Accuracy (m +/-)
591811.83	6903040.92

Seep location.



https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/WTA02_2016-05-22_120203.jpg

X23

2016-02-24 13:41:52

Field Team J. Stroh, R. Sanders

Coordinates (UTM NAD83 Zone 8N)	Accuracy (m +/-)
583228.0	6914089.0 6.0

Stilling well frozen with transducer inside. Cannot download data.



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/X23_2016-02-24_134153.jpg

X23

2016-02-24 13:43:51

Field Team J. Stroh, R. Sanders

Coordinates (UTM NAD83 Zone 8N)	Accuracy (m +/-)
583227.0	6914090.0 8.0

Creek frozen; very little flow once ice broken through. Flow of creek approximately 3 cm above centre of weir.



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/X23_2016-02-24_134351.jpg

X23

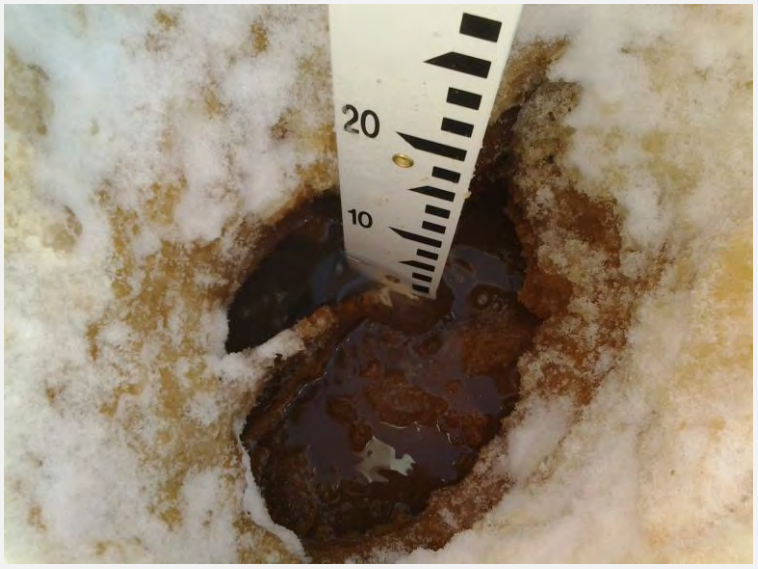
2016-02-24 13:48:50

Field Team J. Stroh, R. Sanders

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
583217.0	6914087.0	6.0

Flow of creek with scale.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/X23_2016-02-24_134850.jpg



X23

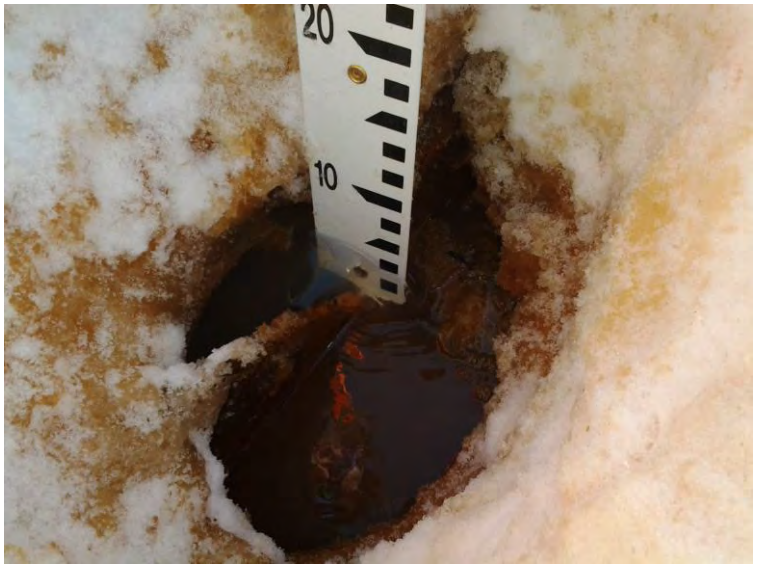
2016-02-24 13:49:38

Field Team J. Stroh, R. Sanders

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
583217.0	6914087.0	6.0

Flow of creek with scale.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/X23_2016-02-24_134939.jpg



X23

2016-02-24 15:24:20

Field Team J. Stroh, R. Sanders

Coordinates (UTM NAD83 Zone 8N)		Accuracy (m +/-)
583223.0	6914079.0	8.0

Took flow measurements. Five trials: (1) 540 ml in 1.26sec, (2) 600 ml in 1.2 sec, (3) 605 ml in 1.2 sec, (4) 525 ml in 1.07 sec, and (5) 550 ml in 1.19 sec.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/X23_2016-02-24_152420.jpg



X23

2016-02-24 15:30:20

Field Team J. Stroh, R. Sanders

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583227 6914081

Site overview.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/X23_2016-02-24_153020.jpg



X23

2016-05-18 11:38:25

Field Team C. Blair, E. Araujo

Coordinates (UTM NAD83 Zone 8N) Accuracy (m +/-)

583227.55 6914085.65

Seep location.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/X23_2016-05-18_113826.jpg



Attachment 2
Groundwater Purge Logs

Location:	CH12-014-MW003	Field Team	A. Campbell, P. Mamo	Start Time	2016-02-18 11:11:01	Depth to Water (mBTOC)	29.880
						Depth to Bottom (mBTOC)	35.3
Well Inner Diameter (mm)	50	Borehole Inner Diameter (mm)	280				
Top of Screen (mBTOC)	26.1	Bottom of Screen (mBTOC)	35.3			Well Volume (L)	121

Sonde Model:	YSI 6920	Sonde ID:	32013
Pump Model	QED SAMPLE PRO	Pump ID	21484
Water Level Meter Model	SOLINST 101	Water Level Meter ID	CHWYT-WLT02

Comment:

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-02-19 12:16:24		7.44	3.5	3.76	92.8	5.61	43	1503.8			
2016-02-19 12:17:21											Started purge with Grundfos Redi Flo 2.Bladder pump was not purging fast enough to prevent lines from freezing
2016-02-19 12:18:56										0.2	
2016-02-19 12:20:23		6.71	3.495	4.09	39.6	1.09	8.4	1502.2			
2016-02-19 12:20:24									30.284		
2016-02-19 12:21:25											Photo: Groundwater purge. Turbid water at start of purge. Clearing up now.
2016-02-19 12:24:23		6.73	3.476	3.84	12.7	0.81	6.3	1490.5			
2016-02-19 12:26:54									30.315		

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-02-19 12:27:34											Increase flow rate
2016-02-19 12:27:38										0.3	
2016-02-19 12:28:23		6.72	3.457	5.36	-6.1	0.7	5.6	981			
2016-02-19 12:32:23		6.84	0.007	8.31	-6.6	7.08	60.3	132.2			
2016-02-19 12:36:23		7.11	0.005	11.03	3.7	9.07	82.3	1028.5			
2016-02-19 12:37:41											Returned to find grundfos not working
2016-02-19 15:39:15											Resume purge at high flow rate to evacuate well
2016-02-19 15:39:50	30										
2016-02-19 15:40:28	50										
2016-02-19 15:41:15											Photo: Groundwater purge
2016-02-19 15:41:28											Water is clear
2016-02-19 15:42:07	70										
2016-02-19 15:43:07											Dry
2016-02-19 15:43:10	90										
2016-02-19 15:46:01									35.685		
2016-02-19 15:47:59											Lower pump 1m. Resume purge at high rate
2016-02-19 15:49:03											Dry
2016-02-19 15:49:09	120										
2016-02-20 09:33:12									29.995		

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-02-20 09:34:23											Resumed purge
2016-02-20 09:35:26										0.25	
2016-02-20 09:37:27		6.34	3.937	3.35	95.5	11.29	85.8	150.7			
2016-02-20 09:41:26		6.31	3.928	3.37	88.3	9.26	70.5	130.1			
2016-02-20 09:45:26		6.38	3.922	3.19	77.6	9.02	68.3	129.9			
2016-02-20 09:46:05									30.285		
2016-02-20 09:46:19											Photo: Groundwater purge
2016-02-20 09:49:26		6.44	3.901	3.9	58.1	8.59	66.2	131.8			
2016-02-20 09:50:31									30.308		
2016-02-20 09:53:26		6.46	3.881	4.33	47.9	8.23	64.2	138.1			
2016-02-20 09:57:22									30.38		
2016-02-20 09:57:26		6.51	3.862	6.29	42.9	7.46	61.2	103.5			
2016-02-20 10:00:20		6.51	3.876	6.61	41.6	7.27	60.1	90.8			
2016-02-20 10:00:34											Collect sample at 10:00
2016-02-20 10:10:57	130										
2016-02-20 10:11:39											Photo: Collected sample.

CH12-014-MW003

2016-02-17 16:39:48

Field Team A. Campbell, P. Mamo

Thermistor measurement



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW003_2016-02-17_163948.jpg

CH12-014-MW003

2016-02-19 12:20:52

Field Team A. Campbell, P. Mamo

Groundwater purge. Turbid water at start of purge. Clearing up now.



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW003_2016-02-19_122052.jpg

CH12-014-MW003

2016-02-19 15:41:02

Field Team A. Campbell, P. Mamo

Groundwater purge

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW003_2016-02-19_154102.jpg



CH12-014-MW003

2016-02-20 09:46:06

Field Team A. Campbell, P. Mamo

Groundwater purge

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW003_2016-02-20_094606.jpg



CH12-014-MW003

2016-02-20 10:11:14

Field Team A. Campbell, P. Mamo

Collected sample.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW003_2016-02-20_101114.jpg



Location:	CH12-014-MW003	Field Team	A. Campbell, C. Blair	Start Time	2016-06-02 08:53:35	Depth to Water (mBTOC)	29.915
						Depth to Bottom (mBTOC)	35.3
Well Inner Diameter (mm)	50	Borehole Inner Diameter (mm)	280				
Top of Screen (mBTOC)	26.1	Bottom of Screen (mBTOC)	35.3			Well Volume (L)	119

Sonde Model:	YSI 6920	Sonde ID:	15A21
Pump Model	QED BLADDER	Pump ID	MP50-1493
Water Level Meter Model	SOLINST 101	Water Level Meter ID	CHWYT-WLT02

Comment:

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-06-02 09:27:48		7.73	0.001	12.26	184.7	12.23	114.1	-0.6			
2016-06-02 09:35:57											Start purge
2016-06-02 09:36:41		7.13	3.166	7.98	56.4	8.62	73.6	16.5			
2016-06-02 09:38:30									29.98		
2016-06-02 09:39:28											Photo: Groundwater purge
2016-06-02 09:39:41											Photo: Groundwater purge
2016-06-02 09:39:51		6.63	3.199	7.5	38.2	4.16	35.1	14.3			
2016-06-02 09:43:51		6.53	3.244	6.78	28.9	2.76	22.8	10.3			
2016-06-02 09:47:50		6.51	3.254	6.58	27.8	2.07	17	7.8			
2016-06-02 09:51:51		6.49	3.253	6.48	28.3	1.79	14.7	11.2			
2016-06-02 09:55:51		6.49	3.244	6.44	26.8	1.66	13.7	10.4			
2016-06-02 09:58:48									30.04		
2016-06-02 09:59:50		6.5	3.222	6.56	24.2	1.56	12.9	11.1			
2016-06-02 10:01:24										0.1	
2016-06-02 10:04:08		6.5	3.213	6.69	22.1	1.53	12.7	14			
2016-06-02 10:08:08		6.49	3.206	6.91	22.6	1.52	12.7	31.5			

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-06-02 10:12:08		6.5	3.192	7.1	21.8	1.5	12.5	17.8			
2016-06-02 10:16:08		6.5	3.184	7.3	20.6	1.48	12.4	17			
2016-06-02 10:18:45									30.08		
2016-06-02 10:20:08		6.49	3.198	7.22	21.1	1.45	12.2	12.7			
2016-06-02 10:24:08		6.48	3.216	7.33	25.1	1.44	12.1	10.4			
2016-06-02 10:28:08		6.47	3.227	7.51	31.2	1.43	12.1	9.9			
2016-06-02 10:31:37									30.115		
2016-06-02 10:32:07		6.46	3.245	7.47	38.2	1.44	12.1	10.3			
2016-06-02 10:36:08		6.45	3.258	7.5	47.6	1.43	12.1	16.6			
2016-06-02 10:39:58									30.13		
2016-06-02 10:40:07		6.45	3.264	7.37	53.7	1.43	12	15			
2016-06-02 10:44:07		6.45	3.252	7.26	57	1.41	11.8	18.7			
2016-06-02 10:48:08		6.45	3.248	7.06	57.5	1.41	11.7	18.2			
2016-06-02 10:52:08		6.45	3.245	6.96	57.4	1.4	11.7	20.3			
2016-06-02 10:56:08		6.45	3.238	6.91	58	1.39	11.5	20.4			
2016-06-02 11:00:08		6.45	3.233	6.66	58.9	1.37	11.3	22.6			
2016-06-02 11:04:08		6.45	3.225	6.6	58.6	1.35	11.2	30.4			
2016-06-02 11:08:08		6.45	3.224	6.77	58.4	1.34	11.1	35.7			
2016-06-02 11:12:08		6.46	3.211	7.05	59	1.32	11	36.5			
2016-06-02 11:16:08		6.46	3.213	7.08	57.8	1.32	11	29.8			
2016-06-02 11:20:08		6.47	3.179	7.28	53	1.33	11.1	28.6			
2016-06-02 11:24:08		6.48	3.168	7.31	47.6	1.32	11.1	22.9			
2016-06-02 11:28:08		6.48	3.167	7.4	45.2	1.33	11.2	21.1			
2016-06-02 11:32:08		6.49	3.154	7.58	43.6	1.34	11.3	16.9			
2016-06-02 11:36:08		6.49	3.152	7.93	42.9	1.33	11.4	19.7			
2016-06-02 11:40:08		6.49	3.144	7.59	43.3	1.35	11.4	15.2			
2016-06-02 11:44:07		6.48	3.143	7.49	43.5	1.35	11.4	13.1			
2016-06-02 11:48:08		6.48	3.136	7.48	44.7	1.35	11.4	13.4			

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-06-02 11:52:08		6.48	3.131	7.72	48.1	1.35	11.4	12			
2016-06-02 11:56:07		6.48	3.124	7.66	49.3	1.36	11.5	10			
2016-06-02 12:00:07		6.48	3.123	7.58	50.7	1.36	11.5	7.5			
2016-06-02 12:04:07		6.47	3.127	7.58	53	1.36	11.5	9.2			
2016-06-02 12:08:08		6.47	3.133	7.42	55.6	1.37	11.5	6.5			
2016-06-02 12:10:58									30.257		
2016-06-02 12:12:07		6.47	3.125	7.52	57.1	1.38	11.6	6.5			
2016-06-02 12:16:08		6.47	3.122	7.77	59.7	1.39	11.8	5.9			
2016-06-02 12:20:07		6.47	3.117	7.93	61.6	1.39	11.9	5.1			
2016-06-02 12:24:07		6.47	3.124	7.75	63	1.4	11.8	4.5			
2016-06-02 12:28:07		6.47	3.119	7.72	64.1	1.4	11.8	4			
2016-06-02 12:32:07		6.47	3.108	7.96	64.7	1.42	12.1	4.2			
2016-06-02 12:36:07		6.48	3.111	8.38	66.1	1.44	12.4	5			
2016-06-02 12:40:07		6.48	3.107	8.55	66	1.45	12.5	2.2			
2016-06-02 12:44:07		6.48	3.108	8.82	66.2	1.45	12.6	1.7			
2016-06-02 12:48:07		6.48	3.112	8.74	66.4	1.47	12.8	3.4			
2016-06-02 12:52:07		6.48	3.118	8.46	67.1	1.47	12.7	5			
2016-06-02 12:56:07		6.47	3.112	8.01	68	1.46	12.5	3.9			
2016-06-02 12:56:52	20										
2016-06-02 12:56:57									30.29		
2016-06-02 13:00:07		6.47	3.104	7.8	68.8	1.55	13.2	4.5			
2016-06-02 13:04:07		6.46	3.116	7.85	69	1.88	16	5.5			
2016-06-02 13:08:07		6.46	3.106	7.58	68	1.9	16	4			
2016-06-02 13:12:07		6.46	3.097	7.6	67.7	1.93	16.3	3.4			
2016-06-02 13:16:07		6.47	3.092	7.87	67.6	1.99	16.9	3			
2016-06-02 13:20:07		6.48	3.081	8.36	67.2	2.04	17.6	0.6			
2016-06-02 13:24:07		6.48	3.076	8.78	66.6	2.11	18.4	3			
2016-06-02 13:28:07		6.48	3.079	8.87	66.2	2.17	18.9	2.9			

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-06-02 13:32:07		6.48	3.086	8.46	66.5	2.23	19.2	3.2			
2016-06-02 13:36:07		6.47	3.084	8.22	67.1	2.28	19.5	2.8			
2016-06-02 13:40:07		6.47	3.086	8.04	67.2	2.32	19.8	2.8			
2016-06-02 13:44:07		6.47	3.086	7.91	67.3	2.35	20	2.7			
2016-06-02 13:45:05									30.315		
2016-06-02 13:45:34	25										
2016-06-02 13:46:01											Stable. Sample at 13:50

CH12-014-MW003

2016-06-02 09:39:18

Field Team A. Campbell, C. Blair

Groundwater purge

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW003_2016-06-02_093918.jpg

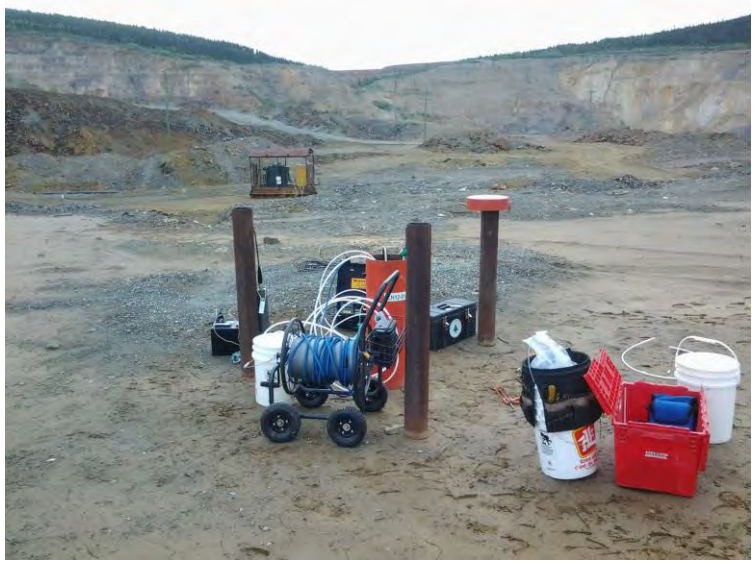


CH12-014-MW003

2016-06-02 09:39:30

Field Team A. Campbell, C. Blair

Groundwater purge



https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW003_2016-06-02_093930.jpg

CH12-014-MW003

2016-06-02 10:04:05

Field Team A. Campbell, C. Blair

Thermistor measurement



https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW003_2016-06-02_100405.jpg

Location:	CH12-014-MW007	Field Team	A. Campbell, P. Mamo	Start Time	2016-02-17 12:41:12	Depth to Water (mBTOC)	48.414
						Depth to Bottom (mBTOC)	63.11
Well Inner Diameter (mm)	50	Borehole Inner Diameter (mm)	280				
Top of Screen (mBTOC)	46.3	Bottom of Screen (mBTOC)	61.59			Well Volume (L)	284

Sonde Model:	YSI 6920	Sonde ID:	32013
Pump Model	GRUNFOS REDI FLO 2	Pump ID	13174
Water Level Meter Model	SOLINST 101	Water Level Meter ID	CHWYT-WLT02

Comment: Transducer download: Temp =15.08 Celcius , Pressure=8.929 psi, Depth = 6.284m

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-02-17 13:25:33											Start purge
2016-02-17 13:25:58		6.63	5.353	11.96	53.7	1.9	17.1	286.9			
2016-02-17 13:31:21		6.5	5.368	9.89	46.6	1.16	10.4	181.5			
2016-02-17 13:33:56									48.47		
2016-02-17 13:34:04										1	
2016-02-17 13:34:15		6.41	5.461	14.54	48.1	0.64	6.4	375.7			
2016-02-17 13:38:14		6.41	5.542	17.17	34.9	0.58	6.1	297.3			
2016-02-17 13:42:14		6.48	5.509	18.89	32.4	0.46	5.1	175.9			
2016-02-17 13:42:40	15										
2016-02-17 13:46:14		6.4	5.573	19.12	34.9	0.43	4.8	108.3			
2016-02-17 13:50:14		6.39	5.638	19.22	37.3	0.38	4.1	56.2			
2016-02-17 13:54:14		6.38	5.674	19.1	38.4	0.43	4.8	33.6			
2016-02-17 13:58:14		6.37	5.677	19.11	39.1	0.36	4	31.1			
2016-02-17 14:02:14		6.37	5.681	19.24	39.2	0.37	4.1	16.6			
2016-02-17 14:03:03	40										
2016-02-17 14:06:14		6.37	5.704	19.28	38.8	0.36	4	14			
2016-02-17 14:06:59									48.505		
2016-02-17 14:10:14		6.37	5.695	19.23	38.8	0.31	3.5	22			

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-02-17 14:13:09											Photo: Groundwater purge
2016-02-17 14:14:14		6.37	5.664	19.26	38.5	0.41	4.5	8.7			
2016-02-17 14:15:48	57										
2016-02-17 14:18:14		6.36	5.668	19.64	38.2	0.4	4.4	9.7			
2016-02-17 14:20:12									50.5		
2016-02-17 14:22:14		6.36	5.62	19.29	38.1	0.41	4.5	9.7			
2016-02-17 14:26:14		6.36	5.599	19.44	37.1	0.41	4.5	7.7			
2016-02-17 14:30:14		6.36	5.591	19.22	37.6	0.41	4.6	6.7			
2016-02-17 14:32:22	77										
2016-02-17 14:34:14		6.35	5.6	18.85	38.3	0.44	4.8	5.8			
2016-02-17 14:35:07											Stable sample at 14:35

CH12-014-MW007

2016-02-17 12:53:50

Field Team A. Campbell, P. Mamo

Thermistor measurement



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW007_2016-02-17_125350.jpg

CH12-014-MW007

2016-02-17 14:12:52

Field Team A. Campbell, P. Mamo

Groundwater purge

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW007_2016-02-17_141252.jpg



Location:	CH12-014-MW007	Field Team	A. Campbell, C. Blair	Start Time	2016-06-01 10:12:08	Depth to Water (mBTOC)	48.271
						Depth to Bottom (mBTOC)	63.11
Well Inner Diameter (mm)	50	Borehole Inner Diameter (mm)	280				
Top of Screen (mBTOC)	46.3	Bottom of Screen (mBTOC)	61.59			Well Volume (L)	283

Sonde Model:	YSI 6920	Sonde ID:	15A21
Pump Model	GRUNDFOS	Pump ID	32259
Water Level Meter Model	SOLINST 101	Water Level Meter ID	CHWYT-WLT02

Comment:

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-06-01 11:08:54		6.58	6.153	15.38	144.9	7.8	79.6	375.9			
2016-06-01 11:08:54		6.58	6.153	15.38	144.9	7.8	79.6	375.9			
2016-06-01 11:09:03											
2016-06-01 11:09:03											Start purge
2016-06-01 11:09:40											
2016-06-01 11:09:40										0.9	
2016-06-01 11:11:48									48.36		
2016-06-01 11:11:48											
2016-06-01 11:12:32											Slowed flow rate
2016-06-01 11:12:32											
2016-06-01 11:12:53		6.11	6.01	15.49	96.2	1.24	12.7	234			
2016-06-01 11:12:53		6.11	6.01	15.49	96.2	1.24	12.7	234			
2016-06-01 11:13:14										0.35	
2016-06-01 11:13:14											
2016-06-01 11:13:27											Photo: Groundwater purge
2016-06-01 11:13:27											

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-06-01 11:13:42											Photo: Groundwater purge
2016-06-01 11:13:42											
2016-06-01 11:16:53		6.09	6.023	15.65	90.1	1.25	12.8	27.4			
2016-06-01 11:16:53		6.09	6.023	15.65	90.1	1.25	12.8	27.4			
2016-06-01 11:20:53		6.07	6.023	16.03	91.9	1.23	12.7	30.3			
2016-06-01 11:20:53		6.07	6.023	16.03	91.9	1.23	12.7	30.3			
2016-06-01 11:22:06											
2016-06-01 11:22:06										0.3	
2016-06-01 11:23:38									48.35		
2016-06-01 11:23:38											
2016-06-01 11:24:53		6.07	6.041	16.41	91.7	1.25	13	28.2			
2016-06-01 11:24:53		6.07	6.041	16.41	91.7	1.25	13	28.2			
2016-06-01 11:28:53		6.06	6.126	16.49	92.1	1.27	13.3	80.7			
2016-06-01 11:28:53		6.06	6.126	16.49	92.1	1.27	13.3	80.7			
2016-06-01 11:32:53		6.04	6.261	16.07	93	1.28	13.2	45.6			
2016-06-01 11:32:53		6.04	6.261	16.07	93	1.28	13.2	45.6			
2016-06-01 11:36:41											
2016-06-01 11:36:41									48.29		
2016-06-01 11:36:53		6.03	6.241	15.84	93	1.28	13.2	31.5			
2016-06-01 11:36:53		6.03	6.241	15.84	93	1.28	13.2	31.5			
2016-06-01 11:37:50										0.325	
2016-06-01 11:37:50											
2016-06-01 11:40:53		6.02	6.196	15.86	92.9	1.29	13.3	24.4			
2016-06-01 11:40:53		6.02	6.196	15.86	92.9	1.29	13.3	24.4			
2016-06-01 11:44:53		6.03	6.171	15.89	91.3	1.3	13.4	18.1			
2016-06-01 11:44:53		6.03	6.171	15.89	91.3	1.3	13.4	18.1			

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-06-01 11:48:53		6.03	6.102	16.06	90.6	1.32	13.7	15.5			
2016-06-01 11:48:53		6.03	6.102	16.06	90.6	1.32	13.7	15.5			
2016-06-01 11:49:01											
2016-06-01 11:49:01	20										
2016-06-01 11:50:29										0.4	
2016-06-01 11:50:29											
2016-06-01 11:51:35									48.29		
2016-06-01 11:51:35											
2016-06-01 11:52:53		6.02	6.089	16.24	89.9	1.35	14	12.3			
2016-06-01 11:52:53		6.02	6.089	16.24	89.9	1.35	14	12.3			
2016-06-01 11:56:53		6.02	6.09	16.31	89.8	1.37	14.3	9.9			
2016-06-01 11:56:53		6.02	6.09	16.31	89.8	1.37	14.3	9.9			
2016-06-01 12:00:53		6.02	6.075	16.51	89.1	1.4	14.6	7.4			
2016-06-01 12:00:53		6.02	6.075	16.51	89.1	1.4	14.6	7.4			
2016-06-01 12:04:53		6.02	6.084	16.66	88.5	1.44	15	6.3			
2016-06-01 12:04:53		6.02	6.084	16.66	88.5	1.44	15	6.3			
2016-06-01 12:08:53		6.02	6.08	16.7	87.3	1.48	15.5	6.2			
2016-06-01 12:08:53		6.02	6.08	16.7	87.3	1.48	15.5	6.2			
2016-06-01 12:12:53		6.02	6.073	16.92	87.1	1.53	16.2	6.3			
2016-06-01 12:12:53		6.02	6.073	16.92	87.1	1.53	16.2	6.3			
2016-06-01 12:16:53		6.02	6.06	17.09	88.5	1.58	16.7	5.3			
2016-06-01 12:16:53		6.02	6.06	17.09	88.5	1.58	16.7	5.3			
2016-06-01 12:19:24											Stable, sample at 12:05
2016-06-01 12:19:24											
2016-06-01 12:25:35											
2016-06-01 12:25:35	38										

CH12-014-MW007

2016-06-01 11:13:17

Field Team A. Campbell, C. Blair

Groundwater purge

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW007_2016-06-01_111317.jpg



CH12-014-MW007

2016-06-01 11:13:33

Field Team A. Campbell, C. Blair

Groundwater purge

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW007_2016-06-01_111333.jpg



CH12-014-MW007

2016-06-01 12:43:43

Field Team A. Campbell, C. Blair

Thermistor measurement



https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW007_2016-06-01_124344.jpg

Location:	CH12-014-MW011	Field Team	J.Stroh, A.Campbell	Start Time	2016-02-21 12:54:28	Depth to Water (mBTOC)	28.322
Well Inner Diameter (mm)	50	Borehole Inner Diameter (mm)	280			Depth to Bottom (mBTOC)	35.4
Top of Screen (mBTOC)	24.7	Bottom of Screen (mBTOC)	33.8			Well Volume (L)	132

Sonde Model:	YSI 6920	Sonde ID:	32013
Pump Model	GRUNFOS REDI FLO 2	Pump ID	13174
Water Level Meter Model	SOLINST 101	Water Level Meter ID	CHWYT-WLT02

Comment: Transducer download: Temp = 3.140 Celcius, Pressure = 8.046psi, Depth=5.662m

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-02-21 13:22:16		7.16	3.361	2.67	88.8	16.97	126.4	172.2			
2016-02-21 13:22:32											Started purge.
2016-02-21 13:22:46											Photo: Groundwater purge
2016-02-21 13:24:40										0.7	
2016-02-21 13:25:01											Water cleared up quickly
2016-02-21 13:26:15		7.29	3.621	4.5	53.3	0.69	5.4	300.9			
2016-02-21 13:27:01									28.365		
2016-02-21 13:30:15		7.27	3.616	5.84	43.2	0.51	4.2	289.1			
2016-02-21 13:30:46										0.3	
2016-02-21 13:31:21									28.352		
2016-02-21 13:34:16		7.25	3.58	7.92	38.2	0.41	3.5	220.8			
2016-02-21 13:36:36											
2016-02-21 13:38:15		7.24	3.597	8.91	38.3	0.36	3.1	208.5			
2016-02-21 13:42:15		7.24	3.591	8.87	40.2	0.35	3	186.2			
2016-02-21 13:46:16		7.22	3.596	9.25	42.4	0.33	2.9	129			
2016-02-21 13:50:16		7.21	3.596	9.41	44.5	0.31	2.8	86.9			

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-02-21 13:54:16		7.2	3.588	9.63	46.3	0.3	2.6	56.8			
2016-02-21 13:54:58									28.366		
2016-02-21 13:58:15		7.2	3.583	9.73	48	0.29	2.6	39.3			
2016-02-21 14:02:15		7.19	3.595	9.67	48.8	0.3	2.7	28.6			
2016-02-21 14:06:15		7.19	3.569	9.74	51.1	0.28	2.5	22.4			
2016-02-21 14:10:15		7.2	3.557	9.92	52.1	0.26	2.3	19.7			
2016-02-21 14:10:25	20										
2016-02-21 14:14:15		7.17	3.565	9.82	54.8	0.28	2.5	12.7			
2016-02-21 14:18:58		7.18	3.557	9.84	54.6	0.26	2.4	12.2			
2016-02-21 14:20:18									28.37		
2016-02-21 14:22:58		7.18	3.549	9.85	54.5	0.27	2.4	14.1			
2016-02-21 14:26:58		7.18	3.545	9.89	54	0.27	2.5	11.1			
2016-02-21 14:30:58		7.18	3.543	9.83	53.5	0.27	2.4	8.6			
2016-02-21 14:34:58		7.18	3.538	9.75	53.2	0.27	2.4	10			
2016-02-21 14:38:58		7.19	3.534	9.81	52	0.27	2.4	8.6			
2016-02-21 14:39:33											Stable. Sample at 14:40
2016-02-21 14:39:59	30										
2016-02-21 15:08:11											Photo: Collected sample and duplicate.

CH12-014-MW011

2016-02-21 13:22:36

Field Team J.Stroh, A.Campbell

Groundwater purge

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW011_2016-02-21_132237.jpg



CH12-014-MW011

2016-02-21 13:35:53

Field Team J.Stroh, A.Campbell

Groundwater purge setup.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW011_2016-02-21_133553.jpg



CH12-014-MW011

2016-02-21 13:37:04

Field Team A. Campbell, J. Stroh

Gas sampling

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW011_2016-02-21_133704.jpg



CH12-014-MW011

2016-02-21 15:07:39

Field Team J.Stroh, A.Campbell

Collected sample and duplicate.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW011_2016-02-21_150739.jpg



CH12-014-MW011

2016-02-22 10:35:18

Field Team A. Campbell, J. Stroh

Thermistor measurement



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW011_2016-02-22_103519.jpg

CH12-014-MW011

2016-02-22 10:35:41

Field Team A. Campbell, J. Stroh

Thermistor measurement



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW011_2016-02-22_103541.jpg

Location:	CH12-014-MW011	Field Team	A. Campbell, C. Blair	Start Time	2016-06-04 13:30:59	Depth to Water (mBTOC)	27.452
Well Inner Diameter (mm)	50	Borehole Inner Diameter (mm)	280			Depth to Bottom (mBTOC)	35.4
Top of Screen (mBTOC)	24.7	Bottom of Screen (mBTOC)	33.8			Well Volume (L)	147
Sonde Model:	YSI 6920			Sonde ID:	15A21		
Pump Model	GRUNDFOS REDI FLO 2			Pump ID	13174		
Water Level Meter Model	SOLINST 101			Water Level Meter ID	CHWYT-WLT02		
Comment:							

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-06-04 13:45:36		7.52	3.5	3.21	-59.8	7.12	53.8	293.2			
2016-06-04 13:47:02									27.52		
2016-06-04 13:47:12										0.3	
2016-06-04 13:47:22											Silty
2016-06-04 13:47:41											Photo: Groundwater purge
2016-06-04 13:49:36		6.88	3.488	3.2	-38.9	2.03	15.4	392.2			
2016-06-04 13:53:36		6.76	3.47	3.96	-37.6	1.93	14.9	337.5			
2016-06-04 13:57:36		6.74	3.462	5.31	-41	2.06	16.4	209.7			
2016-06-04 14:01:36		6.7	3.453	6.09	-42.4	2.21	18	158.5			
2016-06-04 14:05:36		6.69	3.447	6.57	-41.3	2.28	18.8	123.4			
2016-06-04 14:07:01									27.53		
2016-06-04 14:07:49										0.44	
2016-06-04 14:09:36		6.67	3.443	6.66	-38.3	2.26	18.7	95.2			
2016-06-04 14:13:36		6.65	3.442	6.54	-34.4	2.19	18.1	101.6			
2016-06-04 14:17:36		6.64	3.438	6.86	-31.4	2.11	17.6	86.6			
2016-06-04 14:21:36		6.63	3.438	6.86	-28.5	2.06	17.1	70.7			
2016-06-04 14:23:08	20										

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-06-04 14:23:15									27.54		
2016-06-04 14:23:56										0.5	
2016-06-04 14:25:36		6.62	3.437	6.89	-25.5	2	16.6	56.4			
2016-06-04 14:29:36		6.62	3.435	7	-22.8	1.98	16.5	42.4			
2016-06-04 14:33:36		6.62	3.435	6.89	-19.9	1.96	16.3	36			
2016-06-04 14:36:15		6.63	3.434	6.94	-18.8	2.11	17.6	31			
2016-06-04 14:40:15		6.61	3.432	7.02	-15.8	1.93	16.1	33.8			
2016-06-04 14:44:15		6.6	3.43	6.95	-13.7	1.9	15.8	32.3			
2016-06-04 14:48:15		6.6	3.427	7.09	-11.7	1.88	15.7	29.1			
2016-06-04 14:52:15		6.6	3.424	7.06	-10.2	1.86	15.5	31			
2016-06-04 14:56:15		6.6	3.421	7.05	-8.7	1.83	15.3	26.8			
2016-06-04 14:58:44									27.56		
2016-06-04 14:59:37	40										
2016-06-04 15:00:15		6.59	3.418	6.96	-7.1	1.82	15.1	23.7			
2016-06-04 15:02:13											Sample at 15:05
2016-06-04 15:02:22		6.59	3.415	7.04	-6.6	1.8	15	21.1			
2016-06-04 15:04:06		6.59	3.415	6.93	-6.3	1.8	15	21			
2016-06-04 15:14:25									27.57		
2016-06-04 15:15:18											Photo: Collected sample.
2016-06-04 15:15:59	50										

CH12-014-MW011

2016-06-04 13:47:26

Field Team A. Campbell, C. Blair

Groundwater purge

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW011_2016-06-04_134727.jpg



CH12-014-MW011

2016-06-04 15:14:48

Field Team A. Campbell, C. Blair

Collected sample.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW011_2016-06-04_151448.jpg



Location:	CH12-014-MW012	Field Team	J.Stroh, A.Campbell	Start Time	2016-02-21 12:10:10	Depth to Water (mBTOC)	23.015
						Depth to Bottom (mBTOC)	38
Well Inner Diameter (mm)	50	Borehole Inner Diameter (mm)	280				
Top of Screen (mBTOC)	25	Bottom of Screen (mBTOC)	37.2			Well Volume (L)	250

Sonde Model:	YSI 6920	Sonde ID:	32013
Pump Model	GRUNFOS REDI FLO 2	Pump ID	13174
Water Level Meter Model	SOLINST 101	Water Level Meter ID	CHWYT-WLT02

Comment:

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-02-21 12:14:01		7.83	1.917	3.14	16.7	11.44	85.9	1272.8			
2016-02-21 12:14:39											Photo: Groundwater purge. Start of purge. Turbid water
2016-02-21 12:17:10										0.1	
2016-02-21 12:18:01		8.08	1.918	2.84	-94.2	0.86	6.4	1254.3			
2016-02-21 12:22:01		7.9	1.834	3.77	-107.5	0.43	3.3	1258.7			
2016-02-21 12:29:51									23.258		
2016-02-21 12:30:08		7.16	1.966	3.12	-68.6	1.26	9.5	1250			Cavitation issues with pump. Stop purging for today. Will return tomorrow with bladder pump.
2016-02-21 12:34:08	2	7.66	1.983	3.27	-102.4	0.59	4.4	1240.5			
2016-02-21 12:36:29											
2016-02-21 12:36:40											

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-02-22 13:31:28									23.058		
2016-02-22 13:39:01		8.4	1.981	3	-122.7	4.32	32.3	1320.1			
2016-02-22 13:39:30											Resumed purge using QED Sample Pro bladder pump.
2016-02-22 13:39:46											Turbid grey water
2016-02-22 13:40:06											Photo: Groundwater purge
2016-02-22 13:42:54										0.3	
2016-02-22 13:43:01		7.6	1.924	3.41	-92.5	0.57	4.3	1293.7			
2016-02-22 13:45:17									23.245		
2016-02-22 13:45:58										0.2	
2016-02-22 13:47:01		7.5	1.922	3.26	-97.6	0.33	2.5	1279.7			
2016-02-22 13:51:01		7.74	1.004	2.8	-113.1	0.51	3.8	1270.3			
2016-02-22 13:55:01		7.59	1.928	3.05	-95.3	0.34	2.6	1270.6			
2016-02-22 13:59:01		7.55	1.934	3.03	-98	0.24	1.8	1266.9			
2016-02-22 14:03:01		7.61	1.943	2.54	-119.3	0.28	2.1	1261.3			
2016-02-22 14:07:01		7.58	1.947	2.44	-119.5	0.25	1.9	1262			
2016-02-22 14:11:01		7.55	1.949	2.44	-117.7	0.31	2.3	1266.6			
2016-02-22 14:15:01		7.58	1.031	2.35	-120.8	0.3	2.2	974.6			
2016-02-22 14:19:01		7.5	1.949	2.76	-118.2	0.23	1.7	813			
2016-02-22 14:23:01		7.54	1.948	3.03	-122.6	0.17	1.3	800.6			
2016-02-22 14:25:28											Water is clearing up
2016-02-22 14:27:01		7.54	1.948	2.99	-123.4	0.18	1.3	568.7			
2016-02-22 14:31:01		7.58	1.953	2.95	-126.3	0.17	1.3	651.9			

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-02-22 14:33:35									23.455		
2016-02-22 14:35:01		7.59	1.959	2.59	-126.3	0.18	1.3	760.7			
2016-02-22 14:39:01		7.57	1.954	2.97	-126.3	0.17	1.3	454.1			
2016-02-22 14:43:01		7.6	1.953	2.83	-128.7	0.18	1.3	741.7			
2016-02-22 14:47:01		7.59	1.954	2.82	-128.7	0.16	1.2	348.4			
2016-02-22 14:51:01		7.48	1.957	2.77	-123.4	0.17	1.3	441.4			
2016-02-22 14:52:38									23.55		
2016-02-22 14:55:01		7.53	1.953	2.75	-126.5	0.17	1.3	254.3			
2016-02-22 14:56:20	15										
2016-02-22 14:59:01		7.61	1.032	2.52	-130.8	0.19	1.4	351.7			
2016-02-22 15:03:01		7.6	1.968	2.41	-130.4	0.18	1.3	323.2			
2016-02-22 15:07:01		7.54	1.959	2.86	-128.1	0.15	1.1	612.8			
2016-02-22 15:11:01		7.58	1.957	2.91	-130.8	0.14	1	550.6			
2016-02-22 15:15:01		7.63	1.969	2.26	-132.5	0.2	1.5	571.2			
2016-02-22 15:19:01		7.55	1.962	2.7	-129.1	0.17	1.3	484.3			
2016-02-22 15:23:01		7.55	1.957	2.88	-129.7	0.15	1.1	412			
2016-02-22 15:27:01		7.56	1.956	2.87	-130.5	0.16	1.2	281.8			
2016-02-22 15:31:01		7.57	1.96	2.83	-131.3	0.15	1.1	287.8			
2016-02-22 15:35:01		7.6	1.961	2.67	-133.2	0.15	1.1	276.9			
2016-02-22 15:39:01		7.57	1.952	2.7	-131.9	0.15	1.1	246.6			
2016-02-22 15:43:01		7.56	1.945	2.63	-131.7	0.14	1	207.6			
2016-02-22 15:47:01		7.57	1.954	2.73	-132.3	0.15	1.1	166.2			
2016-02-22 15:51:00		7.59	1.956	2.68	-134.3	0.15	1.1	223.6			
2016-02-22 15:52:11											Photo: Groundwater purge

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-02-22 15:52:46											Turbidity is not stable but all other parameters are. Sample at 15:55
2016-02-22 15:53:01	27										
2016-02-22 15:53:35									23.785		
2016-02-22 16:12:35											Photo: Collected sample.

CH12-014-MW012

2016-02-21 12:14:09

Field Team J.Stroh, A.Campbell

Groundwater purge. Start of purge. Turbid water



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW012_2016-02-21_121409.jpg

CH12-014-MW012

2016-02-21 13:58:57

Field Team A. Campbell, J. Stroh

Thermistor measurement



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW012_2016-02-21_135857.jpg

CH12-014-MW012

2016-02-22 13:39:48

Field Team J.Stroh, A.Campbell

Groundwater purge



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW012_2016-02-22_133948.jpg

CH12-014-MW012

2016-02-22 15:51:48

Field Team J.Stroh, A.Campbell

Groundwater purge

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW012_2016-02-22_155148.jpg



CH12-014-MW012

2016-02-22 16:12:13

Field Team J.Stroh, A.Campbell

Collected sample.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW012_2016-02-22_161214.jpg



Location:	CH12-014-MW012	Field Team	A. Campbell, C. Blair	Start Time	2016-06-03 10:54:44	Depth to Water (mBTOC)	22.625
						Depth to Bottom (mBTOC)	38
Well Inner Diameter (mm)	50	Borehole Inner Diameter (mm)	280				
Top of Screen (mBTOC)	25	Bottom of Screen (mBTOC)	37.2			Well Volume (L)	250

Sonde Model:	YSI 6920	Sonde ID:	15A21
Pump Model	QED SAMPLE PRO	Pump ID	8118
Water Level Meter Model	SOLINST 101	Water Level Meter ID	CHWYT-WLT02

Comment:

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-06-03 11:21:18											Start purge
2016-06-03 11:24:17		7.79	2.008	7.53	-106.5	4.28	36	333			
2016-06-03 11:26:59											Photo: Groundwater purge
2016-06-03 11:28:15											
2016-06-03 11:28:15		7.5	1.889	6.84	-141.9	1.02	8.4	458.3			
2016-06-03 11:32:15		7.46	1.855	6.66	-143.8	0.8	6.6	460			
2016-06-03 11:36:15		7.45	1.829	6.43	-143.2	0.71	5.8	495.5			
2016-06-03 11:37:40									22.825		
2016-06-03 11:39:32										0.15	
2016-06-03 11:40:15		7.5	1.828	7.43	-147.1	0.66	5.6	316.4			
2016-06-03 11:44:15		7.46	1.843	5.85	-143	0.63	5.1	454.2			
2016-06-03 11:46:43									22.88		
2016-06-03 11:48:15		7	1.811	6.61	-135.8	0.6	4.9	274.5			
2016-06-03 11:52:15		7.41	1.821	7.07	-133.9	0.59	4.9	373.3			
2016-06-03 11:56:15		7.42	1.809	6.71	-132.5	0.59	4.8	293.5			
2016-06-03 12:00:14										0.12	
2016-06-03 12:00:15		7.44	1.808	6.81	-132	0.58	4.8	353.4			

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-06-03 12:01:44									22.94		
2016-06-03 12:04:15		7.43	1.804	6.74	-132.1	0.57	4.7	285.1			
2016-06-03 12:08:15		7.35	1.844	6.09	-129.1	0.57	4.6	250.2			
2016-06-03 12:09:41									22.95		
2016-06-03 12:12:15		7.36	1.852	6.66	-128	0.57	4.7	194.9			
2016-06-03 12:16:15		7.44	1.876	6.61	-134.3	0.57	4.7	151.3			
2016-06-03 12:20:15		7.44	1.852	6.67	-133.9	0.57	4.7	127.2			
2016-06-03 12:24:15		7.48	1.85	7.34	-134.8	0.56	4.7	147.3			
2016-06-03 12:28:15		7.42	1.853	7.69	-136.2	0.57	4.8	119.5			
2016-06-03 12:32:15		6.22	1.863	8.3	-137.1	0.58	5	99.4			
2016-06-03 12:34:52									22.98		
2016-06-03 12:36:15		7.44	1.872	8.79	-138.3	0.58	5.1	124.1			
2016-06-03 12:40:15		7.45	1.861	9.29	-137.5	0.59	5.1	95.4			
2016-06-03 12:44:15		7.7	1.854	9.69	-140.5	0.6	5.3	89.6			
2016-06-03 12:48:15		7.47	1.872	10.25	-142.3	0.6	5.4	85.3			
2016-06-03 12:52:15		7.46	1.88	10.62	-144.4	0.61	5.5	84			
2016-06-03 12:56:15		7.37	1.886	11.09	-146.1	0.62	5.6	77			
2016-06-03 13:00:02											Photo: Groundwater purge
2016-06-03 13:00:15		7.46	1.888	11.2	-145.4	0.63	5.8	87.2			
2016-06-03 13:01:02									22.972		
2016-06-03 13:04:15		7.46	1.899	11.21	-145	0.63	5.8	81.7			
2016-06-03 13:08:15		7.5	1.891	11.4	-144.4	0.64	5.9	73.3			
2016-06-03 13:12:15		7.48	1.902	11.15	-144.1	0.65	5.9	60.1			
2016-06-03 13:16:15		7.47	1.908	10.79	-144.3	0.66	6	61.5			
2016-06-03 13:20:15		7.45	1.914	10.14	-142.6	0.67	6	57.2			

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-06-03 13:23:11											Stable, sample at 13:30
2016-06-03 13:23:29	13										
2016-06-03 13:24:21									22.97		
2016-06-03 13:24:59		7.5	1.893	10.5	-143.2	-1.16	-10.5	60.6			

CH12-014-MW012

2016-06-03 11:26:36

Field Team A. Campbell, C. Blair

Groundwater purge

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW012_2016-06-03_112636.jpg



CH12-014-MW012

2016-06-03 12:59:40

Field Team A. Campbell, C. Blair

Groundwater purge

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW012_2016-06-03_125940.jpg



Location:	CH12-014-MW013	Field Team	J.Stroh, A.Campbell	Start Time	2016-02-21 15:58:02	Depth to Water (mBTOC)	34.488
						Depth to Bottom (mBTOC)	39.2
Well Inner Diameter (mm)	50	Borehole Inner Diameter (mm)	280				
Top of Screen (mBTOC)	30.8	Bottom of Screen (mBTOC)	38.4			Well Volume (L)	99

Sonde Model:	YSI 6920	Sonde ID:	32013
Pump Model	GRUNFOS REDI FLO 2	Pump ID	13174
Water Level Meter Model	SOLINST 101	Water Level Meter ID	CHWYT-WLT02

Comment:

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-02-22 10:36:41		6.03	5.868	10.76	80.7	63.58	585	122.3			
2016-02-22 10:37:00											Started purge
2016-02-22 10:38:36										1	
2016-02-22 10:40:41		6.52	5.732	12.34	-9.6	0.43	4.1	55.7			
2016-02-22 10:46:59		6.41	5.611	11.65	-19.2	1.91	17.9	53			
2016-02-22 10:47:42											Purge interrupted possibly drew down too much
2016-02-22 10:48:13									34.605		
2016-02-22 10:50:41										0.25	
2016-02-22 10:50:58		6.72	5.714	13.56	-50.7	0.21	2.1	1452.1			
2016-02-22 10:51:18											Photo: Groundwater purge
2016-02-22 10:52:00											Photo: Groundwater purge
2016-02-22 10:52:48									34.594		
2016-02-22 10:54:59		6.6	5.73	13.74	-43.7	0.26	2.6	737.3			

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-02-22 10:58:59		6.57	5.716	14.22	-42.8	0.25	2.5	417.1			
2016-02-22 11:02:59		6.55	5.724	15.79	-41.4	0.23	2.3	277.3			
2016-02-22 11:06:59		6.54	5.723	17.26	-38.7	0.21	2.2	178.4			
2016-02-22 11:10:59		6.53	5.72	17.38	-35	0.24	2.5	96.9			
2016-02-22 11:14:59		6.51	5.707	17.16	-30.3	0.27	2.8	61.2			
2016-02-22 11:16:20									34.599		
2016-02-22 11:18:59		6.51	5.693	16.75	-26.3	0.26	2.8	40.4			
2016-02-22 11:21:54	20										
2016-02-22 11:22:59		6.5	5.683	17.27	-24.4	0.24	2.5	38.1			
2016-02-22 11:26:59		6.49	5.674	16.52	-19.8	0.27	2.8	22.5			
2016-02-22 11:30:58		6.49	5.674	16.46	-18	0.27	2.8	20.4			
2016-02-22 11:34:59		6.49	5.671	16.33	-17.3	0.27	2.8	15.9			
2016-02-22 11:38:59		6.49	5.659	16.18	-16.4	0.28	2.9	16.1			
2016-02-22 11:42:58		6.48	5.658	16.13	-15.3	0.29	3	13.7			
2016-02-22 11:43:37									34.605		
2016-02-22 11:46:58		6.48	5.669	16.06	-14.7	0.28	2.9	13.2			
2016-02-22 11:50:58		6.49	5.676	16.02	-14.6	0.3	3.1	13.9			
2016-02-22 11:51:54											Stable. Sample at 11:55
2016-02-22 11:52:11	35										
2016-02-22 12:16:47											Photo: Collected sample.

CH12-014-MW013

2016-02-21 16:04:17

Field Team J.Stroh, A.Campbell

Found water level transducer installed upside down. Dessicant pack was submerged in well, instrument was suspended in ir in top of casing. Remove from well for repair / replacement.



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW013_2016-02-21_160417.jpg

CH12-014-MW013

2016-02-22 10:51:06

Field Team J.Stroh, A.Campbell

Groundwater purge



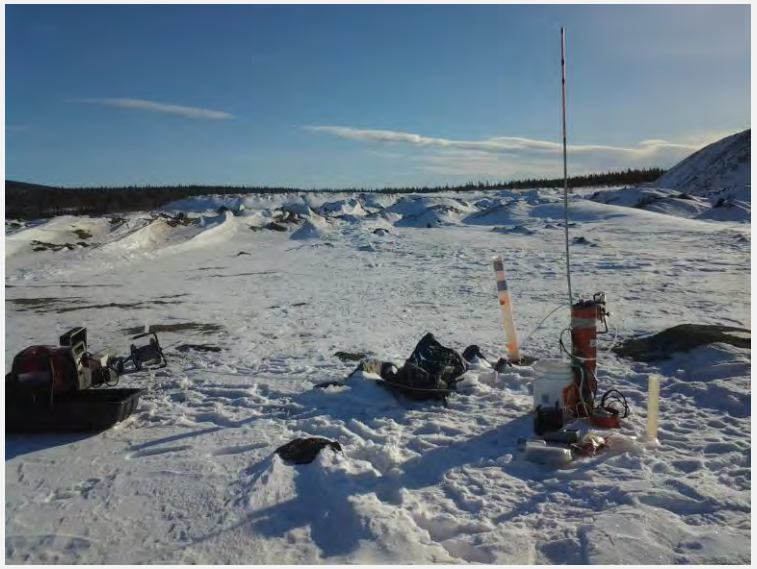
https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW013_2016-02-22_105106.jpg

CH12-014-MW013

2016-02-22 10:51:44

Field Team J.Stroh, A.Campbell

Groundwater purge



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW013_2016-02-22_105144.jpg

CH12-014-MW013

2016-02-22 12:15:59

Field Team J.Stroh, A.Campbell

Collected sample.



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW013_2016-02-22_121600.jpg

CH12-014-MW013

2016-02-22 12:44:00

Field Team A. Campbell, J. Stroh

Thermistor measurement



https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH12-014-MW013_2016-02-22_124400.jpg

Location:	CH12-014-MW013	Field Team	A. Campbell, C. Blair	Start Time	2016-06-04 09:46:08	Depth to Water (mBTOC)	34.661
						Depth to Bottom (mBTOC)	39.2
Well Inner Diameter (mm)	50	Borehole Inner Diameter (mm)	280				
Top of Screen (mBTOC)	30.8	Bottom of Screen (mBTOC)	38.4			Well Volume (L)	96

Sonde Model:	YSI 6920	Sonde ID:	9556
Pump Model	GRUNDFOS REDI FLO 2	Pump ID	13174
Water Level Meter Model	SOLINST 101	Water Level Meter ID	CHWYT-WLT02

Comment:

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-06-04 10:13:46											Start purge
2016-06-04 10:14:06		6.24	5.553	10.85	-38.6	2.11	19.5	378.5			
2016-06-04 10:16:52									34.705		
2016-06-04 10:17:45										0.68	
2016-06-04 10:19:09											Photo: Groundwater purge
2016-06-04 10:19:22											Photo: Groundwater purge
2016-06-04 10:19:34		6.24	5.627	14.84	-38	1.7	17.2	232.6			
2016-06-04 10:20:45									34.712		
2016-06-04 10:23:35		6.26	5.656	15.26	-36.2	1.68	17.1	198.4			
2016-06-04 10:25:37									34.715		
2016-06-04 10:30:08		6.25	5.647	14.84	-34.9	1.62	16.3	174.6			
2016-06-04 10:35:28		6.23	5.643	14.49	-34	1.58	15.8	163.2			
2016-06-04 10:38:17	20										
2016-06-04 10:39:01									34.73		
2016-06-04 10:40:28		6.24	5.644	14.47	-35	1.58	15.8	149.9			
2016-06-04 10:44:28		6.23	5.645	14.25	-33.7	1.52	15.1	136.3			

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-06-04 10:48:28		6.23	5.651	14.17	-32.7	1.49	14.8	191.1			
2016-06-04 10:52:28		6.22	5.651	13.95	-31.3	1.48	14.6	133.7			
2016-06-04 10:56:28		6.22	5.651	13.87	-30.6	1.39	13.7	170.3			
2016-06-04 10:57:28	40										
2016-06-04 11:00:28		6.22	5.649	13.84	-29.4	1.36	13.4	104.1			
2016-06-04 11:04:28		6.22	5.641	13.95	-28.7	1.37	13.5	158.6			
2016-06-04 11:08:28		6.22	5.648	13.99	-27.4	1.38	13.6	88			
2016-06-04 11:12:28		6.22	5.642	14.16	-26.5	1.38	13.7	133.6			
2016-06-04 11:16:28		6.22	5.636	14.01	-24.1	1.38	13.7	80.4			
2016-06-04 11:20:28		6.22	5.648	14.18	-23.1	1.39	13.8	108.8			
2016-06-04 11:20:45	60										
2016-06-04 11:21:50									34.745		
2016-06-04 11:24:28		6.22	5.636	13.72	-22.2	1.38	13.6	132.8			
2016-06-04 11:28:28		6.21	5.627	13.5	-19.7	1.37	13.4	85.7			
2016-06-04 11:32:28		6.21	5.633	13.57	-17.9	1.35	13.2	138.5			
2016-06-04 11:35:54									34.745		
2016-06-04 11:39:34		6.21	5.628	13.86	-16	1.34	13.2	92.1			
2016-06-04 11:43:35		6.22	5.612	13.77	-16.6	1.35	13.3	91.4			
2016-06-04 11:47:35		6.21	5.629	13.71	-15.4	1.35	13.2	135.9			
2016-06-04 11:51:35		6.21	5.621	13.5	-15.3	1.35	13.2	73.5			
2016-06-04 11:55:35		6.21	5.629	13.68	-14	1.36	13.4	155.4			
2016-06-04 11:59:35		6.21	5.63	13.61	-13.6	1.38	13.5	284.9			
2016-06-04 12:03:35		6.21	5.619	13.59	-13.6	1.39	13.6	98.9			
2016-06-04 12:07:38		6.21	5.623	13.63	-12.4	1.4	13.7	231.3			
2016-06-04 12:10:59		6.25	5.614	13.76	-17.5	1.29	12.7	56.6			
2016-06-04 12:11:44									34.745		
2016-06-04 12:14:58		6.22	5.619	13.81	-11.5	1.43	14.1	62.4			
2016-06-04 12:17:49	80										

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-06-04 12:18:58		6.22	5.626	13.85	-10.9	1.46	14.4	85.8			
2016-06-04 12:22:58		6.21	5.627	13.73	-9.4	1.47	14.4	79.2			
2016-06-04 12:26:58		6.21	5.623	13.83	-8.9	1.49	14.7	99.9			
2016-06-04 12:30:58		6.21	5.622	14	-7.9	1.52	15	53			
2016-06-04 12:34:58		6.21	5.624	13.87	-7.5	1.53	15.1	70.8			
2016-06-04 12:38:58		6.21	5.618	14.02	-6.8	1.56	15.4	51.5			
2016-06-04 12:42:58		6.21	5.628	13.9	-5.7	1.58	15.5	62			
2016-06-04 12:45:16											Stable except turbidity. Sample at 12:50. Collect duplicate.
2016-06-04 12:46:07	120										
2016-06-04 14:35:49											Photo: Collected sample.

CH12-014-MW013

2016-06-04 10:18:58

Field Team A. Campbell, C. Blair

Groundwater purge

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW013_2016-06-04_101858.jpg



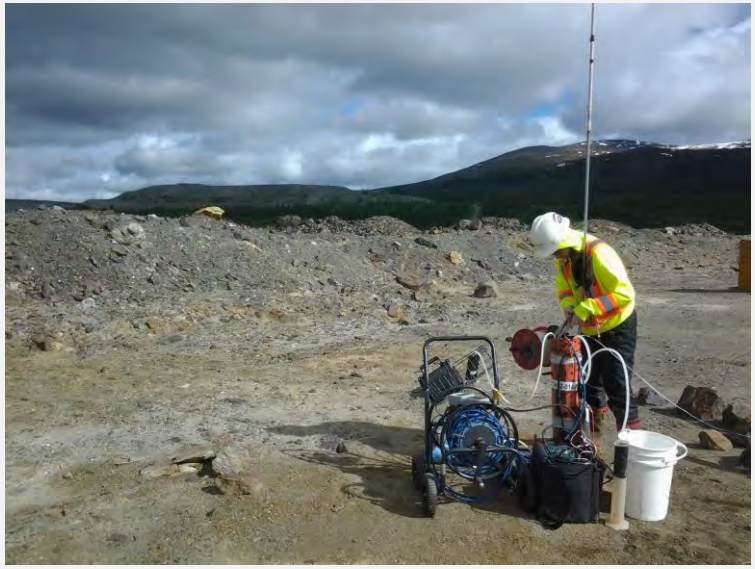
CH12-014-MW013

2016-06-04 10:19:11

Field Team A. Campbell, C. Blair

Groundwater purge

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW013_2016-06-04_101911.jpg



CH12-014-MW013

2016-06-04 13:08:19

Field Team A. Campbell, C. Blair

Thermistor measurement



https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW013_2016-06-04_130819.jpg

CH12-014-MW013

2016-06-04 14:35:25

Field Team A. Campbell, C. Blair

Collected sample.



https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH12-014-MW013_2016-06-04_143525.jpg

Location:	CH14-015-MW006	Field Team	A. Campbell	Start Time	2016-02-20 12:22:27	Depth to Water (mBTOC)	26.252
						Depth to Bottom (mBTOC)	31.09
Well Inner Diameter (mm)	50.8	Borehole Inner Diameter (mm)	152.4				
Top of Screen (mBTOC)	26.52	Bottom of Screen (mBTOC)	31.09			Well Volume (L)	33

Sonde Model:	YSI 6920	Sonde ID:	32013
Pump Model	GRUNFOS REDI FLO 2	Pump ID	13174
Water Level Meter Model	SOLINST 101	Water Level Meter ID	CHWYT-WLT02

Comment:

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperature (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-02-20 14:02:46		6.29	1.921	2.54	9.5	12.48	92.2	167.3			
2016-02-20 14:03:03											Started purge
2016-02-20 14:05:28										0.9	
2016-02-20 14:06:32									26.285		
2016-02-20 14:06:45		6.08	2.642	3.37	16.4	6.73	51	1207			
2016-02-20 14:09:00											Photo: Groundwater purge
2016-02-20 14:09:21											Photo: Groundwater purge
2016-02-20 14:11:26		5.84	3.187	3.94	74.7	5.62	43.3	935.8			
2016-02-20 14:12:14										0.4	
2016-02-20 14:15:26		5.73	3.418	4.56	93.1	5.16	40.5	590.1			
2016-02-20 14:19:26		5.64	3.585	5.41	103.9	4.39	35.1	405.4			
2016-02-20 14:23:26		5.55	3.786	5.78	113.8	3.95	32	306.6			
2016-02-20 14:27:26		5.44	3.986	6.1	123.4	3.56	29	236.1			
2016-02-20 14:31:26		5.35	4.158	6.25	131.6	3.2	26.3	189.1			
2016-02-20 14:35:26		5.26	4.294	6.48	139.7	3.01	24.8	154.9			
2016-02-20 14:39:26		5.17	4.452	6.31	146.9	2.83	23.3	130.6			

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-02-20 14:43:26		5.1	4.584	6.5	152.9	2.64	21.8	113.4			
2016-02-20 14:47:26		5.04	4.699	6.52	158.3	2.51	20.7	100.8			
2016-02-20 14:51:26		4.99	4.795	6.71	163.5	2.38	19.8	90.6			
2016-02-20 14:55:26		4.96	4.891	6.76	167.2	2.29	19.1	81.5			
2016-02-20 14:59:26		4.88	4.941	6.86	170.5	2.22	18.6	74.6			
2016-02-20 15:03:26		4.89	5.01	6.57	173	2.18	18.1	68.5			
2016-02-20 15:04:39	40										
2016-02-20 15:07:26		4.89	5.065	6.47	174.4	2.13	17.6	63.9			
2016-02-20 15:11:26		4.87	5.091	5.73	176.9	2.12	17.2	62.9			
2016-02-20 15:15:26		4.84	5.108	6.1	179.2	2.05	16.8	61.3			
2016-02-20 15:19:26		4.83	5.131	6.03	180.7	2.02	16.5	59			
2016-02-20 15:23:26		4.83	5.145	6.23	181.8	1.73	14.2	57.5			
2016-02-20 15:27:26		4.82	5.156	6.31	182.7	1.94	16	55.8			
2016-02-20 15:31:26		4.82	5.145	6.74	183.7	1.89	15.7	54.6			
2016-02-20 15:35:26		4.82	5.239	6.34	184.1	1.91	15.7	53.2			
2016-02-20 15:38:08											Photo: Groundwater purge
2016-02-20 15:39:26		4.81	5.255	6.66	185	1.86	15.5	52			
2016-02-20 15:43:26		4.8	5.248	6.66	185.9	1.85	15.4	50.8			
2016-02-20 15:47:26		4.8	5.27	6.86	186.6	1.83	15.3	49.7			
2016-02-20 15:51:26		4.79	5.259	7.03	187.4	1.8	15.1	48.2			
2016-02-20 15:55:26		4.79	5.3	6.59	187.8	1.83	15.2	47			
2016-02-20 15:59:26		4.79	5.294	6.67	188.6	1.79	14.9	46.1			
2016-02-20 15:59:38									26.252		
2016-02-20 15:59:52	60										
2016-02-20 16:00:21											Stable. Sample at 16:00

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-02-20 16:14:01											Photo: Collected sample.

CH14-015-MW006

2016-02-20 14:08:46

Field Team A. Campbell

Groundwater purge

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-015-MW006_2016-02-20_140846.jpg



CH14-015-MW006

2016-02-20 14:09:06

Field Team A. Campbell

Groundwater purge

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-015-MW006_2016-02-20_140906.jpg



CH14-015-MW006

2016-02-20 14:40:50

Field Team A. Campbell

Thermistor measurement

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-015-MW006_2016-02-20_144051.jpg



CH14-015-MW006

2016-02-20 15:37:54

Field Team A. Campbell

Groundwater purge

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-015-MW006_2016-02-20_153754.jpg



CH14-015-MW006

2016-02-20 16:13:39

Field Team A. Campbell

Collected sample.

https://deliver.ch2m.com/sites/TM1/Photos_2016_0103/CH14-015-MW006_2016-02-20_161339.jpg



Location:	CH14-015-MW006	Field Team	A. Campbell, C. Blair	Start Time	2016-06-01 13:26:28	Depth to Water (mBTOC)	26.236
						Depth to Bottom (mBTOC)	31.09
Well Inner Diameter (mm)	50.8	Borehole Inner Diameter (mm)	152.4				
Top of Screen (mBTOC)	26.52	Bottom of Screen (mBTOC)	31.09			Well Volume (L)	34

Sonde Model:	YSI 6920	Sonde ID:	15A21
Pump Model	GRUNDFOS	Pump ID	32259
Water Level Meter Model	SOLINST 101	Water Level Meter ID	CHWYT-WLT02

Comment:

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-06-01 13:44:12		7.31	1.397	5.46	-149.8	3.98	31.7	1401.2			
2016-06-01 13:44:12		7.31	1.397	5.46	-149.8	3.98	31.7	1401.2			
2016-06-01 13:44:29											
2016-06-01 13:44:29											Start purge
2016-06-01 13:44:34											
2016-06-01 13:44:34										0.4	
2016-06-01 13:44:51											Photo: Groundwater purge
2016-06-01 13:44:51											
2016-06-01 13:46:17									26.255		
2016-06-01 13:46:17											
2016-06-01 13:48:12		6.93	1.393	5.51	-103.2	1.75	13.9	506.9			
2016-06-01 13:48:12		6.93	1.393	5.51	-103.2	1.75	13.9	506.9			
2016-06-01 13:52:12		6.76	1.428	5.34	-78.1	1.6	12.7	337.7			
2016-06-01 13:52:12		6.76	1.428	5.34	-78.1	1.6	12.7	337.7			
2016-06-01 13:56:12		6.64	1.43	6.36	-69.3	1.42	11.5	424.1			
2016-06-01 13:56:12		6.64	1.43	6.36	-69.3	1.42	11.5	424.1			
2016-06-01 13:56:35									26.255		

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-06-01 13:56:35											
2016-06-01 13:57:28										0.3	
2016-06-01 13:57:28											
2016-06-01 14:00:12		6.56	1.431	8.46	-54.3	1.19	10.2	494.7			
2016-06-01 14:00:12		6.56	1.431	8.46	-54.3	1.19	10.2	494.7			
2016-06-01 14:04:12		6.47	1.456	9.14	-45.2	1.13	9.8	169.4			
2016-06-01 14:04:12		6.47	1.456	9.14	-45.2	1.13	9.8	169.4			
2016-06-01 14:08:12		6.41	1.473	9.71	-37.4	1.14	10.1	146.3			
2016-06-01 14:08:12		6.41	1.473	9.71	-37.4	1.14	10.1	146.3			
2016-06-01 14:09:52											
2016-06-01 14:09:52									26.255		
2016-06-01 14:12:12		6.34	1.501	10.12	-33.8	1.14	10.1	66.6			
2016-06-01 14:12:12		6.34	1.501	10.12	-33.8	1.14	10.1	66.6			
2016-06-01 14:16:12		6.27	1.554	10.68	-28.9	1.14	10.3	64.4			
2016-06-01 14:16:12		6.27	1.554	10.68	-28.9	1.14	10.3	64.4			
2016-06-01 14:20:12		6.22	1.591	10.19	-23.2	1.14	10.2	56.7			
2016-06-01 14:20:12		6.22	1.591	10.19	-23.2	1.14	10.2	56.7			
2016-06-01 14:24:12		6.18	1.635	10.62	-17.6	1.18	10.7	115.7			
2016-06-01 14:24:12		6.18	1.635	10.62	-17.6	1.18	10.7	115.7			
2016-06-01 14:28:12		6.14	1.681	10.32	-10	1.2	10.7	73.5			
2016-06-01 14:28:12		6.14	1.681	10.32	-10	1.2	10.7	73.5			
2016-06-01 14:32:12		6.1	1.726	10.55	-3.9	1.25	11.3	29.1			
2016-06-01 14:32:12		6.1	1.726	10.55	-3.9	1.25	11.3	29.1			
2016-06-01 14:36:12		6.08	1.775	10.33	2.5	1.28	11.5	64.1			
2016-06-01 14:36:12		6.08	1.775	10.33	2.5	1.28	11.5	64.1			
2016-06-01 14:40:12		6.04	1.844	10.01	16.7	1.32	11.8	55.4			
2016-06-01 14:40:12		6.04	1.844	10.01	16.7	1.32	11.8	55.4			
2016-06-01 14:44:12		6.01	1.903	10.72	24	1.38	12.5	61.3			

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-06-01 14:44:12		6.01	1.903	10.72	24	1.38	12.5	61.3			
2016-06-01 14:46:13									26.25		
2016-06-01 14:46:13											
2016-06-01 14:48:12		5.99	1.965	10.81	32	1.44	13	38.9			
2016-06-01 14:48:12		5.99	1.965	10.81	32	1.44	13	38.9			
2016-06-01 14:52:12		5.97	1.999	10.67	36.4	1.48	13.4	16.4			
2016-06-01 14:52:12		5.97	1.999	10.67	36.4	1.48	13.4	16.4			
2016-06-01 14:56:12		5.95	2.049	10.26	41	1.5	13.4	52.8			
2016-06-01 14:56:12		5.95	2.049	10.26	41	1.5	13.4	52.8			
2016-06-01 15:00:12		5.92	2.087	9.96	45.1	1.52	13.6	49.8			
2016-06-01 15:00:12		5.92	2.087	9.96	45.1	1.52	13.6	49.8			
2016-06-01 15:04:12		5.91	2.121	10.09	47.8	1.56	13.9	48.1			
2016-06-01 15:04:12		5.91	2.121	10.09	47.8	1.56	13.9	48.1			
2016-06-01 15:07:44											Stable. Sample at 15:10
2016-06-01 15:07:44											
2016-06-01 15:08:09											
2016-06-01 15:08:09	30										

CH14-015-MW006

2016-06-01 13:44:40

Field Team A. Campbell, C. Blair

Groundwater purge

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH14-015-MW006_2016-06-01_134440.jpg



CH14-015-MW006

2016-06-01 15:24:58

Field Team A. Campbell, C. Blair

Thermistor measurement

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH14-015-MW006_2016-06-01_152458.jpg



Location:	CH14-104-MW008	Field Team	A. Campbell, C. Blair	Start Time	2016-06-05 12:31:50	Depth to Water (mBTOC)	33.239
						Depth to Bottom (mBTOC)	32.61
Well Inner Diameter (mm)	50.8	Borehole Inner Diameter (mm)	152.4				
Top of Screen (mBTOC)	28.04	Bottom of Screen (mBTOC)	32.61			Well Volume (L)	3

Sonde Model:	YSI 6920	Sonde ID:	7731
Pump Model	BAILER	Pump ID	NA
Water Level Meter Model	SOLINST 101	Water Level Meter ID	CHWYT-WLT02

Comment:

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-06-05 13:01:28									33.44		
2016-06-05 13:01:44	1										
2016-06-05 13:09:43									33.535		
2016-06-05 13:43:34											Purged using bailer. Left to recover. Will sample if well recharges sufficiently
2016-06-05 15:36:32									33.34		
2016-06-05 15:46:52		6.94	14.25	5.78	287.9	5.41	44.7	1461.3			
2016-06-05 15:48:33											Photo: Groundwater purge
2016-06-05 15:48:54											Photo: Groundwater purge
2016-06-05 15:53:16		6.56	14.24	7.19	288.5	4.12	35.9	824.4			
2016-06-05 15:53:54									33.565		
2016-06-06 08:46:56									33.275		

Date / Time	Volume Purged (L)	pH (pH units)	Specific Conductivit (mS/cm/degC	Temperatur e (degC)	ORP (mV)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Turbidity (NTU)	Depth to Water (mBTOC)	Purge Flowrate (L/min)	Comment
2016-06-06 09:00:12											Photo: Collected sample.

CH14-104-MW008

2016-06-05 15:48:19

Field Team A. Campbell, C. Blair

Groundwater purge

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH14-104-MW008_2016-06-05_154819.jpg



CH14-104-MW008

2016-06-05 15:48:34

Field Team A. Campbell, C. Blair

Groundwater purge

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH14-104-MW008_2016-06-05_154834.jpg



CH14-104-MW008

2016-06-06 08:59:50

Field Team A. Campbell, C. Blair

Collected sample.

https://deliver.ch2m.com/sites/TM1/Photos_2016_04-07/CH14-104-MW008_2016-06-06_085950.jpg



Attachment 3
Thermistor Calibration Sheets

2252 ohm
THERMISTOR STRING CALIBRATION

Customer: SRK
Date: 20-Oct-02
Calibration Reference HP 34401A Digital Multimeter S/N US36053118
Last referenced to National Standards 10-April-02
Reference Thermistor Number RST0036
Referenced annually to National Standards

THERMISTOR #	Cable Length	Position	Low Temperature		High Temperature	
			Measured Resistance ohms	Calculated Temperature °C	Measured Resistance ohms	Calculated Temperature °C
Reference			7603	-0.6	2837	19.8
00568-10	11.5 m	Pt. 1	7656	-0.8	2846	19.8
		Pt. 2	7654	-0.8	2844	19.8
		Pt. 3	7653	-0.8	2850	19.7
		Pt. 4	7590	-0.6	2846	19.8
		Pt. 5	7640	-0.7	2836	19.8

Temperature calculated using:

Steinhart-Hart Linearization

$$T_C = \frac{1}{C_0 + C_1(\ln R) + C_3(\ln R)^3} - 273.15$$

2252 Ohm @ 25C NTC Thermistor

C_0= 0.0014733
C_1= 0.0002372
C_3= 0.0000001074
lnR= Natural Log of Resistance
T_c= Temperature in °C

CHECKED BY _____

2252 ohm
THERMISTOR STRING CALIBRATION

Customer: SRK
Date: 20-Oct-02
Calibration Reference HP 34401A Digital Multimeter S/N US36053118
Last referenced to National Standards 10-April-02
Reference Thermistor Number RST0036
Referenced annually to National Standards

THERMISTOR #	Cable Length	Position	Low Temperature		High Temperature	
			Measured Resistance ohms	Calculated Temperature °C	Measured Resistance ohms	Calculated Temperature °C
Reference			7603	-0.6	2837	19.8
00568-9	11.5 m	Pt. 1	7637	-0.7	2845	19.8
		Pt. 2	7654	-0.8	2844	19.8
		Pt. 3	7645	-0.8	2848	19.7
		Pt. 4	7600	-0.6	2844	19.8
		Pt. 5	7614	-0.7	2849	19.7

Temperature calculated using:

Steinhart-Hart Linearization

$$T_C = \frac{1}{C_0 + C_1(\ln R) + C_3(\ln R)^3} - 273.15$$

2252 Ohm @ 25C NTC Thermistor

C_0= 0.0014733
C_1= 0.0002372
C_3= 0.0000001074
lnR= Natural Log of Resistance
T_c= Temperature in °C

CHECKED BY _____

2252 ohm
THERMISTOR STRING CALIBRATION

Customer: SRK
Date: 20-Oct-02
Calibration Reference HP 34401A Digital Multimeter S/N US36053118
Last referenced to National Standards 10-April-02
Reference Thermistor Number RST0036
Referenced annually to National Standards

THERMISTOR #	Cable Length	Position	Low Temperature		High Temperature	
			Measured Resistance ohms	Calculated Temperature °C	Measured Resistance ohms	Calculated Temperature °C
Reference			7603	-0.6	2837	19.8
00568-8	11.5 m	Pt. 1	7635	-0.7	2844	19.8
		Pt. 2	7674	-0.8	2858	19.7
		Pt. 3	7674	-0.8	2860	19.7
		Pt. 4	7594	-0.6	2843	19.8
		Pt. 5	7630	-0.7	2837	19.8

Temperature calculated using:

Steinhart-Hart Linearization

$$T_C = \frac{1}{C_0 + C_1(\ln R) + C_3(\ln R)^3} - 273.15$$

2252 Ohm @ 25C NTC Thermistor

C_0= 0.0014733
C_1= 0.0002372
C_3= 0.0000001074
lnR= Natural Log of Resistance
T_c= Temperature in °C

CHECKED BY _____

2252 ohm
THERMISTOR STRING CALIBRATION

Customer: SRK
Date: 20-Oct-02
Calibration Reference HP 34401A Digital Multimeter S/N US36053118
Last referenced to National Standards 10-April-02
Reference Thermistor Number RST0036
Referenced annually to National Standards

THERMISTOR #	Cable Length	Position	Low Temperature		High Temperature	
			Measured Resistance ohms	Calculated Temperature °C	Measured Resistance ohms	Calculated Temperature °C
Reference			7603	-0.6	2837	19.8
00568-7	11.5 m	Pt. 1	7617	-0.7	2840	19.8
		Pt. 2	7605	-0.6	2842	19.8
		Pt. 3	7648	-0.8	2862	19.6
		Pt. 4	7563	-0.5	2829	19.9
		Pt. 5	7601	-0.6	2826	19.9

Temperature calculated using:

Steinhart-Hart Linearization

$$T_C = \frac{1}{C_0 + C_1(\ln R) + C_3(\ln R)^3} - 273.15$$

2252 Ohm @ 25C NTC Thermistor

C_0= 0.0014733
C_1= 0.0002372
C_3= 0.0000001074
lnR= Natural Log of Resistance
T_c= Temperature in °C

CHECKED BY _____

2252 ohm
THERMISTOR STRING CALIBRATION

Customer: SRK
Date: 26-Oct-02
Calibration Reference HP 34401A Digital Multimeter S/N US36053118
Last referenced to National Standards 10-April-02
Reference Thermistor Number RST0036
Referenced annually to National Standards

THERMISTOR #	Cable Length	Position	Low Temperature		High Temperature	
			Measured Resistance ohms	Calculated Temperature °C	Measured Resistance ohms	Calculated Temperature °C
Reference			7625	-0.7	2602	21.8
00568-6	31.5 m	Pt. 1	7584	-0.6	2602	21.8
		Pt. 2	7637	-0.7	2618	21.6
		Pt. 3	7643	-0.7	2596	21.8
		Pt. 4	7576	-0.6	2593	21.8
		Pt. 5	7580	-0.6	2608	21.7
		Pt. 6	7552	-0.5	2591	21.9
		Pt. 7	7615	-0.7	2601	21.8

Temperature calculated using:

Steinhart-Hart Linearization

$$T_C = \frac{1}{C_0 + C_1(\ln R) + C_3(\ln R)^3} - 273.15$$

2252 Ohm @ 25C NTC Thermistor

C_0= 0.0014733
C_1= 0.0002372
C_3= 0.0000001074
lnR= Natural Log of Resistance
T_c= Temperature in °C

CHECKED BY _____

2252 ohm
THERMISTOR STRING CALIBRATION

Customer: SRK
Date: 26-Sep-02
Calibration Reference HP 34401A Digital Multimeter S/N US36053118
Last referenced to National Standards 10-April-02
Reference Thermistor Number RST0036
Referenced annually to National Standards

THERMISTOR #	Cable Length	Position	Low Temperature		High Temperature	
			Measured Resistance ohms	Calculated Temperature °C	Measured Resistance ohms	Calculated Temperature °C
Reference			7625	-0.7	2602	21.8
00568-5	31.5 m	Pt. 1	7585	-0.6	2604	21.7
		Pt. 2	7643	-0.7	2606	21.7
		Pt. 3	7672	-0.8	2597	21.8
		Pt. 4	7570	-0.6	2602	21.8
		Pt. 5	7653	-0.8	2617	21.6
		Pt. 6	7667	-0.8	2602	21.8
		Pt. 7	7666	-0.8	2608	21.7

Temperature calculated using:

Steinhart-Hart Linearization

$$T_C = \frac{1}{C_0 + C_1(\ln R) + C_3(\ln R)^3} - 273.15$$

2252 Ohm @ 25C NTC Thermistor

C_0= 0.0014733
C_1= 0.0002372
C_3= 0.0000001074
lnR= Natural Log of Resistance
T_c= Temperature in °C

CHECKED BY _____

2252 ohm
THERMISTOR STRING CALIBRATION

Customer: SRK
Date: 26-Oct-02
Calibration Reference HP 34401A Digital Multimeter S/N US36053118
Last referenced to National Standards 10-April-02
Reference Thermistor Number RST0036
Referenced annually to National Standards

THERMISTOR #	Cable Length	Position	Low Temperature		High Temperature	
			Measured Resistance ohms	Calculated Temperature °C	Measured Resistance ohms	Calculated Temperature °C
Reference			7625	-0.7	2603	21.7
00568-4	31.5 m	Pt. 1	7665	-0.8	2622	21.6
		Pt. 2	7582	-0.6	2637	21.5
		Pt. 3	7660	-0.8	2635	21.5
		Pt. 4	7659	-0.8	2623	21.6
		Pt. 5	7579	-0.6	2602	21.8
		Pt. 6	7720	-0.9	2630	21.5
		Pt. 7	7634	-0.7	2597	21.8

Temperature calculated using:

Steinhart-Hart Linearization

$$T_C = \frac{1}{C_0 + C_1(\ln R) + C_3(\ln R)^3} - 273.15$$

2252 Ohm @ 25C NTC Thermistor

C_0= 0.0014733
C_1= 0.0002372
C_3= 0.0000001074
lnR= Natural Log of Resistance
T_c= Temperature in °C

CHECKED BY _____

2252 ohm
THERMISTOR STRING CALIBRATION

Customer: SRK
Date: 20-Oct-02
Calibration Reference HP 34401A Digital Multimeter S/N US36053118
Last referenced to National Standards 10-April-02
Reference Thermistor Number RST0036
Referenced annually to National Standards

THERMISTOR #	Cable Length	Position	Low Temperature		High Temperature	
			Measured Resistance ohms	Calculated Temperature °C	Measured Resistance ohms	Calculated Temperature °C
Reference			7603	-0.6	2837	19.8
00568-3	31.5 m	Pt. 1	7570	-0.6	2823	19.9
		Pt. 2	7604	-0.6	2836	19.8
		Pt. 3	7562	-0.5	2826	19.9
		Pt. 4	7604	-0.6	2834	19.9
		Pt. 5	7527	-0.4	2817	20.0
		Pt. 6	7566	-0.5	2820	20.0
		Pt. 7	7626	-0.7	2849	19.7

Temperature calculated using:

Steinhart-Hart Linearization

$$T_C = \frac{1}{C_0 + C_1(\ln R) + C_3(\ln R)^3} - 273.15$$

2252 Ohm @ 25C NTC Thermistor

C_0= 0.0014733
C_1= 0.0002372
C_3= 0.0000001074
lnR= Natural Log of Resistance
T_c= Temperature in °C

CHECKED BY _____

2252 ohm
THERMISTOR STRING CALIBRATION

Customer: SRK
Date: 26-Oct-02
Calibration Reference HP 34401A Digital Multimeter S/N US36053118
Last referenced to National Standards 10-April-02
Reference Thermistor Number RST0036
Referenced annually to National Standards

THERMISTOR #	Cable Length	Position	Low Temperature		High Temperature	
			Measured Resistance ohms	Calculated Temperature °C	Measured Resistance ohms	Calculated Temperature °C
Reference			7584	-0.6	2624	21.6
00568-2	61.5 m	Pt. 1	7606	-0.6	2595	21.8
		Pt. 2	7545	-0.5	2593	21.8
		Pt. 3	7617	-0.7	2597	21.8
		Pt. 4	7595	-0.6	2595	21.8
		Pt. 5	7565	-0.5	2589	21.9
		Pt. 6	7632	-0.7	2595	21.8
		Pt. 7	7534	-0.5	2592	21.8
		Pt. 8	7540	-0.5	2597	21.8
		Pt. 9	7542	-0.5	2619	21.6

Temperature calculated using:

Steinhart-Hart Linearization

$$T_C = \frac{1}{C_0 + C_1(\ln R) + C_3(\ln R)^3} - 273.15$$

2252 Ohm @ 25C NTC Thermistor

C_0= 0.0014733
C_1= 0.0002372
C_3= 0.0000001074
InR= Natural Log of Resistance
T_c= Temperature in °C

CHECKED BY _____

2252 ohm
THERMISTOR STRING CALIBRATION

Customer: SRK
Date: 20-Oct-02
Calibration Reference HP 34401A Digital Multimeter S/N US36053118
Last referenced to National Standards 10-April-02
Reference Thermistor Number RST0036
Referenced annually to National Standards

THERMISTOR #	Cable Length	Position	Low Temperature		High Temperature	
			Measured Resistance ohms	Calculated Temperature °C	Measured Resistance ohms	Calculated Temperature °C
Reference			7604	-0.6	2837	19.8
00568-1	61.5 m	Pt. 1	7523	-0.4	2829	19.9
		Pt. 2	7592	-0.6	2870	19.6
		Pt. 3	7618	-0.7	2850	19.7
		Pt. 4	7588	-0.6	2870	19.6
		Pt. 5	7533	-0.5	2824	19.9
		Pt. 6	7578	-0.6	2872	19.6
		Pt. 7	7530	-0.5	2837	19.8
		Pt. 8	7588	-0.6	2834	19.9
		Pt. 9	7579	-0.6	2870	19.6

Temperature calculated using:

Steinhart-Hart Linearization

$$T_C = \frac{1}{C_0 + C_1(\ln R) + C_3(\ln R)^3} - 273.15$$

2252 Ohm @ 25C NTC Thermistor

C_0= 0.0014733
C_1= 0.0002372
C_3= 0.0000001074
lnR= Natural Log of Resistance
T_c= Temperature in °C

CHECKED BY _____

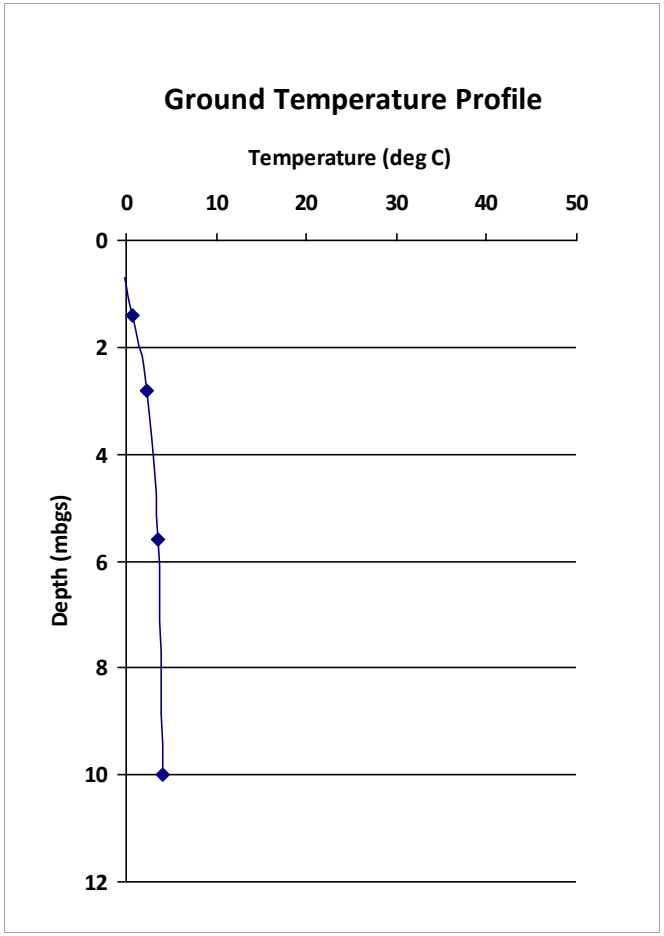
Location: 10M3 Field Team A. Campbell, J. Stroh Start Time: 2016-02-22 14:03:58

Thermistor String Model: RST 10M, 8PTS Thermistor String ID: Unknown - 10

Thermistor Deployed Time

Comment:

Depth (mbgs)	Temperature (DegC)	Time
0.7	-0.22	2016-02-22 14:13:43
1.4	0.64	2016-02-22 14:13:43
2.8	2.26	2016-02-22 14:13:43
5.6	3.58	2016-02-22 14:13:43
10	4.01	2016-02-22 14:13:43



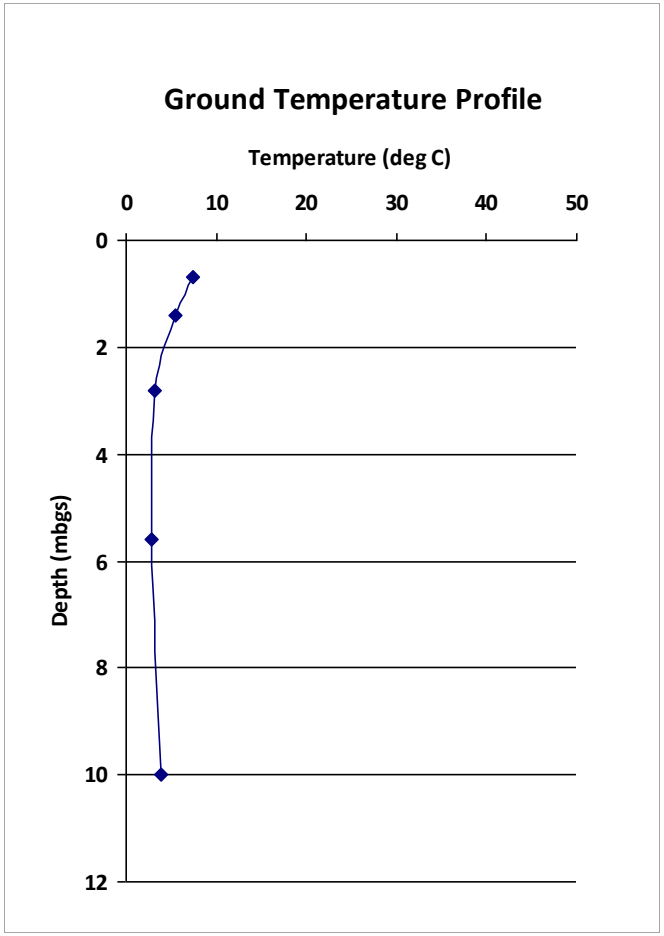
Location: 10M3 Field Team A. Campbell, C. Blair Start Time: 2016-06-03 12:15:42

Thermistor String Model: PERMANENT STRING Thermistor String ID: Unknown - 10

Thermistor Deployed Time

Comment:

Depth (mbgs)	Temperature (DegC)	Time
0.7	7.36	2016-06-03 12:17:06
1.4	5.55	2016-06-03 12:17:06
2.8	3.23	2016-06-03 12:17:06
5.6	2.91	2016-06-03 12:17:06
10	3.91	2016-06-03 12:17:06



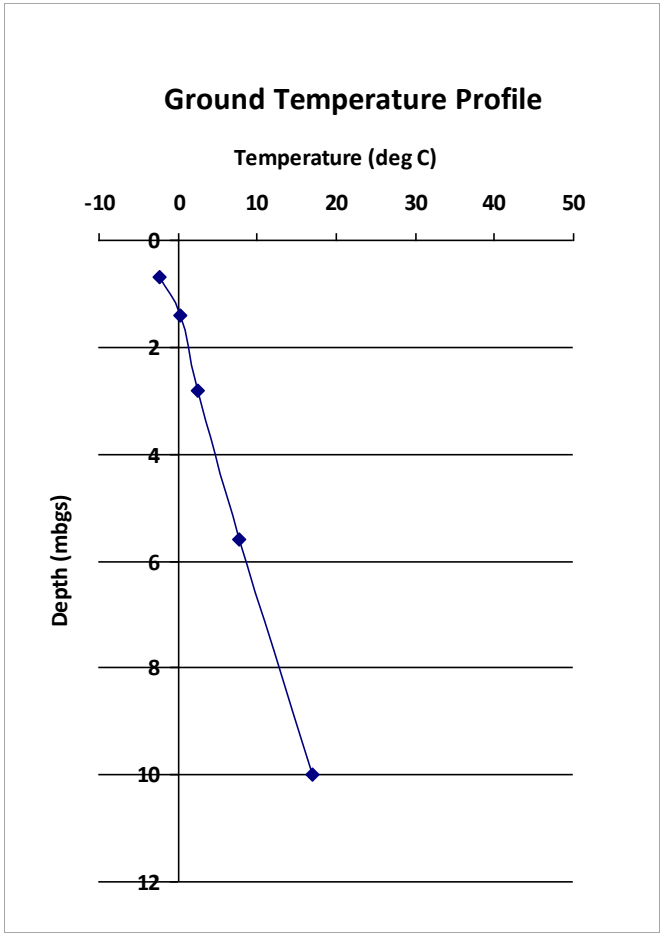
Location: 10M4 Field Team A. Campbell, J. Stroh Start Time: 2016-02-22 11:27:27

Thermistor String Model: Thermistor String ID: 00568-7

Thermistor Deployed Time

Comment:

Depth (mbgs)	Temperature (DegC)	Time
0.7	-2.44	2016-02-22 11:44:15
1.4	0.21	2016-02-22 11:44:15
2.8	2.57	2016-02-22 11:44:15
5.6	7.7	2016-02-22 11:44:15
10	16.93	2016-02-22 11:44:15



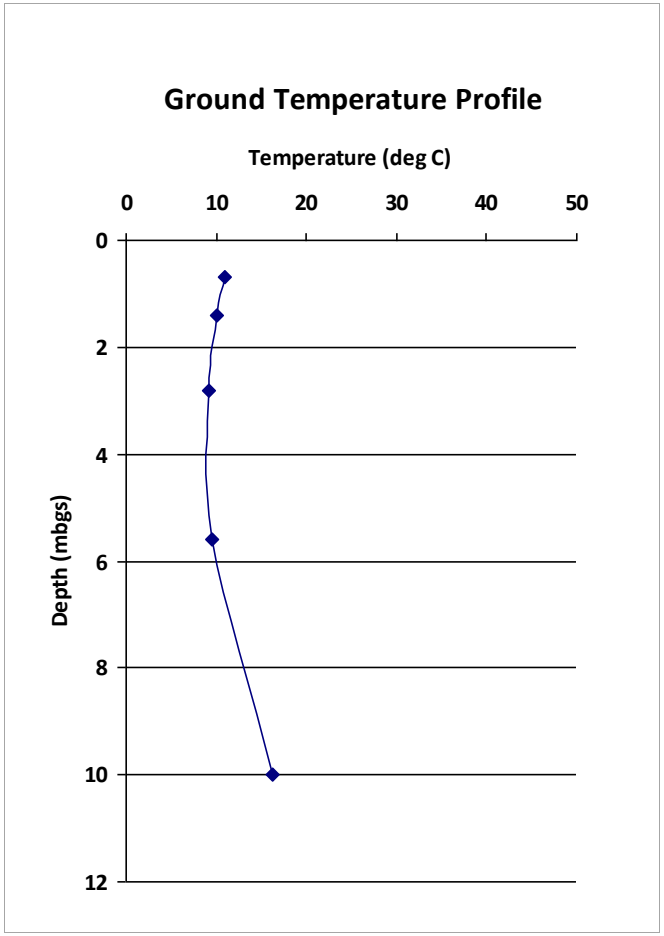
Location: 10M4 Field Team A. Campbell, C. Blair Start Time: 2016-06-04 09:32:00

Thermistor String Model: RST PERMANENT STRING Thermistor String ID: 00568-7

Thermistor Deployed Time

Comment:

Depth (mbgs)	Temperature (DegC)	Time
0.7	11	2016-06-04 11:15:54
1.4	10.11	2016-06-04 11:15:54
2.8	9.24	2016-06-04 11:15:54
5.6	9.52	2016-06-04 11:15:54
10	16.24	2016-06-04 11:15:54



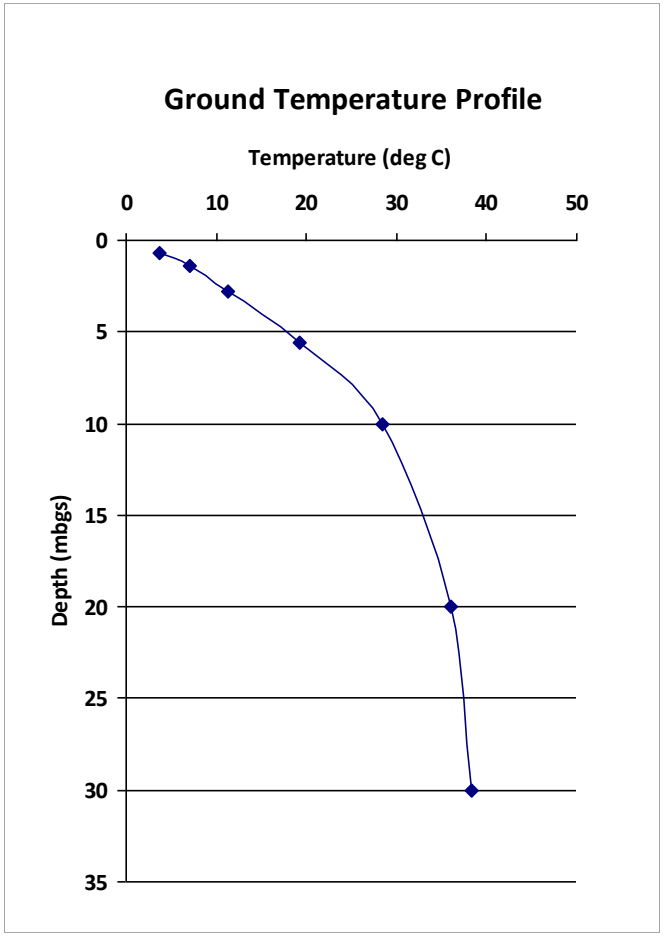
Location: 30M1 Field Team A. Campbell, P. Mamo Start Time: 2016-02-18 16:07:01

Thermistor String Model: RST PERMANENT STRING Thermistor String ID: 00568-4

Thermistor Deployed Time

Comment:

Depth (mbgs)	Temperature (DegC)	Time
0.7	3.65	2016-02-18 16:08:16
1.4	7.04	2016-02-18 16:08:16
2.8	11.27	2016-02-18 16:08:16
5.6	19.29	2016-02-18 16:08:16
10	28.43	2016-02-18 16:08:16
20	36.02	2016-02-18 16:08:16
30	38.33	2016-02-18 16:08:16



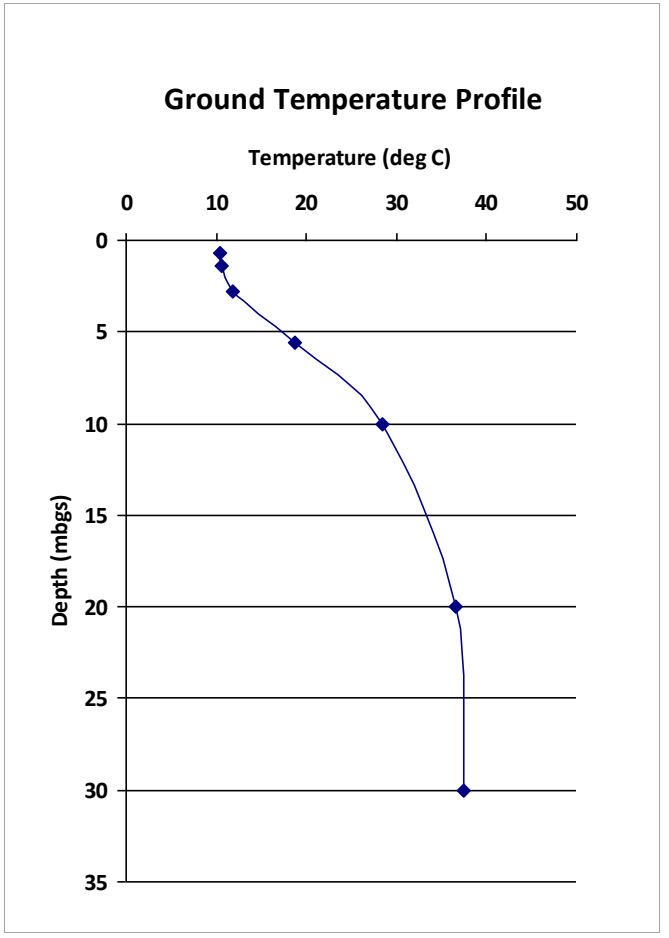
Location: 30M1 Field Team A. Campbell, C. Blair Start Time: 2016-06-02 15:54:45

Thermistor String Model: RST PERMANENT STRING Thermistor String ID: 00568-4

Thermistor Deployed Time

Comment:

Depth (mbgs)	Temperature (DegC)	Time
0.7	10.37	2016-06-02 16:01:16
1.4	10.59	2016-06-02 16:01:16
2.8	11.88	2016-06-02 16:01:16
5.6	18.68	2016-06-02 16:01:16
10	28.36	2016-06-02 16:01:16
20	36.62	2016-06-02 16:01:16
30	37.45	2016-06-02 16:01:16



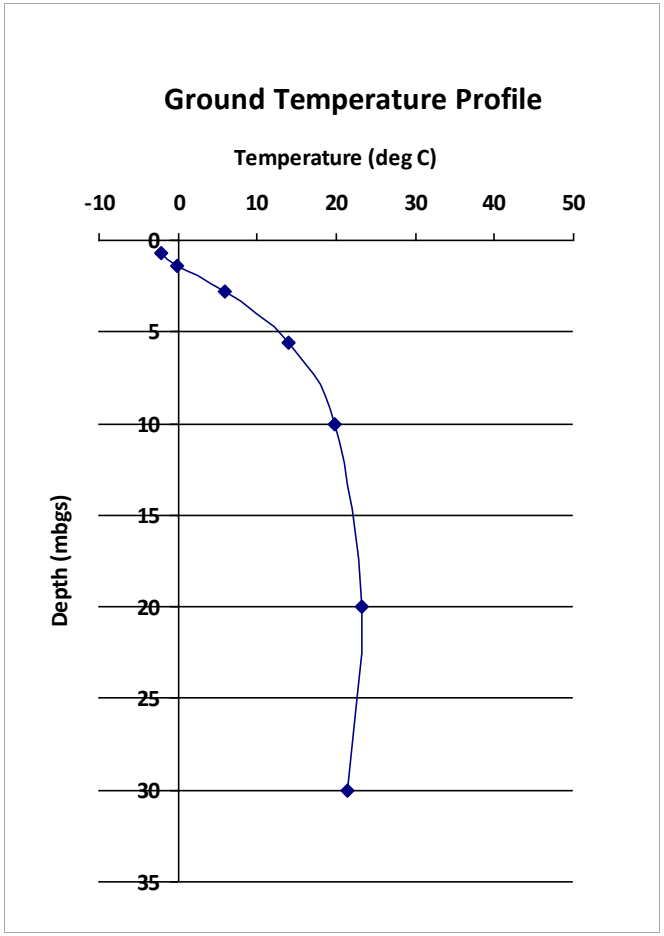
Location: 30M4 Field Team A. Campbell, J. Stroh Start Time: 2016-02-21 16:35:02

Thermistor String Model: RST PERMANENT STRING Thermistor String ID: 00568-6

Thermistor Deployed Time

Comment:

Depth (mbgs)	Temperature (DegC)	Time
0.7	-2.14	2016-02-21 16:37:00
1.4	-0.17	2016-02-21 16:37:00
2.8	5.82	2016-02-21 16:37:00
5.6	13.98	2016-02-21 16:37:00
10	19.79	2016-02-21 16:37:00
20	23.15	2016-02-21 16:37:00
30	21.4	2016-02-21 16:37:00



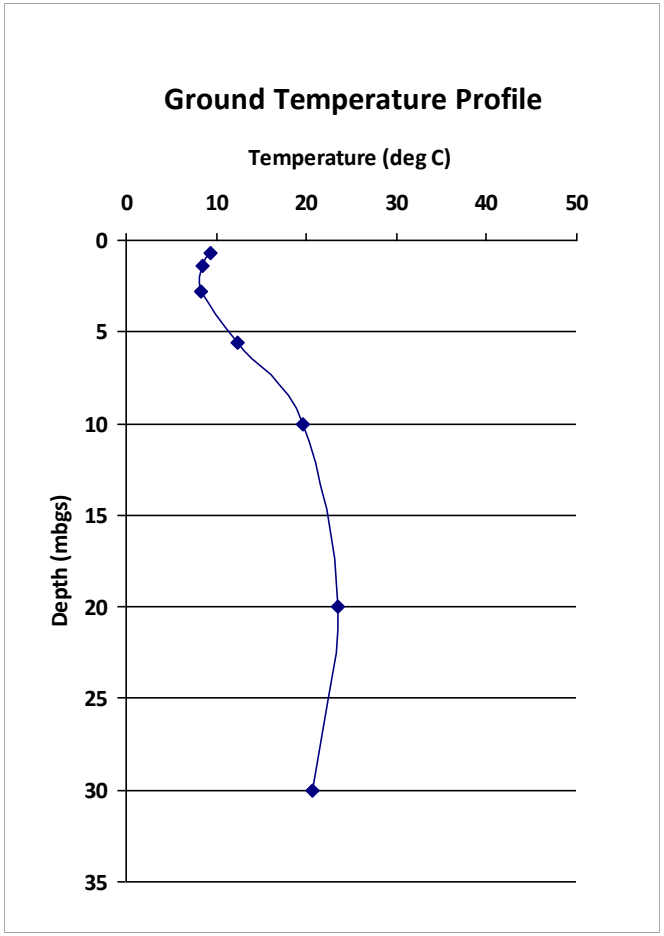
Location: 30M4 Field Team A. Campbell, C. Blair Start Time: 2016-06-04 11:52:09

Thermistor String Model: RST PERMANENT STRING Thermistor String ID: 00568-6

Thermistor Deployed Time

Comment:

Depth (mbgs)	Temperature (DegC)	Time
0.7	9.32	2016-06-04 11:55:11
1.4	8.52	2016-06-04 11:55:11
2.8	8.26	2016-06-04 11:55:11
5.6	12.3	2016-06-04 11:55:11
10	19.61	2016-06-04 11:55:11
20	23.51	2016-06-04 11:55:11
30	20.65	2016-06-04 11:55:11



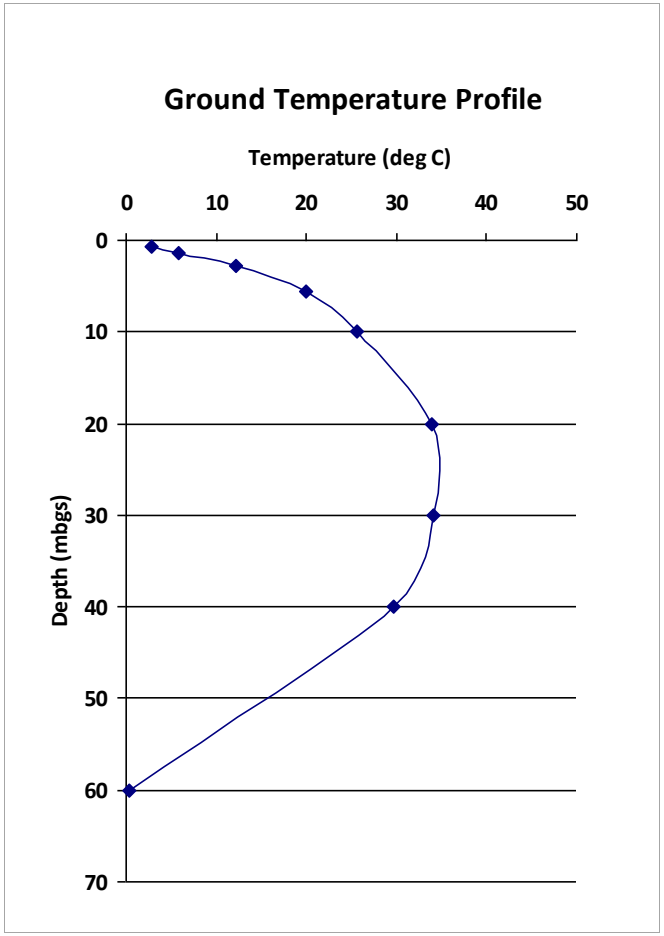
Location: 60M1 Field Team A. Campbell, P. Mamo Start Time: 2016-02-18 15:16:43

Thermistor String Model: 61.5M 9PTS Thermistor String ID: 00568-2

Thermistor Deployed Time

Comment:

Depth (mbgs)	Temperature (DegC)	Time
0.7	2.76	2016-02-18 15:20:33
1.4	5.89	2016-02-18 15:20:33
2.8	12.23	2016-02-18 15:20:33
5.6	19.95	2016-02-18 15:20:33
10	25.64	2016-02-18 15:20:33
20	34	2016-02-18 15:20:33
30	34.03	2016-02-18 15:20:33
40	29.63	2016-02-18 15:20:33
60	0.4	2016-02-18 15:20:33



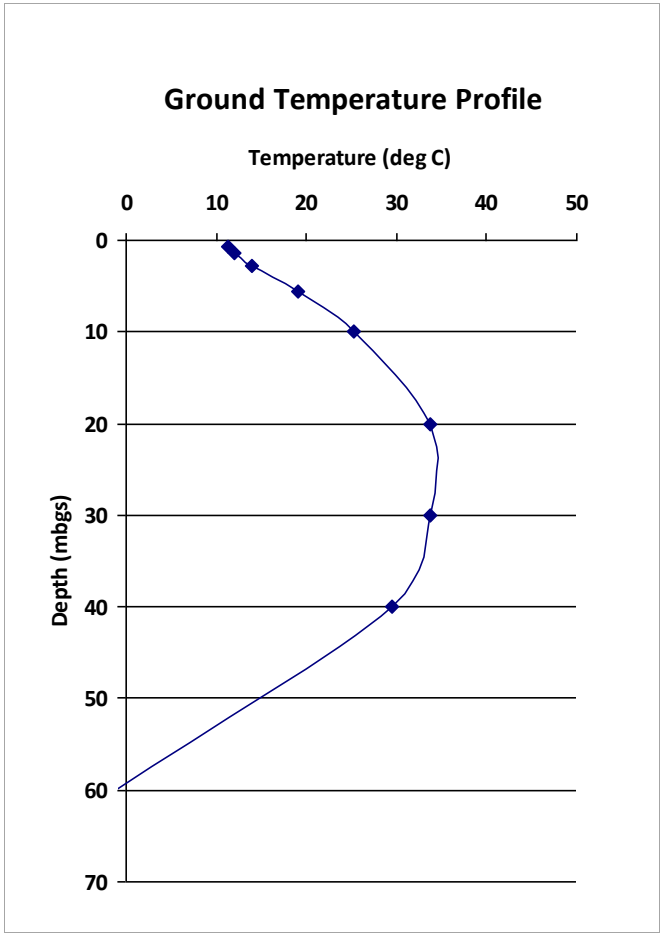
Location: 60M1 Field Team A. Campbell, C. Blair Start Time: 2016-06-02 14:51:10

Thermistor String Model: RST PERMANENT STRING Thermistor String ID: 00568-2

Thermistor Deployed Time

Comment:

Depth (mbgs)	Temperature (DegC)	Time
0.7	11.25	2016-06-02 14:54:14
1.4	12.06	2016-06-02 14:54:14
2.8	13.88	2016-06-02 14:54:14
5.6	19.1	2016-06-02 14:54:14
10	25.35	2016-06-02 14:54:14
20	33.78	2016-06-02 14:54:14
30	33.83	2016-06-02 14:54:14
40	29.55	2016-06-02 14:54:14
60	-1.24	2016-06-02 14:54:14



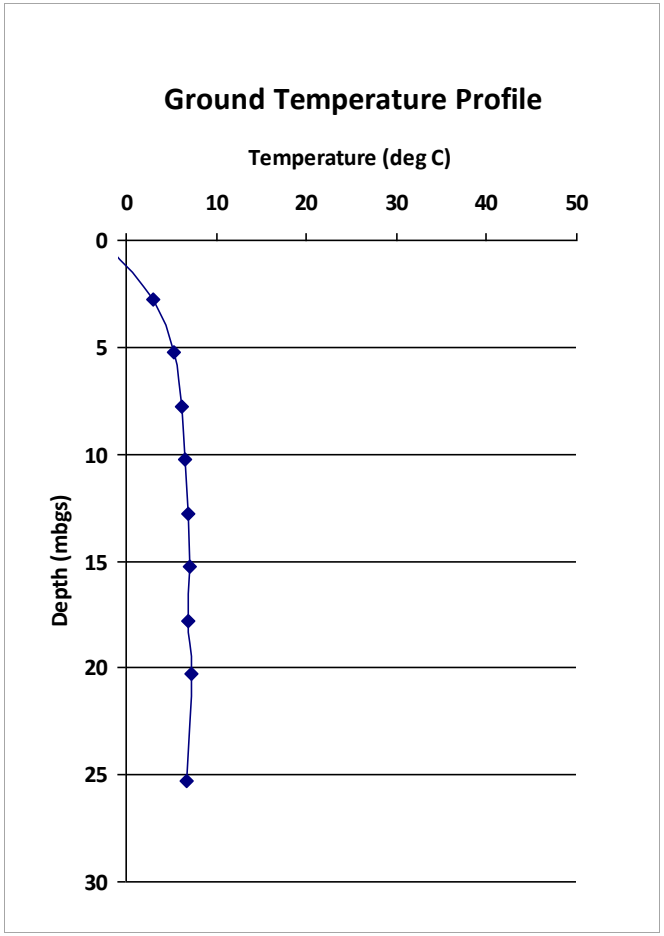
Location: CH12-014-MW003 Field Team A. Campbell, P. Mamo Start Time: 2016-02-17 02:09:54

Thermistor String Model: RST 16PT - 42m Thermistor String ID: TS3396

Thermistor Deployed Time 2016-02-17 02:09:40

Comment:

Depth (mbgs)	Temperature (DegC)	Time
0.27	-2.01	2016-02-17 16:38:43
2.77	3.02	2016-02-17 16:38:43
5.27	5.24	2016-02-17 16:38:43
7.77	6.25	2016-02-17 16:38:43
10.27	6.62	2016-02-17 16:38:43
12.77	6.86	2016-02-17 16:38:43
15.27	7.04	2016-02-17 16:38:43
17.77	6.93	2016-02-17 16:38:43
20.27	7.24	2016-02-17 16:38:43
25.27	6.78	2016-02-17 16:38:43



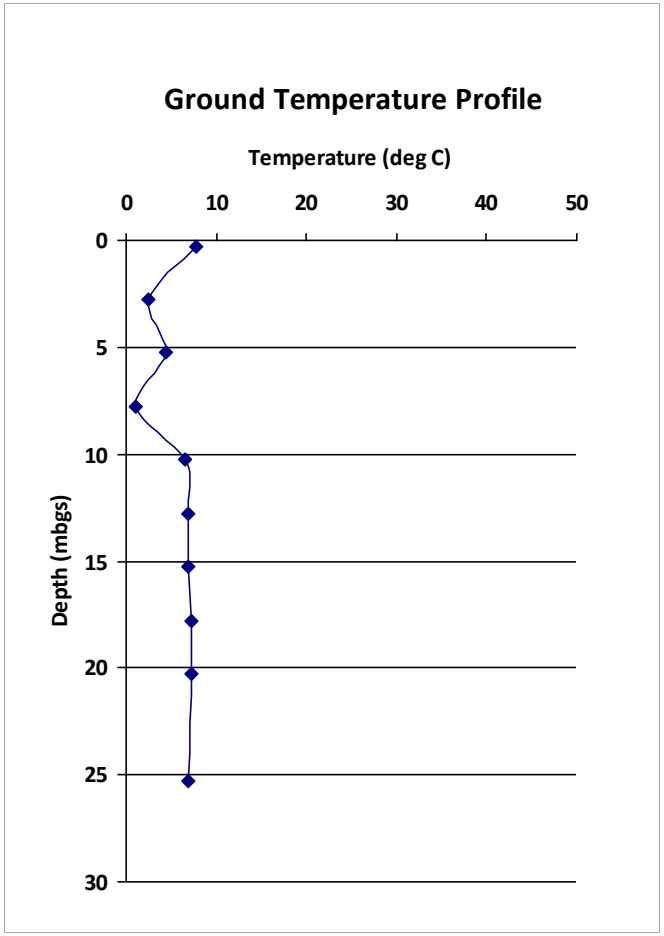
Location: CH12-014-MW003 Field Team A. Campbell, C. Blair Start Time: 2016-06-01 15:40:18

Thermistor String Model: RST 16PT - 42m Thermistor String ID: TS3396

Thermistor Deployed Time 2016-06-01 15:40:35

Comment:

Depth (mbgs)	Temperature (DegC)	Time
0.27	7.7	2016-06-02 10:03:04
2.77	2.39	2016-06-02 10:03:04
5.27	4.42	2016-06-02 10:03:04
7.77	1.02	2016-06-02 10:03:04
10.27	6.56	2016-06-02 10:03:04
12.77	6.93	2016-06-02 10:03:04
15.27	6.92	2016-06-02 10:03:04
17.77	7.25	2016-06-02 10:03:04
20.27	7.3	2016-06-02 10:03:04
25.27	6.85	2016-06-02 10:03:04



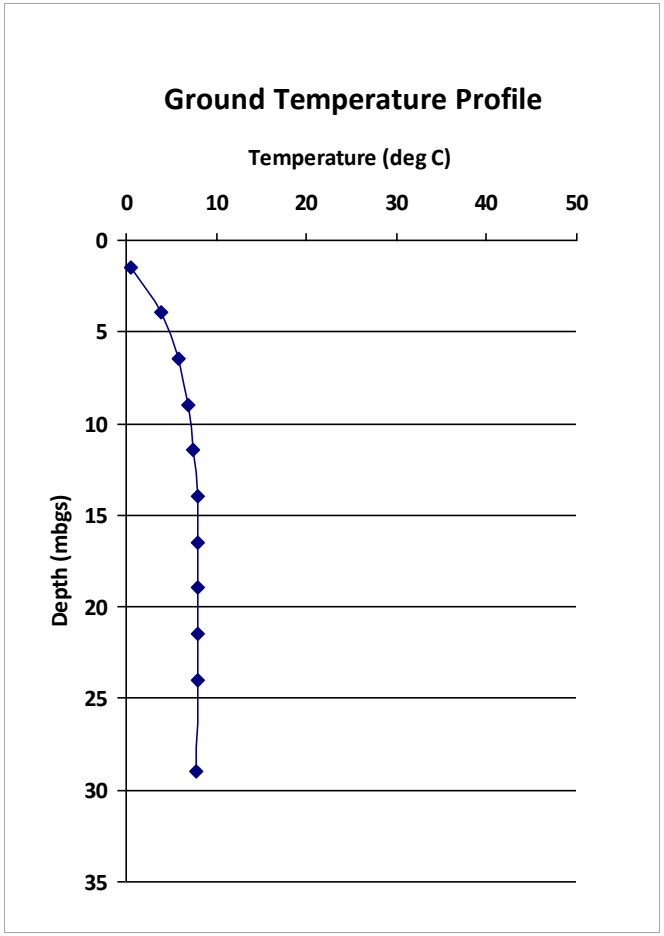
Location: CH12-014-MW005 Field Team A. Campbell, J. Stroh Start Time: 2016-02-21 09:41:37

Thermistor String Model: RST 16PT, 42M Thermistor String ID: TS3396

Thermistor Deployed Time 2016-02-20 15:31:52

Comment:

Depth (mbgs)	Temperature (DegC)	Time
1.46	0.46	2016-02-21 09:48:17
3.96	3.85	2016-02-21 09:48:17
6.46	5.78	2016-02-21 09:48:17
8.96	6.84	2016-02-21 09:48:17
11.46	7.41	2016-02-21 09:48:17
13.96	7.89	2016-02-21 09:48:17
16.46	8.02	2016-02-21 09:48:17
18.96	7.99	2016-02-21 09:48:17
21.46	7.98	2016-02-21 09:48:17
23.96	7.97	2016-02-21 09:48:17
28.96	7.78	2016-02-21 09:48:17



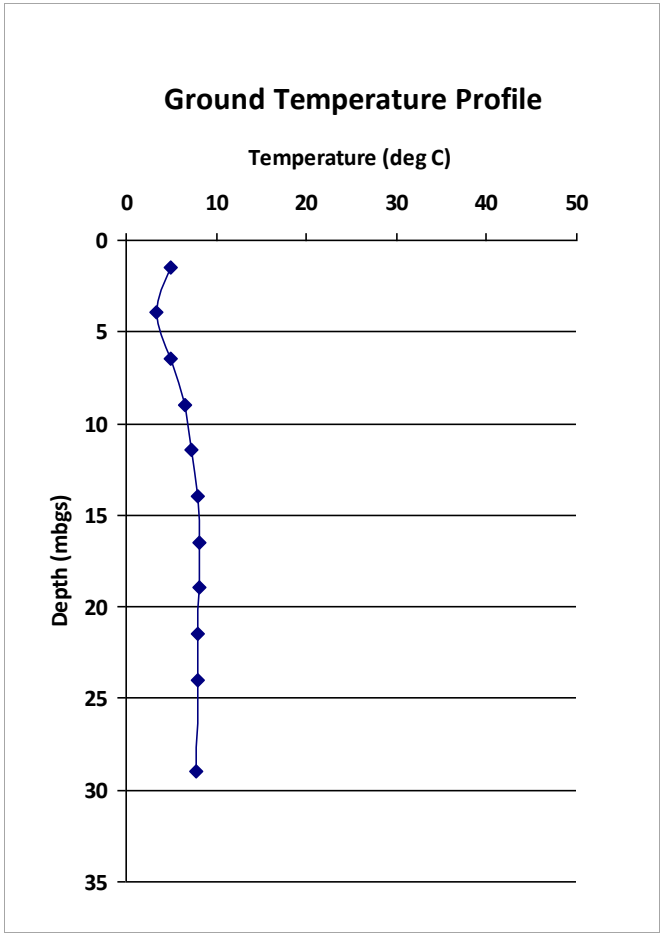
Location: CH12-014-MW005 Field Team A. Campbell, C. Blair Start Time: 2016-06-03 10:06:21

Thermistor String Model: RST 16PT - 42m Thermistor String ID: TS3396

Thermistor Deployed Time 2016-06-02 17:34:56

Comment:

Depth (mbgs)	Temperature (DegC)	Time
1.46	4.95	2016-06-03 10:35:50
3.96	3.34	2016-06-03 10:35:50
6.46	4.93	2016-06-03 10:35:50
8.96	6.54	2016-06-03 10:35:50
11.46	7.31	2016-06-03 10:35:50
13.96	7.93	2016-06-03 10:35:50
16.46	8.1	2016-06-03 10:35:50
18.96	8.04	2016-06-03 10:35:50
21.46	8.02	2016-06-03 10:35:50
23.96	7.98	2016-06-03 10:35:50
28.96	7.82	2016-06-03 10:35:50



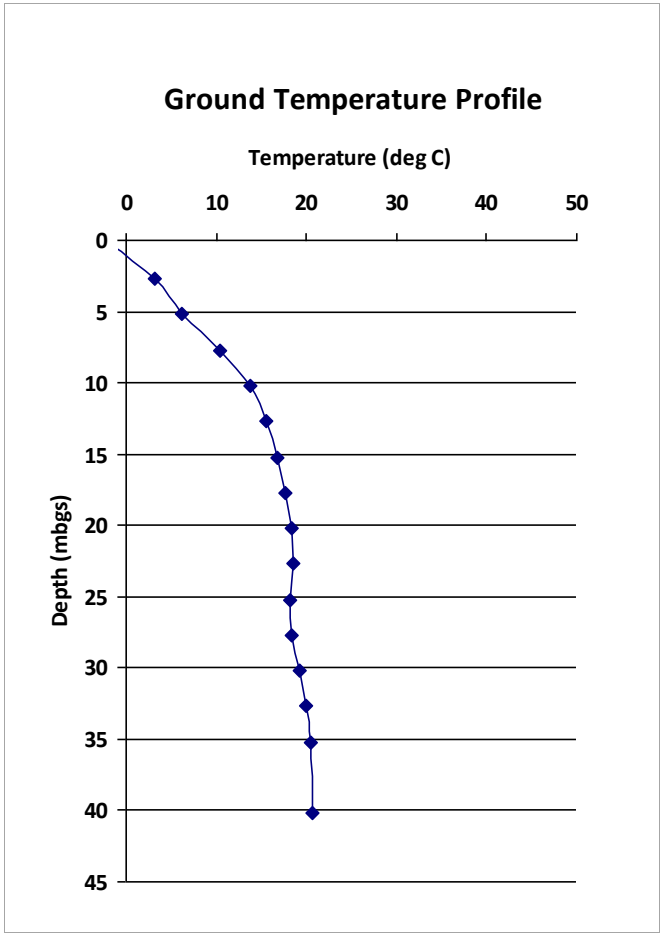
Location: CH12-014-MW007 Field Team A. Campbell, P. Mamo Start Time: 2016-02-17 09:26:22

Thermistor String Model: RST 42M Thermistor String ID: TS3396

Thermistor Deployed Time 2016-02-17 09:26:30

Comment:

Depth (mbgs)	Temperature (DegC)	Time
0.21	-1.92	2016-02-17 12:50:00
2.71	3.11	2016-02-17 12:50:00
5.21	6.21	2016-02-17 12:50:00
7.71	10.44	2016-02-17 12:50:00
10.21	13.71	2016-02-17 12:50:00
12.71	15.59	2016-02-17 12:50:00
15.21	16.82	2016-02-17 12:50:00
17.71	17.66	2016-02-17 12:50:00
20.21	18.4	2016-02-17 12:50:00
22.71	18.56	2016-02-17 12:50:00
25.21	18.24	2016-02-17 12:50:00
27.71	18.34	2016-02-17 12:50:00
30.21	19.2	2016-02-17 12:50:00
32.71	19.94	2016-02-17 12:50:00
35.21	20.49	2016-02-17 12:50:00
40.21	20.75	2016-02-17 12:50:00



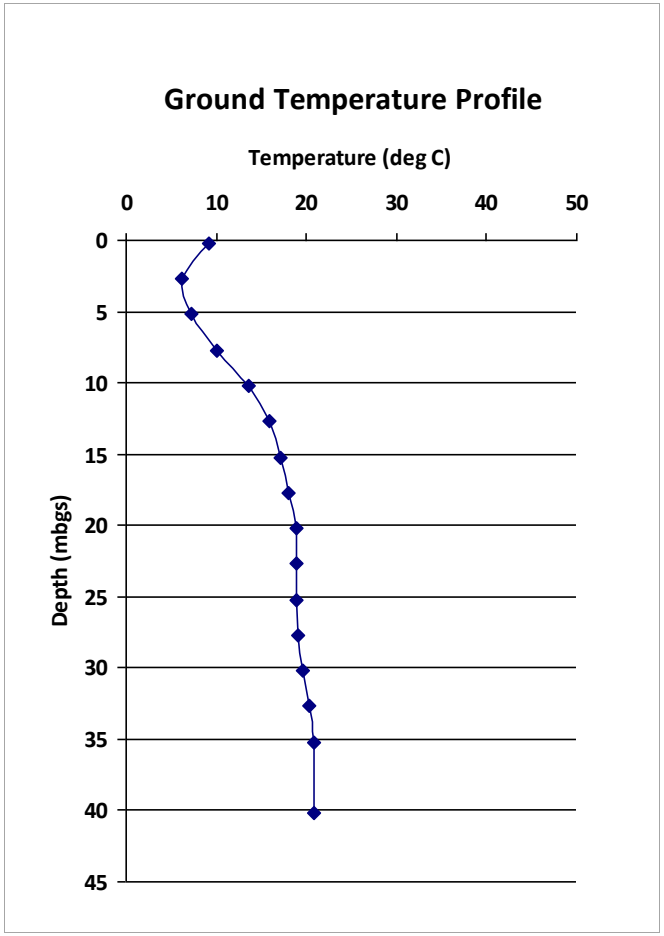
Location: CH12-014-MW007 Field Team A. Campbell, C. Blair Start Time: 2016-06-01 10:12:46

Thermistor String Model: RST 16PT - 42m Thermistor String ID: TS3396

Thermistor Deployed Time 2016-06-01 10:18:28

Comment:

Depth (mbgs)	Temperature (DegC)	Time
0.21	9.24	2016-06-01 12:42:24
2.71	6.24	2016-06-01 12:42:24
5.21	7.16	2016-06-01 12:42:24
7.71	10.03	2016-06-01 12:42:24
10.21	13.62	2016-06-01 12:42:24
12.71	15.85	2016-06-01 12:42:24
15.21	17.09	2016-06-01 12:42:24
17.71	18.03	2016-06-01 12:42:24
20.21	18.89	2016-06-01 12:42:24
22.71	18.92	2016-06-01 12:42:24
25.21	18.85	2016-06-01 12:42:24
27.71	19	2016-06-01 12:42:24
30.21	19.68	2016-06-01 12:42:24
32.71	20.37	2016-06-01 12:42:24
35.21	20.92	2016-06-01 12:42:24
40.21	20.8	2016-06-01 12:42:24



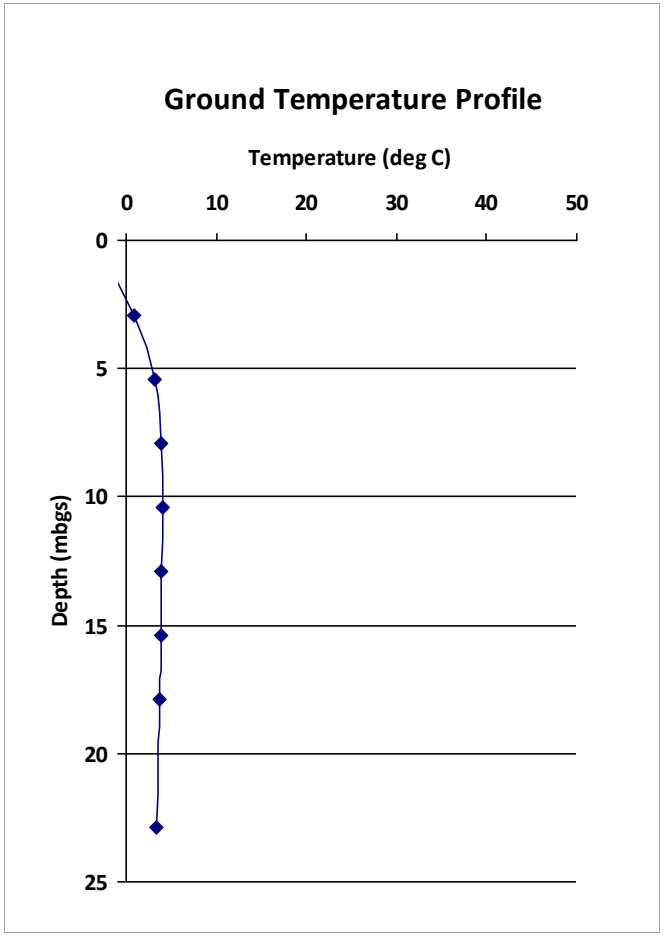
Location: CH12-014-MW011 Field Team A. Campbell, J. Stroh Start Time: 2016-02-21 13:27:38

Thermistor String Model: RST 42m / 16 Points Thermistor String ID: TS3396

Thermistor Deployed Time 2016-02-21 02:12:26

Comment:

Depth (mbgs)	Temperature (DegC)	Time
0.41	-2.86	2016-02-22 10:33:37
2.91	0.91	2016-02-22 10:33:37
5.41	3.14	2016-02-22 10:33:37
7.91	3.93	2016-02-22 10:33:37
10.41	4.03	2016-02-22 10:33:37
12.91	3.9	2016-02-22 10:33:37
15.41	3.81	2016-02-22 10:33:37
17.91	3.74	2016-02-22 10:33:37
22.91	3.32	2016-02-22 10:33:37



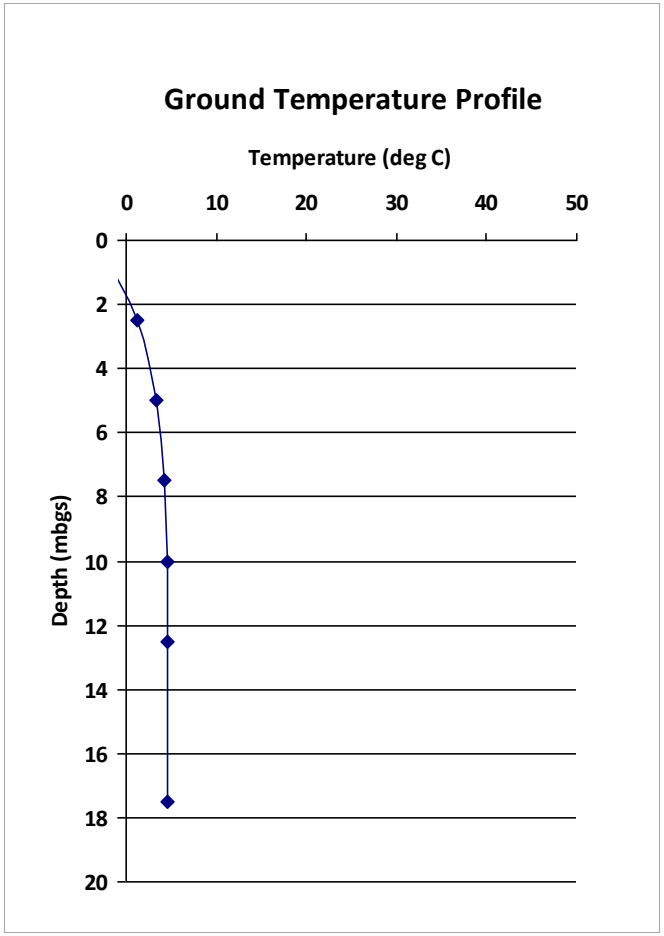
Location: CH12-014-MW012 Field Team A. Campbell, J. Stroh Start Time: 2016-02-21 11:45:30

Thermistor String Model: RST 16PT, 42M Thermistor String ID: TS3396

Thermistor Deployed Time 2016-02-21 11:46:24

Comment:

Depth (mbgs)	Temperature (DegC)	Time
0	-3.2	2016-02-21 13:57:45
2.5	1.25	2016-02-21 13:57:45
5	3.28	2016-02-21 13:57:45
7.5	4.28	2016-02-21 13:57:45
10	4.58	2016-02-21 13:57:45
12.5	4.63	2016-02-21 13:57:45
17.5	4.65	2016-02-21 13:57:45



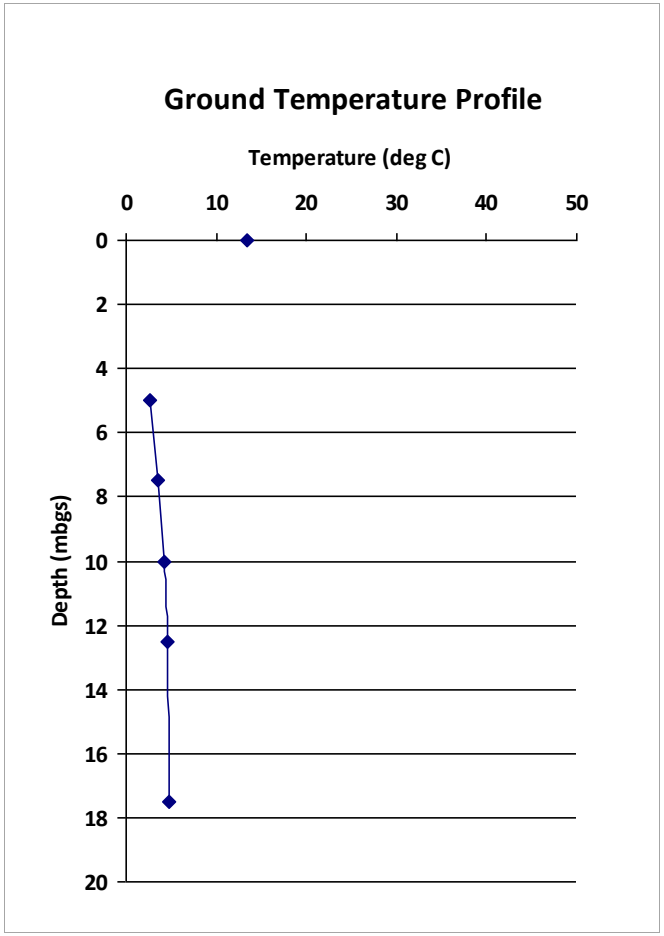
Location: CH12-014-MW012 Field Team A. Campbell, C. Blair Start Time: 2016-06-03 10:58:27

Thermistor String Model: RST 42M 16 PTS Thermistor String ID: TS3396

Thermistor Deployed Time 2016-06-03 10:58:45

Comment:

Depth (mbgs)	Temperature (DegC)	Time
0	13.43	2016-06-03 13:44:36
5	2.63	2016-06-03 13:44:36
7.5	3.55	2016-06-03 13:44:36
10	4.25	2016-06-03 13:44:36
12.5	4.6	2016-06-03 13:44:36
17.5	4.77	2016-06-03 13:44:36



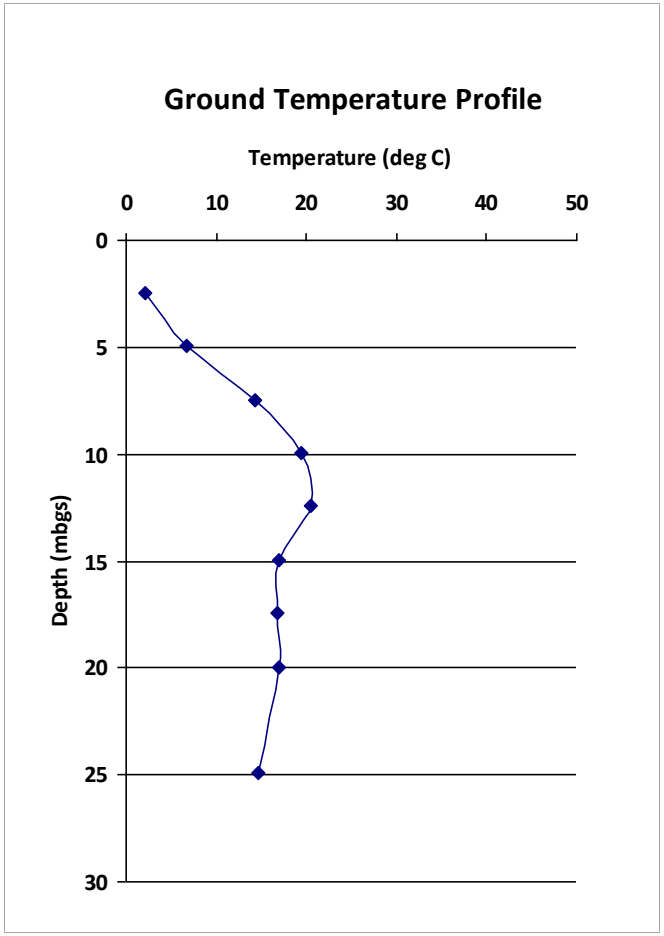
Location: CH12-014-MW013 Field Team A. Campbell, J. Stroh Start Time: 2016-02-22 11:24:36

Thermistor String Model: RST 42M Thermistor String ID: TS3396

Thermistor Deployed Time 2016-02-22 11:04:51

Comment:

Depth (mbgs)	Temperature (DegC)	Time
2.45	2.19	2016-02-22 12:42:54
4.95	6.65	2016-02-22 12:42:54
7.45	14.23	2016-02-22 12:42:54
9.95	19.48	2016-02-22 12:42:54
12.45	20.51	2016-02-22 12:42:54
14.95	16.97	2016-02-22 12:42:54
17.45	16.87	2016-02-22 12:42:54
19.95	16.88	2016-02-22 12:42:54
24.95	14.72	2016-02-22 12:42:54



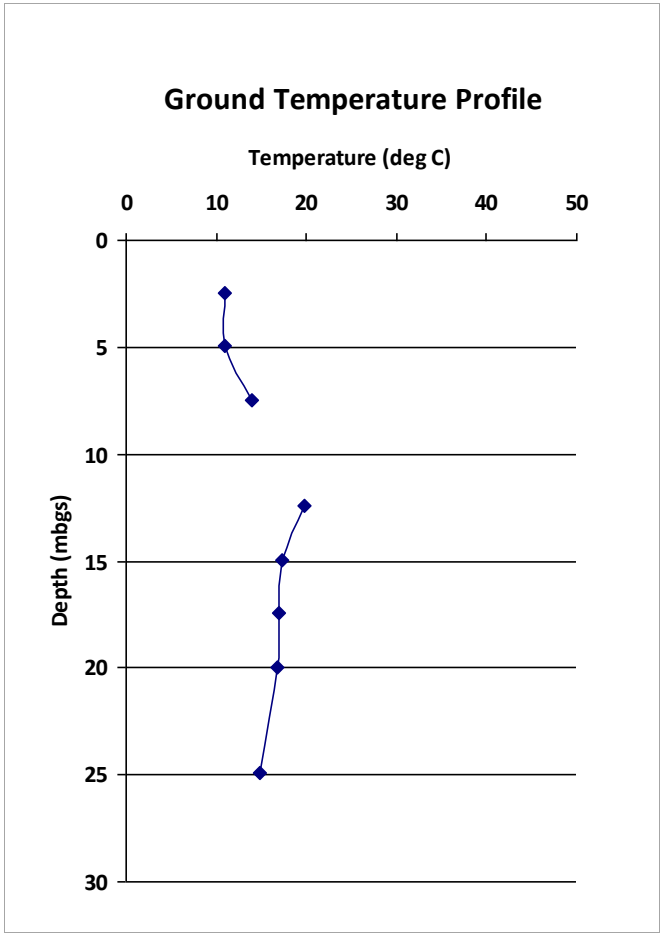
Location: CH12-014-MW013 Field Team A. Campbell, C. Blair Start Time: 2016-06-04 09:45:05

Thermistor String Model: RST 16PT - 42m Thermistor String ID: TS3396

Thermistor Deployed Time 2016-06-04 09:45:16

Comment:

Depth (mbgs)	Temperature (DegC)	Time
2.45	10.96	2016-06-04 13:07:18
4.95	10.95	2016-06-04 13:07:18
7.45	13.98	2016-06-04 13:07:18
12.45	19.77	2016-06-04 13:07:18
14.95	17.39	2016-06-04 13:07:18
17.45	17.02	2016-06-04 13:07:18
19.95	16.86	2016-06-04 13:07:18
24.95	14.83	2016-06-04 13:07:18



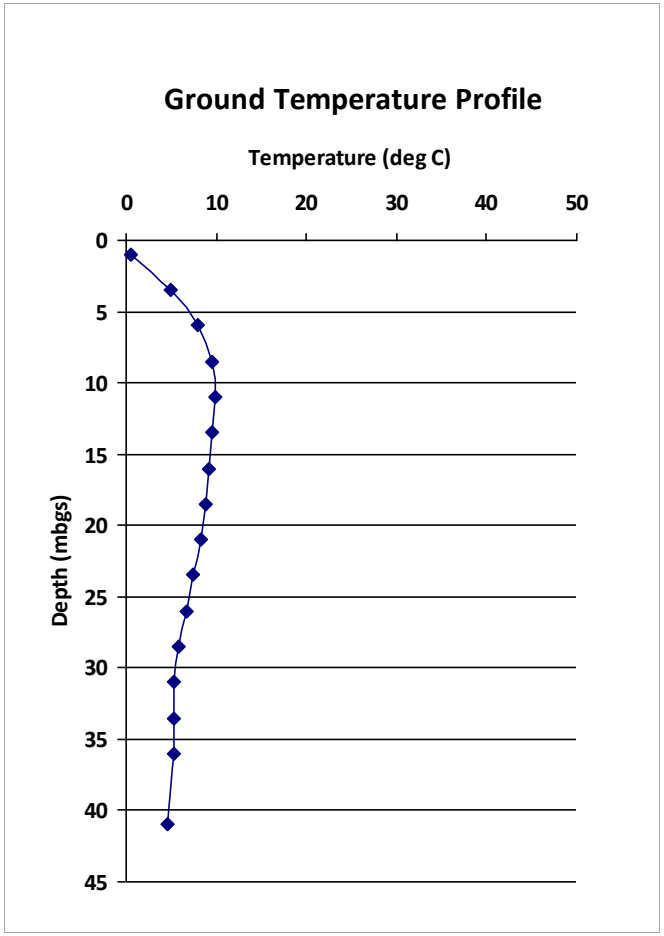
Location: CH14-015-MW004 Field Team A. Campbell Start Time: 2016-02-19 14:34:30

Thermistor String Model: RST 42M Thermistor String ID: TS3396

Thermistor Deployed Time 2016-02-19 14:34:55

Comment:

Depth (mbgs)	Temperature (DegC)	Time
1	0.52	2016-02-20 11:17:12
3.5	5	2016-02-20 11:17:12
6	7.98	2016-02-20 11:17:12
8.5	9.46	2016-02-20 11:17:12
11	9.82	2016-02-20 11:17:12
13.5	9.6	2016-02-20 11:17:12
16	9.27	2016-02-20 11:17:12
18.5	8.83	2016-02-20 11:17:12
21	8.29	2016-02-20 11:17:12
23.5	7.46	2016-02-20 11:17:12
26	6.69	2016-02-20 11:17:12
28.5	5.91	2016-02-20 11:17:12
31	5.29	2016-02-20 11:17:12
33.5	5.28	2016-02-20 11:17:12
36	5.29	2016-02-20 11:17:12
41	4.65	2016-02-20 11:17:12



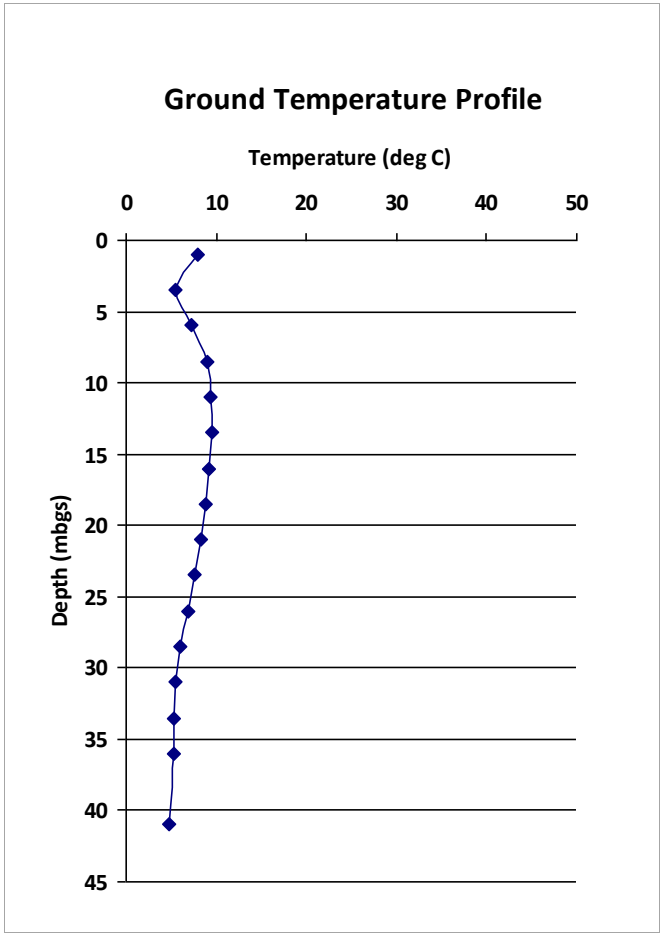
Location: CH14-015-MW004 Field Team A. Campbell, C. Blair Start Time: 2016-06-02 13:28:51

Thermistor String Model: RST 16PT - 42m Thermistor String ID: TS3396

Thermistor Deployed Time 2016-06-02 13:29:01

Comment:

Depth (mbgs)	Temperature (DegC)	Time
1	7.88	2016-06-02 16:29:50
3.5	5.54	2016-06-02 16:29:50
6	7.21	2016-06-02 16:29:50
8.5	8.94	2016-06-02 16:29:50
11	9.45	2016-06-02 16:29:50
13.5	9.61	2016-06-02 16:29:50
16	9.26	2016-06-02 16:29:50
18.5	8.89	2016-06-02 16:29:50
21	8.32	2016-06-02 16:29:50
23.5	7.56	2016-06-02 16:29:50
26	6.81	2016-06-02 16:29:50
28.5	6.08	2016-06-02 16:29:50
31	5.49	2016-06-02 16:29:50
33.5	5.28	2016-06-02 16:29:50
36	5.3	2016-06-02 16:29:50
41	4.69	2016-06-02 16:29:50



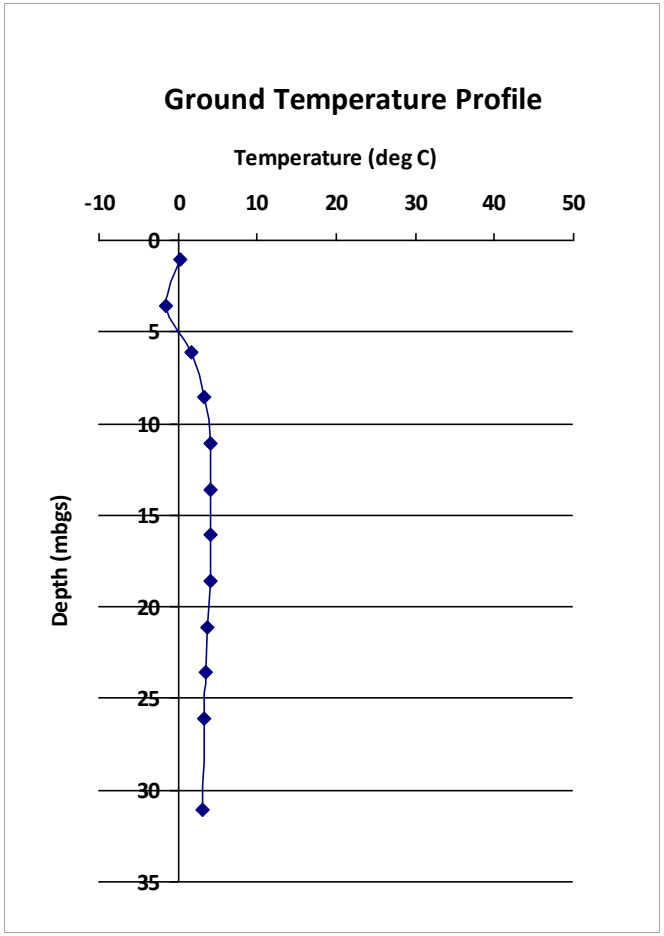
Location: CH14-015-MW006 Field Team A. Campbell Start Time: 2016-02-20 12:24:46

Thermistor String Model: RST 42M Thermistor String ID: TS3396

Thermistor Deployed Time 2016-02-20 12:24:51

Comment:

Depth (mbgs)	Temperature (DegC)	Time
1.09	0.28	2016-02-20 14:39:37
3.59	-1.56	2016-02-20 14:39:37
6.09	1.68	2016-02-20 14:39:37
8.59	3.24	2016-02-20 14:39:37
11.09	4.02	2016-02-20 14:39:37
13.59	4.05	2016-02-20 14:39:37
16.09	4.03	2016-02-20 14:39:37
18.59	4.01	2016-02-20 14:39:37
21.09	3.76	2016-02-20 14:39:37
23.59	3.54	2016-02-20 14:39:37
26.09	3.33	2016-02-20 14:39:37
31.09	3.09	2016-02-20 14:39:37



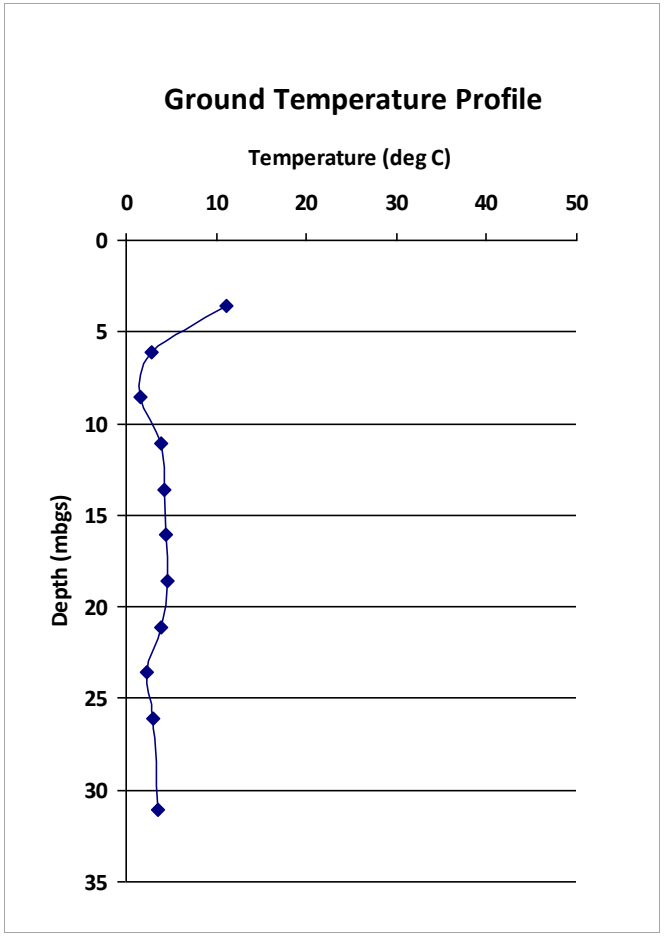
Location: CH14-015-MW006 Field Team A. Campbell, C. Blair Start Time: 2016-06-01 13:27:06

Thermistor String Model: RST 16PT - 42m Thermistor String ID: TS3396

Thermistor Deployed Time 2016-06-01 01:30:57

Comment:

Depth (mbgs)	Temperature (DegC)	Time
3.59	11.19	2016-06-01 15:24:10
6.09	2.84	2016-06-01 15:24:10
8.59	1.62	2016-06-01 15:24:10
11.09	3.88	2016-06-01 15:24:10
13.59	4.18	2016-06-01 15:24:10
16.09	4.38	2016-06-01 15:24:10
18.59	4.61	2016-06-01 15:24:10
21.09	3.91	2016-06-01 15:24:10
23.59	2.35	2016-06-01 15:24:10
26.09	3.09	2016-06-01 15:24:10
31.09	3.52	2016-06-01 15:24:10



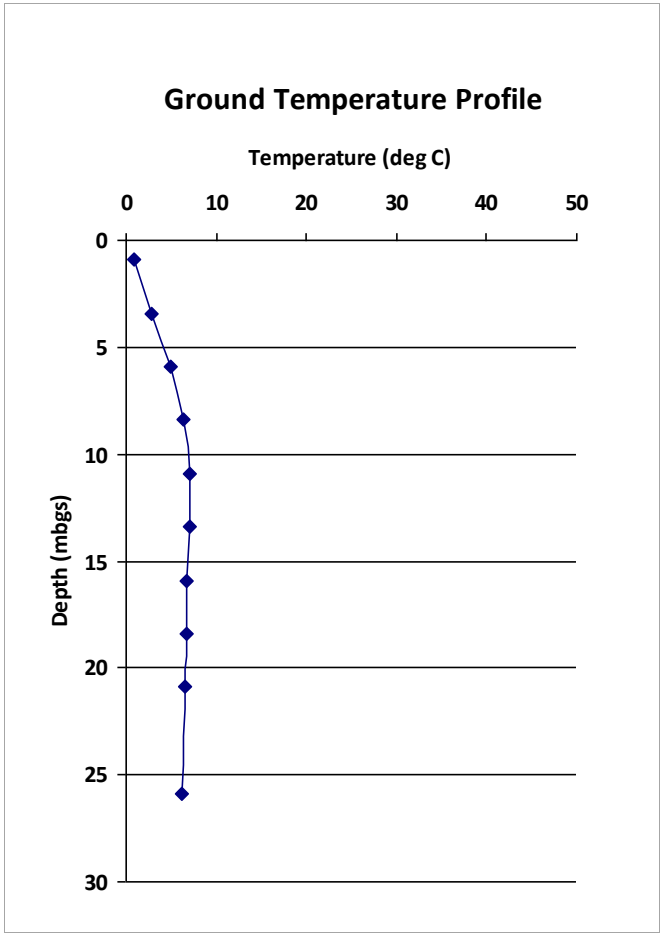
Location: CH14-104-MW008 Field Team A. Campbell, P. Mamo Start Time: 2016-02-19 10:53:12

Thermistor String Model: RST 42M Thermistor String ID: TS3396

Thermistor Deployed Time 2016-02-19 09:47:20

Comment:

Depth (mbgs)	Temperature (DegC)	Time
0.91	0.8	2016-02-19 13:49:38
3.41	2.79	2016-02-19 13:49:38
5.91	5	2016-02-19 13:49:38
8.41	6.34	2016-02-19 13:49:38
10.91	7.06	2016-02-19 13:49:38
13.41	7.09	2016-02-19 13:49:38
15.91	6.78	2016-02-19 13:49:38
18.41	6.64	2016-02-19 13:49:38
20.91	6.54	2016-02-19 13:49:38
25.91	6.17	2016-02-19 13:49:38



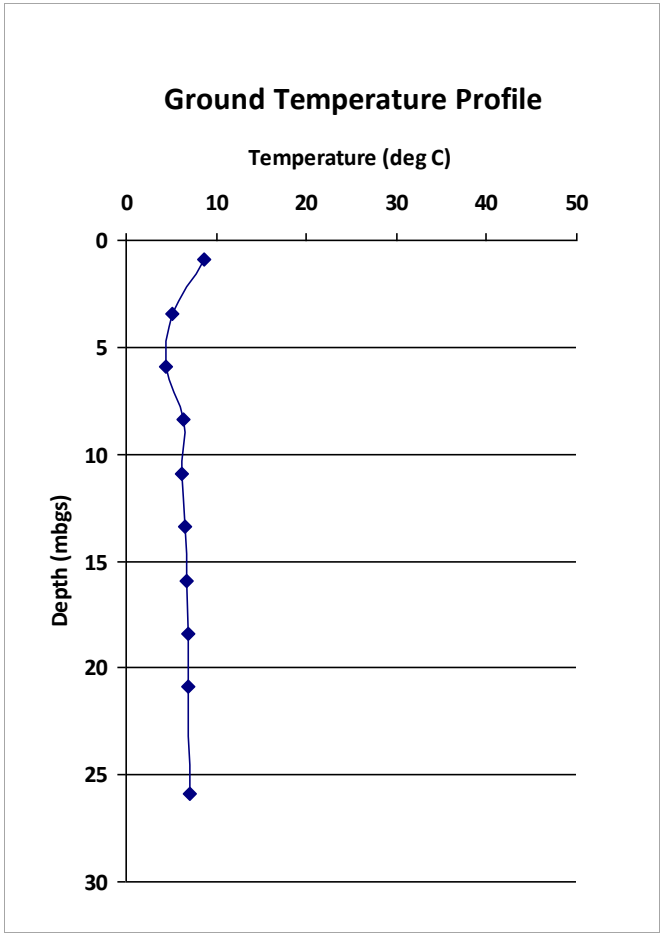
Location: CH14-104-MW008 Field Team A. Campbell, C. Blair Start Time: 2016-06-05 12:39:45

Thermistor String Model: RST 16PT - 42m Thermistor String ID: TS3396

Thermistor Deployed Time 2016-06-05 09:30:53

Comment:

Depth (mbgs)	Temperature (DegC)	Time
0.91	8.71	2016-06-05 13:16:21
3.41	5.04	2016-06-05 13:16:21
5.91	4.46	2016-06-05 13:16:21
8.41	6.3	2016-06-05 13:16:21
10.91	6.16	2016-06-05 13:16:21
13.41	6.56	2016-06-05 13:16:21
15.91	6.71	2016-06-05 13:16:21
18.41	6.82	2016-06-05 13:16:21
20.91	6.94	2016-06-05 13:16:21
25.91	7.06	2016-06-05 13:16:21



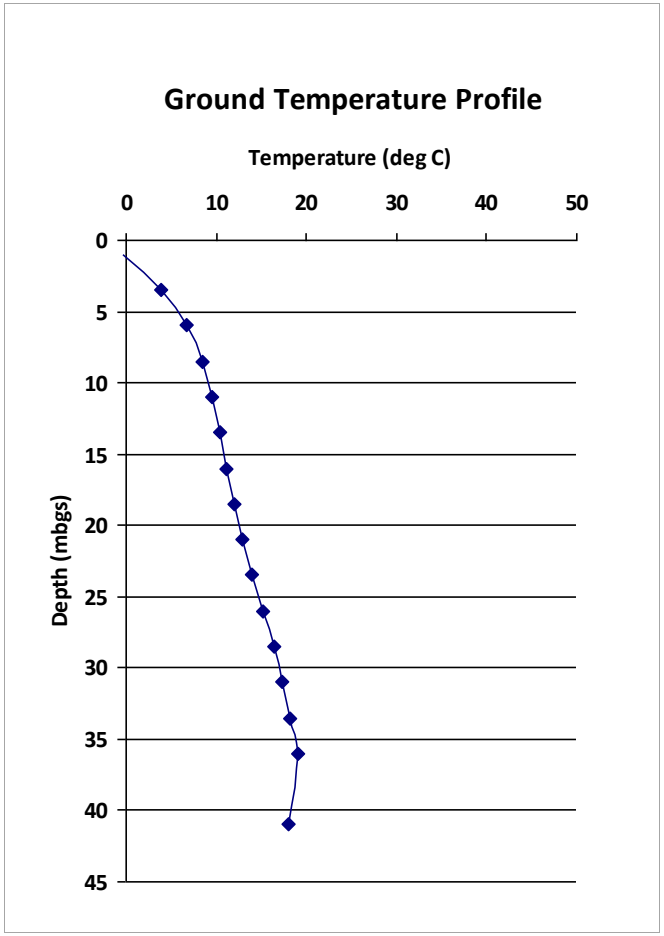
Location: CH14-106-MW009 Field Team A. Campbell, P. Mamo Start Time: 2016-02-18 14:23:17

Thermistor String Model: RST 22m 14PTS Thermistor String ID: TS3396

Thermistor Deployed Time 2016-02-18 12:15:50

Comment:

Depth (mbgs)	Temperature (DegC)	Time
1	-0.4	2016-02-18 14:24:49
3.5	3.93	2016-02-18 14:24:49
6	6.77	2016-02-18 14:24:49
8.5	8.53	2016-02-18 14:24:49
11	9.48	2016-02-18 14:24:49
13.5	10.34	2016-02-18 14:24:49
16	11.18	2016-02-18 14:24:49
18.5	11.95	2016-02-18 14:24:49
21	12.85	2016-02-18 14:24:49
23.5	14.01	2016-02-18 14:24:49
26	15.24	2016-02-18 14:24:49
28.5	16.48	2016-02-18 14:24:49
31	17.34	2016-02-18 14:24:49
33.5	18.23	2016-02-18 14:24:49
36	19.04	2016-02-18 14:24:49
41	18.08	2016-02-18 14:24:49



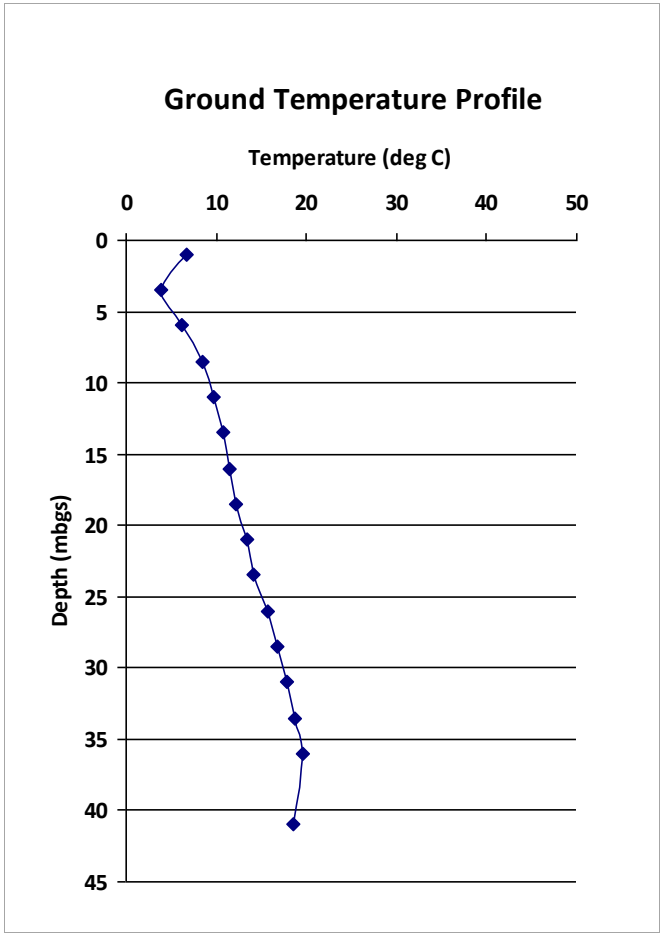
Location: CH14-106-MW009 Field Team A. Campbell, C. Blair Start Time: 2016-06-02 10:09:49

Thermistor String Model: RST 16PT - 42m Thermistor String ID: TS3396

Thermistor Deployed Time 2016-06-02 13:10:10

Comment:

Depth (mbgs)	Temperature (DegC)	Time
1	6.63	2016-06-02 13:15:25
3.5	3.95	2016-06-02 13:15:25
6	6.23	2016-06-02 13:15:25
8.5	8.47	2016-06-02 13:15:25
11	9.73	2016-06-02 13:15:25
13.5	10.73	2016-06-02 13:15:25
16	11.51	2016-06-02 13:15:25
18.5	12.23	2016-06-02 13:15:25
21	13.43	2016-06-02 13:15:25
23.5	14.2	2016-06-02 13:15:25
26	15.69	2016-06-02 13:15:25
28.5	16.86	2016-06-02 13:15:25
31	17.79	2016-06-02 13:15:25
33.5	18.78	2016-06-02 13:15:25
36	19.56	2016-06-02 13:15:25
41	18.6	2016-06-02 13:15:25



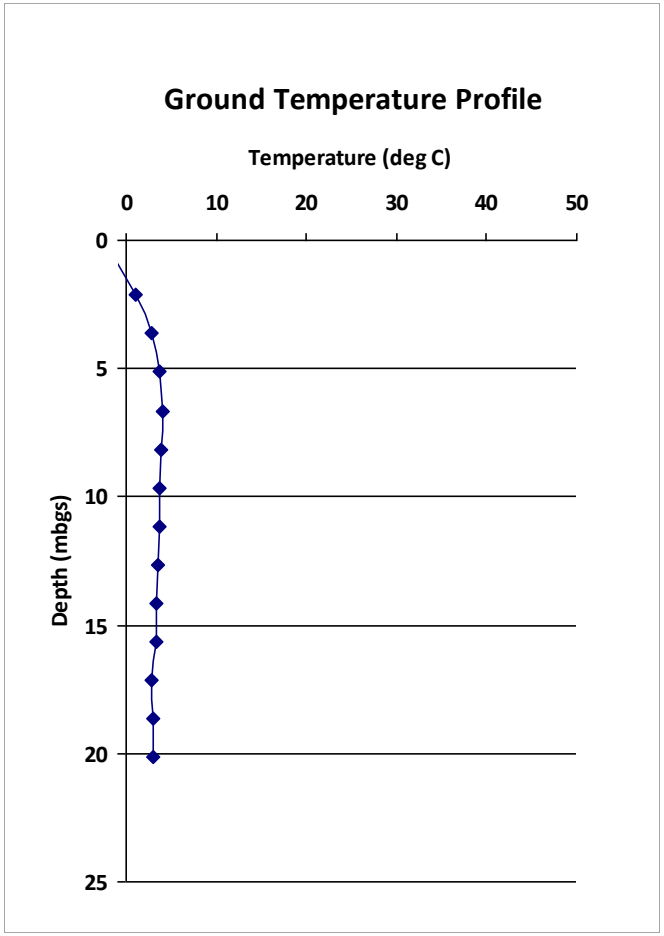
Location: CH14-201-TH001 Field Team J.Stroh, R.Sanders Start Time: 2016-02-23 09:58:51

Thermistor String Model: RST 14PT, 22M Thermistor String ID: TS3957

Thermistor Deployed Time 2016-02-23 09:59:10

Comment: Water level at 14 m

Depth (mbgs)	Temperature (DegC)	Time
0.64	-1.35	2016-02-23 14:47:23
2.14	1.07	2016-02-23 14:47:23
3.64	2.76	2016-02-23 14:47:23
5.14	3.69	2016-02-23 14:47:23
6.64	4.01	2016-02-23 14:47:23
8.14	3.97	2016-02-23 14:47:23
9.64	3.78	2016-02-23 14:47:23
11.14	3.64	2016-02-23 14:47:23
12.64	3.45	2016-02-23 14:47:23
14.14	3.39	2016-02-23 14:47:23
15.64	3.27	2016-02-23 14:47:23
17.14	2.91	2016-02-23 14:47:23
18.64	3.07	2016-02-23 14:47:23
20.14	3	2016-02-23 14:47:23



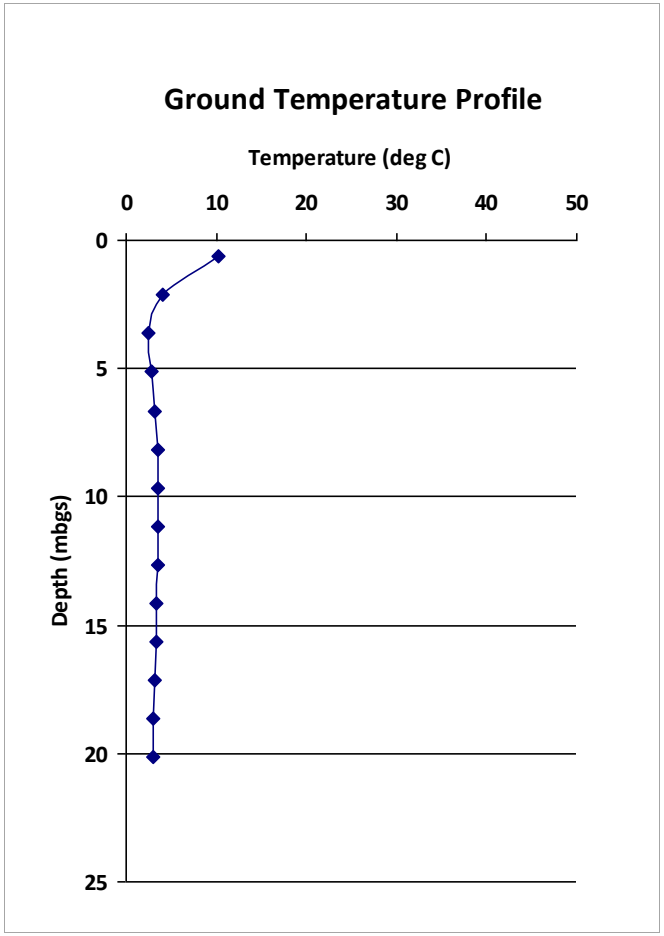
Location: CH14-201-TH001 Field Team A. Campbell, C. Blair Start Time: 2016-06-04 08:47:12

Thermistor String Model: RST 14 PT - 22 M Thermistor String ID: TS3957

Thermistor Deployed Time 2016-06-04 08:47:23

Comment: Dtw = 12.692, dtb= 21.095. Mbtoc

Depth (mbgs)	Temperature (DegC)	Time
0.64	10.21	2016-06-04 16:07:37
2.14	4.09	2016-06-04 16:07:37
3.64	2.41	2016-06-04 16:07:37
5.14	2.84	2016-06-04 16:07:37
6.64	3.24	2016-06-04 16:07:37
8.14	3.5	2016-06-04 16:07:37
9.64	3.6	2016-06-04 16:07:37
11.14	3.55	2016-06-04 16:07:37
12.64	3.48	2016-06-04 16:07:37
14.14	3.44	2016-06-04 16:07:37
15.64	3.31	2016-06-04 16:07:37
17.14	3.13	2016-06-04 16:07:37
18.64	3.09	2016-06-04 16:07:37
20.14	2.99	2016-06-04 16:07:37



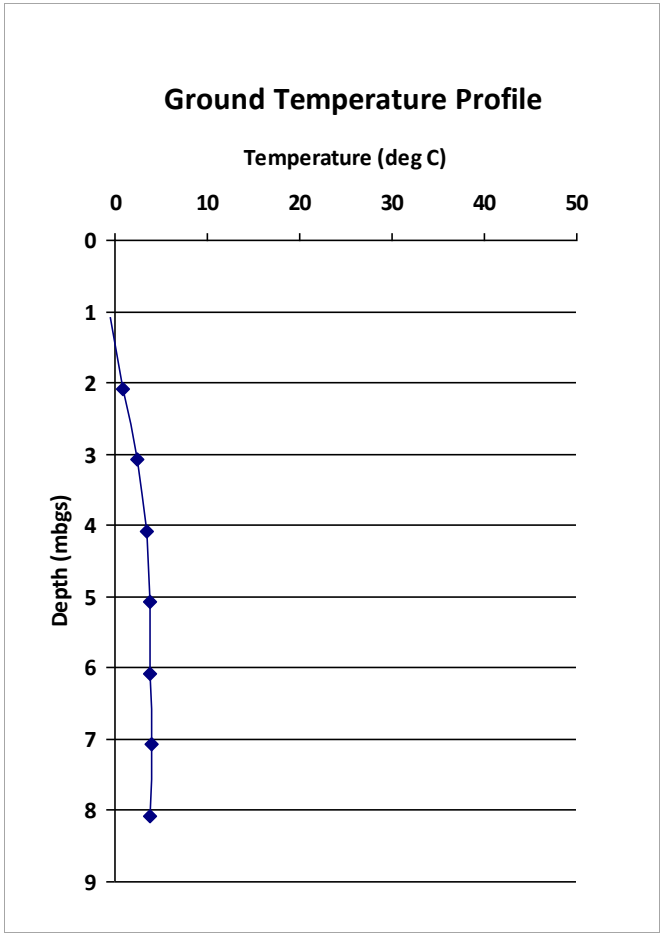
Location: CH14-201-TH002 Field Team J.Stroh, R.Sanders Start Time: 2016-02-23 10:08:39

Thermistor String Model: RST 8PT, 9M Thermistor String ID: TS3834

Thermistor Deployed Time 2016-02-23 10:09:01

Comment: Depth of well 21m, 16.498

Depth (mbgs)	Temperature (DegC)	Time
1.08	-1.19	2016-02-23 16:51:14
1.08	0.01	2016-02-23 12:38:22
2.08	0.96	2016-02-23 16:51:14
2.08	0.75	2016-02-23 12:38:22
3.08	2.19	2016-02-23 12:38:22
3.08	2.74	2016-02-23 16:51:14
4.08	3.19	2016-02-23 12:38:22
4.08	3.67	2016-02-23 16:51:14
5.08	4	2016-02-23 16:51:14
5.08	3.53	2016-02-23 12:38:22
6.08	3.73	2016-02-23 16:51:14
6.08	3.85	2016-02-23 12:38:22
7.08	4	2016-02-23 12:38:22
7.08	3.76	2016-02-23 16:51:14
8.08	3.52	2016-02-23 16:51:14
8.08	3.98	2016-02-23 12:38:22



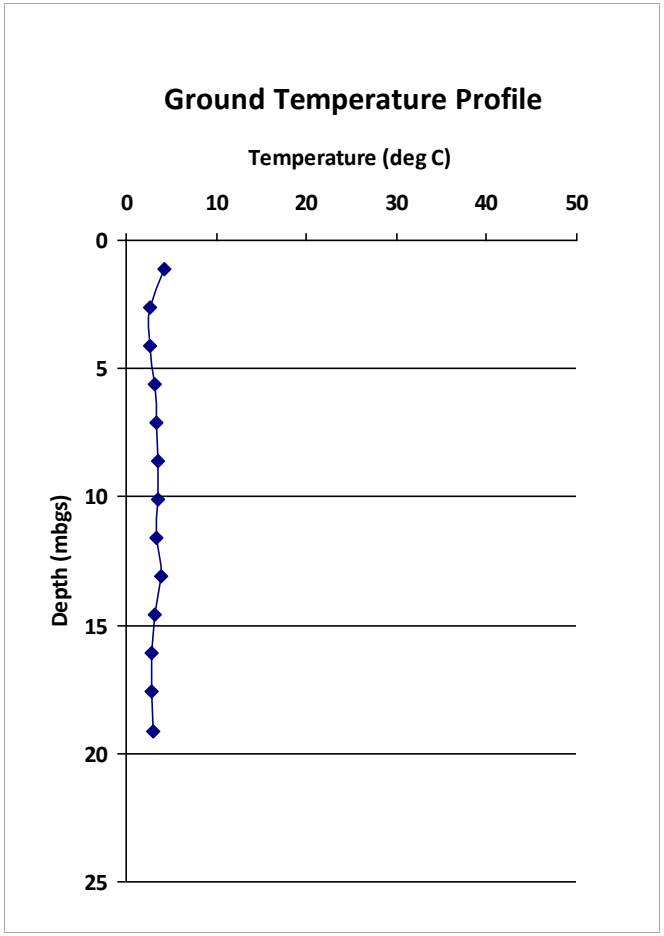
Location: CH14-201-TH002 Field Team A. Campbell, C. Blair Start Time: 2016-06-04 16:13:14

Thermistor String Model: RST 14 PT - 22 M Thermistor String ID: TS3957

Thermistor Deployed Time 2016-06-04 16:13:31

Comment: Dtw = 16.072, Dtb= 21.018

Depth (mbgs)	Temperature (DegC)	Time
1.11	4.31	2016-06-05 09:38:20
2.61	2.58	2016-06-05 09:38:20
4.11	2.67	2016-06-05 09:38:20
5.61	3.1	2016-06-05 09:38:20
7.11	3.36	2016-06-05 09:38:20
8.61	3.46	2016-06-05 09:38:20
10.11	3.46	2016-06-05 09:38:20
11.61	3.36	2016-06-05 09:38:20
13.11	3.91	2016-06-05 09:38:20
14.61	3.12	2016-06-05 09:38:20
16.11	2.74	2016-06-05 09:38:20
17.61	2.88	2016-06-05 09:38:20
19.11	3.05	2016-06-05 09:38:20



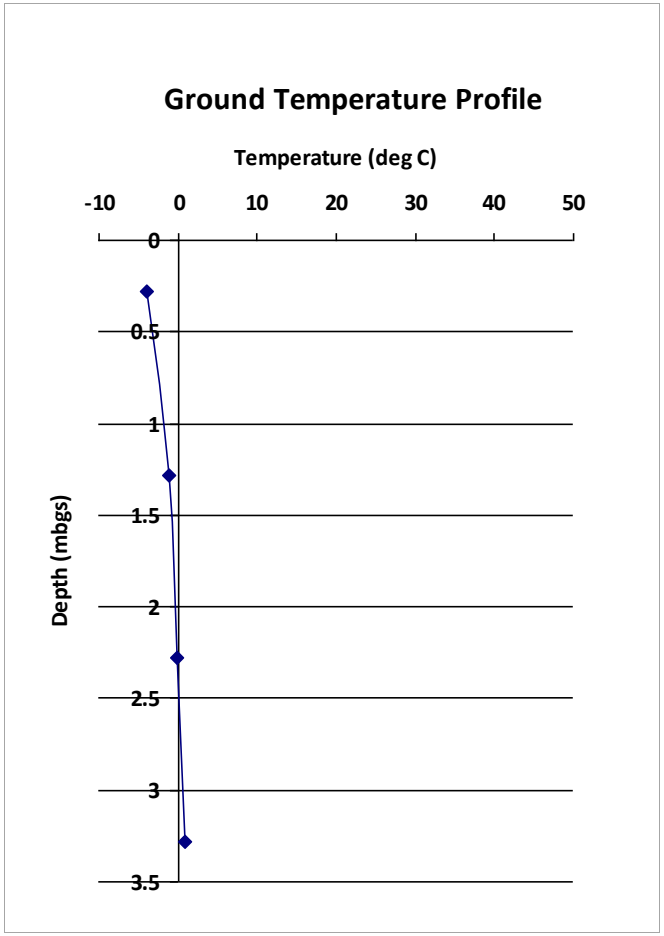
Location: CH14-201-TH003 Field Team J.Stroh, R.Sanders Start Time: 2016-02-24 08:50:23

Thermistor String Model: RST 8PT, 9M Thermistor String ID: TS3834

Thermistor Deployed Time 2016-02-24 08:50:49

Comment: Well is dry, depth to bottom is 4.2 m

Depth (mbgs)	Temperature (DegC)	Time
0.28	-4.06	2016-02-24 11:19:43
1.28	-1.22	2016-02-24 11:19:43
2.28	-0.18	2016-02-24 11:19:43
3.28	0.81	2016-02-24 11:19:43



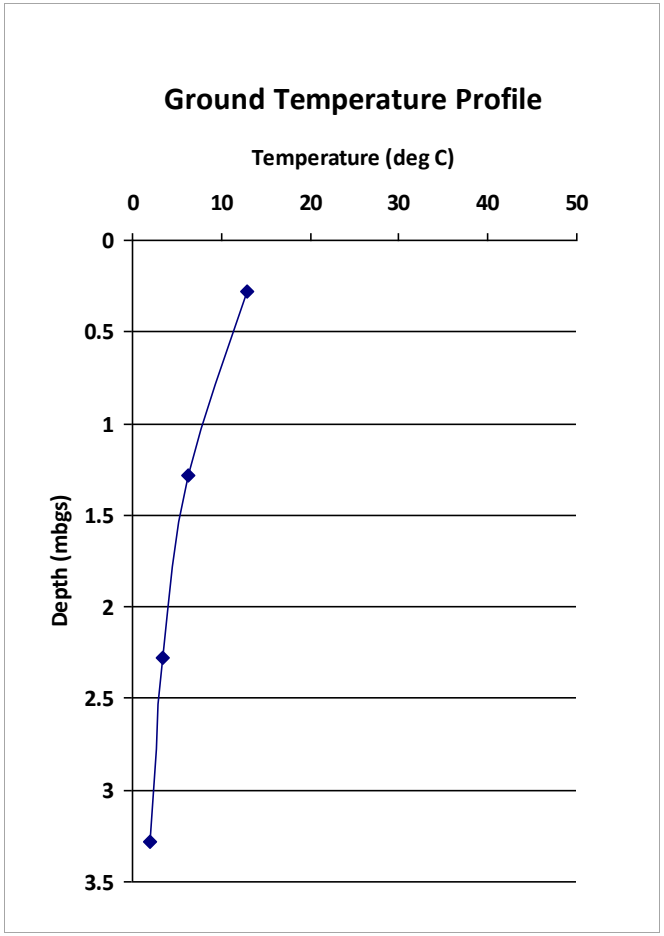
Location: CH14-201-TH003 Field Team A. Campbell, C. Blair Start Time: 2016-06-05 09:57:47

Thermistor String Model: RST 8 PT - 9 M Thermistor String ID: TS3834

Thermistor Deployed Time 2016-06-05 10:00:46

Comment: Dtw = 4.232, dtb = 4.285

Depth (mbgs)	Temperature (DegC)	Time
0.28	12.85	2016-06-05 13:35:04
1.28	6.25	2016-06-05 13:35:04
2.28	3.41	2016-06-05 13:35:04
3.28	2.01	2016-06-05 13:35:04



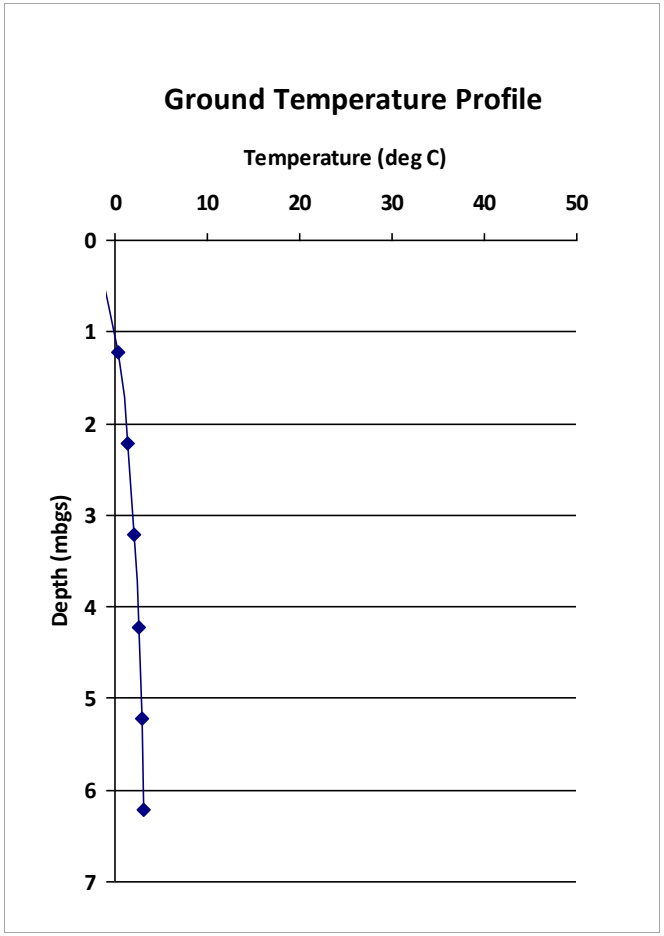
Location: CH14-201-TH004 Field Team J.Stroh, R.Sanders Start Time: 2016-02-23 12:59:19

Thermistor String Model: RST 8PT, 9M Thermistor String ID: TS3834

Thermistor Deployed Time 2016-02-23 12:59:38

Comment: Water level at 3.91 m, depth to bottom 6.90

Depth (mbgs)	Temperature (DegC)	Time
0.22	-1.77	2016-02-23 15:05:27
1.22	0.32	2016-02-23 15:05:27
2.22	1.41	2016-02-23 15:05:27
3.22	2.14	2016-02-23 15:05:27
4.22	2.67	2016-02-23 15:05:27
5.22	2.93	2016-02-23 15:05:27
6.22	3.05	2016-02-23 15:05:27



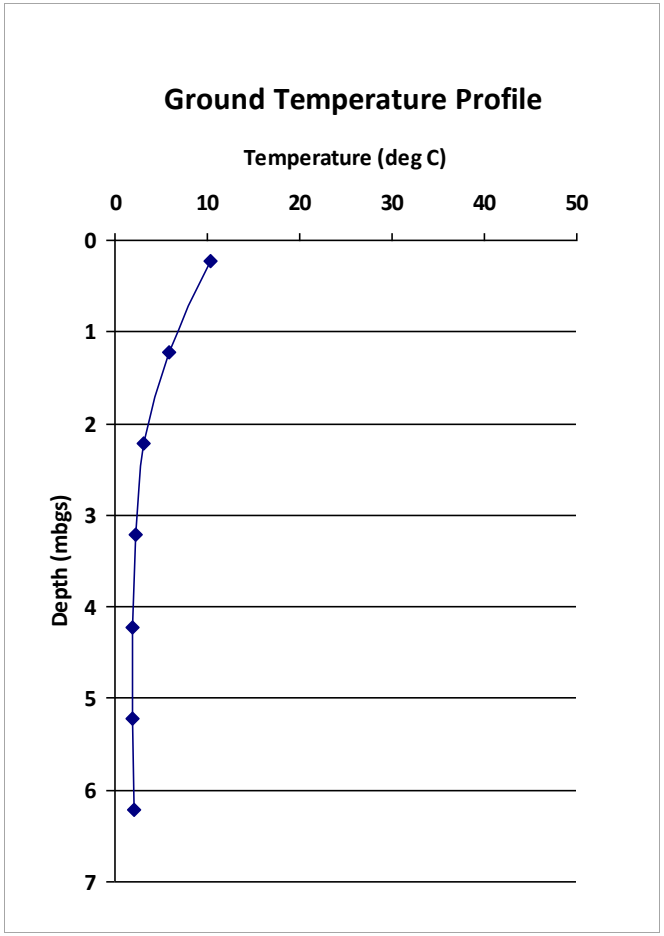
Location: CH14-201-TH004 Field Team A. Campbell, C. Blair Start Time: 2016-06-04 16:38:51

Thermistor String Model: RST 8 PT - 9 M Thermistor String ID: TS3834

Thermistor Deployed Time 2016-06-04 16:39:03

Comment: Dtw = 2.936, dtb = 8.972

Depth (mbgs)	Temperature (DegC)	Time
0.22	10.27	2016-06-05 09:49:04
1.22	5.94	2016-06-05 09:49:04
2.22	3.12	2016-06-05 09:49:04
3.22	2.19	2016-06-05 09:49:04
4.22	1.96	2016-06-05 09:49:04
5.22	1.9	2016-06-05 09:49:04
6.22	2.08	2016-06-05 09:49:04



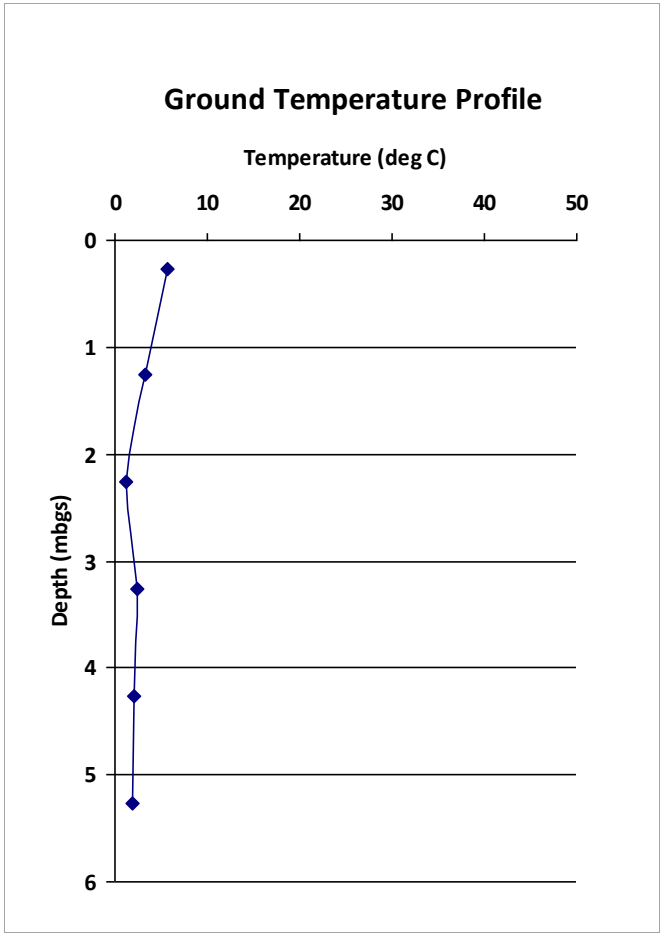
Location: CH14-201-TH006 Field Team J.Stroh, R.Sanders Start Time: 2016-02-24 11:41:07

Thermistor String Model: RST 8PT, 9M Thermistor String ID: TS3834

Thermistor Deployed Time 2016-02-24 11:41:15

Comment: Water level at 2.59

Depth (mbgs)	Temperature (DegC)	Time
0.26	11.47	2015-06-04 16:41:36
0.26	0.07	2016-02-24 14:27:05
1.26	4.93	2015-06-04 16:41:36
1.26	1.78	2016-02-24 14:27:05
2.26	1.03	2016-02-24 14:27:05
2.26	1.35	2015-06-04 16:41:36
3.26	2.86	2016-02-24 14:27:05
3.26	1.85	2015-06-04 16:41:36
4.26	2.69	2016-02-24 14:27:05
4.26	1.48	2015-06-04 16:41:36
5.26	2.65	2016-02-24 14:27:05
5.26	1.11	2015-06-04 16:41:36



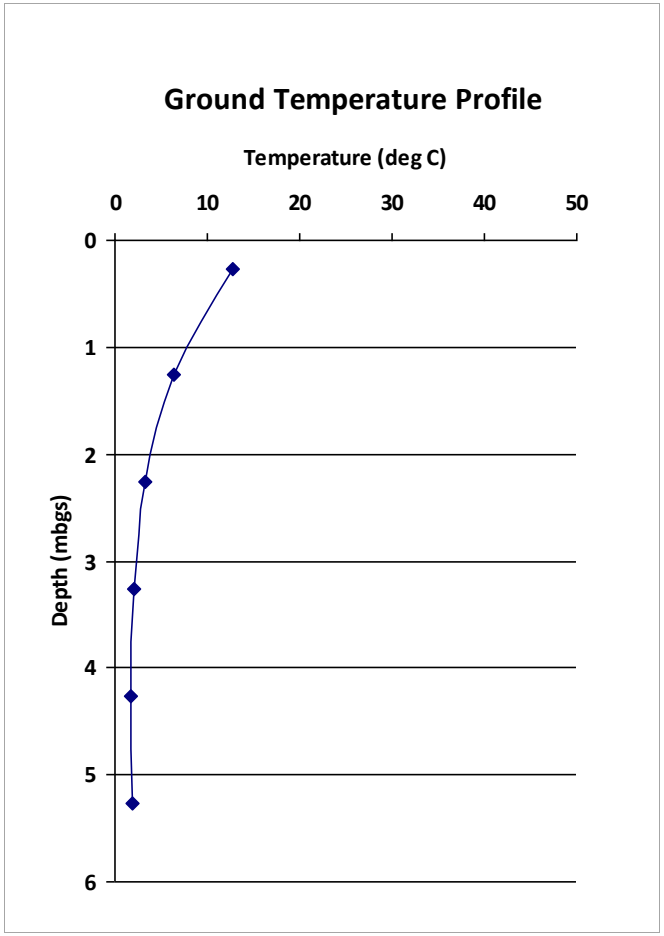
Location: CH14-201-TH006 Field Team A. Campbell, C. Blair Start Time: 2016-06-04 08:32:59

Thermistor String Model: RST 8 PT - 9 M Thermistor String ID: TS3834

Thermistor Deployed Time 2016-06-04 08:36:06

Comment: Dtw = 2.51, dtb= 6.13. Mbtoc

Depth (mbgs)	Temperature (DegC)	Time
0.26	12.78	2016-06-04 16:25:27
1.26	6.36	2016-06-04 16:25:27
2.26	3.31	2016-06-04 16:25:27
3.26	2.14	2016-06-04 16:25:27
4.26	1.78	2016-06-04 16:25:27
5.26	1.92	2016-06-04 16:25:27



Attachment 4
Gas Monitoring Logs

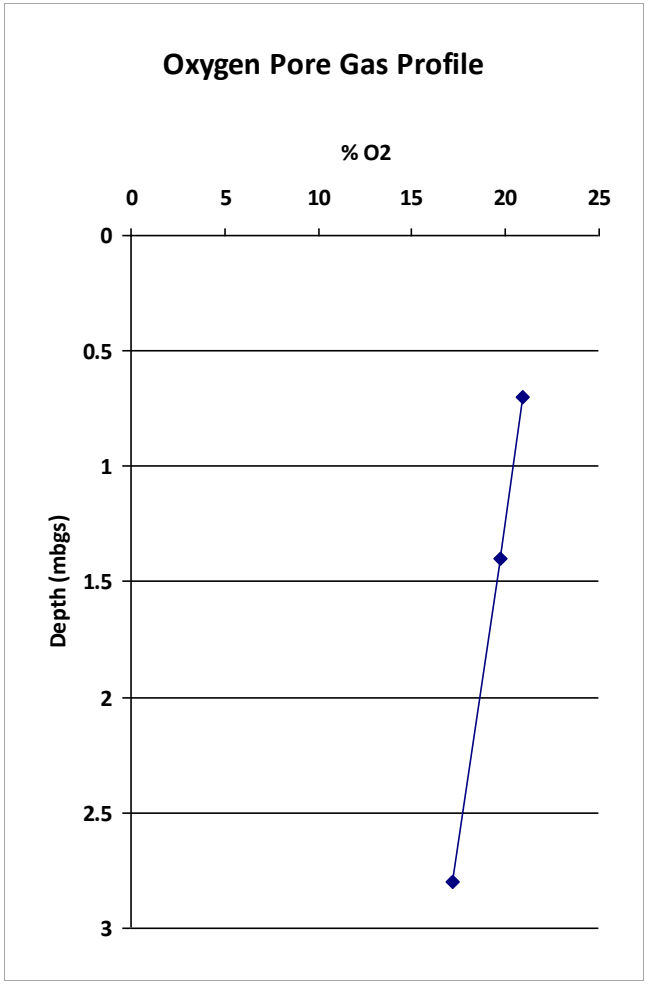
Location: 10M3 Field Team A. Campbell, J. Stroh Start Time: 2016-02-22 14:03:58

Gas Monitor Model RKI EAGLE II Gas Monitor ID 020826

Vacuum Gauge Model DWYER 477A Vacuum Guage ID 903496

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-02-22 14:21:19	0.7	1.55	.5	20.9	0.1	
2016-02-22 14:20:34	0.7	1.64	.5	20.9	0.1	
2016-02-22 14:19:16	1.4	1.73	.5	19.7	1.1	
2016-02-22 14:16:37	1.4	1.10	0.5	19.9	0.9	
2016-02-22 14:06:15	10					Plugged
2016-02-22 14:08:00	10					Plugged
2016-02-22 14:14:50	2.8	1.78	0.5	17.2	3.4	
2016-02-22 14:10:34	2.8	0.0	0.5	2.3	17.7	
2016-02-22 14:08:28	5.6					Plugged
2016-02-22 14:08:11	5.6					Plugged



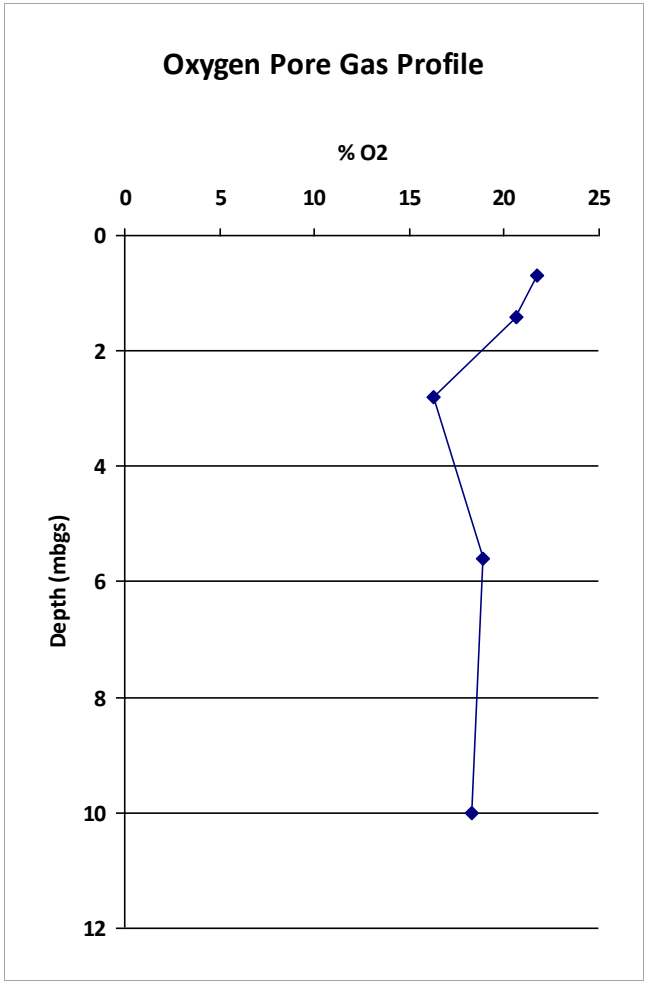
Location: 10M3 | Field Team: A. Campbell, C. Blair | Start Time: 2016-06-03 12:15:42

Gas Monitor Model: Landtech GEM 2000 | Gas Monitor ID: 5566

Vacuum Gauge Model: DWYER SERIES 475 | Vacuum Guage ID: 903714

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-06-03 13:16:57	0.7	0.93	0.5	21.7	0.3	
2016-06-03 13:18:29	0.7	0.93	0.5	21.7	0.3	
2016-06-03 13:13:35	1.4	0	0.5	20.7	1.2	
2016-06-03 13:14:35	1.4	0	0.5	20.6	1.3	
2016-06-03 12:35:20	10	2.06	0.5	18.4	4.3	
2016-06-03 12:31:03	10	1.1	0.5	18.9	3.8	
2016-06-03 12:37:14	10	2.06	0.5	18.3	4.3	Corrected entry
2016-06-03 13:06:39	2.8	0.93	0.5	16.4	5.9	
2016-06-03 13:08:16	2.8	1.31	0.5	16.3	6.0	
2016-06-03 12:57:53	5.6	1.31	0.5	19.0	3.3	
2016-06-03 12:40:17	5.6	0.9	0.5	20.4	1.5	
2016-06-03 12:59:26	5.6	1.68	0.5	18.9	3.6	Corrected entry



Location: 10M4 Field Team A. Campbell, J. Stroh Start Time: 2016-02-22 11:27:27

Gas Monitor Model RKI EAGLE II Gas Monitor ID 020826

Vacuum Gauge Model DWYER 477A Vacuum Guage ID 903496

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-02-22 12:45:48	0.7					Plugged
2016-02-22 12:45:37	1.4					Plugged
2016-02-22 12:46:09	2.8					Plugged
2016-02-22 12:44:26	2.8	4.88	.5	20.4	0.2	
2016-02-22 12:42:58	5.6					Plugged
2016-02-22 12:43:26	5.6					Plugged

Oxygen Pore Gas Profile

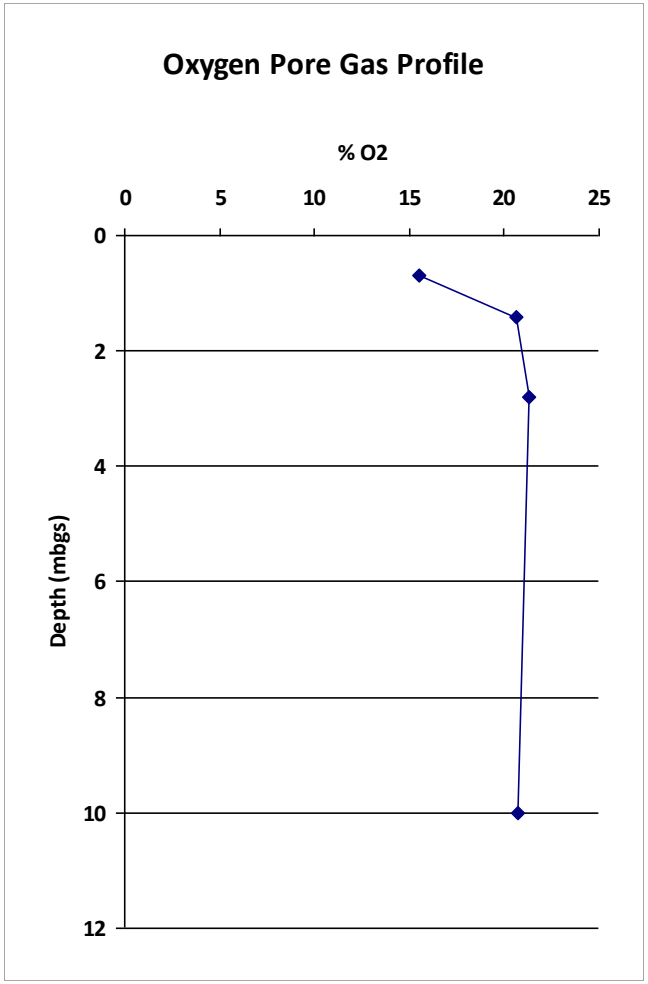
Location: 10M4 | Field Team: A. Campbell, C. Blair | Start Time: 2016-06-04 09:32:00

Gas Monitor Model: Landtech GEM 2000 | Gas Monitor ID: 5566

Vacuum Gauge Model: DWYER SERIES 475 | Vacuum Guage ID: 903714

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-06-04 11:40:29	0.7	0	0.5	15.5	2.8	
2016-06-04 11:36:41	1.4	0	0.5	20.6	0.6	
2016-06-04 11:19:25	10	73.99	.5	20.7	0.6	
2016-06-04 11:30:04	2.8	4.48	0.5	21.3	0.3	
2016-06-04 11:33:31	2.8	3.92	0.5	21.3	0.3	



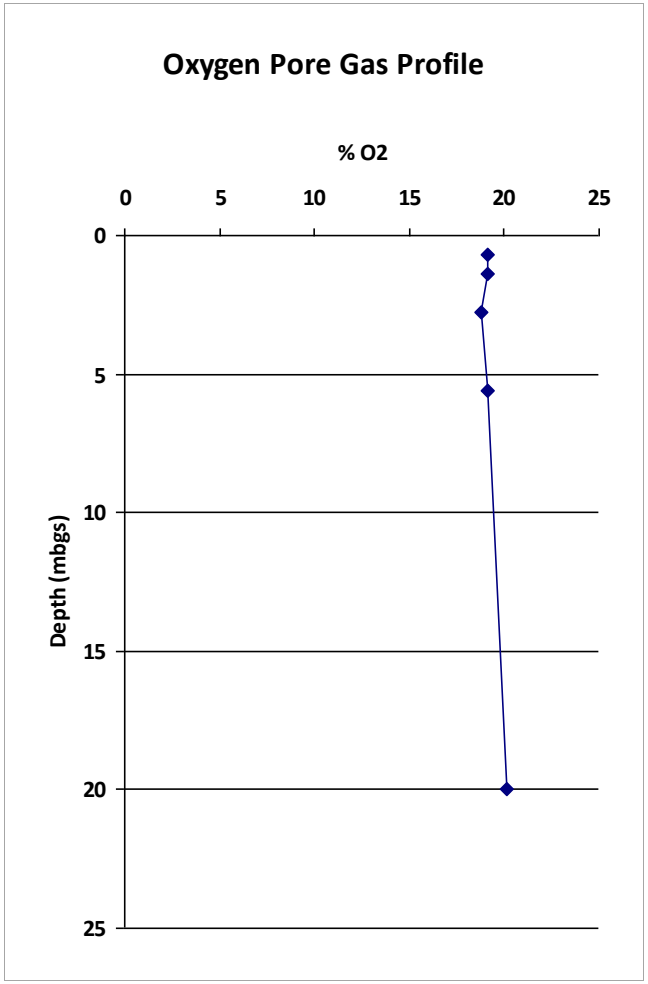
Location: 30M1 | Field Team: A. Campbell, P. Mamo | Start Time: 2016-02-18 16:07:01

Gas Monitor Model: RKI EAGLE II | Gas Monitor ID: 028026

Vacuum Gauge Model: DWYER SERIES 477A | Vacuum Guage ID: 903496

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-02-18 16:24:28	0.7	1.03	.5	19.1	1.4	
2016-02-18 16:20:27	1.4					Plugged
2016-02-18 16:22:40	1.4	1.56	.5	19.1	1.4	
2016-02-18 16:14:35	10	9.63	.5	18.8	1.4	
2016-02-18 16:16:07	10					Plugged
2016-02-18 16:18:28	2.8					Blocked
2016-02-18 16:19:18	2.8	2.63	.5	18.8	1.4	
2016-02-18 16:12:56	20	17.23	.5	20.1	0.6	
2016-02-18 16:08:06	30					Plugged
2016-02-18 16:17:07	5.6					Plugged
2016-02-18 16:17:23	5.6	1.83	.5	19.1	1.3	



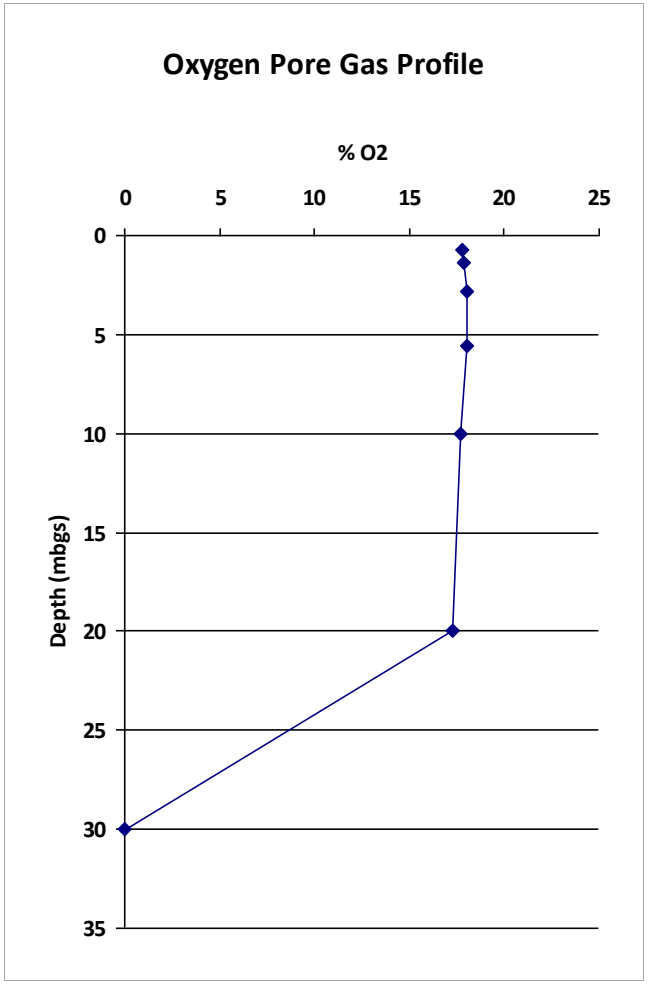
Location: 30M1 | Field Team: A. Campbell, C. Blair | Start Time: 2016-06-02 15:54:45

Gas Monitor Model: Landtech GEM 2000 | Gas Monitor ID: 5566

Vacuum Gauge Model: DWYER SERIES 475 | Vacuum Guage ID: 903714

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-06-02 16:16:39	0.7	0.93	.5	17.8	3.0	
2016-06-02 16:18:14	0.7	4.67	.5	17.8	3.0	
2016-06-02 16:12:43	1.4	1.49	.5	17.9	3.0	
2016-06-02 16:14:40	1.4	2.24	.5	17.9	3.0	
2016-06-02 16:08:05	10	5.6	0.5	17.7	2.8	
2016-06-02 16:10:34	10	5.79	0.5	17.7	2.8	
2016-06-02 16:09:45	2.8	1.31	.5	18.0	2.8	
2016-06-02 16:11:04	2.8	2.24	.5	18	2.8	
2016-06-02 16:05:11	20	11.02	0.5	17.3	3.2	
2016-06-02 16:02:21	30	5.98	0.5	0	11.5	
2016-06-02 16:13:06	5.6	1.68	0.5	18.0	2.6	
2016-06-02 16:14:48	5.6	2.8	.5	18.0	2.6	



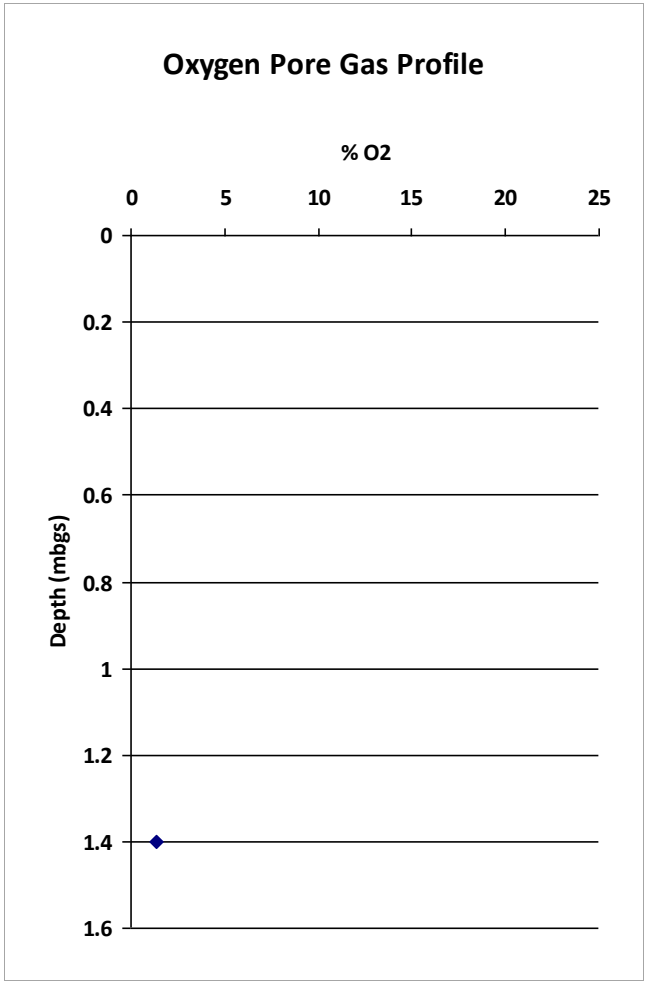
Location: 30M4 Field Team A. Campbell, J. Stroh Start Time: 2016-02-21 16:35:02

Gas Monitor Model RKI EAGLE II Gas Monitor ID 028026

Vacuum Gauge Model DWYER SERIES 477A Vacuum Guage ID 903496

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-02-21 16:48:28	0.7					Plugged
2016-02-21 16:48:10	0.7					Plugged
2016-02-21 16:47:07	1.4	31.54	0.5	1.4	8.1	
2016-02-21 16:43:42	1.4	24.96	0.5	1.0	8.3	
2016-02-21 16:42:34	10					Plugged
2016-02-21 16:42:17	10					Plugged
2016-02-21 16:43:31	2.8					Plugged
2016-02-21 16:43:18	2.8					Plugged
2016-02-21 16:42:02	20					Plugged
2016-02-21 16:41:45	30					Plugged
2016-02-21 16:43:06	5.6					Plugged
2016-02-21 16:42:49	5.6					Plugged



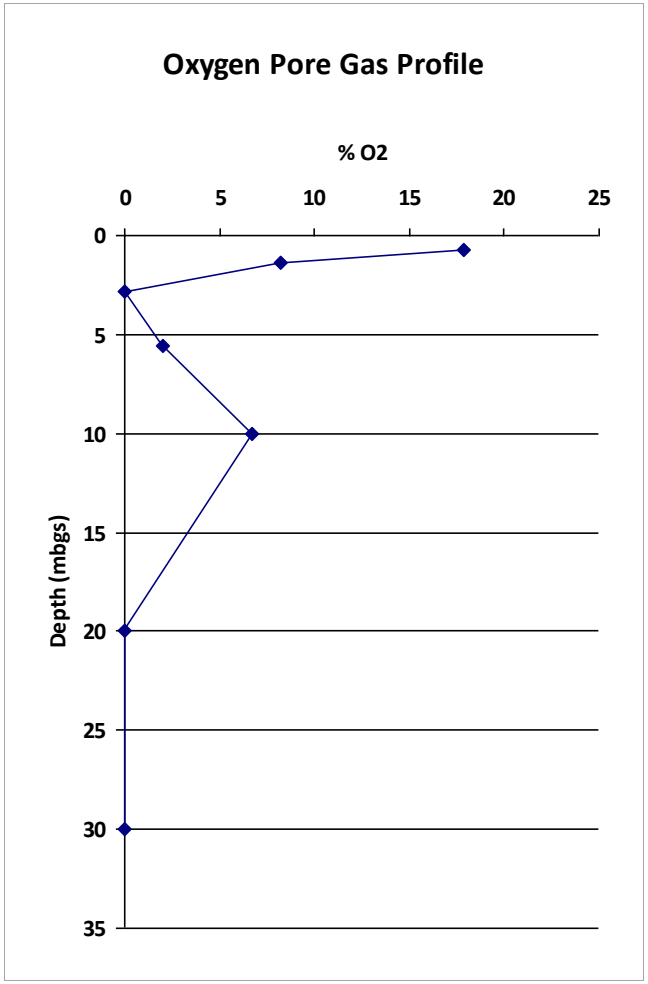
Location: 30M4 | Field Team: A. Campbell, C. Blair | Start Time: 2016-06-04 11:52:09

Gas Monitor Model: Landtech GEM 2000 | Gas Monitor ID: 5566

Vacuum Gauge Model: DWYER SERIES 475 | Vacuum Guage ID: 903714

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-06-04 12:42:44	0.7	0	0.5	17.9	3.5	
2016-06-04 12:41:28	0.7	0	0.5	17.9	3.5	
2016-06-04 12:38:27	1.4	0	0.5	8.2	10.7	
2016-06-04 12:08:25	10	196.55		6.7	9.8	Basically blocked, may not be accurate
2016-06-04 12:02:03	10	1.49	0.5	6.0	10.1	
2016-06-04 12:19:33	2.8	0	0.5	0	15.7	
2016-06-04 12:16:08	2.8					Blocked
2016-06-04 11:59:10	20	3.18	0.5	0	14.7	
2016-06-04 11:54:42	30	4.67	0.5	0	16.4	
2016-06-04 12:15:17	5.6	1.12	0.5	2.0	11.2	
2016-06-04 12:12:17	5.6	0	0.5	1.9	11.3	



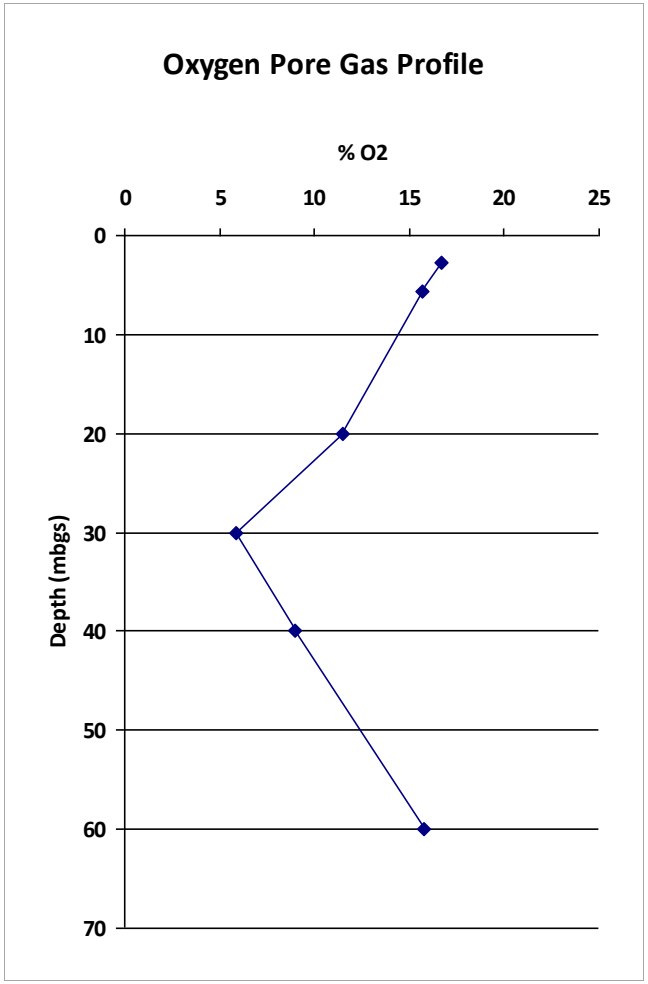
Location: 60M1 | Field Team: A. Campbell, P. Mamo | Start Time: 2016-02-18 15:16:43

Gas Monitor Model: RKI EAGLE II | Gas Monitor ID: 028026

Vacuum Gauge Model: DWYER SERIES 477A | Vacuum Guage ID: 903496

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-02-18 15:37:43	10	8.42	.5	14.0	1.9	
2016-02-18 16:40:26	10					Plugged
2016-02-18 16:46:00	2.8	4.93	.5	16.7	1.4	
2016-02-18 15:35:12	20	11.06	.5	11.5	4.2	
2016-02-18 15:32:34	30	4.44	.5	5.9	7.5	
2016-02-18 15:29:39	40	4.92	.5	9.0	5.4	
2016-02-18 16:41:20	5.6					Plugged
2016-02-18 16:42:57	5.6	3.64	.5	15.7	2.2	
2016-02-18 15:23:27	60	7.84	.5	15.8	2.1	



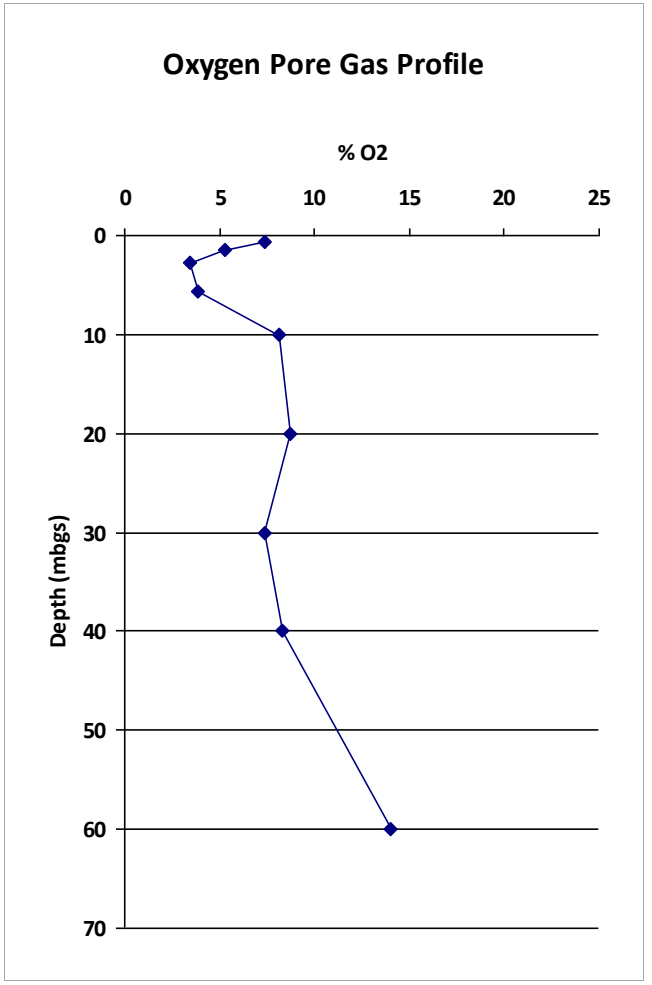
Location: 60M1 Field Team A. Campbell, C. Blair Start Time: 2016-06-02 14:51:10

Gas Monitor Model Landtech GEM 2000 Gas Monitor ID 5566

Vacuum Gauge Model DWYER SERIES 475 Vacuum Guage ID 903714

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-06-02 15:41:55	0.7	0	0.5	7.2	9.5	
2016-06-02 15:44:08	0.7	0	0.5	7.4	9.4	
2016-06-02 15:37:59	1.4	0	0.5	5.3	10.5	
2016-06-02 15:40:05	1.4	0	0.5	5.3	10.5	
2016-06-02 15:21:32	10	1.87	0.5	5.4	8.6	
2016-06-02 15:27:07	10	2.06	0.5	8.1	9.7	
2016-06-02 15:34:39	2.8	0.93	0.5	3.2	12.1	
2016-06-02 15:36:23	2.8	1.12	0.5	3.4	12.1	
2016-06-02 15:17:56	20	1.87	0.5	8.7	9.4	
2016-06-02 15:12:30	30	3.18	0.5	7.4	10.4	
2016-06-02 15:05:24	40	3.36	0.5	8.3	10	
2016-06-02 15:32:00	5.6	2.24	0.5	3.9	12.7	
2016-06-02 15:32:34	5.6	2.99	0.5	3.9	12.7	
2016-06-02 14:59:46	60	6.35	0.5	14.0	6.4	



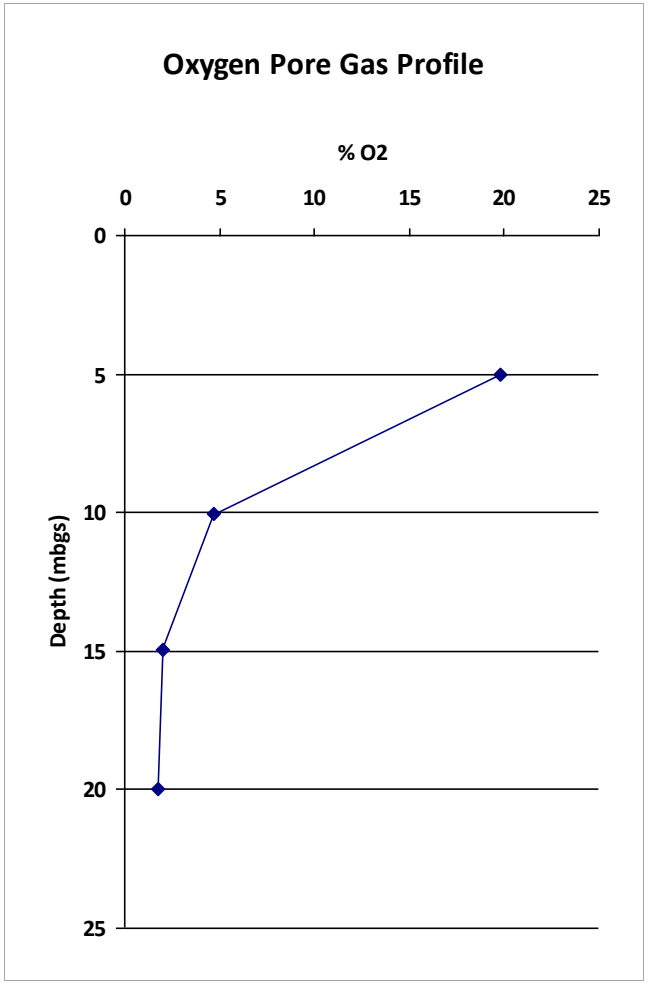
Location: CH12-014-MW003 Field Team A. Campbell, P. Mamo Start Time: 2016-02-17 02:09:54

Gas Monitor Model RKI EAGLE II Gas Monitor ID 028011

Vacuum Gauge Model DWYER SERIES 477A Vacuum Guage ID A01162

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-02-17 17:14:59	5.03	4.14	.5	19.8	0.6	
2016-02-17 17:10:08	10.06	.90	.5	4.7	6.7	
2016-02-17 17:02:06	14.94	.92	.5	2.0	8.7	
2016-02-17 16:55:04	19.96	.95	.5	1.8	9.9	



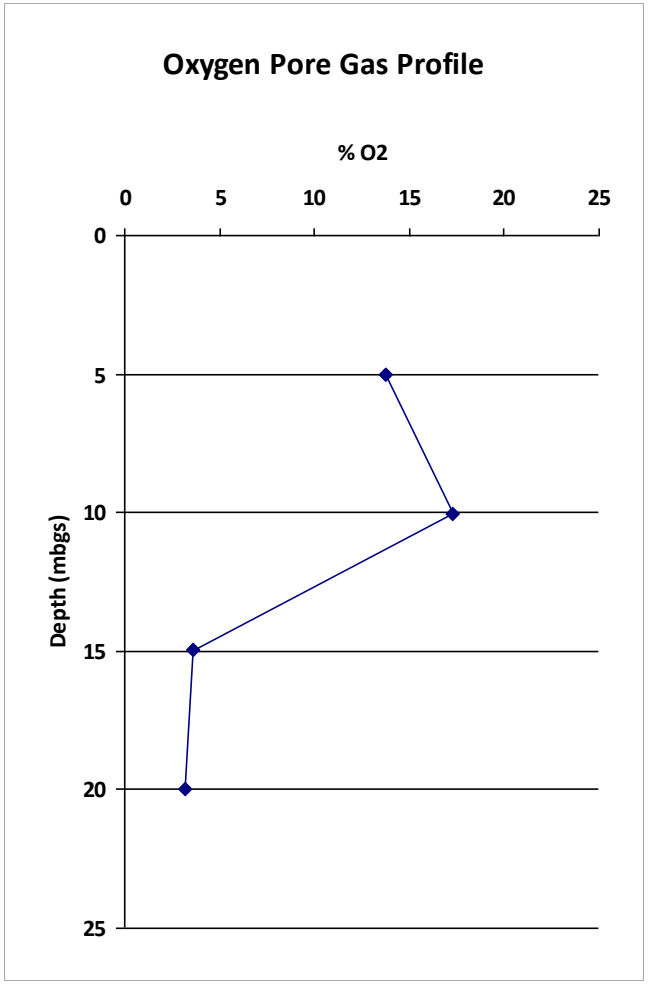
Location: CH12-014-MW003 Field Team A. Campbell, C. Blair Start Time: 2016-06-01 15:40:18

Gas Monitor Model Landtech GEM 2000 Gas Monitor ID 5566

Vacuum Gauge Model DWYER SERIES 475 Vacuum Guage ID 903714

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-06-02 12:13:48	5.03	2.24	.5	13.8	4	
2016-06-02 10:44:23	10.06	0	.5	17.3	2.0	
2016-06-02 10:35:11	14.94	0	.5	3.6	11.8	
2016-06-02 10:19:00	19.96	4.3	.5	3.2	15.6	



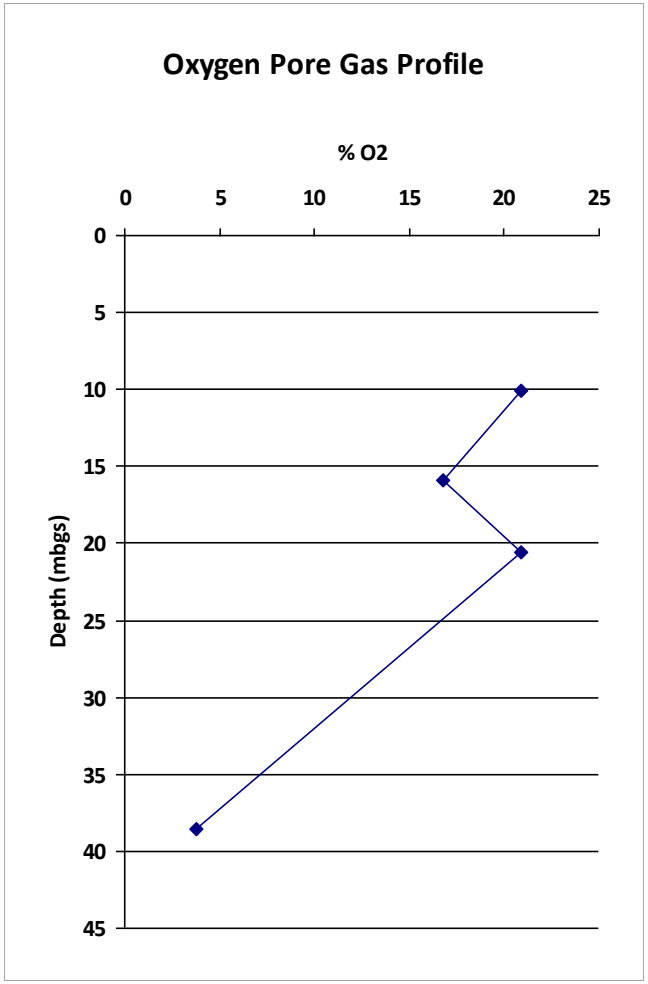
Location: CH12-014-MW005 Field Team A. Campbell, J. Stroh Start Time: 2016-02-21 09:41:37

Gas Monitor Model RKI EAGLE II Gas Monitor ID 020826

Vacuum Gauge Model DWYER 477A Vacuum Guage ID 903496

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-02-21 10:31:11	10.06	0.07	0.5	20.9	0.2	
2016-02-21 10:21:53	15.85	0.26	0.5	16.8	2.9	
2016-02-21 10:15:20	20.57	0.07	0.5	20.9	0.2	
2016-02-21 09:43:12	38.56	.28	.5	3.8	14.7	



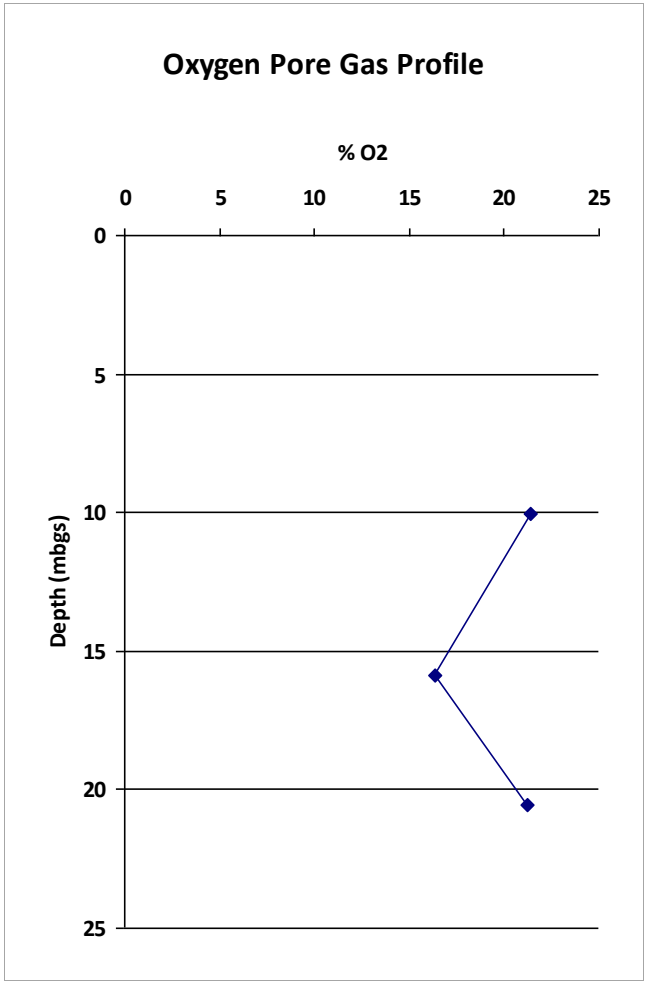
Location: CH12-014-MW005 Field Team A. Campbell, C. Blair Start Time: 2016-06-03 10:06:21

Gas Monitor Model Landtech GEM 2000 Gas Monitor ID 5566

Vacuum Gauge Model DWYER SERIES 475 Vacuum Guage ID 903714

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-06-05 11:20:26	10.06	0	.5	21.4	0.3	
2016-06-05 11:10:56	15.85	0	.5	16.4	5.1	
2016-06-05 11:01:01	20.57	0	0.5	21.2	0.1	
2016-06-05 10:52:05	38.56	0	0.5			Atmospheric air leak. Measurement discarded.



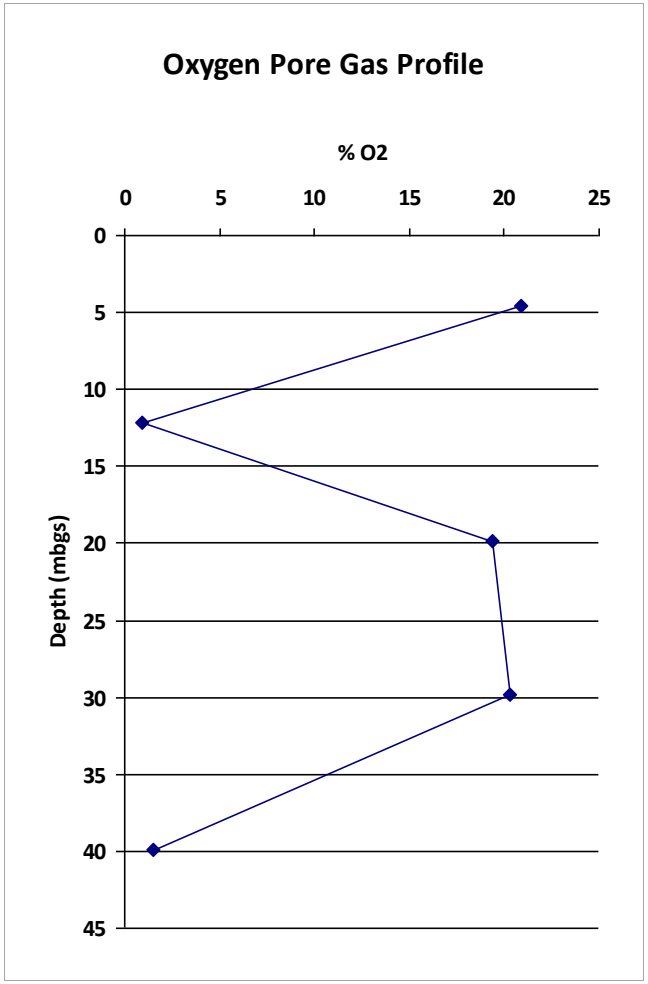
Location: CH12-014-MW007 Field Team A. Campbell, P. Mamo Start Time: 2016-02-17 09:26:22

Gas Monitor Model RKI EAGLE II Gas Monitor ID 028011

Vacuum Gauge Model DWYER SERIES 477A Vacuum Guage ID A01162

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-02-17 15:07:13	4.57	.85	.5	20.9	.7	
2016-02-17 14:53:44	12.19	4.47	.5	.9	15.7	
2016-02-17 14:28:41	19.81	.79	.5	19.4	1.0	
2016-02-17 14:18:37	29.87	1.40	.5	20.3	1.5	
2016-02-17 14:12:10	39.93	.92	.5	1.5	13.7	



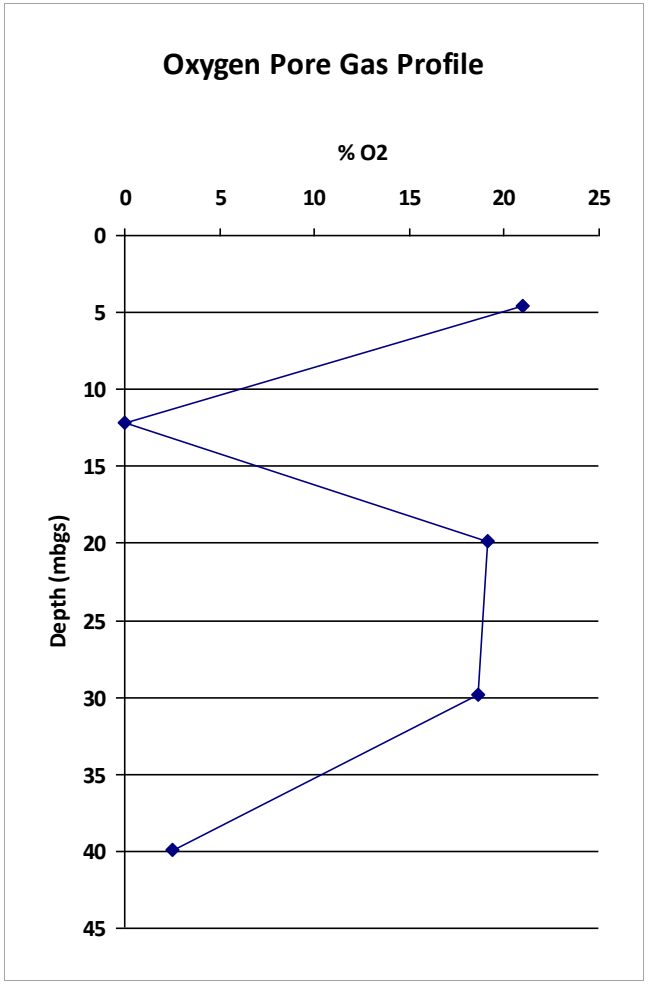
Location: CH12-014-MW007 Field Team A. Campbell, C. Blair Start Time: 2016-06-01 10:12:46

Gas Monitor Model Landtech GEM 2000 Gas Monitor ID 5566

Vacuum Gauge Model DWYER SERIES 475 Vacuum Guage ID 903714

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-06-01 12:44:18	4.57	0	0.5	21.0	0.6	
2016-06-01 12:36:08	12.19	0	0.5	0	20.3	
2016-06-01 12:27:47	19.81	0	0.50	19.1	2.2	
2016-06-01 12:06:03	29.87	0	0.5	18.6	1.6	
2016-06-01 11:43:46	39.93	0	0.5	2.5	10.0	



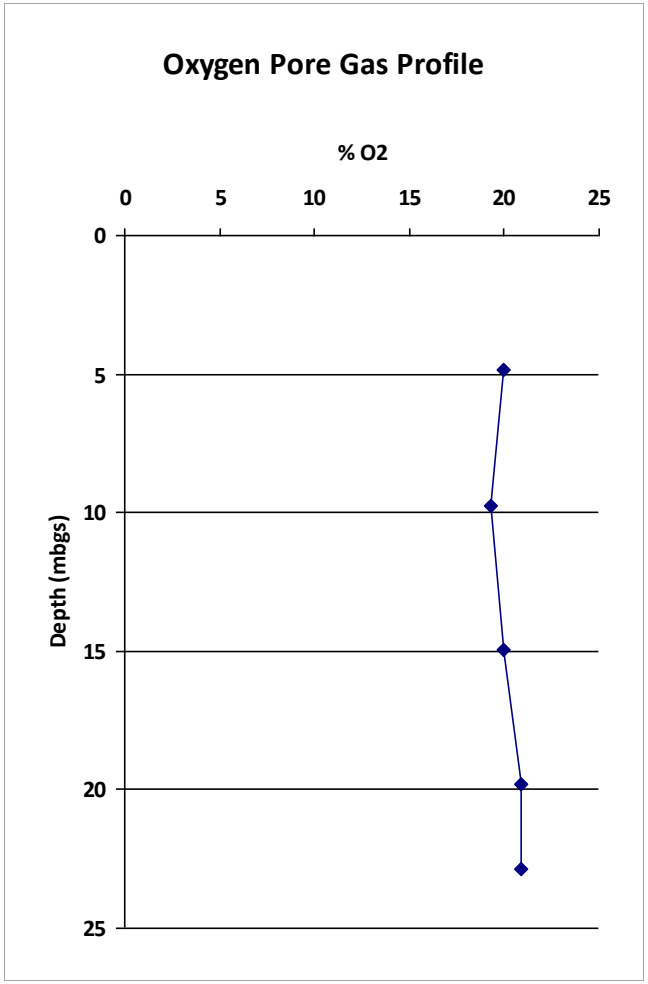
Location: CH12-014-MW011 Field Team A. Campbell, J. Stroh Start Time: 2016-02-21 13:27:38

Gas Monitor Model RKI EAGLE II Gas Monitor ID 028026RS

Vacuum Gauge Model DWYER SERIES 477A Vacuum Guage ID 903496

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-02-21 14:22:25	4.88	0.85	0.5	20.0	0.8	
2016-02-21 14:12:06	9.75	0.13	0.5	19.3	1.2	
2016-02-21 14:04:57	14.94	0.07	0.5	20.0	0.8	
2016-02-21 13:48:36	19.81	0.06	0.5	20.9	0.4	
2016-02-21 13:37:34	22.86	20.32	.5	20.9	0	



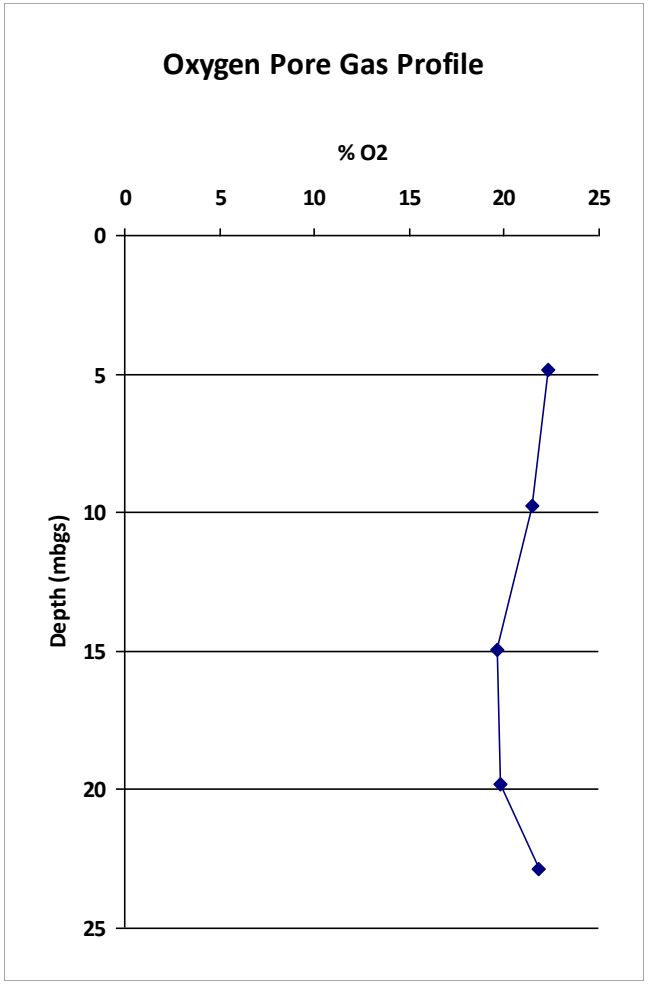
Location: CH12-014-MW011 Field Team A. Campbell, C. Blair Start Time: 2016-06-03 15:31:39

Gas Monitor Model Landtech GEM 2000 Gas Monitor ID 5566

Vacuum Gauge Model DWYER SERIES 475 Vacuum Guage ID 903714

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-06-04 14:48:47	4.88	0	0.5	22.3	0.3	
2016-06-04 14:36:24	9.75		.5	21.5	.9	
2016-06-04 14:20:02	14.94	0	.5	19.6	2.3	
2016-06-04 14:10:20	19.81	0	.5	19.8	1.8	
2016-06-04 13:56:27	22.86	14.39	0.5	21.8	0	



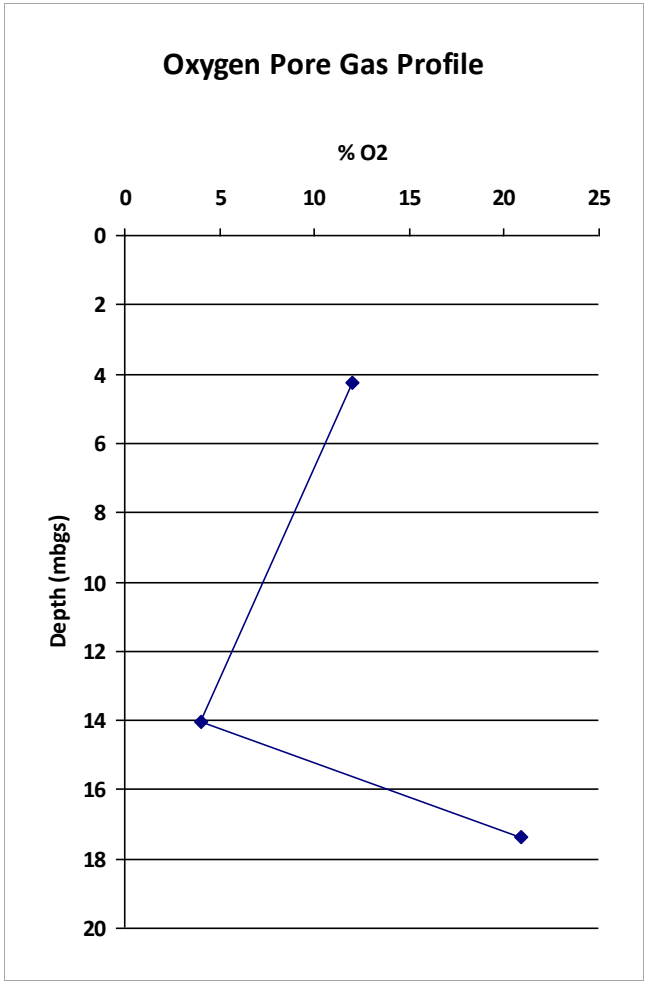
Location: CH12-014-MW012 Field Team A. Campbell, J. Stroh Start Time: 2016-02-21 11:45:30

Gas Monitor Model RKI EAGLE II Gas Monitor ID 020826

Vacuum Gauge Model DWYER 477A Vacuum Guage ID 903496

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-02-22 14:57:14	4.27	0.0	0.5	12.0	7.3	
2016-02-22 14:54:11	9.14					Plugged
2016-02-22 14:48:54	14.02	1.86	0.5	4.0	9.9	
2016-02-22 14:42:04	17.37	1.79	.5	20.9	0.0	



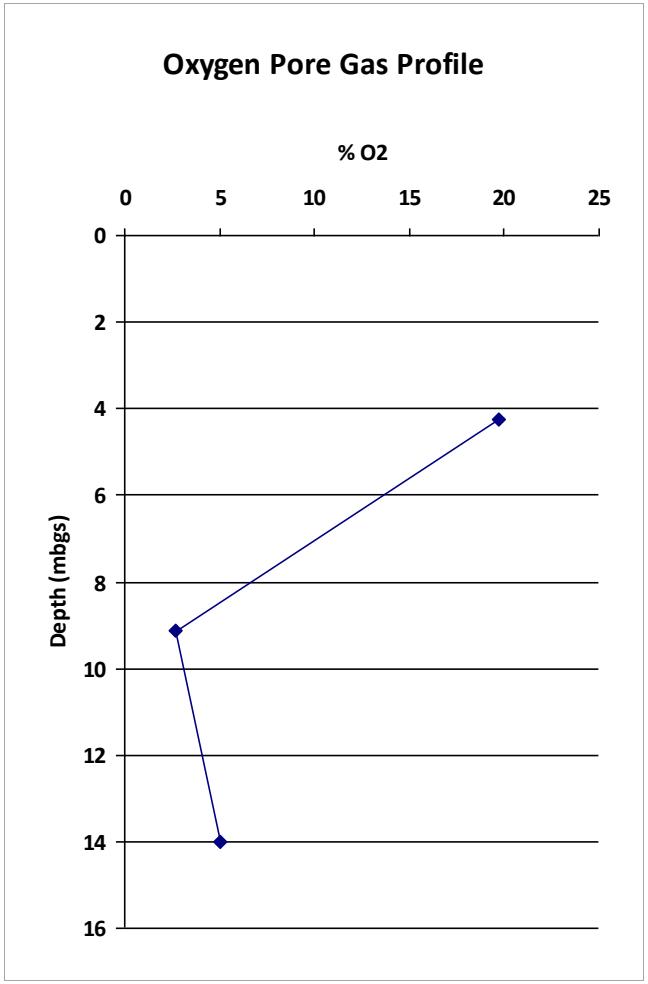
Location: CH12-014-MW012 Field Team A. Campbell, C. Blair Start Time: 2016-06-03 10:58:27

Gas Monitor Model Landtech GEM 2000 Gas Monitor ID 5566

Vacuum Gauge Model DWYER SERIES 475 Vacuum Guage ID 903714

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-06-03 12:05:42	4.27	1.12	0.5	19.7	1.8	
2016-06-03 11:45:56	9.14	11.96	0.5	2.7	12.5	
2016-06-03 11:34:15	14.02	1.68	0.5	5.0	13.3	
2016-06-03 11:22:51	17.37	75.67	0.5			Atmospheric air leak. Measurement discarded.



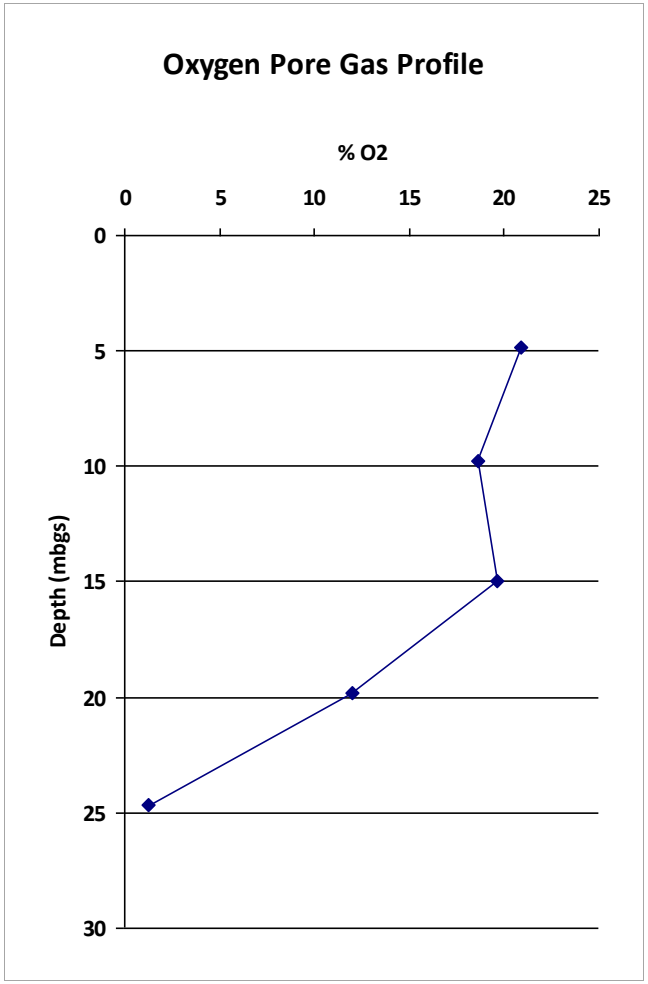
Location: CH12-014-MW013 Field Team A. Campbell, J. Stroh Start Time: 2016-02-22 11:24:36

Gas Monitor Model RKI EAGLE II Gas Monitor ID 028026

Vacuum Gauge Model DWYER SERIES 477A Vacuum Guage ID 903496

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-02-22 12:26:16	4.88	17.28	.5	20.9	0	
2016-02-22 12:19:52	9.75	17.01	.5	18.6	1.0	
2016-02-22 12:13:42	14.94	17.12	.5	19.6	0.5	
2016-02-22 11:49:38	19.81	31.78	.5	12.0	4.2	
2016-02-22 11:39:22	24.69	33.73	.5	1.3	15.4	



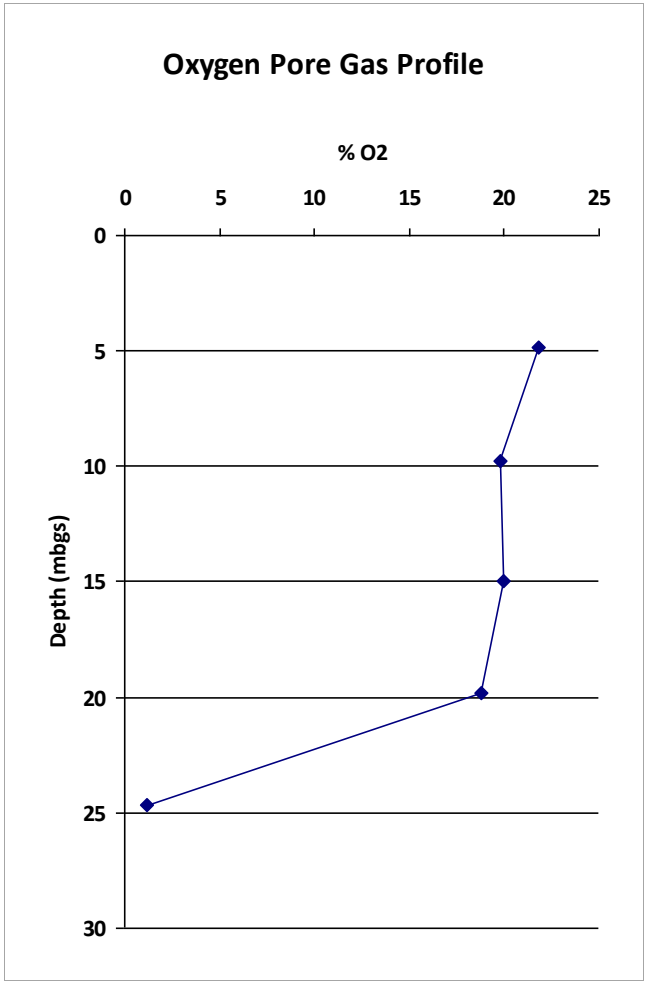
Location: CH12-014-MW013 Field Team A. Campbell, C. Blair Start Time: 2016-06-04 09:45:05

Gas Monitor Model Landtech GEM 2000 Gas Monitor ID 5566

Vacuum Gauge Model DWYER SERIES 475 Vacuum Guage ID 903714

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-06-04 11:07:25	4.88	0	.5	21.8	0.3	
2016-06-04 10:53:54	9.75	0	0.5	19.8	1.3	
2016-06-04 10:43:05	14.94	0	0.5	20.0	0.9	
2016-06-04 10:27:32	19.81	0	.5	18.8	2.4	
2016-06-04 10:17:13	24.69	3.55	.5	1.2	20.2	



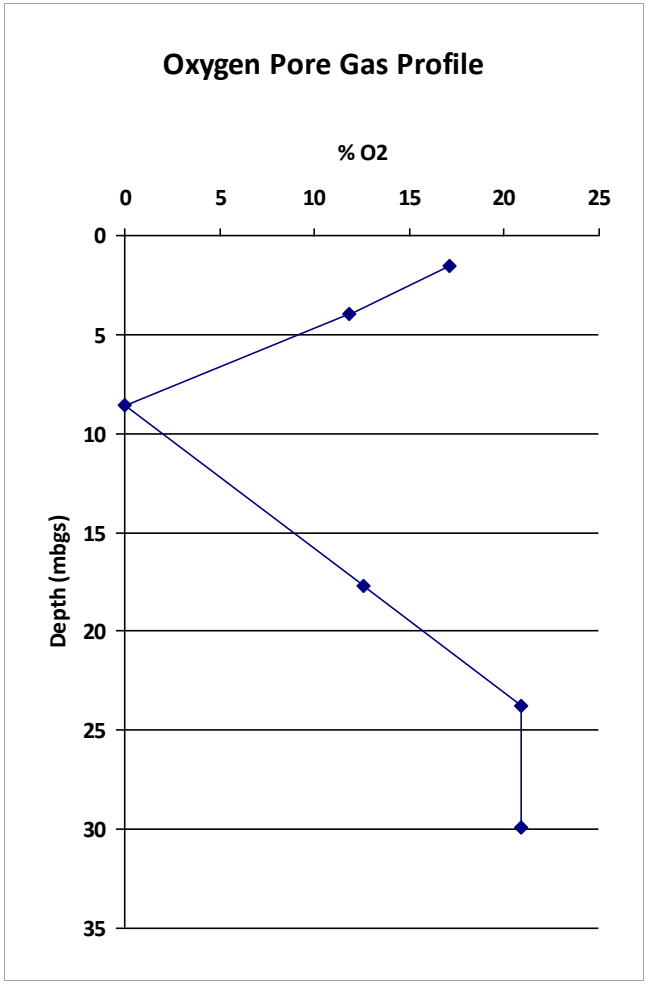
Location: CH14-015-MW004 Field Team A. Campbell Start Time: 2016-02-19 14:34:30

Gas Monitor Model RKI EAGLE II Gas Monitor ID 028026

Vacuum Gauge Model DWYER SERIES 477A Vacuum Guage ID 903496

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-02-20 11:43:14	1.52	12.69	.5	17.1	1.3	
2016-02-20 11:41:15	3.96	1.01	.5	11.8	3.5	
2016-02-20 11:38:27	8.53	1.97	.5	0	6	
2016-02-20 11:32:22	17.68	3.36	.5	12.6	7.2	
2016-02-20 11:28:16	23.77	9.69	.5	20.9	.1	
2016-02-20 11:19:34	29.87	5.16	.5	20.9	0	



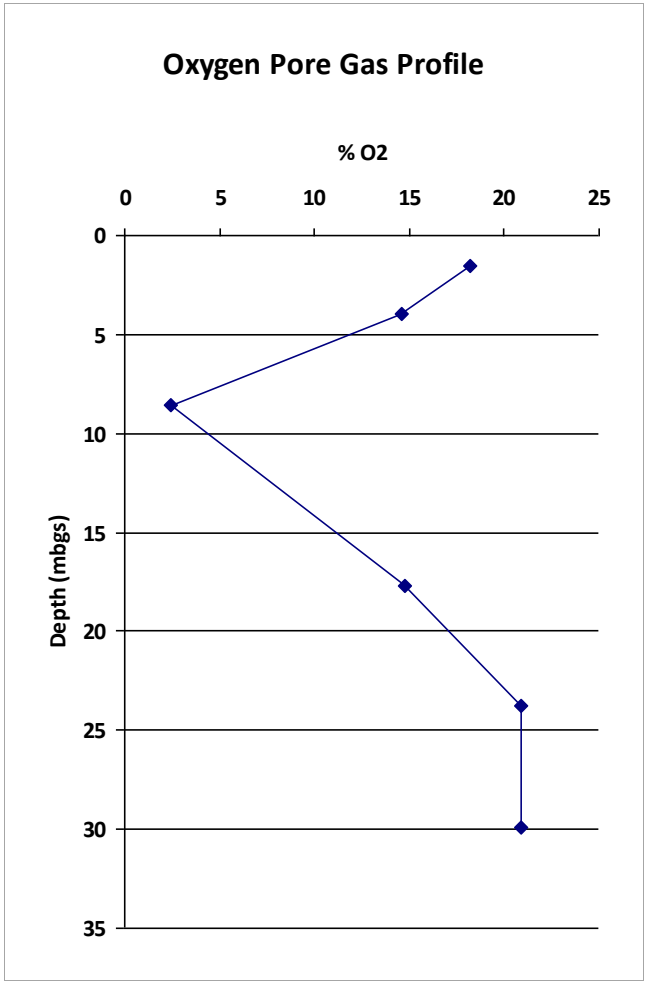
Location: CH14-015-MW004 Field Team A. Campbell, C. Blair Start Time: 2016-06-02 13:28:51

Gas Monitor Model Landtech GEM 2000 Gas Monitor ID 5566

Vacuum Gauge Model DWYER SERIES 475 Vacuum Guage ID 903714

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-06-05 12:23:25	1.52	1.31	0.5	18.2	2.8	
2016-06-05 12:21:17	3.96	1.12	0.5	14.6	4.1	
2016-06-05 12:18:00	8.53	1.49	.5	2.4	7.3	
2016-06-05 12:11:20	17.68	2.62	0.5	14.8	8.5	
2016-06-05 12:05:08	23.77	3.55	0.5	20.9	0.8	
2016-06-05 11:56:06	29.87	4.3	0.5	20.9	0.8	



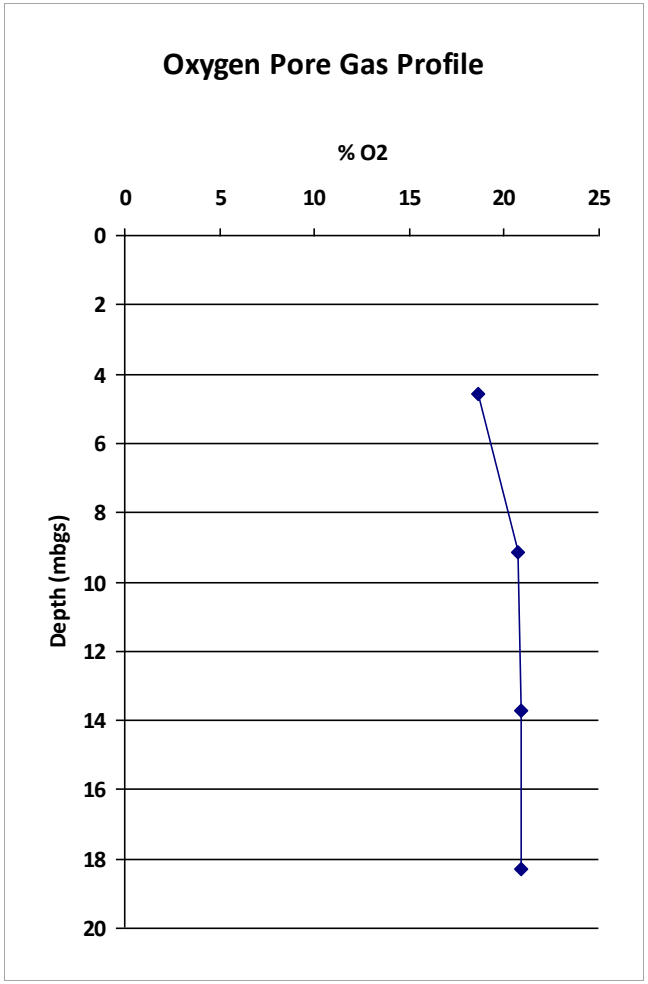
Location: CH14-015-MW006 Field Team A. Campbell Start Time: 2016-02-20 12:24:46

Gas Monitor Model RKI EAGLE II Gas Monitor ID 028026

Vacuum Gauge Model DWYER SERIES 477A Vacuum Guage ID 903496

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-02-20 14:53:44	4.57	15.01	.5	18.6	2.2	
2016-02-20 14:47:43	9.14	9.61	.5	20.7	0.8	
2016-02-20 14:37:46	13.72	7.88	.5	20.9	.4	
2016-02-20 14:31:47	18.29	8.75	.5	20.9	.4	



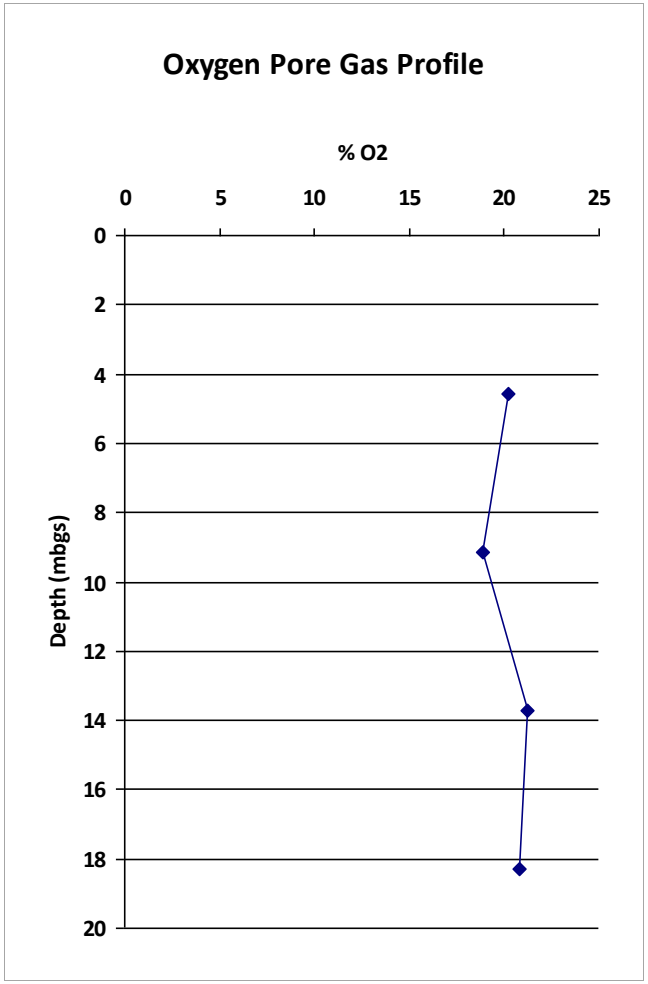
Location: CH14-015-MW006 Field Team A. Campbell, C. Blair Start Time: 2016-06-01 13:27:06

Gas Monitor Model Landtech GEM 2000 Gas Monitor ID 5566

Vacuum Gauge Model DWYER SERIES 475 Vacuum Guage ID 903714

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-06-01 14:53:51	1.52					Plugged, lots of water came out
2016-06-01 14:39:33	4.57	0	0.5	20.2	2.5	
2016-06-01 14:22:45	9.14	1.31	0.5	18.9	3.2	
2016-06-01 14:14:06	13.72	2.8	0.5	21.2	0.9	
2016-06-01 13:57:56	18.29	2.99	0.5	20.8	0.6	



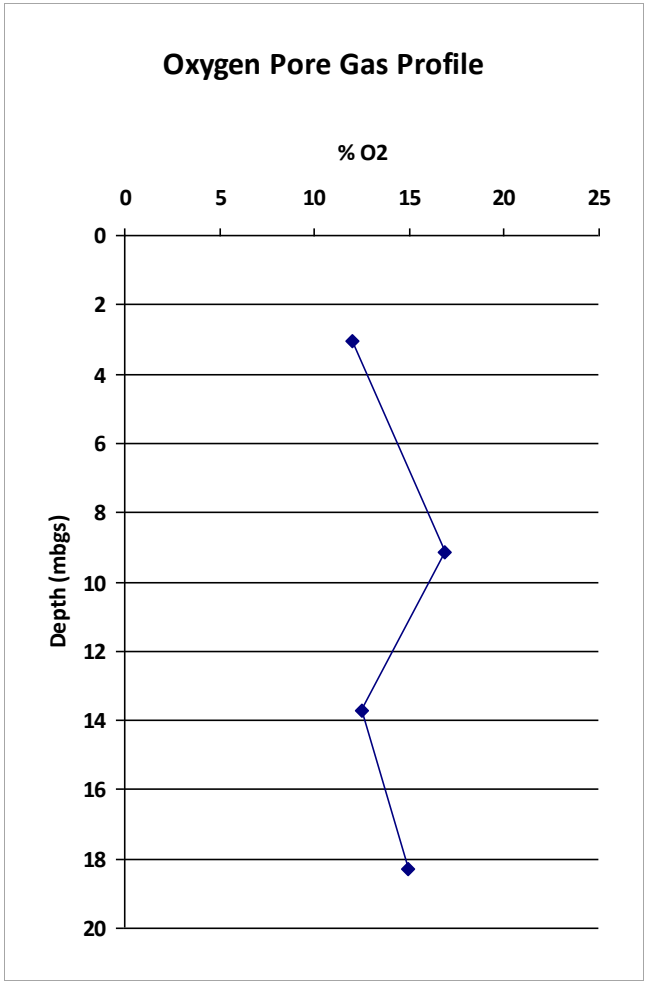
Location: CH14-104-MW008 Field Team A. Campbell, P. Mamo Start Time: 2016-02-19 10:53:12

Gas Monitor Model RKI EAGLE II Gas Monitor ID 028026

Vacuum Gauge Model DWYER SERIES 477A Vacuum Guage ID 903496

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-02-19 14:02:08	1.52					Plugged
2016-02-19 14:09:00	3.05	35.04	.5	12	10.3	
2016-02-19 14:06:25	9.14	36.09	.5	16.9	2.2	
2016-02-19 14:00:13	13.72	14.03	.5	12.5	7.1	
2016-02-19 13:55:28	18.29	4.92	.5	14.9	4.9	
2016-02-19 13:52:29	22.86	6.98	.5	20.9	.3	
2016-02-19 13:56:34	22.86	6.98	.5			Last vacuum reading on port F was incorrect



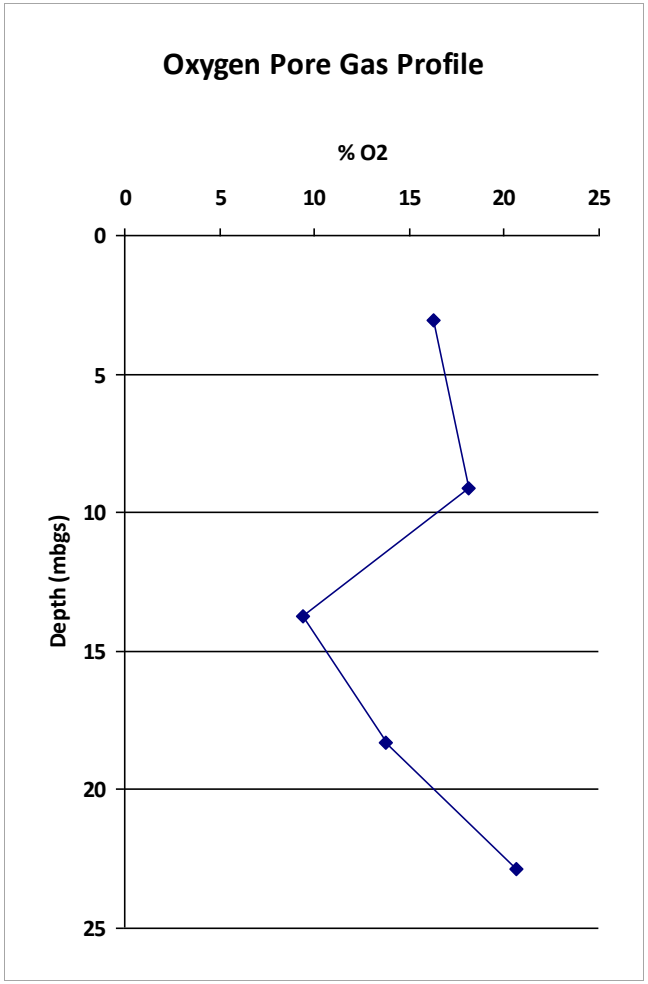
Location: CH14-104-MW008 Field Team A. Campbell, C. Blair Start Time: 2016-06-05 12:39:45

Gas Monitor Model Landtech GEM 2000 Gas Monitor ID 5566

Vacuum Gauge Model DWYER SERIES 475 Vacuum Guage ID 903714

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-06-05 13:06:51	1.52					Full of water
2016-06-05 13:04:20	3.05	1.12	0.5	16.3	7.4	
2016-06-05 12:57:31	9.14	1.68	0.5	18.1	3.0	
2016-06-05 12:49:22	13.72	2.24	0.5	9.4	13.2	
2016-06-05 12:45:57	18.29	2.99	0.5	13.8	8.1	
2016-06-05 12:40:53	22.86	3.55	0.5	20.6	1.7	



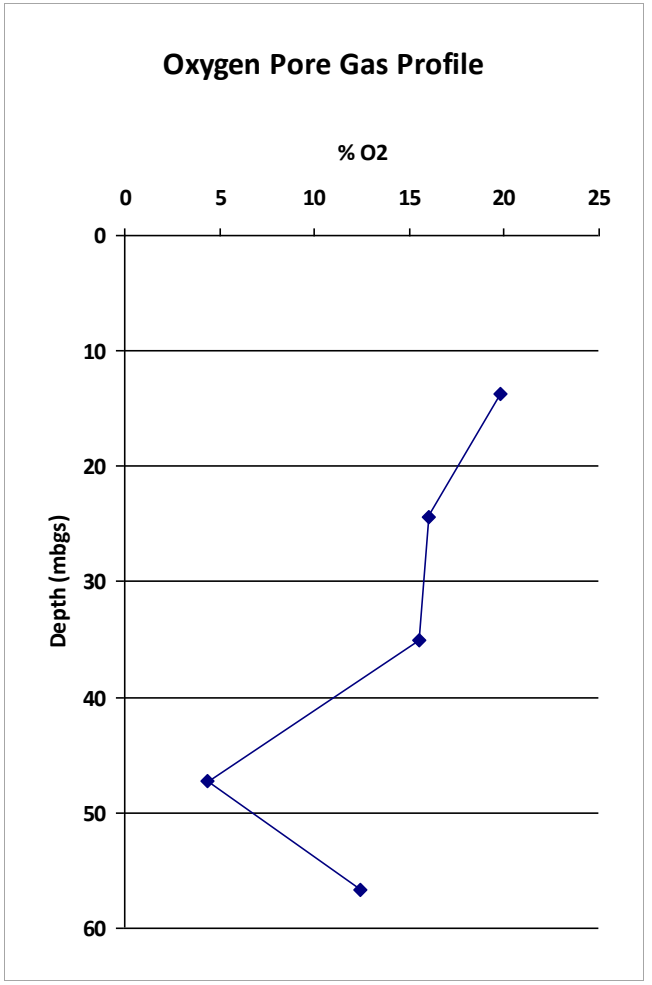
Location: CH14-106-MW009 Field Team A. Campbell, P. Mamo Start Time: 2016-02-18 14:23:17

Gas Monitor Model RKI EAGLE II Gas Monitor ID 028026

Vacuum Gauge Model DWYER SERIES 477A Vacuum Guage ID 903496

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-02-18 14:40:42	3.05					Plugged
2016-02-18 14:39:17	13.72	15.11	.5	19.8	1.0	
2016-02-18 14:36:13	24.38	15.47	.5	16.	3.5	
2016-02-18 14:32:45	35.05	23.07	.5	15.5	1.9	
2016-02-18 14:29:15	47.24	8.46	.5	4.4	9.3	
2016-02-18 14:26:26	56.69	10.28	.5	12.4	4.8	



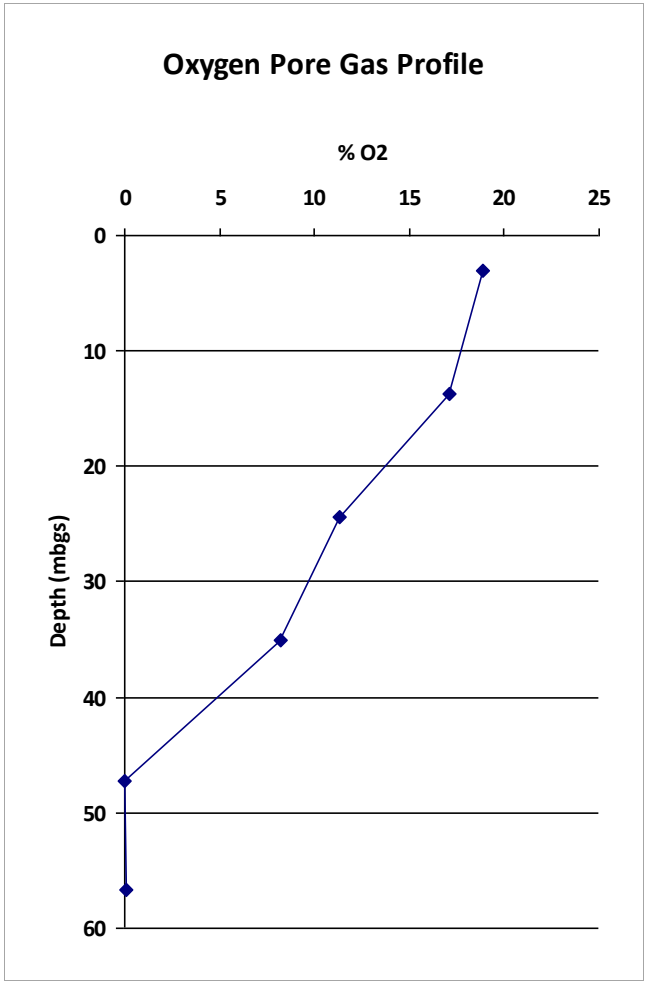
Location: CH14-106-MW009 Field Team A. Campbell, C. Blair Start Time: 2016-06-02 10:09:49

Gas Monitor Model Landtech GEM 2000 Gas Monitor ID 5566

Vacuum Gauge Model DWYER SERIES 475 Vacuum Guage ID 903714

Comment:

Date / Time	Screen Port Center (mbgs)	Vacuum (mmHg)	Flow Rate (L/min)	Oxygen (%)	CO2 (%)	Comment
2016-06-02 13:48:20	3.05	0	.5	18.9	3.6	
2016-06-02 13:46:01	13.72	1.87	.5	17.1	3.8	
2016-06-02 13:43:15	24.38	3.55	.5	11.3	9.8	
2016-06-02 13:39:59	35.05	5.04	.5	8.2	9.4	
2016-06-02 13:19:25	47.24	6.73	0.5	0	20.9	
2016-06-02 13:11:38	56.69	7.47	.5	.1	17.7	



Attachment 5
Laberge Technical Memorandum

TO: CH2M Hill DATE: March 20, 2016
FROM: Ken Nordin, Water Sciences Technologist LES Project: FMC 2015.1

SUBJECT: **Field Summary - Profiling and Depth-specific Sampling in Faro Pit Lake Winter 2016**

Background

CH2M HILL is engaged in the Remediation Project at the Faro Mine Complex or FMC. The subject of this memo is work conducted in the Faro and Grum pit lakes in March, 2016; namely water quality profiling and depth-specific sampling in Faro Pit Lake under winter conditions. All data and field observations collected during the profiling and sampling are presented below. The work was done in accordance with a field sampling plan and HS&E provisions reviewed and approved by CH2M Hill.

Faro Pit Lake Profiling

Two instruments were used to profile the Faro Pit Lake: a YSI EXO Sonde supplied by Hoskins Scientific and a Seabird CTD supplied by Earth and Ocean Sciences at the University of British Columbia.

A summary of the CTD profiles from the Faro Pit Lake from 2004 to 2016 are included. Also included is a brief commentary by Roger Pieters of UBC Earth and Ocean Sciences (p. 6). Roger Pieters and Greg Lawrence of UBC have been actively researching the physical processes in the Faro Pit Lakes for many years[1].

From 2004 to 2012, there was also a small but consistent increase over time in both temperature (0.02 °C/year) and conductivity (15 µS/cm/year) below 20 m. The causes are uncertain, but the increase in temperature could have resulted from geothermal heating from below, and the increase in conductivity could have resulted from the decomposition of organic matter or inflows.

The most notable change in the Faro Pit Lake profile over the past three years has been the disappearance of the strong chemocline at around 20-25 m depth and the deterioration of the freshwater cap on the lake. By October 2015 and March 2016 the contrast in conductivity between the surface and deep water is completely absent and the temperature is quite uniform. The deep water in the pit lake has cooled significantly from ~4.5 °C in 2013 and earlier years, to 3.7 °C in 2015/2016. The temperature of the entire pit lake in 2015 was close to the temperature of maximum density adjusted for salinity, 3.7 °C.

Clearly, the Faro Pit Lake is no longer meromictic and is now very homogeneous.

Faro Pit Depth-Discreet Sampling

Samples at four depths were collected for offsite lab analysis (ALS). Sample handling followed SOPs and the equipment (Van Dorn sampler) was relinquished to CH2M Hill for preparation of an equipment blank after the sampling was completed. All samples were handled in accordance with directions supplied by CH and by ALS and were kept cold until relinquished to ALS Whitehorse on March 4 at 14:00.

[1] Pieters, R. and G.A. Lawrence. 2014. *Physical processes and meromixis in pit-lakes*. Canadian Journal of Civil Engineering, 41(6): 569-578, doi: 10.1139/cjce-2012-0132.

Sample positions: 4 depths - near surface (10 m), approximate mid-depth (50 m), near bottom (~10 m above bottom) (90 m), plus one extra sample from a depth where field measurements indicate characteristics become essentially constant with depth) (70 m).

- One duplicate sample was collected at 10 m.
- One equipment blank was prepared immediately after the field effort
- Suite of parameters included: Lime demand/solids formed, free cyanide, ferrous iron, ammonia, dissolved organic carbon, TSS, TDS, hardness, acidity, alkalinity, anions (Cl, F, NO2, NO3, PO4, SO4), total metals, and dissolved metals (list of metals/elements to be determined). The analyses were conducted by a lab contracted to CH2M HILL (ALS).
- CH2M HILL will provided sample identification numbers, chain of custody form, and sample custody procedures.

Samples were split into appropriate containers for lab analysis with proper preservation. Samples for dissolved metals required field filtering (0.45-um filter) before preservation as did Ferrozine (0.10-um filter).

Faro Pit Lake EXO Profiles, commentary by Roger Pieters, pictures and copies of field notes follow.

Files that accompany this memo are as follows:

- Faro Pit Lake Profile.xlsx

Respectfully Submitted by:



Ken Nordin AScT, EP

Laberge Environmental Services

Table 1 – Field Parameters

Depth Sample ID	Time	Temp. ^{0}C	Specific Conductance *u*S/cm	Turbidity	D.O. mg/L	pH	ORP
10 m CH13-016-FAROPL_10	15:00	3.45	1640	0.96	4.91		180
50 m CH13-016-FAROPL_50	15:30	3.42	1644	1.44	4.23		148.3
70 m CH13-016-FAROPL_70	16:00	3.42	1645.3	1.41	4.15		141.7
90 m CH13-016-FAROPL_90	16:30	3.43	1646	1.41	4.08		137.6

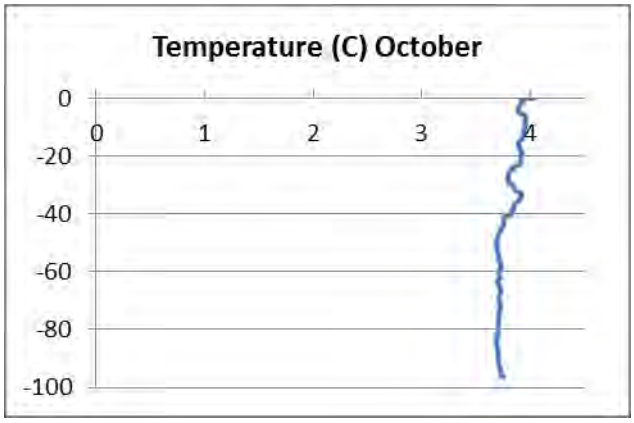
Notes:
Collected duplicate sample at 10m. I.D. CH13-916-FAROPL_10
Depth sounder shows 102m with a band at 40m. Very soft material encountered at 99-100m.
Relinquished sampler to CH2M for equipment blank at 17:00.

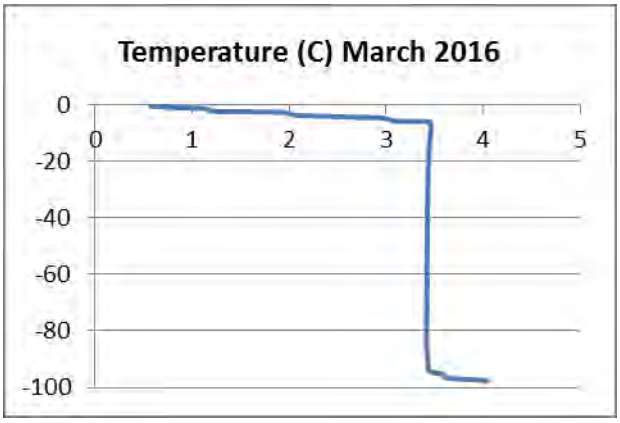
Table 2– Ice and Snow Observations

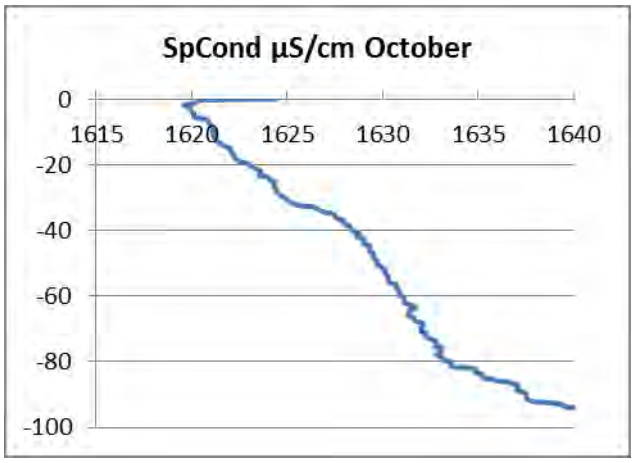
Location	Snow Depth cm	SWE cm	Black Ice cm	White Ice cm	comment
584663.6m.E. 6914869m.N.	35	5.9	34	11	White ice is variable
584620m.E. 69114875m.N.	38	6.5	35	12	Notable overflow

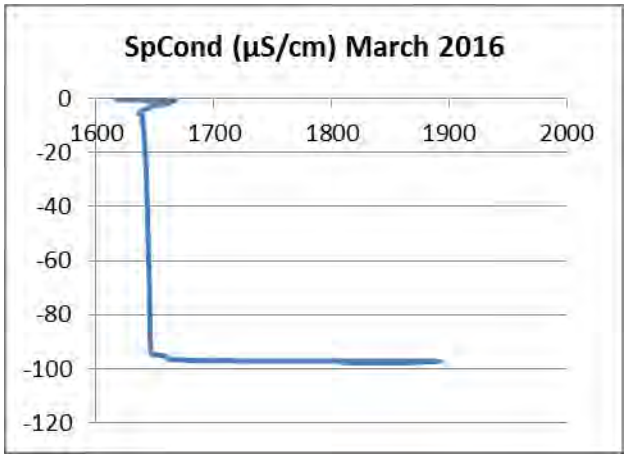
Notes: Collected a white ice sample by drilling a fresh hole and sampling cuttings from 1-10cm. Collected a black ice sample by drilling to 38 cm and chopping sample with an ice chisel.

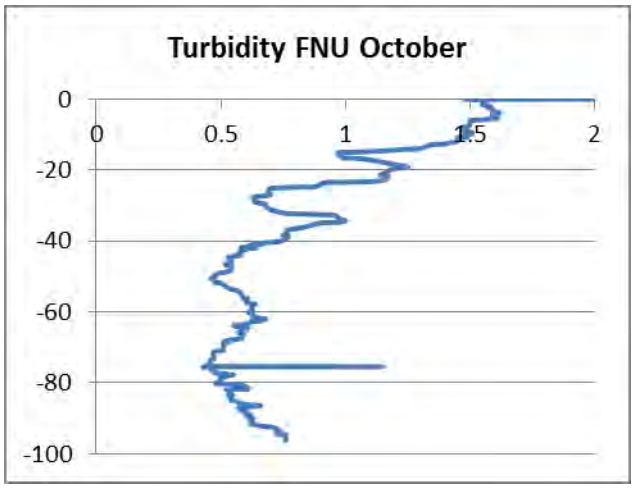
EXO Sonde Profiles October 2015 and March 2016

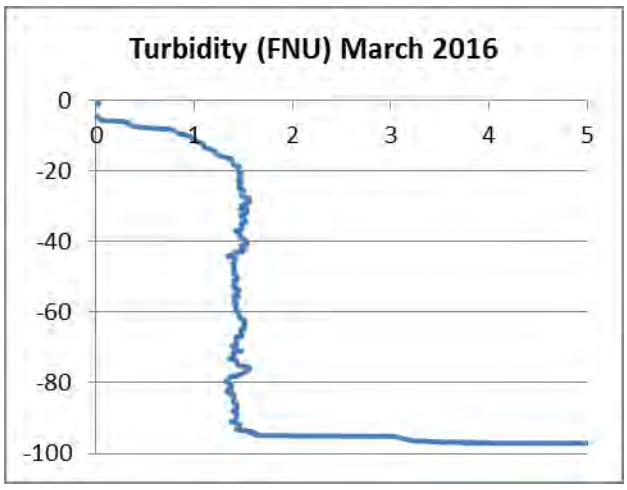


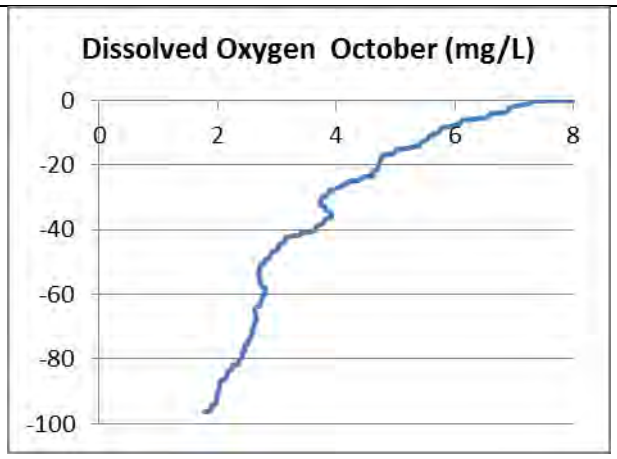


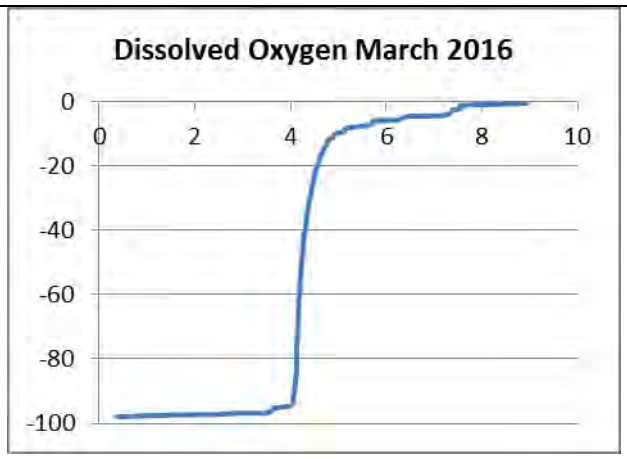


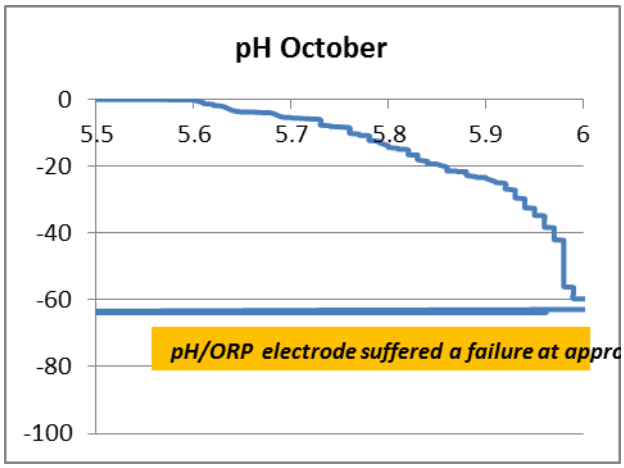


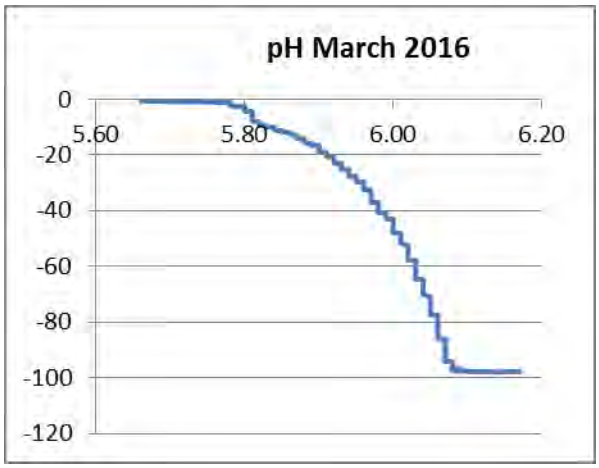


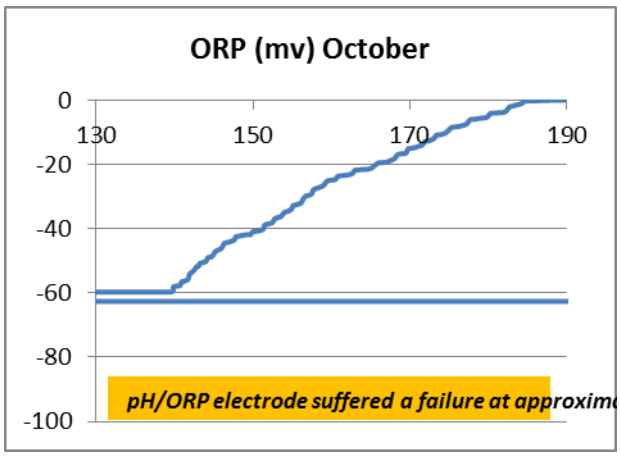


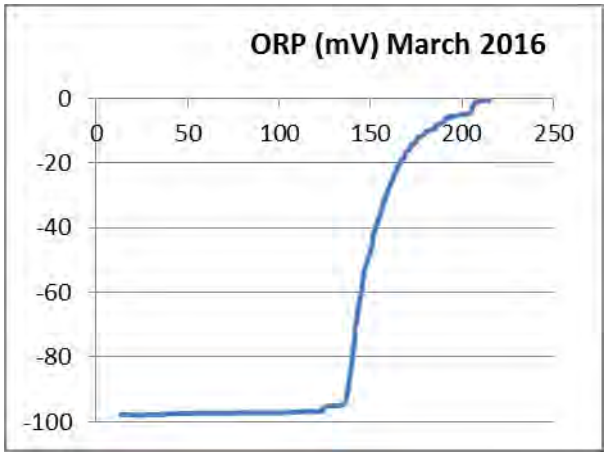

Dissolved Oxygen October (mg/L)
0
-20
-40
-60
-80
-100
0
2
4
6
8


Dissolved Oxygen March 2016
0
-20
-40
-60
-80
-100
0
2
4
6
8
10


pH October
0
-20
-40
-60
-80
-100
5.5
5.6
5.7
5.8
5.9
6
pH/ORP electrode suffered a failure at appro


pH March 2016
0
-20
-40
-60
-80
-100
-120
5.60
5.80
6.00
6.20


ORP (mv) October
0
-20
-40
-60
-80
-100
130
150
170
190
pH/ORP electrode suffered a failure at approxim


ORP (mV) March 2016
0
-20
-40
-60
-80
-100
0
50
100
150
200
250

Commentary by Roger Pieters, UBC:

A Seabird SBE19plus profile of temperature, conductivity and turbidity was collected in Faro pit-lake on 03 March 2016. On the Seabird, the temperature and conductivity are measured as water is drawn through the sensors by a small pump. The instrument is soaked at the start of the cast to allow time for the plumbing to fill with water and for the pump to prime. The intake is at the bottom of the Seabird, and normally data from the downcast is shown; during the upcast, water is mixed in the wake of the instrument before being drawn into the inlet.

During the March 2016 profile, the temperature and conductivity data were very noisy through much of the downcast (Figure 1a,b). This is as sign that either the pump had not primed, or that the plumbing was plugged. During under-ice sampling, it is easy for either an ice chip at the surface or for frazil ice in the top of the water column to be drawn into the plumbing. Once the cast reached 68.6 m there was a shift in the data (particularly in conductivity Figure 1b) and the noise disappeared, suggesting the pump primed or the blockage ended, and water began to flow freely through the plumbing. The remainder of the cast had low noise, and compared well with the upcast.

To conclude, it appears that much of the downcast consists of spurious data. This the first time a Seabird cast has shown this type of problem in Faro pit-lake. However, it is not unusual for under-ice sampling. One suggestion for future under-ice sampling would be to collect two casts, given the inherent difficulties of establishing flow through the plumbing during this time of year.

Data from the upcast compare well with previous data as shown in Figure 2a,b. Faro pit-lake appears relatively well mixed in temperature other than the expected reverse stratification near the surface (top 4 m) as the water cools to 0 °C to match the temperature of the ice. There is also a slight increase in temperature in the bottom 5 m of the pit-lake, likely the result of contact with slightly warmer sediments. The specific conductance (C25) suggests the pit-lake is unstratified in salinity, other than the presence of some fresh water very close to the surface, which is often observed during under ice sampling, and likely results from localized ice melt in the auger hole. The lack of salinity stratification in Faro pit-lake is consistent with data from the fall of 2015.

Note the optical backscatter sensor (OBS) that measures turbidity is not in the pump path and is unaffected by the problem with flow through the plumbing. The turbidity was low in the water just below the ice, but increased below about 10 m (Figure 1c, blue). The Seabird touched bottom, which resulting in elevated turbidity as mud was washed from the instrument during the upcast (Figure 1c, red).

Fig 1 Faro Pit−Lake 03 March 2016: BLU−downcast RED−upcast

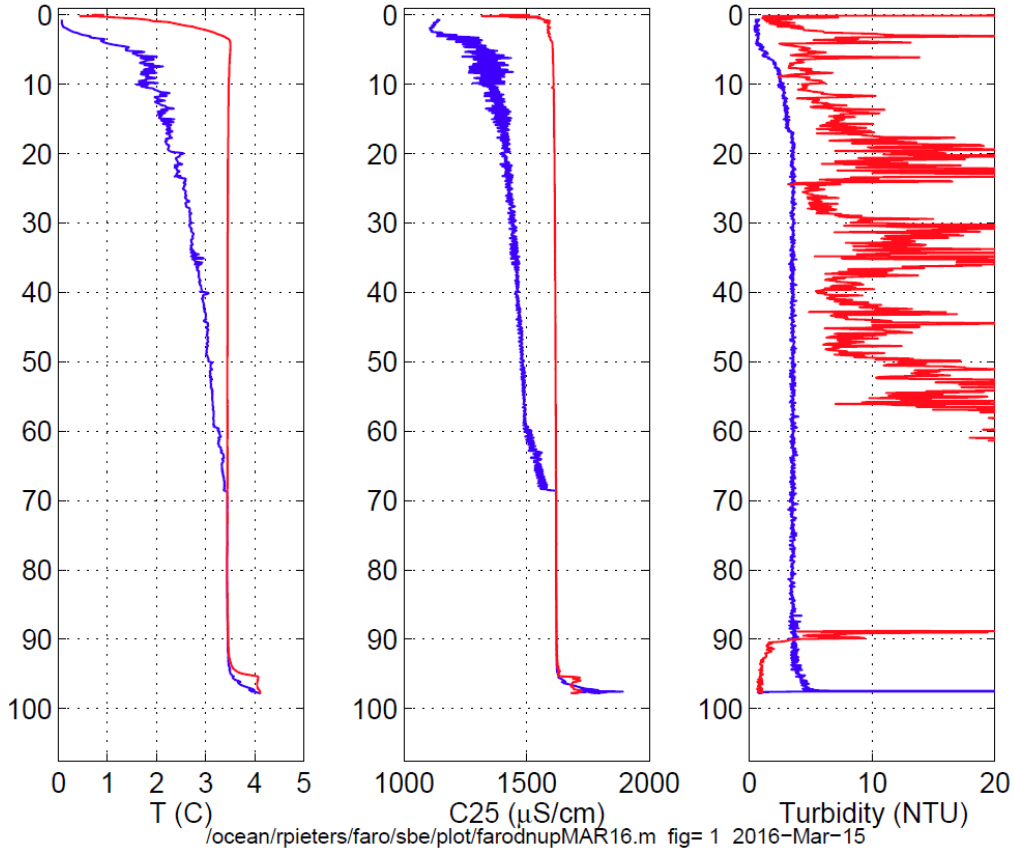
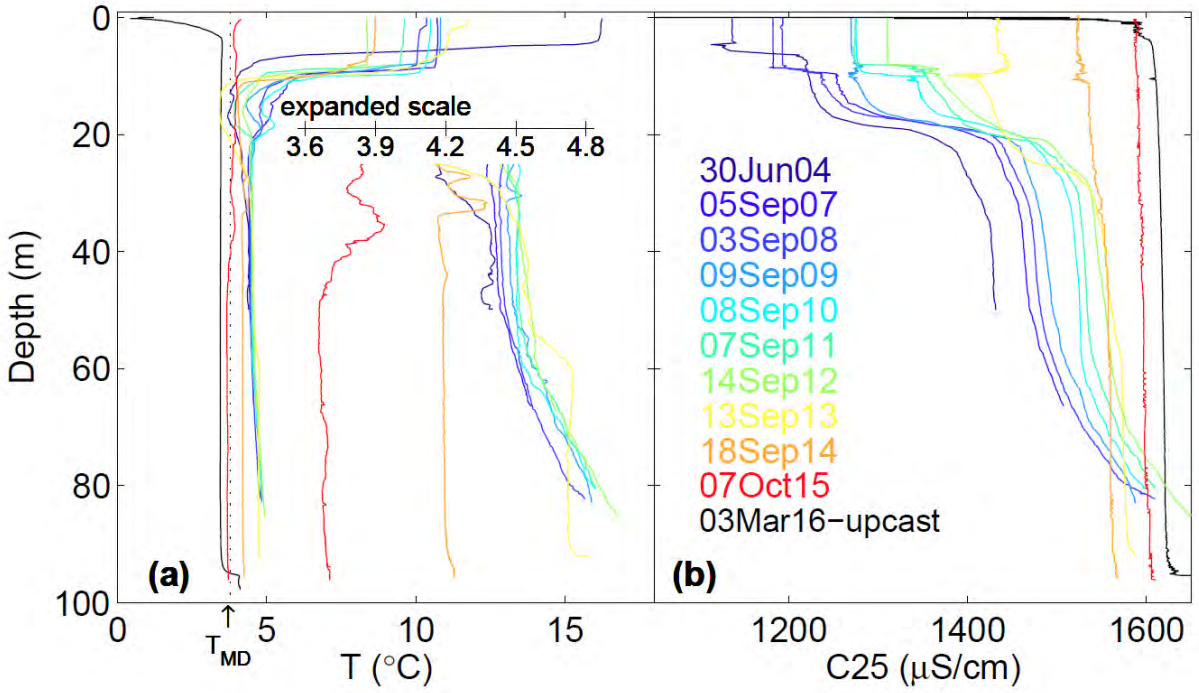


Fig 2 Faro Pit−Lake: Seabird T & Conductivity Profiles, 2004 to Mar 2016

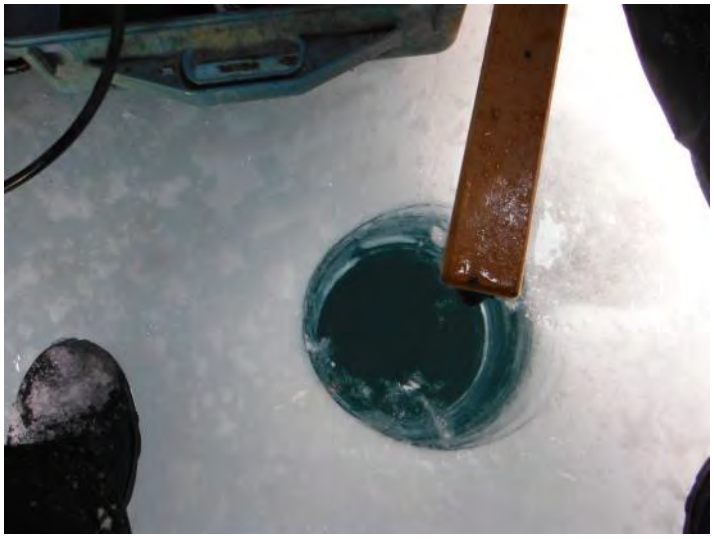


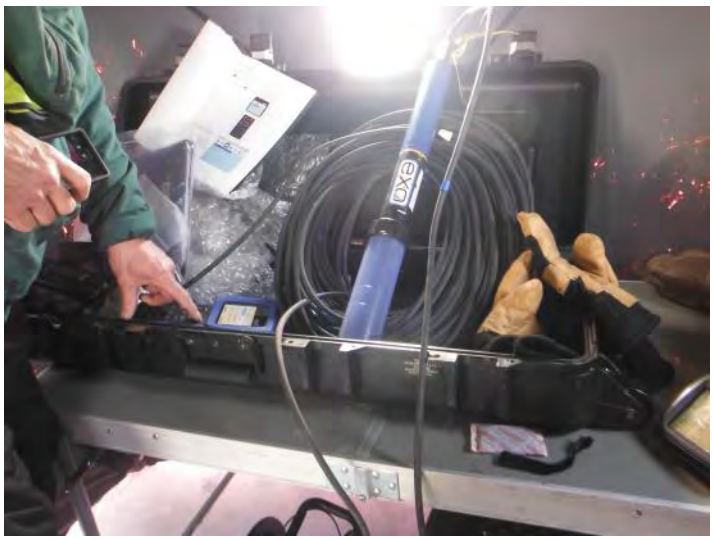
Faro Pit Lake Profile and Sample Location



Pictures of Under-Ice Sampling March 03, 2016





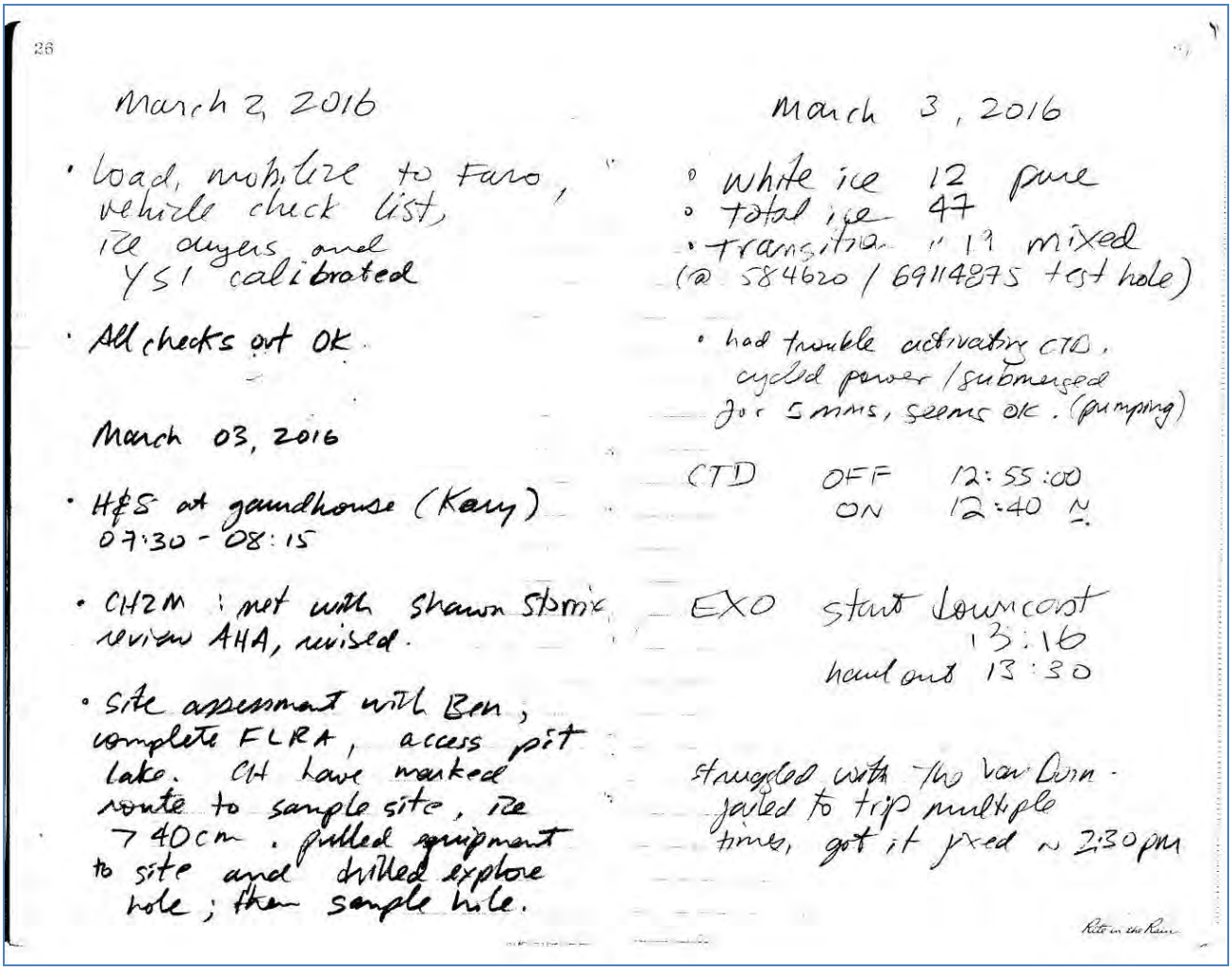








Field Notes - Faro Pit Lake Under-Ice March 02-03, 2016



26

March 2, 2016

- load, mobilize to Faro, vehicle check list, ice augers and YSI calibrated
- All checks out OK

March 03, 2016

- H&S at gatehouse (Kerry) 07:30 - 08:15
- CH2M : met with Shawn Stornic review AHA, revised.
- Site assessment with Ben, complete FLRA, access pit lake. CH have marked route to sample site, ice 740cm. pulled equipment to site and drilled explore hole; then sample hole.

March 3, 2016

- White ice 12 cm
- Total ice 47
- Transition 19 mixed
(@ 584620 / 6911487S test hole)
- had trouble activating CTD, cycled power / submersed for 5 mins, seems OK. (pumping)

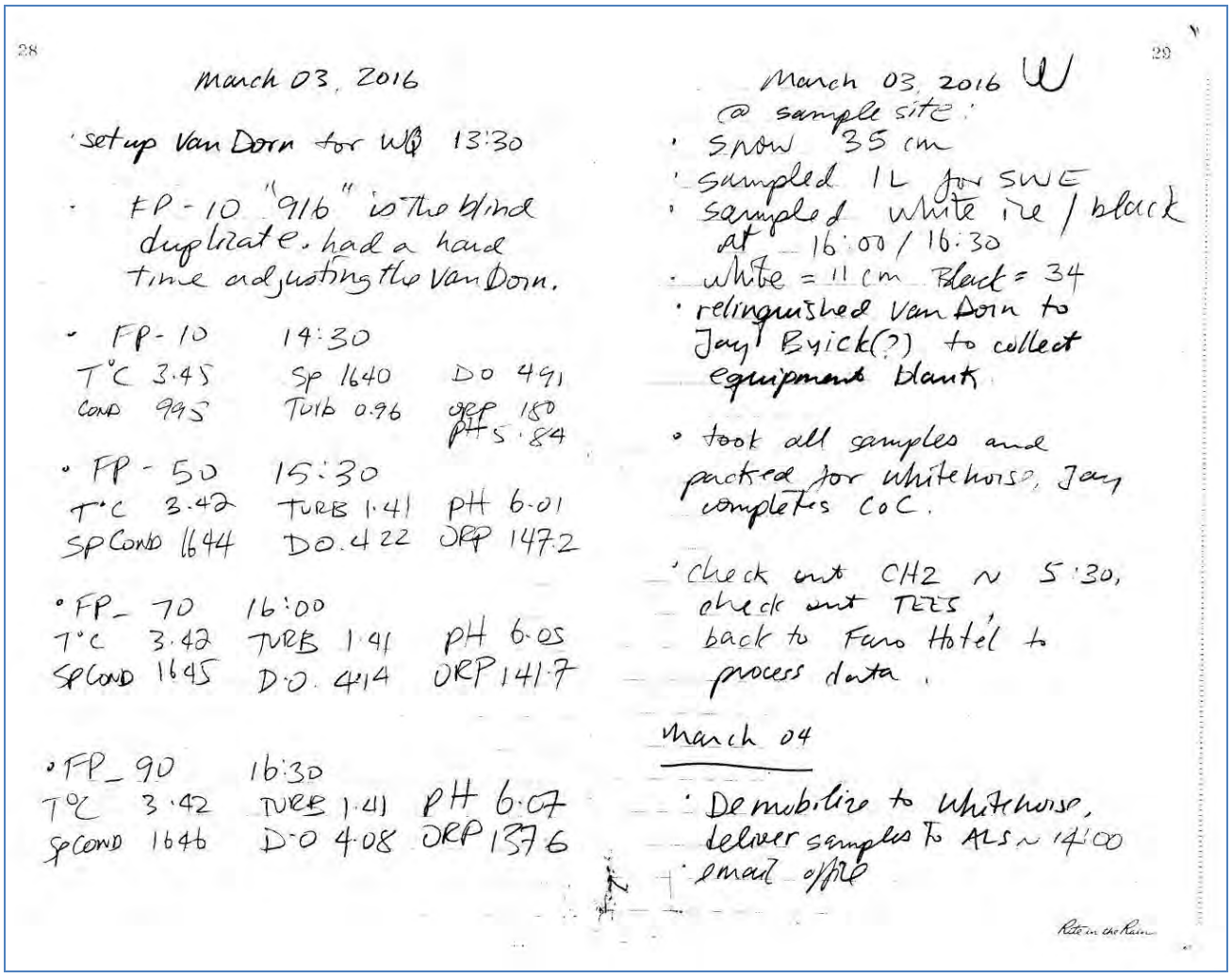
CTD OFF 12:55:00
ON 12:40 ~

EXO start downcast 13:16
haul out 13:30

struggled with the Van Dorn - failed to trip multiple times, got it fixed ~ 2:30 pm

Return to Rain

Field Notes P1



28

March 03, 2016

- setup Van Dorn for WQ 13:30
- FP-10 "916" is the blind duplicate. had a hard time adjusting the Van Dorn.
- FP-10 14:30
  T°C 3.45 Sp 1640 DO 491
  COND 995 TURB 0.96 ORP 150
  pH 5.84
- FP-50 15:30
  T°C 3.42 TURB 1.41 pH 6.01
  SpCOND 1644 DO. 422 ORP 147.2
- FP_70 16:00
  T°C 3.42 TURB 1.41 pH 6.05
  SpCOND 1645 D.O. 414 ORP 141.7
- FP_90 16:30
  T°C 3.42 TURB 1.41 pH 6.07
  SpCOND 1646 D.O 4.08 ORP 137.6

29

March 03, 2016 W

@ sample site:

- SNOW 35 cm
- sampled 1L for SWE
- sampled white ice / black at 16:00 / 16:30
- white = 11 cm Black = 34
- relinquished Van Dorn to Jay Byrick(?) to collect equipment blank
- took all samples and packed for whitehorse, Jay completes CoC.
- check out CH2 ~ 5:30, check out TEES, back to Faro Hotel to process data.

March 04

- Demobilize to whitehorse, deliver samples to ALS ~ 14:00
- email office

Return the Rain

Field Notes P2

Attachment 6
Laboratory Geochemical Reports

CH2M HILL, INC
ATTN: Mark Cichy
2525 Airpark Drive
Redding CA 96001

Date Received: 19-FEB-16
Report Date: 03-MAR-16 13:07 (MT)
Version: FINAL

Client Phone: 530-229-3203

Certificate of Analysis

Lab Work Order #: L1736221

Project P.O. #:	660403.20.01.02.04.02.ML PO=10201-7-100465
Job Reference:	SITE-WIDE GEOCHEM MONITORING 2015 SW-015
C of C Numbers:	ALS02181601
Legal Site Desc:	

Amber Springer, B.Sc
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1736221-1 CH12-014-MW007_GW0216							
Sampled By: CLIENT on 17-FEB-16 @ 14:35							
Matrix: Water							
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	16		10	mg/L		19-FEB-16	R3408215
Fluoride in Water by IC							
Fluoride (F)	0.90		0.40	mg/L		19-FEB-16	R3408215
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.10	DLA	0.10	mg/L		19-FEB-16	R3408215
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLA	0.020	mg/L		19-FEB-16	R3408215
Sulfate in Water by IC							
Sulfate (SO4)	4680		6.0	mg/L		19-FEB-16	R3408215
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	23-FEB-16	23-FEB-16	R3407095
Dissolved Mercury Filtration Location	FIELD					23-FEB-16	R3405863
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					23-FEB-16	R3405865
Aluminum (Al)-Dissolved	0.147		0.020	mg/L	23-FEB-16	29-FEB-16	R3411059
Antimony (Sb)-Dissolved	<0.0020	DLA	0.0020	mg/L	23-FEB-16	27-FEB-16	R3411059
Arsenic (As)-Dissolved	<0.0020	DLA	0.0020	mg/L	23-FEB-16	27-FEB-16	R3411059
Barium (Ba)-Dissolved	0.0203		0.0010	mg/L	23-FEB-16	27-FEB-16	R3411059
Beryllium (Be)-Dissolved	<0.0020	DLA	0.0020	mg/L	23-FEB-16	27-FEB-16	R3411059
Boron (B)-Dissolved	<0.20	DLA	0.20	mg/L	23-FEB-16	27-FEB-16	R3411059
Cadmium (Cd)-Dissolved	0.187		0.00010	mg/L	23-FEB-16	27-FEB-16	R3411059
Chromium (Cr)-Dissolved	0.0020		0.0020	mg/L	23-FEB-16	27-FEB-16	R3411059
Cobalt (Co)-Dissolved	0.683		0.0020	mg/L	23-FEB-16	27-FEB-16	R3411059
Copper (Cu)-Dissolved	<0.0040	DLA	0.0040	mg/L	23-FEB-16	27-FEB-16	R3411059
Lead (Pb)-Dissolved	0.0114		0.0010	mg/L	23-FEB-16	27-FEB-16	R3411059
Lithium (Li)-Dissolved	0.112		0.020	mg/L	23-FEB-16	27-FEB-16	R3411059
Manganese (Mn)-Dissolved	48.7		0.0020	mg/L	23-FEB-16	27-FEB-16	R3411059
Molybdenum (Mo)-Dissolved	0.0017		0.0010	mg/L	23-FEB-16	27-FEB-16	R3411059
Nickel (Ni)-Dissolved	1.11		0.010	mg/L	23-FEB-16	27-FEB-16	R3411059
Potassium (K)-Dissolved	10.5		1.0	mg/L	23-FEB-16	27-FEB-16	R3411059
Selenium (Se)-Dissolved	<0.0010	DLA	0.0010	mg/L	23-FEB-16	27-FEB-16	R3411059
Silver (Ag)-Dissolved	<0.00020	DLA	0.00020	mg/L	23-FEB-16	27-FEB-16	R3411059
Sodium (Na)-Dissolved	17.5		1.0	mg/L	23-FEB-16	27-FEB-16	R3411059
Strontium (Sr)-Dissolved	1.28		0.0040	mg/L	23-FEB-16	27-FEB-16	R3411059
Thallium (Tl)-Dissolved	0.00022		0.00020	mg/L	23-FEB-16	27-FEB-16	R3411059
Titanium (Ti)-Dissolved	<0.0060	DLA	0.0060	mg/L	23-FEB-16	27-FEB-16	R3411059
Uranium (U)-Dissolved	0.0623		0.00020	mg/L	23-FEB-16	27-FEB-16	R3411059
Vanadium (V)-Dissolved	<0.010	DLA	0.010	mg/L	23-FEB-16	27-FEB-16	R3411059
Zinc (Zn)-Dissolved	142		0.020	mg/L	23-FEB-16	27-FEB-16	R3411059
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					23-FEB-16	R3405865
Calcium (Ca)-Dissolved	551		0.10	mg/L	23-FEB-16	26-FEB-16	R3407646
Iron (Fe)-Dissolved	2.38		0.060	mg/L	23-FEB-16	26-FEB-16	R3407646
Magnesium (Mg)-Dissolved	779		0.20	mg/L	23-FEB-16	26-FEB-16	R3407646
Phosphorus (P)-Dissolved	<0.60	DLHC	0.60	mg/L	23-FEB-16	26-FEB-16	R3407646
Silicon (Si)-Dissolved	13.2		0.10	mg/L	23-FEB-16	26-FEB-16	R3407646
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	28.1		0.21	mg/L		29-FEB-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					23-FEB-16	R3405865

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1736221-1 CH12-014-MW007_GW0216							
Sampled By: CLIENT on 17-FEB-16 @ 14:35							
Matrix: Water							
Dissolved Sulfur in Water by ICPOES							
Sulfur (S)-Dissolved	1410		1.0	mg/L	23-FEB-16	26-FEB-16	R3407646
Hardness							
Hardness (as CaCO3)	4580		0.86	mg/L		01-MAR-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		23-FEB-16	R3407521
Ammonia, Total (as N)	0.280		0.0050	mg/L		27-FEB-16	R3409573
Dissolved Organic Carbon	7.25		0.50	mg/L		29-FEB-16	R3411395
Total Dissolved Solids	7020		20	mg/L		23-FEB-16	R3407392
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		24-FEB-16	R3407331
Total Suspended Solids	35.0		1.0	mg/L		19-FEB-16	R3408176
pH	6.31		0.10	pH		23-FEB-16	R3407260
Alkalinity by colour or titration							
Alkalinity, Total (as CaCO3)	621		20	mg/L		24-FEB-16	R3407682
Alkalinity, Bicarbonate (as CaCO3)	621		20	mg/L		24-FEB-16	R3407682
Alkalinity, Carbonate (as CaCO3)	<20		20	mg/L		24-FEB-16	R3407682
Alkalinity, Hydroxide (as CaCO3)	<20		20	mg/L		24-FEB-16	R3407682
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	2.54		0.10	mg/L	23-FEB-16	23-FEB-16	R3407088
Dissolved Fe2 Filtration Location	FIELD					23-FEB-16	R3407049
L1736221-2 EB_014_16_001							
Sampled By: CLIENT on 17-FEB-16 @ 16:00							
Matrix: Water							
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<0.50		0.50	mg/L		19-FEB-16	R3408215
Fluoride in Water by IC							
Fluoride (F)	<0.020		0.020	mg/L		19-FEB-16	R3408215
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.0050		0.0050	mg/L		19-FEB-16	R3408215
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0010		0.0010	mg/L		19-FEB-16	R3408215
Sulfate in Water by IC							
Sulfate (SO4)	<0.30		0.30	mg/L		19-FEB-16	R3408215
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	23-FEB-16	23-FEB-16	R3407095
Dissolved Mercury Filtration Location	FIELD					23-FEB-16	R3405863
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					23-FEB-16	R3405865
Aluminum (Al)-Dissolved	<0.0010		0.0010	mg/L	23-FEB-16	29-FEB-16	R3411059
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	23-FEB-16	27-FEB-16	R3411059
Arsenic (As)-Dissolved	<0.00010		0.00010	mg/L	23-FEB-16	27-FEB-16	R3411059
Barium (Ba)-Dissolved	<0.000050		0.000050	mg/L	23-FEB-16	27-FEB-16	R3411059
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	23-FEB-16	27-FEB-16	R3411059
Boron (B)-Dissolved	<0.010		0.010	mg/L	23-FEB-16	27-FEB-16	R3411059
Cadmium (Cd)-Dissolved	0.0000060		0.0000050	mg/L	23-FEB-16	27-FEB-16	R3411059
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	23-FEB-16	27-FEB-16	R3411059
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	23-FEB-16	27-FEB-16	R3411059
Copper (Cu)-Dissolved	<0.00020		0.00020	mg/L	23-FEB-16	27-FEB-16	R3411059
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	23-FEB-16	27-FEB-16	R3411059
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	23-FEB-16	27-FEB-16	R3411059

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1736221-2 EB_014_16_001							
Sampled By: CLIENT on 17-FEB-16 @ 16:00							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Manganese (Mn)-Dissolved	0.00012	RRV	0.00010	mg/L	23-FEB-16	29-FEB-16	R3411059
Molybdenum (Mo)-Dissolved	0.000142	RRV	0.000050	mg/L	23-FEB-16	29-FEB-16	R3411059
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	23-FEB-16	27-FEB-16	R3411059
Potassium (K)-Dissolved	<0.050		0.050	mg/L	23-FEB-16	27-FEB-16	R3411059
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	23-FEB-16	27-FEB-16	R3411059
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	23-FEB-16	27-FEB-16	R3411059
Sodium (Na)-Dissolved	<0.050		0.050	mg/L	23-FEB-16	27-FEB-16	R3411059
Strontium (Sr)-Dissolved	<0.00020		0.00020	mg/L	23-FEB-16	27-FEB-16	R3411059
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	23-FEB-16	27-FEB-16	R3411059
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	23-FEB-16	27-FEB-16	R3411059
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	23-FEB-16	27-FEB-16	R3411059
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	23-FEB-16	27-FEB-16	R3411059
Zinc (Zn)-Dissolved	0.0021	RRV	0.0010	mg/L	23-FEB-16	29-FEB-16	R3411059
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					23-FEB-16	R3405865
Calcium (Ca)-Dissolved	<0.050		0.050	mg/L	23-FEB-16	24-FEB-16	R3407646
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	23-FEB-16	24-FEB-16	R3407646
Magnesium (Mg)-Dissolved	<0.10		0.10	mg/L	23-FEB-16	24-FEB-16	R3407646
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	23-FEB-16	24-FEB-16	R3407646
Silicon (Si)-Dissolved	<0.050		0.050	mg/L	23-FEB-16	24-FEB-16	R3407646
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	<0.20		0.20	mg/L		29-FEB-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					23-FEB-16	R3405865
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	23-FEB-16	24-FEB-16	R3407646
Hardness							
Hardness (as CaCO3)	<0.50		0.50	mg/L		01-MAR-16	
Miscellaneous Parameters							
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		27-FEB-16	R3409573
Dissolved Organic Carbon	<0.50		0.50	mg/L		29-FEB-16	R3411395
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		24-FEB-16	R3407331
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.020		0.020	mg/L	23-FEB-16	23-FEB-16	R3407088
Dissolved Fe2 Filtration Location	FIELD					23-FEB-16	R3407049

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier Key:

Qualifier	Description
DLA	Detection Limit adjusted for required dilution
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).
DLM	Detection Limit Adjusted due to sample matrix effects.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RRV	Reported Result Verified By Repeat Analysis

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ACY-H2O2-MAN-VA	Water	Acidity by Hot Peroxide Titration	APHA - ACIDITY (2310)

This analysis is carried out using procedures adapted from APHA Method 2310 "Acidity". The procedure involves preliminary sample treatment by the hot peroxide procedure, and Acidity is subsequently determined by potentiometric titration to a specified endpoint (i.e. pH = 8.3).

ALK-SCR-VA	Water	Alkalinity by colour or titration	EPA 310.2 OR APHA 2320

This analysis is carried out using procedures adapted from EPA Method 310.2 "Alkalinity". Total Alkalinity is determined using the methyl orange colourimetric method.
OR
This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.

CARBONS-DOC-VA	Water	Dissolved organic carbon by combustion	APHA 5310B TOTAL ORGANIC CARBON (TOC)

This analysis is carried out using procedures adapted from APHA Method 5310 "Total Organic Carbon (TOC)". Dissolved carbon (DOC) fractions are determined by filtering the sample through a 0.45 micron membrane filter prior to analysis.

CL-IC-N-WR	Water	Chloride in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

F-IC-N-WR	Water	Fluoride in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

FE2-D-COL-VA	Water	Diss. Ferrous Iron in Water by Colour	APHA 3500-Fe B/James Ball et al (1999)

This analysis is carried out using procedures adapted from APHA 3500-Fe B and "A New Method for the Direct Determination of Dissolved Iron Concentration in Acid Mine Waters" published by James W. Ball et al (1999). The procedure involves preliminary sample filtration, and ferrous iron is determined using the "FerroZine" colourimetric method.

HARDNESS-CALC-VA	Water	Hardness	APHA 2340B

Hardness (also known as Total Hardness) is calculated from the sum of Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. Dissolved Calcium and Magnesium concentrations are preferentially used for the hardness calculation.

HG-D-CVAA-VA	Water	Diss. Mercury in Water by CVAAS or CVAFS	APHA 3030B/EPA 1631E (mod)

Water samples are filtered (0.45 um), preserved with hydrochloric acid, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS or CVAFS.

MET-D-CCMS-VA	Water	Dissolved Metals in Water by CRC ICPMS	APHA 3030B/6020A (mod)

Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

MET-DIS-ICP-VA	Water	Dissolved Metals in Water by ICPOES	EPA SW-846 3005A/6010B

This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedure involves filtration (EPA Method 3005A) and analysis by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B).

NH3-F-VA	Water	Ammonia in Water by Fluorescence	APHA 4500 NH3-NITROGEN (AMMONIA)

This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.

NH3-F-VA	Water	Ammonia in Water by Fluorescence	J. ENVIRON. MONIT., 2005, 7, 37-42, RSC

This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
NO2-L-IC-N-WR	Water	Nitrite in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
NO3-L-IC-N-WR	Water	Nitrate in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
P-T-PRES-COL-VA	Water	Total P in Water by Colour	APHA 4500-P Phosphorus
This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorus is determined colourimetrically after persulphate digestion of the sample.			
PH-PCT-VA	Water	pH by Meter (Automated)	APHA 4500-H "pH Value"
This analysis is carried out using procedures adapted from APHA Method 4500-H "pH Value". The pH is determined in the laboratory using a pH electrode It is recommended that this analysis be conducted in the field.			
PH-PCT-VA	Water	pH by Meter (Automated)	APHA 4500-H pH Value
This analysis is carried out using procedures adapted from APHA Method 4500-H "pH Value". The pH is determined in the laboratory using a pH electrode It is recommended that this analysis be conducted in the field.			
S-DIS-ICP-VA	Water	Dissolved Sulfur in Water by ICPOES	EPA SW-846 3005A/6010B
This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedures may involve preliminary sample treatment by acid digestion, using either hotblock or microwave oven, or filtration (EPA Method 3005A). Instrumental analysis is by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B). Method Limitation: This method will not give total sulfur results for all samples. Sulfide or other volatile forms of sulfur that may be present in submitted samples, is often lost during the sampling, preservation and analysis process. The data reported as total and/or dissolved sulfur represents all non-volatile forms of sulfur present in a particular sample.			
SIO2-D-CALC-VA	Water	Dissolved Silicon (reported as Silica)	CALCULATION
Dissolved Silicon (as SiO2) is a calculated parameter. Dissolved Silicon (as SiO2 mg/L) = 2.139 x Dissolved Silicon (mg/L).			
SO4-IC-N-WR	Water	Sulfate in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
TDS-VA	Water	Total Dissolved Solids by Gravimetric	APHA 2540 C - GRAVIMETRIC
This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, TDS is determined by evaporating the filtrate to dryness at 180 degrees celsius.			
TSS-LOW-WR	Water	Total Suspended Solids by Grav. (1 mg/L)	APHA 2540 D
This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Suspended Solids are determined by filtering a sample through a glass fibre filter and drying the filter at 104 degrees celsius.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

ALS02181601

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L1736221 Report Date: 03-MAR-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ACY-H2O2-MAN-VA	**Water**							
Batch **R3407521**								
WG2265325-9 **CRM**		**VA-ACY-M-CONTROL**						
Acidity-Hot Peroxide Treated (as CaCO3)			97.1		%		85-115	23-FEB-16
WG2265325-10 **DUP**		**L1736221-1**						
Acidity-Hot Peroxide Treated (as CaCO3)		<25	<25	RPD-NA	mg/L	N/A	20	23-FEB-16
WG2265325-8 **MB**								
Acidity-Hot Peroxide Treated (as CaCO3)			<25		mg/L		25	23-FEB-16
ALK-SCR-VA	**Water**							
Batch **R3407682**								
WG2265826-2 **CRM**		**VA-ALKH-CONTROL**						
Alkalinity, Total (as CaCO3)			101.2		%		85-115	24-FEB-16
WG2265826-3 **DUP**		**L1736221-1**						
Alkalinity, Total (as CaCO3)		621	644		mg/L	3.6	20	24-FEB-16
WG2265826-1 **MB**								
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	24-FEB-16
CARBONS-DOC-VA	**Water**							
Batch **R3411395**								
WG2268235-1 **DUP**		**L1736652-1**						
Dissolved Organic Carbon		3.61	3.58		mg/L	0.8	20	29-FEB-16
WG2268235-4 **LCS**								
Dissolved Organic Carbon			102.2		%		80-120	29-FEB-16
WG2268235-3 **MB**								
Dissolved Organic Carbon			<0.50		mg/L		0.5	29-FEB-16
WG2268235-2 **MS**		**L1736652-2**						
Dissolved Organic Carbon			N/A	MS-B	%		-	29-FEB-16
CL-IC-N-WR	**Water**							
Batch **R3408215**								
WG2263897-3 **DUP**		**L1736221-1**						
Chloride (Cl)		16	17		mg/L	8.6	20	19-FEB-16
WG2263897-2 **LCS**								
Chloride (Cl)			104.1		%		90-110	19-FEB-16
WG2263897-1 **MB**								
Chloride (Cl)			<0.50		mg/L		0.5	19-FEB-16
WG2263897-4 **MS**		**L1736221-2**						
Chloride (Cl)			101.9		%		75-125	19-FEB-16
F-IC-N-WR	**Water**							

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F-IC-N-WR	**Water**							
Batch R3408215								
WG2263897-3 DUP		**L1736221-1**						
Fluoride (F)		0.90	1.01		mg/L	12	20	19-FEB-16
WG2263897-2 LCS								
Fluoride (F)			109.8		%		90-110	19-FEB-16
WG2263897-1 MB								
Fluoride (F)			<0.020		mg/L		0.02	19-FEB-16
WG2263897-4 MS		**L1736221-2**						
Fluoride (F)			107.3		%		75-125	19-FEB-16
FE2-D-COL-VA	**Water**							
Batch R3407088								
WG2265366-3 DUP		**L1736221-1**						
Ferrous Iron, Dissolved		2.54	2.52		mg/L	0.8	20	23-FEB-16
WG2265366-2 LCS								
Ferrous Iron, Dissolved			103.3		%		80-120	23-FEB-16
WG2265366-1 MB								
Ferrous Iron, Dissolved			<0.020		mg/L		0.02	23-FEB-16
WG2265366-4 MS		**L1736221-2**						
Ferrous Iron, Dissolved			109.7		%		70-130	23-FEB-16
HG-D-CVAA-VA	**Water**							
Batch R3407095								
WG2265034-3 DUP		**L1736221-1**						
Mercury (Hg)-Dissolved		<0.0000050	<0.000005C	RPD-NA	mg/L	N/A	20	23-FEB-16
WG2265034-2 LCS								
Mercury (Hg)-Dissolved			100.4		%		80-120	23-FEB-16
WG2265034-1 MB								
Mercury (Hg)-Dissolved			<0.000005C		mg/L		0.000005	23-FEB-16
WG2265034-4 MS		**L1736221-2**						
Mercury (Hg)-Dissolved			99.9		%		70-130	23-FEB-16
MET-D-CCMS-VA	**Water**							
Batch R3411059								
WG2265037-3 DUP		**L1736221-1**						
Aluminum (Al)-Dissolved		0.147	0.162		mg/L	10	20	29-FEB-16
Antimony (Sb)-Dissolved		<0.0020	<0.0020	RPD-NA	mg/L	N/A	20	27-FEB-16
Arsenic (As)-Dissolved		<0.0020	<0.0020	RPD-NA	mg/L	N/A	20	27-FEB-16
Barium (Ba)-Dissolved		0.0203	0.0209		mg/L	3.1	20	27-FEB-16
Beryllium (Be)-Dissolved		<0.0020	<0.0020	RPD-NA	mg/L	N/A	20	27-FEB-16
Boron (B)-Dissolved		<0.20	<0.20	RPD-NA	mg/L	N/A	20	27-FEB-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3411059								
WG2265037-3 DUP		**L1736221-1**						
Cadmium (Cd)-Dissolved		0.187	0.205		mg/L	9.3	20	27-FEB-16
Chromium (Cr)-Dissolved		0.0020	0.0021		mg/L	0.7	20	27-FEB-16
Cobalt (Co)-Dissolved		0.683	0.710		mg/L	3.9	20	27-FEB-16
Copper (Cu)-Dissolved		<0.0040	<0.0040	RPD-NA	mg/L	N/A	20	27-FEB-16
Lead (Pb)-Dissolved		0.0114	0.0117		mg/L	2.8	20	27-FEB-16
Lithium (Li)-Dissolved		0.112	0.118		mg/L	5.4	20	27-FEB-16
Manganese (Mn)-Dissolved		48.7	50.9		mg/L	4.4	20	27-FEB-16
Molybdenum (Mo)-Dissolved		0.0017	0.0013	J	mg/L	0.0003	0.002	27-FEB-16
Nickel (Ni)-Dissolved		1.11	1.15		mg/L	2.7	20	27-FEB-16
Potassium (K)-Dissolved		10.5	11.3		mg/L	7.9	20	27-FEB-16
Selenium (Se)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	27-FEB-16
Silver (Ag)-Dissolved		<0.00020	0.00028	RPD-NA	mg/L	N/A	20	27-FEB-16
Sodium (Na)-Dissolved		17.5	18.7		mg/L	6.8	20	27-FEB-16
Strontium (Sr)-Dissolved		1.28	1.30		mg/L	2.2	20	27-FEB-16
Thallium (Tl)-Dissolved		0.00022	0.00021		mg/L	4.2	20	27-FEB-16
Titanium (Ti)-Dissolved		<0.0060	<0.0060	RPD-NA	mg/L	N/A	20	27-FEB-16
Uranium (U)-Dissolved		0.0623	0.0652		mg/L	4.7	20	27-FEB-16
Vanadium (V)-Dissolved		<0.010	<0.010	RPD-NA	mg/L	N/A	20	27-FEB-16
Zinc (Zn)-Dissolved		142	145		mg/L	2.4	20	27-FEB-16
WG2265037-2 LCS								
Aluminum (Al)-Dissolved			101.0		%		80-120	27-FEB-16
Antimony (Sb)-Dissolved			96.4		%		80-120	27-FEB-16
Arsenic (As)-Dissolved			96.9		%		80-120	27-FEB-16
Barium (Ba)-Dissolved			98.1		%		80-120	27-FEB-16
Beryllium (Be)-Dissolved			95.7		%		80-120	27-FEB-16
Boron (B)-Dissolved			90.9		%		80-120	27-FEB-16
Cadmium (Cd)-Dissolved			84.3		%		80-120	27-FEB-16
Chromium (Cr)-Dissolved			91.5		%		80-120	27-FEB-16
Cobalt (Co)-Dissolved			93.1		%		80-120	27-FEB-16
Copper (Cu)-Dissolved			92.7		%		80-120	27-FEB-16
Lead (Pb)-Dissolved			98.0		%		80-120	27-FEB-16
Lithium (Li)-Dissolved			94.0		%		80-120	27-FEB-16
Manganese (Mn)-Dissolved			93.6		%		80-120	27-FEB-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3411059								
WG2265037-2 LCS								
Molybdenum (Mo)-Dissolved			97.4		%		80-120	27-FEB-16
Nickel (Ni)-Dissolved			93.0		%		80-120	27-FEB-16
Potassium (K)-Dissolved			100.0		%		80-120	27-FEB-16
Selenium (Se)-Dissolved			94.7		%		80-120	27-FEB-16
Silver (Ag)-Dissolved			98.0		%		80-120	27-FEB-16
Sodium (Na)-Dissolved			93.7		%		80-120	27-FEB-16
Strontium (Sr)-Dissolved			95.1		%		80-120	27-FEB-16
Thallium (Tl)-Dissolved			95.5		%		80-120	27-FEB-16
Titanium (Ti)-Dissolved			93.0		%		80-120	27-FEB-16
Uranium (U)-Dissolved			97.6		%		80-120	27-FEB-16
Vanadium (V)-Dissolved			92.8		%		80-120	27-FEB-16
Zinc (Zn)-Dissolved			91.2		%		80-120	27-FEB-16
WG2265037-1 MB								
Aluminum (Al)-Dissolved			<0.0010		mg/L		0.001	27-FEB-16
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	27-FEB-16
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	27-FEB-16
Barium (Ba)-Dissolved			<0.000050		mg/L		0.00005	27-FEB-16
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	27-FEB-16
Boron (B)-Dissolved			<0.010		mg/L		0.01	27-FEB-16
Cadmium (Cd)-Dissolved			<0.000005(		mg/L		0.000005	27-FEB-16
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	27-FEB-16
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	27-FEB-16
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	27-FEB-16
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	27-FEB-16
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	27-FEB-16
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	27-FEB-16
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	27-FEB-16
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	27-FEB-16
Potassium (K)-Dissolved			<0.050		mg/L		0.05	27-FEB-16
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	27-FEB-16
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	27-FEB-16
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	27-FEB-16
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	27-FEB-16
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	27-FEB-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3411059								
WG2265037-1 MB								
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	27-FEB-16
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	27-FEB-16
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	27-FEB-16
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	27-FEB-16
WG2265037-4 MS		**L1736221-2**						
Aluminum (Al)-Dissolved			95.9		%		70-130	27-FEB-16
Antimony (Sb)-Dissolved			94.2		%		70-130	27-FEB-16
Arsenic (As)-Dissolved			95.3		%		70-130	27-FEB-16
Barium (Ba)-Dissolved			97.4		%		70-130	27-FEB-16
Beryllium (Be)-Dissolved			98.5		%		70-130	27-FEB-16
Boron (B)-Dissolved			89.2		%		70-130	27-FEB-16
Cadmium (Cd)-Dissolved			97.7		%		70-130	27-FEB-16
Chromium (Cr)-Dissolved			89.2		%		70-130	27-FEB-16
Cobalt (Co)-Dissolved			90.5		%		70-130	27-FEB-16
Copper (Cu)-Dissolved			91.6		%		70-130	27-FEB-16
Lead (Pb)-Dissolved			98.5		%		70-130	27-FEB-16
Lithium (Li)-Dissolved			101.7		%		70-130	27-FEB-16
Manganese (Mn)-Dissolved			90.6		%		70-130	27-FEB-16
Molybdenum (Mo)-Dissolved			92.5		%		70-130	27-FEB-16
Nickel (Ni)-Dissolved			91.1		%		70-130	27-FEB-16
Potassium (K)-Dissolved			93.3		%		70-130	27-FEB-16
Selenium (Se)-Dissolved			98.3		%		70-130	27-FEB-16
Silver (Ag)-Dissolved			99.3		%		70-130	27-FEB-16
Sodium (Na)-Dissolved			91.2		%		70-130	27-FEB-16
Strontium (Sr)-Dissolved			94.5		%		70-130	27-FEB-16
Thallium (Tl)-Dissolved			99.4		%		70-130	27-FEB-16
Titanium (Ti)-Dissolved			87.4		%		70-130	27-FEB-16
Uranium (U)-Dissolved			97.6		%		70-130	27-FEB-16
Vanadium (V)-Dissolved			88.5		%		70-130	27-FEB-16
Zinc (Zn)-Dissolved			91.9		%		70-130	27-FEB-16
MET-DIS-ICP-VA	**Water**							

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-DIS-ICP-VA	**Water**							
Batch R3407646								
WG2265037-3 DUP		**L1736221-1**						
Calcium (Ca)-Dissolved		551	545		mg/L	1.0	20	26-FEB-16
Iron (Fe)-Dissolved		2.38	2.37		mg/L	0.6	20	26-FEB-16
Magnesium (Mg)-Dissolved		779	766		mg/L	1.7	20	26-FEB-16
Phosphorus (P)-Dissolved		<0.60	<0.60	RPD-NA	mg/L	N/A	20	26-FEB-16
Silicon (Si)-Dissolved		13.2	13.0		mg/L	1.3	20	26-FEB-16
WG2265037-2 LCS								
Calcium (Ca)-Dissolved			102.3		%		80-120	23-FEB-16
Iron (Fe)-Dissolved			99.4		%		80-120	23-FEB-16
Magnesium (Mg)-Dissolved			101.1		%		80-120	23-FEB-16
Phosphorus (P)-Dissolved			101.2		%		80-120	23-FEB-16
Silicon (Si)-Dissolved			105.8		%		80-120	23-FEB-16
WG2265037-1 MB								
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	23-FEB-16
Iron (Fe)-Dissolved			<0.030		mg/L		0.03	23-FEB-16
Magnesium (Mg)-Dissolved			<0.10		mg/L		0.1	23-FEB-16
Phosphorus (P)-Dissolved			<0.30		mg/L		0.3	23-FEB-16
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	23-FEB-16
WG2265037-4 MS		**L1736221-2**						
Calcium (Ca)-Dissolved			104.3		%		70-130	24-FEB-16
Iron (Fe)-Dissolved			96.4		%		70-130	24-FEB-16
Magnesium (Mg)-Dissolved			99.1		%		70-130	24-FEB-16
Phosphorus (P)-Dissolved			100.2		%		70-130	24-FEB-16
Silicon (Si)-Dissolved			100.6		%		70-130	24-FEB-16
NH3-F-VA	**Water**							
Batch R3409573								
WG2267672-3 DUP		**L1736221-1**						
Ammonia, Total (as N)		0.280	0.286		mg/L	2.1	20	27-FEB-16
WG2267672-2 LCS								
Ammonia, Total (as N)			95.5		%		85-115	27-FEB-16
WG2267672-1 MB								
Ammonia, Total (as N)			<0.0050		mg/L		0.005	27-FEB-16
WG2267672-4 MS		**L1736221-1**						
Ammonia, Total (as N)			N/A	MS-B	%		-	27-FEB-16
NO2-L-IC-N-WR	**Water**							

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NO2-L-IC-N-WR	**Water**							
Batch R3408215								
WG2263897-3 DUP		**L1736221-1**						
Nitrite (as N)		<0.020	<0.020	RPD-NA	mg/L	N/A	20	19-FEB-16
WG2263897-2 LCS								
Nitrite (as N)			104.6		%		90-110	19-FEB-16
WG2263897-1 MB								
Nitrite (as N)			<0.0010		mg/L		0.001	19-FEB-16
WG2263897-4 MS		**L1736221-2**						
Nitrite (as N)			102.9		%		75-125	19-FEB-16
NO3-L-IC-N-WR	**Water**							
Batch R3408215								
WG2263897-3 DUP		**L1736221-1**						
Nitrate (as N)		<0.10	<0.10	RPD-NA	mg/L	N/A	20	19-FEB-16
WG2263897-2 LCS								
Nitrate (as N)			103.7		%		90-110	19-FEB-16
WG2263897-1 MB								
Nitrate (as N)			<0.0050		mg/L		0.005	19-FEB-16
WG2263897-4 MS		**L1736221-2**						
Nitrate (as N)			101.4		%		75-125	19-FEB-16
P-T-PRES-COL-VA	**Water**							
Batch R3407331								
WG2265155-2 CRM		**VA-ERA-PO4**						
Phosphorus (P)-Total			96.7		%		80-120	24-FEB-16
WG2265155-3 DUP		**L1736221-1**						
Phosphorus (P)-Total		<0.020	<0.020	RPD-NA	mg/L	N/A	20	24-FEB-16
WG2265155-1 MB								
Phosphorus (P)-Total			<0.0020		mg/L		0.002	24-FEB-16
WG2265155-4 MS		**L1736221-2**						
Phosphorus (P)-Total			101.2		%		70-130	24-FEB-16
PH-PCT-VA	**Water**							
Batch R3407260								
WG2265069-2 CRM		**VA-PH7-BUF**						
pH			6.92		pH		6.9-7.1	23-FEB-16
WG2265069-5 DUP		**L1736221-1**						
pH		6.31	6.31	J	pH	0.00	0.3	23-FEB-16
S-DIS-ICP-VA	**Water**							

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
S-DIS-ICP-VA	**Water**							
Batch R3407646								
WG2265037-3 DUP		**L1736221-1**						
Sulfur (S)-Dissolved		1410	1390		mg/L	0.9	20	26-FEB-16
WG2265037-2 LCS								
Sulfur (S)-Dissolved			100.0		%		80-120	23-FEB-16
WG2265037-1 MB								
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	23-FEB-16
WG2265037-4 MS		**L1736221-2**						
Sulfur (S)-Dissolved			95.8		%		70-130	24-FEB-16
SO4-IC-N-WR	**Water**							
Batch R3408215								
WG2263897-3 DUP		**L1736221-1**						
Sulfate (SO4)		4680	5060		mg/L	7.9	20	19-FEB-16
WG2263897-2 LCS								
Sulfate (SO4)			104.7		%		90-110	19-FEB-16
WG2263897-1 MB								
Sulfate (SO4)			<0.30		mg/L		0.3	19-FEB-16
WG2263897-4 MS		**L1736221-2**						
Sulfate (SO4)			102.5		%		75-125	19-FEB-16
TDS-VA	**Water**							
Batch R3407392								
WG2265462-3 DUP		**L1736221-1**						
Total Dissolved Solids		7020	7090		mg/L	1.0	20	23-FEB-16
WG2265462-2 LCS								
Total Dissolved Solids			102.9		%		85-115	23-FEB-16
WG2265462-1 MB								
Total Dissolved Solids			<10		mg/L		10	23-FEB-16
TSS-LOW-WR	**Water**							
Batch R3408176								
WG2263845-3 DUP		**L1735695-1**						
Total Suspended Solids		16.0	17.6		mg/L	9.5	20	19-FEB-16
WG2263845-2 LCS								
Total Suspended Solids			104.9		%		85-115	19-FEB-16
WG2263845-1 MB								
Total Suspended Solids			<1.0		mg/L		1	19-FEB-16

Quality Control Report

Workorder: L1736221 Report Date: 03-MAR-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
DLA	Detection Limit adjusted for required dilution
DLM	Detection Limit Adjusted due to sample matrix effects.
J	Duplicate results and limits are expressed in terms of absolute difference.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Quality Control Report

Workorder: L1736221 Report Date: 03-MAR-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Physical Tests							
pH by Meter (Automated)							
	1	17-FEB-16 14:35	23-FEB-16 12:27	0.25	142	hours	EHTR-FM

Legend & Qualifier Definitions:

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
EHTR: Exceeded ALS recommended hold time prior to sample receipt.
EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
EHT: Exceeded ALS recommended hold time prior to analysis.
Rec. HT: ALS recommended hold time (see units).

Notes*:
Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L1736221 were received on 19-FEB-16 09:00.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

CH2MHILL **CHAIN OF CUSTODY RECORD** *2/18/2016 8:53:49 AM* Page 1 OF 1

Project Name Faro Mine
Location Faro Mine Complex - Faro YK
Project Number 660403.20.01.02.04.02.ML.
Project Manager Steven Momeyer
Sample Manager Damion Miles
(530) 229-3268
Task Order SW-015
Project SITE-WIDE GEOCHEM MONITORING 2015
Turnaround Time 10 Days
Shipping Date: 2/18/2016
COC Number: ALS02181601

	DATE	TIME	Matrix	40ml vial HCl, 4°C Field 28 (E245.7-Diss) Field Filtered Dissolved Hg	125ml Poly HCl, 4°C Field 180 (Ferrozine Method) Field Filtered Ferrous Iron	125ml glass H2SO4, pH<2, 4C NA 28 (JEM/SM4500NH3) Ammonia	500ml Poly 4C NA 14 (SM2320B) Alkalinity	500ml Poly 4C NA 14 (SM2540C) TDS	500ml Poly 4'C NA 7 (SM2540D) TSS	125ml glass H2SO4, pH<2, 4C NA 28 (SM4500P) Total Phosphorous	125ml Glass H2SO4, pH<2, 4'C Field 28 (SM5310) Field Filtered DOC	250ml Poly HNO3, 4'C Field 180 (SW6010B/SW6020A) Field Filtered Metals Analyte List Table 1	500ml Poly 4C NA 14 SM2310_HP Acidity - Run Hot H2O2	500ml Poly 4'C NA 3 SM4110B CL F NO2 NO3 and SO4	Number of Containers	COMMENTS
CH12-014-MW007_GW0216	2/17/2016	14:35	Water	x	x	x	x	x	x	x	x	x	x	x	8	
EB_014_16_001	2/17/2016	16:00	Water	x	x	x				x	x	x		x	6	
														TOTAL NUMBER OF CONTAINERS	14	

L1736221-COFC

Short Holding Time

- *Rush Processing*

Signatures	Date/Time
Approved by	
Sampled by	02/18/2016
Relinquished by	
Received by	2-8°C 14-Feb16
Relinquished by	9:00
Received by	Jean 12:15 Feb22 2:45

Shipping Details
Method of Shipment: FedEx
On Ice: (yes) / no
Airbill No:
Lab Name: ALS Vancouver
Lab Phone: (604) 253-4188

ATTN:
Sample Custody
and
Amber Springer

Special Instructions:

Report Copy to
Mark Cichy
(530) 229-3274

CH2M HILL, INC
ATTN: Mark Cichy
2525 Airpark Drive
Redding CA 96001

Date Received: 22-FEB-16
Report Date: 04-MAR-16 11:48 (MT)
Version: FINAL

Client Phone: 530-229-3203

Certificate of Analysis

Lab Work Order #: L1736652

Project P.O. #:	660403.20.01.02.04.02.ML. PO=10201-7-100465
Job Reference:	SITE-WIDE GEOCHEM MONITORING 2015 SW-015
C of C Numbers:	ALS0216
Legal Site Desc:	

Amber Springer, B.Sc
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1736652-1 CH12-014-MW003_GW0216							
Sampled By: CLIENT on 20-FEB-16 @ 10:00							
Matrix: Water							
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	15		10	mg/L		23-FEB-16	R3408337
Fluoride in Water by IC							
Fluoride (F)	<0.40	DLA	0.40	mg/L		23-FEB-16	R3408337
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	1.22		0.10	mg/L		23-FEB-16	R3408337
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	0.102		0.020	mg/L		23-FEB-16	R3408337
Sulfate in Water by IC							
Sulfate (SO4)	1970		6.0	mg/L		23-FEB-16	R3408337
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	24-FEB-16	25-FEB-16	R3408242
Dissolved Mercury Filtration Location	FIELD					24-FEB-16	R3407813
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					24-FEB-16	R3407809
Aluminum (Al)-Dissolved	0.0054		0.0050	mg/L	24-FEB-16	27-FEB-16	R3411059
Antimony (Sb)-Dissolved	<0.00050	DLA	0.00050	mg/L	24-FEB-16	27-FEB-16	R3411059
Arsenic (As)-Dissolved	<0.00050	DLA	0.00050	mg/L	24-FEB-16	27-FEB-16	R3411059
Barium (Ba)-Dissolved	0.0247		0.00025	mg/L	24-FEB-16	27-FEB-16	R3411059
Beryllium (Be)-Dissolved	<0.00050	DLA	0.00050	mg/L	24-FEB-16	27-FEB-16	R3411059
Boron (B)-Dissolved	<0.050	DLA	0.050	mg/L	24-FEB-16	27-FEB-16	R3411059
Cadmium (Cd)-Dissolved	0.000941		0.000025	mg/L	24-FEB-16	27-FEB-16	R3411059
Chromium (Cr)-Dissolved	0.00191		0.00050	mg/L	24-FEB-16	27-FEB-16	R3411059
Cobalt (Co)-Dissolved	0.0289		0.00050	mg/L	24-FEB-16	27-FEB-16	R3411059
Copper (Cu)-Dissolved	0.0018		0.0010	mg/L	24-FEB-16	27-FEB-16	R3411059
Lead (Pb)-Dissolved	0.00068		0.00025	mg/L	24-FEB-16	27-FEB-16	R3411059
Lithium (Li)-Dissolved	0.100		0.0050	mg/L	24-FEB-16	27-FEB-16	R3411059
Manganese (Mn)-Dissolved	3.96		0.00050	mg/L	24-FEB-16	27-FEB-16	R3411059
Molybdenum (Mo)-Dissolved	0.00233		0.00025	mg/L	24-FEB-16	27-FEB-16	R3411059
Nickel (Ni)-Dissolved	0.144		0.0025	mg/L	24-FEB-16	27-FEB-16	R3411059
Potassium (K)-Dissolved	12.9		0.25	mg/L	24-FEB-16	27-FEB-16	R3411059
Selenium (Se)-Dissolved	<0.00025	DLA	0.00025	mg/L	24-FEB-16	27-FEB-16	R3411059
Silver (Ag)-Dissolved	<0.000050	DLA	0.000050	mg/L	24-FEB-16	27-FEB-16	R3411059
Sodium (Na)-Dissolved	36.9		0.25	mg/L	24-FEB-16	27-FEB-16	R3411059
Strontium (Sr)-Dissolved	2.31		0.0010	mg/L	24-FEB-16	27-FEB-16	R3411059
Thallium (Tl)-Dissolved	<0.000050	DLA	0.000050	mg/L	24-FEB-16	27-FEB-16	R3411059
Titanium (Ti)-Dissolved	<0.0015	DLA	0.0015	mg/L	24-FEB-16	27-FEB-16	R3411059
Uranium (U)-Dissolved	0.0194		0.000050	mg/L	24-FEB-16	27-FEB-16	R3411059
Vanadium (V)-Dissolved	<0.0025	DLA	0.0025	mg/L	24-FEB-16	27-FEB-16	R3411059
Zinc (Zn)-Dissolved	2.60		0.0050	mg/L	24-FEB-16	27-FEB-16	R3411059
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					24-FEB-16	R3407809
Calcium (Ca)-Dissolved	678		0.050	mg/L	24-FEB-16	25-FEB-16	R3408429
Iron (Fe)-Dissolved	0.534		0.030	mg/L	24-FEB-16	25-FEB-16	R3408429
Magnesium (Mg)-Dissolved	167		0.10	mg/L	24-FEB-16	25-FEB-16	R3408429
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	24-FEB-16	25-FEB-16	R3408429
Silicon (Si)-Dissolved	9.46		0.050	mg/L	24-FEB-16	25-FEB-16	R3408429
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	20.2		0.20	mg/L		26-FEB-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					24-FEB-16	R3407809

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1736652-1 CH12-014-MW003_GW0216							
Sampled By: CLIENT on 20-FEB-16 @ 10:00							
Matrix: Water							
Dissolved Sulfur in Water by ICPOES							
Sulfur (S)-Dissolved	585		0.50	mg/L	24-FEB-16	25-FEB-16	R3408429
Hardness							
Hardness (as CaCO3)	2380		0.50	mg/L		29-FEB-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		25-FEB-16	R3408730
Ammonia, Total (as N)	0.0416		0.0050	mg/L		02-MAR-16	R3412730
Dissolved Organic Carbon	3.61		0.50	mg/L		29-FEB-16	R3411395
Total Dissolved Solids	3520		20	mg/L		25-FEB-16	R3408682
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		26-FEB-16	R3408758
Total Suspended Solids	95.2		2.0	mg/L		26-FEB-16	R3411023
pH	6.82		0.10	pH		25-FEB-16	R3408559
Alkalinity by colour or titration							
Alkalinity, Total (as CaCO3)	620		20	mg/L		03-MAR-16	R3413325
Alkalinity, Bicarbonate (as CaCO3)	620		20	mg/L		03-MAR-16	R3413325
Alkalinity, Carbonate (as CaCO3)	<20		20	mg/L		03-MAR-16	R3413325
Alkalinity, Hydroxide (as CaCO3)	<20		20	mg/L		03-MAR-16	R3413325
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	0.200		0.020	mg/L	25-FEB-16	25-FEB-16	R3408222
Dissolved Fe2 Filtration Location	FIELD					25-FEB-16	R3408145
L1736652-2 CH14-015-MW006_GW0216							
Sampled By: CLIENT on 20-FEB-16 @ 16:00							
Matrix: Water							
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLA	10	mg/L		23-FEB-16	R3408337
Fluoride in Water by IC							
Fluoride (F)	7.40		0.40	mg/L		23-FEB-16	R3408337
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	2.45		0.10	mg/L		23-FEB-16	R3408337
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	0.075		0.020	mg/L		23-FEB-16	R3408337
Sulfate in Water by IC							
Sulfate (SO4)	3880		6.0	mg/L		23-FEB-16	R3408337
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000089		0.0000050	mg/L	24-FEB-16	25-FEB-16	R3408242
Dissolved Mercury Filtration Location	FIELD					24-FEB-16	R3407813
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					24-FEB-16	R3407809
Aluminum (Al)-Dissolved	47.0		0.020	mg/L	24-FEB-16	27-FEB-16	R3411059
Antimony (Sb)-Dissolved	<0.0020	DLA	0.0020	mg/L	24-FEB-16	27-FEB-16	R3411059
Arsenic (As)-Dissolved	0.0267		0.0020	mg/L	24-FEB-16	27-FEB-16	R3411059
Barium (Ba)-Dissolved	0.0690		0.0010	mg/L	24-FEB-16	27-FEB-16	R3411059
Beryllium (Be)-Dissolved	0.0185		0.0020	mg/L	24-FEB-16	27-FEB-16	R3411059
Boron (B)-Dissolved	<0.20	DLA	0.20	mg/L	24-FEB-16	27-FEB-16	R3411059
Cadmium (Cd)-Dissolved	0.144		0.00010	mg/L	24-FEB-16	27-FEB-16	R3411059
Chromium (Cr)-Dissolved	0.0040		0.0020	mg/L	24-FEB-16	27-FEB-16	R3411059
Cobalt (Co)-Dissolved	1.07		0.0020	mg/L	24-FEB-16	27-FEB-16	R3411059
Copper (Cu)-Dissolved	1.40		0.0040	mg/L	24-FEB-16	27-FEB-16	R3411059
Lead (Pb)-Dissolved	0.0395		0.0010	mg/L	24-FEB-16	27-FEB-16	R3411059
Lithium (Li)-Dissolved	0.242		0.020	mg/L	24-FEB-16	27-FEB-16	R3411059

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1736652-2 CH14-015-MW006_GW0216							
Sampled By: CLIENT on 20-FEB-16 @ 16:00							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Manganese (Mn)-Dissolved	31.3		0.0020	mg/L	24-FEB-16	27-FEB-16	R3411059
Molybdenum (Mo)-Dissolved	<0.0010	DLA	0.0010	mg/L	24-FEB-16	27-FEB-16	R3411059
Nickel (Ni)-Dissolved	0.966		0.010	mg/L	24-FEB-16	27-FEB-16	R3411059
Potassium (K)-Dissolved	5.2		1.0	mg/L	24-FEB-16	27-FEB-16	R3411059
Selenium (Se)-Dissolved	<0.0010	DLA	0.0010	mg/L	24-FEB-16	27-FEB-16	R3411059
Silver (Ag)-Dissolved	<0.00020	DLA	0.00020	mg/L	24-FEB-16	27-FEB-16	R3411059
Sodium (Na)-Dissolved	17.6		1.0	mg/L	24-FEB-16	27-FEB-16	R3411059
Strontium (Sr)-Dissolved	1.29		0.0040	mg/L	24-FEB-16	27-FEB-16	R3411059
Thallium (Tl)-Dissolved	0.00026		0.00020	mg/L	24-FEB-16	27-FEB-16	R3411059
Titanium (Ti)-Dissolved	<0.0060	DLA	0.0060	mg/L	24-FEB-16	27-FEB-16	R3411059
Uranium (U)-Dissolved	0.0837		0.00020	mg/L	24-FEB-16	27-FEB-16	R3411059
Vanadium (V)-Dissolved	<0.010	DLA	0.010	mg/L	24-FEB-16	27-FEB-16	R3411059
Zinc (Zn)-Dissolved	104		0.020	mg/L	24-FEB-16	27-FEB-16	R3411059
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					24-FEB-16	R3407809
Calcium (Ca)-Dissolved	313		0.10	mg/L	24-FEB-16	26-FEB-16	R3408429
Iron (Fe)-Dissolved	87.9		0.060	mg/L	24-FEB-16	26-FEB-16	R3408429
Magnesium (Mg)-Dissolved	607		0.20	mg/L	24-FEB-16	26-FEB-16	R3408429
Phosphorus (P)-Dissolved	<0.60	DLHC	0.60	mg/L	24-FEB-16	26-FEB-16	R3408429
Silicon (Si)-Dissolved	14.3		0.10	mg/L	24-FEB-16	26-FEB-16	R3408429
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	30.7		0.21	mg/L		29-FEB-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					24-FEB-16	R3407809
Sulfur (S)-Dissolved	1260		1.0	mg/L	24-FEB-16	26-FEB-16	R3408429
Hardness							
Hardness (as CaCO3)	3280		0.86	mg/L		29-FEB-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	549		50	mg/L		25-FEB-16	R3408730
Ammonia, Total (as N)	1.04		0.025	mg/L		02-MAR-16	R3412730
Dissolved Organic Carbon	6.78		0.50	mg/L		29-FEB-16	R3411395
Total Dissolved Solids	5800		20	mg/L		25-FEB-16	R3408682
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		26-FEB-16	R3408758
Total Suspended Solids	83.6		2.0	mg/L		26-FEB-16	R3411023
pH	4.53		0.10	pH		25-FEB-16	R3408559
Alkalinity by colour or titration							
Alkalinity, Total (as CaCO3)	11.1		2.0	mg/L		03-MAR-16	R3413325
Alkalinity, Bicarbonate (as CaCO3)	11.1		2.0	mg/L		03-MAR-16	R3413325
Alkalinity, Carbonate (as CaCO3)	<2.0		2.0	mg/L		03-MAR-16	R3413325
Alkalinity, Hydroxide (as CaCO3)	<2.0		2.0	mg/L		03-MAR-16	R3413325
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	95.3		2.0	mg/L	25-FEB-16	25-FEB-16	R3408222
Dissolved Fe2 Filtration Location	FIELD					25-FEB-16	R3408145

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier Key:

Qualifier	Description
DLA	Detection Limit adjusted for required dilution
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).
DLM	Detection Limit Adjusted due to sample matrix effects.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ACY-H2O2-MAN-VA	Water	Acidity by Hot Peroxide Titration	APHA - ACIDITY (2310)
This analysis is carried out using procedures adapted from APHA Method 2310 "Acidity". The procedure involves preliminary sample treatment by the hot peroxide procedure, and Acidity is subsequently determined by potentiometric titration to a specified endpoint (i.e. pH = 8.3).			
ALK-SCR-VA	Water	Alkalinity by colour or titration	EPA 310.2 OR APHA 2320
This analysis is carried out using procedures adapted from EPA Method 310.2 "Alkalinity". Total Alkalinity is determined using the methyl orange colourimetric method. OR This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.			
CARBONS-DOC-VA	Water	Dissolved organic carbon by combustion	APHA 5310B TOTAL ORGANIC CARBON (TOC)
This analysis is carried out using procedures adapted from APHA Method 5310 "Total Organic Carbon (TOC)". Dissolved carbon (DOC) fractions are determined by filtering the sample through a 0.45 micron membrane filter prior to analysis.			
CL-IC-N-WR	Water	Chloride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
F-IC-N-WR	Water	Fluoride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
FE2-D-COL-VA	Water	Diss. Ferrous Iron in Water by Colour	APHA 3500-Fe B/James Ball et al (1999)
This analysis is carried out using procedures adapted from APHA 3500-Fe B and "A New Method for the Direct Determination of Dissolved Iron Concentration in Acid Mine Waters" published by James W. Ball et al (1999). The procedure involves preliminary sample filtration, and ferrous iron is determined using the "FerroZine" colourimetric method.			
HARDNESS-CALC-VA	Water	Hardness	APHA 2340B
Hardness (also known as Total Hardness) is calculated from the sum of Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. Dissolved Calcium and Magnesium concentrations are preferentially used for the hardness calculation.			
HG-D-CVAA-VA	Water	Diss. Mercury in Water by CVAAS or CVAFS	APHA 3030B/EPA 1631E (mod)
Water samples are filtered (0.45 um), preserved with hydrochloric acid, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS or CVAFS.			
MET-D-CCMS-VA	Water	Dissolved Metals in Water by CRC ICPMS	APHA 3030B/6020A (mod)
Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			
MET-DIS-ICP-VA	Water	Dissolved Metals in Water by ICPOES	EPA SW-846 3005A/6010B
This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedure involves filtration (EPA Method 3005A) and analysis by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B).			
NH3-F-VA	Water	Ammonia in Water by Fluorescence	APHA 4500 NH3-NITROGEN (AMMONIA)
This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.			
NH3-F-VA	Water	Ammonia in Water by Fluorescence	J. ENVIRON. MONIT., 2005, 7, 37-42, RSC
This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.			
NO2-L-IC-N-WR	Water	Nitrite in Water by IC (Low Level)	EPA 300.1 (mod)

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
NO3-L-IC-N-WR	Water	Nitrate in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
P-T-PRES-COL-VA	Water	Total P in Water by Colour	APHA 4500-P Phosphorus
This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorus is determined colourimetrically after persulphate digestion of the sample.			
PH-PCT-VA	Water	pH by Meter (Automated)	APHA 4500-H "pH Value"
This analysis is carried out using procedures adapted from APHA Method 4500-H "pH Value". The pH is determined in the laboratory using a pH electrode It is recommended that this analysis be conducted in the field.			
PH-PCT-VA	Water	pH by Meter (Automated)	APHA 4500-H pH Value
This analysis is carried out using procedures adapted from APHA Method 4500-H "pH Value". The pH is determined in the laboratory using a pH electrode It is recommended that this analysis be conducted in the field.			
S-DIS-ICP-VA	Water	Dissolved Sulfur in Water by ICPOES	EPA SW-846 3005A/6010B
This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedures may involve preliminary sample treatment by acid digestion, using either hotblock or microwave oven, or filtration (EPA Method 3005A). Instrumental analysis is by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B). Method Limitation: This method will not give total sulfur results for all samples. Sulfide or other volatile forms of sulfur that may be present in submitted samples, is often lost during the sampling, preservation and analysis process. The data reported as total and/or dissolved sulfur represents all non-volatile forms of sulfur present in a particular sample.			
SIO2-D-CALC-VA	Water	Dissolved Silicon (reported as Silica)	CALCULATION
Dissolved Silicon (as SiO2) is a calculated parameter. Dissolved Silicon (as SiO2 mg/L) = 2.139 x Dissolved Silicon (mg/L).			
SO4-IC-N-WR	Water	Sulfate in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
TDS-VA	Water	Total Dissolved Solids by Gravimetric	APHA 2540 C - GRAVIMETRIC
This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, TDS is determined by evaporating the filtrate to dryness at 180 degrees celsius.			
TSS-LOW-WR	Water	Total Suspended Solids by Grav. (1 mg/L)	APHA 2540 D
This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Suspended Solids are determined by filtering a sample through a glass fibre filter and drying the filter at 104 degrees celsius.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

ALS0216

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ACY-H2O2-MAN-VA	**Water**							
Batch **R3408730**								
WG2266622-2 **CRM**		**VA-ACY-M-CONTROL**						
Acidity-Hot Peroxide Treated (as CaCO3)			104.7		%		85-115	25-FEB-16
WG2266622-3 **DUP**		**L1737307-1**						
Acidity-Hot Peroxide Treated (as CaCO3)		<25	<25	RPD-NA	mg/L	N/A	20	25-FEB-16
WG2266622-1 **MB**								
Acidity-Hot Peroxide Treated (as CaCO3)			<25		mg/L		25	25-FEB-16
ALK-SCR-VA	**Water**							
Batch **R3413325**								
WG2270178-2 **CRM**		**VA-ALKL-CONTROL**						
Alkalinity, Total (as CaCO3)			108.0		%		85-115	03-MAR-16
WG2270178-3 **CRM**		**VA-ALKM-CONTROL**						
Alkalinity, Total (as CaCO3)			102.1		%		85-115	03-MAR-16
WG2270178-4 **CRM**		**VA-ALKH-CONTROL**						
Alkalinity, Total (as CaCO3)			103.1		%		85-115	03-MAR-16
WG2270178-5 **DUP**		**L1737307-4**						
Alkalinity, Total (as CaCO3)		686	692		mg/L	0.9	20	03-MAR-16
WG2270178-1 **MB**								
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	03-MAR-16
CARBONS-DOC-VA	**Water**							
Batch **R3411395**								
WG2268235-1 **DUP**		**L1736652-1**						
Dissolved Organic Carbon		3.61	3.58		mg/L	0.8	20	29-FEB-16
WG2268235-4 **LCS**								
Dissolved Organic Carbon			102.2		%		80-120	29-FEB-16
WG2268235-3 **MB**								
Dissolved Organic Carbon			<0.50		mg/L		0.5	29-FEB-16
WG2268235-2 **MS**		**L1736652-2**						
Dissolved Organic Carbon			N/A	MS-B	%		-	29-FEB-16
CL-IC-N-WR	**Water**							
Batch **R3408337**								
WG2265489-3 **DUP**		**L1736652-2**						
Chloride (Cl)		<10	<10	RPD-NA	mg/L	N/A	20	23-FEB-16
WG2265489-2 **LCS**								
Chloride (Cl)			103.2		%		90-110	23-FEB-16
WG2265489-1 **MB**								
Chloride (Cl)			<0.50		mg/L		0.5	23-FEB-16
WG2265489-4 **MS**		**L1736652-1**						

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CL-IC-N-WR	**Water**							
Batch R3408337								
WG2265489-4 MS		**L1736652-1**						
Chloride (Cl)			103.5		%		75-125	23-FEB-16
F-IC-N-WR	**Water**							
Batch R3408337								
WG2265489-3 DUP		**L1736652-2**						
Fluoride (F)		7.40	7.43		mg/L	0.4	20	23-FEB-16
WG2265489-2 LCS								
Fluoride (F)			109.9		%		90-110	23-FEB-16
WG2265489-1 MB								
Fluoride (F)			<0.020		mg/L		0.02	23-FEB-16
WG2265489-4 MS		**L1736652-1**						
Fluoride (F)			109.2		%		75-125	23-FEB-16
FE2-D-COL-VA	**Water**							
Batch R3408222								
WG2266682-3 DUP		**L1736652-1**						
Ferrous Iron, Dissolved		0.200	0.198		mg/L	0.8	20	25-FEB-16
WG2266682-2 LCS								
Ferrous Iron, Dissolved			104.1		%		80-120	25-FEB-16
WG2266682-1 MB								
Ferrous Iron, Dissolved			<0.020		mg/L		0.02	25-FEB-16
WG2266682-4 MS		**L1737307-1**						
Ferrous Iron, Dissolved			113.2		%		70-130	25-FEB-16
HG-D-CVAA-VA	**Water**							
Batch R3408242								
WG2266319-3 DUP		**L1737307-2**						
Mercury (Hg)-Dissolved		<0.0000050	<0.000005(	RPD-NA	mg/L	N/A	20	25-FEB-16
WG2266319-2 LCS								
Mercury (Hg)-Dissolved			95.2		%		80-120	25-FEB-16
WG2266319-1 MB								
Mercury (Hg)-Dissolved			<0.000005(		mg/L		0.000005	25-FEB-16
WG2266319-4 MS		**L1736652-1**						
Mercury (Hg)-Dissolved			75.5		%		70-130	25-FEB-16
MET-D-CCMS-VA	**Water**							

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3411059								
WG2266306-3 DUP		**L1737307-1**						
Aluminum (Al)-Dissolved		0.0080	0.0089		mg/L	11	20	29-FEB-16
Antimony (Sb)-Dissolved		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	27-FEB-16
Arsenic (As)-Dissolved		<0.00020	0.00024	RPD-NA	mg/L	N/A	20	27-FEB-16
Barium (Ba)-Dissolved		0.0176	0.0180		mg/L	1.8	20	27-FEB-16
Beryllium (Be)-Dissolved		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	27-FEB-16
Boron (B)-Dissolved		<0.020	<0.020	RPD-NA	mg/L	N/A	20	27-FEB-16
Cadmium (Cd)-Dissolved		0.000257	0.000249		mg/L	3.3	20	27-FEB-16
Chromium (Cr)-Dissolved		0.00330	0.00350		mg/L	5.7	20	27-FEB-16
Cobalt (Co)-Dissolved		0.00264	0.00270		mg/L	2.3	20	27-FEB-16
Copper (Cu)-Dissolved		0.00124	0.00128		mg/L	3.9	20	27-FEB-16
Lead (Pb)-Dissolved		0.00167	0.00166		mg/L	0.9	20	27-FEB-16
Lithium (Li)-Dissolved		0.0356	0.0354		mg/L	0.5	20	27-FEB-16
Manganese (Mn)-Dissolved		1.65	1.67		mg/L	1.1	20	27-FEB-16
Molybdenum (Mo)-Dissolved		0.00125	0.00124		mg/L	0.8	20	27-FEB-16
Nickel (Ni)-Dissolved		0.0609	0.0618		mg/L	1.6	20	27-FEB-16
Potassium (K)-Dissolved		6.66	6.83		mg/L	2.5	20	27-FEB-16
Selenium (Se)-Dissolved		0.00013	0.00013		mg/L	4.7	20	27-FEB-16
Silver (Ag)-Dissolved		<0.000020	<0.000020	RPD-NA	mg/L	N/A	20	27-FEB-16
Sodium (Na)-Dissolved		11.4	11.9		mg/L	4.2	20	27-FEB-16
Strontium (Sr)-Dissolved		1.07	1.09		mg/L	2.1	20	27-FEB-16
Thallium (Tl)-Dissolved		<0.000020	<0.000020	RPD-NA	mg/L	N/A	20	27-FEB-16
Titanium (Ti)-Dissolved		<0.00060	<0.00060	RPD-NA	mg/L	N/A	20	27-FEB-16
Uranium (U)-Dissolved		0.0450	0.0447		mg/L	0.6	20	27-FEB-16
Vanadium (V)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	27-FEB-16
Zinc (Zn)-Dissolved		0.570	0.580		mg/L	1.6	20	27-FEB-16
WG2266306-2 LCS								
Aluminum (Al)-Dissolved			103.1		%		80-120	27-FEB-16
Antimony (Sb)-Dissolved			102.4		%		80-120	27-FEB-16
Arsenic (As)-Dissolved			97.0		%		80-120	27-FEB-16
Barium (Ba)-Dissolved			97.3		%		80-120	27-FEB-16
Beryllium (Be)-Dissolved			102.1		%		80-120	27-FEB-16
Boron (B)-Dissolved			97.9		%		80-120	27-FEB-16
Cadmium (Cd)-Dissolved			87.7		%		80-120	27-FEB-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3411059								
WG2266306-2 LCS								
Chromium (Cr)-Dissolved			89.9		%		80-120	27-FEB-16
Cobalt (Co)-Dissolved			90.9		%		80-120	27-FEB-16
Copper (Cu)-Dissolved			89.9		%		80-120	27-FEB-16
Lead (Pb)-Dissolved			101.9		%		80-120	27-FEB-16
Lithium (Li)-Dissolved			102.6		%		80-120	27-FEB-16
Manganese (Mn)-Dissolved			90.0		%		80-120	27-FEB-16
Molybdenum (Mo)-Dissolved			102.0		%		80-120	27-FEB-16
Nickel (Ni)-Dissolved			91.2		%		80-120	27-FEB-16
Potassium (K)-Dissolved			99.1		%		80-120	27-FEB-16
Selenium (Se)-Dissolved			97.6		%		80-120	27-FEB-16
Silver (Ag)-Dissolved			102.7		%		80-120	27-FEB-16
Sodium (Na)-Dissolved			94.4		%		80-120	27-FEB-16
Strontium (Sr)-Dissolved			99.1		%		80-120	27-FEB-16
Thallium (Tl)-Dissolved			99.1		%		80-120	27-FEB-16
Titanium (Ti)-Dissolved			90.8		%		80-120	27-FEB-16
Uranium (U)-Dissolved			102.9		%		80-120	27-FEB-16
Vanadium (V)-Dissolved			90.8		%		80-120	27-FEB-16
Zinc (Zn)-Dissolved			89.1		%		80-120	27-FEB-16
WG2266306-1 MB								
Aluminum (Al)-Dissolved			<0.0010		mg/L		0.001	27-FEB-16
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	27-FEB-16
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	27-FEB-16
Barium (Ba)-Dissolved			<0.000050		mg/L		0.00005	27-FEB-16
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	27-FEB-16
Boron (B)-Dissolved			<0.010		mg/L		0.01	27-FEB-16
Cadmium (Cd)-Dissolved			<0.000005(		mg/L		0.000005	27-FEB-16
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	27-FEB-16
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	27-FEB-16
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	27-FEB-16
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	27-FEB-16
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	27-FEB-16
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	27-FEB-16
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	27-FEB-16
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	27-FEB-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3411059								
WG2266306-1 MB								
Potassium (K)-Dissolved			<0.050		mg/L		0.05	27-FEB-16
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	27-FEB-16
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	27-FEB-16
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	27-FEB-16
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	27-FEB-16
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	27-FEB-16
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	27-FEB-16
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	27-FEB-16
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	27-FEB-16
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	27-FEB-16
WG2266306-4 MS		**L1736652-2**						
Aluminum (Al)-Dissolved			N/A	MS-B	%		-	27-FEB-16
Antimony (Sb)-Dissolved			98.8		%		70-130	27-FEB-16
Arsenic (As)-Dissolved			98.3		%		70-130	27-FEB-16
Barium (Ba)-Dissolved			98.6		%		70-130	27-FEB-16
Beryllium (Be)-Dissolved			96.5		%		70-130	27-FEB-16
Boron (B)-Dissolved			89.8		%		70-130	27-FEB-16
Cadmium (Cd)-Dissolved			N/A	MS-B	%		-	27-FEB-16
Chromium (Cr)-Dissolved			91.9		%		70-130	27-FEB-16
Cobalt (Co)-Dissolved			N/A	MS-B	%		-	27-FEB-16
Copper (Cu)-Dissolved			N/A	MS-B	%		-	27-FEB-16
Lead (Pb)-Dissolved			97.4		%		70-130	27-FEB-16
Lithium (Li)-Dissolved			100.9		%		70-130	27-FEB-16
Manganese (Mn)-Dissolved			N/A	MS-B	%		-	27-FEB-16
Molybdenum (Mo)-Dissolved			94.7		%		70-130	27-FEB-16
Nickel (Ni)-Dissolved			N/A	MS-B	%		-	27-FEB-16
Potassium (K)-Dissolved			97.7		%		70-130	27-FEB-16
Selenium (Se)-Dissolved			103.0		%		70-130	27-FEB-16
Silver (Ag)-Dissolved			101.4		%		70-130	27-FEB-16
Sodium (Na)-Dissolved			92.8		%		70-130	27-FEB-16
Strontium (Sr)-Dissolved			N/A	MS-B	%		-	27-FEB-16
Thallium (Tl)-Dissolved			99.0		%		70-130	27-FEB-16
Titanium (Ti)-Dissolved			92.9		%		70-130	27-FEB-16
Uranium (U)-Dissolved			N/A	MS-B	%		-	27-FEB-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3411059								
WG2266306-4 MS		**L1736652-2**						
Vanadium (V)-Dissolved			92.6		%		70-130	27-FEB-16
Zinc (Zn)-Dissolved			N/A	MS-B	%		-	27-FEB-16
MET-DIS-ICP-VA	**Water**							
Batch R3408429								
WG2266306-3 DUP		**L1737307-1**						
Calcium (Ca)-Dissolved		449	448		mg/L	0.2	20	25-FEB-16
Iron (Fe)-Dissolved		0.181	0.180		mg/L	0.8	20	25-FEB-16
Magnesium (Mg)-Dissolved		320	309		mg/L	3.3	20	25-FEB-16
Phosphorus (P)-Dissolved		<0.30	<0.30	RPD-NA	mg/L	N/A	20	25-FEB-16
Silicon (Si)-Dissolved		4.60	4.54		mg/L	1.3	20	25-FEB-16
WG2266306-2 LCS								
Calcium (Ca)-Dissolved			102.4		%		80-120	25-FEB-16
Iron (Fe)-Dissolved			99.98		%		80-120	25-FEB-16
Magnesium (Mg)-Dissolved			99.99		%		80-120	25-FEB-16
Phosphorus (P)-Dissolved			101.9		%		80-120	25-FEB-16
Silicon (Si)-Dissolved			106.3		%		80-120	25-FEB-16
WG2266306-1 MB								
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	25-FEB-16
Iron (Fe)-Dissolved			<0.030		mg/L		0.03	25-FEB-16
Magnesium (Mg)-Dissolved			<0.10		mg/L		0.1	25-FEB-16
Phosphorus (P)-Dissolved			<0.30		mg/L		0.3	25-FEB-16
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	25-FEB-16
WG2266306-4 MS		**L1736652-2**						
Calcium (Ca)-Dissolved			N/A	MS-B	%		-	26-FEB-16
Iron (Fe)-Dissolved			N/A	MS-B	%		-	26-FEB-16
Magnesium (Mg)-Dissolved			N/A	MS-B	%		-	26-FEB-16
Phosphorus (P)-Dissolved			95.9		%		70-130	26-FEB-16
Silicon (Si)-Dissolved			N/A	MS-B	%		-	26-FEB-16
NH3-F-VA	**Water**							
Batch R3412730								
WG2268362-3 DUP		**L1737307-3**						
Ammonia, Total (as N)		0.0537	0.0536		mg/L	0.2	20	02-MAR-16
WG2268362-2 LCS								
Ammonia, Total (as N)			100.6		%		85-115	02-MAR-16
WG2268362-1 MB								

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NH3-F-VA	**Water**							
Batch R3412730								
WG2268362-1 MB								
Ammonia, Total (as N)			<0.0050		mg/L		0.005	02-MAR-16
WG2268362-4 MS		**L1737307-3**						
Ammonia, Total (as N)			87.8		%		75-125	02-MAR-16
NO2-L-IC-N-WR	**Water**							
Batch R3408337								
WG2265489-3 DUP		**L1736652-2**						
Nitrite (as N)		0.075	0.067		mg/L	10	20	23-FEB-16
WG2265489-2 LCS								
Nitrite (as N)			104.9		%		90-110	23-FEB-16
WG2265489-1 MB								
Nitrite (as N)			<0.0010		mg/L		0.001	23-FEB-16
WG2265489-4 MS		**L1736652-1**						
Nitrite (as N)			106.0		%		75-125	23-FEB-16
NO3-L-IC-N-WR	**Water**							
Batch R3408337								
WG2265489-3 DUP		**L1736652-2**						
Nitrate (as N)		2.45	2.45		mg/L	0.1	20	23-FEB-16
WG2265489-2 LCS								
Nitrate (as N)			103.0		%		90-110	23-FEB-16
WG2265489-1 MB								
Nitrate (as N)			<0.0050		mg/L		0.005	23-FEB-16
WG2265489-4 MS		**L1736652-1**						
Nitrate (as N)			103.6		%		75-125	23-FEB-16
P-T-PRES-COL-VA	**Water**							
Batch R3408758								
WG2266574-2 CRM		**VA-ERA-PO4**						
Phosphorus (P)-Total			106.9		%		80-120	26-FEB-16
WG2266574-3 DUP		**L1736652-1**						
Phosphorus (P)-Total		<0.020	<0.020	RPD-NA	mg/L	N/A	20	26-FEB-16
WG2266574-1 MB								
Phosphorus (P)-Total			<0.0020		mg/L		0.002	26-FEB-16
WG2266574-4 MS		**L1737307-3**						
Phosphorus (P)-Total			95.9		%		70-130	26-FEB-16
PH-PCT-VA	**Water**							

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PH-PCT-VA	**Water**							
Batch R3408559								
WG2266260-2 CRM		**VA-PH7-BUF**						
pH			7.00		pH		6.9-7.1	25-FEB-16
WG2266260-5 DUP		**L1736652-2**						
pH		4.53	4.52	J	pH	0.01	0.3	25-FEB-16
S-DIS-ICP-VA	**Water**							
Batch R3408429								
WG2266306-3 DUP		**L1737307-1**						
Sulfur (S)-Dissolved		561	550		mg/L	2.0	20	25-FEB-16
WG2266306-2 LCS								
Sulfur (S)-Dissolved			99.96		%		80-120	25-FEB-16
WG2266306-1 MB								
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	25-FEB-16
WG2266306-4 MS		**L1736652-2**						
Sulfur (S)-Dissolved			N/A	MS-B	%		-	26-FEB-16
SO4-IC-N-WR	**Water**							
Batch R3408337								
WG2265489-3 DUP		**L1736652-2**						
Sulfate (SO4)		3880	3880		mg/L	0.1	20	23-FEB-16
WG2265489-2 LCS								
Sulfate (SO4)			103.5		%		90-110	23-FEB-16
WG2265489-1 MB								
Sulfate (SO4)			<0.30		mg/L		0.3	23-FEB-16
WG2265489-4 MS		**L1736652-1**						
Sulfate (SO4)			95.4		%		75-125	23-FEB-16
TDS-VA	**Water**							
Batch R3408682								
WG2266504-3 DUP		**L1736652-2**						
Total Dissolved Solids		5800	5740		mg/L	1.2	20	25-FEB-16
WG2266504-2 LCS								
Total Dissolved Solids			102.4		%		85-115	25-FEB-16
WG2266504-1 MB								
Total Dissolved Solids			<10		mg/L		10	25-FEB-16
TSS-LOW-WR	**Water**							
Batch R3411023								
WG2267471-3 DUP		**L1736652-1**						
Total Suspended Solids		95.2	111		mg/L	16	20	26-FEB-16
WG2267471-2 LCS								

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TSS-LOW-WR	**Water**							
Batch R3411023								
WG2267471-2 LCS								
Total Suspended Solids			96.0		%		85-115	26-FEB-16
WG2267471-1 MB								
Total Suspended Solids			<1.0		mg/L		1	26-FEB-16

Quality Control Report

Workorder: L1736652 Report Date: 04-MAR-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
DLA	Detection Limit adjusted for required dilution
DLM	Detection Limit Adjusted due to sample matrix effects.
J	Duplicate results and limits are expressed in terms of absolute difference.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Quality Control Report

Workorder: L1736652 Report Date: 04-MAR-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Physical Tests							
pH by Meter (Automated)							
	1	20-FEB-16 10:00	25-FEB-16 12:56	0.25	123	hours	EHTR-FM
	2	20-FEB-16 16:00	25-FEB-16 12:56	0.25	117	hours	EHTR-FM

Legend & Qualifier Definitions:

EHTR-FM:	Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
EHTR:	Exceeded ALS recommended hold time prior to sample receipt.
EHTL:	Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
EHT:	Exceeded ALS recommended hold time prior to analysis.
Rec. HT:	ALS recommended hold time (see units).

Notes*:
Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L1736652 were received on 22-FEB-16 09:45.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

CH2MHILL

CHAIN OF CUSTODY RECORD

Project Name Faro Mine
Location Faro Mine Complex - Faro YK
Project Number 660403.20.01.02.04.02.ML.
Project Manager Steven Momeyer
Sample Manager Damion Miles
(530) 229-3268
Task Order SW-015
Project SITE-WIDE GEOCHEM MONITORING 2015
Turnaround Time 10 Days
Shipping Date: 2/18/2016
COC Number: ALS0216


L1736652-COFC

	DATE	TIME	Matrix	40ml vial HCl, 4°C Field 28 (E245.7-Diss) Field Filtered Dissolved Hg	125ml Poly HCl, 4°C Field 180 (Ferrozine Method) Field Filtered Ferrous Iron	125ml glass H2SO4, pH<2, 4C NA 28 (JEM/SM4500NH3) Ammonia	500ml Poly 4C NA 14 (SM2320B) Alkalinity	500ml Poly 4C NA 14 (SM2540C) TDS	500ml Poly 4°C NA 7 (SM2540D) TSS	125ml glass H2SO4, pH<2, 4C NA 28 (SM4500P) Total Phosphorous	125ml Glass H2SO4, pH<2, 4°C Field 28 (SM5310) Field Filtered DOC	250ml Poly HNO3, 4°C Field 180 (SW6010B/SW6020A) Field Filtered Metals Analyte List Table 1	500ml Poly 4C NA 14 SM2310_HP Acidity - Run Hot H2O2	500ml Poly 4°C NA 3 SM4110B CL F NO2 NO3 and SO4	Number of Containers	COMMENTS
CH12-014-MW003_GW0216	02/20/2016	10:00	Water	X	X	X	X	X	X	X	X	X	X	X	8	
~~CH12-014-MW007_GW0216~~			~~Water~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~8~~	
~~CH12-014-MW011_GW0216~~			~~Water~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~8~~	
~~CH12-014-MW012_GW0216~~			~~Water~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~8~~	
~~CH12-014-MW013_GW0216~~			~~Water~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~8~~	
~~CH12-014-MW911_GW0216~~			~~Water~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~8~~	
CH14-015-MW006_GW0216	02/20/2016	16:00	Water	X	X	X	X	X	X	X	X	X	X	X	8	
~~CH14-104-MW008_GW0216~~			~~Water~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~8~~	
~~EB_014_16_001~~			~~Water~~	~~X~~	~~X~~	~~X~~				~~X~~	~~X~~	~~X~~		~~X~~	~~6~~	
~~EB_014_16_002~~			~~Water~~	~~X~~	~~X~~	~~X~~				~~X~~	~~X~~	~~X~~		~~X~~	~~6~~	
													TOTAL NUMBER OF CONTAINERS		~~76~~ 16	

Signatures	Date/Time
Approved by	
Sampled by	
Relinquished by	02/21/2016
Received by	22-Feb16 9:45 3.4°C
Relinquished by	
Received by	Lady Feb. 24 1:40pm 2.7/3.1 C

Shipping Details
Method of Shipment: FedEx
On Ice: yes / no
Airbill No:
Lab Name: ALS Vancouver
Lab Phone: (604) 253-4188

ATTN:
Sample Custody
and
Amber Springer

Special Instructions:

Report Copy to
Mark Cichy
(530) 229-3274

CH2M HILL, INC
ATTN: Mark Cichy
2525 Airpark Drive
Redding CA 96001

Date Received: 23-FEB-16
Report Date: 04-MAR-16 15:41 (MT)
Version: FINAL

Client Phone: 530-229-3203

Certificate of Analysis

Lab Work Order #: L1737307

Project P.O. #:	660403.20.01.02.04.02.ML. PO=10201-7-100465
Job Reference:	SITE-WIDE GEOCHEM MONITORING 2015 SW-015
C of C Numbers:	ALS0216
Legal Site Desc:	

Amber Springer, B.Sc
Account Manager

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1737307-1 CH12-014-MW011_GW0216							
Sampled By: CLIENT on 21-FEB-16 @ 14:40							
Matrix: Water							
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<5.0	DLA	5.0	mg/L		23-FEB-16	R3408337
Fluoride in Water by IC							
Fluoride (F)	<0.20	DLA	0.20	mg/L		23-FEB-16	R3408337
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	2.68		0.050	mg/L		23-FEB-16	R3408337
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	0.021		0.010	mg/L		23-FEB-16	R3408337
Sulfate in Water by IC							
Sulfate (SO4)	1920		3.0	mg/L		23-FEB-16	R3408337
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	24-FEB-16	25-FEB-16	R3408242
Dissolved Mercury Filtration Location	FIELD					24-FEB-16	R3407813
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					24-FEB-16	R3407809
Aluminum (Al)-Dissolved	0.0080		0.0020	mg/L	24-FEB-16	29-FEB-16	R3411059
Antimony (Sb)-Dissolved	<0.00020	DLA	0.00020	mg/L	24-FEB-16	27-FEB-16	R3411059
Arsenic (As)-Dissolved	<0.00020	DLA	0.00020	mg/L	24-FEB-16	27-FEB-16	R3411059
Barium (Ba)-Dissolved	0.0176		0.00010	mg/L	24-FEB-16	27-FEB-16	R3411059
Beryllium (Be)-Dissolved	<0.00020	DLA	0.00020	mg/L	24-FEB-16	27-FEB-16	R3411059
Boron (B)-Dissolved	<0.020	DLA	0.020	mg/L	24-FEB-16	27-FEB-16	R3411059
Cadmium (Cd)-Dissolved	0.000257		0.000010	mg/L	24-FEB-16	27-FEB-16	R3411059
Chromium (Cr)-Dissolved	0.00330		0.00020	mg/L	24-FEB-16	27-FEB-16	R3411059
Cobalt (Co)-Dissolved	0.00264		0.00020	mg/L	24-FEB-16	27-FEB-16	R3411059
Copper (Cu)-Dissolved	0.00124		0.00040	mg/L	24-FEB-16	27-FEB-16	R3411059
Lead (Pb)-Dissolved	0.00167		0.00010	mg/L	24-FEB-16	27-FEB-16	R3411059
Lithium (Li)-Dissolved	0.0356		0.0020	mg/L	24-FEB-16	27-FEB-16	R3411059
Manganese (Mn)-Dissolved	1.65		0.00020	mg/L	24-FEB-16	27-FEB-16	R3411059
Molybdenum (Mo)-Dissolved	0.00125		0.00010	mg/L	24-FEB-16	27-FEB-16	R3411059
Nickel (Ni)-Dissolved	0.0609		0.0010	mg/L	24-FEB-16	27-FEB-16	R3411059
Potassium (K)-Dissolved	6.66		0.10	mg/L	24-FEB-16	27-FEB-16	R3411059
Selenium (Se)-Dissolved	0.00013		0.00010	mg/L	24-FEB-16	27-FEB-16	R3411059
Silver (Ag)-Dissolved	<0.000020	DLA	0.000020	mg/L	24-FEB-16	27-FEB-16	R3411059
Sodium (Na)-Dissolved	11.4		0.10	mg/L	24-FEB-16	27-FEB-16	R3411059
Strontium (Sr)-Dissolved	1.07		0.00040	mg/L	24-FEB-16	27-FEB-16	R3411059
Thallium (Tl)-Dissolved	<0.000020	DLA	0.000020	mg/L	24-FEB-16	27-FEB-16	R3411059
Titanium (Ti)-Dissolved	<0.00060	DLA	0.00060	mg/L	24-FEB-16	27-FEB-16	R3411059
Uranium (U)-Dissolved	0.0450		0.000020	mg/L	24-FEB-16	27-FEB-16	R3411059
Vanadium (V)-Dissolved	<0.0010	DLA	0.0010	mg/L	24-FEB-16	27-FEB-16	R3411059
Zinc (Zn)-Dissolved	0.570		0.0020	mg/L	24-FEB-16	27-FEB-16	R3411059
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					24-FEB-16	R3407809
Calcium (Ca)-Dissolved	449		0.050	mg/L	24-FEB-16	25-FEB-16	R3408429
Iron (Fe)-Dissolved	0.181		0.030	mg/L	24-FEB-16	25-FEB-16	R3408429
Magnesium (Mg)-Dissolved	320		0.10	mg/L	24-FEB-16	25-FEB-16	R3408429
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	24-FEB-16	25-FEB-16	R3408429
Silicon (Si)-Dissolved	4.60		0.050	mg/L	24-FEB-16	25-FEB-16	R3408429
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	9.84		0.20	mg/L		26-FEB-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					24-FEB-16	R3407809

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1737307-1 CH12-014-MW011_GW0216							
Sampled By: CLIENT on 21-FEB-16 @ 14:40							
Matrix: Water							
Dissolved Sulfur in Water by ICPOES							
Sulfur (S)-Dissolved	561		0.50	mg/L	24-FEB-16	25-FEB-16	R3408429
Hardness							
Hardness (as CaCO3)	2440		0.50	mg/L		01-MAR-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		25-FEB-16	R3408730
Ammonia, Total (as N)	0.201		0.0050	mg/L		02-MAR-16	R3412730
Dissolved Organic Carbon	3.32		0.50	mg/L		29-FEB-16	R3411395
Total Dissolved Solids	3390		20	mg/L		25-FEB-16	R3408682
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		26-FEB-16	R3408758
Total Suspended Solids	7.4		1.0	mg/L		26-FEB-16	R3411023
pH	7.12		0.10	pH		25-FEB-16	R3408559
Alkalinity by colour or titration							
Alkalinity, Total (as CaCO3)	728		20	mg/L		03-MAR-16	R3413325
Alkalinity, Bicarbonate (as CaCO3)	728		20	mg/L		03-MAR-16	R3413325
Alkalinity, Carbonate (as CaCO3)	<20		20	mg/L		03-MAR-16	R3413325
Alkalinity, Hydroxide (as CaCO3)	<20		20	mg/L		03-MAR-16	R3413325
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	0.188		0.020	mg/L	25-FEB-16	25-FEB-16	R3408222
Dissolved Fe2 Filtration Location	FIELD					25-FEB-16	R3408145
L1737307-2 CH12-014-MW012_GW0216							
Sampled By: CLIENT on 22-FEB-16 @ 15:55							
Matrix: Water							
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<1.0	DLA	1.0	mg/L		23-FEB-16	R3408337
Fluoride in Water by IC							
Fluoride (F)	0.163		0.040	mg/L		23-FEB-16	R3408337
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.010	DLA	0.010	mg/L		23-FEB-16	R3408337
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0020	DLA	0.0020	mg/L		23-FEB-16	R3408337
Sulfate in Water by IC							
Sulfate (SO4)	873		0.60	mg/L		23-FEB-16	R3408337
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	24-FEB-16	25-FEB-16	R3408242
Dissolved Mercury Filtration Location	FIELD					24-FEB-16	R3407813
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					24-FEB-16	R3407809
Aluminum (Al)-Dissolved	0.0038		0.0020	mg/L	24-FEB-16	27-FEB-16	R3411059
Antimony (Sb)-Dissolved	<0.00020	DLA	0.00020	mg/L	24-FEB-16	27-FEB-16	R3411059
Arsenic (As)-Dissolved	0.0154		0.00020	mg/L	24-FEB-16	27-FEB-16	R3411059
Barium (Ba)-Dissolved	0.0352		0.00010	mg/L	24-FEB-16	27-FEB-16	R3411059
Beryllium (Be)-Dissolved	<0.00020	DLA	0.00020	mg/L	24-FEB-16	27-FEB-16	R3411059
Boron (B)-Dissolved	<0.020	DLA	0.020	mg/L	24-FEB-16	27-FEB-16	R3411059
Cadmium (Cd)-Dissolved	<0.000010	DLA	0.000010	mg/L	24-FEB-16	27-FEB-16	R3411059
Chromium (Cr)-Dissolved	<0.00020	DLA	0.00020	mg/L	24-FEB-16	27-FEB-16	R3411059
Cobalt (Co)-Dissolved	0.00032		0.00020	mg/L	24-FEB-16	27-FEB-16	R3411059
Copper (Cu)-Dissolved	<0.00040	DLA	0.00040	mg/L	24-FEB-16	27-FEB-16	R3411059
Lead (Pb)-Dissolved	<0.00010	DLA	0.00010	mg/L	24-FEB-16	27-FEB-16	R3411059
Lithium (Li)-Dissolved	0.0156		0.0020	mg/L	24-FEB-16	27-FEB-16	R3411059

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1737307-2 CH12-014-MW012_GW0216							
Sampled By: CLIENT on 22-FEB-16 @ 15:55							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Manganese (Mn)-Dissolved	0.267		0.00020	mg/L	24-FEB-16	27-FEB-16	R3411059
Molybdenum (Mo)-Dissolved	0.00141		0.00010	mg/L	24-FEB-16	27-FEB-16	R3411059
Nickel (Ni)-Dissolved	<0.0010	DLA	0.0010	mg/L	24-FEB-16	27-FEB-16	R3411059
Potassium (K)-Dissolved	3.61		0.10	mg/L	24-FEB-16	27-FEB-16	R3411059
Selenium (Se)-Dissolved	<0.00010	DLA	0.00010	mg/L	24-FEB-16	27-FEB-16	R3411059
Silver (Ag)-Dissolved	<0.000020	DLA	0.000020	mg/L	24-FEB-16	27-FEB-16	R3411059
Sodium (Na)-Dissolved	8.02		0.10	mg/L	24-FEB-16	27-FEB-16	R3411059
Strontium (Sr)-Dissolved	1.72		0.00040	mg/L	24-FEB-16	27-FEB-16	R3411059
Thallium (Tl)-Dissolved	<0.000020	DLA	0.000020	mg/L	24-FEB-16	27-FEB-16	R3411059
Titanium (Ti)-Dissolved	<0.00060	DLA	0.00060	mg/L	24-FEB-16	27-FEB-16	R3411059
Uranium (U)-Dissolved	0.0315		0.000020	mg/L	24-FEB-16	27-FEB-16	R3411059
Vanadium (V)-Dissolved	<0.0010	DLA	0.0010	mg/L	24-FEB-16	27-FEB-16	R3411059
Zinc (Zn)-Dissolved	0.0059		0.0020	mg/L	24-FEB-16	27-FEB-16	R3411059
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					24-FEB-16	R3407809
Calcium (Ca)-Dissolved	302		0.050	mg/L	24-FEB-16	25-FEB-16	R3408429
Iron (Fe)-Dissolved	6.69		0.030	mg/L	24-FEB-16	25-FEB-16	R3408429
Magnesium (Mg)-Dissolved	106		0.10	mg/L	24-FEB-16	25-FEB-16	R3408429
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	24-FEB-16	25-FEB-16	R3408429
Silicon (Si)-Dissolved	5.10		0.050	mg/L	24-FEB-16	25-FEB-16	R3408429
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	10.9		0.20	mg/L		26-FEB-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					24-FEB-16	R3407809
Sulfur (S)-Dissolved	253		0.50	mg/L	24-FEB-16	25-FEB-16	R3408429
Hardness							
Hardness (as CaCO3)	1190		0.50	mg/L		29-FEB-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		25-FEB-16	R3408730
Ammonia, Total (as N)	0.0624		0.0050	mg/L		02-MAR-16	R3412730
Dissolved Organic Carbon	2.38		0.50	mg/L		29-FEB-16	R3411395
Total Dissolved Solids	1600		20	mg/L		25-FEB-16	R3408682
Phosphorus (P)-Total	0.382		0.020	mg/L		26-FEB-16	R3408758
Total Suspended Solids	266		2.0	mg/L		26-FEB-16	R3411023
pH	7.66		0.10	pH		25-FEB-16	R3408559
Alkalinity by colour or titration							
Alkalinity, Total (as CaCO3)	394		2.0	mg/L		03-MAR-16	R3413325
Alkalinity, Bicarbonate (as CaCO3)	394		2.0	mg/L		03-MAR-16	R3413325
Alkalinity, Carbonate (as CaCO3)	<2.0		2.0	mg/L		03-MAR-16	R3413325
Alkalinity, Hydroxide (as CaCO3)	<2.0		2.0	mg/L		03-MAR-16	R3413325
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	7.2		1.0	mg/L	25-FEB-16	25-FEB-16	R3408222
Dissolved Fe2 Filtration Location	FIELD					25-FEB-16	R3408145
L1737307-3 CH12-014-MW013_GW0216							
Sampled By: CLIENT on 22-FEB-16 @ 11:55							
Matrix: Water							
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLA	10	mg/L		23-FEB-16	R3408337
Fluoride in Water by IC							
Fluoride (F)	<0.40	DLA	0.40	mg/L		23-FEB-16	R3408337

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1737307-3 CH12-014-MW013_GW0216							
Sampled By: CLIENT on 22-FEB-16 @ 11:55							
Matrix: Water							
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.10	DLA	0.10	mg/L		23-FEB-16	R3408337
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLA	0.020	mg/L		23-FEB-16	R3408337
Sulfate in Water by IC							
Sulfate (SO4)	3780		6.0	mg/L		23-FEB-16	R3408337
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000121		0.0000050	mg/L	24-FEB-16	25-FEB-16	R3408242
Dissolved Mercury Filtration Location	FIELD					24-FEB-16	R3407813
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					24-FEB-16	R3407809
Aluminum (Al)-Dissolved	0.0328		0.0050	mg/L	24-FEB-16	27-FEB-16	R3411059
Antimony (Sb)-Dissolved	<0.00050	DLA	0.00050	mg/L	24-FEB-16	27-FEB-16	R3411059
Arsenic (As)-Dissolved	0.00169		0.00050	mg/L	24-FEB-16	27-FEB-16	R3411059
Barium (Ba)-Dissolved	0.0161		0.00025	mg/L	24-FEB-16	27-FEB-16	R3411059
Beryllium (Be)-Dissolved	<0.00050	DLA	0.00050	mg/L	24-FEB-16	27-FEB-16	R3411059
Boron (B)-Dissolved	<0.050	DLA	0.050	mg/L	24-FEB-16	27-FEB-16	R3411059
Cadmium (Cd)-Dissolved	0.00428		0.000025	mg/L	24-FEB-16	27-FEB-16	R3411059
Chromium (Cr)-Dissolved	0.00305		0.00050	mg/L	24-FEB-16	27-FEB-16	R3411059
Cobalt (Co)-Dissolved	0.0617		0.00050	mg/L	24-FEB-16	27-FEB-16	R3411059
Copper (Cu)-Dissolved	0.0063		0.0010	mg/L	24-FEB-16	27-FEB-16	R3411059
Lead (Pb)-Dissolved	0.0174		0.00025	mg/L	24-FEB-16	27-FEB-16	R3411059
Lithium (Li)-Dissolved	0.0308		0.0050	mg/L	24-FEB-16	27-FEB-16	R3411059
Manganese (Mn)-Dissolved	12.2		0.00050	mg/L	24-FEB-16	27-FEB-16	R3411059
Molybdenum (Mo)-Dissolved	0.00188		0.00025	mg/L	24-FEB-16	27-FEB-16	R3411059
Nickel (Ni)-Dissolved	0.109		0.0025	mg/L	24-FEB-16	27-FEB-16	R3411059
Potassium (K)-Dissolved	3.15		0.25	mg/L	24-FEB-16	27-FEB-16	R3411059
Selenium (Se)-Dissolved	<0.00025	DLA	0.00025	mg/L	24-FEB-16	27-FEB-16	R3411059
Silver (Ag)-Dissolved	<0.000050	DLA	0.000050	mg/L	24-FEB-16	27-FEB-16	R3411059
Sodium (Na)-Dissolved	15.8		0.25	mg/L	24-FEB-16	27-FEB-16	R3411059
Strontium (Sr)-Dissolved	1.95		0.0010	mg/L	24-FEB-16	27-FEB-16	R3411059
Thallium (Tl)-Dissolved	0.000173		0.000050	mg/L	24-FEB-16	27-FEB-16	R3411059
Titanium (Ti)-Dissolved	<0.0015	DLA	0.0015	mg/L	24-FEB-16	27-FEB-16	R3411059
Uranium (U)-Dissolved	0.0841		0.000050	mg/L	24-FEB-16	27-FEB-16	R3411059
Vanadium (V)-Dissolved	<0.0025	DLA	0.0025	mg/L	24-FEB-16	27-FEB-16	R3411059
Zinc (Zn)-Dissolved	6.21		0.0050	mg/L	24-FEB-16	27-FEB-16	R3411059
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					24-FEB-16	R3407809
Calcium (Ca)-Dissolved	644		0.050	mg/L	24-FEB-16	25-FEB-16	R3408429
Iron (Fe)-Dissolved	5.57		0.030	mg/L	24-FEB-16	25-FEB-16	R3408429
Magnesium (Mg)-Dissolved	596		0.10	mg/L	24-FEB-16	25-FEB-16	R3408429
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	24-FEB-16	25-FEB-16	R3408429
Silicon (Si)-Dissolved	10.5		0.050	mg/L	24-FEB-16	25-FEB-16	R3408429
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	22.4		0.20	mg/L		26-FEB-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					24-FEB-16	R3407809
Sulfur (S)-Dissolved	912		0.50	mg/L	24-FEB-16	25-FEB-16	R3408429
Hardness							
Hardness (as CaCO3)	4060		0.50	mg/L		29-FEB-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		25-FEB-16	R3408730

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1737307-3 CH12-014-MW013_GW0216							
Sampled By: CLIENT on 22-FEB-16 @ 11:55							
Matrix: Water							
Ammonia, Total (as N)	0.0537		0.0050	mg/L		02-MAR-16	R3412730
Dissolved Organic Carbon	11.8		0.50	mg/L		29-FEB-16	R3411395
Total Dissolved Solids	6230		20	mg/L		25-FEB-16	R3408682
Phosphorus (P)-Total	0.0239		0.0020	mg/L		26-FEB-16	R3408758
Total Suspended Solids	31.6		2.0	mg/L		26-FEB-16	R3411023
pH	6.71		0.10	pH		25-FEB-16	R3408559
Alkalinity by colour or titration							
Alkalinity, Total (as CaCO3)	1180		20	mg/L		03-MAR-16	R3413325
Alkalinity, Bicarbonate (as CaCO3)	1180		20	mg/L		03-MAR-16	R3413325
Alkalinity, Carbonate (as CaCO3)	<20		20	mg/L		03-MAR-16	R3413325
Alkalinity, Hydroxide (as CaCO3)	<20		20	mg/L		03-MAR-16	R3413325
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	6.5		1.0	mg/L	25-FEB-16	25-FEB-16	R3408222
Dissolved Fe2 Filtration Location	FIELD					25-FEB-16	R3408145
L1737307-4 CH12-014-MW911_GW0216							
Sampled By: CLIENT on 21-FEB-16 @ 14:40							
Matrix: Water							
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<5.0	DLA	5.0	mg/L		23-FEB-16	R3408337
Fluoride in Water by IC							
Fluoride (F)	<0.20	DLA	0.20	mg/L		23-FEB-16	R3408337
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	2.67		0.050	mg/L		23-FEB-16	R3408337
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	0.022		0.010	mg/L		23-FEB-16	R3408337
Sulfate in Water by IC							
Sulfate (SO4)	1980		3.0	mg/L		23-FEB-16	R3408337
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	24-FEB-16	25-FEB-16	R3408242
Dissolved Mercury Filtration Location	FIELD					24-FEB-16	R3407813
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					24-FEB-16	R3407809
Aluminum (Al)-Dissolved	0.0121		0.0020	mg/L	24-FEB-16	27-FEB-16	R3411059
Antimony (Sb)-Dissolved	<0.00020	DLA	0.00020	mg/L	24-FEB-16	27-FEB-16	R3411059
Arsenic (As)-Dissolved	<0.00020	DLA	0.00020	mg/L	24-FEB-16	27-FEB-16	R3411059
Barium (Ba)-Dissolved	0.0176		0.00010	mg/L	24-FEB-16	27-FEB-16	R3411059
Beryllium (Be)-Dissolved	<0.00020	DLA	0.00020	mg/L	24-FEB-16	27-FEB-16	R3411059
Boron (B)-Dissolved	<0.020	DLA	0.020	mg/L	24-FEB-16	27-FEB-16	R3411059
Cadmium (Cd)-Dissolved	0.000232		0.000010	mg/L	24-FEB-16	27-FEB-16	R3411059
Chromium (Cr)-Dissolved	0.00398		0.00020	mg/L	24-FEB-16	27-FEB-16	R3411059
Cobalt (Co)-Dissolved	0.00272		0.00020	mg/L	24-FEB-16	27-FEB-16	R3411059
Copper (Cu)-Dissolved	0.00142		0.00040	mg/L	24-FEB-16	27-FEB-16	R3411059
Lead (Pb)-Dissolved	0.00165		0.00010	mg/L	24-FEB-16	27-FEB-16	R3411059
Lithium (Li)-Dissolved	0.0341		0.0020	mg/L	24-FEB-16	27-FEB-16	R3411059
Manganese (Mn)-Dissolved	1.65		0.00020	mg/L	24-FEB-16	27-FEB-16	R3411059
Molybdenum (Mo)-Dissolved	0.00138		0.00010	mg/L	24-FEB-16	27-FEB-16	R3411059
Nickel (Ni)-Dissolved	0.0615		0.0010	mg/L	24-FEB-16	27-FEB-16	R3411059
Potassium (K)-Dissolved	6.62		0.10	mg/L	24-FEB-16	27-FEB-16	R3411059
Selenium (Se)-Dissolved	<0.00010	DLA	0.00010	mg/L	24-FEB-16	27-FEB-16	R3411059
Silver (Ag)-Dissolved	<0.000020	DLA	0.000020	mg/L	24-FEB-16	27-FEB-16	R3411059

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1737307-4 CH12-014-MW911_GW0216							
Sampled By: CLIENT on 21-FEB-16 @ 14:40							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Sodium (Na)-Dissolved	11.6		0.10	mg/L	24-FEB-16	27-FEB-16	R3411059
Strontium (Sr)-Dissolved	1.07		0.00040	mg/L	24-FEB-16	27-FEB-16	R3411059
Thallium (Tl)-Dissolved	<0.000020	DLA	0.000020	mg/L	24-FEB-16	27-FEB-16	R3411059
Titanium (Ti)-Dissolved	<0.00060	DLA	0.00060	mg/L	24-FEB-16	27-FEB-16	R3411059
Uranium (U)-Dissolved	0.0441		0.000020	mg/L	24-FEB-16	27-FEB-16	R3411059
Vanadium (V)-Dissolved	<0.0010	DLA	0.0010	mg/L	24-FEB-16	27-FEB-16	R3411059
Zinc (Zn)-Dissolved	0.568		0.0020	mg/L	24-FEB-16	27-FEB-16	R3411059
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					24-FEB-16	R3407809
Calcium (Ca)-Dissolved	446		0.050	mg/L	24-FEB-16	25-FEB-16	R3408429
Iron (Fe)-Dissolved	0.221		0.030	mg/L	24-FEB-16	25-FEB-16	R3408429
Magnesium (Mg)-Dissolved	318		0.10	mg/L	24-FEB-16	25-FEB-16	R3408429
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	24-FEB-16	25-FEB-16	R3408429
Silicon (Si)-Dissolved	4.59		0.050	mg/L	24-FEB-16	25-FEB-16	R3408429
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	9.81		0.20	mg/L		26-FEB-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					24-FEB-16	R3407809
Sulfur (S)-Dissolved	560		0.50	mg/L	24-FEB-16	25-FEB-16	R3408429
Hardness							
Hardness (as CaCO3)	2420		0.50	mg/L		29-FEB-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		25-FEB-16	R3408730
Ammonia, Total (as N)	0.197		0.0050	mg/L		02-MAR-16	R3412730
Dissolved Organic Carbon	3.03		0.50	mg/L		29-FEB-16	R3411395
Total Dissolved Solids	3380		20	mg/L		25-FEB-16	R3408682
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		26-FEB-16	R3408758
Total Suspended Solids	5.8		1.0	mg/L		26-FEB-16	R3411023
pH	7.15		0.10	pH		25-FEB-16	R3408559
Alkalinity by colour or titration							
Alkalinity, Total (as CaCO3)	686		20	mg/L		03-MAR-16	R3413325
Alkalinity, Bicarbonate (as CaCO3)	686		20	mg/L		03-MAR-16	R3413325
Alkalinity, Carbonate (as CaCO3)	<20		20	mg/L		03-MAR-16	R3413325
Alkalinity, Hydroxide (as CaCO3)	<20		20	mg/L		03-MAR-16	R3413325
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	0.261		0.020	mg/L	25-FEB-16	25-FEB-16	R3408222
Dissolved Fe2 Filtration Location	FIELD					25-FEB-16	R3408145
L1737307-5 EB_014_16_002							
Sampled By: CLIENT on 23-FEB-16 @ 09:00							
Matrix: Water							
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<0.50		0.50	mg/L		23-FEB-16	R3408337
Fluoride in Water by IC							
Fluoride (F)	<0.020		0.020	mg/L		23-FEB-16	R3408337
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.0050		0.0050	mg/L		23-FEB-16	R3408337
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0010		0.0010	mg/L		23-FEB-16	R3408337
Sulfate in Water by IC							
Sulfate (SO4)	<0.30		0.30	mg/L		23-FEB-16	R3408337

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1737307-5 EB_014_16_002							
Sampled By: CLIENT on 23-FEB-16 @ 09:00							
Matrix: Water							
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	24-FEB-16	25-FEB-16	R3408242
Dissolved Mercury Filtration Location	FIELD					24-FEB-16	R3407813
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					24-FEB-16	R3407809
Aluminum (Al)-Dissolved	<0.0010		0.0010	mg/L	24-FEB-16	29-FEB-16	R3411059
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	24-FEB-16	27-FEB-16	R3411059
Arsenic (As)-Dissolved	<0.00010		0.00010	mg/L	24-FEB-16	27-FEB-16	R3411059
Barium (Ba)-Dissolved	0.000164	RRV	0.000050	mg/L	24-FEB-16	29-FEB-16	R3411059
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	24-FEB-16	27-FEB-16	R3411059
Boron (B)-Dissolved	<0.010		0.010	mg/L	24-FEB-16	27-FEB-16	R3411059
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	24-FEB-16	27-FEB-16	R3411059
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	24-FEB-16	27-FEB-16	R3411059
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	24-FEB-16	27-FEB-16	R3411059
Copper (Cu)-Dissolved	<0.00020		0.00020	mg/L	24-FEB-16	27-FEB-16	R3411059
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	24-FEB-16	29-FEB-16	R3411059
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	24-FEB-16	27-FEB-16	R3411059
Manganese (Mn)-Dissolved	<0.00010		0.00010	mg/L	24-FEB-16	27-FEB-16	R3411059
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	24-FEB-16	27-FEB-16	R3411059
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	24-FEB-16	27-FEB-16	R3411059
Potassium (K)-Dissolved	<0.050		0.050	mg/L	24-FEB-16	27-FEB-16	R3411059
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	24-FEB-16	27-FEB-16	R3411059
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	24-FEB-16	27-FEB-16	R3411059
Sodium (Na)-Dissolved	<0.050		0.050	mg/L	24-FEB-16	27-FEB-16	R3411059
Strontium (Sr)-Dissolved	<0.00020		0.00020	mg/L	24-FEB-16	27-FEB-16	R3411059
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	24-FEB-16	27-FEB-16	R3411059
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	24-FEB-16	27-FEB-16	R3411059
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	24-FEB-16	27-FEB-16	R3411059
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	24-FEB-16	27-FEB-16	R3411059
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	24-FEB-16	29-FEB-16	R3411059
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					24-FEB-16	R3407809
Calcium (Ca)-Dissolved	<0.050		0.050	mg/L	24-FEB-16	26-FEB-16	R3408429
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	24-FEB-16	26-FEB-16	R3408429
Magnesium (Mg)-Dissolved	<0.10		0.10	mg/L	24-FEB-16	26-FEB-16	R3408429
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	24-FEB-16	26-FEB-16	R3408429
Silicon (Si)-Dissolved	<0.050		0.050	mg/L	24-FEB-16	26-FEB-16	R3408429
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	<0.20		0.20	mg/L		29-FEB-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					24-FEB-16	R3407809
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	24-FEB-16	26-FEB-16	R3408429
Hardness							
Hardness (as CaCO3)	<0.50		0.50	mg/L		01-MAR-16	
Miscellaneous Parameters							
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		02-MAR-16	R3412730
Dissolved Organic Carbon	<0.50		0.50	mg/L		29-FEB-16	R3411395
Phosphorus (P)-Total	<0.0020		0.0020	mg/L		26-FEB-16	R3408758
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.020		0.020	mg/L	25-FEB-16	25-FEB-16	R3408222
Dissolved Fe2 Filtration Location	FIELD					25-FEB-16	R3408145

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier Key:

Qualifier	Description
DLA	Detection Limit adjusted for required dilution
DLM	Detection Limit Adjusted due to sample matrix effects.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RRV	Reported Result Verified By Repeat Analysis

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ACY-H2O2-MAN-VA	Water	Acidity by Hot Peroxide Titration	APHA - ACIDITY (2310)
This analysis is carried out using procedures adapted from APHA Method 2310 "Acidity". The procedure involves preliminary sample treatment by the hot peroxide procedure, and Acidity is subsequently determined by potentiometric titration to a specified endpoint (i.e. pH = 8.3).			
ALK-SCR-VA	Water	Alkalinity by colour or titration	EPA 310.2 OR APHA 2320
This analysis is carried out using procedures adapted from EPA Method 310.2 "Alkalinity". Total Alkalinity is determined using the methyl orange colourimetric method. OR This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.			
CARBONS-DOC-VA	Water	Dissolved organic carbon by combustion	APHA 5310B TOTAL ORGANIC CARBON (TOC)
This analysis is carried out using procedures adapted from APHA Method 5310 "Total Organic Carbon (TOC)". Dissolved carbon (DOC) fractions are determined by filtering the sample through a 0.45 micron membrane filter prior to analysis.			
CL-IC-N-WR	Water	Chloride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
F-IC-N-WR	Water	Fluoride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
FE2-D-COL-VA	Water	Diss. Ferrous Iron in Water by Colour	APHA 3500-Fe B/James Ball et al (1999)
This analysis is carried out using procedures adapted from APHA 3500-Fe B and "A New Method for the Direct Determination of Dissolved Iron Concentration in Acid Mine Waters" published by James W. Ball et al (1999). The procedure involves preliminary sample filtration, and ferrous iron is determined using the "FerroZine" colourimetric method.			
HARDNESS-CALC-VA	Water	Hardness	APHA 2340B
Hardness (also known as Total Hardness) is calculated from the sum of Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. Dissolved Calcium and Magnesium concentrations are preferentially used for the hardness calculation.			
HG-D-CVAA-VA	Water	Diss. Mercury in Water by CVAAS or CVAFS	APHA 3030B/EPA 1631E (mod)
Water samples are filtered (0.45 um), preserved with hydrochloric acid, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS or CVAFS.			
MET-D-CCMS-VA	Water	Dissolved Metals in Water by CRC ICPMS	APHA 3030B/6020A (mod)
Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			
MET-DIS-ICP-VA	Water	Dissolved Metals in Water by ICPOES	EPA SW-846 3005A/6010B
This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedure involves filtration (EPA Method 3005A) and analysis by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B).			
NH3-F-VA	Water	Ammonia in Water by Fluorescence	APHA 4500 NH3-NITROGEN (AMMONIA)
This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.			
NH3-F-VA	Water	Ammonia in Water by Fluorescence	J. ENVIRON. MONIT., 2005, 7, 37-42, RSC
This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.			
NO2-L-IC-N-WR	Water	Nitrite in Water by IC (Low Level)	EPA 300.1 (mod)

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
NO3-L-IC-N-WR	Water	Nitrate in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
P-T-PRES-COL-VA	Water	Total P in Water by Colour	APHA 4500-P Phosphorus
This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorus is determined colourimetrically after persulphate digestion of the sample.			
PH-PCT-VA	Water	pH by Meter (Automated)	APHA 4500-H "pH Value"
This analysis is carried out using procedures adapted from APHA Method 4500-H "pH Value". The pH is determined in the laboratory using a pH electrode It is recommended that this analysis be conducted in the field.			
PH-PCT-VA	Water	pH by Meter (Automated)	APHA 4500-H pH Value
This analysis is carried out using procedures adapted from APHA Method 4500-H "pH Value". The pH is determined in the laboratory using a pH electrode It is recommended that this analysis be conducted in the field.			
S-DIS-ICP-VA	Water	Dissolved Sulfur in Water by ICPOES	EPA SW-846 3005A/6010B
This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedures may involve preliminary sample treatment by acid digestion, using either hotblock or microwave oven, or filtration (EPA Method 3005A). Instrumental analysis is by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B). Method Limitation: This method will not give total sulfur results for all samples. Sulfide or other volatile forms of sulfur that may be present in submitted samples, is often lost during the sampling, preservation and analysis process. The data reported as total and/or dissolved sulfur represents all non-volatile forms of sulfur present in a particular sample.			
SIO2-D-CALC-VA	Water	Dissolved Silicon (reported as Silica)	CALCULATION
Dissolved Silicon (as SiO2) is a calculated parameter. Dissolved Silicon (as SiO2 mg/L) = 2.139 x Dissolved Silicon (mg/L).			
SO4-IC-N-WR	Water	Sulfate in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
TDS-VA	Water	Total Dissolved Solids by Gravimetric	APHA 2540 C - GRAVIMETRIC
This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, TDS is determined by evaporating the filtrate to dryness at 180 degrees celsius.			
TSS-LOW-WR	Water	Total Suspended Solids by Grav. (1 mg/L)	APHA 2540 D
This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Suspended Solids are determined by filtering a sample through a glass fibre filter and drying the filter at 104 degrees celsius.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

ALS0216

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ACY-H2O2-MAN-VA	**Water**							
Batch R3408730								
WG2266622-2 CRM		**VA-ACY-M-CONTROL**						
Acidity-Hot Peroxide Treated (as CaCO3)			104.7		%		85-115	25-FEB-16
WG2266622-3 DUP		**L1737307-1**						
Acidity-Hot Peroxide Treated (as CaCO3)		<25	<25	RPD-NA	mg/L	N/A	20	25-FEB-16
WG2266622-1 MB								
Acidity-Hot Peroxide Treated (as CaCO3)			<25		mg/L		25	25-FEB-16
ALK-SCR-VA	**Water**							
Batch R3413325								
WG2270178-2 CRM		**VA-ALKL-CONTROL**						
Alkalinity, Total (as CaCO3)			108.0		%		85-115	03-MAR-16
WG2270178-3 CRM		**VA-ALKM-CONTROL**						
Alkalinity, Total (as CaCO3)			102.1		%		85-115	03-MAR-16
WG2270178-4 CRM		**VA-ALKH-CONTROL**						
Alkalinity, Total (as CaCO3)			103.1		%		85-115	03-MAR-16
WG2270178-5 DUP		**L1737307-4**						
Alkalinity, Total (as CaCO3)		686	692		mg/L	0.9	20	03-MAR-16
WG2270178-1 MB								
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	03-MAR-16
CARBONS-DOC-VA	**Water**							
Batch R3411395								
WG2268235-1 DUP		**L1736652-1**						
Dissolved Organic Carbon		3.61	3.58		mg/L	0.8	20	29-FEB-16
WG2268235-4 LCS								
Dissolved Organic Carbon			102.2		%		80-120	29-FEB-16
WG2268235-3 MB								
Dissolved Organic Carbon			<0.50		mg/L		0.5	29-FEB-16
WG2268235-2 MS		**L1736652-2**						
Dissolved Organic Carbon			N/A	MS-B	%		-	29-FEB-16
CL-IC-N-WR	**Water**							
Batch R3408337								
WG2265489-3 DUP		**L1736652-2**						
Chloride (Cl)		<10	<10	RPD-NA	mg/L	N/A	20	23-FEB-16
WG2265489-2 LCS								
Chloride (Cl)			103.2		%		90-110	23-FEB-16
WG2265489-1 MB								
Chloride (Cl)			<0.50		mg/L		0.5	23-FEB-16
WG2265489-4 MS		**L1736652-1**						

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CL-IC-N-WR	**Water**							
Batch R3408337								
WG2265489-4 MS		**L1736652-1**						
Chloride (Cl)			103.5		%		75-125	23-FEB-16
F-IC-N-WR	**Water**							
Batch R3408337								
WG2265489-3 DUP		**L1736652-2**						
Fluoride (F)		7.40	7.43		mg/L	0.4	20	23-FEB-16
WG2265489-2 LCS								
Fluoride (F)			109.9		%		90-110	23-FEB-16
WG2265489-1 MB								
Fluoride (F)			<0.020		mg/L		0.02	23-FEB-16
WG2265489-4 MS		**L1736652-1**						
Fluoride (F)			109.2		%		75-125	23-FEB-16
FE2-D-COL-VA	**Water**							
Batch R3408222								
WG2266682-3 DUP		**L1736652-1**						
Ferrous Iron, Dissolved		0.200	0.198		mg/L	0.8	20	25-FEB-16
WG2266682-2 LCS								
Ferrous Iron, Dissolved			104.1		%		80-120	25-FEB-16
WG2266682-1 MB								
Ferrous Iron, Dissolved			<0.020		mg/L		0.02	25-FEB-16
WG2266682-4 MS		**L1737307-1**						
Ferrous Iron, Dissolved			113.2		%		70-130	25-FEB-16
HG-D-CVAA-VA	**Water**							
Batch R3408242								
WG2266319-3 DUP		**L1737307-2**						
Mercury (Hg)-Dissolved		<0.0000050	<0.000005(	RPD-NA	mg/L	N/A	20	25-FEB-16
WG2266319-2 LCS								
Mercury (Hg)-Dissolved			95.2		%		80-120	25-FEB-16
WG2266319-1 MB								
Mercury (Hg)-Dissolved			<0.000005(		mg/L		0.000005	25-FEB-16
WG2266319-4 MS		**L1736652-1**						
Mercury (Hg)-Dissolved			75.5		%		70-130	25-FEB-16
MET-D-CCMS-VA	**Water**							

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3411059								
WG2266306-3 DUP		**L1737307-1**						
Aluminum (Al)-Dissolved		0.0080	0.0089		mg/L	11	20	29-FEB-16
Antimony (Sb)-Dissolved		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	27-FEB-16
Arsenic (As)-Dissolved		<0.00020	0.00024	RPD-NA	mg/L	N/A	20	27-FEB-16
Barium (Ba)-Dissolved		0.0176	0.0180		mg/L	1.8	20	27-FEB-16
Beryllium (Be)-Dissolved		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	27-FEB-16
Boron (B)-Dissolved		<0.020	<0.020	RPD-NA	mg/L	N/A	20	27-FEB-16
Cadmium (Cd)-Dissolved		0.000257	0.000249		mg/L	3.3	20	27-FEB-16
Chromium (Cr)-Dissolved		0.00330	0.00350		mg/L	5.7	20	27-FEB-16
Cobalt (Co)-Dissolved		0.00264	0.00270		mg/L	2.3	20	27-FEB-16
Copper (Cu)-Dissolved		0.00124	0.00128		mg/L	3.9	20	27-FEB-16
Lead (Pb)-Dissolved		0.00167	0.00166		mg/L	0.9	20	27-FEB-16
Lithium (Li)-Dissolved		0.0356	0.0354		mg/L	0.5	20	27-FEB-16
Manganese (Mn)-Dissolved		1.65	1.67		mg/L	1.1	20	27-FEB-16
Molybdenum (Mo)-Dissolved		0.00125	0.00124		mg/L	0.8	20	27-FEB-16
Nickel (Ni)-Dissolved		0.0609	0.0618		mg/L	1.6	20	27-FEB-16
Potassium (K)-Dissolved		6.66	6.83		mg/L	2.5	20	27-FEB-16
Selenium (Se)-Dissolved		0.00013	0.00013		mg/L	4.7	20	27-FEB-16
Silver (Ag)-Dissolved		<0.000020	<0.000020	RPD-NA	mg/L	N/A	20	27-FEB-16
Sodium (Na)-Dissolved		11.4	11.9		mg/L	4.2	20	27-FEB-16
Strontium (Sr)-Dissolved		1.07	1.09		mg/L	2.1	20	27-FEB-16
Thallium (Tl)-Dissolved		<0.000020	<0.000020	RPD-NA	mg/L	N/A	20	27-FEB-16
Titanium (Ti)-Dissolved		<0.00060	<0.00060	RPD-NA	mg/L	N/A	20	27-FEB-16
Uranium (U)-Dissolved		0.0450	0.0447		mg/L	0.6	20	27-FEB-16
Vanadium (V)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	27-FEB-16
Zinc (Zn)-Dissolved		0.570	0.580		mg/L	1.6	20	27-FEB-16
WG2266306-2 LCS								
Aluminum (Al)-Dissolved			103.1		%		80-120	27-FEB-16
Antimony (Sb)-Dissolved			102.4		%		80-120	27-FEB-16
Arsenic (As)-Dissolved			97.0		%		80-120	27-FEB-16
Barium (Ba)-Dissolved			97.3		%		80-120	27-FEB-16
Beryllium (Be)-Dissolved			102.1		%		80-120	27-FEB-16
Boron (B)-Dissolved			97.9		%		80-120	27-FEB-16
Cadmium (Cd)-Dissolved			87.7		%		80-120	27-FEB-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3411059								
WG2266306-2 LCS								
Chromium (Cr)-Dissolved			89.9		%		80-120	27-FEB-16
Cobalt (Co)-Dissolved			90.9		%		80-120	27-FEB-16
Copper (Cu)-Dissolved			89.9		%		80-120	27-FEB-16
Lead (Pb)-Dissolved			101.9		%		80-120	27-FEB-16
Lithium (Li)-Dissolved			102.6		%		80-120	27-FEB-16
Manganese (Mn)-Dissolved			90.0		%		80-120	27-FEB-16
Molybdenum (Mo)-Dissolved			102.0		%		80-120	27-FEB-16
Nickel (Ni)-Dissolved			91.2		%		80-120	27-FEB-16
Potassium (K)-Dissolved			99.1		%		80-120	27-FEB-16
Selenium (Se)-Dissolved			97.6		%		80-120	27-FEB-16
Silver (Ag)-Dissolved			102.7		%		80-120	27-FEB-16
Sodium (Na)-Dissolved			94.4		%		80-120	27-FEB-16
Strontium (Sr)-Dissolved			99.1		%		80-120	27-FEB-16
Thallium (Tl)-Dissolved			99.1		%		80-120	27-FEB-16
Titanium (Ti)-Dissolved			90.8		%		80-120	27-FEB-16
Uranium (U)-Dissolved			102.9		%		80-120	27-FEB-16
Vanadium (V)-Dissolved			90.8		%		80-120	27-FEB-16
Zinc (Zn)-Dissolved			89.1		%		80-120	27-FEB-16
WG2266306-1 MB								
Aluminum (Al)-Dissolved			<0.0010		mg/L		0.001	27-FEB-16
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	27-FEB-16
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	27-FEB-16
Barium (Ba)-Dissolved			<0.000050		mg/L		0.00005	27-FEB-16
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	27-FEB-16
Boron (B)-Dissolved			<0.010		mg/L		0.01	27-FEB-16
Cadmium (Cd)-Dissolved			<0.000005(		mg/L		0.000005	27-FEB-16
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	27-FEB-16
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	27-FEB-16
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	27-FEB-16
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	27-FEB-16
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	27-FEB-16
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	27-FEB-16
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	27-FEB-16
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	27-FEB-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3411059								
WG2266306-1 MB								
Potassium (K)-Dissolved			<0.050		mg/L		0.05	27-FEB-16
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	27-FEB-16
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	27-FEB-16
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	27-FEB-16
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	27-FEB-16
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	27-FEB-16
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	27-FEB-16
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	27-FEB-16
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	27-FEB-16
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	27-FEB-16
WG2266306-4 MS		**L1736652-2**						
Aluminum (Al)-Dissolved			N/A	MS-B	%		-	27-FEB-16
Antimony (Sb)-Dissolved			98.8		%		70-130	27-FEB-16
Arsenic (As)-Dissolved			98.3		%		70-130	27-FEB-16
Barium (Ba)-Dissolved			98.6		%		70-130	27-FEB-16
Beryllium (Be)-Dissolved			96.5		%		70-130	27-FEB-16
Boron (B)-Dissolved			89.8		%		70-130	27-FEB-16
Cadmium (Cd)-Dissolved			N/A	MS-B	%		-	27-FEB-16
Chromium (Cr)-Dissolved			91.9		%		70-130	27-FEB-16
Cobalt (Co)-Dissolved			N/A	MS-B	%		-	27-FEB-16
Copper (Cu)-Dissolved			N/A	MS-B	%		-	27-FEB-16
Lead (Pb)-Dissolved			97.4		%		70-130	27-FEB-16
Lithium (Li)-Dissolved			100.9		%		70-130	27-FEB-16
Manganese (Mn)-Dissolved			N/A	MS-B	%		-	27-FEB-16
Molybdenum (Mo)-Dissolved			94.7		%		70-130	27-FEB-16
Nickel (Ni)-Dissolved			N/A	MS-B	%		-	27-FEB-16
Potassium (K)-Dissolved			97.7		%		70-130	27-FEB-16
Selenium (Se)-Dissolved			103.0		%		70-130	27-FEB-16
Silver (Ag)-Dissolved			101.4		%		70-130	27-FEB-16
Sodium (Na)-Dissolved			92.8		%		70-130	27-FEB-16
Strontium (Sr)-Dissolved			N/A	MS-B	%		-	27-FEB-16
Thallium (Tl)-Dissolved			99.0		%		70-130	27-FEB-16
Titanium (Ti)-Dissolved			92.9		%		70-130	27-FEB-16
Uranium (U)-Dissolved			N/A	MS-B	%		-	27-FEB-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3411059								
WG2266306-4 MS		**L1736652-2**						
Vanadium (V)-Dissolved			92.6		%		70-130	27-FEB-16
Zinc (Zn)-Dissolved			N/A	MS-B	%		-	27-FEB-16
MET-DIS-ICP-VA	**Water**							
Batch R3408429								
WG2266306-3 DUP		**L1737307-1**						
Calcium (Ca)-Dissolved		449	448		mg/L	0.2	20	25-FEB-16
Iron (Fe)-Dissolved		0.181	0.180		mg/L	0.8	20	25-FEB-16
Magnesium (Mg)-Dissolved		320	309		mg/L	3.3	20	25-FEB-16
Phosphorus (P)-Dissolved		<0.30	<0.30	RPD-NA	mg/L	N/A	20	25-FEB-16
Silicon (Si)-Dissolved		4.60	4.54		mg/L	1.3	20	25-FEB-16
WG2266306-2 LCS								
Calcium (Ca)-Dissolved			102.4		%		80-120	25-FEB-16
Iron (Fe)-Dissolved			99.98		%		80-120	25-FEB-16
Magnesium (Mg)-Dissolved			99.99		%		80-120	25-FEB-16
Phosphorus (P)-Dissolved			101.9		%		80-120	25-FEB-16
Silicon (Si)-Dissolved			106.3		%		80-120	25-FEB-16
WG2266306-1 MB								
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	25-FEB-16
Iron (Fe)-Dissolved			<0.030		mg/L		0.03	25-FEB-16
Magnesium (Mg)-Dissolved			<0.10		mg/L		0.1	25-FEB-16
Phosphorus (P)-Dissolved			<0.30		mg/L		0.3	25-FEB-16
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	25-FEB-16
WG2266306-4 MS		**L1736652-2**						
Calcium (Ca)-Dissolved			N/A	MS-B	%		-	26-FEB-16
Iron (Fe)-Dissolved			N/A	MS-B	%		-	26-FEB-16
Magnesium (Mg)-Dissolved			N/A	MS-B	%		-	26-FEB-16
Phosphorus (P)-Dissolved			95.9		%		70-130	26-FEB-16
Silicon (Si)-Dissolved			N/A	MS-B	%		-	26-FEB-16
NH3-F-VA	**Water**							
Batch R3412730								
WG2268362-3 DUP		**L1737307-3**						
Ammonia, Total (as N)		0.0537	0.0536		mg/L	0.2	20	02-MAR-16
WG2268362-2 LCS								
Ammonia, Total (as N)			100.6		%		85-115	02-MAR-16
WG2268362-1 MB								

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NH3-F-VA	**Water**							
Batch R3412730								
WG2268362-1 MB								
Ammonia, Total (as N)			<0.0050		mg/L		0.005	02-MAR-16
WG2268362-4 MS		**L1737307-3**						
Ammonia, Total (as N)			87.8		%		75-125	02-MAR-16
NO2-L-IC-N-WR	**Water**							
Batch R3408337								
WG2265489-3 DUP		**L1736652-2**						
Nitrite (as N)		0.075	0.067		mg/L	10	20	23-FEB-16
WG2265489-2 LCS								
Nitrite (as N)			104.9		%		90-110	23-FEB-16
WG2265489-1 MB								
Nitrite (as N)			<0.0010		mg/L		0.001	23-FEB-16
WG2265489-4 MS		**L1736652-1**						
Nitrite (as N)			106.0		%		75-125	23-FEB-16
NO3-L-IC-N-WR	**Water**							
Batch R3408337								
WG2265489-3 DUP		**L1736652-2**						
Nitrate (as N)		2.45	2.45		mg/L	0.1	20	23-FEB-16
WG2265489-2 LCS								
Nitrate (as N)			103.0		%		90-110	23-FEB-16
WG2265489-1 MB								
Nitrate (as N)			<0.0050		mg/L		0.005	23-FEB-16
WG2265489-4 MS		**L1736652-1**						
Nitrate (as N)			103.6		%		75-125	23-FEB-16
P-T-PRES-COL-VA	**Water**							
Batch R3408758								
WG2266574-2 CRM		**VA-ERA-PO4**						
Phosphorus (P)-Total			106.9		%		80-120	26-FEB-16
WG2266574-3 DUP		**L1736652-1**						
Phosphorus (P)-Total		<0.020	<0.020	RPD-NA	mg/L	N/A	20	26-FEB-16
WG2266574-1 MB								
Phosphorus (P)-Total			<0.0020		mg/L		0.002	26-FEB-16
WG2266574-4 MS		**L1737307-3**						
Phosphorus (P)-Total			95.9		%		70-130	26-FEB-16
PH-PCT-VA	**Water**							

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PH-PCT-VA	**Water**							
Batch R3408559								
WG2266260-2 CRM		**VA-PH7-BUF**						
pH			7.00		pH		6.9-7.1	25-FEB-16
WG2266260-5 DUP		**L1736652-2**						
pH		4.53	4.52	J	pH	0.01	0.3	25-FEB-16
S-DIS-ICP-VA	**Water**							
Batch R3408429								
WG2266306-3 DUP		**L1737307-1**						
Sulfur (S)-Dissolved		561	550		mg/L	2.0	20	25-FEB-16
WG2266306-2 LCS								
Sulfur (S)-Dissolved			99.96		%		80-120	25-FEB-16
WG2266306-1 MB								
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	25-FEB-16
WG2266306-4 MS		**L1736652-2**						
Sulfur (S)-Dissolved			N/A	MS-B	%		-	26-FEB-16
SO4-IC-N-WR	**Water**							
Batch R3408337								
WG2265489-3 DUP		**L1736652-2**						
Sulfate (SO4)		3880	3880		mg/L	0.1	20	23-FEB-16
WG2265489-2 LCS								
Sulfate (SO4)			103.5		%		90-110	23-FEB-16
WG2265489-1 MB								
Sulfate (SO4)			<0.30		mg/L		0.3	23-FEB-16
WG2265489-4 MS		**L1736652-1**						
Sulfate (SO4)			95.4		%		75-125	23-FEB-16
TDS-VA	**Water**							
Batch R3408682								
WG2266504-3 DUP		**L1736652-2**						
Total Dissolved Solids		5800	5740		mg/L	1.2	20	25-FEB-16
WG2266504-2 LCS								
Total Dissolved Solids			102.4		%		85-115	25-FEB-16
WG2266504-1 MB								
Total Dissolved Solids			<10		mg/L		10	25-FEB-16
TSS-LOW-WR	**Water**							
Batch R3411023								
WG2267471-3 DUP		**L1736652-1**						
Total Suspended Solids		95.2	111		mg/L	16	20	26-FEB-16
WG2267471-2 LCS								

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TSS-LOW-WR	**Water**							
Batch R3411023								
WG2267471-2 LCS								
Total Suspended Solids			96.0		%		85-115	26-FEB-16
WG2267471-1 MB								
Total Suspended Solids			<1.0		mg/L		1	26-FEB-16

Quality Control Report

Workorder: L1737307 Report Date: 04-MAR-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
DLA	Detection Limit adjusted for required dilution
DLM	Detection Limit Adjusted due to sample matrix effects.
J	Duplicate results and limits are expressed in terms of absolute difference.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Quality Control Report

Workorder: L1737307 Report Date: 04-MAR-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Physical Tests							
pH by Meter (Automated)							
	1	21-FEB-16 14:40	25-FEB-16 12:56	0.25	94	hours	EHTR-FM
	2	22-FEB-16 15:55	25-FEB-16 12:56	0.25	69	hours	EHTR-FM
	3	22-FEB-16 11:55	25-FEB-16 12:56	0.25	73	hours	EHTR-FM
	4	21-FEB-16 14:40	25-FEB-16 12:56	0.25	94	hours	EHTR-FM

Legend & Qualifier Definitions:

EHTR-FM:	Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
EHTR:	Exceeded ALS recommended hold time prior to sample receipt.
EHTL:	Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
EHT:	Exceeded ALS recommended hold time prior to analysis.
Rec. HT:	ALS recommended hold time (see units).

Notes*:
Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L1737307 were received on 23-FEB-16 14:09.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



CH2MHILL

CHAIN OF CUSTODY RECORD

Project Name Faro Mine
Location Faro Mine Complex - Faro YK
Project Number 660403.20.01.02.04.02.ML.
Project Manager Steven Momeyer
Sample Manager Damion Miles
(530) 229-3268
Task Order SW-015
Project SITE-WIDE GEOCHEM MONITORING 2015
Turnaround Time 10 Days
Shipping Date: 2/18/2016
COC Number: ALS0216

	Container:	40ml vial	125ml Poly	125ml glass	500ml Poly	500ml Poly	500ml Poly	125ml glass	125ml Glass	250ml Poly	500ml Poly			
	Preservatives:	HCl, 4°C	HCl, 4°C	H2SO4, pH<2, 4C	4C	4C	4°C	H2SO4, pH<2, 4C	H2SO4, pH<2, 4°C	HNO3, 4°C	4C	4°C		
	Filtered:	Field	Field	NA	NA	NA	NA	NA	Field	Field	NA	NA		
	Holding Time:	28	180	28	14	14	7	28	28	180	14	3		
		(E245.7-Diss) Field Filtered Dissolved Hg	(Ferrozine Method) Field Filtered Ferrous Iron	(JEM/SM4500NH3) Ammonia	(SM2320B) Alkalinity	(SM2540C) TDS	(SM2540D) TSS	(SM4500P) Total Phosphorous	(SM5310) Field Filtered DOC	(SW6010B/SW8020A) Field Filtered Metals Analyte List Table 1	SM2310_HP Acidity - Run Hot H2O2	SM4110B CL F NO2 NO3 and SO4		
DATE / TIME / Matrix													Number of Containers	COMMENTS
~~CH12-014-MW003_GW0216~~			Water	X	X	X	X	X	X	X	X	X	X	X	~~6~~	
CH12-014-MW007_GW0216			Water	X	X	X	X	X	X	X	X	X	X	X	~~8~~	
CH12-014-MW011_GW0216	2016/02/23	14:40	Water	X	X	X	X	X	X	X	X	X	X	X	8	
CH12-014-MW012_GW0216	2016/02/23	15:55	Water	X	X	X	X	X	X	X	X	X	X	X	8	
CH12-014-MW013_GW0216	2016/02/23	11:55	Water	X	X	X	X	X	X	X	X	X	X	X	8	
CH12-014-MW911_GW0216	2016/02/23	14:40	Water	X	X	X	X	X	X	X	X	X	X	X	8	
~~CH14-015-MW006_GW0216~~			Water	X	X	X	X	X	X	X	X	X	X	X	~~8~~	
CH14-104-MW008_GW0216			Water	X	X	X	X	X	X	X	X	X	X	X	~~8~~	
~~EB2016_002~~			Water	X	X	X				X	X	X		X	~~6~~	
EB_014_16_002	02/23/2016	9:00	Water	X	X	X				X	X	X		X	6	
													TOTAL NUMBER OF CONTAINERS		~~78~~ 350	

Signatures	Date/Time
Approved by	
Sampled by	
Relinquished by	2/23/2016 1330
Received by	25-Feb 16 2:10 1.1°C
Relinquished by	
Received by	Lady Feb 24 1:40PM 2.7/3.1°C

Shipping Details
Method of Shipment: FedEx
On Ice: yes / no
Airbill No:
Lab Name: ALS Vancouver
Lab Phone: (604) 253-4188

ATTN:
Sample Custody
and
Amber Springer

Special Instructions:

Report Copy to
Mark Cichy
(530) 229-3274

CH2M HILL, INC
ATTN: Mark Cichy
2525 Airpark Drive
Redding CA 96001

Date Received: 04-MAR-16
Report Date: 21-MAR-16 16:33 (MT)
Version: FINAL

Client Phone: 530-229-3203

Certificate of Analysis

Lab Work Order #: L1741165

Project P.O. #:	660403.20.01.01.04.03.LA "PO=10201-7-100465"
Job Reference:	FARO PIT LAKE SAMPLING WINTER 2016 SW-014B
C of C Numbers:	ALS030316
Legal Site Desc:	

Amber Springer, B.Sc
Account Manager

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1741165-1 CH13-016-FAROPL_10							
Sampled By: CLIENT on 03-MAR-16 @ 15:00							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	61.9		1.0	mg/L		07-MAR-16	R3415733
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		07-MAR-16	R3415733
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		07-MAR-16	R3415733
Alkalinity, Total (as CaCO3)	61.9		1.0	mg/L		07-MAR-16	R3415733
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	1.3		1.0	mg/L		04-MAR-16	R3414990
Fluoride in Water by IC							
Fluoride (F)	0.467		0.040	mg/L		04-MAR-16	R3414990
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.152		0.010	mg/L		04-MAR-16	R3414990
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	0.0025		0.0020	mg/L		04-MAR-16	R3414990
Sulfate in Water by IC							
Sulfate (SO4)	902		0.60	mg/L		04-MAR-16	R3414990
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	07-MAR-16	08-MAR-16	R3415831
Dissolved Mercury Filtration Location	FIELD					07-MAR-16	R3415572
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					07-MAR-16	R3415571
Aluminum (Al)-Dissolved	0.0072		0.0050	mg/L	07-MAR-16	11-MAR-16	R3417843
Antimony (Sb)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Arsenic (As)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Barium (Ba)-Dissolved	0.0126		0.00025	mg/L	07-MAR-16	11-MAR-16	R3417843
Beryllium (Be)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Boron (B)-Dissolved	<0.050	DLA	0.050	mg/L	07-MAR-16	11-MAR-16	R3417843
Cadmium (Cd)-Dissolved	0.0117		0.000025	mg/L	07-MAR-16	11-MAR-16	R3417843
Chromium (Cr)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Cobalt (Co)-Dissolved	0.0873		0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Copper (Cu)-Dissolved	<0.0010	DLA	0.0010	mg/L	07-MAR-16	11-MAR-16	R3417843
Lead (Pb)-Dissolved	<0.00025	DLA	0.00025	mg/L	07-MAR-16	11-MAR-16	R3417843
Lithium (Li)-Dissolved	0.0670		0.0050	mg/L	07-MAR-16	11-MAR-16	R3417843
Manganese (Mn)-Dissolved	7.59		0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Molybdenum (Mo)-Dissolved	<0.00025	DLA	0.00025	mg/L	07-MAR-16	11-MAR-16	R3417843
Nickel (Ni)-Dissolved	0.161		0.0025	mg/L	07-MAR-16	11-MAR-16	R3417843
Potassium (K)-Dissolved	10.8		0.25	mg/L	07-MAR-16	11-MAR-16	R3417843
Selenium (Se)-Dissolved	<0.00025	DLA	0.00025	mg/L	07-MAR-16	11-MAR-16	R3417843
Silver (Ag)-Dissolved	<0.000050	DLA	0.000050	mg/L	07-MAR-16	11-MAR-16	R3417843
Sodium (Na)-Dissolved	23.0		0.25	mg/L	07-MAR-16	11-MAR-16	R3417843
Strontium (Sr)-Dissolved	0.791		0.0010	mg/L	07-MAR-16	11-MAR-16	R3417843
Thallium (Tl)-Dissolved	0.000557		0.000050	mg/L	07-MAR-16	11-MAR-16	R3417843
Titanium (Ti)-Dissolved	<0.0015	DLA	0.0015	mg/L	07-MAR-16	11-MAR-16	R3417843
Uranium (U)-Dissolved	0.000394		0.000050	mg/L	07-MAR-16	11-MAR-16	R3417843
Vanadium (V)-Dissolved	<0.0025	DLA	0.0025	mg/L	07-MAR-16	11-MAR-16	R3417843
Zinc (Zn)-Dissolved	25.7		0.0050	mg/L	07-MAR-16	11-MAR-16	R3417843
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-MAR-16	R3415571
Calcium (Ca)-Dissolved	198		0.050	mg/L	07-MAR-16	11-MAR-16	R3418050
Iron (Fe)-Dissolved	0.589		0.030	mg/L	07-MAR-16	11-MAR-16	R3418050
Magnesium (Mg)-Dissolved	96.5		0.10	mg/L	07-MAR-16	11-MAR-16	R3418050

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1741165-1 CH13-016-FAROPL_10							
Sampled By: CLIENT on 03-MAR-16 @ 15:00							
Matrix: Water							
Dissolved Metals in Water by ICPOES							
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	07-MAR-16	11-MAR-16	R3418050
Silicon (Si)-Dissolved	3.43		0.050	mg/L	07-MAR-16	11-MAR-16	R3418050
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	7.33		0.20	mg/L		14-MAR-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-MAR-16	R3415571
Sulfur (S)-Dissolved	290		0.50	mg/L	07-MAR-16	11-MAR-16	R3418050
Faro Mine Project Total Metals							
Hardness							
Hardness (as CaCO3)	891		0.50	mg/L		14-MAR-16	
Total Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		08-MAR-16	R3416034
Total Metals in Water by CRC ICPMS							
Aluminum (Al)-Total	<0.015	DLA	0.015	mg/L		13-MAR-16	R3417843
Antimony (Sb)-Total	<0.00050	DLA	0.00050	mg/L		13-MAR-16	R3417843
Arsenic (As)-Total	<0.00050	DLA	0.00050	mg/L		13-MAR-16	R3417843
Barium (Ba)-Total	0.0132		0.00025	mg/L		13-MAR-16	R3417843
Beryllium (Be)-Total	<0.00050	DLA	0.00050	mg/L		13-MAR-16	R3417843
Boron (B)-Total	<0.050	DLA	0.050	mg/L		13-MAR-16	R3417843
Cadmium (Cd)-Total	0.0127		0.000025	mg/L		13-MAR-16	R3417843
Chromium (Cr)-Total	<0.00050	DLA	0.00050	mg/L		13-MAR-16	R3417843
Cobalt (Co)-Total	0.0945		0.00050	mg/L		13-MAR-16	R3417843
Copper (Cu)-Total	<0.0025	DLA	0.0025	mg/L		13-MAR-16	R3417843
Lead (Pb)-Total	<0.00025	DLA	0.00025	mg/L		13-MAR-16	R3417843
Lithium (Li)-Total	0.0707		0.0050	mg/L		13-MAR-16	R3417843
Manganese (Mn)-Total	8.04		0.00050	mg/L		13-MAR-16	R3417843
Molybdenum (Mo)-Total	<0.00025	DLA	0.00025	mg/L		13-MAR-16	R3417843
Nickel (Ni)-Total	0.172		0.0025	mg/L		13-MAR-16	R3417843
Potassium (K)-Total	10.9		0.25	mg/L		13-MAR-16	R3417843
Selenium (Se)-Total	<0.00025	DLA	0.00025	mg/L		13-MAR-16	R3417843
Silver (Ag)-Total	<0.000050	DLA	0.000050	mg/L		13-MAR-16	R3417843
Sodium (Na)-Total	24.8		0.25	mg/L		13-MAR-16	R3417843
Strontium (Sr)-Total	0.820		0.0010	mg/L		13-MAR-16	R3417843
Thallium (Tl)-Total	0.000587		0.000050	mg/L		13-MAR-16	R3417843
Titanium (Ti)-Total	<0.0015	DLA	0.0015	mg/L		13-MAR-16	R3417843
Uranium (U)-Total	0.000419		0.000050	mg/L		13-MAR-16	R3417843
Vanadium (V)-Total	<0.0025	DLA	0.0025	mg/L		13-MAR-16	R3417843
Zinc (Zn)-Total	27.6		0.015	mg/L		13-MAR-16	R3417843
Total Metals in Water by ICPOES							
Calcium (Ca)-Total	196		0.050	mg/L		11-MAR-16	R3418050
Iron (Fe)-Total	0.717		0.030	mg/L		11-MAR-16	R3418050
Magnesium (Mg)-Total	102		0.10	mg/L		11-MAR-16	R3418050
Phosphorus (P)-Total	<0.30		0.30	mg/L		11-MAR-16	R3418050
Silicon (Si)-Total	3.51		0.050	mg/L		11-MAR-16	R3418050
Total Silicon (reported as Silica)							
Silicon (as SiO2)-Total	7.51		0.20	mg/L		14-MAR-16	
Total Sulfur in Water by ICPOES							
Sulfur (S)-Total	307		0.50	mg/L		11-MAR-16	R3418050
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		11-MAR-16	R3418963
Ammonia, Total (as N)	1.37		0.025	mg/L		13-MAR-16	R3418118

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1741165-1 CH13-016-FAROPL_10							
Sampled By: CLIENT on 03-MAR-16 @ 15:00							
Matrix: Water							
Dissolved Organic Carbon	1.92		0.50	mg/L		08-MAR-16	R3416460
Total Dissolved Solids	1400		20	mg/L		08-MAR-16	R3416395
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		09-MAR-16	R3416131
Total Suspended Solids	<1.0		1.0	mg/L		08-MAR-16	R3416496
Lime Demand & Solids Formed Test							
Lime Demand (as Ca(OH)2)	0.920	MB-LOR	0.050	lb/1000USG		08-MAR-16	R3417730
Solids Formed (as Ca(OH)2)	1.32		0.20	lb/1000USG		08-MAR-16	R3417730
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	0.696		0.020	mg/L	08-MAR-16	08-MAR-16	R3416053
Dissolved Fe2 Filtration Location	FIELD					08-MAR-16	R3416052
L1741165-2 CH13-016-FAROPL_50							
Sampled By: CLIENT on 03-MAR-16 @ 15:30							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	63.7		1.0	mg/L		07-MAR-16	R3415733
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		07-MAR-16	R3415733
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		07-MAR-16	R3415733
Alkalinity, Total (as CaCO3)	63.7		1.0	mg/L		07-MAR-16	R3415733
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<2.5	DLA	2.5	mg/L		04-MAR-16	R3414990
Fluoride in Water by IC							
Fluoride (F)	0.54		0.10	mg/L		04-MAR-16	R3414990
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.152		0.025	mg/L		04-MAR-16	R3414990
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0050	DLA	0.0050	mg/L		04-MAR-16	R3414990
Sulfate in Water by IC							
Sulfate (SO4)	931		1.5	mg/L		04-MAR-16	R3414990
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	07-MAR-16	08-MAR-16	R3415831
Dissolved Mercury Filtration Location	FIELD					07-MAR-16	R3415572
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					07-MAR-16	R3415571
Aluminum (Al)-Dissolved	0.0091		0.0050	mg/L	07-MAR-16	11-MAR-16	R3417843
Antimony (Sb)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Arsenic (As)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Barium (Ba)-Dissolved	0.0126		0.00025	mg/L	07-MAR-16	11-MAR-16	R3417843
Beryllium (Be)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Boron (B)-Dissolved	<0.050	DLA	0.050	mg/L	07-MAR-16	11-MAR-16	R3417843
Cadmium (Cd)-Dissolved	0.0128		0.000025	mg/L	07-MAR-16	11-MAR-16	R3417843
Chromium (Cr)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Cobalt (Co)-Dissolved	0.0895		0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Copper (Cu)-Dissolved	<0.0010	DLA	0.0010	mg/L	07-MAR-16	11-MAR-16	R3417843
Lead (Pb)-Dissolved	<0.00025	DLA	0.00025	mg/L	07-MAR-16	11-MAR-16	R3417843
Lithium (Li)-Dissolved	0.0654		0.0050	mg/L	07-MAR-16	11-MAR-16	R3417843
Manganese (Mn)-Dissolved	7.68		0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Molybdenum (Mo)-Dissolved	<0.00025	DLA	0.00025	mg/L	07-MAR-16	11-MAR-16	R3417843
Nickel (Ni)-Dissolved	0.165		0.0025	mg/L	07-MAR-16	11-MAR-16	R3417843
Potassium (K)-Dissolved	10.8		0.25	mg/L	07-MAR-16	11-MAR-16	R3417843

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1741165-2 CH13-016-FAROPL_50							
Sampled By: CLIENT on 03-MAR-16 @ 15:30							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Selenium (Se)-Dissolved	<0.00025	DLA	0.00025	mg/L	07-MAR-16	11-MAR-16	R3417843
Silver (Ag)-Dissolved	<0.000050	DLA	0.000050	mg/L	07-MAR-16	11-MAR-16	R3417843
Sodium (Na)-Dissolved	23.3		0.25	mg/L	07-MAR-16	11-MAR-16	R3417843
Strontium (Sr)-Dissolved	0.799		0.0010	mg/L	07-MAR-16	11-MAR-16	R3417843
Thallium (Tl)-Dissolved	0.000568		0.000050	mg/L	07-MAR-16	11-MAR-16	R3417843
Titanium (Ti)-Dissolved	<0.0015	DLA	0.0015	mg/L	07-MAR-16	11-MAR-16	R3417843
Uranium (U)-Dissolved	0.000444		0.000050	mg/L	07-MAR-16	11-MAR-16	R3417843
Vanadium (V)-Dissolved	<0.0025	DLA	0.0025	mg/L	07-MAR-16	11-MAR-16	R3417843
Zinc (Zn)-Dissolved	26.2		0.0050	mg/L	07-MAR-16	11-MAR-16	R3417843
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-MAR-16	R3415571
Calcium (Ca)-Dissolved	193		0.050	mg/L	07-MAR-16	11-MAR-16	R3418050
Iron (Fe)-Dissolved	0.732		0.030	mg/L	07-MAR-16	11-MAR-16	R3418050
Magnesium (Mg)-Dissolved	94.9		0.10	mg/L	07-MAR-16	11-MAR-16	R3418050
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	07-MAR-16	11-MAR-16	R3418050
Silicon (Si)-Dissolved	3.27		0.050	mg/L	07-MAR-16	11-MAR-16	R3418050
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	6.99		0.20	mg/L		14-MAR-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-MAR-16	R3415571
Sulfur (S)-Dissolved	287		0.50	mg/L	07-MAR-16	11-MAR-16	R3418050
Faro Mine Project Total Metals							
Hardness							
Hardness (as CaCO3)	873		0.50	mg/L		14-MAR-16	
Total Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		08-MAR-16	R3416034
Total Metals in Water by CRC ICPMS							
Aluminum (Al)-Total	0.016		0.015	mg/L		11-MAR-16	R3417843
Antimony (Sb)-Total	<0.00050	DLA	0.00050	mg/L		11-MAR-16	R3417843
Arsenic (As)-Total	<0.00050	DLA	0.00050	mg/L		11-MAR-16	R3417843
Barium (Ba)-Total	0.0126		0.00025	mg/L		11-MAR-16	R3417843
Beryllium (Be)-Total	<0.00050	DLA	0.00050	mg/L		11-MAR-16	R3417843
Boron (B)-Total	<0.050	DLA	0.050	mg/L		11-MAR-16	R3417843
Cadmium (Cd)-Total	0.0129		0.000025	mg/L		11-MAR-16	R3417843
Chromium (Cr)-Total	0.00119		0.00050	mg/L		11-MAR-16	R3417843
Cobalt (Co)-Total	0.0898		0.00050	mg/L		11-MAR-16	R3417843
Copper (Cu)-Total	<0.0025	DLA	0.0025	mg/L		11-MAR-16	R3417843
Lead (Pb)-Total	0.00069		0.00025	mg/L		11-MAR-16	R3417843
Lithium (Li)-Total	0.0680		0.0050	mg/L		11-MAR-16	R3417843
Manganese (Mn)-Total	7.79		0.00050	mg/L		11-MAR-16	R3417843
Molybdenum (Mo)-Total	<0.00025	DLA	0.00025	mg/L		11-MAR-16	R3417843
Nickel (Ni)-Total	0.166		0.0025	mg/L		11-MAR-16	R3417843
Potassium (K)-Total	10.9		0.25	mg/L		11-MAR-16	R3417843
Selenium (Se)-Total	<0.00025	DLA	0.00025	mg/L		11-MAR-16	R3417843
Silver (Ag)-Total	<0.000050	DLA	0.000050	mg/L		11-MAR-16	R3417843
Sodium (Na)-Total	23.4		0.25	mg/L		11-MAR-16	R3417843
Strontium (Sr)-Total	0.813		0.0010	mg/L		11-MAR-16	R3417843
Thallium (Tl)-Total	0.000579		0.000050	mg/L		11-MAR-16	R3417843
Titanium (Ti)-Total	<0.0015	DLA	0.0015	mg/L		11-MAR-16	R3417843
Uranium (U)-Total	0.000463		0.000050	mg/L		11-MAR-16	R3417843
Vanadium (V)-Total	<0.0025	DLA	0.0025	mg/L		11-MAR-16	R3417843
Zinc (Zn)-Total	26.1		0.015	mg/L		11-MAR-16	R3417843

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1741165-2 CH13-016-FAROPL_50							
Sampled By: CLIENT on 03-MAR-16 @ 15:30							
Matrix: Water							
Total Metals in Water by ICPOES							
Calcium (Ca)-Total	193		0.050	mg/L		11-MAR-16	R3418050
Iron (Fe)-Total	0.926		0.030	mg/L		11-MAR-16	R3418050
Magnesium (Mg)-Total	95.1		0.10	mg/L		11-MAR-16	R3418050
Phosphorus (P)-Total	<0.30		0.30	mg/L		11-MAR-16	R3418050
Silicon (Si)-Total	3.35		0.050	mg/L		11-MAR-16	R3418050
Total Silicon (reported as Silica)							
Silicon (as SiO2)-Total	7.17		0.20	mg/L		14-MAR-16	
Total Sulfur in Water by ICPOES							
Sulfur (S)-Total	294		0.50	mg/L		11-MAR-16	R3418050
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		11-MAR-16	R3418963
Ammonia, Total (as N)	1.38		0.025	mg/L		13-MAR-16	R3418118
Dissolved Organic Carbon	1.78		0.50	mg/L		08-MAR-16	R3416460
Total Dissolved Solids	1390		20	mg/L		08-MAR-16	R3416395
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		09-MAR-16	R3416131
Total Suspended Solids	1.2		1.0	mg/L		08-MAR-16	R3416496
Lime Demand & Solids Formed Test							
Lime Demand (as Ca(OH)2)	0.800	MB-LOR	0.050	lb/1000USG		08-MAR-16	R3417730
Solids Formed (as Ca(OH)2)	1.01		0.20	lb/1000USG		08-MAR-16	R3417730
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	0.803		0.020	mg/L	08-MAR-16	08-MAR-16	R3416053
Dissolved Fe2 Filtration Location	FIELD					08-MAR-16	R3416052
L1741165-3 CH13-016-FAROPL_70							
Sampled By: CLIENT on 03-MAR-16 @ 16:00							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	63.1		1.0	mg/L		07-MAR-16	R3415733
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		07-MAR-16	R3415733
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		07-MAR-16	R3415733
Alkalinity, Total (as CaCO3)	63.1		1.0	mg/L		07-MAR-16	R3415733
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<2.5	DLA	2.5	mg/L		04-MAR-16	R3414990
Fluoride in Water by IC							
Fluoride (F)	0.55		0.10	mg/L		04-MAR-16	R3414990
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.158		0.025	mg/L		04-MAR-16	R3414990
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0050	DLA	0.0050	mg/L		04-MAR-16	R3414990
Sulfate in Water by IC							
Sulfate (SO4)	940		1.5	mg/L		04-MAR-16	R3414990
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	07-MAR-16	08-MAR-16	R3415831
Dissolved Mercury Filtration Location	FIELD					07-MAR-16	R3415572
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					07-MAR-16	R3415571
Aluminum (Al)-Dissolved	0.0095		0.0050	mg/L	07-MAR-16	15-MAR-16	R3420211
Antimony (Sb)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-MAR-16	15-MAR-16	R3419651
Arsenic (As)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-MAR-16	15-MAR-16	R3419651

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1741165-3 CH13-016-FAROPL_70							
Sampled By: CLIENT on 03-MAR-16 @ 16:00							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Barium (Ba)-Dissolved	0.0124		0.00025	mg/L	07-MAR-16	15-MAR-16	R3419651
Beryllium (Be)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-MAR-16	15-MAR-16	R3419651
Boron (B)-Dissolved	<0.050	DLA	0.050	mg/L	07-MAR-16	15-MAR-16	R3419651
Cadmium (Cd)-Dissolved	0.0123		0.000025	mg/L	07-MAR-16	15-MAR-16	R3419651
Chromium (Cr)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-MAR-16	15-MAR-16	R3419651
Cobalt (Co)-Dissolved	0.0877		0.00050	mg/L	07-MAR-16	15-MAR-16	R3419651
Copper (Cu)-Dissolved	<0.0010	DLA	0.0010	mg/L	07-MAR-16	15-MAR-16	R3419651
Lead (Pb)-Dissolved	<0.00025	DLA	0.00025	mg/L	07-MAR-16	15-MAR-16	R3419651
Lithium (Li)-Dissolved	0.0672		0.0050	mg/L	07-MAR-16	15-MAR-16	R3419651
Manganese (Mn)-Dissolved	7.44		0.00050	mg/L	07-MAR-16	15-MAR-16	R3419651
Molybdenum (Mo)-Dissolved	<0.00025	DLA	0.00025	mg/L	07-MAR-16	15-MAR-16	R3419651
Nickel (Ni)-Dissolved	0.159		0.0025	mg/L	07-MAR-16	15-MAR-16	R3419651
Potassium (K)-Dissolved	10.2		0.25	mg/L	07-MAR-16	15-MAR-16	R3419651
Selenium (Se)-Dissolved	<0.00025	DLA	0.00025	mg/L	07-MAR-16	15-MAR-16	R3419651
Silver (Ag)-Dissolved	<0.000050	DLA	0.000050	mg/L	07-MAR-16	15-MAR-16	R3419651
Sodium (Na)-Dissolved	22.2		0.25	mg/L	07-MAR-16	15-MAR-16	R3419651
Strontium (Sr)-Dissolved	0.806		0.0010	mg/L	07-MAR-16	15-MAR-16	R3419651
Thallium (Tl)-Dissolved	0.000551		0.000050	mg/L	07-MAR-16	15-MAR-16	R3419651
Titanium (Ti)-Dissolved	<0.0015	DLA	0.0015	mg/L	07-MAR-16	15-MAR-16	R3419651
Uranium (U)-Dissolved	0.000419		0.000050	mg/L	07-MAR-16	15-MAR-16	R3419651
Vanadium (V)-Dissolved	<0.0025	DLA	0.0025	mg/L	07-MAR-16	15-MAR-16	R3419651
Zinc (Zn)-Dissolved	26.2		0.0050	mg/L	07-MAR-16	15-MAR-16	R3419651
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-MAR-16	R3415571
Calcium (Ca)-Dissolved	197		0.050	mg/L	07-MAR-16	15-MAR-16	R3418050
Iron (Fe)-Dissolved	0.873		0.030	mg/L	07-MAR-16	15-MAR-16	R3418050
Magnesium (Mg)-Dissolved	101		0.10	mg/L	07-MAR-16	15-MAR-16	R3418050
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	07-MAR-16	15-MAR-16	R3418050
Silicon (Si)-Dissolved	3.49		0.050	mg/L	07-MAR-16	15-MAR-16	R3418050
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	7.46		0.20	mg/L		16-MAR-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-MAR-16	R3415571
Sulfur (S)-Dissolved	301		0.50	mg/L	07-MAR-16	15-MAR-16	R3418050
Faro Mine Project Total Metals							
Hardness							
Hardness (as CaCO3)	909		0.50	mg/L		16-MAR-16	
Total Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		08-MAR-16	R3416034
Total Metals in Water by CRC ICPMS							
Aluminum (Al)-Total	0.018		0.015	mg/L		11-MAR-16	R3417843
Antimony (Sb)-Total	<0.00050	DLA	0.00050	mg/L		11-MAR-16	R3417843
Arsenic (As)-Total	<0.00050	DLA	0.00050	mg/L		11-MAR-16	R3417843
Barium (Ba)-Total	0.0130		0.00025	mg/L		11-MAR-16	R3417843
Beryllium (Be)-Total	<0.00050	DLA	0.00050	mg/L		11-MAR-16	R3417843
Boron (B)-Total	<0.050	DLA	0.050	mg/L		11-MAR-16	R3417843
Cadmium (Cd)-Total	0.0127		0.000025	mg/L		11-MAR-16	R3417843
Chromium (Cr)-Total	<0.00050	DLA	0.00050	mg/L		11-MAR-16	R3417843
Cobalt (Co)-Total	0.0905		0.00050	mg/L		11-MAR-16	R3417843
Copper (Cu)-Total	<0.0025	DLA	0.0025	mg/L		11-MAR-16	R3417843
Lead (Pb)-Total	0.00075		0.00025	mg/L		11-MAR-16	R3417843
Lithium (Li)-Total	0.0672		0.0050	mg/L		11-MAR-16	R3417843

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1741165-3 CH13-016-FAROPL_70							
Sampled By: CLIENT on 03-MAR-16 @ 16:00							
Matrix: Water							
Total Metals in Water by CRC ICPMS							
Manganese (Mn)-Total	7.83		0.00050	mg/L		11-MAR-16	R3417843
Molybdenum (Mo)-Total	<0.00025	DLA	0.00025	mg/L		11-MAR-16	R3417843
Nickel (Ni)-Total	0.168		0.0025	mg/L		11-MAR-16	R3417843
Potassium (K)-Total	10.9		0.25	mg/L		11-MAR-16	R3417843
Selenium (Se)-Total	<0.00025	DLA	0.00025	mg/L		11-MAR-16	R3417843
Silver (Ag)-Total	<0.000050	DLA	0.000050	mg/L		11-MAR-16	R3417843
Sodium (Na)-Total	23.6		0.25	mg/L		11-MAR-16	R3417843
Strontium (Sr)-Total	0.804		0.0010	mg/L		11-MAR-16	R3417843
Thallium (Tl)-Total	0.000572		0.000050	mg/L		11-MAR-16	R3417843
Titanium (Ti)-Total	<0.0015	DLA	0.0015	mg/L		11-MAR-16	R3417843
Uranium (U)-Total	0.000474		0.000050	mg/L		11-MAR-16	R3417843
Vanadium (V)-Total	<0.0025	DLA	0.0025	mg/L		11-MAR-16	R3417843
Zinc (Zn)-Total	26.4		0.015	mg/L		11-MAR-16	R3417843
Total Metals in Water by ICPOES							
Calcium (Ca)-Total	192		0.050	mg/L		11-MAR-16	R3418050
Iron (Fe)-Total	0.906		0.030	mg/L		11-MAR-16	R3418050
Magnesium (Mg)-Total	95.9		0.10	mg/L		11-MAR-16	R3418050
Phosphorus (P)-Total	<0.30		0.30	mg/L		11-MAR-16	R3418050
Silicon (Si)-Total	3.34		0.050	mg/L		11-MAR-16	R3418050
Total Silicon (reported as Silica)							
Silicon (as SiO2)-Total	7.14		0.20	mg/L		14-MAR-16	
Total Sulfur in Water by ICPOES							
Sulfur (S)-Total	293		0.50	mg/L		11-MAR-16	R3418050
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		11-MAR-16	R3418963
Ammonia, Total (as N)	1.40		0.025	mg/L		13-MAR-16	R3418118
Dissolved Organic Carbon	1.87		0.50	mg/L		08-MAR-16	R3416460
Total Dissolved Solids	1400		20	mg/L		08-MAR-16	R3416395
Phosphorus (P)-Total	<0.0020		0.0020	mg/L		09-MAR-16	R3416131
Total Suspended Solids	1.0		1.0	mg/L		08-MAR-16	R3416496
Lime Demand & Solids Formed Test							
Lime Demand (as Ca(OH)2)	1.05	MB-LOR	0.050	lb/1000USG		08-MAR-16	R3417730
Solids Formed (as Ca(OH)2)	1.39		0.20	lb/1000USG		08-MAR-16	R3417730
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	0.867		0.020	mg/L	08-MAR-16	08-MAR-16	R3416053
Dissolved Fe2 Filtration Location	FIELD					08-MAR-16	R3416052
L1741165-4 CH13-016-FAROPL_90							
Sampled By: CLIENT on 03-MAR-16 @ 16:30							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	63.0		1.0	mg/L		07-MAR-16	R3415733
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		07-MAR-16	R3415733
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		07-MAR-16	R3415733
Alkalinity, Total (as CaCO3)	63.0		1.0	mg/L		07-MAR-16	R3415733
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<2.5	DLA	2.5	mg/L		04-MAR-16	R3414990
Fluoride in Water by IC							
Fluoride (F)	0.54		0.10	mg/L		04-MAR-16	R3414990
Nitrate in Water by IC (Low Level)							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1741165-4 CH13-016-FAROPL_90							
Sampled By: CLIENT on 03-MAR-16 @ 16:30							
Matrix: Water							
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.154		0.025	mg/L		04-MAR-16	R3414990
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0050	DLA	0.0050	mg/L		04-MAR-16	R3414990
Sulfate in Water by IC							
Sulfate (SO4)	935		1.5	mg/L		04-MAR-16	R3414990
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	07-MAR-16	08-MAR-16	R3415831
Dissolved Mercury Filtration Location	FIELD					07-MAR-16	R3415572
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					07-MAR-16	R3415571
Aluminum (Al)-Dissolved	0.0123		0.0050	mg/L	07-MAR-16	11-MAR-16	R3417843
Antimony (Sb)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Arsenic (As)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Barium (Ba)-Dissolved	0.0121		0.00025	mg/L	07-MAR-16	11-MAR-16	R3417843
Beryllium (Be)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Boron (B)-Dissolved	<0.050	DLA	0.050	mg/L	07-MAR-16	11-MAR-16	R3417843
Cadmium (Cd)-Dissolved	0.0116		0.000025	mg/L	07-MAR-16	11-MAR-16	R3417843
Chromium (Cr)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Cobalt (Co)-Dissolved	0.0855		0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Copper (Cu)-Dissolved	<0.0010	DLA	0.0010	mg/L	07-MAR-16	11-MAR-16	R3417843
Lead (Pb)-Dissolved	<0.00025	DLA	0.00025	mg/L	07-MAR-16	11-MAR-16	R3417843
Lithium (Li)-Dissolved	0.0638		0.0050	mg/L	07-MAR-16	11-MAR-16	R3417843
Manganese (Mn)-Dissolved	7.37		0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Molybdenum (Mo)-Dissolved	<0.00025	DLA	0.00025	mg/L	07-MAR-16	11-MAR-16	R3417843
Nickel (Ni)-Dissolved	0.158		0.0025	mg/L	07-MAR-16	11-MAR-16	R3417843
Potassium (K)-Dissolved	10.3		0.25	mg/L	07-MAR-16	11-MAR-16	R3417843
Selenium (Se)-Dissolved	<0.00025	DLA	0.00025	mg/L	07-MAR-16	11-MAR-16	R3417843
Silver (Ag)-Dissolved	<0.000050	DLA	0.000050	mg/L	07-MAR-16	11-MAR-16	R3417843
Sodium (Na)-Dissolved	22.1		0.25	mg/L	07-MAR-16	11-MAR-16	R3417843
Strontium (Sr)-Dissolved	0.774		0.0010	mg/L	07-MAR-16	11-MAR-16	R3417843
Thallium (Tl)-Dissolved	0.000542		0.000050	mg/L	07-MAR-16	11-MAR-16	R3417843
Titanium (Ti)-Dissolved	<0.0015	DLA	0.0015	mg/L	07-MAR-16	11-MAR-16	R3417843
Uranium (U)-Dissolved	0.000439		0.000050	mg/L	07-MAR-16	11-MAR-16	R3417843
Vanadium (V)-Dissolved	<0.0025	DLA	0.0025	mg/L	07-MAR-16	11-MAR-16	R3417843
Zinc (Zn)-Dissolved	25.0		0.0050	mg/L	07-MAR-16	11-MAR-16	R3417843
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-MAR-16	R3415571
Calcium (Ca)-Dissolved	195		0.050	mg/L	07-MAR-16	11-MAR-16	R3418050
Iron (Fe)-Dissolved	0.863		0.030	mg/L	07-MAR-16	11-MAR-16	R3418050
Magnesium (Mg)-Dissolved	96.0		0.10	mg/L	07-MAR-16	11-MAR-16	R3418050
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	07-MAR-16	11-MAR-16	R3418050
Silicon (Si)-Dissolved	3.29		0.050	mg/L	07-MAR-16	11-MAR-16	R3418050
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	7.05		0.20	mg/L		14-MAR-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-MAR-16	R3415571
Sulfur (S)-Dissolved	287		0.50	mg/L	07-MAR-16	11-MAR-16	R3418050
Faro Mine Project Total Metals							
Hardness							
Hardness (as CaCO3)	882		0.50	mg/L		14-MAR-16	
Total Mercury in Water by CVAAS or CVAFS							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1741165-4 CH13-016-FAROPL_90							
Sampled By: CLIENT on 03-MAR-16 @ 16:30							
Matrix: Water							
Total Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		08-MAR-16	R3416034
Total Metals in Water by CRC ICPMS							
Aluminum (Al)-Total	0.023		0.015	mg/L		11-MAR-16	R3417843
Antimony (Sb)-Total	<0.00050	DLA	0.00050	mg/L		11-MAR-16	R3417843
Arsenic (As)-Total	<0.00050	DLA	0.00050	mg/L		11-MAR-16	R3417843
Barium (Ba)-Total	0.0129		0.00025	mg/L		11-MAR-16	R3417843
Beryllium (Be)-Total	<0.00050	DLA	0.00050	mg/L		11-MAR-16	R3417843
Boron (B)-Total	<0.050	DLA	0.050	mg/L		11-MAR-16	R3417843
Cadmium (Cd)-Total	0.0128		0.000025	mg/L		11-MAR-16	R3417843
Chromium (Cr)-Total	<0.00050	DLA	0.00050	mg/L		11-MAR-16	R3417843
Cobalt (Co)-Total	0.0908		0.00050	mg/L		11-MAR-16	R3417843
Copper (Cu)-Total	<0.0025	DLA	0.0025	mg/L		11-MAR-16	R3417843
Lead (Pb)-Total	0.00090		0.00025	mg/L		11-MAR-16	R3417843
Lithium (Li)-Total	0.0666		0.0050	mg/L		11-MAR-16	R3417843
Manganese (Mn)-Total	7.84		0.00050	mg/L		11-MAR-16	R3417843
Molybdenum (Mo)-Total	<0.00025	DLA	0.00025	mg/L		11-MAR-16	R3417843
Nickel (Ni)-Total	0.167		0.0025	mg/L		11-MAR-16	R3417843
Potassium (K)-Total	10.9		0.25	mg/L		11-MAR-16	R3417843
Selenium (Se)-Total	<0.00025	DLA	0.00025	mg/L		11-MAR-16	R3417843
Silver (Ag)-Total	<0.000050	DLA	0.000050	mg/L		11-MAR-16	R3417843
Sodium (Na)-Total	23.7		0.25	mg/L		11-MAR-16	R3417843
Strontium (Sr)-Total	0.816		0.0010	mg/L		11-MAR-16	R3417843
Thallium (Tl)-Total	0.000565		0.000050	mg/L		11-MAR-16	R3417843
Titanium (Ti)-Total	<0.0015	DLA	0.0015	mg/L		11-MAR-16	R3417843
Uranium (U)-Total	0.000489		0.000050	mg/L		11-MAR-16	R3417843
Vanadium (V)-Total	<0.0025	DLA	0.0025	mg/L		11-MAR-16	R3417843
Zinc (Zn)-Total	26.4		0.015	mg/L		11-MAR-16	R3417843
Total Metals in Water by ICPOES							
Calcium (Ca)-Total	194		0.050	mg/L		11-MAR-16	R3418050
Iron (Fe)-Total	1.03		0.030	mg/L		11-MAR-16	R3418050
Magnesium (Mg)-Total	95.4		0.10	mg/L		11-MAR-16	R3418050
Phosphorus (P)-Total	<0.30		0.30	mg/L		11-MAR-16	R3418050
Silicon (Si)-Total	3.34		0.050	mg/L		11-MAR-16	R3418050
Total Silicon (reported as Silica)							
Silicon (as SiO2)-Total	7.14		0.20	mg/L		14-MAR-16	
Total Sulfur in Water by ICPOES							
Sulfur (S)-Total	292		0.50	mg/L		11-MAR-16	R3418050
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		11-MAR-16	R3418963
Ammonia, Total (as N)	1.39		0.025	mg/L		13-MAR-16	R3418118
Dissolved Organic Carbon	1.83		0.50	mg/L		08-MAR-16	R3416460
Total Dissolved Solids	1360		20	mg/L		08-MAR-16	R3416395
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		09-MAR-16	R3416131
Total Suspended Solids	<1.0		1.0	mg/L		08-MAR-16	R3416496
Lime Demand & Solids Formed Test							
Lime Demand (as Ca(OH)2)	1.02	MB-LOR	0.050	lb/1000USG		08-MAR-16	R3417730
Solids Formed (as Ca(OH)2)	1.32		0.20	lb/1000USG		08-MAR-16	R3417730
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	0.896		0.020	mg/L	08-MAR-16	08-MAR-16	R3416053
Dissolved Fe2 Filtration Location	FIELD					08-MAR-16	R3416052

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1741165-5 CH13-916-FAROPL_10							
Sampled By: CLIENT on 03-MAR-16 @ 15:00							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	63.3		1.0	mg/L		07-MAR-16	R3415733
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		07-MAR-16	R3415733
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		07-MAR-16	R3415733
Alkalinity, Total (as CaCO3)	63.3		1.0	mg/L		07-MAR-16	R3415733
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	1.3		1.0	mg/L		04-MAR-16	R3414990
Fluoride in Water by IC							
Fluoride (F)	0.465		0.040	mg/L		04-MAR-16	R3414990
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.152		0.010	mg/L		04-MAR-16	R3414990
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0020	DLA	0.0020	mg/L		04-MAR-16	R3414990
Sulfate in Water by IC							
Sulfate (SO4)	900		0.60	mg/L		04-MAR-16	R3414990
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	07-MAR-16	08-MAR-16	R3415831
Dissolved Mercury Filtration Location	FIELD					07-MAR-16	R3415572
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					07-MAR-16	R3415571
Aluminum (Al)-Dissolved	0.0092		0.0050	mg/L	07-MAR-16	11-MAR-16	R3417843
Antimony (Sb)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Arsenic (As)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Barium (Ba)-Dissolved	0.0123		0.00025	mg/L	07-MAR-16	11-MAR-16	R3417843
Beryllium (Be)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Boron (B)-Dissolved	<0.050	DLA	0.050	mg/L	07-MAR-16	11-MAR-16	R3417843
Cadmium (Cd)-Dissolved	0.0120		0.000025	mg/L	07-MAR-16	11-MAR-16	R3417843
Chromium (Cr)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Cobalt (Co)-Dissolved	0.0868		0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Copper (Cu)-Dissolved	<0.0010	DLA	0.0010	mg/L	07-MAR-16	11-MAR-16	R3417843
Lead (Pb)-Dissolved	<0.00025	DLA	0.00025	mg/L	07-MAR-16	11-MAR-16	R3417843
Lithium (Li)-Dissolved	0.0633		0.0050	mg/L	07-MAR-16	11-MAR-16	R3417843
Manganese (Mn)-Dissolved	7.44		0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Molybdenum (Mo)-Dissolved	<0.00025	DLA	0.00025	mg/L	07-MAR-16	11-MAR-16	R3417843
Nickel (Ni)-Dissolved	0.159		0.0025	mg/L	07-MAR-16	11-MAR-16	R3417843
Potassium (K)-Dissolved	10.6		0.25	mg/L	07-MAR-16	11-MAR-16	R3417843
Selenium (Se)-Dissolved	<0.00025	DLA	0.00025	mg/L	07-MAR-16	11-MAR-16	R3417843
Silver (Ag)-Dissolved	<0.000050	DLA	0.000050	mg/L	07-MAR-16	11-MAR-16	R3417843
Sodium (Na)-Dissolved	22.8		0.25	mg/L	07-MAR-16	11-MAR-16	R3417843
Strontium (Sr)-Dissolved	0.781		0.0010	mg/L	07-MAR-16	11-MAR-16	R3417843
Thallium (Tl)-Dissolved	0.000555		0.000050	mg/L	07-MAR-16	11-MAR-16	R3417843
Titanium (Ti)-Dissolved	<0.0015	DLA	0.0015	mg/L	07-MAR-16	11-MAR-16	R3417843
Uranium (U)-Dissolved	0.000384		0.000050	mg/L	07-MAR-16	11-MAR-16	R3417843
Vanadium (V)-Dissolved	<0.0025	DLA	0.0025	mg/L	07-MAR-16	11-MAR-16	R3417843
Zinc (Zn)-Dissolved	25.4		0.0050	mg/L	07-MAR-16	11-MAR-16	R3417843
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-MAR-16	R3415571
Calcium (Ca)-Dissolved	194		0.050	mg/L	07-MAR-16	11-MAR-16	R3418050
Iron (Fe)-Dissolved	0.570		0.030	mg/L	07-MAR-16	11-MAR-16	R3418050
Magnesium (Mg)-Dissolved	95.6		0.10	mg/L	07-MAR-16	11-MAR-16	R3418050

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1741165-5 CH13-916-FAROPL_10							
Sampled By: CLIENT on 03-MAR-16 @ 15:00							
Matrix: Water							
Dissolved Metals in Water by ICPOES							
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	07-MAR-16	11-MAR-16	R3418050
Silicon (Si)-Dissolved	3.32		0.050	mg/L	07-MAR-16	11-MAR-16	R3418050
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	7.10		0.20	mg/L		14-MAR-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-MAR-16	R3415571
Sulfur (S)-Dissolved	283		0.50	mg/L	07-MAR-16	11-MAR-16	R3418050
Faro Mine Project Total Metals							
Hardness							
Hardness (as CaCO3)	879		0.50	mg/L		14-MAR-16	
Total Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		08-MAR-16	R3416034
Total Metals in Water by CRC ICPMS							
Aluminum (Al)-Total	<0.015	DLA	0.015	mg/L		11-MAR-16	R3417843
Antimony (Sb)-Total	<0.00050	DLA	0.00050	mg/L		11-MAR-16	R3417843
Arsenic (As)-Total	<0.00050	DLA	0.00050	mg/L		11-MAR-16	R3417843
Barium (Ba)-Total	0.0126		0.00025	mg/L		11-MAR-16	R3417843
Beryllium (Be)-Total	<0.00050	DLA	0.00050	mg/L		11-MAR-16	R3417843
Boron (B)-Total	<0.050	DLA	0.050	mg/L		11-MAR-16	R3417843
Cadmium (Cd)-Total	0.0127		0.000025	mg/L		11-MAR-16	R3417843
Chromium (Cr)-Total	<0.00050	DLA	0.00050	mg/L		11-MAR-16	R3417843
Cobalt (Co)-Total	0.0899		0.00050	mg/L		11-MAR-16	R3417843
Copper (Cu)-Total	<0.0025	DLA	0.0025	mg/L		11-MAR-16	R3417843
Lead (Pb)-Total	<0.00025	DLA	0.00025	mg/L		11-MAR-16	R3417843
Lithium (Li)-Total	0.0648		0.0050	mg/L		11-MAR-16	R3417843
Manganese (Mn)-Total	7.74		0.00050	mg/L		11-MAR-16	R3417843
Molybdenum (Mo)-Total	<0.00025	DLA	0.00025	mg/L		11-MAR-16	R3417843
Nickel (Ni)-Total	0.166		0.0025	mg/L		11-MAR-16	R3417843
Potassium (K)-Total	10.9		0.25	mg/L		11-MAR-16	R3417843
Selenium (Se)-Total	<0.00025	DLA	0.00025	mg/L		11-MAR-16	R3417843
Silver (Ag)-Total	<0.000050	DLA	0.000050	mg/L		11-MAR-16	R3417843
Sodium (Na)-Total	23.4		0.25	mg/L		11-MAR-16	R3417843
Strontium (Sr)-Total	0.801		0.0010	mg/L		11-MAR-16	R3417843
Thallium (Tl)-Total	0.000553		0.000050	mg/L		11-MAR-16	R3417843
Titanium (Ti)-Total	<0.0015	DLA	0.0015	mg/L		11-MAR-16	R3417843
Uranium (U)-Total	0.000407		0.000050	mg/L		11-MAR-16	R3417843
Vanadium (V)-Total	<0.0025	DLA	0.0025	mg/L		11-MAR-16	R3417843
Zinc (Zn)-Total	26.0		0.015	mg/L		11-MAR-16	R3417843
Total Metals in Water by ICPOES							
Calcium (Ca)-Total	198		0.050	mg/L		11-MAR-16	R3418050
Iron (Fe)-Total	0.702		0.030	mg/L		11-MAR-16	R3418050
Magnesium (Mg)-Total	99.3		0.10	mg/L		11-MAR-16	R3418050
Phosphorus (P)-Total	<0.30		0.30	mg/L		11-MAR-16	R3418050
Silicon (Si)-Total	3.43		0.050	mg/L		11-MAR-16	R3418050
Total Silicon (reported as Silica)							
Silicon (as SiO2)-Total	7.35		0.20	mg/L		14-MAR-16	
Total Sulfur in Water by ICPOES							
Sulfur (S)-Total	297		0.50	mg/L		11-MAR-16	R3418050
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		11-MAR-16	R3418963
Ammonia, Total (as N)	1.33		0.025	mg/L		13-MAR-16	R3418118

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1741165-5 CH13-916-FAROPL_10							
Sampled By: CLIENT on 03-MAR-16 @ 15:00							
Matrix: Water							
Dissolved Organic Carbon	1.88		0.50	mg/L		08-MAR-16	R3416460
Total Dissolved Solids	1350		20	mg/L		08-MAR-16	R3416395
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		09-MAR-16	R3416131
Total Suspended Solids	2.4		1.0	mg/L		08-MAR-16	R3416496
Lime Demand & Solids Formed Test							
Lime Demand (as Ca(OH)2)	0.950	MB-LOR	0.050	lb/1000USG		08-MAR-16	R3417730
Solids Formed (as Ca(OH)2)	1.05		0.20	lb/1000USG		08-MAR-16	R3417730
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	0.594		0.020	mg/L	08-MAR-16	08-MAR-16	R3416053
Dissolved Fe2 Filtration Location	FIELD					08-MAR-16	R3416052
L1741165-6 E_016_16_001							
Sampled By: CLIENT on 03-MAR-16 @ 17:00							
Matrix: Water							
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<0.50		0.50	mg/L		04-MAR-16	R3414990
Fluoride in Water by IC							
Fluoride (F)	<0.020		0.020	mg/L		04-MAR-16	R3414990
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.0050		0.0050	mg/L		04-MAR-16	R3414990
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0010		0.0010	mg/L		04-MAR-16	R3414990
Sulfate in Water by IC							
Sulfate (SO4)	<0.30		0.30	mg/L		04-MAR-16	R3414990
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	07-MAR-16	08-MAR-16	R3415831
Dissolved Mercury Filtration Location	FIELD					07-MAR-16	R3415572
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					07-MAR-16	R3415571
Aluminum (Al)-Dissolved	<0.0010		0.0010	mg/L	07-MAR-16	13-MAR-16	R3417843
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	07-MAR-16	11-MAR-16	R3417843
Arsenic (As)-Dissolved	<0.00010		0.00010	mg/L	07-MAR-16	11-MAR-16	R3417843
Barium (Ba)-Dissolved	0.000179	RRV	0.000050	mg/L	07-MAR-16	13-MAR-16	R3417843
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	07-MAR-16	11-MAR-16	R3417843
Boron (B)-Dissolved	<0.010		0.010	mg/L	07-MAR-16	11-MAR-16	R3417843
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	07-MAR-16	11-MAR-16	R3417843
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	07-MAR-16	11-MAR-16	R3417843
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	07-MAR-16	11-MAR-16	R3417843
Copper (Cu)-Dissolved	<0.00020		0.00020	mg/L	07-MAR-16	11-MAR-16	R3417843
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	07-MAR-16	13-MAR-16	R3417843
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	07-MAR-16	11-MAR-16	R3417843
Manganese (Mn)-Dissolved	0.00166	RRV	0.00010	mg/L	07-MAR-16	13-MAR-16	R3417843
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	07-MAR-16	11-MAR-16	R3417843
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Potassium (K)-Dissolved	<0.050		0.050	mg/L	07-MAR-16	11-MAR-16	R3417843
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	07-MAR-16	11-MAR-16	R3417843
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	07-MAR-16	11-MAR-16	R3417843
Sodium (Na)-Dissolved	<0.050		0.050	mg/L	07-MAR-16	11-MAR-16	R3417843
Strontium (Sr)-Dissolved	<0.00020		0.00020	mg/L	07-MAR-16	11-MAR-16	R3417843
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	07-MAR-16	11-MAR-16	R3417843
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	07-MAR-16	11-MAR-16	R3417843

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1741165-6 E_016_16_001							
Sampled By: CLIENT on 03-MAR-16 @ 17:00							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	07-MAR-16	11-MAR-16	R3417843
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	07-MAR-16	11-MAR-16	R3417843
Zinc (Zn)-Dissolved	0.0092	RRV	0.0010	mg/L	07-MAR-16	13-MAR-16	R3417843
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-MAR-16	R3415571
Calcium (Ca)-Dissolved	<0.050		0.050	mg/L	07-MAR-16	11-MAR-16	R3418050
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	07-MAR-16	11-MAR-16	R3418050
Magnesium (Mg)-Dissolved	<0.10		0.10	mg/L	07-MAR-16	11-MAR-16	R3418050
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	07-MAR-16	11-MAR-16	R3418050
Silicon (Si)-Dissolved	<0.050		0.050	mg/L	07-MAR-16	11-MAR-16	R3418050
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	<0.20		0.20	mg/L		14-MAR-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-MAR-16	R3415571
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	07-MAR-16	11-MAR-16	R3418050
Faro Mine Project Total Metals							
Hardness							
Hardness (as CaCO3)	<0.50		0.50	mg/L		16-MAR-16	
Total Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		08-MAR-16	R3416034
Total Metals in Water by CRC ICPMS							
Aluminum (Al)-Total	<0.0030		0.0030	mg/L		11-MAR-16	R3417758
Antimony (Sb)-Total	<0.00010		0.00010	mg/L		11-MAR-16	R3417758
Arsenic (As)-Total	<0.00010		0.00010	mg/L		11-MAR-16	R3417758
Barium (Ba)-Total	0.000304	RRV	0.000050	mg/L		12-MAR-16	R3417843
Beryllium (Be)-Total	<0.00010		0.00010	mg/L		11-MAR-16	R3417758
Boron (B)-Total	<0.010		0.010	mg/L		11-MAR-16	R3417758
Cadmium (Cd)-Total	0.0000083	RRV	0.0000050	mg/L		12-MAR-16	R3417843
Chromium (Cr)-Total	<0.00010		0.00010	mg/L		11-MAR-16	R3417758
Cobalt (Co)-Total	<0.00010		0.00010	mg/L		11-MAR-16	R3417758
Copper (Cu)-Total	<0.00050		0.00050	mg/L		11-MAR-16	R3417758
Lead (Pb)-Total	0.000088	RRV	0.000050	mg/L		12-MAR-16	R3417843
Lithium (Li)-Total	<0.0010		0.0010	mg/L		11-MAR-16	R3417758
Manganese (Mn)-Total	0.00242	RRV	0.00010	mg/L		12-MAR-16	R3417843
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L		11-MAR-16	R3417758
Nickel (Ni)-Total	<0.00050		0.00050	mg/L		11-MAR-16	R3417758
Potassium (K)-Total	<0.050		0.050	mg/L		11-MAR-16	R3417758
Selenium (Se)-Total	<0.000050		0.000050	mg/L		11-MAR-16	R3417758
Silver (Ag)-Total	<0.000010		0.000010	mg/L		11-MAR-16	R3417758
Sodium (Na)-Total	<0.050		0.050	mg/L		11-MAR-16	R3417758
Strontium (Sr)-Total	<0.00020		0.00020	mg/L		11-MAR-16	R3417758
Thallium (Tl)-Total	<0.000010		0.000010	mg/L		11-MAR-16	R3417758
Titanium (Ti)-Total	<0.00030		0.00030	mg/L		11-MAR-16	R3417758
Uranium (U)-Total	<0.000010		0.000010	mg/L		11-MAR-16	R3417758
Vanadium (V)-Total	<0.00050		0.00050	mg/L		11-MAR-16	R3417758
Zinc (Zn)-Total	0.0166	RRV	0.0030	mg/L		12-MAR-16	R3417843
Total Metals in Water by ICPOES							
Calcium (Ca)-Total	0.058	RRV	0.050	mg/L		16-MAR-16	R3418050
Iron (Fe)-Total	<0.030		0.030	mg/L		16-MAR-16	R3418050
Magnesium (Mg)-Total	<0.10		0.10	mg/L		16-MAR-16	R3418050
Phosphorus (P)-Total	<0.30		0.30	mg/L		16-MAR-16	R3418050
Silicon (Si)-Total	<0.050		0.050	mg/L		16-MAR-16	R3418050

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1741165-6 E_016_16_001							
Sampled By: CLIENT on 03-MAR-16 @ 17:00							
Matrix: Water							
Total Silicon (reported as Silica)							
Silicon (as SiO2)-Total	<0.20		0.20	mg/L		16-MAR-16	
Total Sulfur in Water by ICPOES							
Sulfur (S)-Total	<0.50		0.50	mg/L		16-MAR-16	R3418050
Miscellaneous Parameters							
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		13-MAR-16	R3418118
Dissolved Organic Carbon	<0.50		0.50	mg/L		08-MAR-16	R3416460
Phosphorus (P)-Total	<0.0020		0.0020	mg/L		09-MAR-16	R3416131
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.020		0.020	mg/L	08-MAR-16	08-MAR-16	R3416053
Dissolved Fe2 Filtration Location	FIELD					08-MAR-16	R3416052

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier Key:

Qualifier	Description
DLA	Detection Limit adjusted for required dilution
DLM	Detection Limit Adjusted due to sample matrix effects.
MB-LOR	Method Blank exceeds ALS DQO. Limits of Reporting have been adjusted for samples with positive hits below 5x blank level.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RRV	Reported Result Verified By Repeat Analysis

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ACY-H2O2-MAN-VA	Water	Acidity by Hot Peroxide Titration	APHA - ACIDITY (2310)

This analysis is carried out using procedures adapted from APHA Method 2310 "Acidity". The procedure involves preliminary sample treatment by the hot peroxide procedure, and Acidity is subsequently determined by potentiometric titration to a specified endpoint (i.e. pH = 8.3).

ALK-TITR-VA	Water	Alkalinity Species by Titration	APHA 2320 Alkalinity

This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.

CARBONS-DOC-VA	Water	Dissolved organic carbon by combustion	APHA 5310B TOTAL ORGANIC CARBON (TOC)

This analysis is carried out using procedures adapted from APHA Method 5310 "Total Organic Carbon (TOC)". Dissolved carbon (DOC) fractions are determined by filtering the sample through a 0.45 micron membrane filter prior to analysis.

CL-IC-N-WR	Water	Chloride in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

F-IC-N-WR	Water	Fluoride in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

FE2-D-COL-VA	Water	Diss. Ferrous Iron in Water by Colour	APHA 3500-Fe B/James Ball et al (1999)

This analysis is carried out using procedures adapted from APHA 3500-Fe B and "A New Method for the Direct Determination of Dissolved Iron Concentration in Acid Mine Waters" published by James W. Ball et al (1999). The procedure involves preliminary sample filtration, and ferrous iron is determined using the "FerroZine" colourimetric method.

HARDNESS-CALC-VA	Water	Hardness	APHA 2340B

Hardness (also known as Total Hardness) is calculated from the sum of Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. Dissolved Calcium and Magnesium concentrations are preferentially used for the hardness calculation.

HG-D-CVAA-VA	Water	Diss. Mercury in Water by CVAAS or CVAFS	APHA 3030B/EPA 1631E (mod)

Water samples are filtered (0.45 um), preserved with hydrochloric acid, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS or CVAFS.

HG-T-CVAA-VA	Water	Total Mercury in Water by CVAAS or CVAFS	EPA 1631E (mod)

Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS or CVAFS.

LIME-DEMAND-MAN-WR	Water	Lime Demand & Solids Formed Test	CH2M Hill, Redding CA, Procedure (1987)

This method is used to determine the solids that form in acid mine drainage sample when raised to a pH of 10 with the additon of either a 1% or 10% Ca(OH)2 solution and the lime demand to achieve that pH. The solids are determined filtering 25 mL sample after the Lime Demand procedure using a 47 mm glass fibre filter dried overnight @ 105C. The Lime Demand and Solids Formed results are reported as pounds of Ca(OH)2 per 1000 US gallons of Acid Mind Drainage.

MET-D-CCMS-VA	Water	Dissolved Metals in Water by CRC ICPMS	APHA 3030B/6020A (mod)

Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

MET-DIS-ICP-VA	Water	Dissolved Metals in Water by ICPOES	EPA SW-846 3005A/6010B

This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedure involves filtration (EPA Method 3005A) and analysis by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B).

MET-T-CCMS-VA	Water	Total Metals in Water by CRC ICPMS	EPA 200.2/6020A (mod)

Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

MET-TOT-ICP-VA Water Total Metals in Water by ICPOES EPA SW-846 3005A/6010B

This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedures may involve preliminary sample treatment by acid digestion, using either hotblock or microwave oven (EPA Method 3005A). Instrumental analysis is by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B).

NH3-F-VA Water Ammonia in Water by Fluorescence APHA 4500 NH3-NITROGEN (AMMONIA)

This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.

NH3-F-VA Water Ammonia in Water by Fluorescence J. ENVIRON. MONIT., 2005, 7, 37-42, RSC

This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.

NO2-L-IC-N-WR Water Nitrite in Water by IC (Low Level) EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

NO3-L-IC-N-WR Water Nitrate in Water by IC (Low Level) EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

P-T-PRES-COL-VA Water Total P in Water by Colour APHA 4500-P Phosphorus

This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorus is determined colourimetrically after persulphate digestion of the sample.

S-DIS-ICP-VA Water Dissolved Sulfur in Water by ICPOES EPA SW-846 3005A/6010B

This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedures may involve preliminary sample treatment by acid digestion, using either hotblock or microwave oven, or filtration (EPA Method 3005A). Instrumental analysis is by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B).

Method Limitation: This method will not give total sulfur results for all samples. Sulfide or other volatile forms of sulfur that may be present in submitted samples, is often lost during the sampling, preservation and analysis process. The data reported as total and/or dissolved sulfur represents all non-volatile forms of sulfur present in a particular sample.

S-TOT-ICP-VA Water Total Sulfur in Water by ICPOES EPA SW-846 3005A/6010B

This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedures may involve preliminary sample treatment by acid digestion, using either hotblock or microwave oven, or filtration (EPA Method 3005A). Instrumental analysis is by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B).

Method Limitation: This method will not give total sulfur results for all samples. Sulfide or other volatile forms of sulfur that may be present in submitted samples, is often lost during the sampling, preservation and analysis process. The data reported as total and/or dissolved sulfur represents all non-volatile forms of sulfur present in a particular sample.

SIO2-D-CALC-VA Water Dissolved Silicon (reported as Silica) CALCULATION

Dissolved Silicon (as SiO2) is a calculated parameter. Dissolved Silicon (as SiO2 mg/L) = 2.139 x Dissolved Silicon (mg/L).

SIO2-T-CALC-VA Water Total Silicon (reported as Silica) CALCULATION

Total Silicon (as SiO2) is a calculated parameter. Total Silicon (as SiO2 mg/L) = 2.139 x Total Silicon (mg/L).

SO4-IC-N-WR Water Sulfate in Water by IC EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

TDS-VA Water Total Dissolved Solids by Gravimetric APHA 2540 C - GRAVIMETRIC

This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, TDS is determined by evaporating the filtrate to dryness at 180 degrees celsius.

TSS-LOW-WR Water Total Suspended Solids by Grav. (1 mg/L) APHA 2540 D

This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Suspended Solids

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**

are determined by filtering a sample through a glass fibre filter and drying the filter at 104 degrees celsius.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

ALS030316

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L1741165 Report Date: 21-MAR-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ACY-H2O2-MAN-VA	**Water**							
Batch **R3418963**								
WG2273555-2 **CRM**		**VA-ACY-M-CONTROL**						
Acidity-Hot Peroxide Treated (as CaCO3)			101.5		%		85-115	11-MAR-16
WG2273555-3 **DUP**		**L1741165-3**						
Acidity-Hot Peroxide Treated (as CaCO3)		<25	<25	RPD-NA	mg/L	N/A	20	11-MAR-16
WG2273555-1 **MB**								
Acidity-Hot Peroxide Treated (as CaCO3)			<25		mg/L		25	11-MAR-16
ALK-TITR-VA	**Water**							
Batch **R3415733**								
WG2271673-3 **CRM**		**VA-ALK-TITR-CONTROL**						
Alkalinity, Total (as CaCO3)			100.7		%		85-115	07-MAR-16
WG2271673-5 **DUP**		**L1741165-5**						
Alkalinity, Total (as CaCO3)		63.3	63.4		mg/L	0.2	20	07-MAR-16
WG2271673-1 **MB**								
Alkalinity, Total (as CaCO3)			<1.0		mg/L		1	07-MAR-16
CARBONS-DOC-VA	**Water**							
Batch **R3416460**								
WG2272322-5 **DUP**		**L1741165-1**						
Dissolved Organic Carbon		1.92	1.89		mg/L	1.7	20	08-MAR-16
WG2272322-4 **LCS**								
Dissolved Organic Carbon			97.4		%		80-120	08-MAR-16
WG2272322-3 **MB**								
Dissolved Organic Carbon			<0.50		mg/L		0.5	08-MAR-16
WG2272322-6 **MS**		**L1741165-2**						
Dissolved Organic Carbon			109.1		%		70-130	08-MAR-16
CL-IC-N-WR	**Water**							
Batch **R3414990**								
WG2270976-3 **DUP**		**L1741165-5**						
Chloride (Cl)		1.3	1.3		mg/L	0.4	20	04-MAR-16
WG2270976-2 **LCS**								
Chloride (Cl)			101.5		%		90-110	04-MAR-16
WG2270976-1 **MB**								
Chloride (Cl)			<0.50		mg/L		0.5	04-MAR-16
WG2270976-4 **MS**		**L1741165-6**						
Chloride (Cl)			89.6		%		75-125	04-MAR-16
F-IC-N-WR	**Water**							

Quality Control Report

Workorder: L1741165 Report Date: 21-MAR-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F-IC-N-WR	**Water**							
Batch R3414990								
WG2270976-3 DUP		**L1741165-5**						
Fluoride (F)		0.465	0.465		mg/L	0.2	20	04-MAR-16
WG2270976-2 LCS								
Fluoride (F)			107.7		%		90-110	04-MAR-16
WG2270976-1 MB								
Fluoride (F)			<0.020		mg/L		0.02	04-MAR-16
WG2270976-4 MS		**L1741165-6**						
Fluoride (F)			95.4		%		75-125	04-MAR-16
FE2-D-COL-VA	**Water**							
Batch R3416053								
WG2272405-3 DUP		**L1741165-1**						
Ferrous Iron, Dissolved		0.696	0.620		mg/L	12	20	08-MAR-16
WG2272405-2 LCS								
Ferrous Iron, Dissolved			105.7		%		80-120	08-MAR-16
WG2272405-1 MB								
Ferrous Iron, Dissolved			<0.020		mg/L		0.02	08-MAR-16
WG2272405-4 MS		**L1741165-6**						
Ferrous Iron, Dissolved			112.5		%		70-130	08-MAR-16
HG-D-CVAA-VA	**Water**							
Batch R3415831								
WG2271831-3 DUP		**L1741165-2**						
Mercury (Hg)-Dissolved		<0.0000050	<0.000005C	RPD-NA	mg/L	N/A	20	08-MAR-16
WG2271831-2 LCS								
Mercury (Hg)-Dissolved			108.2		%		80-120	08-MAR-16
WG2271831-1 MB								
Mercury (Hg)-Dissolved			<0.000005C		mg/L		0.000005	08-MAR-16
WG2271831-4 MS		**L1741165-5**						
Mercury (Hg)-Dissolved			100.1		%		70-130	08-MAR-16
HG-T-CVAA-VA	**Water**							
Batch R3416034								
WG2272420-3 DUP		**L1741165-2**						
Mercury (Hg)-Total		<0.0000050	<0.000005C	RPD-NA	mg/L	N/A	20	08-MAR-16
WG2272420-2 LCS								
Mercury (Hg)-Total			98.8		%		80-120	08-MAR-16
WG2272420-1 MB								
Mercury (Hg)-Total			<0.000005C		mg/L		0.000005	08-MAR-16
WG2272420-4 MS		**L1741165-3**						

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HG-T-CVAA-VA	**Water**							
Batch R3416034								
WG2272420-4 MS		**L1741165-3**						
Mercury (Hg)-Total			99.8		%		70-130	08-MAR-16
LIME-DEMAND-MAN-WR	**Water**							
Batch R3417730								
WG2272374-2 DUP		**L1741165-1**						
Lime Demand (as Ca(OH)2)		0.920	0.950		lb/1000USG	3.2	20	08-MAR-16
Solids Formed (as Ca(OH)2)		1.32	1.28		lb/1000USG	3.1	20	08-MAR-16
WG2272374-1 MB								
Lime Demand (as Ca(OH)2)			0.070	MB-LOR	lb/1000USG		0.05	08-MAR-16
Solids Formed (as Ca(OH)2)			<0.20		lb/1000USG		0.2	08-MAR-16
MET-D-CCMS-VA	**Water**							
Batch R3415819								
WG2271829-2 LCS								
Aluminum (Al)-Dissolved			99.2		%		80-120	07-MAR-16
Antimony (Sb)-Dissolved			97.9		%		80-120	07-MAR-16
Arsenic (As)-Dissolved			96.8		%		80-120	07-MAR-16
Barium (Ba)-Dissolved			100.6		%		80-120	07-MAR-16
Beryllium (Be)-Dissolved			96.6		%		80-120	07-MAR-16
Boron (B)-Dissolved			110.3		%		80-120	07-MAR-16
Cadmium (Cd)-Dissolved			97.8		%		80-120	07-MAR-16
Chromium (Cr)-Dissolved			96.7		%		80-120	07-MAR-16
Cobalt (Co)-Dissolved			97.2		%		80-120	07-MAR-16
Copper (Cu)-Dissolved			96.4		%		80-120	07-MAR-16
Lead (Pb)-Dissolved			97.2		%		80-120	07-MAR-16
Lithium (Li)-Dissolved			90.4		%		80-120	07-MAR-16
Manganese (Mn)-Dissolved			98.8		%		80-120	07-MAR-16
Molybdenum (Mo)-Dissolved			94.8		%		80-120	07-MAR-16
Nickel (Ni)-Dissolved			98.4		%		80-120	07-MAR-16
Potassium (K)-Dissolved			97.5		%		80-120	07-MAR-16
Selenium (Se)-Dissolved			96.6		%		80-120	07-MAR-16
Silver (Ag)-Dissolved			95.9		%		80-120	07-MAR-16
Sodium (Na)-Dissolved			98.5		%		80-120	07-MAR-16
Strontium (Sr)-Dissolved			93.5		%		80-120	07-MAR-16
Thallium (Tl)-Dissolved			98.6		%		80-120	07-MAR-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3415819								
WG2271829-2 LCS								
Titanium (Ti)-Dissolved			99.6		%		80-120	07-MAR-16
Uranium (U)-Dissolved			91.7		%		80-120	07-MAR-16
Vanadium (V)-Dissolved			98.2		%		80-120	07-MAR-16
Zinc (Zn)-Dissolved			93.2		%		80-120	07-MAR-16
WG2271829-1 MB								
Aluminum (Al)-Dissolved			<0.0010		mg/L		0.001	07-MAR-16
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	07-MAR-16
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	07-MAR-16
Barium (Ba)-Dissolved			<0.000050		mg/L		0.00005	07-MAR-16
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	07-MAR-16
Boron (B)-Dissolved			<0.010		mg/L		0.01	07-MAR-16
Cadmium (Cd)-Dissolved			<0.000005C		mg/L		0.000005	07-MAR-16
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	07-MAR-16
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	07-MAR-16
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	07-MAR-16
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	07-MAR-16
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	07-MAR-16
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	07-MAR-16
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	07-MAR-16
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	07-MAR-16
Potassium (K)-Dissolved			<0.050		mg/L		0.05	07-MAR-16
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	07-MAR-16
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	07-MAR-16
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	07-MAR-16
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	07-MAR-16
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	07-MAR-16
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	07-MAR-16
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	07-MAR-16
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	07-MAR-16
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	07-MAR-16
Batch R3417843								
WG2271829-3 DUP		**L1741165-4**						
Aluminum (Al)-Dissolved		0.0123	0.0103		mg/L	18	20	11-MAR-16
Antimony (Sb)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	11-MAR-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3417843								
WG2271829-3 DUP		**L1741165-4**						
Arsenic (As)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	11-MAR-16
Barium (Ba)-Dissolved		0.0121	0.0127		mg/L	5.1	20	11-MAR-16
Beryllium (Be)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	11-MAR-16
Boron (B)-Dissolved		<0.050	<0.050	RPD-NA	mg/L	N/A	20	11-MAR-16
Cadmium (Cd)-Dissolved		0.0116	0.0128		mg/L	10	20	11-MAR-16
Chromium (Cr)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	11-MAR-16
Cobalt (Co)-Dissolved		0.0855	0.0906		mg/L	5.7	20	11-MAR-16
Copper (Cu)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	11-MAR-16
Lead (Pb)-Dissolved		<0.00025	<0.00025	RPD-NA	mg/L	N/A	20	11-MAR-16
Lithium (Li)-Dissolved		0.0638	0.0638		mg/L	0.1	20	11-MAR-16
Manganese (Mn)-Dissolved		7.37	7.71		mg/L	4.6	20	11-MAR-16
Molybdenum (Mo)-Dissolved		<0.00025	<0.00025	RPD-NA	mg/L	N/A	20	11-MAR-16
Nickel (Ni)-Dissolved		0.158	0.166		mg/L	4.9	20	11-MAR-16
Potassium (K)-Dissolved		10.3	10.9		mg/L	5.4	20	11-MAR-16
Selenium (Se)-Dissolved		<0.00025	<0.00025	RPD-NA	mg/L	N/A	20	11-MAR-16
Silver (Ag)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	11-MAR-16
Sodium (Na)-Dissolved		22.1	23.5		mg/L	6.1	20	11-MAR-16
Strontium (Sr)-Dissolved		0.774	0.792		mg/L	2.3	20	11-MAR-16
Thallium (Tl)-Dissolved		0.000542	0.000557		mg/L	2.7	20	11-MAR-16
Titanium (Ti)-Dissolved		<0.0015	<0.0015	RPD-NA	mg/L	N/A	20	11-MAR-16
Uranium (U)-Dissolved		0.000439	0.000451		mg/L	2.7	20	11-MAR-16
Vanadium (V)-Dissolved		<0.0025	<0.0025	RPD-NA	mg/L	N/A	20	11-MAR-16
Zinc (Zn)-Dissolved		25.0	26.4		mg/L	5.4	20	11-MAR-16
WG2271829-4 MS		**L1741165-6**						
Aluminum (Al)-Dissolved			103.9		%		70-130	11-MAR-16
Antimony (Sb)-Dissolved			98.4		%		70-130	11-MAR-16
Arsenic (As)-Dissolved			100.6		%		70-130	11-MAR-16
Barium (Ba)-Dissolved			100.2		%		70-130	11-MAR-16
Beryllium (Be)-Dissolved			100.4		%		70-130	11-MAR-16
Boron (B)-Dissolved			90.8		%		70-130	11-MAR-16
Cadmium (Cd)-Dissolved			102.4		%		70-130	11-MAR-16
Chromium (Cr)-Dissolved			93.9		%		70-130	11-MAR-16
Cobalt (Co)-Dissolved			96.9		%		70-130	11-MAR-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3417843								
WG2271829-4 MS		**L1741165-6**						
Copper (Cu)-Dissolved			98.3		%		70-130	11-MAR-16
Lead (Pb)-Dissolved			97.5		%		70-130	11-MAR-16
Lithium (Li)-Dissolved			101.8		%		70-130	11-MAR-16
Manganese (Mn)-Dissolved			104.0		%		70-130	11-MAR-16
Molybdenum (Mo)-Dissolved			96.2		%		70-130	11-MAR-16
Nickel (Ni)-Dissolved			99.6		%		70-130	11-MAR-16
Potassium (K)-Dissolved			100.1		%		70-130	11-MAR-16
Selenium (Se)-Dissolved			99.5		%		70-130	11-MAR-16
Silver (Ag)-Dissolved			99.8		%		70-130	11-MAR-16
Sodium (Na)-Dissolved			96.1		%		70-130	11-MAR-16
Strontium (Sr)-Dissolved			97.6		%		70-130	11-MAR-16
Thallium (Tl)-Dissolved			98.0		%		70-130	11-MAR-16
Titanium (Ti)-Dissolved			99.6		%		70-130	11-MAR-16
Uranium (U)-Dissolved			98.0		%		70-130	11-MAR-16
Vanadium (V)-Dissolved			98.7		%		70-130	11-MAR-16
Zinc (Zn)-Dissolved			102.4		%		70-130	11-MAR-16
MET-DIS-ICP-VA	**Water**							
Batch R3418050								
WG2271829-3 DUP		**L1741165-4**						
Calcium (Ca)-Dissolved		195	198		mg/L	1.7	20	11-MAR-16
Iron (Fe)-Dissolved		0.863	0.898		mg/L	4.0	20	11-MAR-16
Magnesium (Mg)-Dissolved		96.0	99.4		mg/L	3.5	20	11-MAR-16
Phosphorus (P)-Dissolved		<0.30	<0.30	RPD-NA	mg/L	N/A	20	11-MAR-16
Silicon (Si)-Dissolved		3.29	3.44		mg/L	4.2	20	11-MAR-16
WG2271829-2 LCS								
Calcium (Ca)-Dissolved			103.0		%		80-120	11-MAR-16
Iron (Fe)-Dissolved			98.1		%		80-120	11-MAR-16
Magnesium (Mg)-Dissolved			100.2		%		80-120	11-MAR-16
Phosphorus (P)-Dissolved			102.5		%		80-120	11-MAR-16
Silicon (Si)-Dissolved			103.1		%		80-120	11-MAR-16
WG2271829-1 MB								
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	11-MAR-16
Iron (Fe)-Dissolved			<0.030		mg/L		0.03	11-MAR-16
Magnesium (Mg)-Dissolved			<0.10		mg/L		0.1	11-MAR-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-DIS-ICP-VA	**Water**							
Batch R3418050								
WG2271829-1 MB								
Phosphorus (P)-Dissolved			<0.30		mg/L		0.3	11-MAR-16
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	11-MAR-16
MET-T-CCMS-VA	**Water**							
Batch R3415957								
WG2271856-2 LCS								
Aluminum (Al)-Total			100.4		%		80-120	08-MAR-16
Antimony (Sb)-Total			105.4		%		80-120	08-MAR-16
Arsenic (As)-Total			103.5		%		80-120	08-MAR-16
Barium (Ba)-Total			102.8		%		80-120	08-MAR-16
Beryllium (Be)-Total			104.7		%		80-120	08-MAR-16
Boron (B)-Total			102.8		%		80-120	08-MAR-16
Cadmium (Cd)-Total			96.3		%		80-120	08-MAR-16
Chromium (Cr)-Total			101.4		%		80-120	08-MAR-16
Cobalt (Co)-Total			103.6		%		80-120	08-MAR-16
Copper (Cu)-Total			99.6		%		80-120	08-MAR-16
Lead (Pb)-Total			100.0		%		80-120	08-MAR-16
Lithium (Li)-Total			100.9		%		80-120	08-MAR-16
Manganese (Mn)-Total			100.4		%		80-120	08-MAR-16
Molybdenum (Mo)-Total			102.8		%		80-120	08-MAR-16
Nickel (Ni)-Total			101.1		%		80-120	08-MAR-16
Potassium (K)-Total			107.5		%		80-120	08-MAR-16
Selenium (Se)-Total			102.3		%		80-120	08-MAR-16
Silver (Ag)-Total			102.3		%		80-120	08-MAR-16
Sodium (Na)-Total			103.0		%		80-120	08-MAR-16
Strontium (Sr)-Total			99.3		%		80-120	08-MAR-16
Thallium (Tl)-Total			101.0		%		80-120	08-MAR-16
Titanium (Ti)-Total			97.7		%		80-120	08-MAR-16
Uranium (U)-Total			97.5		%		80-120	08-MAR-16
Vanadium (V)-Total			105.1		%		80-120	08-MAR-16
Zinc (Zn)-Total			97.9		%		80-120	08-MAR-16
WG2271856-1 MB								
Aluminum (Al)-Total			<0.0030		mg/L		0.003	08-MAR-16
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	08-MAR-16
Arsenic (As)-Total			<0.00010		mg/L		0.0001	08-MAR-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-VA	**Water**							
Batch R3415957								
WG2271856-1 MB								
Barium (Ba)-Total			<0.000050		mg/L		0.00005	08-MAR-16
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	08-MAR-16
Boron (B)-Total			<0.010		mg/L		0.01	08-MAR-16
Chromium (Cr)-Total			<0.00010		mg/L		0.0001	08-MAR-16
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	08-MAR-16
Copper (Cu)-Total			<0.00050		mg/L		0.0005	08-MAR-16
Lead (Pb)-Total			<0.000050		mg/L		0.00005	08-MAR-16
Lithium (Li)-Total			<0.0010		mg/L		0.001	08-MAR-16
Manganese (Mn)-Total			<0.00010		mg/L		0.0001	08-MAR-16
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	08-MAR-16
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	08-MAR-16
Potassium (K)-Total			<0.050		mg/L		0.05	08-MAR-16
Selenium (Se)-Total			<0.000050		mg/L		0.00005	08-MAR-16
Silver (Ag)-Total			<0.000010		mg/L		0.00001	08-MAR-16
Sodium (Na)-Total			<0.050		mg/L		0.05	08-MAR-16
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	08-MAR-16
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	08-MAR-16
Uranium (U)-Total			<0.000010		mg/L		0.00001	08-MAR-16
Vanadium (V)-Total			<0.00050		mg/L		0.0005	08-MAR-16
Zinc (Zn)-Total			<0.0030		mg/L		0.003	08-MAR-16
Batch R3416527								
WG2271856-1 MB								
Cadmium (Cd)-Total			<0.000005C		mg/L		0.000005	08-MAR-16
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	08-MAR-16
Batch R3417843								
WG2271856-3 DUP		**L1741165-1**						
Aluminum (Al)-Total		<0.015	<0.015	RPD-NA	mg/L	N/A	20	13-MAR-16
Antimony (Sb)-Total		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	13-MAR-16
Arsenic (As)-Total		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	13-MAR-16
Barium (Ba)-Total		0.0132	0.0129		mg/L	2.4	20	13-MAR-16
Beryllium (Be)-Total		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	13-MAR-16
Boron (B)-Total		<0.050	<0.050	RPD-NA	mg/L	N/A	20	13-MAR-16
Cadmium (Cd)-Total		0.0127	0.0126		mg/L	0.8	20	13-MAR-16
Chromium (Cr)-Total		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	13-MAR-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-VA	**Water**							
Batch R3417843								
WG2271856-3 DUP		**L1741165-1**						
Cobalt (Co)-Total		0.0945	0.0926		mg/L	2.0	20	13-MAR-16
Copper (Cu)-Total		<0.0025	<0.0025	RPD-NA	mg/L	N/A	20	13-MAR-16
Lead (Pb)-Total		<0.00025	<0.00025	RPD-NA	mg/L	N/A	20	13-MAR-16
Lithium (Li)-Total		0.0707	0.0676		mg/L	4.4	20	13-MAR-16
Manganese (Mn)-Total		8.04	7.93		mg/L	1.4	20	13-MAR-16
Molybdenum (Mo)-Total		<0.00025	<0.00025	RPD-NA	mg/L	N/A	20	13-MAR-16
Nickel (Ni)-Total		0.172	0.170		mg/L	1.3	20	13-MAR-16
Potassium (K)-Total		10.9	10.8		mg/L	1.3	20	13-MAR-16
Selenium (Se)-Total		<0.00025	<0.00025	RPD-NA	mg/L	N/A	20	13-MAR-16
Silver (Ag)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	13-MAR-16
Sodium (Na)-Total		24.8	24.5		mg/L	1.2	20	13-MAR-16
Strontium (Sr)-Total		0.820	0.800		mg/L	2.4	20	13-MAR-16
Thallium (Tl)-Total		0.000587	0.000567		mg/L	3.4	20	13-MAR-16
Titanium (Ti)-Total		<0.0015	<0.0015	RPD-NA	mg/L	N/A	20	13-MAR-16
Uranium (U)-Total		0.000419	0.000407		mg/L	2.9	20	13-MAR-16
Vanadium (V)-Total		<0.0025	<0.0025	RPD-NA	mg/L	N/A	20	13-MAR-16
Zinc (Zn)-Total		27.6	27.2		mg/L	1.6	20	13-MAR-16
WG2271856-4 MS		**L1741165-5**						
Aluminum (Al)-Total			101.0		%		70-130	11-MAR-16
Antimony (Sb)-Total			100.9		%		70-130	11-MAR-16
Arsenic (As)-Total			98.6		%		70-130	11-MAR-16
Barium (Ba)-Total			99.97		%		70-130	11-MAR-16
Beryllium (Be)-Total			95.0		%		70-130	11-MAR-16
Boron (B)-Total			90.2		%		70-130	11-MAR-16
Cadmium (Cd)-Total			96.2		%		70-130	11-MAR-16
Chromium (Cr)-Total			95.3		%		70-130	11-MAR-16
Cobalt (Co)-Total			94.9		%		70-130	11-MAR-16
Copper (Cu)-Total			97.4		%		70-130	11-MAR-16
Lead (Pb)-Total			98.3		%		70-130	11-MAR-16
Lithium (Li)-Total			99.5		%		70-130	11-MAR-16
Manganese (Mn)-Total			N/A	MS-B	%		-	11-MAR-16
Molybdenum (Mo)-Total			101.8		%		70-130	11-MAR-16
Nickel (Ni)-Total			94.3		%		70-130	11-MAR-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-VA	**Water**							
Batch R3417843								
WG2271856-4 MS		**L1741165-5**						
Potassium (K)-Total			97.8		%		70-130	11-MAR-16
Selenium (Se)-Total			96.6		%		70-130	11-MAR-16
Silver (Ag)-Total			100.7		%		70-130	11-MAR-16
Sodium (Na)-Total			N/A	MS-B	%		-	11-MAR-16
Strontium (Sr)-Total			N/A	MS-B	%		-	11-MAR-16
Thallium (Tl)-Total			98.5		%		70-130	11-MAR-16
Titanium (Ti)-Total			102.2		%		70-130	11-MAR-16
Uranium (U)-Total			101.8		%		70-130	11-MAR-16
Vanadium (V)-Total			101.8		%		70-130	11-MAR-16
Zinc (Zn)-Total			N/A	MS-B	%		-	11-MAR-16
MET-TOT-ICP-VA	**Water**							
Batch R3418050								
WG2271856-3 DUP		**L1741165-1**						
Calcium (Ca)-Total		196	193		mg/L	2.0	20	11-MAR-16
Iron (Fe)-Total		0.717	0.693		mg/L	3.4	20	11-MAR-16
Magnesium (Mg)-Total		102	98.9		mg/L	2.9	20	11-MAR-16
Phosphorus (P)-Total		<0.30	<0.30	RPD-NA	mg/L	N/A	20	11-MAR-16
Silicon (Si)-Total		3.51	3.39		mg/L	3.6	20	11-MAR-16
WG2271856-2 LCS								
Calcium (Ca)-Total			103.4		%		80-120	11-MAR-16
Iron (Fe)-Total			99.4		%		80-120	11-MAR-16
Magnesium (Mg)-Total			101.0		%		80-120	11-MAR-16
Phosphorus (P)-Total			101.0		%		80-120	11-MAR-16
Silicon (Si)-Total			104.7		%		80-120	11-MAR-16
WG2271856-1 MB								
Calcium (Ca)-Total			<0.050		mg/L		0.05	11-MAR-16
Iron (Fe)-Total			<0.030		mg/L		0.03	11-MAR-16
Magnesium (Mg)-Total			<0.10		mg/L		0.1	11-MAR-16
Phosphorus (P)-Total			<0.30		mg/L		0.3	11-MAR-16
Silicon (Si)-Total			<0.050		mg/L		0.05	11-MAR-16
WG2271856-4 MS		**L1741165-5**						
Calcium (Ca)-Total			N/A	MS-B	%		-	11-MAR-16
Iron (Fe)-Total			86.3		%		70-130	11-MAR-16
Magnesium (Mg)-Total			N/A	MS-B	%		-	11-MAR-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-TOT-ICP-VA	**Water**							
Batch R3418050								
WG2271856-4 MS		**L1741165-5**						
Phosphorus (P)-Total			94.8		%		70-130	11-MAR-16
Silicon (Si)-Total			N/A	MS-B	%		-	11-MAR-16
NH3-F-VA	**Water**							
Batch R3418118								
WG2274624-3 DUP		**L1741165-1**						
Ammonia, Total (as N)		1.37	1.37		mg/L	0.1	20	13-MAR-16
WG2274624-2 LCS								
Ammonia, Total (as N)			99.5		%		85-115	13-MAR-16
WG2274624-1 MB								
Ammonia, Total (as N)			<0.0050		mg/L		0.005	13-MAR-16
WG2274624-4 MS		**L1741165-1**						
Ammonia, Total (as N)			N/A	MS-B	%		-	13-MAR-16
NO2-L-IC-N-WR	**Water**							
Batch R3414990								
WG2270976-3 DUP		**L1741165-5**						
Nitrite (as N)		<0.0020	<0.0020	RPD-NA	mg/L	N/A	20	04-MAR-16
WG2270976-2 LCS								
Nitrite (as N)			101.9		%		90-110	04-MAR-16
WG2270976-1 MB								
Nitrite (as N)			<0.0010		mg/L		0.001	04-MAR-16
WG2270976-4 MS		**L1741165-6**						
Nitrite (as N)			89.8		%		75-125	04-MAR-16
NO3-L-IC-N-WR	**Water**							
Batch R3414990								
WG2270976-3 DUP		**L1741165-5**						
Nitrate (as N)		0.152	0.152		mg/L	0.2	20	04-MAR-16
WG2270976-2 LCS								
Nitrate (as N)			100.8		%		90-110	04-MAR-16
WG2270976-1 MB								
Nitrate (as N)			<0.0050		mg/L		0.005	04-MAR-16
WG2270976-4 MS		**L1741165-6**						
Nitrate (as N)			89.0		%		75-125	04-MAR-16
P-T-PRES-COL-VA	**Water**							

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
P-T-PRES-COL-VA	**Water**							
Batch R3416131								
WG2272068-2 CRM		**VA-ERA-PO4**						
Phosphorus (P)-Total			102.2		%		80-120	09-MAR-16
WG2272068-3 DUP		**L1741165-1**						
Phosphorus (P)-Total		<0.020	<0.020	RPD-NA	mg/L	N/A	20	09-MAR-16
WG2272068-1 MB								
Phosphorus (P)-Total			<0.0020		mg/L		0.002	09-MAR-16
WG2272068-4 MS		**L1741165-3**						
Phosphorus (P)-Total			83.4		%		70-130	09-MAR-16
S-DIS-ICP-VA	**Water**							
Batch R3418050								
WG2271829-3 DUP		**L1741165-4**						
Sulfur (S)-Dissolved		287	292		mg/L	1.5	20	11-MAR-16
WG2271829-2 LCS								
Sulfur (S)-Dissolved			99.8		%		80-120	11-MAR-16
WG2271829-1 MB								
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	11-MAR-16
S-TOT-ICP-VA	**Water**							
Batch R3418050								
WG2271856-3 DUP		**L1741165-1**						
Sulfur (S)-Total		307	300		mg/L	2.4	20	11-MAR-16
WG2271856-2 LCS								
Sulfur (S)-Total			99.4		%		80-120	11-MAR-16
WG2271856-1 MB								
Sulfur (S)-Total			<0.50		mg/L		0.5	11-MAR-16
WG2271856-4 MS		**L1741165-5**						
Sulfur (S)-Total			N/A	MS-B	%		-	11-MAR-16
SO4-IC-N-WR	**Water**							
Batch R3414990								
WG2270976-3 DUP		**L1741165-5**						
Sulfate (SO4)		900	899		mg/L	0.1	20	04-MAR-16
WG2270976-2 LCS								
Sulfate (SO4)			101.8		%		90-110	04-MAR-16
WG2270976-1 MB								
Sulfate (SO4)			<0.30		mg/L		0.3	04-MAR-16
WG2270976-4 MS		**L1741165-6**						
Sulfate (SO4)			89.7		%		75-125	04-MAR-16
TDS-VA	**Water**							

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TDS-VA	**Water**							
Batch R3416395								
WG2272097-3 DUP		**L1741165-1**						
Total Dissolved Solids		1400	1390		mg/L	0.3	20	08-MAR-16
WG2272097-2 LCS								
Total Dissolved Solids			101.4		%		85-115	08-MAR-16
WG2272097-1 MB								
Total Dissolved Solids			<10		mg/L		10	08-MAR-16
TSS-LOW-WR	**Water**							
Batch R3416496								
WG2271645-3 DUP		**L1741165-3**						
Total Suspended Solids		1.0	<5.0	RPD-NA	mg/L	N/A	20	08-MAR-16
WG2271645-2 LCS								
Total Suspended Solids			100.4		%		85-115	08-MAR-15
WG2271645-1 MB								
Total Suspended Solids			<1.0		mg/L		1	08-MAR-15

Quality Control Report

Workorder: L1741165 Report Date: 21-MAR-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
DLA	Detection Limit adjusted for required dilution
DLM	Detection Limit Adjusted due to sample matrix effects.
MB-LOR	Method Blank exceeds ALS DQO. Limits of Reporting have been adjusted for samples with positive hits below 5x blank level.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

pH CALIBRATION INFORMATION / QC INFORMATION

ANALYST: SRS -	**DATE:** 8-Jun-16.
ANALYTE: PH /	**WG NUMBER:** WG 227 2374.
PRODUCT CODE: LIME - DEMAND - WR.	
QC'D BY:	**QC DATE:** 10-Jun 16.

CALIBRATION	
Temperature:	*Probe ID: Jackson*
Slope %: 96.5	*Acceptance Criteria:* **92 – 102 %** ✓

VERIFICATION STANDARDS			
Controlled Material #	*Target pH*	*Result*	*Acceptance Criteria*
WRWQ-010-2	**4.00**	4.00	**3.90 – 4.10**
WRWQ-014-3	**7.00**	7.00	**6.90 – 7.10**
WRWQ-012-3	**10.00**	10.00	**9.90 – 10.10**

QUALITY CONTROL *(1RM per batch of 20 (or less) samples)*		
Certified Reference Material (CRM) ID: WRWQ-015-4		*Target pH:* **7.00**
WG # :	*Result:* 7.01	*Acceptance Criteria:* **6.90 – 7.10**
WG # :	*Result:*	*Acceptance Criteria:* **6.90 – 7.10**
WG # :	*Result:*	*Acceptance Criteria:* **6.90 – 7.10**
WG # :	*Result:*	*Acceptance Criteria:* **6.90 – 7.10**

NOTES:

Prioritized Work List Report

360 Days Work List: LIME-WR -

All Samples with latest start date on or before 03-Mar-2017

Dept #:**89110** Dept:**WaterQuality, Analysis, Whiteh**

Product: Matrix:**1 Water** Statuses:**AVAL NEED REDO**

Sample # / Product	Account Name / Matrix	Status	Latest Start	HT	Dept Due Date	Account Manager / Workgroup	Client ID / Location / Out	Priority
L1741165-1	CH2M HILL, INC					ASPRINGER	CH13-016-FAROPL_10	DUP.
LIME-DEMAND-MAN-WR	Water	AVAL	14-Mar-16 20:00		16-Mar-16 20:00	WR-CART-005		
Comments: "Samples are required to be batched, with dedicated QC. A MB, an LCS or Reference Material and a Dup (where needed) is minimum QC . Include a matrix spike if applicable. Holding times are critical!!!"								
L1741165-2	CH2M HILL, INC					ASPRINGER	CH13-016-FAROPL_50	
LIME-DEMAND-MAN-WR	Water	AVAL	14-Mar-16 20:00		16-Mar-16 20:00	WR-CART-005		
Comments: "Samples are required to be batched, with dedicated QC. A MB, an LCS or Reference Material and a Dup (where needed) is minimum QC . Include a matrix spike if applicable. Holding times are critical!!!"								
L1741165-3	CH2M HILL, INC					ASPRINGER	CH13-016-FAROPL_70	
LIME-DEMAND-MAN-WR	Water	AVAL	14-Mar-16 20:00		16-Mar-16 20:00	WR-CART-005		
Comments: "Samples are required to be batched, with dedicated QC. A MB, an LCS or Reference Material and a Dup (where needed) is minimum QC . Include a matrix spike if applicable. Holding times are critical!!!"								
L1741165-4	CH2M HILL, INC					ASPRINGER	CH13-016-FAROPL_90	
LIME-DEMAND-MAN-WR	Water	AVAL	14-Mar-16 20:00		16-Mar-16 20:00	WR-CART-005		
Comments: "Samples are required to be batched, with dedicated QC. A MB, an LCS or Reference Material and a Dup (where needed) is minimum QC . Include a matrix spike if applicable. Holding times are critical!!!"								
L1741165-5	CH2M HILL, INC					ASPRINGER	CH13-916-FAROPL_10	
LIME-DEMAND-MAN-WR	Water	AVAL	14-Mar-16 20:00		16-Mar-16 20:00	WR-CART-00S		
Comments: "Samples are required to be batched, with dedicated QC. A MB, an LCS or Reference Material and a Dup (where needed) is minimum QC . Include a matrix spike if applicable. Holding times are critical!!!"								

Total Client Samples:5

Total QC Samples:0

HT Flag Explanation

*:Holding Time is the determining factor for the latest start date.
XC:Holding Time is expired, in Client's custody (ie: before receipt).
XL:Holding Time is expired, in Lab's hands.

Lime Demand Calc Sheet V3 L1741165

Sample	Lime Demand Vol (mL)	Initial pH	Final pH	DF	Vol 1% Ca(OH)2 (mL)	Vol 10% Ca(OH)2 (ml)	TSS Vol (mL)	Pre Wt. (g)	Post Wt. (g)	Wt of TSS (g)	Lime Demand (g/L)	Lime Demand lb/1000gal	Solids Formed (g/L)	Solids Formed lb/1000gal
WG2272374-1	500	6.65	10	1	0.4		25	0.1267	0.1265	-0.0002	0.01	0.07	-0.01	-0.07
L1741165-1	500	6.95	10	1	5.5		25	0.1221	0.126	0.0039	0.11	0.92	0.16	1.32
WG2272374-2	500	6.97	9.99	1	5.7		25	0.1241	0.1279	0.0038	0.11	0.95	0.15	1.28
L1741165-2	500	7.15	10.01	1	4.8		25	0.1237	0.1267	0.003	0.10	0.80	0.12	1.01
L1741165-3	500	6.89	10	1	6.3		25	0.1244	0.1285	0.0041	0.13	1.05	0.17	1.39
L1741165-4	500	6.93	10.01	1	6.1		25	0.1238	0.1277	0.0039	0.12	1.02	0.16	1.32
L1741165-5	500	7.05	10	1	5.7		25	0.1249	0.128	0.0031	0.11	0.95	0.13	1.05

10-Mar-16

Wt 227.2374 SRS 8-Nov 16

Sample	Vol sample	Int. pH	Fin pH	Vol 1% Ca(OH)2	Vol 10% Ca(OH)2	Notes
MB	500mL	5.65	10.00	0.1mL - IIII		#7
L1741165-1	500mL	6.95	10.00	1mL - IIII 0.1mL - IIII IIII IIII		#8 9
Dup L1741165-1	500mL	6.97	9.99	1mL - IIII 0.1mL - IIII II		#9 10 9
L1741165-2	500mL	7.15	10.01	1mL - IIII 0.1mL - IIII III		#10 10
L1741165-3	500mL	6.89	10.00	1mL - IIII 0.1mL - IIII IIII III		#11 12 11
L1741165-4	500mL	6.93	10.01	IIII - 1mL 0.1mL - IIII IIII 1		#12 13 12
L1741165-5	500	7.05	10.00	IIII - 1.0 mL 0.1mL - IIII IIII IIII II		#13 14 13

Analysis Date;			Analyst;		
Lab Sample ID	TSS Vol (mL)	Filter Wt. (g)	Sample + Filter Wt. (g)		
WG2272374-1	25	0.1267	0.1265		
L1741165-1	25	0.1221	0.126		
WG2272374-2	25	0.1241	0.1279		
L1741165-2	25	0.1237	0.1267		
L1741165-3	25	0.1244	0.1285		
L1741165-4	25	0.1238	0.1277		
L1741165-5	25	0.1249	0.128		

10-Mar-21
Weights added electronically via bar code scanner + Balance.

Version: 1.05

Department	89110
Analyst	SRS
Date	11-Mar-16 15:07
Analysis date to apply to all samples	

☐ Include Sort By Product Code (Default excludes Product Code)

Sent? NO

Workgroup	Product Code	Sample ID	Matrix	QC Type	Comments	Analyte	Raw data	Dilution Factor	Final Result	UNITS	Qualifier	Valid	DL	Analysis Date/Time	Analyst Comments
WG2272374	LIME-DEMAND-MAN	WG2272374-1	Water	MB		Lime Demand (as Ca(OI	REG	1	0.07	lb/1000US(	MB-LOR	YES	0.05	08-Mar-16 15:07	
WG2272374	LIME-DEMAND-MAN	WG2272374-1	Water	MB		Solids Formed (as Ca(O.	REG	1	-0.07	lb/1000USG		YES	0.2	08-Mar-16 15:07	
WG2272374	LIME-DEMAND-MAN	L1741165-1	Water		"Samples are	Lime Demand (as Ca(OI	REG	1	0.92	lb/1000US(	MB-LOR	YES	0.05	08-Mar-16 15:07	
WG2272374	LIME-DEMAND-MAN	L1741165-1	Water		"Samples are	Solids Formed (as Ca(O.	REG	1	1.32	lb/1000USG		YES	0.2	08-Mar-16 15:07	
WG2272374	LIME-DEMAND-MAN	WG2272374-2	Water	DUP	L1741165-1	Lime Demand (as Ca(OI	REG	1	0.95	lb/1000US(	MB-LOR	YES	0.05	08-Mar-16 15:07	
WG2272374	LIME-DEMAND-MAN	WG2272374-2	Water	DUP	L1741165-1	Solids Formed (as Ca(O.	REG	1	1.28	lb/1000USG		YES	0.2	08-Mar-16 15:07	
WG2272374	LIME-DEMAND-MAN	L1741165-2	Water		"Samples are	Lime Demand (as Ca(OI	REG	1	0.8	lb/1000US(	MB-LOR	YES	0.05	08-Mar-16 15:07	
WG2272374	LIME-DEMAND-MAN	L1741165-2	Water		"Samples are	Solids Formed (as Ca(O.	REG	1	1.01	lb/1000USG		YES	0.2	08-Mar-16 15:07	
WG2272374	LIME-DEMAND-MAN	L1741165-3	Water		"Samples are	Lime Demand (as Ca(OI	REG	1	1.05	lb/1000US(	MB-LOR	YES	0.05	08-Mar-16 15:07	
WG2272374	LIME-DEMAND-MAN	L1741165-3	Water		"Samples are	Solids Formed (as Ca(O.	REG	1	1.39	lb/1000USG		YES	0.2	08-Mar-16 15:07	
WG2272374	LIME-DEMAND-MAN	L1741165-4	Water		"Samples are	Lime Demand (as Ca(OI	REG	1	1.02	lb/1000US(	MB-LOR	YES	0.05	08-Mar-16 15:07	
WG2272374	LIME-DEMAND-MAN	L1741165-4	Water		"Samples are	Solids Formed (as Ca(O.	REG	1	1.32	lb/1000USG		YES	0.2	08-Mar-16 15:07	
WG2272374	LIME-DEMAND-MAN	L1741165-5	Water		"Samples are	Lime Demand (as Ca(OI	REG	1	0.95	lb/1000US(	MB-LOR	YES	0.05	08-Mar-16 15:07	
WG2272374	LIME-DEMAND-MAN	L1741165-5	Water		"Samples are	Solids Formed (as Ca(O.	REG	1	1.05	lb/1000USG		YES	0.2	08-Mar-16 15:07	

14-Mar 16.



L1741165-COFC

CH2MHILL

CHAIN OF CUSTODY RECORD

Project Name Faro Mine
Location Faro Mine Complex - Faro YK
Project Number 660403.20.01.01.04.03.LA
Project Manager Charles Shewen
Sample Manager Jay Bilyk

Task Order SW-014B
Project FARO PIT LAKE SAMPLING WINTER 2016
Turnaround Time 10 Days
Shipping Date: 3/3/2016
COC Number: ALS030316

	DATE	TIME	Matrix	Container:	40ml vial	125ml Poly	125ml glass	1000ml Poly	500ml Poly	500ml Poly	500ml Poly	125ml glass	125ml Glass	125ml Poly	125ml Poly	40ml vial	500ml Poly	500ml Poly	Number of Containers	COMMENTS
				Preservatives:	HCl, 4°C	HCl, 4°C	H2SO4, pH<2, 4C	4°C	4C	4C	4°C	H2SO4, pH<2, 4C	H2SO4, pH<2, 4°C	HNO3, 4°C	HNO3, 4°C	HCl, 4°C	4C	4°C		
				Filtered:	Field	Field	NA	NA	NA	NA	NA	NA	Field	NA	Field	NA	NA	NA		
				Holding Time:	28	180	28	180	14	14	7	28	28	180	180	28	14	3		
					(E245.7-Diss) Field Filtered Dissolved Hg	(Ferrozine Method) Field Filtered Ferrous Iron	(JEM/SM4500NH3) Ammonia	(Lime Demand/Solids Formed) Lime Demand	(SM2320B) Alkalinity	(SM2540C) TDS	(SM2540D) TSS	(SM4500P) Total Phosphorus	(SM5310) Field Filtered DOC	(SW6010B/SW6020A) Total Metals	(SW6010B/SW6020A) Field Filtered Dissolved metals	E245.7 total Hg	SM2310_HP Acidity - Run Hot H2O2	SM4110B CL F NO2 NO3 and SO4		
CH13-016-FAROPL_10	3/3/2016	15:00	Water		X	X	X	X	X	X	X	X	X	X	X	X	X	X	11	
CH13-016-FAROPL_50	3/3/2016	15:30	Water		X	X	X	X	X	X	X	X	X	X	X	X	X	X	11	
CH13-016-FAROPL_70	3/3/2016	16:00	Water		X	X	X	X	X	X	X	X	X	X	X	X	X	X	11	
CH13-016-FAROPL_90	3/3/2016	16:30	Water		X	X	X	X	X	X	X	X	X	X	X	X	X	X	11	
CH13-916-FAROPL_10	3/3/2016	15:00	Water		X	X	X	X	X	X	X	X	X	X	X	X	X	X	11	
E_016_16_001	3/3/2016	17:00	Water		X	X	X					X	X	X	X	X		X	8	
																		TOTAL NUMBER OF CONTAINERS	63	

Signatures		Date/Time
Approved by		
Sampled by		
Relinquished by		
Received by	[signature]	4 Mar 16 1:30
Relinquished by		
Received by	Jean 7 Mar	10:20 4.4°C

Shipping Details
Method of Shipment: FedEx
On Ice: yes / no
Airbill No:
Lab Name: ALS Vancouver
Lab Phone: (604) 253-4188

ATTN:
Sample Custody
and
Amber Springer

Special Instructions:

Report Copy to
Mark Cichy
(530) 229-3274

CH2M HILL, INC
ATTN: Mark Cichy
2525 Airpark Drive
Redding CA 96001

Date Received: 20-MAY-16
Report Date: 08-JUN-16 11:38 (MT)
Version: FINAL

Client Phone: 530-229-3203

Certificate of Analysis

Lab Work Order #: L1771791

Project P.O. #: 673709.20.01.01.04.03.SS PO=10201-7-100939
Job Reference: FARO MINE SPRING SEEP 2016 SW-015
C of C Numbers: ALS05191601
Legal Site Desc:

Amber Springer, B.Sc
Account Manager

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1771791-1 SRK-FD37_SESP16							
Sampled By: CLIENT on 17-MAY-16 @ 15:25							
Matrix: Water							
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<50	DLDS	50	mg/L		20-MAY-16	R3464875
Fluoride in Water by IC							
Fluoride (F)	25.8		2.0	mg/L		20-MAY-16	R3464875
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.50	DLDS	0.50	mg/L		20-MAY-16	R3464875
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.10	DLDS	0.10	mg/L		20-MAY-16	R3464875
Sulfate in Water by IC							
Sulfate (SO4)	108000		150	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.00234		0.00010	mg/L	24-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					24-MAY-16	R3463198
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Aluminum (Al)-Dissolved	1060		5.0	mg/L	25-MAY-16	03-JUN-16	R3470719
Antimony (Sb)-Dissolved	2.98		0.50	mg/L	25-MAY-16	03-JUN-16	R3470719
Arsenic (As)-Dissolved	595		0.50	mg/L	25-MAY-16	03-JUN-16	R3470719
Barium (Ba)-Dissolved	<0.25	DLA	0.25	mg/L	25-MAY-16	03-JUN-16	R3470719
Beryllium (Be)-Dissolved	<0.50	DLA	0.50	mg/L	25-MAY-16	03-JUN-16	R3470719
Boron (B)-Dissolved	<50	DLA	50	mg/L	25-MAY-16	03-JUN-16	R3470719
Cadmium (Cd)-Dissolved	44.3		0.025	mg/L	25-MAY-16	03-JUN-16	R3470719
Chromium (Cr)-Dissolved	0.89		0.50	mg/L	25-MAY-16	03-JUN-16	R3470719
Cobalt (Co)-Dissolved	18.2		0.50	mg/L	25-MAY-16	03-JUN-16	R3470719
Copper (Cu)-Dissolved	917		1.0	mg/L	25-MAY-16	03-JUN-16	R3470719
Lead (Pb)-Dissolved	5.13		0.25	mg/L	25-MAY-16	03-JUN-16	R3470719
Lithium (Li)-Dissolved	<5.0	DLA	5.0	mg/L	25-MAY-16	03-JUN-16	R3470719
Manganese (Mn)-Dissolved	667		0.50	mg/L	25-MAY-16	03-JUN-16	R3470719
Molybdenum (Mo)-Dissolved	<0.25	DLA	0.25	mg/L	25-MAY-16	03-JUN-16	R3470719
Nickel (Ni)-Dissolved	13.5		2.5	mg/L	25-MAY-16	03-JUN-16	R3470719
Potassium (K)-Dissolved	<250	DLA	250	mg/L	25-MAY-16	03-JUN-16	R3470719
Selenium (Se)-Dissolved	<0.25	DLA	0.25	mg/L	25-MAY-16	03-JUN-16	R3470719
Silver (Ag)-Dissolved	<0.050	DLA	0.050	mg/L	25-MAY-16	03-JUN-16	R3470719
Sodium (Na)-Dissolved	<250	DLA	250	mg/L	25-MAY-16	03-JUN-16	R3470719
Strontium (Sr)-Dissolved	<1.0	DLA	1.0	mg/L	25-MAY-16	03-JUN-16	R3470719
Thallium (Tl)-Dissolved	<0.050	DLA	0.050	mg/L	25-MAY-16	03-JUN-16	R3470719
Titanium (Ti)-Dissolved	<1.5	DLA	1.5	mg/L	25-MAY-16	03-JUN-16	R3470719
Uranium (U)-Dissolved	2.14		0.050	mg/L	25-MAY-16	03-JUN-16	R3470719
Vanadium (V)-Dissolved	<2.5	DLA	2.5	mg/L	25-MAY-16	03-JUN-16	R3470719
Zinc (Zn)-Dissolved	27700		5.0	mg/L	25-MAY-16	03-JUN-16	R3470719
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Calcium (Ca)-Dissolved	387		2.5	mg/L	25-MAY-16	01-JUN-16	R3469401
Iron (Fe)-Dissolved	17000		1.5	mg/L	25-MAY-16	01-JUN-16	R3469401
Magnesium (Mg)-Dissolved	1320		5.0	mg/L	25-MAY-16	01-JUN-16	R3469401
Phosphorus (P)-Dissolved	40		15	mg/L	25-MAY-16	01-JUN-16	R3469401
Silicon (Si)-Dissolved	56.3		2.5	mg/L	25-MAY-16	01-JUN-16	R3469401
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	121		5.3	mg/L		06-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1771791-1 SRK-FD37_SESP16							
Sampled By: CLIENT on 17-MAY-16 @ 15:25							
Matrix: Water							
Dissolved Sulfur in Water by ICPOES							
Sulfur (S)-Dissolved	33100		25	mg/L	25-MAY-16	01-JUN-16	R3469401
Hardness							
Hardness (as CaCO3)	6420		22	mg/L		06-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	95300		200	mg/L		30-MAY-16	R3469314
Ammonia, Total (as N)	0.522		0.050	mg/L		05-JUN-16	R3472808
Dissolved Organic Carbon	44.2		2.5	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	173000		400	mg/L		24-MAY-16	R3464893
Phosphorus (P)-Total	57	DLM	20	mg/L		02-JUN-16	R3470716
Total Suspended Solids	57.2		1.0	mg/L		24-MAY-16	R3465503
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	12500		1000	mg/L	24-MAY-16	24-MAY-16	R3464433
Dissolved Fe2 Filtration Location	FIELD					24-MAY-16	R3463454
L1771791-2 CH-RCTA-03_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 11:40							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	<1.0		1.0	mg/L		29-MAY-16	R3467409
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		29-MAY-16	R3467409
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		29-MAY-16	R3467409
Alkalinity, Total (as CaCO3)	<1.0		1.0	mg/L		29-MAY-16	R3467409
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<2.5		2.5	mg/L		20-MAY-16	R3464875
Fluoride in Water by IC							
Fluoride (F)	0.14		0.10	mg/L		20-MAY-16	R3464875
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.025	DLDS	0.025	mg/L		20-MAY-16	R3464875
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0050	DLDS	0.0050	mg/L		20-MAY-16	R3464875
Sulfate in Water by IC							
Sulfate (SO4)	1110		1.5	mg/L		20-MAY-16	R3464875
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	24-MAY-16	24-MAY-16	R3463754
Dissolved Mercury Filtration Location	FIELD					24-MAY-16	R3463198
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Aluminum (Al)-Dissolved	3.32		0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Antimony (Sb)-Dissolved	<0.00020	DLA	0.00020	mg/L	25-MAY-16	01-JUN-16	R3470719
Arsenic (As)-Dissolved	0.00092		0.00020	mg/L	25-MAY-16	03-JUN-16	R3470719
Barium (Ba)-Dissolved	0.00911		0.00010	mg/L	25-MAY-16	01-JUN-16	R3470719
Beryllium (Be)-Dissolved	0.00042		0.00020	mg/L	25-MAY-16	01-JUN-16	R3470719
Boron (B)-Dissolved	<0.020	DLA	0.020	mg/L	25-MAY-16	01-JUN-16	R3470719
Cadmium (Cd)-Dissolved	0.00182		0.000010	mg/L	25-MAY-16	01-JUN-16	R3470719
Chromium (Cr)-Dissolved	<0.00020	DLA	0.00020	mg/L	25-MAY-16	01-JUN-16	R3470719
Cobalt (Co)-Dissolved	0.109		0.00020	mg/L	25-MAY-16	01-JUN-16	R3470719
Copper (Cu)-Dissolved	0.0320		0.00040	mg/L	25-MAY-16	01-JUN-16	R3470719
Lead (Pb)-Dissolved	0.00029		0.00010	mg/L	25-MAY-16	01-JUN-16	R3470719
Lithium (Li)-Dissolved	0.0289		0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1771791-2 CH-RCTA-03_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 11:40							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Manganese (Mn)-Dissolved	16.9		0.00020	mg/L	25-MAY-16	01-JUN-16	R3470719
Molybdenum (Mo)-Dissolved	0.00019		0.00010	mg/L	25-MAY-16	01-JUN-16	R3470719
Nickel (Ni)-Dissolved	0.0810		0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Potassium (K)-Dissolved	4.21		0.10	mg/L	25-MAY-16	01-JUN-16	R3470719
Selenium (Se)-Dissolved	<0.00010	DLA	0.00010	mg/L	25-MAY-16	01-JUN-16	R3470719
Silver (Ag)-Dissolved	<0.000020	DLA	0.000020	mg/L	25-MAY-16	01-JUN-16	R3470719
Sodium (Na)-Dissolved	13.8		0.10	mg/L	25-MAY-16	01-JUN-16	R3470719
Strontium (Sr)-Dissolved	0.811		0.00040	mg/L	25-MAY-16	01-JUN-16	R3470719
Thallium (Tl)-Dissolved	0.000145		0.000020	mg/L	25-MAY-16	01-JUN-16	R3470719
Titanium (Ti)-Dissolved	<0.00060	DLA	0.00060	mg/L	25-MAY-16	01-JUN-16	R3470719
Uranium (U)-Dissolved	0.00109		0.000020	mg/L	25-MAY-16	03-JUN-16	R3470719
Vanadium (V)-Dissolved	<0.0010	DLA	0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Zinc (Zn)-Dissolved	7.22		0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Calcium (Ca)-Dissolved	250		0.050	mg/L	25-MAY-16	30-MAY-16	R3469401
Iron (Fe)-Dissolved	193		0.030	mg/L	25-MAY-16	30-MAY-16	R3469401
Magnesium (Mg)-Dissolved	33.7		0.10	mg/L	25-MAY-16	30-MAY-16	R3469401
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	25-MAY-16	30-MAY-16	R3469401
Silicon (Si)-Dissolved	11.8		0.050	mg/L	25-MAY-16	30-MAY-16	R3469401
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	25.2		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Sulfur (S)-Dissolved	354		0.50	mg/L	25-MAY-16	30-MAY-16	R3469401
Hardness							
Hardness (as CaCO3)	762		0.50	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	340		25	mg/L		26-MAY-16	R3469296
Ammonia, Total (as N)	0.232		0.0050	mg/L		03-JUN-16	R3472264
Dissolved Organic Carbon	2.27		0.50	mg/L		03-JUN-16	R3472772
Cyanide, Free	<0.0050		0.0050	mg/L		01-JUN-16	R3471002
Total Dissolved Solids	2060		20	mg/L		24-MAY-16	R3464893
Phosphorus (P)-Total	<0.20	DLM	0.20	mg/L		02-JUN-16	R3470716
Total Suspended Solids	95.6		2.0	mg/L		25-MAY-16	R3467288
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	213		10	mg/L	24-MAY-16	24-MAY-16	R3464433
Dissolved Fe2 Filtration Location	FIELD					24-MAY-16	R3463454
L1771791-3 CH-RCTA-07_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 09:16							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	74.2		1.0	mg/L		29-MAY-16	R3467409
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		29-MAY-16	R3467409
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		29-MAY-16	R3467409
Alkalinity, Total (as CaCO3)	74.2		1.0	mg/L		29-MAY-16	R3467409
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<0.50		0.50	mg/L		20-MAY-16	R3464875
Fluoride in Water by IC							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1771791-3 CH-RCTA-07_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 09:16							
Matrix: Water							
Fluoride in Water by IC							
Fluoride (F)	0.293		0.020	mg/L		20-MAY-16	R3464875
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.0050		0.0050	mg/L		20-MAY-16	R3464875
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0010		0.0010	mg/L		20-MAY-16	R3464875
Sulfate in Water by IC							
Sulfate (SO4)	176		0.30	mg/L		20-MAY-16	R3464875
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	24-MAY-16	24-MAY-16	R3463754
Dissolved Mercury Filtration Location	FIELD					24-MAY-16	R3463198
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Aluminum (Al)-Dissolved	0.163		0.0010	mg/L	25-MAY-16	03-JUN-16	R3470719
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	25-MAY-16	03-JUN-16	R3470719
Arsenic (As)-Dissolved	0.00046		0.00010	mg/L	25-MAY-16	03-JUN-16	R3470719
Barium (Ba)-Dissolved	0.0194		0.000050	mg/L	25-MAY-16	03-JUN-16	R3470719
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	25-MAY-16	03-JUN-16	R3470719
Boron (B)-Dissolved	<0.010		0.010	mg/L	25-MAY-16	03-JUN-16	R3470719
Cadmium (Cd)-Dissolved	0.000249		0.0000050	mg/L	25-MAY-16	03-JUN-16	R3470719
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	25-MAY-16	03-JUN-16	R3470719
Cobalt (Co)-Dissolved	0.0126		0.00010	mg/L	25-MAY-16	03-JUN-16	R3470719
Copper (Cu)-Dissolved	0.00192		0.00020	mg/L	25-MAY-16	03-JUN-16	R3470719
Lead (Pb)-Dissolved	0.000568		0.000050	mg/L	25-MAY-16	03-JUN-16	R3470719
Lithium (Li)-Dissolved	0.0057		0.0010	mg/L	25-MAY-16	03-JUN-16	R3470719
Manganese (Mn)-Dissolved	1.42		0.00010	mg/L	25-MAY-16	03-JUN-16	R3470719
Molybdenum (Mo)-Dissolved	0.000085		0.000050	mg/L	25-MAY-16	03-JUN-16	R3470719
Nickel (Ni)-Dissolved	0.00908		0.00050	mg/L	25-MAY-16	03-JUN-16	R3470719
Potassium (K)-Dissolved	2.03		0.050	mg/L	25-MAY-16	03-JUN-16	R3470719
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	25-MAY-16	03-JUN-16	R3470719
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	25-MAY-16	03-JUN-16	R3470719
Sodium (Na)-Dissolved	2.54		0.050	mg/L	25-MAY-16	03-JUN-16	R3470719
Strontium (Sr)-Dissolved	0.338		0.00020	mg/L	25-MAY-16	03-JUN-16	R3470719
Thallium (Tl)-Dissolved	0.000048		0.000010	mg/L	25-MAY-16	03-JUN-16	R3470719
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	25-MAY-16	03-JUN-16	R3470719
Uranium (U)-Dissolved	0.000622		0.000010	mg/L	25-MAY-16	03-JUN-16	R3470719
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	25-MAY-16	03-JUN-16	R3470719
Zinc (Zn)-Dissolved	0.911		0.0010	mg/L	25-MAY-16	03-JUN-16	R3470719
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Calcium (Ca)-Dissolved	87.4		0.050	mg/L	25-MAY-16	31-MAY-16	R3469401
Iron (Fe)-Dissolved	34.4		0.030	mg/L	25-MAY-16	31-MAY-16	R3469401
Magnesium (Mg)-Dissolved	11.6		0.10	mg/L	25-MAY-16	31-MAY-16	R3469401
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	25-MAY-16	31-MAY-16	R3469401
Silicon (Si)-Dissolved	4.13		0.050	mg/L	25-MAY-16	31-MAY-16	R3469401
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	8.83		0.20	mg/L		01-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Sulfur (S)-Dissolved	59.9		0.50	mg/L	25-MAY-16	31-MAY-16	R3469401
Hardness							
Hardness (as CaCO3)	266		0.50	mg/L		03-JUN-16	

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1771791-3 CH-RCTA-07_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 09:16							
Matrix: Water							
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		26-MAY-16	R3469296
Ammonia, Total (as N)	0.0422		0.0050	mg/L		03-JUN-16	R3472264
Dissolved Organic Carbon	1.39		0.50	mg/L		03-JUN-16	R3472772
Cyanide, Free	<0.0050		0.0050	mg/L		01-JUN-16	R3471002
Total Dissolved Solids	413		20	mg/L		24-MAY-16	R3464893
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		01-JUN-16	R3470177
Total Suspended Solids	42.8		2.0	mg/L		25-MAY-16	R3467288
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	37.7		2.0	mg/L	24-MAY-16	24-MAY-16	R3464433
Dissolved Fe2 Filtration Location	FIELD					24-MAY-16	R3463454
L1771791-4 CH-RCTA-907_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 09:16							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	83.0		1.0	mg/L		29-MAY-16	R3467409
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		29-MAY-16	R3467409
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		29-MAY-16	R3467409
Alkalinity, Total (as CaCO3)	83.0		1.0	mg/L		29-MAY-16	R3467409
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<0.50		0.50	mg/L		20-MAY-16	R3464875
Fluoride in Water by IC							
Fluoride (F)	0.289		0.020	mg/L		20-MAY-16	R3464875
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.0050		0.0050	mg/L		20-MAY-16	R3464875
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0010		0.0010	mg/L		20-MAY-16	R3464875
Sulfate in Water by IC							
Sulfate (SO4)	176		0.30	mg/L		20-MAY-16	R3464875
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	24-MAY-16	24-MAY-16	R3463754
Dissolved Mercury Filtration Location	FIELD					24-MAY-16	R3463198
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Aluminum (Al)-Dissolved	0.151		0.0010	mg/L	25-MAY-16	03-JUN-16	R3470719
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	25-MAY-16	03-JUN-16	R3470719
Arsenic (As)-Dissolved	0.00042		0.00010	mg/L	25-MAY-16	03-JUN-16	R3470719
Barium (Ba)-Dissolved	0.0185		0.000050	mg/L	25-MAY-16	03-JUN-16	R3470719
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	25-MAY-16	03-JUN-16	R3470719
Boron (B)-Dissolved	<0.010		0.010	mg/L	25-MAY-16	03-JUN-16	R3470719
Cadmium (Cd)-Dissolved	0.000222		0.0000050	mg/L	25-MAY-16	03-JUN-16	R3470719
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	25-MAY-16	03-JUN-16	R3470719
Cobalt (Co)-Dissolved	0.0121		0.00010	mg/L	25-MAY-16	03-JUN-16	R3470719
Copper (Cu)-Dissolved	0.00181		0.00020	mg/L	25-MAY-16	03-JUN-16	R3470719
Lead (Pb)-Dissolved	0.000589		0.000050	mg/L	25-MAY-16	03-JUN-16	R3470719
Lithium (Li)-Dissolved	0.0056		0.0010	mg/L	25-MAY-16	03-JUN-16	R3470719
Manganese (Mn)-Dissolved	1.35		0.00010	mg/L	25-MAY-16	03-JUN-16	R3470719
Molybdenum (Mo)-Dissolved	0.000085		0.000050	mg/L	25-MAY-16	03-JUN-16	R3470719
Nickel (Ni)-Dissolved	0.00890		0.00050	mg/L	25-MAY-16	03-JUN-16	R3470719

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1771791-4 CH-RCTA-907_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 09:16							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Potassium (K)-Dissolved	1.94		0.050	mg/L	25-MAY-16	03-JUN-16	R3470719
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	25-MAY-16	03-JUN-16	R3470719
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	25-MAY-16	03-JUN-16	R3470719
Sodium (Na)-Dissolved	2.43		0.050	mg/L	25-MAY-16	03-JUN-16	R3470719
Strontium (Sr)-Dissolved	0.339		0.00020	mg/L	25-MAY-16	03-JUN-16	R3470719
Thallium (Tl)-Dissolved	0.000046		0.000010	mg/L	25-MAY-16	03-JUN-16	R3470719
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	25-MAY-16	03-JUN-16	R3470719
Uranium (U)-Dissolved	0.000607		0.000010	mg/L	25-MAY-16	03-JUN-16	R3470719
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	25-MAY-16	03-JUN-16	R3470719
Zinc (Zn)-Dissolved	0.866		0.0010	mg/L	25-MAY-16	03-JUN-16	R3470719
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Calcium (Ca)-Dissolved	86.6		0.050	mg/L	25-MAY-16	31-MAY-16	R3469401
Iron (Fe)-Dissolved	34.4		0.030	mg/L	25-MAY-16	31-MAY-16	R3469401
Magnesium (Mg)-Dissolved	11.5		0.10	mg/L	25-MAY-16	31-MAY-16	R3469401
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	25-MAY-16	31-MAY-16	R3469401
Silicon (Si)-Dissolved	4.09		0.050	mg/L	25-MAY-16	31-MAY-16	R3469401
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	8.75		0.20	mg/L		01-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Sulfur (S)-Dissolved	59.6		0.50	mg/L	25-MAY-16	31-MAY-16	R3469401
Hardness							
Hardness (as CaCO3)	264		0.50	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		26-MAY-16	R3469296
Ammonia, Total (as N)	0.0414		0.0050	mg/L		03-JUN-16	R3472264
Dissolved Organic Carbon	1.40		0.50	mg/L		03-JUN-16	R3472772
Cyanide, Free	<0.0050		0.0050	mg/L		01-JUN-16	R3471002
Total Dissolved Solids	400		20	mg/L		24-MAY-16	R3464893
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		01-JUN-16	R3470177
Total Suspended Solids	38.8		2.0	mg/L		25-MAY-16	R3467288
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	36.8		2.0	mg/L	24-MAY-16	24-MAY-16	R3464433
Dissolved Fe2 Filtration Location	FIELD					24-MAY-16	R3463454
L1771791-5 FCS-3_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 16:45							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	<1.0		1.0	mg/L		29-MAY-16	R3467409
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		29-MAY-16	R3467409
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		29-MAY-16	R3467409
Alkalinity, Total (as CaCO3)	<1.0		1.0	mg/L		29-MAY-16	R3467409
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	10		10	mg/L		20-MAY-16	R3464875
Fluoride in Water by IC							
Fluoride (F)	1.04		0.40	mg/L		20-MAY-16	R3464875
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.10	DLDS	0.10	mg/L		20-MAY-16	R3464875

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1771791-5 FCS-3_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 16:45							
Matrix: Water							
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLDS	0.020	mg/L		20-MAY-16	R3464875
Sulfate in Water by IC							
Sulfate (SO4)	8250		6.0	mg/L		20-MAY-16	R3464875
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000078		0.0000050	mg/L	24-MAY-16	25-MAY-16	R3464823
Dissolved Mercury Filtration Location	FIELD					24-MAY-16	R3463198
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Aluminum (Al)-Dissolved	1.94		0.10	mg/L	25-MAY-16	03-JUN-16	R3470719
Antimony (Sb)-Dissolved	<0.010	DLA	0.010	mg/L	25-MAY-16	03-JUN-16	R3470719
Arsenic (As)-Dissolved	0.094		0.010	mg/L	25-MAY-16	03-JUN-16	R3470719
Barium (Ba)-Dissolved	0.0137		0.0050	mg/L	25-MAY-16	03-JUN-16	R3470719
Beryllium (Be)-Dissolved	<0.010	DLA	0.010	mg/L	25-MAY-16	03-JUN-16	R3470719
Boron (B)-Dissolved	<1.0	DLA	1.0	mg/L	25-MAY-16	03-JUN-16	R3470719
Cadmium (Cd)-Dissolved	0.0182		0.00050	mg/L	25-MAY-16	03-JUN-16	R3470719
Chromium (Cr)-Dissolved	<0.010	DLA	0.010	mg/L	25-MAY-16	03-JUN-16	R3470719
Cobalt (Co)-Dissolved	1.65		0.010	mg/L	25-MAY-16	03-JUN-16	R3470719
Copper (Cu)-Dissolved	<0.020	DLA	0.020	mg/L	25-MAY-16	03-JUN-16	R3470719
Lead (Pb)-Dissolved	0.0099		0.0050	mg/L	25-MAY-16	03-JUN-16	R3470719
Lithium (Li)-Dissolved	0.14		0.10	mg/L	25-MAY-16	03-JUN-16	R3470719
Manganese (Mn)-Dissolved	118		0.010	mg/L	25-MAY-16	03-JUN-16	R3470719
Molybdenum (Mo)-Dissolved	<0.0050	DLA	0.0050	mg/L	25-MAY-16	03-JUN-16	R3470719
Nickel (Ni)-Dissolved	1.36		0.050	mg/L	25-MAY-16	03-JUN-16	R3470719
Potassium (K)-Dissolved	12.0		5.0	mg/L	25-MAY-16	03-JUN-16	R3470719
Selenium (Se)-Dissolved	<0.0050	DLA	0.0050	mg/L	25-MAY-16	03-JUN-16	R3470719
Silver (Ag)-Dissolved	<0.0010	DLA	0.0010	mg/L	25-MAY-16	03-JUN-16	R3470719
Sodium (Na)-Dissolved	126		5.0	mg/L	25-MAY-16	03-JUN-16	R3470719
Strontium (Sr)-Dissolved	3.83		0.020	mg/L	25-MAY-16	03-JUN-16	R3470719
Thallium (Tl)-Dissolved	<0.0010	DLA	0.0010	mg/L	25-MAY-16	03-JUN-16	R3470719
Titanium (Ti)-Dissolved	<0.030	DLA	0.030	mg/L	25-MAY-16	03-JUN-16	R3470719
Uranium (U)-Dissolved	0.0135		0.0010	mg/L	25-MAY-16	03-JUN-16	R3470719
Vanadium (V)-Dissolved	<0.050	DLA	0.050	mg/L	25-MAY-16	03-JUN-16	R3470719
Zinc (Zn)-Dissolved	611		0.10	mg/L	25-MAY-16	03-JUN-16	R3470719
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Calcium (Ca)-Dissolved	405		0.15	mg/L	25-MAY-16	31-MAY-16	R3469401
Iron (Fe)-Dissolved	1340		0.090	mg/L	25-MAY-16	31-MAY-16	R3469401
Magnesium (Mg)-Dissolved	968		0.30	mg/L	25-MAY-16	31-MAY-16	R3469401
Phosphorus (P)-Dissolved	<0.90	DLHC	0.90	mg/L	25-MAY-16	31-MAY-16	R3469401
Silicon (Si)-Dissolved	15.9		0.15	mg/L	25-MAY-16	31-MAY-16	R3469401
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	34.1		0.32	mg/L		01-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Sulfur (S)-Dissolved	2730		1.5	mg/L	25-MAY-16	31-MAY-16	R3469401
Hardness							
Hardness (as CaCO3)	5000		1.3	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	3340		25	mg/L		30-MAY-16	R3469314
Ammonia, Total (as N)	1.06		0.025	mg/L		03-JUN-16	R3472264

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1771791-5 FCS-3_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 16:45							
Matrix: Water							
Dissolved Organic Carbon	6.24		0.50	mg/L		03-JUN-16	R3472772
Cyanide, Free	<0.0050		0.0050	mg/L		01-JUN-16	R3471002
Total Dissolved Solids	14800		20	mg/L		24-MAY-16	R3464893
Phosphorus (P)-Total	<2.0	DLM	2.0	mg/L		02-JUN-16	R3470716
Total Suspended Solids	305		3.0	mg/L		25-MAY-16	R3467288
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	1050		40	mg/L	24-MAY-16	24-MAY-16	R3464433
Dissolved Fe2 Filtration Location	FIELD					24-MAY-16	R3463454
L1771791-6 FCS-5_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 14:50							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Total (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<5.0	DLDS	5.0	mg/L		20-MAY-16	R3464875
Fluoride in Water by IC							
Fluoride (F)	0.38		0.20	mg/L		20-MAY-16	R3464875
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.160		0.050	mg/L		20-MAY-16	R3464875
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.010	DLDS	0.010	mg/L		20-MAY-16	R3464875
Sulfate in Water by IC							
Sulfate (SO4)	2500		3.0	mg/L		20-MAY-16	R3464875
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000136		0.0000050	mg/L	24-MAY-16	25-MAY-16	R3465047
Dissolved Mercury Filtration Location	FIELD					24-MAY-16	R3463198
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Aluminum (Al)-Dissolved	<0.020	DLA	0.020	mg/L	25-MAY-16	03-JUN-16	R3470719
Antimony (Sb)-Dissolved	<0.0020	DLA	0.0020	mg/L	25-MAY-16	03-JUN-16	R3470719
Arsenic (As)-Dissolved	<0.0020	DLA	0.0020	mg/L	25-MAY-16	03-JUN-16	R3470719
Barium (Ba)-Dissolved	0.0229		0.0010	mg/L	25-MAY-16	03-JUN-16	R3470719
Beryllium (Be)-Dissolved	<0.0020	DLA	0.0020	mg/L	25-MAY-16	03-JUN-16	R3470719
Boron (B)-Dissolved	<0.20	DLA	0.20	mg/L	25-MAY-16	03-JUN-16	R3470719
Cadmium (Cd)-Dissolved	0.0273		0.00010	mg/L	25-MAY-16	03-JUN-16	R3470719
Chromium (Cr)-Dissolved	<0.0020	DLA	0.0020	mg/L	25-MAY-16	03-JUN-16	R3470719
Cobalt (Co)-Dissolved	0.420		0.0020	mg/L	25-MAY-16	03-JUN-16	R3470719
Copper (Cu)-Dissolved	<0.0040	DLA	0.0040	mg/L	25-MAY-16	03-JUN-16	R3470719
Lead (Pb)-Dissolved	0.124		0.0010	mg/L	25-MAY-16	03-JUN-16	R3470719
Lithium (Li)-Dissolved	0.079		0.020	mg/L	25-MAY-16	03-JUN-16	R3470719
Manganese (Mn)-Dissolved	33.9		0.0020	mg/L	25-MAY-16	03-JUN-16	R3470719
Molybdenum (Mo)-Dissolved	<0.0010	DLA	0.0010	mg/L	25-MAY-16	03-JUN-16	R3470719
Nickel (Ni)-Dissolved	0.417		0.010	mg/L	25-MAY-16	03-JUN-16	R3470719
Potassium (K)-Dissolved	8.6		1.0	mg/L	25-MAY-16	03-JUN-16	R3470719
Selenium (Se)-Dissolved	<0.0010	DLA	0.0010	mg/L	25-MAY-16	03-JUN-16	R3470719
Silver (Ag)-Dissolved	<0.00020	DLA	0.00020	mg/L	25-MAY-16	03-JUN-16	R3470719

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1771791-6 FCS-5_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 14:50							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Sodium (Na)-Dissolved	46.0		1.0	mg/L	25-MAY-16	03-JUN-16	R3470719
Strontium (Sr)-Dissolved	1.44		0.0040	mg/L	25-MAY-16	03-JUN-16	R3470719
Thallium (Tl)-Dissolved	0.00162		0.00020	mg/L	25-MAY-16	03-JUN-16	R3470719
Titanium (Ti)-Dissolved	<0.0060	DLA	0.0060	mg/L	25-MAY-16	03-JUN-16	R3470719
Uranium (U)-Dissolved	0.00229		0.00020	mg/L	25-MAY-16	03-JUN-16	R3470719
Vanadium (V)-Dissolved	<0.010	DLA	0.010	mg/L	25-MAY-16	03-JUN-16	R3470719
Zinc (Zn)-Dissolved	147		0.020	mg/L	25-MAY-16	03-JUN-16	R3470719
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Calcium (Ca)-Dissolved	257		0.050	mg/L	25-MAY-16	30-MAY-16	R3469401
Iron (Fe)-Dissolved	124		0.030	mg/L	25-MAY-16	30-MAY-16	R3469401
Magnesium (Mg)-Dissolved	312		0.10	mg/L	25-MAY-16	30-MAY-16	R3469401
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	25-MAY-16	30-MAY-16	R3469401
Silicon (Si)-Dissolved	6.13		0.050	mg/L	25-MAY-16	30-MAY-16	R3469401
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	13.1		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Sulfur (S)-Dissolved	802		0.50	mg/L	25-MAY-16	30-MAY-16	R3469401
Hardness							
Hardness (as CaCO3)	1930		0.50	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	486		25	mg/L		26-MAY-16	R3469296
Ammonia, Total (as N)	0.894		0.025	mg/L		03-JUN-16	R3472264
Dissolved Organic Carbon	3.24		0.50	mg/L		03-JUN-16	R3472772
Cyanide, Free	<0.0050		0.0050	mg/L		01-JUN-16	R3471002
Total Dissolved Solids	3880		20	mg/L		24-MAY-16	R3464893
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		01-JUN-16	R3470177
Total Suspended Solids	485		3.0	mg/L		25-MAY-16	R3467288
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	143		4.0	mg/L	24-MAY-16	24-MAY-16	R3464433
Dissolved Fe2 Filtration Location	FIELD					24-MAY-16	R3463454
L1771791-7 SRK-FD01_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 08:35							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	209		1.0	mg/L		29-MAY-16	R3467409
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		29-MAY-16	R3467409
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		29-MAY-16	R3467409
Alkalinity, Total (as CaCO3)	209		1.0	mg/L		29-MAY-16	R3467409
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLDS	10	mg/L		20-MAY-16	R3464875
Fluoride in Water by IC							
Fluoride (F)	<0.40	DLDS	0.40	mg/L		20-MAY-16	R3464875
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	1.32		0.10	mg/L		20-MAY-16	R3464875
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLDS	0.020	mg/L		20-MAY-16	R3464875
Sulfate in Water by IC							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1771791-7 SRK-FD01_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 08:35							
Matrix: Water							
Sulfate in Water by IC							
Sulfate (SO4)	3040		6.0	mg/L		20-MAY-16	R3464875
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000112		0.0000050	mg/L	24-MAY-16	24-MAY-16	R3463754
Dissolved Mercury Filtration Location	FIELD					24-MAY-16	R3463198
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Aluminum (Al)-Dissolved	0.100		0.020	mg/L	25-MAY-16	01-JUN-16	R3470719
Antimony (Sb)-Dissolved	<0.0020	DLA	0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Arsenic (As)-Dissolved	0.0041		0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Barium (Ba)-Dissolved	0.0220		0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Beryllium (Be)-Dissolved	<0.0020	DLA	0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Boron (B)-Dissolved	<0.20	DLA	0.20	mg/L	25-MAY-16	01-JUN-16	R3470719
Cadmium (Cd)-Dissolved	0.0704		0.00010	mg/L	25-MAY-16	01-JUN-16	R3470719
Chromium (Cr)-Dissolved	<0.0020	DLA	0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Cobalt (Co)-Dissolved	0.0717		0.0020	mg/L	25-MAY-16	03-JUN-16	R3472176
Copper (Cu)-Dissolved	0.0669		0.0040	mg/L	25-MAY-16	01-JUN-16	R3470719
Lead (Pb)-Dissolved	0.0051		0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Lithium (Li)-Dissolved	0.047		0.020	mg/L	25-MAY-16	01-JUN-16	R3470719
Manganese (Mn)-Dissolved	7.72		0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Molybdenum (Mo)-Dissolved	0.0018		0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Nickel (Ni)-Dissolved	0.313		0.010	mg/L	25-MAY-16	01-JUN-16	R3470719
Potassium (K)-Dissolved	9.4		1.0	mg/L	25-MAY-16	03-JUN-16	R3472176
Selenium (Se)-Dissolved	0.0018		0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Silver (Ag)-Dissolved	<0.00020	DLA	0.00020	mg/L	25-MAY-16	01-JUN-16	R3470719
Sodium (Na)-Dissolved	34.6		1.0	mg/L	25-MAY-16	03-JUN-16	R3472176
Strontium (Sr)-Dissolved	2.56		0.0040	mg/L	25-MAY-16	01-JUN-16	R3470719
Thallium (Tl)-Dissolved	0.00066		0.00020	mg/L	25-MAY-16	01-JUN-16	R3470719
Titanium (Ti)-Dissolved	<0.0060	DLA	0.0060	mg/L	25-MAY-16	01-JUN-16	R3470719
Uranium (U)-Dissolved	0.00553		0.00020	mg/L	25-MAY-16	01-JUN-16	R3470719
Vanadium (V)-Dissolved	<0.010	DLA	0.010	mg/L	25-MAY-16	01-JUN-16	R3470719
Zinc (Zn)-Dissolved	94.3		0.020	mg/L	25-MAY-16	01-JUN-16	R3470719
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Calcium (Ca)-Dissolved	448		0.050	mg/L	25-MAY-16	30-MAY-16	R3469401
Iron (Fe)-Dissolved	3.05		0.030	mg/L	25-MAY-16	30-MAY-16	R3469401
Magnesium (Mg)-Dissolved	460		0.10	mg/L	25-MAY-16	30-MAY-16	R3469401
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	25-MAY-16	30-MAY-16	R3469401
Silicon (Si)-Dissolved	5.58		0.050	mg/L	25-MAY-16	30-MAY-16	R3469401
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	11.9		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Sulfur (S)-Dissolved	968		0.50	mg/L	25-MAY-16	30-MAY-16	R3469401
Hardness							
Hardness (as CaCO3)	3010		0.50	mg/L		04-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		26-MAY-16	R3469296
Ammonia, Total (as N)	0.0194		0.0050	mg/L		03-JUN-16	R3472264
Dissolved Organic Carbon	5.15		0.50	mg/L		03-JUN-16	R3472772
Total Dissolved Solids	5060		20	mg/L		24-MAY-16	R3464893

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1771791-7 SRK-FD01_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 08:35							
Matrix: Water							
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		01-JUN-16	R3470177
Total Suspended Solids	9.6		1.0	mg/L		25-MAY-16	R3467288
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	3.63		0.10	mg/L	24-MAY-16	24-MAY-16	R3464433
Dissolved Fe2 Filtration Location	FIELD					24-MAY-16	R3463454
L1771791-8 SRK-FD09_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 12:25							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	<1.0		1.0	mg/L		29-MAY-16	R3467409
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		29-MAY-16	R3467409
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		29-MAY-16	R3467409
Alkalinity, Total (as CaCO3)	<1.0		1.0	mg/L		29-MAY-16	R3467409
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	11		10	mg/L		20-MAY-16	R3464875
Fluoride in Water by IC							
Fluoride (F)	0.82		0.40	mg/L		20-MAY-16	R3464875
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	6.80		0.10	mg/L		20-MAY-16	R3464875
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	0.084		0.020	mg/L		20-MAY-16	R3464875
Sulfate in Water by IC							
Sulfate (SO4)	5570		6.0	mg/L		20-MAY-16	R3464875
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000078		0.0000050	mg/L	24-MAY-16	25-MAY-16	R3464823
Dissolved Mercury Filtration Location	FIELD					24-MAY-16	R3463198
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Aluminum (Al)-Dissolved	<0.10	DLA	0.10	mg/L	25-MAY-16	01-JUN-16	R3470719
Antimony (Sb)-Dissolved	<0.010	DLA	0.010	mg/L	25-MAY-16	01-JUN-16	R3470719
Arsenic (As)-Dissolved	<0.010	DLA	0.010	mg/L	25-MAY-16	01-JUN-16	R3470719
Barium (Ba)-Dissolved	0.0140		0.0050	mg/L	25-MAY-16	01-JUN-16	R3470719
Beryllium (Be)-Dissolved	<0.010	DLA	0.010	mg/L	25-MAY-16	01-JUN-16	R3470719
Boron (B)-Dissolved	<1.0	DLA	1.0	mg/L	25-MAY-16	01-JUN-16	R3470719
Cadmium (Cd)-Dissolved	0.117		0.00050	mg/L	25-MAY-16	01-JUN-16	R3470719
Chromium (Cr)-Dissolved	<0.010	DLA	0.010	mg/L	25-MAY-16	01-JUN-16	R3470719
Cobalt (Co)-Dissolved	1.21		0.010	mg/L	25-MAY-16	01-JUN-16	R3470719
Copper (Cu)-Dissolved	<0.020	DLA	0.020	mg/L	25-MAY-16	01-JUN-16	R3470719
Lead (Pb)-Dissolved	0.0075		0.0050	mg/L	25-MAY-16	01-JUN-16	R3470719
Lithium (Li)-Dissolved	0.19		0.10	mg/L	25-MAY-16	01-JUN-16	R3470719
Manganese (Mn)-Dissolved	79.3		0.010	mg/L	25-MAY-16	01-JUN-16	R3470719
Molybdenum (Mo)-Dissolved	<0.0050	DLA	0.0050	mg/L	25-MAY-16	01-JUN-16	R3470719
Nickel (Ni)-Dissolved	1.48		0.050	mg/L	25-MAY-16	01-JUN-16	R3470719
Potassium (K)-Dissolved	15.3		5.0	mg/L	25-MAY-16	03-JUN-16	R3470719
Selenium (Se)-Dissolved	<0.0050	DLA	0.0050	mg/L	25-MAY-16	01-JUN-16	R3470719
Silver (Ag)-Dissolved	<0.0010	DLA	0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Sodium (Na)-Dissolved	123		5.0	mg/L	25-MAY-16	03-JUN-16	R3470719
Strontium (Sr)-Dissolved	3.22		0.020	mg/L	25-MAY-16	01-JUN-16	R3470719
Thallium (Tl)-Dissolved	0.0020		0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1771791-8 SRK-FD09_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 12:25							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Titanium (Ti)-Dissolved	<0.030	DLA	0.030	mg/L	25-MAY-16	01-JUN-16	R3470719
Uranium (U)-Dissolved	0.0047		0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Vanadium (V)-Dissolved	<0.050	DLA	0.050	mg/L	25-MAY-16	01-JUN-16	R3470719
Zinc (Zn)-Dissolved	549		0.10	mg/L	25-MAY-16	01-JUN-16	R3470719
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Calcium (Ca)-Dissolved	352		0.10	mg/L	25-MAY-16	31-MAY-16	R3469401
Iron (Fe)-Dissolved	190		0.060	mg/L	25-MAY-16	31-MAY-16	R3469401
Magnesium (Mg)-Dissolved	943		0.20	mg/L	25-MAY-16	31-MAY-16	R3469401
Phosphorus (P)-Dissolved	<0.60	DLHC	0.60	mg/L	25-MAY-16	31-MAY-16	R3469401
Silicon (Si)-Dissolved	4.75		0.10	mg/L	25-MAY-16	31-MAY-16	R3469401
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	10.2		0.21	mg/L		01-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Sulfur (S)-Dissolved	1970		1.0	mg/L	25-MAY-16	31-MAY-16	R3469401
Hardness							
Hardness (as CaCO3)	4760		0.86	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	1290		25	mg/L		30-MAY-16	R3469314
Ammonia, Total (as N)	0.579		0.013	mg/L		05-JUN-16	R3472808
Dissolved Organic Carbon	6.29		0.50	mg/L		03-JUN-16	R3472772
Total Dissolved Solids	9980		20	mg/L		24-MAY-16	R3464893
Phosphorus (P)-Total	<2.0	DLM	2.0	mg/L		02-JUN-16	R3470716
Total Suspended Solids	796		5.0	mg/L		25-MAY-16	R3467288
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	222		10	mg/L	24-MAY-16	24-MAY-16	R3464433
Dissolved Fe2 Filtration Location	FIELD					24-MAY-16	R3463454
L1771791-9 SRK-FD19_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 15:00							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	354		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Total (as CaCO3)	354		1.0	mg/L		31-MAY-16	R3470703
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLDS	10	mg/L		20-MAY-16	R3464875
Fluoride in Water by IC							
Fluoride (F)	<0.40	DLDS	0.40	mg/L		20-MAY-16	R3464875
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	1.47		0.10	mg/L		20-MAY-16	R3464875
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	0.030		0.020	mg/L		20-MAY-16	R3464875
Sulfate in Water by IC							
Sulfate (SO4)	5060		6.0	mg/L		20-MAY-16	R3464875
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	24-MAY-16	24-MAY-16	R3463754

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1771791-9 SRK-FD19_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 15:00							
Matrix: Water							
Diss. Mercury in Water by CVAAS or CVAFS							
Dissolved Mercury Filtration Location	FIELD					24-MAY-16	R3463198
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Aluminum (Al)-Dissolved	0.188		0.020	mg/L	25-MAY-16	01-JUN-16	R3470719
Antimony (Sb)-Dissolved	<0.0020	DLA	0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Arsenic (As)-Dissolved	<0.0020	DLA	0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Barium (Ba)-Dissolved	0.0515		0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Beryllium (Be)-Dissolved	<0.0020	DLA	0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Boron (B)-Dissolved	<0.20	DLA	0.20	mg/L	25-MAY-16	01-JUN-16	R3470719
Cadmium (Cd)-Dissolved	0.0547		0.00010	mg/L	25-MAY-16	01-JUN-16	R3470719
Chromium (Cr)-Dissolved	<0.0020	DLA	0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Cobalt (Co)-Dissolved	0.525		0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Copper (Cu)-Dissolved	0.0451		0.0040	mg/L	25-MAY-16	01-JUN-16	R3470719
Lead (Pb)-Dissolved	0.0083		0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Lithium (Li)-Dissolved	0.050		0.020	mg/L	25-MAY-16	01-JUN-16	R3470719
Manganese (Mn)-Dissolved	51.4		0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Molybdenum (Mo)-Dissolved	<0.0010	DLA	0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Nickel (Ni)-Dissolved	0.820		0.010	mg/L	25-MAY-16	01-JUN-16	R3470719
Potassium (K)-Dissolved	10.0		1.0	mg/L	25-MAY-16	03-JUN-16	R3470719
Selenium (Se)-Dissolved	0.0063		0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Silver (Ag)-Dissolved	<0.00020	DLA	0.00020	mg/L	25-MAY-16	01-JUN-16	R3470719
Sodium (Na)-Dissolved	19.6		1.0	mg/L	25-MAY-16	03-JUN-16	R3470719
Strontium (Sr)-Dissolved	3.26		0.0040	mg/L	25-MAY-16	01-JUN-16	R3470719
Thallium (Tl)-Dissolved	<0.00020	DLA	0.00020	mg/L	25-MAY-16	01-JUN-16	R3470719
Titanium (Ti)-Dissolved	<0.0060	DLA	0.0060	mg/L	25-MAY-16	01-JUN-16	R3470719
Uranium (U)-Dissolved	0.00826		0.00020	mg/L	25-MAY-16	01-JUN-16	R3470719
Vanadium (V)-Dissolved	<0.010	DLA	0.010	mg/L	25-MAY-16	01-JUN-16	R3470719
Zinc (Zn)-Dissolved	159		0.020	mg/L	25-MAY-16	01-JUN-16	R3470719
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Calcium (Ca)-Dissolved	526		0.10	mg/L	25-MAY-16	31-MAY-16	R3469401
Iron (Fe)-Dissolved	0.130		0.060	mg/L	25-MAY-16	31-MAY-16	R3469401
Magnesium (Mg)-Dissolved	900		0.20	mg/L	25-MAY-16	31-MAY-16	R3469401
Phosphorus (P)-Dissolved	<0.60	DLHC	0.60	mg/L	25-MAY-16	31-MAY-16	R3469401
Silicon (Si)-Dissolved	6.62		0.10	mg/L	25-MAY-16	31-MAY-16	R3469401
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	14.2		0.21	mg/L		01-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Sulfur (S)-Dissolved	1600		1.0	mg/L	25-MAY-16	31-MAY-16	R3469401
Hardness							
Hardness (as CaCO3)	5020		0.86	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	53		25	mg/L		26-MAY-16	R3469296
Ammonia, Total (as N)	0.0648		0.0050	mg/L		03-JUN-16	R3472264
Dissolved Organic Carbon	9.67		0.50	mg/L		03-JUN-16	R3472772
Total Dissolved Solids	7910		20	mg/L		24-MAY-16	R3464893
Phosphorus (P)-Total	<0.20	DLM	0.20	mg/L		02-JUN-16	R3470716
Total Suspended Solids	6.2		1.0	mg/L		25-MAY-16	R3467288
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	0.122		0.020	mg/L	24-MAY-16	24-MAY-16	R3464433

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1771791-9 SRK-FD19_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 15:00							
Matrix: Water							
Diss. Ferrous Iron in Water by Colour							
Dissolved Fe2 Filtration Location	FIELD					24-MAY-16	R3463454
L1771791-10 SRK-FD30_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 14:25							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	191		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Total (as CaCO3)	191		1.0	mg/L		31-MAY-16	R3470703
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<1.0	DLDS	1.0	mg/L		20-MAY-16	R3464875
Fluoride in Water by IC							
Fluoride (F)	1.48		0.040	mg/L		20-MAY-16	R3464875
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.062		0.010	mg/L		20-MAY-16	R3464875
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0020	DLDS	0.0020	mg/L		20-MAY-16	R3464875
Sulfate in Water by IC							
Sulfate (SO4)	556		0.60	mg/L		20-MAY-16	R3464875
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	24-MAY-16	24-MAY-16	R3463754
Dissolved Mercury Filtration Location	FIELD					24-MAY-16	R3463198
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Aluminum (Al)-Dissolved	0.0035		0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	25-MAY-16	01-JUN-16	R3470719
Arsenic (As)-Dissolved	0.00022		0.00010	mg/L	25-MAY-16	01-JUN-16	R3470719
Barium (Ba)-Dissolved	0.0184		0.000050	mg/L	25-MAY-16	01-JUN-16	R3470719
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	25-MAY-16	01-JUN-16	R3470719
Boron (B)-Dissolved	<0.010		0.010	mg/L	25-MAY-16	01-JUN-16	R3470719
Cadmium (Cd)-Dissolved	0.00363		0.0000050	mg/L	25-MAY-16	01-JUN-16	R3470719
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	25-MAY-16	01-JUN-16	R3470719
Cobalt (Co)-Dissolved	0.00584		0.00010	mg/L	25-MAY-16	01-JUN-16	R3470719
Copper (Cu)-Dissolved	0.00158		0.00020	mg/L	25-MAY-16	01-JUN-16	R3470719
Lead (Pb)-Dissolved	0.00121		0.000050	mg/L	25-MAY-16	01-JUN-16	R3470719
Lithium (Li)-Dissolved	0.0480		0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Manganese (Mn)-Dissolved	0.204		0.00010	mg/L	25-MAY-16	01-JUN-16	R3470719
Molybdenum (Mo)-Dissolved	0.000319		0.000050	mg/L	25-MAY-16	01-JUN-16	R3470719
Nickel (Ni)-Dissolved	0.0484		0.00050	mg/L	25-MAY-16	01-JUN-16	R3470719
Potassium (K)-Dissolved	6.63		0.050	mg/L	25-MAY-16	01-JUN-16	R3470719
Selenium (Se)-Dissolved	0.000600		0.000050	mg/L	25-MAY-16	01-JUN-16	R3470719
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	25-MAY-16	01-JUN-16	R3470719
Sodium (Na)-Dissolved	2.37		0.050	mg/L	25-MAY-16	01-JUN-16	R3470719
Strontium (Sr)-Dissolved	0.281		0.00020	mg/L	25-MAY-16	01-JUN-16	R3470719
Thallium (Tl)-Dissolved	0.000421		0.000010	mg/L	25-MAY-16	01-JUN-16	R3470719
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	25-MAY-16	01-JUN-16	R3470719
Uranium (U)-Dissolved	0.00115		0.000010	mg/L	25-MAY-16	03-JUN-16	R3470719
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	25-MAY-16	01-JUN-16	R3470719

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1771791-10 SRK-FD30_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 14:25							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Zinc (Zn)-Dissolved	3.78		0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Calcium (Ca)-Dissolved	80.2		0.050	mg/L	25-MAY-16	30-MAY-16	R3469401
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	25-MAY-16	30-MAY-16	R3469401
Magnesium (Mg)-Dissolved	129		0.10	mg/L	25-MAY-16	30-MAY-16	R3469401
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	25-MAY-16	30-MAY-16	R3469401
Silicon (Si)-Dissolved	0.980		0.050	mg/L	25-MAY-16	30-MAY-16	R3469401
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	2.10		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Sulfur (S)-Dissolved	168		0.50	mg/L	25-MAY-16	30-MAY-16	R3469401
Hardness							
Hardness (as CaCO3)	730		0.50	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		26-MAY-16	R3469296
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		03-JUN-16	R3472264
Dissolved Organic Carbon	0.75		0.50	mg/L		03-JUN-16	R3472772
Total Dissolved Solids	966		20	mg/L		24-MAY-16	R3464893
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		01-JUN-16	R3470177
Total Suspended Solids	77.4		1.0	mg/L		25-MAY-16	R3467288
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.020		0.020	mg/L	24-MAY-16	24-MAY-16	R3464433
Dissolved Fe2 Filtration Location	FIELD					24-MAY-16	R3463454
L1771791-11 SRK-FD31_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 13:05							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	15.9		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Total (as CaCO3)	15.9		1.0	mg/L		31-MAY-16	R3470703
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	12		10	mg/L		20-MAY-16	R3464875
Fluoride in Water by IC							
Fluoride (F)	0.69		0.40	mg/L		20-MAY-16	R3464875
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	3.49		0.10	mg/L		20-MAY-16	R3464875
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLDS	0.020	mg/L		20-MAY-16	R3464875
Sulfate in Water by IC							
Sulfate (SO4)	8930		6.0	mg/L		20-MAY-16	R3464875
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000076		0.0000050	mg/L	24-MAY-16	25-MAY-16	R3464823
Dissolved Mercury Filtration Location	FIELD					24-MAY-16	R3463198
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1771791-11 SRK-FD31_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 13:05							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Aluminum (Al)-Dissolved	<0.20	DLA	0.20	mg/L	25-MAY-16	01-JUN-16	R3470719
Antimony (Sb)-Dissolved	<0.020	DLA	0.020	mg/L	25-MAY-16	01-JUN-16	R3470719
Arsenic (As)-Dissolved	<0.020	DLA	0.020	mg/L	25-MAY-16	01-JUN-16	R3470719
Barium (Ba)-Dissolved	0.017		0.010	mg/L	25-MAY-16	01-JUN-16	R3470719
Beryllium (Be)-Dissolved	<0.020	DLA	0.020	mg/L	25-MAY-16	01-JUN-16	R3470719
Boron (B)-Dissolved	<2.0	DLA	2.0	mg/L	25-MAY-16	01-JUN-16	R3470719
Cadmium (Cd)-Dissolved	0.154		0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Chromium (Cr)-Dissolved	<0.020	DLA	0.020	mg/L	25-MAY-16	01-JUN-16	R3470719
Cobalt (Co)-Dissolved	1.92		0.020	mg/L	25-MAY-16	01-JUN-16	R3470719
Copper (Cu)-Dissolved	<0.040	DLA	0.040	mg/L	25-MAY-16	01-JUN-16	R3470719
Lead (Pb)-Dissolved	<0.010	DLA	0.010	mg/L	25-MAY-16	01-JUN-16	R3470719
Lithium (Li)-Dissolved	0.22		0.20	mg/L	25-MAY-16	01-JUN-16	R3470719
Manganese (Mn)-Dissolved	130		0.020	mg/L	25-MAY-16	01-JUN-16	R3470719
Molybdenum (Mo)-Dissolved	<0.010	DLA	0.010	mg/L	25-MAY-16	01-JUN-16	R3470719
Nickel (Ni)-Dissolved	2.26		0.10	mg/L	25-MAY-16	01-JUN-16	R3470719
Potassium (K)-Dissolved	17		10	mg/L	25-MAY-16	03-JUN-16	R3470719
Selenium (Se)-Dissolved	<0.010	DLA	0.010	mg/L	25-MAY-16	01-JUN-16	R3470719
Silver (Ag)-Dissolved	<0.0020	DLA	0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Sodium (Na)-Dissolved	64		10	mg/L	25-MAY-16	03-JUN-16	R3470719
Strontium (Sr)-Dissolved	3.74		0.040	mg/L	25-MAY-16	01-JUN-16	R3470719
Thallium (Tl)-Dissolved	0.0027		0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Titanium (Ti)-Dissolved	<0.060	DLA	0.060	mg/L	25-MAY-16	01-JUN-16	R3470719
Uranium (U)-Dissolved	0.0133		0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Vanadium (V)-Dissolved	<0.10	DLA	0.10	mg/L	25-MAY-16	01-JUN-16	R3470719
Zinc (Zn)-Dissolved	864		0.20	mg/L	25-MAY-16	01-JUN-16	R3470719
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Calcium (Ca)-Dissolved	422		0.15	mg/L	25-MAY-16	01-JUN-16	R3469401
Iron (Fe)-Dissolved	488		0.090	mg/L	25-MAY-16	01-JUN-16	R3469401
Magnesium (Mg)-Dissolved	1300		0.30	mg/L	25-MAY-16	01-JUN-16	R3469401
Phosphorus (P)-Dissolved	<0.90	DLHC	0.90	mg/L	25-MAY-16	01-JUN-16	R3469401
Silicon (Si)-Dissolved	8.14		0.15	mg/L	25-MAY-16	01-JUN-16	R3469401
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	17.4		0.32	mg/L		06-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Sulfur (S)-Dissolved	2830		1.5	mg/L	25-MAY-16	01-JUN-16	R3469401
Hardness							
Hardness (as CaCO3)	6400		1.3	mg/L		06-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	2140		25	mg/L		30-MAY-16	R3469314
Ammonia, Total (as N)	0.737		0.025	mg/L		03-JUN-16	R3472264
Dissolved Organic Carbon	6.96		0.50	mg/L		03-JUN-16	R3472772
Total Dissolved Solids	14200		20	mg/L		24-MAY-16	R3464893
Phosphorus (P)-Total	<2.0	DLM	2.0	mg/L		02-JUN-16	R3470716
Total Suspended Solids	84.0		3.0	mg/L		25-MAY-16	R3467288
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	445		20	mg/L	24-MAY-16	24-MAY-16	R3464433
Dissolved Fe2 Filtration Location	FIELD					24-MAY-16	R3463454

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1771791-12 SRK-FD901_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 08:35							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	225		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Total (as CaCO3)	225		1.0	mg/L		31-MAY-16	R3470703
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLDS	10	mg/L		20-MAY-16	R3464875
Fluoride in Water by IC							
Fluoride (F)	<0.40	DLDS	0.40	mg/L		20-MAY-16	R3464875
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	1.31		0.10	mg/L		20-MAY-16	R3464875
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLDS	0.020	mg/L		20-MAY-16	R3464875
Sulfate in Water by IC							
Sulfate (SO4)	2890		6.0	mg/L		20-MAY-16	R3464875
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000050		0.0000050	mg/L	24-MAY-16	24-MAY-16	R3463754
Dissolved Mercury Filtration Location	FIELD					24-MAY-16	R3463198
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Aluminum (Al)-Dissolved	0.094		0.020	mg/L	25-MAY-16	01-JUN-16	R3470719
Antimony (Sb)-Dissolved	<0.0020	DLA	0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Arsenic (As)-Dissolved	<0.0020	DLA	0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Barium (Ba)-Dissolved	0.0222		0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Beryllium (Be)-Dissolved	<0.0020	DLA	0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Boron (B)-Dissolved	<0.20	DLA	0.20	mg/L	25-MAY-16	01-JUN-16	R3470719
Cadmium (Cd)-Dissolved	0.0674		0.00010	mg/L	25-MAY-16	01-JUN-16	R3470719
Chromium (Cr)-Dissolved	<0.0020	DLA	0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Cobalt (Co)-Dissolved	0.0660		0.0020	mg/L	25-MAY-16	03-JUN-16	R3470719
Copper (Cu)-Dissolved	0.0639		0.0040	mg/L	25-MAY-16	01-JUN-16	R3470719
Lead (Pb)-Dissolved	0.0051		0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Lithium (Li)-Dissolved	0.048		0.020	mg/L	25-MAY-16	01-JUN-16	R3470719
Manganese (Mn)-Dissolved	7.73		0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Molybdenum (Mo)-Dissolved	<0.0010	DLA	0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Nickel (Ni)-Dissolved	0.306		0.010	mg/L	25-MAY-16	01-JUN-16	R3470719
Potassium (K)-Dissolved	9.1		1.0	mg/L	25-MAY-16	03-JUN-16	R3470719
Selenium (Se)-Dissolved	0.0019		0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Silver (Ag)-Dissolved	<0.00020	DLA	0.00020	mg/L	25-MAY-16	01-JUN-16	R3470719
Sodium (Na)-Dissolved	31.1		1.0	mg/L	25-MAY-16	03-JUN-16	R3470719
Strontium (Sr)-Dissolved	2.55		0.0040	mg/L	25-MAY-16	01-JUN-16	R3470719
Thallium (Tl)-Dissolved	0.00053		0.00020	mg/L	25-MAY-16	01-JUN-16	R3470719
Titanium (Ti)-Dissolved	<0.0060	DLA	0.0060	mg/L	25-MAY-16	01-JUN-16	R3470719
Uranium (U)-Dissolved	0.00534		0.00020	mg/L	25-MAY-16	01-JUN-16	R3470719
Vanadium (V)-Dissolved	<0.010	DLA	0.010	mg/L	25-MAY-16	01-JUN-16	R3470719
Zinc (Zn)-Dissolved	92.9		0.020	mg/L	25-MAY-16	01-JUN-16	R3470719
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Calcium (Ca)-Dissolved	450		0.050	mg/L	25-MAY-16	30-MAY-16	R3469401
Iron (Fe)-Dissolved	3.10		0.030	mg/L	25-MAY-16	30-MAY-16	R3469401
Magnesium (Mg)-Dissolved	457		0.10	mg/L	25-MAY-16	30-MAY-16	R3469401

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1771791-12 SRK-FD901_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 08:35							
Matrix: Water							
Dissolved Metals in Water by ICPOES							
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	25-MAY-16	30-MAY-16	R3469401
Silicon (Si)-Dissolved	5.60		0.050	mg/L	25-MAY-16	30-MAY-16	R3469401
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	12.0		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Sulfur (S)-Dissolved	963		0.50	mg/L	25-MAY-16	30-MAY-16	R3469401
Hardness							
Hardness (as CaCO3)	3010		0.50	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		26-MAY-16	R3469296
Ammonia, Total (as N)	0.0187		0.0050	mg/L		03-JUN-16	R3472264
Dissolved Organic Carbon	5.15		0.50	mg/L		03-JUN-16	R3472772
Total Dissolved Solids	5220		20	mg/L		24-MAY-16	R3464893
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		01-JUN-16	R3470177
Total Suspended Solids	40.0		3.0	mg/L		25-MAY-16	R3467288
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	3.51		0.10	mg/L	24-MAY-16	24-MAY-16	R3464433
Dissolved Fe2 Filtration Location	FIELD					24-MAY-16	R3463454
L1771791-13 SRK-FD919_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 15:00							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	341		1.0	mg/L		29-MAY-16	R3467409
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		29-MAY-16	R3467409
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		29-MAY-16	R3467409
Alkalinity, Total (as CaCO3)	341		1.0	mg/L		29-MAY-16	R3467409
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLDS	10	mg/L		20-MAY-16	R3464875
Fluoride in Water by IC							
Fluoride (F)	<0.40	DLDS	0.40	mg/L		20-MAY-16	R3464875
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	1.34		0.10	mg/L		20-MAY-16	R3464875
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	0.028		0.020	mg/L		20-MAY-16	R3464875
Sulfate in Water by IC							
Sulfate (SO4)	4430		6.0	mg/L		20-MAY-16	R3464875
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000117		0.0000050	mg/L	24-MAY-16	24-MAY-16	R3463754
Dissolved Mercury Filtration Location	FIELD					24-MAY-16	R3463198
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Aluminum (Al)-Dissolved	0.172		0.020	mg/L	25-MAY-16	01-JUN-16	R3470719
Antimony (Sb)-Dissolved	<0.0020	DLA	0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Arsenic (As)-Dissolved	<0.0020	DLA	0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Barium (Ba)-Dissolved	0.0526		0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Beryllium (Be)-Dissolved	<0.0020	DLA	0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Boron (B)-Dissolved	<0.20	DLA	0.20	mg/L	25-MAY-16	01-JUN-16	R3470719

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1771791-13 SRK-FD919_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 15:00							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Cadmium (Cd)-Dissolved	0.0535		0.00010	mg/L	25-MAY-16	01-JUN-16	R3470719
Chromium (Cr)-Dissolved	<0.0020	DLA	0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Cobalt (Co)-Dissolved	0.525		0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Copper (Cu)-Dissolved	0.0449		0.0040	mg/L	25-MAY-16	01-JUN-16	R3470719
Lead (Pb)-Dissolved	0.0084		0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Lithium (Li)-Dissolved	0.051		0.020	mg/L	25-MAY-16	01-JUN-16	R3470719
Manganese (Mn)-Dissolved	51.4		0.0020	mg/L	25-MAY-16	01-JUN-16	R3470719
Molybdenum (Mo)-Dissolved	<0.0010	DLA	0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Nickel (Ni)-Dissolved	0.823		0.010	mg/L	25-MAY-16	01-JUN-16	R3470719
Potassium (K)-Dissolved	10.6		1.0	mg/L	25-MAY-16	03-JUN-16	R3470719
Selenium (Se)-Dissolved	0.0064		0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Silver (Ag)-Dissolved	<0.00020	DLA	0.00020	mg/L	25-MAY-16	01-JUN-16	R3470719
Sodium (Na)-Dissolved	20.7		1.0	mg/L	25-MAY-16	03-JUN-16	R3470719
Strontium (Sr)-Dissolved	3.29		0.0040	mg/L	25-MAY-16	01-JUN-16	R3470719
Thallium (Tl)-Dissolved	<0.00020	DLA	0.00020	mg/L	25-MAY-16	01-JUN-16	R3470719
Titanium (Ti)-Dissolved	<0.0060	DLA	0.0060	mg/L	25-MAY-16	01-JUN-16	R3470719
Uranium (U)-Dissolved	0.00841		0.00020	mg/L	25-MAY-16	01-JUN-16	R3470719
Vanadium (V)-Dissolved	<0.010	DLA	0.010	mg/L	25-MAY-16	01-JUN-16	R3470719
Zinc (Zn)-Dissolved	159		0.020	mg/L	25-MAY-16	01-JUN-16	R3470719
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Calcium (Ca)-Dissolved	527		0.10	mg/L	25-MAY-16	31-MAY-16	R3469401
Iron (Fe)-Dissolved	0.128		0.060	mg/L	25-MAY-16	31-MAY-16	R3469401
Magnesium (Mg)-Dissolved	901		0.20	mg/L	25-MAY-16	31-MAY-16	R3469401
Phosphorus (P)-Dissolved	<0.60	DLHC	0.60	mg/L	25-MAY-16	31-MAY-16	R3469401
Silicon (Si)-Dissolved	6.60		0.10	mg/L	25-MAY-16	31-MAY-16	R3469401
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	14.1		0.21	mg/L		01-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Sulfur (S)-Dissolved	1600		1.0	mg/L	25-MAY-16	31-MAY-16	R3469401
Hardness							
Hardness (as CaCO3)	5030		0.86	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	40		25	mg/L		26-MAY-16	R3469296
Ammonia, Total (as N)	0.0663		0.0050	mg/L		03-JUN-16	R3472264
Dissolved Organic Carbon	9.83		0.50	mg/L		03-JUN-16	R3472772
Total Dissolved Solids	7890		20	mg/L		24-MAY-16	R3464893
Phosphorus (P)-Total	<0.20	DLM	0.20	mg/L		02-JUN-16	R3470716
Total Suspended Solids	6.2		1.0	mg/L		25-MAY-16	R3467288
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	0.108		0.020	mg/L	24-MAY-16	24-MAY-16	R3464433
Dissolved Fe2 Filtration Location	FIELD					24-MAY-16	R3463454
L1771791-14 X23_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 11:45							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1771791-14 X23_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 11:45							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity, Total (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	12		10	mg/L		20-MAY-16	R3464875
Fluoride in Water by IC							
Fluoride (F)	0.59		0.40	mg/L		20-MAY-16	R3464875
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	3.46		0.10	mg/L		20-MAY-16	R3464875
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	0.043		0.020	mg/L		20-MAY-16	R3464875
Sulfate in Water by IC							
Sulfate (SO4)	8840		6.0	mg/L		20-MAY-16	R3464875
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000055		0.0000050	mg/L	24-MAY-16	25-MAY-16	R3464823
Dissolved Mercury Filtration Location	FIELD					24-MAY-16	R3463198
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Aluminum (Al)-Dissolved	<0.10	DLA	0.10	mg/L	25-MAY-16	01-JUN-16	R3470719
Antimony (Sb)-Dissolved	<0.010	DLA	0.010	mg/L	25-MAY-16	01-JUN-16	R3470719
Arsenic (As)-Dissolved	<0.010	DLA	0.010	mg/L	25-MAY-16	01-JUN-16	R3470719
Barium (Ba)-Dissolved	0.0165		0.0050	mg/L	25-MAY-16	01-JUN-16	R3470719
Beryllium (Be)-Dissolved	<0.010	DLA	0.010	mg/L	25-MAY-16	01-JUN-16	R3470719
Boron (B)-Dissolved	<1.0	DLA	1.0	mg/L	25-MAY-16	01-JUN-16	R3470719
Cadmium (Cd)-Dissolved	0.158		0.00050	mg/L	25-MAY-16	01-JUN-16	R3470719
Chromium (Cr)-Dissolved	<0.010	DLA	0.010	mg/L	25-MAY-16	01-JUN-16	R3470719
Cobalt (Co)-Dissolved	2.04		0.010	mg/L	25-MAY-16	01-JUN-16	R3470719
Copper (Cu)-Dissolved	<0.020	DLA	0.020	mg/L	25-MAY-16	01-JUN-16	R3470719
Lead (Pb)-Dissolved	<0.0050	DLA	0.0050	mg/L	25-MAY-16	01-JUN-16	R3470719
Lithium (Li)-Dissolved	0.24		0.10	mg/L	25-MAY-16	01-JUN-16	R3470719
Manganese (Mn)-Dissolved	138		0.010	mg/L	25-MAY-16	01-JUN-16	R3470719
Molybdenum (Mo)-Dissolved	<0.0050	DLA	0.0050	mg/L	25-MAY-16	01-JUN-16	R3470719
Nickel (Ni)-Dissolved	2.37		0.050	mg/L	25-MAY-16	01-JUN-16	R3470719
Potassium (K)-Dissolved	15.9		5.0	mg/L	25-MAY-16	03-JUN-16	R3470719
Selenium (Se)-Dissolved	<0.0050	DLA	0.0050	mg/L	25-MAY-16	01-JUN-16	R3470719
Silver (Ag)-Dissolved	<0.0010	DLA	0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Sodium (Na)-Dissolved	125		5.0	mg/L	25-MAY-16	03-JUN-16	R3470719
Strontium (Sr)-Dissolved	3.95		0.020	mg/L	25-MAY-16	01-JUN-16	R3470719
Thallium (Tl)-Dissolved	0.0024		0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Titanium (Ti)-Dissolved	<0.030	DLA	0.030	mg/L	25-MAY-16	01-JUN-16	R3470719
Uranium (U)-Dissolved	0.0103		0.0010	mg/L	25-MAY-16	01-JUN-16	R3470719
Vanadium (V)-Dissolved	<0.050	DLA	0.050	mg/L	25-MAY-16	01-JUN-16	R3470719
Zinc (Zn)-Dissolved	918		0.10	mg/L	25-MAY-16	01-JUN-16	R3470719
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Calcium (Ca)-Dissolved	424		0.15	mg/L	25-MAY-16	01-JUN-16	R3469401
Iron (Fe)-Dissolved	472		0.090	mg/L	25-MAY-16	01-JUN-16	R3469401
Magnesium (Mg)-Dissolved	1320		0.30	mg/L	25-MAY-16	01-JUN-16	R3469401
Phosphorus (P)-Dissolved	<0.90	DLHC	0.90	mg/L	25-MAY-16	01-JUN-16	R3469401
Silicon (Si)-Dissolved	7.72		0.15	mg/L	25-MAY-16	01-JUN-16	R3469401
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	16.5		0.32	mg/L		06-JUN-16	

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1771791-14 X23_SESP16							
Sampled By: CLIENT on 18-MAY-16 @ 11:45							
Matrix: Water							
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					25-MAY-16	R3463812
Sulfur (S)-Dissolved	2910		1.5	mg/L	25-MAY-16	01-JUN-16	R3469401
Hardness							
Hardness (as CaCO3)	6510		1.3	mg/L		06-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	2200		25	mg/L		30-MAY-16	R3469314
Ammonia, Total (as N)	0.728		0.025	mg/L		03-JUN-16	R3472264
Dissolved Organic Carbon	7.15		0.50	mg/L		03-JUN-16	R3472772
Total Dissolved Solids	14000		20	mg/L		24-MAY-16	R3464893
Phosphorus (P)-Total	<2.0	DLM	2.0	mg/L		02-JUN-16	R3470716
Total Suspended Solids	137		3.0	mg/L		25-MAY-16	R3467288
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	401		20	mg/L	24-MAY-16	24-MAY-16	R3464433
Dissolved Fe2 Filtration Location	FIELD					24-MAY-16	R3463454

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier Key:

Qualifier	Description
B	Method Blank exceeds ALS DQO. All associated sample results are at least 5 times greater than blank levels and are considered reliable.
DLA	Detection Limit adjusted for required dilution
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ACY-H2O2-MAN-VA	Water	Acidity by Hot Peroxide Titration	APHA - ACIDITY (2310)
This analysis is carried out using procedures adapted from APHA Method 2310 "Acidity". The procedure involves preliminary sample treatment by the hot peroxide procedure, and Acidity is subsequently determined by potentiometric titration to a specified endpoint (i.e. pH = 8.3).			
ALK-TITR-VA	Water	Alkalinity Species by Titration	APHA 2320 Alkalinity
This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.			
CARBONS-DOC-VA	Water	Dissolved organic carbon by combustion	APHA 5310B TOTAL ORGANIC CARBON (TOC)
This analysis is carried out using procedures adapted from APHA Method 5310 "Total Organic Carbon (TOC)". Dissolved carbon (DOC) fractions are determined by filtering the sample through a 0.45 micron membrane filter prior to analysis.			
CL-IC-N-WR	Water	Chloride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
CN-FREE-CFA-VA	Water	Free Cyanide in water by CFA	ASTM 7237
This analysis is carried out using procedures adapted from ASTM Method 7237 "Free Cyanide with Flow Injection Analysis (FIA) Utilizing Gas Diffusion Separation and Amperometric Detection". Free cyanide is determined by in-line gas diffusion at pH 6 with final determination by colourimetric analysis.			
F-IC-N-WR	Water	Fluoride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
FE2-D-COL-VA	Water	Diss. Ferrous Iron in Water by Colour	APHA 3500-Fe B/James Ball et al (1999)
This analysis is carried out using procedures adapted from APHA 3500-Fe B and "A New Method for the Direct Determination of Dissolved Iron Concentration in Acid Mine Waters" published by James W. Ball et al (1999). The procedure involves preliminary sample filtration, and ferrous iron is determined using the "FerroZine" colourimetric method.			
HARDNESS-CALC-VA	Water	Hardness	APHA 2340B
Hardness (also known as Total Hardness) is calculated from the sum of Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. Dissolved Calcium and Magnesium concentrations are preferentially used for the hardness calculation.			
HG-D-CVAA-VA	Water	Diss. Mercury in Water by CVAAS or CVAFS	APHA 3030B/EPA 1631E (mod)
Water samples are filtered (0.45 um), preserved with hydrochloric acid, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS or CVAFS.			
MET-D-CCMS-VA	Water	Dissolved Metals in Water by CRC ICPMS	APHA 3030B/6020A (mod)
Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.			
Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			
MET-DIS-ICP-VA	Water	Dissolved Metals in Water by ICPOES	EPA SW-846 3005A/6010B
This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedure involves filtration (EPA Method 3005A) and analysis by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B).			
NH3-F-VA	Water	Ammonia in Water by Fluorescence	APHA 4500 NH3-NITROGEN (AMMONIA)
This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.			
NH3-F-VA	Water	Ammonia in Water by Fluorescence	J. ENVIRON. MONIT., 2005, 7, 37-42, RSC

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.			
NO2-L-IC-N-WR	Water	Nitrite in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
NO3-L-IC-N-WR	Water	Nitrate in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
P-T-PRES-COL-VA	Water	Total P in Water by Colour	APHA 4500-P Phosphorus
This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorus is determined colourimetrically after persulphate digestion of the sample.			
S-DIS-ICP-VA	Water	Dissolved Sulfur in Water by ICPOES	EPA SW-846 3005A/6010B
This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedures may involve preliminary sample treatment by acid digestion, using either hotblock or microwave oven, or filtration (EPA Method 3005A). Instrumental analysis is by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B).			
Method Limitation: This method will not give total sulfur results for all samples. Sulfide or other volatile forms of sulfur that may be present in submitted samples, is often lost during the sampling, preservation and analysis process. The data reported as total and/or dissolved sulfur represents all non-volatile forms of sulfur present in a particular sample.			
SIO2-D-CALC-VA	Water	Dissolved Silicon (reported as Silica)	CALCULATION
Dissolved Silicon (as SiO2) is a calculated parameter. Dissolved Silicon (as SiO2 mg/L) = 2.139 x Dissolved Silicon (mg/L).			
SO4-IC-N-WR	Water	Sulfate in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
TDS-VA	Water	Total Dissolved Solids by Gravimetric	APHA 2540 C - GRAVIMETRIC
This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, TDS is determined by evaporating the filtrate to dryness at 180 degrees celsius.			
TSS-LOW-WR	Water	Total Suspended Solids by Grav. (1 mg/L)	APHA 2540 D
This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Suspended Solids are determined by filtering a sample through a glass fibre filter and drying the filter at 104 degrees celsius.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

ALS05191601

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ACY-H2O2-MAN-VA	**Water**							
Batch **R3469296**								
WG2315255-2 **CRM**		**VA-ACY-M-CONTROL**						
Acidity-Hot Peroxide Treated (as CaCO3)			93.4		%		85-115	27-MAY-16
WG2315255-3 **DUP**		**L1771791-6**						
Acidity-Hot Peroxide Treated (as CaCO3)		486	491		mg/L	1.0	20	26-MAY-16
WG2315255-1 **MB**								
Acidity-Hot Peroxide Treated (as CaCO3)			<25		mg/L		25	30-MAY-16
Batch **R3469314**								
WG2317485-2 **CRM**		**VA-ACY-M-CONTROL**						
Acidity-Hot Peroxide Treated (as CaCO3)			98.6		%		85-115	30-MAY-16
WG2317485-3 **DUP**		**L1772436-10**						
Acidity-Hot Peroxide Treated (as CaCO3)		25300	25300		mg/L	0.2	20	30-MAY-16
WG2317485-1 **MB**								
Acidity-Hot Peroxide Treated (as CaCO3)			<25		mg/L		25	30-MAY-16
ALK-TITR-VA	**Water**							
Batch **R3467409**								
WG2316552-3 **CRM**		**VA-ALK-TITR-CONTROL**						
Alkalinity, Total (as CaCO3)			98.0		%		85-115	29-MAY-16
WG2316552-5 **DUP**		**L1771791-1**						
Alkalinity, Total (as CaCO3)		<1.0	<1.0	RPD-NA	mg/L	N/A	20	29-MAY-16
WG2316552-1 **MB**								
Alkalinity, Total (as CaCO3)			1.2	B	mg/L		1	29-MAY-16
Batch **R3470703**								
WG2319084-3 **CRM**		**VA-ALK-TITR-CONTROL**						
Alkalinity, Total (as CaCO3)			100.5		%		85-115	31-MAY-16
WG2319084-5 **DUP**		**L1771791-10**						
Alkalinity, Total (as CaCO3)		191	189		mg/L	1.2	20	31-MAY-16
WG2319084-1 **MB**								
Alkalinity, Total (as CaCO3)			<1.0		mg/L		1	31-MAY-16
CARBONS-DOC-VA	**Water**							
Batch **R3472772**								
WG2320713-4 **LCS**								
Dissolved Organic Carbon			103.2		%		80-120	03-JUN-16
WG2320713-3 **MB**								
Dissolved Organic Carbon			<0.50		mg/L		0.5	03-JUN-16
WG2320713-2 **MS**		**L1771791-2**						
Dissolved Organic Carbon			93.6		%		70-130	03-JUN-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CARBONS-DOC-VA	**Water**							
Batch R3474168								
WG2321413-1 DUP		**L1772436-1**						
Dissolved Organic Carbon		2.14	2.21		mg/L	3.2	20	06-JUN-16
WG2321413-5 DUP		**L1772436-19**						
Dissolved Organic Carbon		3.83	3.88		mg/L	1.4	20	06-JUN-16
WG2321413-9 DUP		**L1772436-37**						
Dissolved Organic Carbon		3.02	2.98		mg/L	1.4	20	06-JUN-16
WG2321413-12 LCS								
Dissolved Organic Carbon			98.3		%		80-120	06-JUN-16
WG2321413-4 LCS								
Dissolved Organic Carbon			100.8		%		80-120	06-JUN-16
WG2321413-8 LCS								
Dissolved Organic Carbon			100.7		%		80-120	06-JUN-16
WG2321413-11 MB								
Dissolved Organic Carbon			<0.50		mg/L		0.5	06-JUN-16
WG2321413-3 MB								
Dissolved Organic Carbon			<0.50		mg/L		0.5	06-JUN-16
WG2321413-7 MB								
Dissolved Organic Carbon			<0.50		mg/L		0.5	06-JUN-16
WG2321413-10 MS		**L1772436-38**						
Dissolved Organic Carbon			114.5		%		70-130	06-JUN-16
WG2321413-2 MS		**L1772436-2**						
Dissolved Organic Carbon			104.5		%		70-130	06-JUN-16
WG2321413-6 MS		**L1772436-20**						
Dissolved Organic Carbon			106.1		%		70-130	06-JUN-16
CL-IC-N-WR	**Water**							
Batch R3464875								
WG2312649-3 DUP		**L1771791-4**						
Chloride (Cl)		<0.50	<0.50	RPD-NA	mg/L	N/A	20	20-MAY-16
WG2312649-2 LCS								
Chloride (Cl)			101.1		%		90-110	20-MAY-16
WG2312649-1 MB								
Chloride (Cl)			<0.50		mg/L		0.5	20-MAY-16
WG2312649-4 MS		**L1771791-3**						
Chloride (Cl)			102.3		%		75-125	20-MAY-16
CN-FREE-CFA-VA	**Water**							

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-FREE-CFA-VA	**Water**							
Batch R3471002								
WG2319433-3 DUP		**L1771791-2**						
Cyanide, Free		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	01-JUN-16
WG2319433-2 LCS								
Cyanide, Free			102.6		%		80-120	01-JUN-16
WG2319433-1 MB								
Cyanide, Free			<0.0050		mg/L		0.005	01-JUN-16
WG2319433-4 MS		**L1771791-2**						
Cyanide, Free			89.9		%		75-125	01-JUN-16
F-IC-N-WR	**Water**							
Batch R3464875								
WG2312649-3 DUP		**L1771791-4**						
Fluoride (F)		0.289	0.289		mg/L	0.3	20	20-MAY-16
WG2312649-2 LCS								
Fluoride (F)			105.6		%		90-110	20-MAY-16
WG2312649-1 MB								
Fluoride (F)			<0.020		mg/L		0.02	20-MAY-16
WG2312649-4 MS		**L1771791-3**						
Fluoride (F)			106.0		%		75-125	20-MAY-16
FE2-D-COL-VA	**Water**							
Batch R3464433								
WG2313875-3 DUP		**L1771791-9**						
Ferrous Iron, Dissolved		0.122	0.117		mg/L	4.5	20	24-MAY-16
WG2313875-2 LCS								
Ferrous Iron, Dissolved			104.8		%		80-120	24-MAY-16
WG2313875-1 MB								
Ferrous Iron, Dissolved			<0.020		mg/L		0.02	24-MAY-16
WG2313875-4 MS		**L1771791-10**						
Ferrous Iron, Dissolved			107.3		%		70-130	24-MAY-16
HG-D-CVAA-VA	**Water**							
Batch R3463754								
WG2313647-3 DUP		**L1771791-4**						
Mercury (Hg)-Dissolved		<0.0000050	<0.000005(	RPD-NA	mg/L	N/A	20	24-MAY-16
WG2313647-2 LCS								
Mercury (Hg)-Dissolved			97.2		%		80-120	24-MAY-16
WG2313647-1 MB								
Mercury (Hg)-Dissolved			<0.000005(		mg/L		0.000005	24-MAY-16
WG2313647-4 MS		**L1771791-12**						

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HG-D-CVAA-VA	**Water**							
Batch R3463754								
WG2313647-4 MS		**L1771791-12**						
Mercury (Hg)-Dissolved			95.9		%		70-130	24-MAY-16
MET-D-CCMS-VA	**Water**							
Batch R3470719								
WG2314103-3 DUP		**L1771791-14**						
Aluminum (Al)-Dissolved		<0.10	0.12	RPD-NA	mg/L	N/A	20	01-JUN-16
Antimony (Sb)-Dissolved		<0.010	<0.010	RPD-NA	mg/L	N/A	20	01-JUN-16
Arsenic (As)-Dissolved		<0.010	<0.010	RPD-NA	mg/L	N/A	20	01-JUN-16
Barium (Ba)-Dissolved		0.0165	0.0168		mg/L	2.2	20	01-JUN-16
Beryllium (Be)-Dissolved		<0.010	<0.010	RPD-NA	mg/L	N/A	20	01-JUN-16
Boron (B)-Dissolved		<1.0	<1.0	RPD-NA	mg/L	N/A	20	01-JUN-16
Cadmium (Cd)-Dissolved		0.158	0.156		mg/L	1.2	20	01-JUN-16
Chromium (Cr)-Dissolved		<0.010	<0.010	RPD-NA	mg/L	N/A	20	01-JUN-16
Cobalt (Co)-Dissolved		2.04	1.95		mg/L	4.3	20	01-JUN-16
Copper (Cu)-Dissolved		<0.020	<0.020	RPD-NA	mg/L	N/A	20	01-JUN-16
Lead (Pb)-Dissolved		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	01-JUN-16
Lithium (Li)-Dissolved		0.24	0.24		mg/L	0.1	20	01-JUN-16
Manganese (Mn)-Dissolved		138	135		mg/L	2.5	20	01-JUN-16
Molybdenum (Mo)-Dissolved		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	01-JUN-16
Nickel (Ni)-Dissolved		2.37	2.27		mg/L	4.1	20	01-JUN-16
Potassium (K)-Dissolved		15.9	17.5		mg/L	9.1	20	03-JUN-16
Selenium (Se)-Dissolved		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	01-JUN-16
Silver (Ag)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	01-JUN-16
Sodium (Na)-Dissolved		125	131		mg/L	4.7	20	03-JUN-16
Strontium (Sr)-Dissolved		3.95	3.84		mg/L	2.8	20	01-JUN-16
Thallium (Tl)-Dissolved		0.0024	0.0023		mg/L	2.6	20	01-JUN-16
Titanium (Ti)-Dissolved		<0.030	<0.030	RPD-NA	mg/L	N/A	20	01-JUN-16
Uranium (U)-Dissolved		0.0103	0.0102		mg/L	1.1	20	01-JUN-16
Vanadium (V)-Dissolved		<0.050	<0.050	RPD-NA	mg/L	N/A	20	01-JUN-16
Zinc (Zn)-Dissolved		918	895		mg/L	2.5	20	01-JUN-16
WG2314103-2 LCS								
Aluminum (Al)-Dissolved			103.0		%		80-120	25-MAY-16
Antimony (Sb)-Dissolved			100.6		%		80-120	25-MAY-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3470719								
WG2314103-2 LCS								
Arsenic (As)-Dissolved			99.9		%		80-120	25-MAY-16
Barium (Ba)-Dissolved			99.6		%		80-120	25-MAY-16
Beryllium (Be)-Dissolved			99.3		%		80-120	25-MAY-16
Boron (B)-Dissolved			94.9		%		80-120	25-MAY-16
Cadmium (Cd)-Dissolved			98.9		%		80-120	25-MAY-16
Chromium (Cr)-Dissolved			99.5		%		80-120	25-MAY-16
Cobalt (Co)-Dissolved			100.3		%		80-120	25-MAY-16
Copper (Cu)-Dissolved			96.9		%		80-120	25-MAY-16
Lead (Pb)-Dissolved			98.0		%		80-120	25-MAY-16
Lithium (Li)-Dissolved			99.7		%		80-120	25-MAY-16
Manganese (Mn)-Dissolved			101.4		%		80-120	25-MAY-16
Molybdenum (Mo)-Dissolved			101.4		%		80-120	25-MAY-16
Nickel (Ni)-Dissolved			101.1		%		80-120	25-MAY-16
Potassium (K)-Dissolved			102.9		%		80-120	25-MAY-16
Selenium (Se)-Dissolved			98.2		%		80-120	25-MAY-16
Silver (Ag)-Dissolved			97.1		%		80-120	25-MAY-16
Sodium (Na)-Dissolved			99.1		%		80-120	25-MAY-16
Strontium (Sr)-Dissolved			96.0		%		80-120	25-MAY-16
Thallium (Tl)-Dissolved			99.3		%		80-120	25-MAY-16
Titanium (Ti)-Dissolved			96.2		%		80-120	25-MAY-16
Uranium (U)-Dissolved			98.9		%		80-120	25-MAY-16
Vanadium (V)-Dissolved			102.0		%		80-120	25-MAY-16
Zinc (Zn)-Dissolved			92.9		%		80-120	25-MAY-16
WG2314103-1 MB								
Aluminum (Al)-Dissolved			<0.0010		mg/L		0.001	25-MAY-16
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	25-MAY-16
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	25-MAY-16
Barium (Ba)-Dissolved			<0.000050		mg/L		0.00005	25-MAY-16
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	25-MAY-16
Boron (B)-Dissolved			<0.010		mg/L		0.01	25-MAY-16
Cadmium (Cd)-Dissolved			<0.000005(		mg/L		0.000005	25-MAY-16
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	25-MAY-16
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	25-MAY-16
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	25-MAY-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3470719								
WG2314103-1 MB								
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	25-MAY-16
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	25-MAY-16
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	25-MAY-16
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	25-MAY-16
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	25-MAY-16
Potassium (K)-Dissolved			<0.050		mg/L		0.05	25-MAY-16
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	25-MAY-16
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	25-MAY-16
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	25-MAY-16
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	25-MAY-16
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	25-MAY-16
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	25-MAY-16
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	25-MAY-16
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	25-MAY-16
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	25-MAY-16
WG2314103-4 MS		**L1771791-1**						
Aluminum (Al)-Dissolved			N/A	MS-B	%		-	03-JUN-16
Antimony (Sb)-Dissolved			97.8		%		70-130	03-JUN-16
Arsenic (As)-Dissolved			N/A	MS-B	%		-	03-JUN-16
Barium (Ba)-Dissolved			106.5		%		70-130	03-JUN-16
Beryllium (Be)-Dissolved			101.6		%		70-130	03-JUN-16
Boron (B)-Dissolved			101.9		%		70-130	03-JUN-16
Cadmium (Cd)-Dissolved			N/A	MS-B	%		-	03-JUN-16
Chromium (Cr)-Dissolved			96.8		%		70-130	03-JUN-16
Cobalt (Co)-Dissolved			101.1		%		70-130	03-JUN-16
Copper (Cu)-Dissolved			N/A	MS-B	%		-	03-JUN-16
Lead (Pb)-Dissolved			101.3		%		70-130	03-JUN-16
Lithium (Li)-Dissolved			103.0		%		70-130	03-JUN-16
Manganese (Mn)-Dissolved			N/A	MS-B	%		-	03-JUN-16
Molybdenum (Mo)-Dissolved			100.5		%		70-130	03-JUN-16
Nickel (Ni)-Dissolved			104.2		%		70-130	03-JUN-16
Potassium (K)-Dissolved			99.9		%		70-130	03-JUN-16
Selenium (Se)-Dissolved			98.8		%		70-130	03-JUN-16
Silver (Ag)-Dissolved			101.2		%		70-130	03-JUN-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3470719								
WG2314103-4 MS		**L1771791-1**						
Sodium (Na)-Dissolved			99.6		%		70-130	03-JUN-16
Strontium (Sr)-Dissolved			99.3		%		70-130	03-JUN-16
Thallium (Tl)-Dissolved			100.8		%		70-130	03-JUN-16
Titanium (Ti)-Dissolved			95.1		%		70-130	03-JUN-16
Uranium (U)-Dissolved			99.6		%		70-130	03-JUN-16
Vanadium (V)-Dissolved			101.4		%		70-130	03-JUN-16
Zinc (Zn)-Dissolved			N/A	MS-B	%		-	03-JUN-16
MET-DIS-ICP-VA	**Water**							
Batch R3469401								
WG2314103-3 DUP		**L1771791-14**						
Calcium (Ca)-Dissolved		424	426		mg/L	0.4	20	01-JUN-16
Iron (Fe)-Dissolved		472	469		mg/L	0.7	20	01-JUN-16
Magnesium (Mg)-Dissolved		1320	1300		mg/L	2.0	20	01-JUN-16
Phosphorus (P)-Dissolved		<0.90	<0.90	RPD-NA	mg/L	N/A	20	01-JUN-16
Silicon (Si)-Dissolved		7.72	7.75		mg/L	0.4	20	01-JUN-16
WG2314103-2 LCS								
Calcium (Ca)-Dissolved			100.8		%		80-120	30-MAY-16
Iron (Fe)-Dissolved			95.9		%		80-120	30-MAY-16
Magnesium (Mg)-Dissolved			99.4		%		80-120	30-MAY-16
Phosphorus (P)-Dissolved			99.9		%		80-120	30-MAY-16
Silicon (Si)-Dissolved			103.2		%		80-120	30-MAY-16
WG2314103-1 MB								
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	30-MAY-16
Iron (Fe)-Dissolved			<0.030		mg/L		0.03	30-MAY-16
Magnesium (Mg)-Dissolved			<0.10		mg/L		0.1	30-MAY-16
Phosphorus (P)-Dissolved			<0.30		mg/L		0.3	30-MAY-16
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	30-MAY-16
WG2314103-4 MS		**L1771791-1**						
Calcium (Ca)-Dissolved			N/A	MS-B	%		-	01-JUN-16
Iron (Fe)-Dissolved			N/A	MS-B	%		-	01-JUN-16
Magnesium (Mg)-Dissolved			N/A	MS-B	%		-	01-JUN-16
Phosphorus (P)-Dissolved			N/A	MS-B	%		-	01-JUN-16
Silicon (Si)-Dissolved			N/A	MS-B	%		-	01-JUN-16
NH3-F-VA	**Water**							

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NH3-F-VA	**Water**							
Batch R3472264								
WG2320602-3 DUP		**L1771791-9**						
Ammonia, Total (as N)		0.0648	0.0651		mg/L	0.3	20	03-JUN-16
WG2320602-2 LCS								
Ammonia, Total (as N)			104.5		%		85-115	03-JUN-16
WG2320602-1 MB								
Ammonia, Total (as N)			<0.0050		mg/L		0.005	03-JUN-16
WG2320602-4 MS		**L1771791-9**						
Ammonia, Total (as N)			91.2		%		75-125	03-JUN-16
Batch R3472808								
WG2321482-3 DUP		**L1771791-1**						
Ammonia, Total (as N)		0.522	0.509		mg/L	2.6	20	05-JUN-16
WG2321482-2 LCS								
Ammonia, Total (as N)			96.8		%		85-115	05-JUN-16
WG2321482-1 MB								
Ammonia, Total (as N)			<0.0050		mg/L		0.005	05-JUN-16
WG2321482-4 MS		**L1771791-1**						
Ammonia, Total (as N)			N/A	MS-B	%		-	05-JUN-16
NO2-L-IC-N-WR	**Water**							
Batch R3464875								
WG2312649-3 DUP		**L1771791-4**						
Nitrite (as N)		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	20-MAY-16
WG2312649-2 LCS								
Nitrite (as N)			105.7		%		90-110	20-MAY-16
WG2312649-1 MB								
Nitrite (as N)			<0.0010		mg/L		0.001	20-MAY-16
WG2312649-4 MS		**L1771791-3**						
Nitrite (as N)			106.8		%		75-125	20-MAY-16
NO3-L-IC-N-WR	**Water**							
Batch R3464875								
WG2312649-3 DUP		**L1771791-4**						
Nitrate (as N)		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-MAY-16
WG2312649-2 LCS								
Nitrate (as N)			101.3		%		90-110	20-MAY-16
WG2312649-1 MB								
Nitrate (as N)			<0.0050		mg/L		0.005	20-MAY-16
WG2312649-4 MS		**L1771791-3**						
Nitrate (as N)			102.4		%		75-125	20-MAY-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
P-T-PRES-COL-VA	**Water**							
Batch R3470177								
WG2318876-2 CRM		**VA-ERA-PO4**						
Phosphorus (P)-Total			103.4		%		80-120	01-JUN-16
WG2318876-3 DUP		**L1771791-10**						
Phosphorus (P)-Total		<0.020	<0.020	RPD-NA	mg/L	N/A	20	01-JUN-16
WG2318876-1 MB								
Phosphorus (P)-Total			<0.0020		mg/L		0.002	01-JUN-16
WG2318876-4 MS		**L1771791-10**						
Phosphorus (P)-Total			99.7		%		70-130	01-JUN-16
Batch R3470716								
WG2319569-2 CRM		**VA-ERA-PO4**						
Phosphorus (P)-Total			96.9		%		80-120	02-JUN-16
WG2319569-3 DUP		**L1771791-2**						
Phosphorus (P)-Total		<0.20	<0.20	RPD-NA	mg/L	N/A	20	02-JUN-16
WG2319569-1 MB								
Phosphorus (P)-Total			<0.0020		mg/L		0.002	02-JUN-16
WG2319569-4 MS		**L1771791-2**						
Phosphorus (P)-Total			84.7		%		70-130	02-JUN-16
S-DIS-ICP-VA	**Water**							
Batch R3469401								
WG2314103-3 DUP		**L1771791-14**						
Sulfur (S)-Dissolved		2910	2870		mg/L	1.6	20	01-JUN-16
WG2314103-2 LCS								
Sulfur (S)-Dissolved			99.3		%		80-120	30-MAY-16
WG2314103-1 MB								
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	30-MAY-16
WG2314103-4 MS		**L1771791-1**						
Sulfur (S)-Dissolved			N/A	MS-B	%		-	01-JUN-16
SO4-IC-N-WR	**Water**							
Batch R3464875								
WG2312649-3 DUP		**L1771791-4**						
Sulfate (SO4)		176	176		mg/L	0.1	20	20-MAY-16
WG2312649-2 LCS								
Sulfate (SO4)			101.2		%		90-110	20-MAY-16
WG2312649-1 MB								
Sulfate (SO4)			<0.30		mg/L		0.3	20-MAY-16
WG2312649-4 MS		**L1771791-3**						
Sulfate (SO4)			N/A	MS-B	%		-	20-MAY-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
SO4-IC-N-WR	**Water**							
Batch R3466483								
WG2314004-3 DUP		**L1772436-4**						
Sulfate (SO4)		208	208		mg/L	0.0	20	24-MAY-16
WG2314004-2 LCS								
Sulfate (SO4)			90.5		%		90-110	24-MAY-16
WG2314004-1 MB								
Sulfate (SO4)			<0.30		mg/L		0.3	24-MAY-16
WG2314004-4 MS		**L1772436-3**						
Sulfate (SO4)			N/A	MS-B	%		-	24-MAY-16
TDS-VA	**Water**							
Batch R3464893								
WG2313610-3 DUP		**L1771791-1**						
Total Dissolved Solids		173000	171000		mg/L	1.2	20	24-MAY-16
WG2313610-2 LCS								
Total Dissolved Solids			97.2		%		85-115	24-MAY-16
WG2313610-1 MB								
Total Dissolved Solids			<10		mg/L		10	24-MAY-16
TSS-LOW-WR	**Water**							
Batch R3465503								
WG2314339-3 DUP		**L1771791-1**						
Total Suspended Solids		57.2	47.2		mg/L	19	20	24-MAY-16
WG2314339-2 LCS								
Total Suspended Solids			100.4		%		85-115	24-MAY-16
WG2314339-1 MB								
Total Suspended Solids			<1.0		mg/L		1	24-MAY-16
Batch R3467288								
WG2314722-3 DUP		**L1771791-4**						
Total Suspended Solids		38.8	38.8		mg/L	0.0	20	25-MAY-16
WG2314722-2 LCS								
Total Suspended Solids			109.3		%		85-115	25-MAY-16
WG2314722-1 MB								
Total Suspended Solids			<1.0		mg/L		1	25-MAY-16

Quality Control Report

Workorder: L1771791 Report Date: 08-JUN-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
B	Method Blank exceeds ALS DQO. All associated sample results are at least 5 times greater than blank levels and are considered reliable.
DLA	Detection Limit adjusted for required dilution
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

CH2MHILL

CHAIN OF CUSTODY RECORD

L1771791-COFC

Project Name Faro Mine
Location Faro Mine Complex - Faro YK
Project Number 673709.20.01.01.04.03.SS.
Project Manager BT Thomas
Sample Manager Damion Miles

Task Order SW-015
Project FARO MINE SPRING SEEP 2016
Turnaround Time 10 Days
Shipping Date: 5/19/2016
COC Number: ALS05191601

				Container:	40ml vial	125ml Poly	125ml glass	500ml Poly	500ml Poly	500ml Poly	125ml glass	125ml Glass	125l Poly	[illegible]	[illegible]	[illegible]		
				Preservatives:	HCl, 4°C	HCl, 4°C	H2SO4, pH<2, 4C	4C	4C	4°C	H2SO4, pH<2, 4C	H2SO4, pH<2, 4°C	HNO3, 4°C	NaOH, 4°C	4C	4°C		
				Filtered:	Field	Field	NA	NA	NA	NA	NA	Field	Field	NA	NA	NA		
				Holding Time:	28	180	28	14	14	7	28	28	180	14	14	3		
					(E245.7-Diss) Field Filtered Dissolved Hg	(Ferrozine Method) Field Filtered Ferrous Iron	(JEM/SM4500NH3) Ammonia	(SM2320B) Alkalinity	(SM2540C) TDS	(SM2540D) TSS	(SM4500P) Total Phosphorus	(SM5310) Field Filtered DOC	(SW6010B/SW6020A) Field Filtered For Metals Analyte List see Table 1	ASTM 7237 Cyanide	SM2310_HP Acidity - Run Hot H2O2	SM4110B CL F NO2 NO3 and SO4		Number of Containers	COMMENTS
	DATE	**TIME**	**Matrix**																
SRK-FD37_SESP16	5/17/2016	15:25	Water	X	X	X		X	X	X	X	X		X	X		8	
CH-RCTA-03_SESP16	5/18/2016	11:40	Water	X	X	X	X	X	X	X	X	X	X	X	X		9	
CH-RCTA-07_SESP16	5/18/2016	9:16	Water	X	X	X	X	X	X	X	X	X	X	X	X		9	
CH-RCTA-907_SESP16	5/18/2016	9:16	Water	X	X	X	X	X	X	X	X	X	X	X	X		9	
FCS-3_SESP16	5/18/2016	16:45	Water	X	X	X	X	X	X	X	X	X	X	X	X		9	
FCS-5_SESP16	5/18/2016	14:50	Water	X	X	X	X	X	X	X	X	X	X	X	X		9	
SRK-FD01_SESP16	5/18/2016	8:35	Water	X	X	X	X	X	X	X	X	X		X	X		8	
SRK-FD09_SESP16	5/18/2016	12:25	Water	X	X	X	X	X	X	X	X	X		X	X		8	
SRK-FD19_SESP16	5/18/2016	15:00	Water	X	X	X	X	X	X	X	X	X		X	X		8	
SRK-FD30_SESP16	5/18/2016	14:25	Water	X	X	X	X	X	X	X	X	X		X	X		8	
SRK-FD31_SESP16	5/18/2016	13:05	Water	X	X	X	X	X	X	X	X	X		X	X		8	
SRK-FD901_SESP16	5/18/2016	8:35	Water	X	X	X	X	X	X	X	X	X		X	X		8	
SRK-FD919_SESP16	5/18/2016	15:00	Water	X	X	X	X	X	X	X	X	X		X	X		8	
X23_SESP16	5/18/2016	11:45	Water	X	X	X	X	X	X	X	X	X		X	X		8	

Signatures	Date/Time
Approved by	
Sampled by	
Relinquished by	5/19/16
Received by	20-May-16 9:45
Relinquished by	2.4, 0.3°, 2.0 6
Received by	

Shipping Details
Method of Shipment: ~~FedEx~~ A-1
On Ice: (yes) no
Airbill No:
Lab Name: ALS Vancouver
Lab Phone: (604) 253-4188

ATTN:
Sample Custody
and
Amber Springer

Special Instructions:
Run nitrate / nitrate in whitehorse

Report Copy to
Mark Cichy
(530) 229-3274

Sharon May. 21 1130
4.9C, 4.9C, 3.9C, 6

CH2M HILL, INC
ATTN: Mark Cichy
2525 Airpark Drive
Redding CA 96001

Date Received: 24-MAY-16
Report Date: 13-JUN-16 14:25 (MT)
Version: FINAL

Client Phone: 530-229-3203

Certificate of Analysis

Lab Work Order #: L1772436

Project P.O. #: 673709.20.01.01.04.03.SS PO=10201-7-100939
Job Reference: FARO MINE SPRING SEEP 2016 SW-15
C of C Numbers: ALS05221601
Legal Site Desc:

Amber Springer, B.Sc
Account Manager

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-1 A30_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 09:55							
Matrix: Water							
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<2.5	DLDS	2.5	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	1.23		0.10	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.207		0.025	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0050	DLDS	0.0050	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	1010		1.5	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000228		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	29.1		0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.0020	DLA	0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	<0.0020	DLA	0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0366		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	0.0093		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.20	DLA	0.20	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.154		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	0.0188		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.291		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	2.36		0.0040	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.824		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.060		0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	6.42		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.271		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	2.4		1.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	0.00059		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	3.9		1.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.401		0.0040	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.00021		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.0060	DLA	0.0060	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0294		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	93.6		0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	97.9		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	25.9		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	112		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	17.3		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	37.1		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-1 A30_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 09:55							
Matrix: Water							
Dissolved Sulfur in Water by ICPOES							
Sulfur (S)-Dissolved	364		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	707		0.50	mg/L		06-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	400		25	mg/L		27-MAY-16	R3469306
Ammonia, Total (as N)	0.0202		0.0050	mg/L		08-JUN-16	R3474965
Dissolved Organic Carbon	2.14		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	1740		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		01-JUN-16	R3470177
Total Suspended Solids	4.8		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	1.02		0.20	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465542
L1772436-2 CH-FD-70_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 16:59							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	199		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Total (as CaCO3)	199		1.0	mg/L		31-MAY-16	R3470703
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	1.1		1.0	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	0.212		0.040	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	4.55		0.010	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0020	DLDS	0.0020	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	544		0.60	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000056		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.0521		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.00034		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0228		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.010		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.00348		0.0000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.00488		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.00591		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.00111		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0352		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-2 CH-FD-70_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 16:59							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Manganese (Mn)-Dissolved	0.209		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.0434		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	4.44		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.000891		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	6.45		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.481		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.000055		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.00436		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	3.56		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	126		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	112		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	5.98		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	12.8		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	187		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	776		0.50	mg/L		06-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		27-MAY-16	R3469306
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	2.07		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	1070		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	0.383		0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	1.0		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	0.024		0.020	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465542
L1772436-3 CH-FP-31_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 10:40							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	40.3		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Total (as CaCO3)	40.3		1.0	mg/L		31-MAY-16	R3470703
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<0.50		0.50	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	0.208		0.020	mg/L		24-MAY-16	R3466483

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-3 CH-FP-31_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 10:40							
Matrix: Water							
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.281		0.0050	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0010		0.0010	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	289		0.30	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.0615		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.00020	DLA	0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	<0.00020	DLA	0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0165		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	0.00030		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.020	DLA	0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.0159		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	0.00030		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.00116		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.0428		0.00040	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.00068		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0292		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	0.0982		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.00010	DLA	0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.0566		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	1.66		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.00023		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000020	DLA	0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	4.35		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.251		0.00040	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	<0.000020	DLA	0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.00060	DLA	0.00060	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.00153		0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	15.4		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	75.2		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	35.7		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	11.7		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	24.9		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	102		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	335		0.50	mg/L		06-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		27-MAY-16	R3469306

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-3 CH-FP-31_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 10:40							
Matrix: Water							
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	0.77		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	520		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	<1.0		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.020		0.020	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465542
L1772436-4 CH-FP-33_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 12:20							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	108		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Total (as CaCO3)	108		1.0	mg/L		31-MAY-16	R3470703
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<0.50		0.50	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	0.257		0.020	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.0381		0.0050	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0010		0.0010	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	208		0.30	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.0013		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.00013		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0311		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.010		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.000779		0.0000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.00112		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.000172		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0201		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	0.00153		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	0.000783		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.00733		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	1.87		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.000159		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-4 CH-FP-33_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 12:20							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Sodium (Na)-Dissolved	5.21		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.285		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.000022		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.00326		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	1.01		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	96.2		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	21.7		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	8.90		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	19.0		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	74.3		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	330		0.50	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		27-MAY-16	R3469306
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	0.96		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	444		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	1.1		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.020		0.020	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465542
L1772436-5 CH-FP-34_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 12:00							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	95.5		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Total (as CaCO3)	95.5		1.0	mg/L		31-MAY-16	R3470703
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<0.50		0.50	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	0.191		0.020	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.131		0.0050	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0010		0.0010	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	88.8		0.30	mg/L		24-MAY-16	R3466483

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-5 CH-FP-34_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 12:00							
Matrix: Water							
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000091		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.0067		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0289		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.010		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.00164		0.0000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	0.00020		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.00302		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.000501		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0152		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	0.00749		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	0.000341		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.00581		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	1.09		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.000135		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	4.46		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.199		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.00277		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	1.32		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	56.9		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	12.1		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	8.92		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	19.1		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	31.9		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	192		0.50	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		27-MAY-16	R3469306
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	1.54		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	246		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	1.7		1.0	mg/L		26-MAY-16	R3466359

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-5 CH-FP-34_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 12:00							
Matrix: Water							
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.020		0.020	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465542
L1772436-6 CH-FP-36_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 11:00							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	3.5		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Total (as CaCO3)	3.5		1.0	mg/L		31-MAY-16	R3470703
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<1.0	DLDS	1.0	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	0.660		0.040	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.328		0.010	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0020	DLDS	0.0020	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	512		0.60	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.247		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0131		0.00025	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	0.00150		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.050	DLA	0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.0581		0.000025	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.0500		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.295		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.0207		0.00025	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0311		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	2.15		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.00025	DLA	0.00025	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.143		0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	2.02		0.25	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	<0.00025	DLA	0.00025	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000050	DLA	0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	4.61		0.25	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.282		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	<0.000050	DLA	0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.0015	DLA	0.0015	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.00151		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-6 CH-FP-36_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 11:00							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Vanadium (V)-Dissolved	<0.0025	DLA	0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	39.1		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	94.4		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	61.9		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	13.3		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	28.4		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	175		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	491		0.50	mg/L		06-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	55		25	mg/L		27-MAY-16	R3469306
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	0.85		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	852		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		01-JUN-16	R3470177
Total Suspended Solids	13.5		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.020		0.020	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465542
L1772436-7 FCS-2_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 09:00							
Matrix: Water							
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLDS	10	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	0.64		0.40	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.23		0.10	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLDS	0.020	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	6760		6.0	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000351		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	10.3		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.058		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0103		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-7 FCS-2_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 09:00							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Boron (B)-Dissolved	<1.0	DLA	1.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.115		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	1.61		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.156		0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.501		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.18		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	109		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	1.62		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	13.5		5.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	52.0		5.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	3.09		0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.0020		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.030	DLA	0.030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0056		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.050	DLA	0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	660		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	357		0.15	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	213		0.090	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	1180		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.90	DLHC	0.90	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	19.3		0.15	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	41.4		0.32	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	2480		1.5	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	5740		1.3	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	1520		25	mg/L		27-MAY-16	R3469306
Ammonia, Total (as N)	0.683		0.013	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	5.20		0.50	mg/L		06-JUN-16	R3474168
Cyanide, Free	<0.0050		0.0050	mg/L		01-JUN-16	R3471002
Total Dissolved Solids	11600		40	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<2.0	DLM	2.0	mg/L		07-JUN-16	R3474209
Total Suspended Solids	49.1		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	235		10	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465542
L1772436-8 FCS-4_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 10:07							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-8 FCS-4_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 10:07							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Total (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	12		10	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	0.46		0.40	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.18		0.10	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLDS	0.020	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	6790		6.0	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000874		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	<0.10	DLA	0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.020		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0094		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<1.0	DLA	1.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.0575		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	1.45		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.021		0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.0153		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.14		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	113		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	1.31		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	12.2		5.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	58.7		5.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	3.45		0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.0011		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.030	DLA	0.030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0032		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.050	DLA	0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	535		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	407		0.15	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	582		0.090	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	997		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.90	DLHC	0.90	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	15.1		0.15	mg/L	26-MAY-16	26-MAY-16	R3468717

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-8 FCS-4_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 10:07							
Matrix: Water							
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	32.2		0.32	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	2380		1.5	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	5120		1.3	mg/L		06-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	1840		25	mg/L		27-MAY-16	R3469306
Ammonia, Total (as N)	0.747		0.013	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	5.12		0.50	mg/L		06-JUN-16	R3474168
Cyanide, Free	<0.0050		0.0050	mg/L		01-JUN-16	R3471002
Total Dissolved Solids	11600		40	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<2.0	DLM	2.0	mg/L		07-JUN-16	R3474209
Total Suspended Solids	280		3.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	673		20	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465542
L1772436-9 FCS-902_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 09:00							
Matrix: Water							
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLDS	10	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	0.49		0.40	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.25		0.10	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLDS	0.020	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	6450		6.0	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000324		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	10.3		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.060		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0093		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<1.0	DLA	1.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.110		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	1.55		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.135		0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.480		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.18		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	105		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-9 FCS-902_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 09:00							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Nickel (Ni)-Dissolved	1.59		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	12.8		5.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	50.5		5.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	2.97		0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.0023		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.030	DLA	0.030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0054		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.050	DLA	0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	617		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	361		0.15	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	216		0.090	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	1170		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.90	DLHC	0.90	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	19.6		0.15	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	41.8		0.32	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	2460		1.5	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	5710		1.3	mg/L		06-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	1560		25	mg/L		27-MAY-16	R3469306
Ammonia, Total (as N)	0.607		0.013	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	5.16		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	11800		40	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<2.0	DLM	2.0	mg/L		07-JUN-16	R3474209
Total Suspended Solids	38.3		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	236		10	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465542
L1772436-10 SRK-FD13_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 15:20							
Matrix: Water							
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<50	DLDS	50	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	47.2		2.0	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.50	DLDS	0.50	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.10	DLDS	0.10	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	38300		30	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-10 SRK-FD13_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 15:20							
Matrix: Water							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000859		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	574		1.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.10	DLA	0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	8.52		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	<0.050	DLA	0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	0.20		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<10	DLA	10	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	5.58		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	0.83		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	9.83		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	77.2		0.20	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.150		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	1.5		1.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	410		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.050	DLA	0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	14.3		0.50	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	<50	DLA	50	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	<0.050	DLA	0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	<50	DLA	50	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.63		0.20	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.30	DLA	0.30	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.511		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.50	DLA	0.50	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	4550		1.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	424		1.0	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	6670		0.60	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	3140		2.0	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	11.7		6.0	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	51.3		1.0	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	110		2.1	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	13000		10	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	14000		8.6	mg/L		06-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	25300		100	mg/L		30-MAY-16	R3469314
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	19.5		1.0	mg/L		07-JUN-16	R3474922
Total Dissolved Solids	61800		130	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	8.72		0.20	mg/L		04-JUN-16	R3472416
Total Suspended Solids	177		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-10 SRK-FD13_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 15:20							
Matrix: Water							
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	4020		200	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465542
L1772436-11 SRK-FD14_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 16:00							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	94.2		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Total (as CaCO3)	94.2		1.0	mg/L		31-MAY-16	R3470703
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLDS	10	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	3.52		0.40	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.13		0.10	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLDS	0.020	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	2720		6.0	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.131		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	0.00028		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.00036		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0108		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00020	DLA	0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.020	DLA	0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.0228		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.00020	DLA	0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.0162		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.00527		0.00040	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.0134		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.199		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	1.12		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	0.00187		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.132		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	17.4		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.00687		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000020	DLA	0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	62.2		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	3.60		0.00040	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.00129		0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	0.00150		0.00060	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.103		0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-11 SRK-FD14_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 16:00							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Vanadium (V)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	8.58		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	327		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	0.099		0.060	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	552		0.20	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.60	DLHC	0.60	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	2.08		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	4.44		0.21	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	1010		1.0	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	3090		0.86	mg/L		06-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		27-MAY-16	R3469306
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	0.86		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	4740		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	0.037		0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	358		2.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	0.042		0.020	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465542
L1772436-12 SRK-FD23_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 15:20							
Matrix: Water							
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<2.5	DLDS	2.5	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	0.42		0.10	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.025	DLDS	0.025	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0050	DLDS	0.0050	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	818		1.5	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000343		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	3.43		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0134		0.00025	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	0.00162		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-12 SRK-FD23_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 15:20							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Boron (B)-Dissolved	<0.050	DLA	0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.159		0.000025	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.351		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.617		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.288		0.00025	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0782		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	6.69		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.00025	DLA	0.00025	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.349		0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	3.80		0.25	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	<0.00025	DLA	0.00025	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	0.000112		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	3.76		0.25	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.265		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.00171		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.0015	DLA	0.0015	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.00298		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.0025	DLA	0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	35.5		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	90.0		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	97.1		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	116		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	7.29		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	15.6		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	308		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	702		0.50	mg/L		06-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	235		25	mg/L		27-MAY-16	R3469306
Ammonia, Total (as N)	0.238		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	1.15		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	1350		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<2.0	DLM	2.0	mg/L		07-JUN-16	R3474209
Total Suspended Solids	12.8		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	107		4.0	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465542
L1772436-13 SRK-FD24_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 14:10							
Matrix: Water							
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<2.5	DLDS	2.5	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-13 SRK-FD24_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 14:10							
Matrix: Water							
Fluoride in Water by IC							
Fluoride (F)	0.66		0.10	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.025	DLDS	0.025	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0050	DLDS	0.0050	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	1300		1.5	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000071		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	9.89		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.00903		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	0.0034		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.10	DLA	0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.0766		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	0.0062		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.235		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.954		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.595		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.073		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	7.41		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.252		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	4.93		0.50	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	0.00013		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	4.76		0.50	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.564		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.00185		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.0030	DLA	0.0030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.00662		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	63.3		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	212		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	25.9		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	156		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	9.88		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	21.1		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	445		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	1170		0.50	mg/L		06-JUN-16	

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-13 SRK-FD24_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 14:10							
Matrix: Water							
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	240		25	mg/L		27-MAY-16	R3469306
Ammonia, Total (as N)	0.0458		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	1.46		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	2100		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	0.476		0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	51.4		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	18.2		1.0	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465542
L1772436-14 SRK-FD26_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 16:22							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	191		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Total (as CaCO3)	191		1.0	mg/L		31-MAY-16	R3470703
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	1.2		1.0	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	0.207		0.040	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	5.12		0.010	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0020	DLDS	0.0020	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	519		0.60	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.0653		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.00027		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0233		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.010		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.00417		0.0000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.00622		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.00600		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.00112		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0316		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	0.210		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.0405		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	4.23		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-14 SRK-FD26_SESP16							
Sampled By: CLIENT on 19-MAY-16 @ 16:22							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Selenium (Se)-Dissolved	0.000927		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	6.88		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.453		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.000057		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.00378		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	3.86		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	122		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	107		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	6.06		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	13.0		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	178		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	748		0.50	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		27-MAY-16	R3469306
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	2.37		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	1040		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	5.0		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	0.032		0.020	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465542
L1772436-15 CH-FD-56_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 09:30							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Total (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLDS	10	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	2.07		0.40	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.99		0.10	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLDS	0.020	mg/L		24-MAY-16	R3466483

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-15 CH-FD-56_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 09:30							
Matrix: Water							
Sulfate in Water by IC							
Sulfate (SO4)	7470		6.0	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	6.28		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0133		0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.50	DLA	0.50	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.203		0.00025	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	1.22		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.386		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.189		0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.320		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	76.3		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.0025	DLA	0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	2.13		0.025	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	15.4		2.5	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	<0.0025	DLA	0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	91.6		2.5	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	1.73		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.00402		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.015	DLA	0.015	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0243		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.025	DLA	0.025	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	388		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	392		0.15	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	10.8		0.090	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	1750		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.90	DLHC	0.90	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	6.71		0.15	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	14.4		0.32	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	2950		1.5	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	8190		1.3	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	856		25	mg/L		30-MAY-16	R3469314
Ammonia, Total (as N)	0.626		0.013	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	4.78		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	13500		40	mg/L		26-MAY-16	R3466356

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-15 CH-FD-56_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 09:30							
Matrix: Water							
Phosphorus (P)-Total	<0.20	DLM	0.20	mg/L		07-JUN-16	R3474209
Total Suspended Solids	59.2		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	12.6		0.40	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465546
L1772436-16 CH-FD-75_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 12:15							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	126		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Total (as CaCO3)	126		1.0	mg/L		02-JUN-16	R3471310
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<0.50		0.50	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	0.065		0.020	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.0308		0.0050	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0010		0.0010	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	96.2		0.30	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000070		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.0271		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	0.00011		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.00045		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0482		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.010		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.000319		0.0000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	0.00011		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.00863		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.00190		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0012		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	0.00577		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	0.000234		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.00089		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	2.44		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.000217		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	2.35		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.246		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-16 CH-FD-75_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 12:15							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.00129		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	0.223		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	88.8		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	<0.030	RRV	0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	7.74		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	5.60		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	12.0		0.20	mg/L		02-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	38.5		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	254		0.50	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		27-MAY-16	R3469306
Ammonia, Total (as N)	0.0060		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	11.5		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	316		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	9.9		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	0.058		0.020	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465546
L1772436-17 CH-FP-35_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 11:40							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	42.3		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Total (as CaCO3)	42.3		1.0	mg/L		02-JUN-16	R3471310
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<0.50		0.50	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	0.431		0.020	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.193		0.0050	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0010		0.0010	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	347		0.30	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-17 CH-FP-35_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 11:40							
Matrix: Water							
Diss. Mercury in Water by CVAAS or CVAFS							
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.0746		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0163		0.00025	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.050	DLA	0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.0376		0.000025	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.0200		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.0983		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.00108		0.00025	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0297		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	1.55		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.00025	DLA	0.00025	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.0960		0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	1.79		0.25	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	<0.00025	DLA	0.00025	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000050	DLA	0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	4.87		0.25	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.260		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	<0.000050	DLA	0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.0015	DLA	0.0015	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.00154		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.0025	DLA	0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	21.6		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	88.4		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	41.7		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	11.1		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	23.6		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	126		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	392		0.50	mg/L		06-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		27-MAY-16	R3469306
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	0.91		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	616		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	0.032	DLM	0.020	mg/L		01-JUN-16	R3470177
Total Suspended Solids	32.8		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.020		0.020	mg/L	26-MAY-16	26-MAY-16	R3465574

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-17 CH-FP-35_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 11:40							
Matrix: Water							
Diss. Ferrous Iron in Water by Colour							
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465546
L1772436-18 CH-GP-19_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 15:30							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	433		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Total (as CaCO3)	433		1.0	mg/L		02-JUN-16	R3471310
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<1.0	DLDS	1.0	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	0.114		0.040	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.034		0.010	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	0.0041		0.0020	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	448		0.60	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000203		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.0195		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.00191		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.109		0.00025	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.050	DLA	0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.000027		0.000025	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.0305		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	<0.00025	DLA	0.00025	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	21.5		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	0.00326		0.00025	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.0090		0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	3.27		0.25	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	<0.00025	DLA	0.00025	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000050	DLA	0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	15.3		0.25	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.839		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.000059		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.0015	DLA	0.0015	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0365		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.0025	DLA	0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-18 CH-GP-19_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 15:30							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Zinc (Zn)-Dissolved	0.0095		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	231		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	14.7		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	73.0		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	5.86		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	12.5		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	151		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	878		0.50	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		27-MAY-16	R3469306
Ammonia, Total (as N)	0.668		0.013	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	9.88		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	1130		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.20	DLM	0.20	mg/L		04-JUN-16	R3472416
Total Suspended Solids	67.9		2.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	14.0		0.40	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465546
L1772436-19 NE1_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 13:30							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	95.7		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Total (as CaCO3)	95.7		1.0	mg/L		02-JUN-16	R3471310
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<0.50		0.50	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	0.234		0.020	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.0050		0.0050	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0010		0.0010	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	134		0.30	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-19 NE1_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 13:30							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Aluminum (Al)-Dissolved	0.0024		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.00016		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0146		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.010		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.0000093		0.0000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.00151		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0098		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	0.00032		0.00010	mg/L	26-MAY-16	05-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	0.00566		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.00091		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	2.48		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.000566		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	3.51		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.276		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.00101		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	66.2		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	19.7		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	4.08		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	8.73		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	47.9		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	247		0.50	mg/L		06-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		27-MAY-16	R3469306
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	3.83		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	309		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	5.0		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	0.023		0.020	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465546

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-20 NE2_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 11:50							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	211		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Total (as CaCO3)	211		1.0	mg/L		02-JUN-16	R3471310
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<2.5	DLDS	2.5	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	0.31		0.10	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	9.54		0.025	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0050	DLDS	0.0050	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	834		1.5	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.0089		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.00012		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0620		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.010		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.000233		0.0000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.00013		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.00145		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.000476		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0288		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	0.00380		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	0.000409		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.0115		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	3.84		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.00208		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	7.95		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.646		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	0.00049		0.00030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0131		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	0.300		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	150		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	186		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-20 NE2_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 11:50							
Matrix: Water							
Dissolved Metals in Water by ICPOES							
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	5.37		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	11.5		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	283		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	1140		0.50	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		27-MAY-16	R3469306
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	3.35		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	1500		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	17.4		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	0.024		0.020	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465546
L1772436-21 NE902_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 11:50							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	209		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Total (as CaCO3)	209		1.0	mg/L		02-JUN-16	R3471310
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<2.5	DLDS	2.5	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	0.34		0.10	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	9.37		0.025	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	0.0063		0.0050	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	846		1.5	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000053		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.0082		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.00017		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0701		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.010		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-21 NE902_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 11:50							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Cadmium (Cd)-Dissolved	0.000190		0.0000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.00017		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.00156		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.00126		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0281		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	0.00890		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	0.000433		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.00952		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	4.01		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.00195		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	7.92		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.654		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0129		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	0.223		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	150		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	<0.030	RRV	0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	184		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	5.21		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	11.1		0.20	mg/L		02-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	282		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	1130		0.50	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	3.85		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	1560		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	2.6		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.10	DLM	0.10	mg/L	04-JUN-16	04-JUN-16	R3472213
Dissolved Fe2 Filtration Location	FIELD					04-JUN-16	R3472196
L1772436-22 SRK-FD05_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 12:35							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	196		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		02-JUN-16	R3471310

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-22 SRK-FD05_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 12:35							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity, Total (as CaCO3)	196		1.0	mg/L		02-JUN-16	R3471310
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<2.5	DLDS	2.5	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	0.30		0.10	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	12.5		0.025	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0050	DLDS	0.0050	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	885		1.5	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.0017		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.00018		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0206		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.010		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.00469		0.0000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.00069		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.00164		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.000161		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0334		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	0.0246		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	0.000150		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.0741		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	4.05		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.00284		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	8.32		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.716		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.000227		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0136		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	8.62		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	170		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	189		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	5.86		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	12.5		0.20	mg/L		31-MAY-16	

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-22 SRK-FD05_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 12:35							
Matrix: Water							
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	310		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	1200		0.50	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	2.71		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	1700		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	2.6		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.020		0.020	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465546
L1772436-23 SRK-FD06_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 12:55							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	209		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Total (as CaCO3)	209		1.0	mg/L		02-JUN-16	R3471310
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<2.5	DLDS	2.5	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	0.29		0.10	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	10.1		0.025	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0050	DLDS	0.0050	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	729		1.5	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.0024		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.00020	DLA	0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.00023		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0210		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00020	DLA	0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.020	DLA	0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.00741		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.00020	DLA	0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	<0.00020	DLA	0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.00199		0.00040	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.00046		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-23 SRK-FD06_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 12:55							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Lithium (Li)-Dissolved	0.0325		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	0.00047		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.00010	DLA	0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.0880		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	4.02		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.00244		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000020	DLA	0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	6.85		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.538		0.00040	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.000211		0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.00060	DLA	0.00060	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0111		0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	10.5		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	126		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	169		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	6.27		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	13.4		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	243		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	1010		0.50	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	2.48		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	1420		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	30.0		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.020		0.020	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465546
L1772436-24 SRK-FD08_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 14:05							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	<1.0	HTA	1.0	mg/L		07-JUN-16	R3474804
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		07-JUN-16	R3474804
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		07-JUN-16	R3474804
Alkalinity, Total (as CaCO3)	<1.0		1.0	mg/L		07-JUN-16	R3474804
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<1.0	DLDS	1.0	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-24 SRK-FD08_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 14:05							
Matrix: Water							
Fluoride in Water by IC							
Fluoride (F)	0.724		0.040	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.010	DLDS	0.010	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0020	DLDS	0.0020	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	669		0.60	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	5.06		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.00059		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0293		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	0.00151		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.010		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.00732		0.0000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	0.00018		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.0356		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.118		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.0154		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0400		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	1.57		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.184		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	4.62		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.000297		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	2.26		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.430		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.000168		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.000512		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	6.15		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	61.4		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	3.03		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	143		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	13.8		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	29.6		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	245		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	741		0.50	mg/L		06-JUN-16	

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-24 SRK-FD08_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 14:05							
Matrix: Water							
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	32		25	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	1.67		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	1150		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	2.2		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	3.26		0.10	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465546
L1772436-25 SRK-FD18_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 11:27							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	61.9		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Total (as CaCO3)	61.9		1.0	mg/L		02-JUN-16	R3471310
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<0.50		0.50	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	0.133		0.020	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.0815		0.0050	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0010		0.0010	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	18.6		0.30	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000309		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.0091		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.00011		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0740		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.010		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.000255		0.0000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.00507		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.00343		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0019		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	0.00854		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	0.000666		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.00080		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	0.946		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-25 SRK-FD18_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 11:27							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Selenium (Se)-Dissolved	0.000108		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	1.78		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.0879		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.000064		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.000439		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	0.0967		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	25.0		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	4.06		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	5.87		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	12.6		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	6.61		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	79.1		0.50	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	0.0062		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	3.74		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	112		13	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	0.033	DLM	0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	3.6		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	0.034		0.020	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465546
L1772436-26 SRK-FD54_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 09:35							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Alkalinity, Total (as CaCO3)	<1.0		1.0	mg/L		31-MAY-16	R3470703
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<25	DLDS	25	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	2.5		1.0	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.25	DLDS	0.25	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.050	DLDS	0.050	mg/L		24-MAY-16	R3466483

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-26 SRK-FD54_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 09:35							
Matrix: Water							
Sulfate in Water by IC							
Sulfate (SO4)	11200		15	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000073		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	17.4		0.20	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.020	DLA	0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	<0.020	DLA	0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.025		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.020	DLA	0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<2.0	DLA	2.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	1.00		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.020	DLA	0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	5.59		0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.426		0.040	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.055		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.25		0.20	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	335		0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	6.60		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	15		10	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.0020	DLA	0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	46		10	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	2.17		0.040	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	<0.0020	DLA	0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.060	DLA	0.060	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0064		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.10	DLA	0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	1170		0.20	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	423		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	21.5		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	2650		1.0	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<3.0	DLHC	3.0	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	27.4		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	58.6		1.1	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	4720		5.0	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	12000		4.3	mg/L		06-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	2120		25	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	2.51		0.050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	9.22		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	21900		80	mg/L		26-MAY-16	R3466356

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-26 SRK-FD54_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 09:35							
Matrix: Water							
Phosphorus (P)-Total	0.052	DLM	0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	78.7		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	24.7		4.0	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465546
L1772436-27 SRK-FD55_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 10:00							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	83.3		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Total (as CaCO3)	83.3		1.0	mg/L		02-JUN-16	R3471310
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLDS	10	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	2.75		0.40	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.10	DLDS	0.10	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLDS	0.020	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	2360		6.0	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.0090		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0199		0.00025	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.050	DLA	0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.0706		0.000025	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.207		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.0046		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.00094		0.00025	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.275		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	11.1		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	0.00029		0.00025	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.505		0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	14.5		0.25	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.00130		0.00025	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000050	DLA	0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	46.3		0.25	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	1.13		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.000660		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-27 SRK-FD55_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 10:00							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Titanium (Ti)-Dissolved	<0.0015	DLA	0.0015	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.00106		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.0025	DLA	0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	53.8		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	308		0.10	mg/L	26-MAY-16	01-JUN-16	R3468717
Iron (Fe)-Dissolved	<0.060	DLHC	0.060	mg/L	26-MAY-16	01-JUN-16	R3468717
Magnesium (Mg)-Dissolved	601		0.20	mg/L	26-MAY-16	01-JUN-16	R3468717
Phosphorus (P)-Dissolved	<0.60	DLHC	0.60	mg/L	26-MAY-16	01-JUN-16	R3468717
Silicon (Si)-Dissolved	3.61		0.10	mg/L	26-MAY-16	01-JUN-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	7.72		0.21	mg/L		02-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	1070		1.0	mg/L	26-MAY-16	01-JUN-16	R3468717
Hardness							
Hardness (as CaCO3)	3240		0.86	mg/L		06-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	0.0051		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	5.01		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	3880		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.20	DLM	0.20	mg/L		07-JUN-16	R3474209
Total Suspended Solids	5.2		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	0.021		0.020	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465546
L1772436-28 SRK-FD955_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 10:00							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	80.3		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Total (as CaCO3)	80.3		1.0	mg/L		02-JUN-16	R3471310
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLDS	10	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	2.35		0.40	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.10	DLDS	0.10	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLDS	0.020	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	2080		6.0	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-28 SRK-FD955_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 10:00							
Matrix: Water							
Diss. Mercury in Water by CVAAS or CVAFS							
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.025		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0198		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.10	DLA	0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.0707		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.214		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.0060		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.00115		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.263		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	10.7		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.518		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	14.1		0.50	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.00110		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.00010	DLA	0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	46.8		0.50	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	1.16		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.00068		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.0030	DLA	0.0030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.00113		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	56.4		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	231		0.10	mg/L	26-MAY-16	31-MAY-16	R3468717
Iron (Fe)-Dissolved	<0.060	DLHC	0.060	mg/L	26-MAY-16	31-MAY-16	R3468717
Magnesium (Mg)-Dissolved	435		0.20	mg/L	26-MAY-16	31-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.60	DLHC	0.60	mg/L	26-MAY-16	31-MAY-16	R3468717
Silicon (Si)-Dissolved	3.23		0.10	mg/L	26-MAY-16	31-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	6.91		0.21	mg/L		01-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	773		1.0	mg/L	26-MAY-16	31-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	2370		0.86	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	0.0069		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	4.74		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	3470		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	5.7		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.020		0.020	mg/L	26-MAY-16	26-MAY-16	R3465574

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-28 SRK-FD955_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 10:00							
Matrix: Water							
Diss. Ferrous Iron in Water by Colour							
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465546
L1772436-29 SRK-GD01_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 15:30							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	597		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		02-JUN-16	R3471310
Alkalinity, Total (as CaCO3)	597		1.0	mg/L		02-JUN-16	R3471310
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLDS	10	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	<0.40	DLDS	0.40	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	8.60		0.10	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLDS	0.020	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	1780		6.0	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.0031		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	0.00077		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.00323		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0313		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00020	DLA	0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.020	DLA	0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.00187		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.00020	DLA	0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.00260		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.00195		0.00040	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.00118		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0448		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	0.0788		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	0.00096		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.377		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	7.54		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.00192		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000020	DLA	0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	10.5		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	1.32		0.00040	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.000283	DLA	0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.00060	DLA	0.00060	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0553		0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-29 SRK-GD01_SESP16							
Sampled By: CLIENT on 20-MAY-16 @ 15:30							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Zinc (Zn)-Dissolved	5.12		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	370		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	398		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	4.22		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	9.04		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	601		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	2560		0.50	mg/L		06-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		08-JUN-16	R3474965
Dissolved Organic Carbon	2.89		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	3560		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	4.9		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	0.027		0.020	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465546
L1772436-30 CH-VP-17_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 08:45							
Matrix: Water							
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLDS	10	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	2.42		0.40	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.10	DLDS	0.10	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLDS	0.020	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	4690		6.0	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000083		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	15.3		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.422		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0054		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<1.0	DLA	1.0	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-30 CH-VP-17_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 08:45							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Cadmium (Cd)-Dissolved	0.622		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	2.73		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	2.55		0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	1.21		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	<0.10	DLA	0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	149		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	1.56		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	<5.0	DLA	5.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	<5.0	DLA	5.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.751		0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.0038		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.030	DLA	0.030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0232		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.050	DLA	0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	561		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	256		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	1140		0.060	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	256		0.20	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.60	DLHC	0.60	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	12.6		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	27.0		0.21	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	1590		1.0	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	1690		0.86	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	3080		100	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	0.0809		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	1.68		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	8500		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<20	DLM	20	mg/L		07-JUN-16	R3474209
Total Suspended Solids	92.1		2.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	1250		40	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465546
L1772436-31 GP02_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 13:50							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	183		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-31 GP02_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 13:50							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity, Total (as CaCO3)	183		1.0	mg/L		03-JUN-16	R3472355
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<2.5	DLDS	2.5	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	0.25		0.10	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.797		0.025	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0050	DLDS	0.0050	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	285		1.5	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.0146		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	0.00078		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.00283		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0261		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.010		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.0000231		0.0000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	0.00014		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.00019		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.00196		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.00141		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0024		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	0.0248		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	0.00133		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.00217		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	3.55		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.00123		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	10.7		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.477		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.000025		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	0.00030		0.00030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0280		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	0.00102		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	0.0067		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	132		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	0.046		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	37.3		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	5.94		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	12.7		0.20	mg/L		31-MAY-16	

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-31 GP02_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 13:50							
Matrix: Water							
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	96.4		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	483		0.50	mg/L		03-JUN-16	
Miscellaneous Parameters							
Ammonia, Total (as N)	0.380		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	5.23		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	719		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	8.8		2.0	mg/L		04-JUN-16	R3472416
Total Suspended Solids	29200		50	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.020		0.020	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465546
L1772436-32 GP09_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 15:00							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	382		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Total (as CaCO3)	382		1.0	mg/L		03-JUN-16	R3472355
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<2.5	DLDS	2.5	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	0.22		0.10	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.182		0.025	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0050	DLDS	0.0050	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	534		1.5	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	<0.0010		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	0.00015		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.00036		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0137		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.010		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.0000227		0.0000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.00020		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	<0.00020		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.000144		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0359		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-32 GP09_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 15:00							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Manganese (Mn)-Dissolved	0.00191		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	0.00154		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.0139		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	2.90		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.000408		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	3.29		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.496		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.000080		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0197		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	0.0128		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	103		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	169		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	1.35		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	2.89		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	178		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	954		0.50	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	0.53		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	1150		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	4.9		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.020		0.020	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465546
L1772436-33 GP12_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 14:10							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Total (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<2.5	DLDS	2.5	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	0.49		0.10	mg/L		24-MAY-16	R3466483

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-33 GP12_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 14:10							
Matrix: Water							
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.025	DLDS	0.025	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0050	DLDS	0.0050	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	795		1.5	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	1.21		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	0.0027		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.280		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0121		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.10	DLA	0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.0693		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	0.0024		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.183		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.390		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.814		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.015		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	7.45		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.106		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	1.30		0.50	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.00010	DLA	0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	10.3		0.50	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.503		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.00983		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.0030	DLA	0.0030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.00604		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	55.8		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	122		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	105		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	56.2		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	6.07		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	13.0		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	274		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	535		0.50	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	400		100	mg/L		01-JUN-16	R3471037

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-33 GP12_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 14:10							
Matrix: Water							
Ammonia, Total (as N)	0.193		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	1.00		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	1310		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		01-JUN-16	R3470177
Total Suspended Solids	190		2.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	102		4.0	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465546
L1772436-34 SRK-GD07_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 15:05							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	585		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Total (as CaCO3)	585		1.0	mg/L		03-JUN-16	R3472355
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<2.5	DLDS	2.5	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	<0.10	DLDS	0.10	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.031		0.025	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0050	DLDS	0.0050	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	357		1.5	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.0038		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.00020	DLA	0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.00100		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.200		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00020	DLA	0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.020	DLA	0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.000126		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.00020	DLA	0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.0273		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	<0.00040	DLA	0.00040	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.00017		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0034		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	12.0		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	0.00043		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.0237		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	2.36		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	<0.00010	DLA	0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000020	DLA	0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-34 SRK-GD07_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 15:05							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Sodium (Na)-Dissolved	3.95		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.970		0.00040	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.000031		0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.00060	DLA	0.00060	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.00949		0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	0.122		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	263		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	7.33		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	79.7		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	7.76		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	16.6		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	116		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	986		0.50	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	0.849		0.013	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	7.19		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	1200		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<2.0	DLM	2.0	mg/L		07-JUN-16	R3474209
Total Suspended Solids	46.1		2.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	7.81		0.20	mg/L	26-MAY-16	26-MAY-16	R3465574
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3465546
L1772436-35 SRK-GD11_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 14:20							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	434		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Total (as CaCO3)	434		1.0	mg/L		03-JUN-16	R3472355
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<5.0	DLDS	5.0	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	<0.20	DLDS	0.20	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	5.37		0.050	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.010	DLDS	0.010	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	1150		3.0	mg/L		24-MAY-16	R3466483

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-35 SRK-GD11_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 14:20							
Matrix: Water							
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000059		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.0024		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	0.00056		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.00102		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0193		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.010		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.00345		0.0000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.00728		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.0489		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.00557		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0242		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	0.406		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	0.000475		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.207		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	3.77		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.000810		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	4.92		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.915		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.000521		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0162		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	6.13		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	234		0.050	mg/L	26-MAY-16	31-MAY-16	R3468717
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	26-MAY-16	31-MAY-16	R3468717
Magnesium (Mg)-Dissolved	256		0.10	mg/L	26-MAY-16	31-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	31-MAY-16	R3468717
Silicon (Si)-Dissolved	3.30		0.050	mg/L	26-MAY-16	31-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	7.07		0.20	mg/L		01-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	377		0.50	mg/L	26-MAY-16	31-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	1640		0.50	mg/L		06-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	2.70		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	2250		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	1.5		1.0	mg/L		26-MAY-16	R3466359

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-35 SRK-GD11_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 14:20							
Matrix: Water							
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	0.021		0.020	mg/L	26-MAY-16	27-MAY-16	R3469542
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3468535
L1772436-36 SRK-VD01_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 11:25							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	1.3		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Total (as CaCO3)	1.3		1.0	mg/L		03-JUN-16	R3472355
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLDS	10	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	<0.40	DLDS	0.40	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.10	DLDS	0.10	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLDS	0.020	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	2780		6.0	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.379		0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.0020	DLA	0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	<0.0020	DLA	0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0090		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.0020	DLA	0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.20	DLA	0.20	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.159		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.0020	DLA	0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.300		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.0987		0.0040	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.301		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.063		0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	26.4		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.850		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	3.9		1.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.0016		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.00020	DLA	0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	1.8		1.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.919		0.0040	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.00179		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.0060	DLA	0.0060	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.00150		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-36 SRK-VD01_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 11:25							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Vanadium (V)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	106		0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	248		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	0.160		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	536		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	3.04		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	6.50		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	955		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	2820		0.50	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	177		25	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	0.0242		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	0.74		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	4650		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	0.295		0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	628		3.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	0.169		0.020	mg/L	26-MAY-16	27-MAY-16	R3469542
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3468535
L1772436-37 SRK-VD02_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 12:05							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	144		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Total (as CaCO3)	144		1.0	mg/L		03-JUN-16	R3472355
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLDS	10	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	<0.40	DLDS	0.40	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.10	DLDS	0.10	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLDS	0.020	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	3400		6.0	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000121		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-37 SRK-VD02_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 12:05							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.087		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.0051		0.0050	mg/L	26-MAY-16	05-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0132		0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.50	DLA	0.50	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.0865		0.00025	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	1.49		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	<0.0025	DLA	0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.069		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	84.0		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.0025	DLA	0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	2.78		0.025	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	12.7		2.5	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	<0.0025	DLA	0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	7.9		2.5	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	1.62		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.00210		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.015	DLA	0.015	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.00792		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.025	DLA	0.025	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	219		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	427		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	146		0.060	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	463		0.20	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.60	DLHC	0.60	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	5.86		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	12.5		0.21	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	1110		1.0	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	2970		0.86	mg/L		06-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	390		25	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	2.43		0.025	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	3.02		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	5740		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<2.0	DLM	2.0	mg/L		07-JUN-16	R3474209
Total Suspended Solids	27.1		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	153		4.0	mg/L	26-MAY-16	27-MAY-16	R3469542
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3468535

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-38 SRK-VD03_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 12:40							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	30.7		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Total (as CaCO3)	30.7		1.0	mg/L		03-JUN-16	R3472355
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLDS	10	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	0.48		0.40	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.10	DLDS	0.10	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLDS	0.020	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	5220		6.0	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.44		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.100		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0130		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<1.0	DLA	1.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.193		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	3.28		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	<0.020	DLA	0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.0525		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.11		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	194		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	4.75		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	11.3		5.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	8.9		5.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	1.41		0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.0030		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.030	DLA	0.030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0040		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.050	DLA	0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	599		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	351		0.15	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	370		0.090	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	841		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-38 SRK-VD03_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 12:40							
Matrix: Water							
Dissolved Metals in Water by ICPOES							
Phosphorus (P)-Dissolved	<0.90	DLHC	0.90	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	8.22		0.15	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	17.6		0.32	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	1980		1.5	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	4340		1.3	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	2340		50	mg/L		02-JUN-16	R3471039
Ammonia, Total (as N)	3.32		0.050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	4.49		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	9330		40	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<2.0	DLM	2.0	mg/L		07-JUN-16	R3474209
Total Suspended Solids	30.6		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	387		10	mg/L	26-MAY-16	27-MAY-16	R3469542
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3468535
L1772436-39 SRK-VD04_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 11:40							
Matrix: Water							
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<25	DLDS	25	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	57.7		1.0	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.25	DLDS	0.25	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.050	DLDS	0.050	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	66200		30	mg/L		28-MAY-16	R3469821
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000081		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	1070		1.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.10	DLA	0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.23		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	<0.050	DLA	0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.10	DLA	0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<10	DLA	10	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	9.73		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.10	DLA	0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	24.7		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	<0.20	DLA	0.20	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.496		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	1.4		1.0	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-39 SRK-VD04_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 11:40							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Manganese (Mn)-Dissolved	3580		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.050	DLA	0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	16.1		0.50	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	<50	DLA	50	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	<0.050	DLA	0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	<50	DLA	50	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	1.32		0.20	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.011		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.30	DLA	0.30	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	1.65		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.50	DLA	0.50	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	11900		1.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	470		2.5	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	14500		1.5	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	4880		5.0	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<15	DLHC	15	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	14.2		2.5	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	30.4		5.3	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	24900		25	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	21300		22	mg/L		06-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	51100		100	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	1.02		0.025	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	47.6		2.5	mg/L		07-JUN-16	R3474922
Total Dissolved Solids	125000		80	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<20	DLM	20	mg/L		07-JUN-16	R3474209
Total Suspended Solids	268		2.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	15300		1000	mg/L	26-MAY-16	27-MAY-16	R3469542
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3468535
L1772436-40 SRK-VD05_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 12:20							
Matrix: Water							
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<25	DLDS	25	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	25.6		1.0	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.25	DLDS	0.25	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.050	DLDS	0.050	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	77800		30	mg/L		28-MAY-16	R3469821

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-40 SRK-VD05_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 12:20							
Matrix: Water							
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000136		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	577		1.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.10	DLA	0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.13		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.061		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.10	DLA	0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<10	DLA	10	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	4.82		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.10	DLA	0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	17.0		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.91		0.20	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	2.65		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	1.2		1.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	3600		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.050	DLA	0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	15.7		0.50	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	<50	DLA	50	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	<0.050	DLA	0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	<50	DLA	50	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	2.03		0.20	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.30	DLA	0.30	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	1.32		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.50	DLA	0.50	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	9630		1.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	448		2.5	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	10300		1.5	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	7440		5.0	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<15	DLHC	15	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	9.7		2.5	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	20.8		5.3	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	24600		25	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	31700		22	mg/L		06-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	38200		100	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	3.36		0.050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	27.5		1.5	mg/L		07-JUN-16	R3474922
Total Dissolved Solids	107000		400	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<20	DLM	20	mg/L		07-JUN-16	R3474209
Total Suspended Solids	54.4		1.0	mg/L		26-MAY-16	R3466359

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-40 SRK-VD05_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 12:20							
Matrix: Water							
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	10700		400	mg/L	26-MAY-16	27-MAY-16	R3469542
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3468535
L1772436-41 SRK-VD09_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 10:30							
Matrix: Water							
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLDS	10	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	3.13		0.40	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.10	DLDS	0.10	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLDS	0.020	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	3800		6.0	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000259		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	82.4		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.0242		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0155		0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	0.0123		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.50	DLA	0.50	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.471		0.00025	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	1.73		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	1.66		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.982		0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.222		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	70.4		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.0025	DLA	0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	2.24		0.025	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	<2.5	DLA	2.5	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	<0.0025	DLA	0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	0.00053		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	<2.5	DLA	2.5	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	1.06		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.00312		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.015	DLA	0.015	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.103		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.025	DLA	0.025	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	364		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	399		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	272		0.060	mg/L	26-MAY-16	26-MAY-16	R3468717

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-41 SRK-VD09_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 10:30							
Matrix: Water							
Dissolved Metals in Water by ICPOES							
Magnesium (Mg)-Dissolved	388		0.20	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.60	DLHC	0.60	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	22.5		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	48.1		0.21	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	1390		1.0	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	2600		0.86	mg/L		06-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	1760		100	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	2.03		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	6790		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<2.0	DLM	2.0	mg/L		07-JUN-16	R3474209
Total Suspended Solids	7.8		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	246		10	mg/L	26-MAY-16	27-MAY-16	R3469542
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3468535
L1772436-42 SRK-VD10_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 13:05							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Total (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<25	DLDS	25	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	2.4		1.0	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.25	DLDS	0.25	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.050	DLDS	0.050	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	15300		15	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000115		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	13.3		0.20	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.020	DLA	0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.053		0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.016		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.020	DLA	0.020	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-42 SRK-VD10_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 13:05							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Boron (B)-Dissolved	<2.0	DLA	2.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.109		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.020	DLA	0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	7.16		0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.041		0.040	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.022		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	<0.20	DLA	0.20	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	747		0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	4.38		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	15		10	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.0020	DLA	0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	14		10	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	1.74		0.040	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.0041		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.060	DLA	0.060	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0085		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.10	DLA	0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	1400		0.20	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	408		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	1930		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	1950		1.0	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<3.0	DLHC	3.0	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	12.4		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	26.5		1.1	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	5320		5.0	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	9060		4.3	mg/L		06-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	6880		100	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	6.59		0.25	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	15.1		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	26000		80	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<20	DLM	20	mg/L		07-JUN-16	R3474209
Total Suspended Solids	90.2		2.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	2120		100	mg/L	26-MAY-16	27-MAY-16	R3469542
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3468535
L1772436-43 SRK-VD12_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 10:35							
Matrix: Water							
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<5.0	DLDS	5.0	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-43 SRK-VD12_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 10:35							
Matrix: Water							
Fluoride in Water by IC							
Fluoride (F)	1.00		0.20	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.293		0.050	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.010	DLDS	0.010	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	1840		3.0	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	18.8		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.0123		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0178		0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.50	DLA	0.50	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.184		0.00025	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	0.0106		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	1.05		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	1.34		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.129		0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.061		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	56.2		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.0025	DLA	0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	1.80		0.025	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	2.5		2.5	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.0030		0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	<2.5	DLA	2.5	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.323		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.015	DLA	0.015	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0284		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.025	DLA	0.025	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	232		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	104		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	16.2		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	268		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	6.61		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	14.1		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	658		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	1360		0.50	mg/L		06-JUN-16	

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-43 SRK-VD12_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 10:35							
Matrix: Water							
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	709		25	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	1.04		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	3540		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<2.0	DLM	2.0	mg/L		07-JUN-16	R3474209
Total Suspended Solids	3.6		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	5.93		0.40	mg/L	26-MAY-16	27-MAY-16	R3469542
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3468535
L1772436-44 SRK-VD902_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 12:05							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	143		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Total (as CaCO3)	143		1.0	mg/L		03-JUN-16	R3472355
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLDS	10	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	<0.40	DLDS	0.40	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.10	DLDS	0.10	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLDS	0.020	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	3460		6.0	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000111		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.213		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.0054		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0117		0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.50	DLA	0.50	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.0874		0.00025	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	1.52		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.011		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.0067		0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.066		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	86.0		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.0025	DLA	0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	2.75		0.025	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	11.6		2.5	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-44 SRK-VD902_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 12:05							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Selenium (Se)-Dissolved	<0.0025	DLA	0.0025	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	7.8		2.5	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	1.66		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.00229		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.015	DLA	0.015	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.00834		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.025	DLA	0.025	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	220		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	422		0.10	mg/L	26-MAY-16	31-MAY-16	R3468717
Iron (Fe)-Dissolved	142		0.060	mg/L	26-MAY-16	31-MAY-16	R3468717
Magnesium (Mg)-Dissolved	473		0.20	mg/L	26-MAY-16	31-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.60	DLHC	0.60	mg/L	26-MAY-16	31-MAY-16	R3468717
Silicon (Si)-Dissolved	5.87		0.10	mg/L	26-MAY-16	31-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	12.6		0.21	mg/L		01-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	1140		1.0	mg/L	26-MAY-16	31-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	3000		0.86	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	410		25	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	2.50		0.050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	3.12		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	5710		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<2.0	DLM	2.0	mg/L		07-JUN-16	R3474209
Total Suspended Solids	30.9		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	160		4.0	mg/L	26-MAY-16	27-MAY-16	R3469542
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3468535
L1772436-45 SRK-VD905_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 12:20							
Matrix: Water							
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<25	DLDS	25	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	25.5		1.0	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.25	DLDS	0.25	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.050	DLDS	0.050	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	56800		30	mg/L		28-MAY-16	R3469821
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000161		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-45 SRK-VD905_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 12:20							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	570		1.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.10	DLA	0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.14		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	<0.050	DLA	0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.10	DLA	0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<10	DLA	10	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	4.84		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.10	DLA	0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	16.9		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.83		0.20	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	2.52		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	1.2		1.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	3570		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.050	DLA	0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	15.9		0.50	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	<50	DLA	50	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	<0.050	DLA	0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	<50	DLA	50	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	1.89		0.20	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.30	DLA	0.30	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	1.26		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.50	DLA	0.50	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	9540		1.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	447		2.5	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	10300		1.5	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	7360		5.0	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<15	DLHC	15	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	10.1		2.5	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	21.5		5.3	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	24300		25	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	31400		22	mg/L		06-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	41700		200	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	3.34		0.050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	27.5		1.5	mg/L		07-JUN-16	R3474922
Total Dissolved Solids	120000		80	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.20	DLM	0.20	mg/L		04-JUN-16	R3472416
Total Suspended Solids	65.0		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	11100		1000	mg/L	26-MAY-16	27-MAY-16	R3469542
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3468535

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-46 VP09_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 09:40							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Total (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLDS	10	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	1.41		0.40	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.10	DLDS	0.10	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLDS	0.020	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	3840		6.0	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000094		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	12.4		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.099		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<1.0	DLA	1.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.663		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.010	DLA	0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	2.48		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	3.39		0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	1.36		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	<0.10	DLA	0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	180		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.889		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	<5.0	DLA	5.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	<5.0	DLA	5.0	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.324		0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.0088		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.030	DLA	0.030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0147		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.050	DLA	0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	422		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	158		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	1160		0.060	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	192		0.20	mg/L	26-MAY-16	26-MAY-16	R3468717

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-46 VP09_SESP16							
Sampled By: CLIENT on 21-MAY-16 @ 09:40							
Matrix: Water							
Dissolved Metals in Water by ICPOES							
Phosphorus (P)-Dissolved	<0.60	DLHC	0.60	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	13.6		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	29.0		0.21	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	1380		1.0	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	1180		0.86	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	6440		100	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	0.105		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	2.37		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	7630		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<2.0	DLM	2.0	mg/L		07-JUN-16	R3474209
Total Suspended Solids	186		2.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	1280		40	mg/L	26-MAY-16	27-MAY-16	R3469542
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3468535
L1772436-47 GD05 D-S_SESP16							
Sampled By: CLIENT on 22-MAY-16 @ 10:10							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	456		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Total (as CaCO3)	456		1.0	mg/L		03-JUN-16	R3472355
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<5.0	DLDS	5.0	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	<0.20	DLDS	0.20	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	1.11		0.050	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.010	DLDS	0.010	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	1440		3.0	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.0041		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	0.00022		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.00112		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0283		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00020	DLA	0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.020	DLA	0.020	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-47 GD05 D-S_SESP16							
Sampled By: CLIENT on 22-MAY-16 @ 10:10							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Cadmium (Cd)-Dissolved	<0.000010	DLA	0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.00020	DLA	0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	<0.00020	DLA	0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.00060		0.00040	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.00012		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0210		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	0.00090		0.00020	mg/L	26-MAY-16	05-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	0.00061		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.0012		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	4.60		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.00015		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000020	DLA	0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	12.0		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	1.33		0.00040	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	<0.000020	DLA	0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.00060	DLA	0.00060	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0392		0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	<0.0020	DLA	0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	351		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	288		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	6.33		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	13.5		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	504		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	2060		0.50	mg/L		06-JUN-16	
Miscellaneous Parameters							
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	3.73		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	2880		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	3.9		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.020		0.020	mg/L	26-MAY-16	27-MAY-16	R3469542
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3468535
L1772436-48 SHEEP CREEK_SESP16							
Sampled By: CLIENT on 22-MAY-16 @ 09:00							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	232		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Total (as CaCO3)	232		1.0	mg/L		03-JUN-16	R3472355

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-48 SHEEP CREEK_SESP16							
Sampled By: CLIENT on 22-MAY-16 @ 09:00							
Matrix: Water							
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<0.50		0.50	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	0.060		0.020	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.552		0.0050	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0010		0.0010	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	202		0.30	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.0090		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	0.00011		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.00030		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.165		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.010		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.0000398		0.0000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	0.00023		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.00043		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.000156		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0027		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	0.00110		0.00010	mg/L	26-MAY-16	05-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	0.000979		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.00052		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	0.788		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.00198		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	2.52		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.505		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	0.00046		0.00030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.00654		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	0.0099		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	138		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	31.2		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	4.93		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	10.5		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-48 SHEEP CREEK_SESP16							
Sampled By: CLIENT on 22-MAY-16 @ 09:00							
Matrix: Water							
Dissolved Sulfur in Water by ICPOES							
Sulfur (S)-Dissolved	71.1		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	473		0.50	mg/L		06-JUN-16	
Miscellaneous Parameters							
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	2.89		0.50	mg/L		07-JUN-16	R3474922
Total Dissolved Solids	592		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		01-JUN-16	R3470177
Total Suspended Solids	11.0		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.020		0.020	mg/L	26-MAY-16	27-MAY-16	R3469542
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3468535
L1772436-49 SRK-GD05_SESP16							
Sampled By: CLIENT on 22-MAY-16 @ 09:15							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	610		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Total (as CaCO3)	610		1.0	mg/L		03-JUN-16	R3472355
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLDS	10	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	<0.40	DLDS	0.40	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	2.02		0.10	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLDS	0.020	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	1960		6.0	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.0024		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	0.00144		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.00454		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0137		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00020	DLA	0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.020	DLA	0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.000401		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.00020	DLA	0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.00047		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.00124		0.00040	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.00073		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0392		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	0.00401		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-49 SRK-GD05_SESP16							
Sampled By: CLIENT on 22-MAY-16 @ 09:15							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Molybdenum (Mo)-Dissolved	0.00085		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.291		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	6.89		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.00036		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000020	DLA	0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	13.4		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	1.65		0.00040	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.000360		0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.00060	DLA	0.00060	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0566		0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	1.13		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	409		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	406		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	4.92		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	10.5		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	650		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	2690		0.50	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	2.99		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	3780		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	0.027	DLM	0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	25.1		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.020		0.020	mg/L	26-MAY-16	27-MAY-16	R3469542
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3468535
L1772436-50 SRK-GD13_SESP16							
Sampled By: CLIENT on 22-MAY-16 @ 12:20							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	610		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Total (as CaCO3)	610		1.0	mg/L		03-JUN-16	R3472355
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLDS	10	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	<0.40	DLDS	0.40	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-50 SRK-GD13_SESP16							
Sampled By: CLIENT on 22-MAY-16 @ 12:20							
Matrix: Water							
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	18.2		0.10	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLDS	0.020	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	1800		6.0	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.0021		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	0.00033		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.00277		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0273		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00020	DLA	0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.020	DLA	0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.000079		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.00020	DLA	0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.00049		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.00249		0.00040	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.00011		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0256		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	0.00198		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	0.00130		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.126		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	5.44		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.00299		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000020	DLA	0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	8.85		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	1.54		0.00040	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.000080		0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.00060	DLA	0.00060	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0665		0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	0.0899		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	360		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	402		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	4.94		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	10.6		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	585		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	2560		0.50	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		01-JUN-16	R3471037

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-50 SRK-GD13_SESP16							
Sampled By: CLIENT on 22-MAY-16 @ 12:20							
Matrix: Water							
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	5.54		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	3510		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	6.2		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.020		0.020	mg/L	26-MAY-16	27-MAY-16	R3469542
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3468535
L1772436-51 SRK-GD24_SESP16							
Sampled By: CLIENT on 22-MAY-16 @ 11:10							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	125		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Total (as CaCO3)	125		1.0	mg/L		03-JUN-16	R3472355
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLDS	10	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	<0.40	DLDS	0.40	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.18		0.10	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	0.068		0.020	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	2590		6.0	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.00018		0.00010	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.201		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.0017		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.00810		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.10	DLA	0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.129		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	0.586		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.180		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.0155		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.056		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	23.9		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.549		0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	8.66		0.50	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	<0.00050	DLA	0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.00010	DLA	0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-51 SRK-GD24_SESP16							
Sampled By: CLIENT on 22-MAY-16 @ 11:10							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Sodium (Na)-Dissolved	63.8		0.50	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	2.05		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	0.00509		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.0030	DLA	0.0030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0159		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.0050	DLA	0.0050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	93.5		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	454		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	11.0		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	360		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	5.11		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	10.9		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	869		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	2620		0.50	mg/L		03-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	47		25	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	1.07		0.025	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	2.98		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	4310		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	0.263		0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	98.6		2.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	1.10		0.10	mg/L	26-MAY-16	27-MAY-16	R3469542
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3468535
L1772436-52 SWEET CREEK_SESP16							
Sampled By: CLIENT on 22-MAY-16 @ 09:35							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	482		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Total (as CaCO3)	482		1.0	mg/L		03-JUN-16	R3472355
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<5.0	DLDS	5.0	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	<0.20	DLDS	0.20	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	1.47		0.050	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.010	DLDS	0.010	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	1330		3.0	mg/L		24-MAY-16	R3466483

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-52 SWEET CREEK_SESP16							
Sampled By: CLIENT on 22-MAY-16 @ 09:35							
Matrix: Water							
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.0026		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	0.00025		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.00031		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0311		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00020	DLA	0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.020	DLA	0.020	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.000012		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.00020	DLA	0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	<0.00020	DLA	0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.00050		0.00040	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.00047		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0162		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	0.00102		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	0.00097		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.0056		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	3.45		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.00063		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000020	DLA	0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	11.7		0.10	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	1.28		0.00040	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	<0.000020	DLA	0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.00060	DLA	0.00060	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0376		0.000020	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.0010	DLA	0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	0.0032		0.0020	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	386		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	266		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	5.85		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	12.5		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	485		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	2060		0.50	mg/L		03-JUN-16	
Miscellaneous Parameters							
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	2.72		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	2800		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	2.0		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-52 SWEET CREEK_SESP16							
Sampled By: CLIENT on 22-MAY-16 @ 09:35							
Matrix: Water							
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.020		0.020	mg/L	26-MAY-16	27-MAY-16	R3469542
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3468535
L1772436-53 WGD01_SESP16							
Sampled By: CLIENT on 22-MAY-16 @ 10:30							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	284		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Total (as CaCO3)	284		1.0	mg/L		03-JUN-16	R3472355
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<2.5	DLDS	2.5	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	<0.10	DLDS	0.10	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	6.17		0.025	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0050	DLDS	0.0050	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	689		1.5	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.0044		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	0.00014		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.00021		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.0665		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.010		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.0000189		0.0000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.00071		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.000119		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0089		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	0.00012		0.00010	mg/L	26-MAY-16	05-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	0.000510		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	0.00092		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	1.31		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.00191		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	4.67		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	1.03		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.0146		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-53 WGD01_SESP16							
Sampled By: CLIENT on 22-MAY-16 @ 10:30							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	0.0052		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	262		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	91.4		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	4.83		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	10.3		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	230		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	1030		0.50	mg/L		06-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		01-JUN-16	R3471037
Ammonia, Total (as N)	0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	3.33		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	1430		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	6.2		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.020		0.020	mg/L	26-MAY-16	27-MAY-16	R3469542
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3468535
L1772436-54 WTA02_SESP16							
Sampled By: CLIENT on 22-MAY-16 @ 11:45							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	218		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Carbonate (as CaCO3)	5.2		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		03-JUN-16	R3472355
Alkalinity, Total (as CaCO3)	224		1.0	mg/L		03-JUN-16	R3472355
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<0.50		0.50	mg/L		24-MAY-16	R3466483
Fluoride in Water by IC							
Fluoride (F)	0.048		0.020	mg/L		24-MAY-16	R3466483
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.0070		0.0050	mg/L		24-MAY-16	R3466483
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0010		0.0010	mg/L		24-MAY-16	R3466483
Sulfate in Water by IC							
Sulfate (SO4)	34.7		0.30	mg/L		24-MAY-16	R3466483
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	26-MAY-16	26-MAY-16	R3465699
Dissolved Mercury Filtration Location	FIELD					26-MAY-16	R3465117
Dissolved Metals in Water by CRC ICPMS							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1772436-54 WTA02_SESP16							
Sampled By: CLIENT on 22-MAY-16 @ 11:45							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Aluminum (Al)-Dissolved	0.0033		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Antimony (Sb)-Dissolved	0.00013		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Arsenic (As)-Dissolved	0.00019		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Barium (Ba)-Dissolved	0.102		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Boron (B)-Dissolved	<0.010		0.010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cadmium (Cd)-Dissolved	0.0000072		0.0000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Copper (Cu)-Dissolved	0.00054		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Lead (Pb)-Dissolved	0.000184		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Lithium (Li)-Dissolved	0.0013		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Manganese (Mn)-Dissolved	0.00223		0.00010	mg/L	26-MAY-16	03-JUN-16	R3465731
Molybdenum (Mo)-Dissolved	0.000801		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Potassium (K)-Dissolved	0.495		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Selenium (Se)-Dissolved	0.000885		0.000050	mg/L	26-MAY-16	03-JUN-16	R3465731
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Sodium (Na)-Dissolved	1.57		0.050	mg/L	26-MAY-16	03-JUN-16	R3465731
Strontium (Sr)-Dissolved	0.299		0.00020	mg/L	26-MAY-16	03-JUN-16	R3465731
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	26-MAY-16	03-JUN-16	R3465731
Uranium (U)-Dissolved	0.00232		0.000010	mg/L	26-MAY-16	03-JUN-16	R3465731
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	26-MAY-16	03-JUN-16	R3465731
Zinc (Zn)-Dissolved	0.0045		0.0010	mg/L	26-MAY-16	03-JUN-16	R3465731
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Calcium (Ca)-Dissolved	91.1		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	26-MAY-16	26-MAY-16	R3468717
Magnesium (Mg)-Dissolved	10.0		0.10	mg/L	26-MAY-16	26-MAY-16	R3468717
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	26-MAY-16	26-MAY-16	R3468717
Silicon (Si)-Dissolved	4.37		0.050	mg/L	26-MAY-16	26-MAY-16	R3468717
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	9.36		0.20	mg/L		31-MAY-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					26-MAY-16	R3465120
Sulfur (S)-Dissolved	11.9		0.50	mg/L	26-MAY-16	26-MAY-16	R3468717
Hardness							
Hardness (as CaCO3)	269		0.50	mg/L		03-JUN-16	
Miscellaneous Parameters							
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		07-JUN-16	R3474599
Dissolved Organic Carbon	2.42		0.50	mg/L		06-JUN-16	R3474168
Total Dissolved Solids	287		20	mg/L		26-MAY-16	R3466356
Phosphorus (P)-Total	0.022	DLM	0.020	mg/L		04-JUN-16	R3472416
Total Suspended Solids	53.9		1.0	mg/L		26-MAY-16	R3466359
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.020		0.020	mg/L	26-MAY-16	27-MAY-16	R3469542
Dissolved Fe2 Filtration Location	FIELD					26-MAY-16	R3468535

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier Key:

Qualifier	Description
DLA	Detection Limit adjusted for required dilution
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
HTA	Analytical holding time was exceeded.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RRV	Reported Result Verified By Repeat Analysis

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ACY-H2O2-MAN-VA	Water	Acidity by Hot Peroxide Titration	APHA - ACIDITY (2310)
This analysis is carried out using procedures adapted from APHA Method 2310 "Acidity". The procedure involves preliminary sample treatment by the hot peroxide procedure, and Acidity is subsequently determined by potentiometric titration to a specified endpoint (i.e. pH = 8.3).			
ALK-TITR-VA	Water	Alkalinity Species by Titration	APHA 2320 Alkalinity
This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.			
CARBONS-DOC-VA	Water	Dissolved organic carbon by combustion	APHA 5310B TOTAL ORGANIC CARBON (TOC)
This analysis is carried out using procedures adapted from APHA Method 5310 "Total Organic Carbon (TOC)". Dissolved carbon (DOC) fractions are determined by filtering the sample through a 0.45 micron membrane filter prior to analysis.			
CL-IC-N-WR	Water	Chloride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
CN-FREE-CFA-VA	Water	Free Cyanide in water by CFA	ASTM 7237
This analysis is carried out using procedures adapted from ASTM Method 7237 "Free Cyanide with Flow Injection Analysis (FIA) Utilizing Gas Diffusion Separation and Amperometric Detection". Free cyanide is determined by in-line gas diffusion at pH 6 with final determination by colourimetric analysis.			
F-IC-N-WR	Water	Fluoride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
FE2-D-COL-VA	Water	Diss. Ferrous Iron in Water by Colour	APHA 3500-Fe B/James Ball et al (1999)
This analysis is carried out using procedures adapted from APHA 3500-Fe B and "A New Method for the Direct Determination of Dissolved Iron Concentration in Acid Mine Waters" published by James W. Ball et al (1999). The procedure involves preliminary sample filtration, and ferrous iron is determined using the "FerroZine" colourimetric method.			
HARDNESS-CALC-VA	Water	Hardness	APHA 2340B
Hardness (also known as Total Hardness) is calculated from the sum of Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. Dissolved Calcium and Magnesium concentrations are preferentially used for the hardness calculation.			
HG-D-CVAA-VA	Water	Diss. Mercury in Water by CVAAS or CVAFS	APHA 3030B/EPA 1631E (mod)
Water samples are filtered (0.45 um), preserved with hydrochloric acid, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS or CVAFS.			
MET-D-CCMS-VA	Water	Dissolved Metals in Water by CRC ICPMS	APHA 3030B/6020A (mod)
Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.			
Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			
MET-DIS-ICP-VA	Water	Dissolved Metals in Water by ICPOES	EPA SW-846 3005A/6010B
This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedure involves filtration (EPA Method 3005A) and analysis by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B).			
NH3-F-VA	Water	Ammonia in Water by Fluorescence	APHA 4500 NH3-NITROGEN (AMMONIA)
This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.			
NH3-F-VA	Water	Ammonia in Water by Fluorescence	J. ENVIRON. MONIT., 2005, 7, 37-42, RSC

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.			
NO2-L-IC-N-WR	Water	Nitrite in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
NO3-L-IC-N-WR	Water	Nitrate in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
P-T-PRES-COL-VA	Water	Total P in Water by Colour	APHA 4500-P Phosphorus
This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorus is determined colourimetrically after persulphate digestion of the sample.			
S-DIS-ICP-VA	Water	Dissolved Sulfur in Water by ICPOES	EPA SW-846 3005A/6010B
This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedures may involve preliminary sample treatment by acid digestion, using either hotblock or microwave oven, or filtration (EPA Method 3005A). Instrumental analysis is by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B). Method Limitation: This method will not give total sulfur results for all samples. Sulfide or other volatile forms of sulfur that may be present in submitted samples, is often lost during the sampling, preservation and analysis process. The data reported as total and/or dissolved sulfur represents all non-volatile forms of sulfur present in a particular sample.			
SIO2-D-CALC-VA	Water	Dissolved Silicon (reported as Silica)	CALCULATION
Dissolved Silicon (as SiO2) is a calculated parameter. Dissolved Silicon (as SiO2 mg/L) = 2.139 x Dissolved Silicon (mg/L).			
SO4-IC-N-WR	Water	Sulfate in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
TDS-VA	Water	Total Dissolved Solids by Gravimetric	APHA 2540 C - GRAVIMETRIC
This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, TDS is determined by evaporating the filtrate to dryness at 180 degrees celsius.			
TSS-LOW-VA	Water	Total Suspended Solids by Grav. (1 mg/L)	APHA 2540D
This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total suspended solids (TSS) are determined by filtering a sample through a glass fibre filter, TSS is determined by drying the filter at 104 degrees celsius. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WR	ALS ENVIRONMENTAL - WHITEHORSE, YUKON, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

ALS05221601

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L1772436 Report Date: 13-JUN-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ACY-H2O2-MAN-VA	**Water**							
Batch **R3469306**								
WG2315665-2 **CRM**		**VA-ACY-M-CONTROL**						
Acidity-Hot Peroxide Treated (as CaCO3)			98.6		%		85-115	27-MAY-16
WG2315665-3 **DUP**		**L1772436-5**						
Acidity-Hot Peroxide Treated (as CaCO3)		<25	<25	RPD-NA	mg/L	N/A	20	27-MAY-16
WG2315665-1 **MB**								
Acidity-Hot Peroxide Treated (as CaCO3)			<25		mg/L		25	27-MAY-16
Batch **R3469314**								
WG2317485-2 **CRM**		**VA-ACY-M-CONTROL**						
Acidity-Hot Peroxide Treated (as CaCO3)			98.6		%		85-115	30-MAY-16
WG2317485-3 **DUP**		**L1772436-10**						
Acidity-Hot Peroxide Treated (as CaCO3)		25300	25300		mg/L	0.2	20	30-MAY-16
WG2317485-1 **MB**								
Acidity-Hot Peroxide Treated (as CaCO3)			<25		mg/L		25	30-MAY-16
Batch **R3471037**								
WG2318559-2 **CRM**		**VA-ACY-M-CONTROL**						
Acidity-Hot Peroxide Treated (as CaCO3)			100.0		%		85-115	01-JUN-16
WG2318559-5 **CRM**		**VA-ACY-M-CONTROL**						
Acidity-Hot Peroxide Treated (as CaCO3)			101.6		%		85-115	01-JUN-16
WG2318559-3 **DUP**		**L1772436-28**						
Acidity-Hot Peroxide Treated (as CaCO3)		<25	<25	RPD-NA	mg/L	N/A	20	01-JUN-16
WG2318559-6 **DUP**		**L1772436-49**						
Acidity-Hot Peroxide Treated (as CaCO3)		<25	<25	RPD-NA	mg/L	N/A	20	01-JUN-16
WG2318559-1 **MB**								
Acidity-Hot Peroxide Treated (as CaCO3)			<25		mg/L		25	01-JUN-16
WG2318559-4 **MB**								
Acidity-Hot Peroxide Treated (as CaCO3)			<25		mg/L		25	01-JUN-16
Batch **R3471039**								
WG2319436-2 **CRM**		**VA-ACY-M-CONTROL**						
Acidity-Hot Peroxide Treated (as CaCO3)			101.0		%		85-115	02-JUN-16
WG2319436-3 **DUP**		**L1772436-38**						
Acidity-Hot Peroxide Treated (as CaCO3)		2340	2480		mg/L	5.5	20	02-JUN-16
WG2319436-1 **MB**								
Acidity-Hot Peroxide Treated (as CaCO3)			<25		mg/L		25	02-JUN-16
ALK-TITR-VA	**Water**							
Batch **R3470703**								
WG2319084-3 **CRM**		**VA-ALK-TITR-CONTROL**						
Alkalinity, Total (as CaCO3)			100.5		%		85-115	31-MAY-16
WG2319084-5 **DUP**		**L1771791-10**						

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ALK-TITR-VA	**Water**							
Batch R3470703								
WG2319084-5 DUP		**L1771791-10**						
Alkalinity, Total (as CaCO3)		191	189		mg/L	1.2	20	31-MAY-16
WG2319084-1 MB								
Alkalinity, Total (as CaCO3)			<1.0		mg/L		1	31-MAY-16
Batch R3471310								
WG2319491-3 CRM		**VA-ALK-TITR-CONTROL**						
Alkalinity, Total (as CaCO3)			100.4		%		85-115	02-JUN-16
WG2319491-5 DUP		**L1772436-27**						
Alkalinity, Total (as CaCO3)		83.3	83.7		mg/L	0.5	20	02-JUN-16
WG2319491-1 MB								
Alkalinity, Total (as CaCO3)			<1.0		mg/L		1	02-JUN-16
Batch R3472355								
WG2320443-3 CRM		**VA-ALK-TITR-CONTROL**						
Alkalinity, Total (as CaCO3)			98.9		%		85-115	03-JUN-16
WG2320443-5 DUP		**L1772436-31**						
Alkalinity, Total (as CaCO3)		183	184		mg/L	0.7	20	03-JUN-16
WG2320443-1 MB								
Alkalinity, Total (as CaCO3)			<1.0		mg/L		1	03-JUN-16
Batch R3474804								
WG2322972-3 CRM		**VA-ALK-TITR-CONTROL**						
Alkalinity, Total (as CaCO3)			95.9		%		85-115	07-JUN-16
WG2322972-5 DUP		**L1772436-24**						
Alkalinity, Total (as CaCO3)		<1.0	<1.0	RPD-NA	mg/L	N/A	20	07-JUN-16
WG2322972-1 MB								
Alkalinity, Total (as CaCO3)			<1.0		mg/L		1	07-JUN-16
CARBONS-DOC-VA	**Water**							
Batch R3474168								
WG2321413-1 DUP		**L1772436-1**						
Dissolved Organic Carbon		2.14	2.21		mg/L	3.2	20	06-JUN-16
WG2321413-5 DUP		**L1772436-19**						
Dissolved Organic Carbon		3.83	3.88		mg/L	1.4	20	06-JUN-16
WG2321413-9 DUP		**L1772436-37**						
Dissolved Organic Carbon		3.02	2.98		mg/L	1.4	20	06-JUN-16
WG2321413-12 LCS								
Dissolved Organic Carbon			98.3		%		80-120	06-JUN-16
WG2321413-4 LCS								
Dissolved Organic Carbon			100.8		%		80-120	06-JUN-16
WG2321413-8 LCS								

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CARBONS-DOC-VA	**Water**							
Batch R3474168								
WG2321413-8 LCS								
Dissolved Organic Carbon			100.7		%		80-120	06-JUN-16
WG2321413-11 MB								
Dissolved Organic Carbon			<0.50		mg/L		0.5	06-JUN-16
WG2321413-3 MB								
Dissolved Organic Carbon			<0.50		mg/L		0.5	06-JUN-16
WG2321413-7 MB								
Dissolved Organic Carbon			<0.50		mg/L		0.5	06-JUN-16
WG2321413-10 MS		**L1772436-38**						
Dissolved Organic Carbon			114.5		%		70-130	06-JUN-16
WG2321413-2 MS		**L1772436-2**						
Dissolved Organic Carbon			104.5		%		70-130	06-JUN-16
WG2321413-6 MS		**L1772436-20**						
Dissolved Organic Carbon			106.1		%		70-130	06-JUN-16
Batch R3474922								
WG2323063-1 DUP		**L1772436-45**						
Dissolved Organic Carbon		27.5	26.7		mg/L	3.0	20	07-JUN-16
WG2323063-4 LCS								
Dissolved Organic Carbon			95.7		%		80-120	07-JUN-16
WG2323063-3 MB								
Dissolved Organic Carbon			<0.50		mg/L		0.5	07-JUN-16
WG2323063-2 MS		**L1772436-48**						
Dissolved Organic Carbon			96.6		%		70-130	07-JUN-16
CL-IC-N-WR	**Water**							
Batch R3466483								
WG2314004-11 DUP		**L1772436-54**						
Chloride (Cl)		<0.50	<0.50	RPD-NA	mg/L	N/A	20	24-MAY-16
WG2314004-3 DUP		**L1772436-4**						
Chloride (Cl)		<0.50	<0.50	RPD-NA	mg/L	N/A	20	24-MAY-16
WG2314004-7 DUP		**L1772436-19**						
Chloride (Cl)		<0.50	<0.50	RPD-NA	mg/L	N/A	20	24-MAY-16
WG2314004-10 LCS								
Chloride (Cl)			90.3		%		90-110	24-MAY-16
WG2314004-2 LCS								
Chloride (Cl)			90.5		%		90-110	24-MAY-16
WG2314004-6 LCS								
Chloride (Cl)			90.2		%		90-110	24-MAY-16
WG2314004-1 MB								

Quality Control Report

Client: CH2M HILL, INC
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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CL-IC-N-WR	**Water**							
Batch R3466483								
WG2314004-1 MB								
Chloride (Cl)			<0.50		mg/L		0.5	24-MAY-16
WG2314004-5 MB								
Chloride (Cl)			<0.50		mg/L		0.5	24-MAY-16
WG2314004-9 MB								
Chloride (Cl)			<0.50		mg/L		0.5	24-MAY-16
WG2314004-12 MS		**L1772436-48**						
Chloride (Cl)			89.9		%		75-125	24-MAY-16
WG2314004-4 MS		**L1772436-3**						
Chloride (Cl)			94.1		%		75-125	24-MAY-16
WG2314004-8 MS		**L1772436-25**						
Chloride (Cl)			100.7		%		75-125	24-MAY-16
CN-FREE-CFA-VA	**Water**							
Batch R3471002								
WG2319433-3 DUP		**L1771791-2**						
Cyanide, Free		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	01-JUN-16
WG2319433-2 LCS								
Cyanide, Free			102.6		%		80-120	01-JUN-16
WG2319433-1 MB								
Cyanide, Free			<0.0050		mg/L		0.005	01-JUN-16
WG2319433-4 MS		**L1771791-2**						
Cyanide, Free			89.9		%		75-125	01-JUN-16
F-IC-N-WR	**Water**							
Batch R3466483								
WG2314004-11 DUP		**L1772436-54**						
Fluoride (F)		0.048	0.046		mg/L	3.8	20	24-MAY-16
WG2314004-3 DUP		**L1772436-4**						
Fluoride (F)		0.257	0.253		mg/L	1.6	20	24-MAY-16
WG2314004-7 DUP		**L1772436-19**						
Fluoride (F)		0.234	0.235		mg/L	0.3	20	24-MAY-16
WG2314004-10 LCS								
Fluoride (F)			97.1		%		90-110	24-MAY-16
WG2314004-2 LCS								
Fluoride (F)			95.2		%		90-110	24-MAY-16
WG2314004-6 LCS								
Fluoride (F)			96.5		%		90-110	24-MAY-16
WG2314004-1 MB								
Fluoride (F)			<0.020		mg/L		0.02	24-MAY-16

Quality Control Report

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2525 Airpark Drive
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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F-IC-N-WR	**Water**							
Batch R3466483								
WG2314004-5 MB								
Fluoride (F)			<0.020		mg/L		0.02	24-MAY-16
WG2314004-9 MB								
Fluoride (F)			<0.020		mg/L		0.02	24-MAY-16
WG2314004-12 MS		**L1772436-48**						
Fluoride (F)			94.3		%		75-125	24-MAY-16
WG2314004-4 MS		**L1772436-3**						
Fluoride (F)			95.0		%		75-125	24-MAY-16
WG2314004-8 MS		**L1772436-25**						
Fluoride (F)			106.3		%		75-125	24-MAY-16
FE2-D-COL-VA	**Water**							
Batch R3465574								
WG2315317-3 DUP		**L1772436-5**						
Ferrous Iron, Dissolved		<0.020	<0.020	RPD-NA	mg/L	N/A	20	26-MAY-16
WG2315414-3 DUP		**L1772436-22**						
Ferrous Iron, Dissolved		<0.020	<0.020	RPD-NA	mg/L	N/A	20	26-MAY-16
WG2315317-2 LCS								
Ferrous Iron, Dissolved			105.5		%		80-120	26-MAY-16
WG2315414-2 LCS								
Ferrous Iron, Dissolved			105.6		%		80-120	26-MAY-16
WG2315317-1 MB								
Ferrous Iron, Dissolved			<0.020		mg/L		0.02	26-MAY-16
WG2315414-1 MB								
Ferrous Iron, Dissolved			<0.020		mg/L		0.02	26-MAY-16
WG2315317-4 MS		**L1772436-6**						
Ferrous Iron, Dissolved			104.6		%		70-130	26-MAY-16
WG2315414-4 MS		**L1772436-23**						
Ferrous Iron, Dissolved			107.0		%		70-130	26-MAY-16
Batch R3469542								
WG2315967-3 DUP		**L1772436-53**						
Ferrous Iron, Dissolved		<0.020	<0.020	RPD-NA	mg/L	N/A	20	27-MAY-16
WG2315967-2 LCS								
Ferrous Iron, Dissolved			104.4		%		80-120	27-MAY-16
WG2315967-1 MB								
Ferrous Iron, Dissolved			<0.020		mg/L		0.02	27-MAY-16
WG2315967-4 MS		**L1772436-54**						
Ferrous Iron, Dissolved			104.9		%		70-130	27-MAY-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
FE2-D-COL-VA	**Water**							
Batch R3472213								
WG2321284-2 LCS								
Ferrous Iron, Dissolved			104.6		%		80-120	04-JUN-16
WG2321284-1 MB								
Ferrous Iron, Dissolved			<0.020		mg/L		0.02	04-JUN-16
WG2321284-3 MS		**L1772436-21**						
Ferrous Iron, Dissolved			111.1		%		70-130	04-JUN-16
HG-D-CVAA-VA	**Water**							
Batch R3465699								
WG2315017-3 DUP		**L1772436-5**						
Mercury (Hg)-Dissolved		0.0000091	0.0000073	J	mg/L	0.0000018	0.00001	26-MAY-16
WG2315017-4 DUP		**L1772436-32**						
Mercury (Hg)-Dissolved		<0.0000050	<0.000005C	RPD-NA	mg/L	N/A	20	26-MAY-16
WG2315017-5 DUP		**L1772436-47**						
Mercury (Hg)-Dissolved		<0.0000050	<0.000005C	RPD-NA	mg/L	N/A	20	26-MAY-16
WG2315017-2 LCS								
Mercury (Hg)-Dissolved			106.1		%		80-120	26-MAY-16
WG2315017-1 MB								
Mercury (Hg)-Dissolved			<0.000005C		mg/L		0.000005	26-MAY-16
WG2315017-6 MS		**L1772436-14**						
Mercury (Hg)-Dissolved			107.3		%		70-130	26-MAY-16
WG2315017-7 MS		**L1772436-42**						
Mercury (Hg)-Dissolved			95.7		%		70-130	26-MAY-16
WG2315017-8 MS		**L1772436-54**						
Mercury (Hg)-Dissolved			98.5		%		70-130	26-MAY-16
MET-D-CCMS-VA	**Water**							
Batch R3465731								
WG2315025-3 DUP		**L1772436-2**						
Aluminum (Al)-Dissolved		0.0521	0.0531		mg/L	1.9	20	03-JUN-16
Antimony (Sb)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	03-JUN-16
Arsenic (As)-Dissolved		0.00034	0.00034		mg/L	1.6	20	03-JUN-16
Barium (Ba)-Dissolved		0.0228	0.0237		mg/L	3.9	20	03-JUN-16
Beryllium (Be)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	03-JUN-16
Boron (B)-Dissolved		<0.010	<0.010	RPD-NA	mg/L	N/A	20	03-JUN-16
Cadmium (Cd)-Dissolved		0.00348	0.00348		mg/L	0.2	20	03-JUN-16
Chromium (Cr)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	03-JUN-16
Cobalt (Co)-Dissolved		0.00488	0.00491		mg/L	0.6	20	03-JUN-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3465731								
WG2315025-3 DUP		**L1772436-2**						
Copper (Cu)-Dissolved		0.00591	0.00594		mg/L	0.5	20	03-JUN-16
Lead (Pb)-Dissolved		0.00111	0.000957		mg/L	15	20	03-JUN-16
Lithium (Li)-Dissolved		0.0352	0.0345		mg/L	1.8	20	03-JUN-16
Manganese (Mn)-Dissolved		0.209	0.212		mg/L	1.4	20	03-JUN-16
Molybdenum (Mo)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	03-JUN-16
Nickel (Ni)-Dissolved		0.0434	0.0433		mg/L	0.3	20	03-JUN-16
Potassium (K)-Dissolved		4.44	4.53		mg/L	2.0	20	03-JUN-16
Selenium (Se)-Dissolved		0.000891	0.000936		mg/L	5.0	20	03-JUN-16
Silver (Ag)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	03-JUN-16
Sodium (Na)-Dissolved		6.45	6.62		mg/L	2.6	20	03-JUN-16
Strontium (Sr)-Dissolved		0.481	0.472		mg/L	1.8	20	03-JUN-16
Thallium (Tl)-Dissolved		0.000055	0.000056		mg/L	2.2	20	03-JUN-16
Titanium (Ti)-Dissolved		<0.00030	<0.00030	RPD-NA	mg/L	N/A	20	03-JUN-16
Uranium (U)-Dissolved		0.00436	0.00434		mg/L	0.5	20	03-JUN-16
Vanadium (V)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	03-JUN-16
Zinc (Zn)-Dissolved		3.56	3.57		mg/L	0.4	20	03-JUN-16
WG2315025-4 DUP		**L1772436-26**						
Aluminum (Al)-Dissolved		17.4	16.9		mg/L	2.8	20	03-JUN-16
Antimony (Sb)-Dissolved		<0.020	<0.020	RPD-NA	mg/L	N/A	20	03-JUN-16
Arsenic (As)-Dissolved		<0.020	<0.020	RPD-NA	mg/L	N/A	20	03-JUN-16
Barium (Ba)-Dissolved		0.025	0.023		mg/L	9.2	20	03-JUN-16
Beryllium (Be)-Dissolved		<0.020	<0.020	RPD-NA	mg/L	N/A	20	03-JUN-16
Boron (B)-Dissolved		<2.0	<2.0	RPD-NA	mg/L	N/A	20	03-JUN-16
Cadmium (Cd)-Dissolved		1.00	0.950		mg/L	5.1	20	03-JUN-16
Chromium (Cr)-Dissolved		<0.020	<0.020	RPD-NA	mg/L	N/A	20	03-JUN-16
Cobalt (Co)-Dissolved		5.59	5.47		mg/L	2.3	20	03-JUN-16
Copper (Cu)-Dissolved		0.426	0.421		mg/L	1.1	20	03-JUN-16
Lead (Pb)-Dissolved		0.055	0.053		mg/L	3.2	20	03-JUN-16
Lithium (Li)-Dissolved		0.25	0.21		mg/L	16	20	03-JUN-16
Manganese (Mn)-Dissolved		335	329		mg/L	2.1	20	03-JUN-16
Molybdenum (Mo)-Dissolved		<0.010	<0.010	RPD-NA	mg/L	N/A	20	03-JUN-16
Nickel (Ni)-Dissolved		6.60	6.53		mg/L	1.2	20	03-JUN-16
Potassium (K)-Dissolved		15	14		mg/L	7.0	20	03-JUN-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3465731								
WG2315025-4 DUP		**L1772436-26**						
Selenium (Se)-Dissolved		<0.010	<0.010	RPD-NA	mg/L	N/A	20	03-JUN-16
Silver (Ag)-Dissolved		<0.0020	<0.0020	RPD-NA	mg/L	N/A	20	03-JUN-16
Sodium (Na)-Dissolved		46	45		mg/L	3.1	20	03-JUN-16
Strontium (Sr)-Dissolved		2.17	2.07		mg/L	4.9	20	03-JUN-16
Thallium (Tl)-Dissolved		<0.0020	<0.0020	RPD-NA	mg/L	N/A	20	03-JUN-16
Titanium (Ti)-Dissolved		<0.060	<0.060	RPD-NA	mg/L	N/A	20	03-JUN-16
Uranium (U)-Dissolved		0.0064	0.0062		mg/L	3.0	20	03-JUN-16
Vanadium (V)-Dissolved		<0.10	<0.10	RPD-NA	mg/L	N/A	20	03-JUN-16
Zinc (Zn)-Dissolved		1170	1140		mg/L	2.3	20	03-JUN-16
WG2315025-5 DUP		**L1772436-43**						
Aluminum (Al)-Dissolved		18.8	18.2		mg/L	3.7	20	03-JUN-16
Antimony (Sb)-Dissolved		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	03-JUN-16
Arsenic (As)-Dissolved		0.0123	0.0116		mg/L	5.9	20	03-JUN-16
Barium (Ba)-Dissolved		0.0178	0.0180		mg/L	1.1	20	03-JUN-16
Beryllium (Be)-Dissolved		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	03-JUN-16
Boron (B)-Dissolved		<0.50	<0.50	RPD-NA	mg/L	N/A	20	03-JUN-16
Cadmium (Cd)-Dissolved		0.184	0.180		mg/L	2.3	20	03-JUN-16
Chromium (Cr)-Dissolved		0.0106	0.0096		mg/L	10	20	03-JUN-16
Cobalt (Co)-Dissolved		1.05	1.02		mg/L	2.8	20	03-JUN-16
Copper (Cu)-Dissolved		1.34	1.30		mg/L	2.9	20	03-JUN-16
Lead (Pb)-Dissolved		0.129	0.129		mg/L	0.2	20	03-JUN-16
Lithium (Li)-Dissolved		0.061	0.059		mg/L	2.2	20	03-JUN-16
Manganese (Mn)-Dissolved		56.2	54.4		mg/L	3.3	20	03-JUN-16
Molybdenum (Mo)-Dissolved		<0.0025	<0.0025	RPD-NA	mg/L	N/A	20	03-JUN-16
Nickel (Ni)-Dissolved		1.80	1.74		mg/L	3.3	20	03-JUN-16
Potassium (K)-Dissolved		2.5	<2.5	RPD-NA	mg/L	N/A	20	03-JUN-16
Selenium (Se)-Dissolved		0.0030	<0.0025	RPD-NA	mg/L	N/A	20	03-JUN-16
Silver (Ag)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	03-JUN-16
Sodium (Na)-Dissolved		<2.5	<2.5	RPD-NA	mg/L	N/A	20	03-JUN-16
Strontium (Sr)-Dissolved		0.323	0.321		mg/L	0.5	20	03-JUN-16
Thallium (Tl)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	03-JUN-16
Titanium (Ti)-Dissolved		<0.015	<0.015	RPD-NA	mg/L	N/A	20	03-JUN-16
Uranium (U)-Dissolved		0.0284	0.0287		mg/L	0.9	20	03-JUN-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3465731								
WG2315025-5 DUP		**L1772436-43**						
Vanadium (V)-Dissolved		<0.025	<0.025	RPD-NA	mg/L	N/A	20	03-JUN-16
Zinc (Zn)-Dissolved		232	226		mg/L	2.4	20	03-JUN-16
WG2315025-2 LCS								
Aluminum (Al)-Dissolved			111.6		%		80-120	26-MAY-16
Antimony (Sb)-Dissolved			100.0		%		80-120	26-MAY-16
Arsenic (As)-Dissolved			108.3		%		80-120	26-MAY-16
Barium (Ba)-Dissolved			109.0		%		80-120	26-MAY-16
Beryllium (Be)-Dissolved			110.3		%		80-120	26-MAY-16
Boron (B)-Dissolved			99.4		%		80-120	26-MAY-16
Cadmium (Cd)-Dissolved			109.0		%		80-120	26-MAY-16
Chromium (Cr)-Dissolved			106.8		%		80-120	26-MAY-16
Cobalt (Co)-Dissolved			107.8		%		80-120	26-MAY-16
Copper (Cu)-Dissolved			105.5		%		80-120	26-MAY-16
Lead (Pb)-Dissolved			107.8		%		80-120	26-MAY-16
Lithium (Li)-Dissolved			110.9		%		80-120	26-MAY-16
Manganese (Mn)-Dissolved			107.9		%		80-120	26-MAY-16
Molybdenum (Mo)-Dissolved			112.6		%		80-120	26-MAY-16
Nickel (Ni)-Dissolved			108.5		%		80-120	26-MAY-16
Potassium (K)-Dissolved			110.3		%		80-120	26-MAY-16
Selenium (Se)-Dissolved			109.3		%		80-120	26-MAY-16
Silver (Ag)-Dissolved			107.9		%		80-120	26-MAY-16
Sodium (Na)-Dissolved			111.9		%		80-120	26-MAY-16
Strontium (Sr)-Dissolved			108.0		%		80-120	26-MAY-16
Thallium (Tl)-Dissolved			108.4		%		80-120	26-MAY-16
Titanium (Ti)-Dissolved			105.6		%		80-120	26-MAY-16
Uranium (U)-Dissolved			109.2		%		80-120	26-MAY-16
Vanadium (V)-Dissolved			111.4		%		80-120	26-MAY-16
Zinc (Zn)-Dissolved			103.9		%		80-120	26-MAY-16
WG2315025-1 MB								
Aluminum (Al)-Dissolved			<0.0010		mg/L		0.001	26-MAY-16
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	26-MAY-16
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	26-MAY-16
Barium (Ba)-Dissolved			<0.000050		mg/L		0.00005	26-MAY-16
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	26-MAY-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3465731								
WG2315025-1 MB								
Boron (B)-Dissolved			<0.010		mg/L		0.01	26-MAY-16
Cadmium (Cd)-Dissolved			<0.000005(		mg/L		0.000005	26-MAY-16
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	26-MAY-16
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	26-MAY-16
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	26-MAY-16
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	26-MAY-16
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	26-MAY-16
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	26-MAY-16
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	26-MAY-16
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	26-MAY-16
Potassium (K)-Dissolved			<0.050		mg/L		0.05	26-MAY-16
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	26-MAY-16
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	26-MAY-16
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	26-MAY-16
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	26-MAY-16
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	26-MAY-16
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	26-MAY-16
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	26-MAY-16
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	26-MAY-16
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	26-MAY-16
WG2315025-6 MS		**L1772436-14**						
Aluminum (Al)-Dissolved			96.5		%		70-130	03-JUN-16
Antimony (Sb)-Dissolved			101.6		%		70-130	03-JUN-16
Arsenic (As)-Dissolved			108.6		%		70-130	03-JUN-16
Barium (Ba)-Dissolved			N/A	MS-B	%		-	03-JUN-16
Beryllium (Be)-Dissolved			111.4		%		70-130	03-JUN-16
Boron (B)-Dissolved			111.6		%		70-130	03-JUN-16
Cadmium (Cd)-Dissolved			N/A	MS-B	%		-	03-JUN-16
Chromium (Cr)-Dissolved			90.2		%		70-130	03-JUN-16
Cobalt (Co)-Dissolved			85.9		%		70-130	03-JUN-16
Copper (Cu)-Dissolved			84.5		%		70-130	03-JUN-16
Lead (Pb)-Dissolved			92.1		%		70-130	03-JUN-16
Lithium (Li)-Dissolved			88.6		%		70-130	03-JUN-16
Manganese (Mn)-Dissolved			N/A	MS-B	%		-	03-JUN-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3465731								
WG2315025-6 MS		**L1772436-14**						
Molybdenum (Mo)-Dissolved			90.4		%		70-130	03-JUN-16
Nickel (Ni)-Dissolved			N/A	MS-B	%		-	03-JUN-16
Potassium (K)-Dissolved			N/A	MS-B	%		-	03-JUN-16
Selenium (Se)-Dissolved			99.4		%		70-130	03-JUN-16
Silver (Ag)-Dissolved			98.6		%		70-130	03-JUN-16
Sodium (Na)-Dissolved			N/A	MS-B	%		-	03-JUN-16
Strontium (Sr)-Dissolved			N/A	MS-B	%		-	03-JUN-16
Thallium (Tl)-Dissolved			92.0		%		70-130	03-JUN-16
Titanium (Ti)-Dissolved			96.2		%		70-130	03-JUN-16
Uranium (U)-Dissolved			88.7		%		70-130	03-JUN-16
Vanadium (V)-Dissolved			94.7		%		70-130	03-JUN-16
Zinc (Zn)-Dissolved			N/A	MS-B	%		-	03-JUN-16
WG2315025-7 MS		**L1772436-37**						
Aluminum (Al)-Dissolved			92.9		%		70-130	03-JUN-16
Antimony (Sb)-Dissolved			97.0		%		70-130	03-JUN-16
Arsenic (As)-Dissolved			102.9		%		70-130	03-JUN-16
Barium (Ba)-Dissolved			96.8		%		70-130	03-JUN-16
Beryllium (Be)-Dissolved			96.4		%		70-130	03-JUN-16
Boron (B)-Dissolved			90.2		%		70-130	03-JUN-16
Cadmium (Cd)-Dissolved			94.9		%		70-130	03-JUN-16
Chromium (Cr)-Dissolved			90.5		%		70-130	03-JUN-16
Cobalt (Co)-Dissolved			N/A	MS-B	%		-	03-JUN-16
Copper (Cu)-Dissolved			91.0		%		70-130	03-JUN-16
Lead (Pb)-Dissolved			97.8		%		70-130	03-JUN-16
Lithium (Li)-Dissolved			95.8		%		70-130	03-JUN-16
Manganese (Mn)-Dissolved			N/A	MS-B	%		-	03-JUN-16
Molybdenum (Mo)-Dissolved			92.0		%		70-130	03-JUN-16
Nickel (Ni)-Dissolved			N/A	MS-B	%		-	03-JUN-16
Potassium (K)-Dissolved			93.4		%		70-130	03-JUN-16
Selenium (Se)-Dissolved			92.7		%		70-130	03-JUN-16
Silver (Ag)-Dissolved			99.9		%		70-130	03-JUN-16
Sodium (Na)-Dissolved			94.5		%		70-130	03-JUN-16
Strontium (Sr)-Dissolved			N/A	MS-B	%		-	03-JUN-16
Thallium (Tl)-Dissolved			94.7		%		70-130	03-JUN-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3465731								
WG2315025-7 MS		**L1772436-37**						
Titanium (Ti)-Dissolved			92.9		%		70-130	03-JUN-16
Uranium (U)-Dissolved			94.8		%		70-130	03-JUN-16
Vanadium (V)-Dissolved			91.5		%		70-130	03-JUN-16
Zinc (Zn)-Dissolved			N/A	MS-B	%		-	03-JUN-16
WG2315025-8 MS		**L1772436-50**						
Aluminum (Al)-Dissolved			95.9		%		70-130	03-JUN-16
Antimony (Sb)-Dissolved			98.2		%		70-130	03-JUN-16
Arsenic (As)-Dissolved			100.4		%		70-130	03-JUN-16
Barium (Ba)-Dissolved			92.8		%		70-130	03-JUN-16
Beryllium (Be)-Dissolved			98.3		%		70-130	03-JUN-16
Boron (B)-Dissolved			94.1		%		70-130	03-JUN-16
Cadmium (Cd)-Dissolved			95.4		%		70-130	03-JUN-16
Chromium (Cr)-Dissolved			96.6		%		70-130	03-JUN-16
Cobalt (Co)-Dissolved			94.7		%		70-130	03-JUN-16
Copper (Cu)-Dissolved			91.7		%		70-130	03-JUN-16
Lead (Pb)-Dissolved			96.9		%		70-130	03-JUN-16
Lithium (Li)-Dissolved			94.9		%		70-130	03-JUN-16
Manganese (Mn)-Dissolved			94.9		%		70-130	03-JUN-16
Molybdenum (Mo)-Dissolved			101.1		%		70-130	03-JUN-16
Nickel (Ni)-Dissolved			N/A	MS-B	%		-	03-JUN-16
Potassium (K)-Dissolved			93.6		%		70-130	03-JUN-16
Selenium (Se)-Dissolved			104.6		%		70-130	03-JUN-16
Silver (Ag)-Dissolved			71.0		%		70-130	03-JUN-16
Sodium (Na)-Dissolved			N/A	MS-B	%		-	03-JUN-16
Strontium (Sr)-Dissolved			N/A	MS-B	%		-	03-JUN-16
Thallium (Tl)-Dissolved			95.2		%		70-130	03-JUN-16
Titanium (Ti)-Dissolved			101.0		%		70-130	03-JUN-16
Uranium (U)-Dissolved			N/A	MS-B	%		-	03-JUN-16
Vanadium (V)-Dissolved			100.8		%		70-130	03-JUN-16
Zinc (Zn)-Dissolved			85.2		%		70-130	03-JUN-16
MET-DIS-ICP-VA	**Water**							

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-DIS-ICP-VA	**Water**							
Batch R3468717								
WG2315025-3 DUP		**L1772436-2**						
Calcium (Ca)-Dissolved		126	127		mg/L	0.9	20	26-MAY-16
Iron (Fe)-Dissolved		<0.030	<0.030	RPD-NA	mg/L	N/A	20	26-MAY-16
Magnesium (Mg)-Dissolved		112	112		mg/L	0.1	20	26-MAY-16
Phosphorus (P)-Dissolved		<0.30	<0.30	RPD-NA	mg/L	N/A	20	26-MAY-16
Silicon (Si)-Dissolved		5.98	6.02		mg/L	0.6	20	26-MAY-16
WG2315025-4 DUP		**L1772436-26**						
Calcium (Ca)-Dissolved		423	428		mg/L	1.4	20	26-MAY-16
Iron (Fe)-Dissolved		21.5	21.7		mg/L	1.1	20	26-MAY-16
Magnesium (Mg)-Dissolved		2650	2670		mg/L	0.9	20	26-MAY-16
Phosphorus (P)-Dissolved		<3.0	<3.0	RPD-NA	mg/L	N/A	20	26-MAY-16
Silicon (Si)-Dissolved		27.4	27.6		mg/L	0.7	20	26-MAY-16
WG2315025-5 DUP		**L1772436-43**						
Calcium (Ca)-Dissolved		104	103		mg/L	0.9	20	26-MAY-16
Iron (Fe)-Dissolved		16.2	16.1		mg/L	0.7	20	26-MAY-16
Magnesium (Mg)-Dissolved		268	266		mg/L	0.4	20	26-MAY-16
Phosphorus (P)-Dissolved		<0.30	<0.30	RPD-NA	mg/L	N/A	20	26-MAY-16
Silicon (Si)-Dissolved		6.61	6.59		mg/L	0.3	20	26-MAY-16
WG2315025-2 LCS								
Calcium (Ca)-Dissolved			99.1		%		80-120	26-MAY-16
Iron (Fe)-Dissolved			94.4		%		80-120	26-MAY-16
Magnesium (Mg)-Dissolved			97.6		%		80-120	26-MAY-16
Phosphorus (P)-Dissolved			102.3		%		80-120	26-MAY-16
Silicon (Si)-Dissolved			103.8		%		80-120	26-MAY-16
WG2315025-1 MB								
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	26-MAY-16
Iron (Fe)-Dissolved			<0.030		mg/L		0.03	26-MAY-16
Magnesium (Mg)-Dissolved			<0.10		mg/L		0.1	26-MAY-16
Phosphorus (P)-Dissolved			<0.30		mg/L		0.3	26-MAY-16
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	26-MAY-16
WG2315025-6 MS		**L1772436-14**						
Calcium (Ca)-Dissolved			N/A	MS-B	%		-	26-MAY-16
Iron (Fe)-Dissolved			94.8		%		70-130	26-MAY-16
Magnesium (Mg)-Dissolved			N/A	MS-B	%		-	26-MAY-16
Phosphorus (P)-Dissolved			99.1		%		70-130	26-MAY-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-DIS-ICP-VA	**Water**							
Batch R3468717								
WG2315025-6 MS		**L1772436-14**						
Silicon (Si)-Dissolved			N/A	MS-B	%		-	26-MAY-16
WG2315025-7 MS		**L1772436-37**						
Calcium (Ca)-Dissolved			N/A	MS-B	%		-	26-MAY-16
Iron (Fe)-Dissolved			N/A	MS-B	%		-	26-MAY-16
Magnesium (Mg)-Dissolved			N/A	MS-B	%		-	26-MAY-16
Phosphorus (P)-Dissolved			99.0		%		70-130	26-MAY-16
Silicon (Si)-Dissolved			N/A	MS-B	%		-	26-MAY-16
WG2315025-8 MS		**L1772436-50**						
Calcium (Ca)-Dissolved			N/A	MS-B	%		-	26-MAY-16
Iron (Fe)-Dissolved			90.9		%		70-130	26-MAY-16
Magnesium (Mg)-Dissolved			N/A	MS-B	%		-	26-MAY-16
Phosphorus (P)-Dissolved			100.6		%		70-130	26-MAY-16
Silicon (Si)-Dissolved			N/A	MS-B	%		-	26-MAY-16
NH3-F-VA	**Water**							
Batch R3474599								
WG2322102-11 DUP		**L1772436-46**						
Ammonia, Total (as N)		0.105	0.115		mg/L	9.2	20	07-JUN-16
WG2322102-3 DUP		**L1772436-4**						
Ammonia, Total (as N)		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	07-JUN-16
WG2322102-10 LCS								
Ammonia, Total (as N)			99.8		%		85-115	07-JUN-16
WG2322102-2 LCS								
Ammonia, Total (as N)			94.8		%		85-115	07-JUN-16
WG2322102-6 LCS								
Ammonia, Total (as N)			92.0		%		85-115	07-JUN-16
WG2322102-1 MB								
Ammonia, Total (as N)			<0.0050		mg/L		0.005	07-JUN-16
WG2322102-5 MB								
Ammonia, Total (as N)			<0.0050		mg/L		0.005	07-JUN-16
WG2322102-9 MB								
Ammonia, Total (as N)			<0.0050		mg/L		0.005	07-JUN-16
WG2322102-12 MS		**L1772436-46**						
Ammonia, Total (as N)			91.6		%		75-125	07-JUN-16
WG2322102-4 MS		**L1772436-4**						
Ammonia, Total (as N)			97.9		%		75-125	07-JUN-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NH3-F-VA	**Water**							
Batch R3474965								
WG2323415-3 DUP		**L1772436-29**						
Ammonia, Total (as N)		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	08-JUN-16
WG2323415-2 LCS								
Ammonia, Total (as N)			104.8		%		85-115	08-JUN-16
WG2323415-1 MB								
Ammonia, Total (as N)			<0.0050		mg/L		0.005	08-JUN-16
WG2323415-4 MS		**L1772436-29**						
Ammonia, Total (as N)			100.8		%		75-125	08-JUN-16
NO2-L-IC-N-WR	**Water**							
Batch R3466483								
WG2314004-11 DUP		**L1772436-54**						
Nitrite (as N)		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	24-MAY-16
WG2314004-3 DUP		**L1772436-4**						
Nitrite (as N)		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	24-MAY-16
WG2314004-7 DUP		**L1772436-19**						
Nitrite (as N)		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	24-MAY-16
WG2314004-10 LCS								
Nitrite (as N)			93.2		%		90-110	24-MAY-16
WG2314004-2 LCS								
Nitrite (as N)			92.4		%		90-110	24-MAY-16
WG2314004-6 LCS								
Nitrite (as N)			91.6		%		90-110	24-MAY-16
WG2314004-1 MB								
Nitrite (as N)			<0.0010		mg/L		0.001	24-MAY-16
WG2314004-5 MB								
Nitrite (as N)			<0.0010		mg/L		0.001	24-MAY-16
WG2314004-9 MB								
Nitrite (as N)			<0.0010		mg/L		0.001	24-MAY-16
WG2314004-12 MS		**L1772436-48**						
Nitrite (as N)			90.5		%		75-125	24-MAY-16
WG2314004-4 MS		**L1772436-3**						
Nitrite (as N)			96.4		%		75-125	24-MAY-16
WG2314004-8 MS		**L1772436-25**						
Nitrite (as N)			102.5		%		75-125	24-MAY-16
NO3-L-IC-N-WR	**Water**							

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NO3-L-IC-N-WR	**Water**							
Batch R3466483								
WG2314004-11 DUP		**L1772436-54**						
Nitrate (as N)		0.0070	0.0074		mg/L	6.1	20	24-MAY-16
WG2314004-3 DUP		**L1772436-4**						
Nitrate (as N)		0.0381	0.0406		mg/L	6.4	20	24-MAY-16
WG2314004-7 DUP		**L1772436-19**						
Nitrate (as N)		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	24-MAY-16
WG2314004-10 LCS								
Nitrate (as N)			90.6		%		90-110	24-MAY-16
WG2314004-2 LCS								
Nitrate (as N)			90.3		%		90-110	24-MAY-16
WG2314004-6 LCS								
Nitrate (as N)			90.2		%		90-110	24-MAY-16
WG2314004-1 MB								
Nitrate (as N)			<0.0050		mg/L		0.005	24-MAY-16
WG2314004-5 MB								
Nitrate (as N)			<0.0050		mg/L		0.005	24-MAY-16
WG2314004-9 MB								
Nitrate (as N)			<0.0050		mg/L		0.005	24-MAY-16
WG2314004-12 MS		**L1772436-48**						
Nitrate (as N)			89.3		%		75-125	24-MAY-16
WG2314004-4 MS		**L1772436-3**						
Nitrate (as N)			93.3		%		75-125	24-MAY-16
WG2314004-8 MS		**L1772436-25**						
Nitrate (as N)			100.1		%		75-125	24-MAY-16
P-T-PRES-COL-VA	**Water**							
Batch R3470177								
WG2318876-2 CRM		**VA-ERA-PO4**						
Phosphorus (P)-Total			103.4		%		80-120	01-JUN-16
WG2318876-3 DUP		**L1771791-10**						
Phosphorus (P)-Total		<0.020	<0.020	RPD-NA	mg/L	N/A	20	01-JUN-16
WG2318876-1 MB								
Phosphorus (P)-Total			<0.0020		mg/L		0.002	01-JUN-16
WG2318876-4 MS		**L1771791-10**						
Phosphorus (P)-Total			99.7		%		70-130	01-JUN-16
Batch R3472416								
WG2321135-10 CRM		**VA-ERA-PO4**						
Phosphorus (P)-Total			100.9		%		80-120	04-JUN-16
WG2321135-2 CRM		**VA-ERA-PO4**						

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
P-T-PRES-COL-VA	**Water**							
Batch R3472416								
WG2321135-2 CRM		**VA-ERA-PO4**						
Phosphorus (P)-Total			108.4		%		80-120	04-JUN-16
WG2321135-6 CRM		**VA-ERA-PO4**						
Phosphorus (P)-Total			106.7		%		80-120	04-JUN-16
WG2321135-3 DUP		**L1772436-2**						
Phosphorus (P)-Total		0.383	0.379		mg/L	1.1	20	04-JUN-16
WG2321135-7 DUP		**L1772436-22**						
Phosphorus (P)-Total		<0.020	<0.020	RPD-NA	mg/L	N/A	20	04-JUN-16
WG2321135-1 MB								
Phosphorus (P)-Total			<0.0020		mg/L		0.002	04-JUN-16
WG2321135-9 MB								
Phosphorus (P)-Total			<0.0020		mg/L		0.002	04-JUN-16
WG2321135-4 MS		**L1772436-3**						
Phosphorus (P)-Total			88.4		%		70-130	04-JUN-16
WG2321135-8 MS		**L1772436-23**						
Phosphorus (P)-Total			97.7		%		70-130	04-JUN-16
Batch R3474209								
WG2322384-2 CRM		**VA-ERA-PO4**						
Phosphorus (P)-Total			116.1		%		80-120	07-JUN-16
WG2322384-3 DUP		**L1772436-7**						
Phosphorus (P)-Total		<2.0	<2.0	RPD-NA	mg/L	N/A	20	07-JUN-16
WG2322384-1 MB								
Phosphorus (P)-Total			<0.0020		mg/L		0.002	07-JUN-16
WG2322384-4 MS		**L1772436-8**						
Phosphorus (P)-Total			99.9		%		70-130	07-JUN-16
S-DIS-ICP-VA	**Water**							
Batch R3468717								
WG2315025-3 DUP		**L1772436-2**						
Sulfur (S)-Dissolved		187	186		mg/L	0.3	20	26-MAY-16
WG2315025-4 DUP		**L1772436-26**						
Sulfur (S)-Dissolved		4720	4730		mg/L	0.2	20	26-MAY-16
WG2315025-5 DUP		**L1772436-43**						
Sulfur (S)-Dissolved		658	645		mg/L	2.1	20	26-MAY-16
WG2315025-2 LCS								
Sulfur (S)-Dissolved			100.3		%		80-120	26-MAY-16
WG2315025-1 MB								
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	26-MAY-16
WG2315025-6 MS		**L1772436-14**						

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
S-DIS-ICP-VA	**Water**							
Batch R3468717								
WG2315025-6 MS		**L1772436-14**						
Sulfur (S)-Dissolved			N/A	MS-B	%		-	26-MAY-16
WG2315025-7 MS		**L1772436-37**						
Sulfur (S)-Dissolved			N/A	MS-B	%		-	26-MAY-16
WG2315025-8 MS		**L1772436-50**						
Sulfur (S)-Dissolved			N/A	MS-B	%		-	26-MAY-16
SO4-IC-N-WR	**Water**							
Batch R3466483								
WG2314004-11 DUP		**L1772436-54**						
Sulfate (SO4)		34.7	34.7		mg/L	0.0	20	24-MAY-16
WG2314004-3 DUP		**L1772436-4**						
Sulfate (SO4)		208	208		mg/L	0.0	20	24-MAY-16
WG2314004-7 DUP		**L1772436-19**						
Sulfate (SO4)		134	135		mg/L	0.2	20	24-MAY-16
WG2314004-10 LCS								
Sulfate (SO4)			90.8		%		90-110	24-MAY-16
WG2314004-2 LCS								
Sulfate (SO4)			90.5		%		90-110	24-MAY-16
WG2314004-6 LCS								
Sulfate (SO4)			90.2		%		90-110	24-MAY-16
WG2314004-1 MB								
Sulfate (SO4)			<0.30		mg/L		0.3	24-MAY-16
WG2314004-5 MB								
Sulfate (SO4)			<0.30		mg/L		0.3	24-MAY-16
WG2314004-9 MB								
Sulfate (SO4)			<0.30		mg/L		0.3	24-MAY-16
WG2314004-12 MS		**L1772436-48**						
Sulfate (SO4)			N/A	MS-B	%		-	24-MAY-16
WG2314004-4 MS		**L1772436-3**						
Sulfate (SO4)			N/A	MS-B	%		-	24-MAY-16
WG2314004-8 MS		**L1772436-25**						
Sulfate (SO4)			99.8		%		75-125	24-MAY-16
Batch R3469821								
WG2316521-3 DUP		**L1772436-39**						
Sulfate (SO4)		66200	63100		mg/L	4.7	20	28-MAY-16
WG2316521-2 LCS								
Sulfate (SO4)			90.7		%		90-110	28-MAY-16
WG2316521-1 MB								

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
SO4-IC-N-WR	**Water**							
Batch R3469821								
WG2316521-1 MB								
Sulfate (SO4)			<0.30		mg/L		0.3	28-MAY-16
WG2316521-4 MS		**L1772436-40**						
Sulfate (SO4)			N/A	MS-B	%		-	28-MAY-16
TDS-VA	**Water**							
Batch R3466356								
WG2315158-3 DUP		**L1772436-1**						
Total Dissolved Solids		1740	1700		mg/L	2.2	20	26-MAY-16
WG2315158-6 DUP		**L1772436-21**						
Total Dissolved Solids		1560	1570		mg/L	1.0	20	26-MAY-16
WG2315158-9 DUP		**L1772436-41**						
Total Dissolved Solids		6790	6880		mg/L	1.3	20	26-MAY-16
WG2315158-2 LCS								
Total Dissolved Solids			99.5		%		85-115	26-MAY-16
WG2315158-5 LCS								
Total Dissolved Solids			100.6		%		85-115	26-MAY-16
WG2315158-8 LCS								
Total Dissolved Solids			103.3		%		85-115	26-MAY-16
WG2315158-1 MB								
Total Dissolved Solids			<10		mg/L		10	26-MAY-16
WG2315158-4 MB								
Total Dissolved Solids			<10		mg/L		10	26-MAY-16
WG2315158-7 MB								
Total Dissolved Solids			<10		mg/L		10	26-MAY-16
TSS-LOW-VA	**Water**							
Batch R3466359								
WG2315161-2 LCS								
Total Suspended Solids			97.9		%		85-115	26-MAY-16
WG2315161-4 LCS								
Total Suspended Solids			99.5		%		85-115	26-MAY-16
WG2315161-6 LCS								
Total Suspended Solids			103.2		%		85-115	26-MAY-16
WG2315161-1 MB								
Total Suspended Solids			<1.0		mg/L		1	26-MAY-16
WG2315161-3 MB								
Total Suspended Solids			<1.0		mg/L		1	26-MAY-16
WG2315161-5 MB								
Total Suspended Solids			<1.0		mg/L		1	26-MAY-16

Quality Control Report

Workorder: L1772436 Report Date: 13-JUN-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
DLA	Detection Limit adjusted for required dilution
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
J	Duplicate results and limits are expressed in terms of absolute difference.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Quality Control Report

Workorder: L1772436 Report Date: 13-JUN-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Anions and Nutrients							
Alkalinity Species by Titration							
	24	20-MAY-16 14:05	07-JUN-16 09:50	14	18	days	EHT
Nitrate in Water by IC (Low Level)							
	1	19-MAY-16 09:55	24-MAY-16 15:30	3	5	days	EHTR
	2	19-MAY-16 16:59	24-MAY-16 15:30	3	5	days	EHTR
	3	19-MAY-16 10:40	24-MAY-16 15:30	3	5	days	EHTR
	4	19-MAY-16 12:20	24-MAY-16 15:30	3	5	days	EHTR
	5	19-MAY-16 12:00	24-MAY-16 15:30	3	5	days	EHTR
	6	19-MAY-16 11:00	24-MAY-16 15:30	3	5	days	EHTR
	7	19-MAY-16 09:00	24-MAY-16 15:30	3	5	days	EHTR
	8	19-MAY-16 10:07	24-MAY-16 15:30	3	5	days	EHTR
	9	19-MAY-16 09:00	24-MAY-16 15:30	3	5	days	EHTR
	10	19-MAY-16 15:20	24-MAY-16 15:30	3	5	days	EHTR
	11	19-MAY-16 16:00	24-MAY-16 15:30	3	5	days	EHTR
	12	19-MAY-16 15:20	24-MAY-16 15:30	3	5	days	EHTR
	13	19-MAY-16 14:10	24-MAY-16 15:30	3	5	days	EHTR
	14	19-MAY-16 16:22	24-MAY-16 15:30	3	5	days	EHTR
	15	20-MAY-16 09:30	24-MAY-16 15:30	3	4	days	EHTR
	16	20-MAY-16 12:15	24-MAY-16 15:30	3	4	days	EHTR
	17	20-MAY-16 11:40	24-MAY-16 15:30	3	4	days	EHTR
	18	20-MAY-16 15:30	24-MAY-16 15:30	3	4	days	EHTR
	19	20-MAY-16 13:30	24-MAY-16 15:30	3	4	days	EHTR
	20	20-MAY-16 11:50	24-MAY-16 15:30	3	4	days	EHTR
	21	20-MAY-16 11:50	24-MAY-16 15:30	3	4	days	EHTR
	22	20-MAY-16 12:35	24-MAY-16 15:30	3	4	days	EHTR
	23	20-MAY-16 12:55	24-MAY-16 15:30	3	4	days	EHTR
	24	20-MAY-16 14:05	24-MAY-16 15:30	3	4	days	EHTR
	25	20-MAY-16 11:27	24-MAY-16 15:30	3	4	days	EHTR
	26	20-MAY-16 09:35	24-MAY-16 15:30	3	4	days	EHTR
	27	20-MAY-16 10:00	24-MAY-16 15:30	3	4	days	EHTR
	28	20-MAY-16 10:00	24-MAY-16 15:30	3	4	days	EHTR
	29	20-MAY-16 15:30	24-MAY-16 15:30	3	4	days	EHTR
Nitrite in Water by IC (Low Level)							
	1	19-MAY-16 09:55	24-MAY-16 15:30	3	5	days	EHTR
	2	19-MAY-16 16:59	24-MAY-16 15:30	3	5	days	EHTR
	3	19-MAY-16 10:40	24-MAY-16 15:30	3	5	days	EHTR
	4	19-MAY-16 12:20	24-MAY-16 15:30	3	5	days	EHTR
	5	19-MAY-16 12:00	24-MAY-16 15:30	3	5	days	EHTR
	6	19-MAY-16 11:00	24-MAY-16 15:30	3	5	days	EHTR
	7	19-MAY-16 09:00	24-MAY-16 15:30	3	5	days	EHTR
	8	19-MAY-16 10:07	24-MAY-16 15:30	3	5	days	EHTR
	9	19-MAY-16 09:00	24-MAY-16 15:30	3	5	days	EHTR
	10	19-MAY-16 15:20	24-MAY-16 15:30	3	5	days	EHTR
	11	19-MAY-16 16:00	24-MAY-16 15:30	3	5	days	EHTR
	12	19-MAY-16 15:20	24-MAY-16 15:30	3	5	days	EHTR
	13	19-MAY-16 14:10	24-MAY-16 15:30	3	5	days	EHTR
	14	19-MAY-16 16:22	24-MAY-16 15:30	3	5	days	EHTR
	15	20-MAY-16 09:30	24-MAY-16 15:30	3	4	days	EHTR
	16	20-MAY-16 12:15	24-MAY-16 15:30	3	4	days	EHTR
	17	20-MAY-16 11:40	24-MAY-16 15:30	3	4	days	EHTR
	18	20-MAY-16 15:30	24-MAY-16 15:30	3	4	days	EHTR
	19	20-MAY-16 13:30	24-MAY-16 15:30	3	4	days	EHTR
	20	20-MAY-16 11:50	24-MAY-16 15:30	3	4	days	EHTR

Quality Control Report

Workorder: L1772436 Report Date: 13-JUN-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Anions and Nutrients							
Nitrite in Water by IC (Low Level)							
	21	20-MAY-16 11:50	24-MAY-16 15:30	3	4	days	EHTR
	22	20-MAY-16 12:35	24-MAY-16 15:30	3	4	days	EHTR
	23	20-MAY-16 12:55	24-MAY-16 15:30	3	4	days	EHTR
	24	20-MAY-16 14:05	24-MAY-16 15:30	3	4	days	EHTR
	25	20-MAY-16 11:27	24-MAY-16 15:30	3	4	days	EHTR
	26	20-MAY-16 09:35	24-MAY-16 15:30	3	4	days	EHTR
	27	20-MAY-16 10:00	24-MAY-16 15:30	3	4	days	EHTR
	28	20-MAY-16 10:00	24-MAY-16 15:30	3	4	days	EHTR
	29	20-MAY-16 15:30	24-MAY-16 15:30	3	4	days	EHTR
Dissolved Metals							
Diss. Ferrous Iron in Water by Colour							
	21	20-MAY-16 11:50	04-JUN-16 08:00	7	15	days	EHT

Legend & Qualifier Definitions:

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
EHTR: Exceeded ALS recommended hold time prior to sample receipt.
EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
EHT: Exceeded ALS recommended hold time prior to analysis.
Rec. HT: ALS recommended hold time (see units).

Notes*:
Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L1772436 were received on 24-MAY-16 10:30.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

Short Holding Time

L1772436-COFC

Rush Processing

CH2MHILL **CHAIN OF CUSTODY RECORD** *5/24/2016 2:28:20 PM* Page 1 OF 4

Project Name Faro Mine
Location Faro Mine Complex - Faro YK
Project Number 673709.20.01.01.04.03.SS.
Project Manager BT Thomas
Sample Manager Damion Miles

Task Order SW-015
Project FARO MINE SPRING SEEP 2016
Turnaround Time 10 Days
Shipping Date: 5/21/2016
COC Number: ALS05221601

	Container:	40ml vial	125ml Poly	125ml glass	500ml Poly	500ml Poly	500ml Poly	125ml glass	125ml Glass	125ml Poly	125mL Poly	500ml Poly	500ml Poly			
	Preservatives:	HCl, 4°C	HCl, 4°C	H2SO4, pH<2, 4C	4C	4C	4°C	H2SO4, pH<2, 4C	H2SO4, pH<2, 4°C	HNO3, 4°C	NaOH, 4°C	4C	4°C			
	Filtered:	Field	Field	NA	NA	NA	NA	NA	Field	Field	NA	NA	NA			
	Holding Time:	28	180	28	14	14	7	28	28	180	14	14	3			
		(E245.7-Diss) Field Filtered Dissolved Hg	(Ferrozine Method) Field Filtered Ferrous Iron	(JEM/SM4500NH3) Ammonia	(SM2320B) Alkalinity	(SM2540C) TDS	(SM2540D) TSS	(SM4500P) Total Phosphorus	(SM5310) Field Filtered DOC	(SW6010B/SW6020A) Field Filtered For Metals Analyte List see Table 1	ASTM 7237 Cyanide	SM2310_HP Acidity - Run Hot H2O2	SM4110B CL F NO2 NO3 and SO4		Number of Containers	COMMENTS
A30_SESP16	5/19/2016 9:55 Water	X	X	X		X	X	X	X	X		X	X		8	
CH-FD-70_SESP16	5/19/2016 16:59 Water	X	X	X	X	X	X	X	X	X		X	X		8	
CH-FP-31_SESP16	5/19/2016 10:40 Water	X	X	X	X	X	X	X	X	X		X	X		8	
CH-FP-33_SESP16	5/19/2016 12:20 Water	X	X	X	X	X	X	X	X	X		X	X		8	
CH-FP-34_SESP16	5/19/2016 12:00 Water	X	X	X	X	X	X	X	X	X		X	X		8	
CH-FP-36_SESP16	5/19/2016 11:00 Water	X	X	X	X	X	X	X	X	X		X	X		8	
FCS-2_SESP16	5/19/2016 9:00 Water	X	X	X		X	X	X	X	X	X	X	X		9	
FCS-4_SESP16	5/19/2016 10:07 Water	X	X	X	X	X	X	X	X	X	X	X	X		9	
FCS-902_SESP16	5/19/2016 9:00 Water	X	X	X		X	X	X	X	X		X	X		8	
SRK-FD13_SESP16	5/19/2016 15:20 Water	X	X	X		X	X	X	X	X		X	X		8	
SRK-FD14_SESP16	5/19/2016 16:00 Water	X	X	X	X	X	X	X	X	X		X	X		8	
SRK-FD23_SESP16	5/19/2016 15:20 Water	X	X	X		X	X	X	X	X		X	X		8	
SRK-FD24_SESP16	5/19/2016 14:10 Water	X	X	X		X	X	X	X	X		X	X		8	
SRK-FD26_SESP16	5/19/2016 16:22 Water	X	X	X	X	X	X	X	X	X		X	X		8	

Signatures	Date/Time
Approved by	
Sampled by	
Relinquished by	
Received by	
Relinquished by	
Received by	

Shipping Details
Method of Shipment: FedEx
On Ice: yes / no
Airbill No:
Lab Name: ALS Vancouver
Lab Phone: (604) 253-4188

ATTN:
Sample Custody
and
Amber Springer

Special Instructions:

Report Copy to
Mark Cichy
(530) 229-3274



L1772436-COFC

CH2MHILL

CHAIN OF CUSTODY RECORD

5/24/2016 2:28:21 PM

Project Name Faro Mine
Location Faro Mine Complex - Faro YK
Project Number 673709.20.01.01.04.03.SS.
Project Manager BT Thomas
Sample Manager Damion Miles

Task Order SW-015
Project FARO MINE SPRING SEEP 2016
Turnaround Time 10 Days
Shipping Date: 5/21/2016
COC Number: ALS05221601

	DATE	TIME	Matrix	40ml vial HCl, 4°C Field (E245.7-Diss) Field Filtered Dissolved Hg	125ml Poly HCl, 4°C Field (Ferrozine Method) Field Filtered Ferrous Iron	125ml glass H2SO4, pH<2, 4C NA (JEM/SM4500NH3) Ammonia	500ml Poly 4C 14 (SM2320B) Alkalinity	500ml Poly 4C 14 (SM2540C) TDS	500ml Poly 4°C 7 (SM2540D) TSS	125ml glass H2SO4, pH<2, 4C 28 (SM4500P) Total Phosphorus	125ml Glass H2SO4, pH<2, 4°C Field 28 (SM5310) Field Filtered DOC	125ml Poly HNO3, 4°C Field 180 (SW6010B/SW6020A) Field Filtered For Metals Analyte List see Table 1	125mL Poly NaOH, 4°C 14 ASTM 7237 Cyanide	500ml Poly 4C NA 14 SM2310_HP Acidity - Run Hot H2O2	500ml Poly 4°C NA 3 SM4110B Cl F NO2 NO3 and SO4		Number of Containers	COMMENTS
CH-FD-56_SESP16	5/20/2016	9:30	Water	X	X	X	X	X	X	X	X	X		X	X		8	
CH-FD-75_SESP16	5/20/2016	12:15	Water	X	X	X	X	X	X	X	X	X		X	X		8	
CH-FP-35_SESP16	5/20/2016	11:40	Water	X	X	X	X	X	X	X	X	X		X	X		8	
CH-GP-19_SESP16	5/20/2016	15:30	Water	X	X	X	X	X	X	X	X	X		X	X		8	
NE1_SESP16	5/20/2016	13:30	Water	X	X	X	X	X	X	X	X	X		X	X		8	
NE2_SESP16	5/20/2016	11:50	Water	X	X	X	X	X	X	X	X	X		X	X		8	
NE902_SESP16	5/20/2016	11:50	Water	X	X	X	X	X	X	X	X	X		X	X		8	
SRK-FD05_SESP16	5/20/2016	12:35	Water	X	X	X	X	X	X	X	X	X		X	X		8	
SRK-FD06_SESP16	5/20/2016	12:55	Water	X	X	X	X	X	X	X	X	X		X	X		8	
SRK-FD08_SESP16	5/20/2016	14:05	Water	X	X	X	X	X	X	X	X	X		X	X		8	
SRK-FD18_SESP16	5/20/2016	11:27	Water	X	X	X	X	X	X	X	X	X		X	X		8	
SRK-FD54_SESP16	5/20/2016	9:35	Water	X	X	X	X	X	X	X	X	X		X	X		8	
SRK-FD55_SESP16	5/20/2016	10:00	Water	X	X	X	X	X	X	X	X	X		X	X		8	
SRK-FD955_SESP16	5/20/2016	10:00	Water	X	X	X	X	X	X	X	X	X		X	X		8	

Signatures	Date/Time
Approved by	
Sampled by	
Relinquished by	
Received by	
Relinquished by	
Received by	

Shipping Details
Method of Shipment: FedEx
On Ice: yes / no
Airbill No:
Lab Name: ALS Vancouver
Lab Phone: (604) 253-4188

ATTN:
Sample Custody
and
Amber Springer

Special Instructions:

Report Copy to
Mark Cichy
(530) 229-3274



L1772436-COFC

CH2MHILL **CHAIN OF CUSTODY RECORD** *5/24/2016 2:28:22 PM* Page 3 OF 4

Project Name Faro Mine
Location Faro Mine Complex - Faro YK
Project Number 673709.20.01.01.04.03.SS.
Project Manager BT Thomas
Sample Manager Damion Miles

Task Order SW-015
Project FARO MINE SPRING SEEP 2016
Turnaround Time 10 Days
Shipping Date: 5/21/2016
COC Number: ALS05221601

				Container:	40ml vial	125ml Poly	125ml glass	500ml Poly	500ml Poly	500ml Poly	125ml glass	125ml Glass	125ml Poly	125mL Poly	500ml Poly	500ml Poly			
				Preservatives:	HCl, 4°C	HCl, 4°C	H2SO4, pH<2, 4C	4C	4C	4°C	H2SO4, pH<2, 4C	H2SO4, pH<2, 4°C	HNO3, 4°C	NaOH, 4°C	4C	4°C			
				Filtered:	Field	Field	NA	NA	NA	NA	NA	Field	Field	NA	NA	NA			
				Holding Time:	28	180	28	14	14	7	28	28	180	14	14	3			
					(E245.7-Diss) Field Filtered Dissolved Hg	(Ferrozine Method) Field Filtered Ferrous Iron	(JEM/SM4500NH3) Ammonia	(SM2320B) Alkalinity	(SM2540C) TDS	(SM2540D) TSS	(SM4500P) Total Phosphorus	(SM5310) Field Filtered DOC	(SW6010B/SW6020A) Field Filtered For Metals Analyte List see Table 1	ASTM 7237 Cyanide	SM2310_HP Acidity - Run Hot H2O2	SM4110B CL F NO2 NO3 and SO4		Number of Containers	COMMENTS
	DATE	TIME	Matrix																
SRK-GD01_SESP16	5/20/2016	15:30	Water	X	X	X	X	X	X	X	X	X		X	X		8	
CH-VP-17_SESP16	5/21/2016	8:45	Water	X	X	X		X	X	X	X	X		X	X		8	
GP02_SESP16	5/21/2016	13:50	Water	X	X	X	X	X	X	X	X	X			X		8	
GP09_SESP16	5/21/2016	15:00	Water	X	X	X	X	X	X	X	X	X		X	X		8	
GP12_SESP16	5/21/2016	14:10	Water	X	X	X	X	X	X	X	X	X		X	X		8	
SRK-GD07_SESP16	5/21/2016	15:05	Water	X	X	X	X	X	X	X	X	X		X	X		8	
SRK-GD11_SESP16	5/21/2016	14:20	Water	X	X	X	X	X	X	X	X	X		X	X		8	
SRK-VD01_SESP16	5/21/2016	11:25	Water	X	X	X	X	X	X	X	X	X		X	X		8	
SRK-VD02_SESP16	5/21/2016	12:05	Water	X	X	X	X	X	X	X	X	X		X	X		8	
SRK-VD03_SESP16	5/21/2016	12:40	Water	X	X	X	X	X	X	X	X	X		X	X		8	
SRK-VD04_SESP16	5/21/2016	11:40	Water	X	X	X		X	X	X	X	X		X	X		8	
SRK-VD05_SESP16	5/21/2016	12:20	Water	X	X	X		X	X	X	X	X		X	X		8	
SRK-VD09_SESP16	5/21/2016	10:30	Water	X	X	X		X	X	X	X	X		X	X		8	
SRK-VD10_SESP16	5/21/2016	13:05	Water	X	X	X	X	X	X	X	X	X		X	X		8	

Signatures	Date/Time
Approved by	
Sampled by	
Relinquished by	
Received by	
Relinquished by	
Received by	

Shipping Details
Method of Shipment: FedEx
On Ice: yes / no
Airbill No:
Lab Name: ALS Vancouver
Lab Phone: (604) 253-4188

ATTN:
Sample Custody
and
Amber Springer

Special Instructions:

Report Copy to
Mark Clchy
(530) 229-3274



L1772436-COFC

CH2MHILL

CHAIN OF CUSTODY RECORD

5/24/2016 2:28:23 PM

Project Name Faro Mine
Location Faro Mine Complex - Faro YK
Project Number 673709.20.01.01.04.03.SS.
Project Manager BT Thomas
Sample Manager Damion Miles

Task Order SW-015
Project FARO MINE SPRING SEEP 2016
Turnaround Time 10 Days
Shipping Date: 5/21/2016
COC Number: ALS05221601

	Container:	40ml vial	125ml Poly	125ml glass	500ml Poly	500ml Poly	500ml Poly	125ml glass	125ml Glass	125ml Poly	125mL Poly	500ml Poly	500ml Poly		
	Preservatives:	HCl, 4°C	HCl, 4°C	H2SO4, pH<2, 4C	4C	4C	4°C	H2SO4, pH<2, 4C	H2SO4, pH<2, 4°C	HNO3, 4°C	NaOH, 4°C	4C	4°C		
	Filtered:	Field	Field	NA	NA	NA	NA	NA	Field	Field	NA	NA	NA		
	Holding Time:	28	180	28	14	14	7	28	28	180	14	14	3		
		(E245.7-Diss) Field Filtered Dissolved Hg	(Ferrozine Method) Field Filtered Ferrous Iron	(JEM/SM4500NH3) Ammonia	(SM2320B) Alkalinity	(SM2540C) TDS	(SM2540D) TSS	(SM4500P) Total Phosphorus	(SM5310) Field Filtered DOC	(SW6010B/SW6020A) Field Filtered For Metals Analyte List see Table 1	ASTM 7237 Cyanide	SM2310_HP Acidity - Run Hot H2O2	SM4110B CL F NO2 NO3 and SO4		Number of Containers	COMMENTS
	DATE / TIME / Matrix															
SRK-VD12_SESP16	5/21/2016 10:35 Water	X	X	X		X	X	X	X	X		X	X		8	
SRK-VD902_SESP16	5/21/2016 12:05 Water	X	X	X	X	X	X	X	X	X		X	X		8	
SRK-VD905_SESP16	5/21/2016 12:20 Water	X	X	X		X	X	X	X	X		X	X		8	
VP09_SESP16	5/21/2016 9:40 Water	X	X	X	X	X	X	X	X	X		X	X		8	
GD05 D-S_SESP16	5/22/2016 10:10 Water	X	X	X	X	X	X	X	X	X			X		8	
Sheep Creek_SESP16	5/22/2016 9:00 Water	X	X	X	X	X	X	X	X	X			X		8	
SRK-GD05_SESP16	5/22/2016 9:15 Water	X	X	X	X	X	X	X	X	X		X	X		8	
SRK-GD13_SESP16	5/22/2016 12:20 Water	X	X	X	X	X	X	X	X	X		X	X		8	
SRK-GD24_SESP16	5/22/2016 11:10 Water	X	X	X	X	X	X	X	X	X		X	X		8	
Sweet Creek_SESP16	5/22/2016 9:35 Water	X	X	X	X	X	X	X	X	X			X		8	
WGD01_SESP16	5/22/2016 10:30 Water	X	X	X	X	X	X	X	X	X		X	X		8	
WTA02_SESP16	5/22/2016 11:45 Water	X	X	X	X	X	X	X	X	X			X		8	
														TOTAL NUMBER OF CONTAINERS	434	

Signatures	Date/Time
Approved by	
Sampled by	
Relinquished by	
Received by	
Relinquished by	
Received by	

Shipping Details

Method of Shipment: FedEx
On Ice: yes / no
Airbill No:
Lab Name: ALS Vancouver
Lab Phone: (604) 253-4188

ATTN:

Sample Custody
and
Amber Springer

Special Instructions:

Report Copy to
Mark Cichy
(530) 229-3274

CH2M HILL, INC
ATTN: Mark Cichy
2525 Airpark Drive
Redding CA 96001

Date Received: 03-JUN-16
Report Date: 20-JUN-16 11:34 (MT)
Version: FINAL

Client Phone: 530-229-3203

Certificate of Analysis

Lab Work Order #: L1778028

Project P.O. #: 674521.20.01.01.02.03 "PO=10201-7-100939"
Job Reference: WRD MONITORING 2016 TAR 20
C of C Numbers: ALS060216
Legal Site Desc:

Amber Springer, B.Sc
Account Manager

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1778028-1 CH12-014-MW007_GW0616							
Sampled By: CLIENT on 01-JUN-16 @ 12:05							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	517		1.0	mg/L		14-JUN-16	R3479325
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		14-JUN-16	R3479325
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		14-JUN-16	R3479325
Alkalinity, Total (as CaCO3)	517		1.0	mg/L		14-JUN-16	R3479325
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	14		10	mg/L		04-JUN-16	R3474996
Fluoride in Water by IC							
Fluoride (F)	0.92		0.40	mg/L		04-JUN-16	R3474996
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.10	DLA	0.10	mg/L		04-JUN-16	R3474996
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLA	0.020	mg/L		04-JUN-16	R3474996
Sulfate in Water by IC							
Sulfate (SO4)	4820		6.0	mg/L		04-JUN-16	R3474996
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	07-JUN-16	07-JUN-16	R3474392
Dissolved Mercury Filtration Location	FIELD					07-JUN-16	R3473936
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					05-JUN-16	R3472805
Aluminum (Al)-Dissolved	0.177		0.050	mg/L	05-JUN-16	14-JUN-16	R3473786
Antimony (Sb)-Dissolved	<0.0050	DLA	0.0050	mg/L	05-JUN-16	14-JUN-16	R3473786
Arsenic (As)-Dissolved	<0.0050	DLA	0.0050	mg/L	05-JUN-16	14-JUN-16	R3473786
Barium (Ba)-Dissolved	0.0233		0.0025	mg/L	05-JUN-16	14-JUN-16	R3473786
Beryllium (Be)-Dissolved	<0.0050	DLA	0.0050	mg/L	05-JUN-16	14-JUN-16	R3473786
Boron (B)-Dissolved	<0.50	DLA	0.50	mg/L	05-JUN-16	14-JUN-16	R3473786
Cadmium (Cd)-Dissolved	0.316		0.00025	mg/L	05-JUN-16	14-JUN-16	R3473786
Chromium (Cr)-Dissolved	<0.0050	DLA	0.0050	mg/L	05-JUN-16	14-JUN-16	R3473786
Cobalt (Co)-Dissolved	0.969		0.0050	mg/L	05-JUN-16	14-JUN-16	R3473786
Copper (Cu)-Dissolved	<0.010	DLA	0.010	mg/L	05-JUN-16	14-JUN-16	R3473786
Lead (Pb)-Dissolved	0.0096		0.0025	mg/L	05-JUN-16	14-JUN-16	R3473786
Lithium (Li)-Dissolved	0.117		0.050	mg/L	05-JUN-16	14-JUN-16	R3473786
Manganese (Mn)-Dissolved	70.4		0.0050	mg/L	05-JUN-16	14-JUN-16	R3473786
Molybdenum (Mo)-Dissolved	<0.0025	DLA	0.0025	mg/L	05-JUN-16	14-JUN-16	R3473786
Nickel (Ni)-Dissolved	1.63		0.025	mg/L	05-JUN-16	14-JUN-16	R3473786
Potassium (K)-Dissolved	12.5		2.5	mg/L	05-JUN-16	14-JUN-16	R3473786
Selenium (Se)-Dissolved	<0.0025	DLA	0.0025	mg/L	05-JUN-16	14-JUN-16	R3473786
Silver (Ag)-Dissolved	<0.00050	DLA	0.00050	mg/L	05-JUN-16	14-JUN-16	R3473786
Sodium (Na)-Dissolved	23.8		2.5	mg/L	05-JUN-16	14-JUN-16	R3473786
Strontium (Sr)-Dissolved	1.43		0.010	mg/L	05-JUN-16	14-JUN-16	R3473786
Thallium (Tl)-Dissolved	<0.00050	DLA	0.00050	mg/L	05-JUN-16	14-JUN-16	R3473786
Titanium (Ti)-Dissolved	<0.015	DLA	0.015	mg/L	05-JUN-16	14-JUN-16	R3473786
Uranium (U)-Dissolved	0.0648		0.00050	mg/L	05-JUN-16	14-JUN-16	R3473786
Vanadium (V)-Dissolved	<0.025	DLA	0.025	mg/L	05-JUN-16	14-JUN-16	R3473786
Zinc (Zn)-Dissolved	234		0.050	mg/L	05-JUN-16	14-JUN-16	R3473786
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					05-JUN-16	R3472805
Calcium (Ca)-Dissolved	515		0.10	mg/L	05-JUN-16	06-JUN-16	R3473806
Iron (Fe)-Dissolved	1.86		0.060	mg/L	05-JUN-16	06-JUN-16	R3473806
Magnesium (Mg)-Dissolved	830		0.20	mg/L	05-JUN-16	06-JUN-16	R3473806

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1778028-1 CH12-014-MW007_GW0616							
Sampled By: CLIENT on 01-JUN-16 @ 12:05							
Matrix: Water							
Dissolved Metals in Water by ICPOES							
Phosphorus (P)-Dissolved	<0.60	DLA	0.60	mg/L	05-JUN-16	06-JUN-16	R3473806
Silicon (Si)-Dissolved	12.5		0.10	mg/L	05-JUN-16	06-JUN-16	R3473806
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	26.8		0.21	mg/L		08-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					05-JUN-16	R3472805
Sulfur (S)-Dissolved	1500		1.0	mg/L	05-JUN-16	06-JUN-16	R3473806
Hardness							
Hardness (as CaCO3)	4700		0.86	mg/L		15-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		12-JUN-16	R3479237
Ammonia, Total (as N)	0.310		0.0050	mg/L		17-JUN-16	R3482780
Dissolved Organic Carbon	7.47		0.50	mg/L		15-JUN-16	R3480789
Total Dissolved Solids	7930		20	mg/L		08-JUN-16	R3478935
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		10-JUN-16	R3476583
Total Suspended Solids	261		1.0	mg/L		07-JUN-16	R3475693
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	2.00		0.10	mg/L	08-JUN-16	08-JUN-16	R3474785
Dissolved Fe2 Filtration Location	FIELD					08-JUN-16	R3474776
L1778028-2 CH14-015-MW006_GW0616							
Sampled By: CLIENT on 01-JUN-16 @ 15:10							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	77.7		1.0	mg/L		14-JUN-16	R3479325
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		14-JUN-16	R3479325
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		14-JUN-16	R3479325
Alkalinity, Total (as CaCO3)	77.7		1.0	mg/L		14-JUN-16	R3479325
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	2.8		2.5	mg/L		04-JUN-16	R3474996
Fluoride in Water by IC							
Fluoride (F)	1.75		0.10	mg/L		04-JUN-16	R3474996
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.901		0.025	mg/L		04-JUN-16	R3474996
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	0.0256		0.0050	mg/L		04-JUN-16	R3474996
Sulfate in Water by IC							
Sulfate (SO4)	1370		1.5	mg/L		04-JUN-16	R3474996
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	07-JUN-16	07-JUN-16	R3474392
Dissolved Mercury Filtration Location	FIELD					07-JUN-16	R3473936
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					05-JUN-16	R3472805
Aluminum (Al)-Dissolved	2.00		0.0050	mg/L	05-JUN-16	14-JUN-16	R3473786
Antimony (Sb)-Dissolved	<0.00050	DLA	0.00050	mg/L	05-JUN-16	14-JUN-16	R3473786
Arsenic (As)-Dissolved	0.0402		0.00050	mg/L	05-JUN-16	14-JUN-16	R3473786
Barium (Ba)-Dissolved	0.0849		0.00025	mg/L	05-JUN-16	14-JUN-16	R3473786
Beryllium (Be)-Dissolved	0.00186		0.00050	mg/L	05-JUN-16	14-JUN-16	R3473786
Boron (B)-Dissolved	<0.050	DLA	0.050	mg/L	05-JUN-16	14-JUN-16	R3473786

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1778028-2 CH14-015-MW006_GW0616							
Sampled By: CLIENT on 01-JUN-16 @ 15:10							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Cadmium (Cd)-Dissolved	0.0316		0.000025	mg/L	05-JUN-16	14-JUN-16	R3473786
Chromium (Cr)-Dissolved	0.00102		0.00050	mg/L	05-JUN-16	14-JUN-16	R3473786
Cobalt (Co)-Dissolved	0.397		0.00050	mg/L	05-JUN-16	14-JUN-16	R3473786
Copper (Cu)-Dissolved	0.0995		0.0010	mg/L	05-JUN-16	14-JUN-16	R3473786
Lead (Pb)-Dissolved	0.00140		0.00025	mg/L	05-JUN-16	14-JUN-16	R3473786
Lithium (Li)-Dissolved	0.0866		0.0050	mg/L	05-JUN-16	14-JUN-16	R3473786
Manganese (Mn)-Dissolved	16.1		0.00050	mg/L	05-JUN-16	14-JUN-16	R3473786
Molybdenum (Mo)-Dissolved	0.00078		0.00025	mg/L	05-JUN-16	14-JUN-16	R3473786
Nickel (Ni)-Dissolved	0.280		0.0025	mg/L	05-JUN-16	14-JUN-16	R3473786
Potassium (K)-Dissolved	5.26		0.25	mg/L	05-JUN-16	14-JUN-16	R3473786
Selenium (Se)-Dissolved	<0.00025	DLA	0.00025	mg/L	05-JUN-16	14-JUN-16	R3473786
Silver (Ag)-Dissolved	<0.000050	DLA	0.000050	mg/L	05-JUN-16	14-JUN-16	R3473786
Sodium (Na)-Dissolved	12.0		0.25	mg/L	05-JUN-16	14-JUN-16	R3473786
Strontium (Sr)-Dissolved	0.746		0.0010	mg/L	05-JUN-16	14-JUN-16	R3473786
Thallium (Tl)-Dissolved	<0.000050	DLA	0.000050	mg/L	05-JUN-16	14-JUN-16	R3473786
Titanium (Ti)-Dissolved	<0.0015	DLA	0.0015	mg/L	05-JUN-16	14-JUN-16	R3473786
Uranium (U)-Dissolved	0.00463		0.000050	mg/L	05-JUN-16	14-JUN-16	R3473786
Vanadium (V)-Dissolved	<0.0025	DLA	0.0025	mg/L	05-JUN-16	14-JUN-16	R3473786
Zinc (Zn)-Dissolved	36.8		0.0050	mg/L	05-JUN-16	14-JUN-16	R3473786
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					05-JUN-16	R3472805
Calcium (Ca)-Dissolved	159		0.050	mg/L	05-JUN-16	06-JUN-16	R3473806
Iron (Fe)-Dissolved	86.9		0.030	mg/L	05-JUN-16	06-JUN-16	R3473806
Magnesium (Mg)-Dissolved	238		0.10	mg/L	05-JUN-16	06-JUN-16	R3473806
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	05-JUN-16	06-JUN-16	R3473806
Silicon (Si)-Dissolved	9.94		0.050	mg/L	05-JUN-16	06-JUN-16	R3473806
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	21.3		0.20	mg/L		06-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					05-JUN-16	R3472805
Sulfur (S)-Dissolved	463		0.50	mg/L	05-JUN-16	06-JUN-16	R3473806
Hardness							
Hardness (as CaCO3)	1380		0.50	mg/L		16-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	68		25	mg/L		12-JUN-16	R3479237
Ammonia, Total (as N)	1.16		0.025	mg/L		17-JUN-16	R3482780
Dissolved Organic Carbon	5.68		0.50	mg/L		15-JUN-16	R3480789
Total Dissolved Solids	2250		20	mg/L		08-JUN-16	R3478935
Phosphorus (P)-Total	<0.20	DLM	0.20	mg/L		10-JUN-16	R3476583
Total Suspended Solids	182		2.0	mg/L		07-JUN-16	R3475693
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	97.2		4.0	mg/L	08-JUN-16	08-JUN-16	R3474785
Dissolved Fe2 Filtration Location	FIELD					08-JUN-16	R3474776

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier Key:

Qualifier	Description
DLA	Detection Limit adjusted for required dilution
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ACY-H2O2-MAN-VA	Water	Acidity by Hot Peroxide Titration	APHA - ACIDITY (2310)
This analysis is carried out using procedures adapted from APHA Method 2310 "Acidity". The procedure involves preliminary sample treatment by the hot peroxide procedure, and Acidity is subsequently determined by potentiometric titration to a specified endpoint (i.e. pH = 8.3).			
ALK-TITR-VA	Water	Alkalinity Species by Titration	APHA 2320 Alkalinity
This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.			
CARBONS-DOC-VA	Water	Dissolved organic carbon by combustion	APHA 5310B TOTAL ORGANIC CARBON (TOC)
This analysis is carried out using procedures adapted from APHA Method 5310 "Total Organic Carbon (TOC)". Dissolved carbon (DOC) fractions are determined by filtering the sample through a 0.45 micron membrane filter prior to analysis.			
CL-IC-N-WR	Water	Chloride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
F-IC-N-WR	Water	Fluoride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
FE2-D-COL-VA	Water	Diss. Ferrous Iron in Water by Colour	APHA 3500-Fe B/James Ball et al (1999)
This analysis is carried out using procedures adapted from APHA 3500-Fe B and "A New Method for the Direct Determination of Dissolved Iron Concentration in Acid Mine Waters" published by James W. Ball et al (1999). The procedure involves preliminary sample filtration, and ferrous iron is determined using the "FerroZine" colourimetric method.			
HARDNESS-CALC-VA	Water	Hardness	APHA 2340B
Hardness (also known as Total Hardness) is calculated from the sum of Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. Dissolved Calcium and Magnesium concentrations are preferentially used for the hardness calculation.			
HG-D-CVAA-VA	Water	Diss. Mercury in Water by CVAAS or CVAFS	APHA 3030B/EPA 1631E (mod)
Water samples are filtered (0.45 um), preserved with hydrochloric acid, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS or CVAFS.			
MET-D-CCMS-VA	Water	Dissolved Metals in Water by CRC ICPMS	APHA 3030B/6020A (mod)
Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.			
Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			
MET-DIS-ICP-VA	Water	Dissolved Metals in Water by ICPOES	EPA SW-846 3005A/6010B
This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedure involves filtration (EPA Method 3005A) and analysis by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B).			
NH3-F-VA	Water	Ammonia in Water by Fluorescence	APHA 4500 NH3-NITROGEN (AMMONIA)
This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.			
NH3-F-VA	Water	Ammonia in Water by Fluorescence	J. ENVIRON. MONIT., 2005, 7, 37-42, RSC
This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.			
NO2-L-IC-N-WR	Water	Nitrite in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
NO3-L-IC-N-WR	Water	Nitrate in Water by IC (Low Level)	EPA 300.1 (mod)

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
P-T-PRES-COL-VA	Water	Total P in Water by Colour	APHA 4500-P Phosphorus
This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorus is determined colourimetrically after persulphate digestion of the sample.			
S-DIS-ICP-VA	Water	Dissolved Sulfur in Water by ICPOES	EPA SW-846 3005A/6010B
This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedures may involve preliminary sample treatment by acid digestion, using either hotblock or microwave oven, or filtration (EPA Method 3005A). Instrumental analysis is by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B).			
Method Limitation: This method will not give total sulfur results for all samples. Sulfide or other volatile forms of sulfur that may be present in submitted samples, is often lost during the sampling, preservation and analysis process. The data reported as total and/or dissolved sulfur represents all non-volatile forms of sulfur present in a particular sample.			
SIO2-D-CALC-VA	Water	Dissolved Silicon (reported as Silica)	CALCULATION
Dissolved Silicon (as SiO2) is a calculated parameter. Dissolved Silicon (as SiO2 mg/L) = 2.139 x Dissolved Silicon (mg/L).			
SO4-IC-N-WR	Water	Sulfate in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
TDS-VA	Water	Total Dissolved Solids by Gravimetric	APHA 2540 C - GRAVIMETRIC
This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, TDS is determined by evaporating the filtrate to dryness at 180 degrees celsius.			
TSS-LOW-WR	Water	Total Suspended Solids by Grav. (1 mg/L)	APHA 2540 D
This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Suspended Solids are determined by filtering a sample through a glass fibre filter and drying the filter at 104 degrees celsius.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WR	ALS ENVIRONMENTAL - WHITEHORSE, YUKON, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

ALS060216

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L1778028 Report Date: 20-JUN-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ACY-H2O2-MAN-VA	**Water**							
Batch **R3479237**								
WG2326067-2 **CRM**		**VA-ACY-M-CONTROL**						
Acidity-Hot Peroxide Treated (as CaCO3)			98.6		%		85-115	12-JUN-16
WG2326067-3 **DUP**		**L1778682-2**						
Acidity-Hot Peroxide Treated (as CaCO3)		<25	<25	RPD-NA	mg/L	N/A	20	12-JUN-16
WG2326067-1 **MB**								
Acidity-Hot Peroxide Treated (as CaCO3)			<25		mg/L		25	12-JUN-16
ALK-TITR-VA	**Water**							
Batch **R3479325**								
WG2326912-3 **CRM**		**VA-ALK-TITR-CONTROL**						
Alkalinity, Total (as CaCO3)			97.3		%		85-115	14-JUN-16
WG2326912-5 **DUP**		**L1778028-1**						
Alkalinity, Total (as CaCO3)		517	517		mg/L	0.0	20	14-JUN-16
WG2326912-1 **MB**								
Alkalinity, Total (as CaCO3)			1.0		mg/L		1	14-JUN-16
CARBONS-DOC-VA	**Water**							
Batch **R3480789**								
WG2328094-1 **DUP**		**L1778028-2**						
Dissolved Organic Carbon		5.68	5.59		mg/L	1.5	20	15-JUN-16
WG2328094-4 **LCS**								
Dissolved Organic Carbon			101.5		%		80-120	15-JUN-16
WG2328094-3 **MB**								
Dissolved Organic Carbon			<0.50		mg/L		0.5	15-JUN-16
WG2328094-2 **MS**		**L1778682-1**						
Dissolved Organic Carbon			108.9		%		70-130	15-JUN-16
CL-IC-N-WR	**Water**							
Batch **R3474996**								
WG2320989-3 **DUP**		**L1778028-1**						
Chloride (Cl)		14	14		mg/L	0.2	20	04-JUN-16
WG2320989-2 **LCS**								
Chloride (Cl)			100.6		%		90-110	04-JUN-16
WG2320989-1 **MB**								
Chloride (Cl)			<0.50		mg/L		0.5	04-JUN-16
WG2320989-4 **MS**		**L1778028-2**						
Chloride (Cl)			96.1		%		75-125	04-JUN-16
F-IC-N-WR	**Water**							

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F-IC-N-WR	**Water**							
Batch R3474996								
WG2320989-3 DUP		**L1778028-1**						
Fluoride (F)		0.92	0.82		mg/L	11	20	04-JUN-16
WG2320989-2 LCS								
Fluoride (F)			104.9		%		90-110	04-JUN-16
WG2320989-1 MB								
Fluoride (F)			<0.020		mg/L		0.02	04-JUN-16
WG2320989-4 MS		**L1778028-2**						
Fluoride (F)			N/A	MS-B	%		-	04-JUN-16
FE2-D-COL-VA	**Water**							
Batch R3474785								
WG2323284-3 DUP		**L1778028-1**						
Ferrous Iron, Dissolved		2.00	1.99		mg/L	0.4	20	08-JUN-16
WG2323284-2 LCS								
Ferrous Iron, Dissolved			105.3		%		80-120	08-JUN-16
WG2323284-1 MB								
Ferrous Iron, Dissolved			<0.020		mg/L		0.02	08-JUN-16
WG2323284-4 MS		**L1778028-1**						
Ferrous Iron, Dissolved			105.8		%		70-130	08-JUN-16
HG-D-CVAA-VA	**Water**							
Batch R3474392								
WG2322328-3 DUP		**L1778028-1**						
Mercury (Hg)-Dissolved		<0.0000050	<0.000005C	RPD-NA	mg/L	N/A	20	07-JUN-16
WG2322328-2 LCS								
Mercury (Hg)-Dissolved			99.5		%		80-120	07-JUN-16
WG2322328-1 MB								
Mercury (Hg)-Dissolved			<0.000005C		mg/L		0.000005	07-JUN-16
WG2322328-4 MS		**L1778028-2**						
Mercury (Hg)-Dissolved			88.1		%		70-130	07-JUN-16
MET-D-CCMS-VA	**Water**							
Batch R3473786								
WG2321526-3 DUP		**L1778028-1**						
Aluminum (Al)-Dissolved		0.177	0.146		mg/L	19	20	14-JUN-16
Antimony (Sb)-Dissolved		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	14-JUN-16
Arsenic (As)-Dissolved		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	14-JUN-16
Barium (Ba)-Dissolved		0.0233	0.0226		mg/L	3.0	20	14-JUN-16
Beryllium (Be)-Dissolved		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	14-JUN-16
Boron (B)-Dissolved		<0.50	<0.50	RPD-NA	mg/L	N/A	20	14-JUN-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3473786								
WG2321526-3 DUP		**L1778028-1**						
Cadmium (Cd)-Dissolved		0.316	0.309		mg/L	2.0	20	14-JUN-16
Chromium (Cr)-Dissolved		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	14-JUN-16
Cobalt (Co)-Dissolved		0.969	0.931		mg/L	4.0	20	14-JUN-16
Copper (Cu)-Dissolved		<0.010	<0.010	RPD-NA	mg/L	N/A	20	14-JUN-16
Lead (Pb)-Dissolved		0.0096	0.0093		mg/L	2.5	20	14-JUN-16
Lithium (Li)-Dissolved		0.117	0.120		mg/L	3.1	20	14-JUN-16
Manganese (Mn)-Dissolved		70.4	68.0		mg/L	3.5	20	14-JUN-16
Molybdenum (Mo)-Dissolved		<0.0025	<0.0025	RPD-NA	mg/L	N/A	20	14-JUN-16
Nickel (Ni)-Dissolved		1.63	1.58		mg/L	3.0	20	14-JUN-16
Potassium (K)-Dissolved		12.5	12.2		mg/L	3.0	20	14-JUN-16
Selenium (Se)-Dissolved		<0.0025	<0.0025	RPD-NA	mg/L	N/A	20	14-JUN-16
Silver (Ag)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	14-JUN-16
Sodium (Na)-Dissolved		23.8	22.0		mg/L	7.9	20	14-JUN-16
Strontium (Sr)-Dissolved		1.43	1.35		mg/L	5.6	20	14-JUN-16
Thallium (Tl)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	14-JUN-16
Titanium (Ti)-Dissolved		<0.015	<0.015	RPD-NA	mg/L	N/A	20	14-JUN-16
Uranium (U)-Dissolved		0.0648	0.0626		mg/L	3.4	20	14-JUN-16
Vanadium (V)-Dissolved		<0.025	<0.025	RPD-NA	mg/L	N/A	20	14-JUN-16
Zinc (Zn)-Dissolved		234	225		mg/L	4.1	20	14-JUN-16
WG2321526-2 LCS								
Aluminum (Al)-Dissolved			104.7		%		80-120	06-JUN-16
Antimony (Sb)-Dissolved			95.5		%		80-120	06-JUN-16
Arsenic (As)-Dissolved			107.9		%		80-120	06-JUN-16
Barium (Ba)-Dissolved			102.0		%		80-120	06-JUN-16
Beryllium (Be)-Dissolved			100.1		%		80-120	06-JUN-16
Boron (B)-Dissolved			96.2		%		80-120	06-JUN-16
Cadmium (Cd)-Dissolved			104.1		%		80-120	06-JUN-16
Chromium (Cr)-Dissolved			99.8		%		80-120	06-JUN-16
Cobalt (Co)-Dissolved			105.4		%		80-120	06-JUN-16
Copper (Cu)-Dissolved			102.2		%		80-120	06-JUN-16
Lead (Pb)-Dissolved			101.5		%		80-120	06-JUN-16
Lithium (Li)-Dissolved			99.8		%		80-120	06-JUN-16
Manganese (Mn)-Dissolved			104.7		%		80-120	06-JUN-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3473786								
WG2321526-2 LCS								
Molybdenum (Mo)-Dissolved			104.1		%		80-120	06-JUN-16
Nickel (Ni)-Dissolved			104.4		%		80-120	06-JUN-16
Potassium (K)-Dissolved			106.3		%		80-120	06-JUN-16
Selenium (Se)-Dissolved			101.9		%		80-120	06-JUN-16
Silver (Ag)-Dissolved			101.2		%		80-120	06-JUN-16
Sodium (Na)-Dissolved			106.8		%		80-120	06-JUN-16
Strontium (Sr)-Dissolved			99.8		%		80-120	06-JUN-16
Thallium (Tl)-Dissolved			103.0		%		80-120	06-JUN-16
Titanium (Ti)-Dissolved			98.2		%		80-120	06-JUN-16
Uranium (U)-Dissolved			103.0		%		80-120	06-JUN-16
Vanadium (V)-Dissolved			105.2		%		80-120	06-JUN-16
Zinc (Zn)-Dissolved			100.1		%		80-120	06-JUN-16
WG2321526-1 MB								
Aluminum (Al)-Dissolved			<0.0010		mg/L		0.001	06-JUN-16
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	06-JUN-16
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	06-JUN-16
Barium (Ba)-Dissolved			<0.000050		mg/L		0.00005	06-JUN-16
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	06-JUN-16
Boron (B)-Dissolved			<0.010		mg/L		0.01	06-JUN-16
Cadmium (Cd)-Dissolved			<0.000005(		mg/L		0.000005	06-JUN-16
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	06-JUN-16
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	06-JUN-16
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	06-JUN-16
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	06-JUN-16
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	06-JUN-16
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	06-JUN-16
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	06-JUN-16
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	06-JUN-16
Potassium (K)-Dissolved			<0.050		mg/L		0.05	06-JUN-16
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	06-JUN-16
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	06-JUN-16
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	06-JUN-16
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	06-JUN-16
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	06-JUN-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3473786								
WG2321526-1 MB								
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	06-JUN-16
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	06-JUN-16
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	06-JUN-16
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	06-JUN-16
WG2321526-4 MS		**L1778028-2**						
Aluminum (Al)-Dissolved			N/A	MS-B	%		-	14-JUN-16
Antimony (Sb)-Dissolved			101.1		%		70-130	14-JUN-16
Arsenic (As)-Dissolved			103.3		%		70-130	14-JUN-16
Barium (Ba)-Dissolved			103.0		%		70-130	14-JUN-16
Beryllium (Be)-Dissolved			98.0		%		70-130	14-JUN-16
Boron (B)-Dissolved			93.8		%		70-130	14-JUN-16
Cadmium (Cd)-Dissolved			N/A	MS-B	%		-	14-JUN-16
Chromium (Cr)-Dissolved			101.2		%		70-130	14-JUN-16
Cobalt (Co)-Dissolved			N/A	MS-B	%		-	14-JUN-16
Copper (Cu)-Dissolved			98.3		%		70-130	14-JUN-16
Lead (Pb)-Dissolved			98.9		%		70-130	14-JUN-16
Lithium (Li)-Dissolved			102.0		%		70-130	14-JUN-16
Manganese (Mn)-Dissolved			N/A	MS-B	%		-	14-JUN-16
Molybdenum (Mo)-Dissolved			101.1		%		70-130	14-JUN-16
Nickel (Ni)-Dissolved			N/A	MS-B	%		-	14-JUN-16
Potassium (K)-Dissolved			100.6		%		70-130	14-JUN-16
Selenium (Se)-Dissolved			103.3		%		70-130	14-JUN-16
Silver (Ag)-Dissolved			102.7		%		70-130	14-JUN-16
Sodium (Na)-Dissolved			N/A	MS-B	%		-	14-JUN-16
Strontium (Sr)-Dissolved			N/A	MS-B	%		-	14-JUN-16
Thallium (Tl)-Dissolved			99.3		%		70-130	14-JUN-16
Titanium (Ti)-Dissolved			102.8		%		70-130	14-JUN-16
Uranium (U)-Dissolved			99.9		%		70-130	14-JUN-16
Vanadium (V)-Dissolved			103.7		%		70-130	14-JUN-16
Zinc (Zn)-Dissolved			N/A	MS-B	%		-	14-JUN-16
MET-DIS-ICP-VA	**Water**							

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-DIS-ICP-VA	**Water**							
Batch R3473806								
WG2321526-3 DUP		**L1778028-1**						
Calcium (Ca)-Dissolved		515	510		mg/L	1.0	20	06-JUN-16
Iron (Fe)-Dissolved		1.86	1.82		mg/L	1.8	20	06-JUN-16
Magnesium (Mg)-Dissolved		830	847		mg/L	2.1	20	06-JUN-16
Phosphorus (P)-Dissolved		<0.60	<0.60	RPD-NA	mg/L	N/A	20	06-JUN-16
Silicon (Si)-Dissolved		12.5	12.4		mg/L	1.3	20	06-JUN-16
WG2321526-2 LCS								
Calcium (Ca)-Dissolved			101.0		%		80-120	06-JUN-16
Iron (Fe)-Dissolved			96.7		%		80-120	06-JUN-16
Magnesium (Mg)-Dissolved			99.4		%		80-120	06-JUN-16
Phosphorus (P)-Dissolved			100.7		%		80-120	06-JUN-16
Silicon (Si)-Dissolved			105.2		%		80-120	06-JUN-16
WG2321526-1 MB								
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	06-JUN-16
Iron (Fe)-Dissolved			<0.030		mg/L		0.03	06-JUN-16
Magnesium (Mg)-Dissolved			<0.10		mg/L		0.1	06-JUN-16
Phosphorus (P)-Dissolved			<0.30		mg/L		0.3	06-JUN-16
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	06-JUN-16
WG2321526-4 MS		**L1778028-2**						
Calcium (Ca)-Dissolved			N/A	MS-B	%		-	06-JUN-16
Iron (Fe)-Dissolved			N/A	MS-B	%		-	06-JUN-16
Magnesium (Mg)-Dissolved			N/A	MS-B	%		-	06-JUN-16
Phosphorus (P)-Dissolved			98.1		%		70-130	06-JUN-16
Silicon (Si)-Dissolved			N/A	MS-B	%		-	06-JUN-16
NH3-F-VA	**Water**							
Batch R3482780								
WG2329477-3 DUP		**L1778028-1**						
Ammonia, Total (as N)		0.310	0.310		mg/L	0.1	20	17-JUN-16
WG2329477-2 LCS								
Ammonia, Total (as N)			97.6		%		85-115	17-JUN-16
WG2329477-1 MB								
Ammonia, Total (as N)			<0.0050		mg/L		0.005	17-JUN-16
WG2329477-6 MS		**L1778028-1**						
Ammonia, Total (as N)			N/A	MS-B	%		-	17-JUN-16
NO2-L-IC-N-WR	**Water**							

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NO2-L-IC-N-WR	**Water**							
Batch R3474996								
WG2320989-3 DUP		**L1778028-1**						
Nitrite (as N)		<0.020	<0.020	RPD-NA	mg/L	N/A	20	04-JUN-16
WG2320989-2 LCS								
Nitrite (as N)			98.8		%		90-110	04-JUN-16
WG2320989-1 MB								
Nitrite (as N)			<0.0010		mg/L		0.001	04-JUN-16
WG2320989-4 MS		**L1778028-2**						
Nitrite (as N)			92.2		%		75-125	04-JUN-16
NO3-L-IC-N-WR	**Water**							
Batch R3474996								
WG2320989-3 DUP		**L1778028-1**						
Nitrate (as N)		<0.10	<0.10	RPD-NA	mg/L	N/A	20	04-JUN-16
WG2320989-2 LCS								
Nitrate (as N)			100.3		%		90-110	04-JUN-16
WG2320989-1 MB								
Nitrate (as N)			<0.0050		mg/L		0.005	04-JUN-16
WG2320989-4 MS		**L1778028-2**						
Nitrate (as N)			97.1		%		75-125	04-JUN-16
P-T-PRES-COL-VA	**Water**							
Batch R3476583								
WG2324937-2 CRM		**VA-ERA-PO4**						
Phosphorus (P)-Total			107.0		%		80-120	10-JUN-16
WG2324937-3 DUP		**L1778028-1**						
Phosphorus (P)-Total		<0.020	<0.020	RPD-NA	mg/L	N/A	20	10-JUN-16
WG2324937-1 MB								
Phosphorus (P)-Total			<0.0020		mg/L		0.002	10-JUN-16
WG2324937-4 MS		**L1778028-2**						
Phosphorus (P)-Total			106.0		%		70-130	10-JUN-16
S-DIS-ICP-VA	**Water**							
Batch R3473806								
WG2321526-3 DUP		**L1778028-1**						
Sulfur (S)-Dissolved		1500	1520		mg/L	1.7	20	06-JUN-16
WG2321526-2 LCS								
Sulfur (S)-Dissolved			97.8		%		80-120	06-JUN-16
WG2321526-1 MB								
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	06-JUN-16
WG2321526-4 MS		**L1778028-2**						

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
S-DIS-ICP-VA	**Water**							
Batch R3473806								
WG2321526-4 MS		**L1778028-2**						
Sulfur (S)-Dissolved			N/A	MS-B	%		-	06-JUN-16
SO4-IC-N-WR	**Water**							
Batch R3474996								
WG2320989-3 DUP		**L1778028-1**						
Sulfate (SO4)		4820	4810		mg/L	0.1	20	04-JUN-16
WG2320989-2 LCS								
Sulfate (SO4)			101.1		%		90-110	04-JUN-16
WG2320989-1 MB								
Sulfate (SO4)			<0.30		mg/L		0.3	04-JUN-16
WG2320989-4 MS		**L1778028-2**						
Sulfate (SO4)			N/A	MS-B	%		-	04-JUN-16
TDS-VA	**Water**							
Batch R3478935								
WG2326812-3 DUP		**L1778028-1**						
Total Dissolved Solids		7930	7810		mg/L	1.5	20	08-JUN-16
WG2326812-2 LCS								
Total Dissolved Solids			99.8		%		85-115	08-JUN-16
WG2326812-1 MB								
Total Dissolved Solids			<10		mg/L		10	08-JUN-16
TSS-LOW-WR	**Water**							
Batch R3475693								
WG2322579-3 DUP		**L1778028-2**						
Total Suspended Solids		182	190		mg/L	4.7	20	07-JUN-16
WG2322579-2 LCS								
Total Suspended Solids			97.8		%		85-115	07-JUN-16
WG2322579-1 MB								
Total Suspended Solids			<1.0		mg/L		1	07-JUN-16

Quality Control Report

Workorder: L1778028 Report Date: 20-JUN-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
DLA	Detection Limit adjusted for required dilution
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

CH2MHILL **CHAIN OF CUSTODY RECORD** *6/2/2016 10:20:34 AM* Page 1 OF 1

Project Name Faro
Location Faro Mine Complex - Faro YK
Project Number 674521.20.01.01.02.03
Project Manager BT Thomas
Sample Manager Jay Bilyk

Task Order TAR 20
Project WRD MONITORING 2016
Turnaround Time 10 Days
Shipping Date: 6/2/2016
COC Number: ALS060216

				Container:	40ml vial	125ml Poly	125ml glass	500ml Poly	500ml Poly	500ml Poly	125ml glass	125ml Glass	125ml Poly	500ml Poly	500ml Poly			
				Preservatives:	HCl, 4°C	HCl, 4°C	H2SO4, pH<2, 4C	4C	4C	4°C	H2SO4, pH<2, 4C	H2SO4, pH<2, 4°C	HNO3, 4°C	4C	4°C			
				Filtered:	Field	Field	NA	NA	NA	NA	NA	Field	Field	NA	NA			
				Holding Time:	28	180	28	14	14	7	28	28	180	14	3			
					(E245.7-Diss) Field Filtered Dissolved Hg	(Ferrozine Method) Field Filtered Ferrous Iron	(JEM/SM4500NH3) Ammonia	(SM2320B) Alkalinity	(SM2540C) TDS	(SM2540D) TSS	(SM4500P) Total Phosphorous	(SM5310) Field Filtered DOC	(SW6010B/SW6020A) Field Filtered Metals Analyte List Table 1	SM2310_HP Acidity - Run Hot H2O2	SM4110B CL F NO2 NO3 and SO4		Number of Containers	COMMENTS
	DATE	TIME	Matrix															
CH12-014-MW007_GW0616	6/1/2016	12:05	Water		X	X	X	X	X	X	X	X	X	X	X		8	
CH14-015-MW006_GW0616	6/1/2016	15:10	Water		X	X	X	X	X	X	X	X	X	X	X		8	
~~CH12-014-MW003_GW0616~~	~~6/2/2016~~		Water		~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~		~~8~~	
																TOTAL NUMBER OF CONTAINERS	24 16	


L1778028-COFC

	Signatures	Date/Time
Approved by		
Sampled by	CBlair	June 2/16
Relinquished by	[illegible] 3-Jun/16 9:20	2.3
Received by		
Relinquished by		
Received by	Lady	June 4 1:30

4°C

Shipping Details
Method of Shipment: FedEx
On Ice: (yes) / no
Airbill No:
Lab Name: ALS Vancouver
Lab Phone: (604) 253-4188

ATTN:
Sample Custody
and
Amber Springer

Special Instructions:

Report Copy to
Mark Cichy
(530) 229-3203

CH2M HILL, INC
ATTN: Mark Cichy
2525 Airpark Drive
Redding CA 96001

Date Received: 03-JUN-16
Report Date: 20-JUN-16 12:12 (MT)
Version: FINAL

Client Phone: 530-229-3203

Certificate of Analysis

Lab Work Order #: L1778685

Project P.O. #: 674521.20.01.01.02.03 PO=10201-7-100939
Job Reference: WRD MONITORING 2016 TAR20
C of C Numbers: ALS060316
Legal Site Desc:

Amber Springer, B.Sc
Account Manager

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1778685-1 CH12-014-MW003_GW0616							
Sampled By: CLIENT on 02-JUN-16 @ 13:50							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	579		1.0	mg/L		15-JUN-16	R3480552
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		15-JUN-16	R3480552
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		15-JUN-16	R3480552
Alkalinity, Total (as CaCO3)	579		1.0	mg/L		15-JUN-16	R3480552
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	13.7		5.0	mg/L		06-JUN-16	R3476325
Fluoride in Water by IC							
Fluoride (F)	<0.20	DLDS	0.20	mg/L		06-JUN-16	R3476325
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.239		0.050	mg/L		06-JUN-16	R3476325
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.010	DLDS	0.010	mg/L		06-JUN-16	R3476325
Sulfate in Water by IC							
Sulfate (SO4)	1740		3.0	mg/L		06-JUN-16	R3476325
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	08-JUN-16	08-JUN-16	R3475133
Dissolved Mercury Filtration Location	FIELD					08-JUN-16	R3474606
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					07-JUN-16	R3474544
Aluminum (Al)-Dissolved	0.0114		0.0050	mg/L	07-JUN-16	15-JUN-16	R3475246
Antimony (Sb)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-JUN-16	15-JUN-16	R3475246
Arsenic (As)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-JUN-16	15-JUN-16	R3475246
Barium (Ba)-Dissolved	0.0220		0.00025	mg/L	07-JUN-16	15-JUN-16	R3475246
Beryllium (Be)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-JUN-16	15-JUN-16	R3475246
Boron (B)-Dissolved	<0.050	DLA	0.050	mg/L	07-JUN-16	15-JUN-16	R3475246
Cadmium (Cd)-Dissolved	0.000713		0.000025	mg/L	07-JUN-16	15-JUN-16	R3475246
Chromium (Cr)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-JUN-16	15-JUN-16	R3475246
Cobalt (Co)-Dissolved	0.00925		0.00050	mg/L	07-JUN-16	15-JUN-16	R3475246
Copper (Cu)-Dissolved	<0.0010	DLA	0.0010	mg/L	07-JUN-16	15-JUN-16	R3475246
Lead (Pb)-Dissolved	0.00042		0.00025	mg/L	07-JUN-16	15-JUN-16	R3475246
Lithium (Li)-Dissolved	0.0770		0.0050	mg/L	07-JUN-16	15-JUN-16	R3475246
Manganese (Mn)-Dissolved	3.10		0.00050	mg/L	07-JUN-16	15-JUN-16	R3475246
Molybdenum (Mo)-Dissolved	<0.00025	DLA	0.00025	mg/L	07-JUN-16	15-JUN-16	R3475246
Nickel (Ni)-Dissolved	0.0951		0.0025	mg/L	07-JUN-16	15-JUN-16	R3475246
Potassium (K)-Dissolved	11.6		0.25	mg/L	07-JUN-16	15-JUN-16	R3475246
Selenium (Se)-Dissolved	<0.00025	DLA	0.00025	mg/L	07-JUN-16	15-JUN-16	R3475246
Silver (Ag)-Dissolved	<0.000050	DLA	0.000050	mg/L	07-JUN-16	15-JUN-16	R3475246
Sodium (Na)-Dissolved	32.5		0.25	mg/L	07-JUN-16	15-JUN-16	R3475246
Strontium (Sr)-Dissolved	2.23		0.0010	mg/L	07-JUN-16	15-JUN-16	R3475246
Thallium (Tl)-Dissolved	<0.000050	DLA	0.000050	mg/L	07-JUN-16	15-JUN-16	R3475246
Titanium (Ti)-Dissolved	<0.0015	DLA	0.0015	mg/L	07-JUN-16	15-JUN-16	R3475246
Uranium (U)-Dissolved	0.0167		0.000050	mg/L	07-JUN-16	15-JUN-16	R3475246
Vanadium (V)-Dissolved	<0.0025	DLA	0.0025	mg/L	07-JUN-16	15-JUN-16	R3475246
Zinc (Zn)-Dissolved	1.68		0.0050	mg/L	07-JUN-16	15-JUN-16	R3475246
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-JUN-16	R3474544
Calcium (Ca)-Dissolved	639		0.050	mg/L	07-JUN-16	07-JUN-16	R3474977
Iron (Fe)-Dissolved	0.628		0.030	mg/L	07-JUN-16	07-JUN-16	R3474977
Magnesium (Mg)-Dissolved	147		0.10	mg/L	07-JUN-16	07-JUN-16	R3474977

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1778685-1 CH12-014-MW003_GW0616							
Sampled By: CLIENT on 02-JUN-16 @ 13:50							
Matrix: Water							
Dissolved Metals in Water by ICPOES							
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	07-JUN-16	07-JUN-16	R3474977
Silicon (Si)-Dissolved	9.09		0.050	mg/L	07-JUN-16	07-JUN-16	R3474977
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	19.5		0.20	mg/L		08-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-JUN-16	R3474544
Sulfur (S)-Dissolved	529		0.50	mg/L	07-JUN-16	07-JUN-16	R3474977
Hardness							
Hardness (as CaCO3)	2200		0.50	mg/L		15-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		12-JUN-16	R3479237
Ammonia, Total (as N)	0.0266		0.0050	mg/L		18-JUN-16	R3483165
Dissolved Organic Carbon	4.48		0.50	mg/L		15-JUN-16	R3480789
Total Dissolved Solids	3310		20	mg/L		09-JUN-16	R3476576
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		14-JUN-16	R3479367
Total Suspended Solids	6.0		1.0	mg/L		07-JUN-16	R3475693
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	0.644		0.020	mg/L	09-JUN-16	09-JUN-16	R3475524
Dissolved Fe2 Filtration Location	FIELD					09-JUN-16	R3475517

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier Key:

Qualifier	Description
B	Method Blank exceeds ALS DQO. All associated sample results are at least 5 times greater than blank levels and are considered reliable.
DLA	Detection Limit adjusted for required dilution
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ACY-H2O2-MAN-VA	Water	Acidity by Hot Peroxide Titration	APHA - ACIDITY (2310)
This analysis is carried out using procedures adapted from APHA Method 2310 "Acidity". The procedure involves preliminary sample treatment by the hot peroxide procedure, and Acidity is subsequently determined by potentiometric titration to a specified endpoint (i.e. pH = 8.3).			
ALK-TITR-VA	Water	Alkalinity Species by Titration	APHA 2320 Alkalinity
This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.			
CARBONS-DOC-VA	Water	Dissolved organic carbon by combustion	APHA 5310B TOTAL ORGANIC CARBON (TOC)
This analysis is carried out using procedures adapted from APHA Method 5310 "Total Organic Carbon (TOC)". Dissolved carbon (DOC) fractions are determined by filtering the sample through a 0.45 micron membrane filter prior to analysis.			
CL-IC-N-WR	Water	Chloride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
F-IC-N-WR	Water	Fluoride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
FE2-D-COL-VA	Water	Diss. Ferrous Iron in Water by Colour	APHA 3500-Fe B/James Ball et al (1999)
This analysis is carried out using procedures adapted from APHA 3500-Fe B and "A New Method for the Direct Determination of Dissolved Iron Concentration in Acid Mine Waters" published by James W. Ball et al (1999). The procedure involves preliminary sample filtration, and ferrous iron is determined using the "FerroZine" colourimetric method.			
HARDNESS-CALC-VA	Water	Hardness	APHA 2340B
Hardness (also known as Total Hardness) is calculated from the sum of Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. Dissolved Calcium and Magnesium concentrations are preferentially used for the hardness calculation.			
HG-D-CVAA-VA	Water	Diss. Mercury in Water by CVAAS or CVAFS	APHA 3030B/EPA 1631E (mod)
Water samples are filtered (0.45 um), preserved with hydrochloric acid, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS or CVAFS.			
MET-D-CCMS-VA	Water	Dissolved Metals in Water by CRC ICPMS	APHA 3030B/6020A (mod)
Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.			
Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			
MET-DIS-ICP-VA	Water	Dissolved Metals in Water by ICPOES	EPA SW-846 3005A/6010B
This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedure involves filtration (EPA Method 3005A) and analysis by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B).			
NH3-F-VA	Water	Ammonia in Water by Fluorescence	APHA 4500 NH3-NITROGEN (AMMONIA)
This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.			
NH3-F-VA	Water	Ammonia in Water by Fluorescence	J. ENVIRON. MONIT., 2005, 7, 37-42, RSC
This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.			
NO2-L-IC-N-WR	Water	Nitrite in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
NO3-L-IC-N-WR	Water	Nitrate in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
P-T-PRES-COL-VA	Water	Total P in Water by Colour	APHA 4500-P Phosphorus
This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorus is determined colourimetrically after persulphate digestion of the sample.			
S-DIS-ICP-VA	Water	Dissolved Sulfur in Water by ICPOES	EPA SW-846 3005A/6010B
This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedures may involve preliminary sample treatment by acid digestion, using either hotblock or microwave oven, or filtration (EPA Method 3005A). Instrumental analysis is by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B). Method Limitation: This method will not give total sulfur results for all samples. Sulfide or other volatile forms of sulfur that may be present in submitted samples, is often lost during the sampling, preservation and analysis process. The data reported as total and/or dissolved sulfur represents all non-volatile forms of sulfur present in a particular sample.			
SIO2-D-CALC-VA	Water	Dissolved Silicon (reported as Silica)	CALCULATION
Dissolved Silicon (as SiO2) is a calculated parameter. Dissolved Silicon (as SiO2 mg/L) = 2.139 x Dissolved Silicon (mg/L).			
SO4-IC-N-WR	Water	Sulfate in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
TDS-VA	Water	Total Dissolved Solids by Gravimetric	APHA 2540 C - GRAVIMETRIC
This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, TDS is determined by evaporating the filtrate to dryness at 180 degrees celsius.			
TSS-LOW-WR	Water	Total Suspended Solids by Grav. (1 mg/L)	APHA 2540 D
This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Suspended Solids are determined by filtering a sample through a glass fibre filter and drying the filter at 104 degrees celsius.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WR	ALS ENVIRONMENTAL - WHITEHORSE, YUKON, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

ALS060316

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L1778685 Report Date: 20-JUN-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ACY-H2O2-MAN-VA	**Water**							
Batch **R3479237**								
WG2326067-2 **CRM**		**VA-ACY-M-CONTROL**						
Acidity-Hot Peroxide Treated (as CaCO3)			98.6		%		85-115	12-JUN-16
WG2326067-3 **DUP**		**L1778682-2**						
Acidity-Hot Peroxide Treated (as CaCO3)		<25	<25	RPD-NA	mg/L	N/A	20	12-JUN-16
WG2326067-1 **MB**								
Acidity-Hot Peroxide Treated (as CaCO3)			<25		mg/L		25	12-JUN-16
ALK-TITR-VA	**Water**							
Batch **R3480552**								
WG2327329-3 **CRM**		**VA-ALK-TITR-CONTROL**						
Alkalinity, Total (as CaCO3)			97.7		%		85-115	15-JUN-16
WG2327329-5 **DUP**		**L1778685-1**						
Alkalinity, Total (as CaCO3)		579	573		mg/L	1.0	20	15-JUN-16
WG2327329-1 **MB**								
Alkalinity, Total (as CaCO3)			1.7	B	mg/L		1	15-JUN-16
CARBONS-DOC-VA	**Water**							
Batch **R3480789**								
WG2328094-1 **DUP**		**L1778028-2**						
Dissolved Organic Carbon		5.68	5.59		mg/L	1.5	20	15-JUN-16
WG2328094-4 **LCS**								
Dissolved Organic Carbon			101.5		%		80-120	15-JUN-16
WG2328094-3 **MB**								
Dissolved Organic Carbon			<0.50		mg/L		0.5	15-JUN-16
WG2328094-2 **MS**		**L1778682-1**						
Dissolved Organic Carbon			108.9		%		70-130	15-JUN-16
CL-IC-N-WR	**Water**							
Batch **R3476325**								
WG2322172-3 **DUP**		**L1778682-2**						
Chloride (Cl)		<0.50	<0.50	RPD-NA	mg/L	N/A	20	06-JUN-16
WG2322172-2 **LCS**								
Chloride (Cl)			101.8		%		90-110	06-JUN-16
WG2322172-1 **MB**								
Chloride (Cl)			<0.50		mg/L		0.5	06-JUN-16
WG2322172-4 **MS**		**L1778682-1**						
Chloride (Cl)			99.9		%		75-125	06-JUN-16
F-IC-N-WR	**Water**							

Quality Control Report

Workorder: L1778685 Report Date: 20-JUN-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F-IC-N-WR	**Water**							
Batch R3476325								
WG2322172-3 DUP		**L1778682-2**						
Fluoride (F)		0.091	0.092		mg/L	0.7	20	06-JUN-16
WG2322172-2 LCS								
Fluoride (F)			105.9		%		90-110	06-JUN-16
WG2322172-1 MB								
Fluoride (F)			<0.020		mg/L		0.02	06-JUN-16
WG2322172-4 MS		**L1778682-1**						
Fluoride (F)			105.3		%		75-125	06-JUN-16
FE2-D-COL-VA	**Water**							
Batch R3475524								
WG2324115-3 DUP		**L1778701-5**						
Ferrous Iron, Dissolved		0.061	0.088	J	mg/L	0.027	0.04	09-JUN-16
WG2324115-2 LCS								
Ferrous Iron, Dissolved			106.5		%		80-120	09-JUN-16
WG2324115-1 MB								
Ferrous Iron, Dissolved			<0.020		mg/L		0.02	09-JUN-16
HG-D-CVAA-VA	**Water**							
Batch R3475133								
WG2323133-3 DUP		**L1778701-5**						
Mercury (Hg)-Dissolved		<0.0000050	<0.000005(	RPD-NA	mg/L	N/A	20	08-JUN-16
WG2323133-2 LCS								
Mercury (Hg)-Dissolved			93.7		%		80-120	08-JUN-16
WG2323133-1 MB								
Mercury (Hg)-Dissolved			<0.000005(		mg/L		0.000005	08-JUN-16
WG2323133-4 MS		**L1778682-2**						
Mercury (Hg)-Dissolved			92.6		%		70-130	08-JUN-16
MET-D-CCMS-VA	**Water**							
Batch R3475246								
WG2323053-3 DUP		**L1778701-1**						
Aluminum (Al)-Dissolved		0.0036	0.0030	J	mg/L	0.0007	0.004	15-JUN-16
Antimony (Sb)-Dissolved		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	15-JUN-16
Arsenic (As)-Dissolved		0.00044	0.00047		mg/L	7.2	20	15-JUN-16
Barium (Ba)-Dissolved		0.0210	0.0209		mg/L	0.6	20	15-JUN-16
Beryllium (Be)-Dissolved		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	15-JUN-16
Boron (B)-Dissolved		<0.020	<0.020	RPD-NA	mg/L	N/A	20	15-JUN-16
Cadmium (Cd)-Dissolved		0.000325	0.000321		mg/L	1.2	20	15-JUN-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3475246								
WG2323053-3 DUP		**L1778701-1**						
Chromium (Cr)-Dissolved		0.00116	0.00107		mg/L	7.6	20	15-JUN-16
Cobalt (Co)-Dissolved		0.00466	0.00456		mg/L	2.1	20	15-JUN-16
Copper (Cu)-Dissolved		0.00105	0.00104		mg/L	0.3	20	15-JUN-16
Lead (Pb)-Dissolved		0.00161	0.00154		mg/L	4.3	20	15-JUN-16
Lithium (Li)-Dissolved		0.0373	0.0351		mg/L	6.1	20	15-JUN-16
Manganese (Mn)-Dissolved		2.44	2.42		mg/L	1.1	20	15-JUN-16
Molybdenum (Mo)-Dissolved		0.00143	0.00137		mg/L	4.6	20	15-JUN-16
Nickel (Ni)-Dissolved		0.0713	0.0704		mg/L	1.2	20	15-JUN-16
Potassium (K)-Dissolved		6.81	6.70		mg/L	1.6	20	15-JUN-16
Selenium (Se)-Dissolved		0.00010	<0.00010	RPD-NA	mg/L	N/A	20	15-JUN-16
Silver (Ag)-Dissolved		<0.000020	<0.000020	RPD-NA	mg/L	N/A	20	15-JUN-16
Sodium (Na)-Dissolved		10.0	9.91		mg/L	1.2	20	15-JUN-16
Strontium (Sr)-Dissolved		1.05	1.02		mg/L	3.1	20	15-JUN-16
Thallium (Tl)-Dissolved		0.000021	<0.000020	RPD-NA	mg/L	N/A	20	15-JUN-16
Titanium (Ti)-Dissolved		<0.00060	<0.00060	RPD-NA	mg/L	N/A	20	15-JUN-16
Uranium (U)-Dissolved		0.0476	0.0456		mg/L	4.4	20	15-JUN-16
Vanadium (V)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	15-JUN-16
Zinc (Zn)-Dissolved		0.684	0.683		mg/L	0.2	20	15-JUN-16
WG2323053-2 LCS								
Aluminum (Al)-Dissolved			104.3		%		80-120	08-JUN-16
Antimony (Sb)-Dissolved			95.8		%		80-120	08-JUN-16
Arsenic (As)-Dissolved			99.1		%		80-120	08-JUN-16
Barium (Ba)-Dissolved			99.8		%		80-120	08-JUN-16
Beryllium (Be)-Dissolved			97.2		%		80-120	08-JUN-16
Boron (B)-Dissolved			91.7		%		80-120	08-JUN-16
Cadmium (Cd)-Dissolved			98.4		%		80-120	08-JUN-16
Chromium (Cr)-Dissolved			99.3		%		80-120	08-JUN-16
Cobalt (Co)-Dissolved			99.2		%		80-120	08-JUN-16
Copper (Cu)-Dissolved			96.1		%		80-120	08-JUN-16
Lead (Pb)-Dissolved			98.2		%		80-120	08-JUN-16
Lithium (Li)-Dissolved			98.3		%		80-120	08-JUN-16
Manganese (Mn)-Dissolved			99.9		%		80-120	08-JUN-16
Molybdenum (Mo)-Dissolved			102.7		%		80-120	08-JUN-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3475246								
WG2323053-2 LCS								
Nickel (Ni)-Dissolved			99.8		%		80-120	08-JUN-16
Potassium (K)-Dissolved			100.6		%		80-120	08-JUN-16
Selenium (Se)-Dissolved			97.0		%		80-120	08-JUN-16
Silver (Ag)-Dissolved			96.9		%		80-120	08-JUN-16
Sodium (Na)-Dissolved			97.9		%		80-120	08-JUN-16
Strontium (Sr)-Dissolved			96.9		%		80-120	08-JUN-16
Thallium (Tl)-Dissolved			98.8		%		80-120	08-JUN-16
Titanium (Ti)-Dissolved			92.8		%		80-120	08-JUN-16
Uranium (U)-Dissolved			97.3		%		80-120	08-JUN-16
Vanadium (V)-Dissolved			101.3		%		80-120	08-JUN-16
Zinc (Zn)-Dissolved			95.9		%		80-120	08-JUN-16
WG2323053-1 MB								
Aluminum (Al)-Dissolved			<0.0010		mg/L		0.001	08-JUN-16
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	08-JUN-16
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	08-JUN-16
Barium (Ba)-Dissolved			<0.000050		mg/L		0.00005	08-JUN-16
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	08-JUN-16
Boron (B)-Dissolved			<0.010		mg/L		0.01	08-JUN-16
Cadmium (Cd)-Dissolved			<0.000005(		mg/L		0.000005	08-JUN-16
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	08-JUN-16
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	08-JUN-16
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	08-JUN-16
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	08-JUN-16
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	08-JUN-16
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	08-JUN-16
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	08-JUN-16
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	08-JUN-16
Potassium (K)-Dissolved			<0.050		mg/L		0.05	08-JUN-16
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	08-JUN-16
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	08-JUN-16
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	08-JUN-16
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	08-JUN-16
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	08-JUN-16
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	08-JUN-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3475246								
WG2323053-1 MB								
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	08-JUN-16
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	08-JUN-16
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	08-JUN-16
WG2323053-4 MS		**L1778701-6**						
Aluminum (Al)-Dissolved			96.0		%		70-130	14-JUN-16
Antimony (Sb)-Dissolved			91.8		%		70-130	14-JUN-16
Arsenic (As)-Dissolved			93.7		%		70-130	14-JUN-16
Barium (Ba)-Dissolved			97.8		%		70-130	14-JUN-16
Beryllium (Be)-Dissolved			96.2		%		70-130	14-JUN-16
Boron (B)-Dissolved			89.5		%		70-130	14-JUN-16
Cadmium (Cd)-Dissolved			101.3		%		70-130	14-JUN-16
Chromium (Cr)-Dissolved			99.0		%		70-130	14-JUN-16
Cobalt (Co)-Dissolved			99.3		%		70-130	14-JUN-16
Copper (Cu)-Dissolved			99.7		%		70-130	14-JUN-16
Lead (Pb)-Dissolved			98.3		%		70-130	14-JUN-16
Lithium (Li)-Dissolved			103.5		%		70-130	14-JUN-16
Manganese (Mn)-Dissolved			98.8		%		70-130	14-JUN-16
Molybdenum (Mo)-Dissolved			94.0		%		70-130	14-JUN-16
Nickel (Ni)-Dissolved			98.7		%		70-130	14-JUN-16
Potassium (K)-Dissolved			95.5		%		70-130	14-JUN-16
Selenium (Se)-Dissolved			85.0		%		70-130	14-JUN-16
Silver (Ag)-Dissolved			100.4		%		70-130	14-JUN-16
Sodium (Na)-Dissolved			96.4		%		70-130	14-JUN-16
Strontium (Sr)-Dissolved			98.8		%		70-130	14-JUN-16
Thallium (Tl)-Dissolved			95.1		%		70-130	14-JUN-16
Titanium (Ti)-Dissolved			91.5		%		70-130	14-JUN-16
Uranium (U)-Dissolved			95.9		%		70-130	14-JUN-16
Vanadium (V)-Dissolved			96.0		%		70-130	14-JUN-16
Zinc (Zn)-Dissolved			99.7		%		70-130	14-JUN-16
MET-DIS-ICP-VA	**Water**							
Batch R3474977								
WG2323053-3 DUP		**L1778701-1**						
Calcium (Ca)-Dissolved		400	404		mg/L	0.9	20	07-JUN-16
Iron (Fe)-Dissolved		2.94	2.94		mg/L	0.0	20	07-JUN-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-DIS-ICP-VA	**Water**							
Batch R3474977								
WG2323053-3 DUP		**L1778701-1**						
Magnesium (Mg)-Dissolved		337	338		mg/L	0.4	20	07-JUN-16
Phosphorus (P)-Dissolved		<0.30	<0.30	RPD-NA	mg/L	N/A	20	07-JUN-16
Silicon (Si)-Dissolved		4.72	4.74		mg/L	0.5	20	07-JUN-16
WG2323053-2 LCS								
Calcium (Ca)-Dissolved			102.5		%		80-120	07-JUN-16
Iron (Fe)-Dissolved			97.0		%		80-120	07-JUN-16
Magnesium (Mg)-Dissolved			98.2		%		80-120	07-JUN-16
Phosphorus (P)-Dissolved			99.99		%		80-120	07-JUN-16
Silicon (Si)-Dissolved			109.2		%		80-120	07-JUN-16
WG2323053-1 MB								
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	07-JUN-16
Iron (Fe)-Dissolved			<0.030		mg/L		0.03	07-JUN-16
Magnesium (Mg)-Dissolved			<0.10		mg/L		0.1	07-JUN-16
Phosphorus (P)-Dissolved			<0.30		mg/L		0.3	07-JUN-16
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	07-JUN-16
WG2323053-4 MS		**L1778701-6**						
Calcium (Ca)-Dissolved			102.4		%		70-130	08-JUN-16
Iron (Fe)-Dissolved			96.2		%		70-130	08-JUN-16
Magnesium (Mg)-Dissolved			97.8		%		70-130	08-JUN-16
Phosphorus (P)-Dissolved			98.7		%		70-130	08-JUN-16
Silicon (Si)-Dissolved			101.1		%		70-130	08-JUN-16
NH3-F-VA	**Water**							
Batch R3483165								
WG2329903-3 DUP		**L1778685-1**						
Ammonia, Total (as N)		0.0266	0.0267		mg/L	0.3	20	18-JUN-16
WG2329903-2 LCS								
Ammonia, Total (as N)			98.1		%		85-115	18-JUN-16
WG2329903-1 MB								
Ammonia, Total (as N)			<0.0050		mg/L		0.005	18-JUN-16
WG2329903-4 MS		**L1778685-1**						
Ammonia, Total (as N)			97.9		%		75-125	18-JUN-16
NO2-L-IC-N-WR	**Water**							

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NO2-L-IC-N-WR	**Water**							
Batch R3476325								
WG2322172-3 DUP		**L1778682-2**						
Nitrite (as N)		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	06-JUN-16
WG2322172-2 LCS								
Nitrite (as N)			101.7		%		90-110	06-JUN-16
WG2322172-1 MB								
Nitrite (as N)			<0.0010		mg/L		0.001	06-JUN-16
WG2322172-4 MS		**L1778682-1**						
Nitrite (as N)			100.2		%		75-125	06-JUN-16
NO3-L-IC-N-WR	**Water**							
Batch R3476325								
WG2322172-3 DUP		**L1778682-2**						
Nitrate (as N)		0.112	0.112		mg/L	0.7	20	06-JUN-16
WG2322172-2 LCS								
Nitrate (as N)			101.7		%		90-110	06-JUN-16
WG2322172-1 MB								
Nitrate (as N)			<0.0050		mg/L		0.005	06-JUN-16
WG2322172-4 MS		**L1778682-1**						
Nitrate (as N)			99.3		%		75-125	06-JUN-16
P-T-PRES-COL-VA	**Water**							
Batch R3479367								
WG2326882-2 CRM		**VA-ERA-PO4**						
Phosphorus (P)-Total			100.5		%		80-120	14-JUN-16
WG2326882-3 DUP		**L1778682-1**						
Phosphorus (P)-Total		0.026	0.026		mg/L	0.7	20	14-JUN-16
WG2326882-1 MB								
Phosphorus (P)-Total			<0.0020		mg/L		0.002	14-JUN-16
WG2326882-4 MS		**L1778682-2**						
Phosphorus (P)-Total			103.6		%		70-130	14-JUN-16
S-DIS-ICP-VA	**Water**							
Batch R3474977								
WG2323053-3 DUP		**L1778701-1**						
Sulfur (S)-Dissolved		533	539		mg/L	1.1	20	07-JUN-16
WG2323053-2 LCS								
Sulfur (S)-Dissolved			97.0		%		80-120	07-JUN-16
WG2323053-1 MB								
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	07-JUN-16
WG2323053-4 MS		**L1778701-6**						

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
S-DIS-ICP-VA	**Water**							
Batch R3474977								
WG2323053-4 MS		**L1778701-6**						
Sulfur (S)-Dissolved			99.8		%		70-130	08-JUN-16
SO4-IC-N-WR	**Water**							
Batch R3476325								
WG2322172-3 DUP		**L1778682-2**						
Sulfate (SO4)		20.8	21.0		mg/L	1.2	20	06-JUN-16
WG2322172-2 LCS								
Sulfate (SO4)			102.2		%		90-110	06-JUN-16
WG2322172-1 MB								
Sulfate (SO4)			<0.30		mg/L		0.3	06-JUN-16
WG2322172-4 MS		**L1778682-1**						
Sulfate (SO4)			99.6		%		75-125	06-JUN-16
TDS-VA	**Water**							
Batch R3476576								
WG2324791-3 DUP		**L1778685-1**						
Total Dissolved Solids		3310	3310		mg/L	0.0	20	09-JUN-16
WG2324791-2 LCS								
Total Dissolved Solids			103.5		%		85-115	09-JUN-16
WG2324791-1 MB								
Total Dissolved Solids			<10		mg/L		10	09-JUN-16
TSS-LOW-WR	**Water**							
Batch R3475693								
WG2322579-3 DUP		**L1778028-2**						
Total Suspended Solids		182	190		mg/L	4.7	20	07-JUN-16
WG2322579-2 LCS								
Total Suspended Solids			97.8		%		85-115	07-JUN-16
WG2322579-1 MB								
Total Suspended Solids			<1.0		mg/L		1	07-JUN-16

Quality Control Report

Workorder: L1778685 Report Date: 20-JUN-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
B	Method Blank exceeds ALS DQO. All associated sample results are at least 5 times greater than blank levels and are considered reliable.
DLA	Detection Limit adjusted for required dilution
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
J	Duplicate results and limits are expressed in terms of absolute difference.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Quality Control Report

Workorder: L1778685 Report Date: 20-JUN-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Anions and Nutrients							
Nitrate in Water by IC (Low Level)							
	1	02-JUN-16 13:50	06-JUN-16 15:50	3	4	days	EHT
Nitrite in Water by IC (Low Level)							
	1	02-JUN-16 13:50	06-JUN-16 15:50	3	4	days	EHT

Legend & Qualifier Definitions:

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
EHTR: Exceeded ALS recommended hold time prior to sample receipt.
EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
EHT: Exceeded ALS recommended hold time prior to analysis.
Rec. HT: ALS recommended hold time (see units).

Notes*:
Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L1778685 were received on 03-JUN-16 21:00.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

CH2MHILL **CHAIN OF CUSTODY RECORD** 6/3/2016 8:42:06 AM Page 1 OF 1

Project Name Faro
Location Faro Mine Complex - Faro YK
Project Number 674521.20.01.01.02.03
Project Manager BT Thomas
Sample Manager Jay Bilyk

Task Order TAR 20
Project WRD MONITORING 2016
Turnaround Time 10 Days
Shipping Date: 6/3/2016
COC Number: ALS060316

	Container:	40ml vial	125ml Poly	125ml glass	500ml Poly	500ml Poly	500ml Poly	125ml glass	125ml Glass	125ml Poly	500ml Poly	500ml Poly		
	Preservatives:	HCl, 4°C	HCl, 4°C	H2SO4, pH<2, 4C	4C	4C	4°C	H2SO4, pH<2, 4C	H2SO4, pH<2, 4°C	HNO3, 4°C	4C	4°C		
	Filtered:	Field	Field	NA	NA	NA	NA	NA	Field	Field	NA	NA		
	Holding Time:	28	180	28	14	14	7	28	28	180	14	3		
		(E245.7-Diss) Field Filtered Dissolved Hg	(Ferrozine Method) Field Filtered Ferrous Iron	(JEM/SM4500NH3) Ammonia	(SM2320B) Alkalinity	(SM2540C) TDS	(SM2540D) TSS	(SM4500P) Total Phosphorous	(SM5310) Field Filtered DOC	(SW6010B/SW6020A) Field Filtered Metals Analyte List Table 1	SM2310_HP Acidity - Run Hot H2O2	SM4110B CL F NO2 NO3 and SO4		
DATE / TIME / Matrix													Number of Containers	COMMENTS
CH12-014-MW003_GW0616	6/2/2016 1350 Water	X	X	X	X	X	X	X	X	X	X	X	8	
												TOTAL NUMBER OF CONTAINERS	8	

L1778685-COFC

Short Holding Time

Rush Processing

Shelby June 7 2:20 13/12/8

Signatures	Date/Time
Approved by	
Sampled by CBlair	June 3/16
Relinquished by	
Received by 3-Jun 16 9pm	
Relinquished by 4.0	
Received by	

Shipping Details
Method of Shipment: FedEx
On Ice: (yes) no
Airbill No:
Lab Name: ALS Vancouver
Lab Phone: (604) 253-4188

ATTN:
Sample Custody
and
Amber Springer

Special Instructions:

Report Copy to
Mark Cichy
(530) 229-3203

CH2M HILL, INC
ATTN: Mark Cichy
2525 Airpark Drive
Redding CA 96001

Date Received: 06-JUN-16
Report Date: 20-JUN-16 17:21 (MT)
Version: FINAL

Client Phone: 530-229-3203

Certificate of Analysis

Lab Work Order #: L1778701

Project P.O. #: 674521.20.01.01.02.03 PO=10201-7-100939
Job Reference: WRD MONITORING 2016 TAR20
C of C Numbers: ALS06051601
Legal Site Desc:

Amber Springer, B.Sc
Account Manager

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1778701-1 CH12-014-MW011_GW0616							
Sampled By: CLIENT on 04-JUN-16 @ 15:05							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	688		1.0	mg/L		15-JUN-16	R3480552
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		15-JUN-16	R3480552
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		15-JUN-16	R3480552
Alkalinity, Total (as CaCO3)	688		1.0	mg/L		15-JUN-16	R3480552
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<5.0	DLDS	5.0	mg/L		06-JUN-16	R3476325
Fluoride in Water by IC							
Fluoride (F)	<0.20	DLDS	0.20	mg/L		06-JUN-16	R3476325
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	3.86		0.050	mg/L		06-JUN-16	R3476325
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.010	DLDS	0.010	mg/L		06-JUN-16	R3476325
Sulfate in Water by IC							
Sulfate (SO4)	1560		3.0	mg/L		06-JUN-16	R3476325
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	08-JUN-16	08-JUN-16	R3475133
Dissolved Mercury Filtration Location	FIELD					08-JUN-16	R3474606
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					07-JUN-16	R3474544
Aluminum (Al)-Dissolved	0.0036		0.0020	mg/L	07-JUN-16	15-JUN-16	R3475246
Antimony (Sb)-Dissolved	<0.00020	DLA	0.00020	mg/L	07-JUN-16	15-JUN-16	R3475246
Arsenic (As)-Dissolved	0.00044		0.00020	mg/L	07-JUN-16	15-JUN-16	R3475246
Barium (Ba)-Dissolved	0.0210		0.00010	mg/L	07-JUN-16	15-JUN-16	R3475246
Beryllium (Be)-Dissolved	<0.00020	DLA	0.00020	mg/L	07-JUN-16	15-JUN-16	R3475246
Boron (B)-Dissolved	<0.020	DLA	0.020	mg/L	07-JUN-16	15-JUN-16	R3475246
Cadmium (Cd)-Dissolved	0.000325		0.000010	mg/L	07-JUN-16	15-JUN-16	R3475246
Chromium (Cr)-Dissolved	0.00116		0.00020	mg/L	07-JUN-16	15-JUN-16	R3475246
Cobalt (Co)-Dissolved	0.00466		0.00020	mg/L	07-JUN-16	15-JUN-16	R3475246
Copper (Cu)-Dissolved	0.00105		0.00040	mg/L	07-JUN-16	15-JUN-16	R3475246
Lead (Pb)-Dissolved	0.00161		0.00010	mg/L	07-JUN-16	15-JUN-16	R3475246
Lithium (Li)-Dissolved	0.0373		0.0020	mg/L	07-JUN-16	15-JUN-16	R3475246
Manganese (Mn)-Dissolved	2.44		0.00020	mg/L	07-JUN-16	15-JUN-16	R3475246
Molybdenum (Mo)-Dissolved	0.00143		0.00010	mg/L	07-JUN-16	15-JUN-16	R3475246
Nickel (Ni)-Dissolved	0.0713		0.0010	mg/L	07-JUN-16	15-JUN-16	R3475246
Potassium (K)-Dissolved	6.81		0.10	mg/L	07-JUN-16	15-JUN-16	R3475246
Selenium (Se)-Dissolved	0.00010		0.00010	mg/L	07-JUN-16	15-JUN-16	R3475246
Silver (Ag)-Dissolved	<0.000020	DLA	0.000020	mg/L	07-JUN-16	15-JUN-16	R3475246
Sodium (Na)-Dissolved	10.0		0.10	mg/L	07-JUN-16	15-JUN-16	R3475246
Strontium (Sr)-Dissolved	1.05		0.00040	mg/L	07-JUN-16	15-JUN-16	R3475246
Thallium (Tl)-Dissolved	0.000021		0.000020	mg/L	07-JUN-16	15-JUN-16	R3475246
Titanium (Ti)-Dissolved	<0.00060	DLA	0.00060	mg/L	07-JUN-16	15-JUN-16	R3475246
Uranium (U)-Dissolved	0.0476		0.000020	mg/L	07-JUN-16	15-JUN-16	R3475246
Vanadium (V)-Dissolved	<0.0010	DLA	0.0010	mg/L	07-JUN-16	15-JUN-16	R3475246
Zinc (Zn)-Dissolved	0.684		0.0020	mg/L	07-JUN-16	15-JUN-16	R3475246
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-JUN-16	R3474544
Calcium (Ca)-Dissolved	400		0.050	mg/L	07-JUN-16	07-JUN-16	R3474977
Iron (Fe)-Dissolved	2.94		0.030	mg/L	07-JUN-16	07-JUN-16	R3474977
Magnesium (Mg)-Dissolved	337		0.10	mg/L	07-JUN-16	07-JUN-16	R3474977

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1778701-1 CH12-014-MW011_GW0616							
Sampled By: CLIENT on 04-JUN-16 @ 15:05							
Matrix: Water							
Dissolved Metals in Water by ICPOES							
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	07-JUN-16	07-JUN-16	R3474977
Silicon (Si)-Dissolved	4.72		0.050	mg/L	07-JUN-16	07-JUN-16	R3474977
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	10.1		0.20	mg/L		08-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-JUN-16	R3474544
Sulfur (S)-Dissolved	533		0.50	mg/L	07-JUN-16	07-JUN-16	R3474977
Hardness							
Hardness (as CaCO3)	2390		0.50	mg/L		15-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		12-JUN-16	R3479237
Ammonia, Total (as N)	0.459		0.0050	mg/L		18-JUN-16	R3483165
Dissolved Organic Carbon	4.36	M	0.50	mg/L		15-JUN-16	R3480789
Total Dissolved Solids	3530		20	mg/L		10-JUN-16	R3479540
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		14-JUN-16	R3479367
Total Suspended Solids	33.2		1.0	mg/L		07-JUN-16	R3475693
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	3.67		0.10	mg/L	09-JUN-16	09-JUN-16	R3475524
Dissolved Fe2 Filtration Location	FIELD					09-JUN-16	R3475517
L1778701-2 CH12-014-MW012_GW0616							
Sampled By: CLIENT on 03-JUN-16 @ 13:30							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	396		1.0	mg/L		15-JUN-16	R3480552
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		15-JUN-16	R3480552
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		15-JUN-16	R3480552
Alkalinity, Total (as CaCO3)	396		1.0	mg/L		15-JUN-16	R3480552
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<2.5	DLDS	2.5	mg/L		06-JUN-16	R3476325
Fluoride in Water by IC							
Fluoride (F)	0.18		0.10	mg/L		06-JUN-16	R3476325
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.025	DLDS	0.025	mg/L		06-JUN-16	R3476325
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0050	DLDS	0.0050	mg/L		06-JUN-16	R3476325
Sulfate in Water by IC							
Sulfate (SO4)	841		1.5	mg/L		06-JUN-16	R3476325
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	08-JUN-16	08-JUN-16	R3475133
Dissolved Mercury Filtration Location	FIELD					08-JUN-16	R3474606
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					07-JUN-16	R3474544
Aluminum (Al)-Dissolved	0.0112		0.0020	mg/L	07-JUN-16	15-JUN-16	R3475246
Antimony (Sb)-Dissolved	<0.00020	DLA	0.00020	mg/L	07-JUN-16	15-JUN-16	R3475246
Arsenic (As)-Dissolved	0.0145		0.00020	mg/L	07-JUN-16	15-JUN-16	R3475246
Barium (Ba)-Dissolved	0.0358		0.00010	mg/L	07-JUN-16	15-JUN-16	R3475246
Beryllium (Be)-Dissolved	<0.00020	DLA	0.00020	mg/L	07-JUN-16	15-JUN-16	R3475246
Boron (B)-Dissolved	<0.020	DLA	0.020	mg/L	07-JUN-16	15-JUN-16	R3475246

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1778701-2 CH12-014-MW012_GW0616							
Sampled By: CLIENT on 03-JUN-16 @ 13:30							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Cadmium (Cd)-Dissolved	<0.000010	DLA	0.000010	mg/L	07-JUN-16	15-JUN-16	R3475246
Chromium (Cr)-Dissolved	<0.00020	DLA	0.00020	mg/L	07-JUN-16	15-JUN-16	R3475246
Cobalt (Co)-Dissolved	0.00025		0.00020	mg/L	07-JUN-16	15-JUN-16	R3475246
Copper (Cu)-Dissolved	<0.00040	DLA	0.00040	mg/L	07-JUN-16	15-JUN-16	R3475246
Lead (Pb)-Dissolved	0.00023		0.00010	mg/L	07-JUN-16	15-JUN-16	R3475246
Lithium (Li)-Dissolved	0.0152		0.0020	mg/L	07-JUN-16	15-JUN-16	R3475246
Manganese (Mn)-Dissolved	0.255		0.00020	mg/L	07-JUN-16	15-JUN-16	R3475246
Molybdenum (Mo)-Dissolved	0.00137		0.00010	mg/L	07-JUN-16	15-JUN-16	R3475246
Nickel (Ni)-Dissolved	<0.0010	DLA	0.0010	mg/L	07-JUN-16	15-JUN-16	R3475246
Potassium (K)-Dissolved	3.35		0.10	mg/L	07-JUN-16	15-JUN-16	R3475246
Selenium (Se)-Dissolved	<0.00010	DLA	0.00010	mg/L	07-JUN-16	15-JUN-16	R3475246
Silver (Ag)-Dissolved	<0.000020	DLA	0.000020	mg/L	07-JUN-16	15-JUN-16	R3475246
Sodium (Na)-Dissolved	7.49		0.10	mg/L	07-JUN-16	15-JUN-16	R3475246
Strontium (Sr)-Dissolved	1.75		0.00040	mg/L	07-JUN-16	15-JUN-16	R3475246
Thallium (Tl)-Dissolved	<0.000020	DLA	0.000020	mg/L	07-JUN-16	15-JUN-16	R3475246
Titanium (Ti)-Dissolved	<0.00060	DLA	0.00060	mg/L	07-JUN-16	15-JUN-16	R3475246
Uranium (U)-Dissolved	0.0321		0.000020	mg/L	07-JUN-16	15-JUN-16	R3475246
Vanadium (V)-Dissolved	<0.0010	DLA	0.0010	mg/L	07-JUN-16	15-JUN-16	R3475246
Zinc (Zn)-Dissolved	<0.0020	DLA	0.0020	mg/L	07-JUN-16	15-JUN-16	R3475246
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-JUN-16	R3474544
Calcium (Ca)-Dissolved	302		0.050	mg/L	07-JUN-16	07-JUN-16	R3474977
Iron (Fe)-Dissolved	6.96		0.030	mg/L	07-JUN-16	07-JUN-16	R3474977
Magnesium (Mg)-Dissolved	116		0.10	mg/L	07-JUN-16	07-JUN-16	R3474977
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	07-JUN-16	07-JUN-16	R3474977
Silicon (Si)-Dissolved	5.14		0.050	mg/L	07-JUN-16	07-JUN-16	R3474977
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	11.0		0.20	mg/L		08-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-JUN-16	R3474544
Sulfur (S)-Dissolved	266		0.50	mg/L	07-JUN-16	07-JUN-16	R3474977
Hardness							
Hardness (as CaCO3)	1230		0.50	mg/L		15-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		12-JUN-16	R3479237
Ammonia, Total (as N)	0.0645		0.0050	mg/L		18-JUN-16	R3483165
Dissolved Organic Carbon	3.32		0.50	mg/L		15-JUN-16	R3480789
Total Dissolved Solids	1640		20	mg/L		10-JUN-16	R3479540
Phosphorus (P)-Total	0.409		0.020	mg/L		14-JUN-16	R3479367
Total Suspended Solids	328		2.0	mg/L		07-JUN-16	R3475693
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	8.03		0.20	mg/L	09-JUN-16	09-JUN-16	R3475524
Dissolved Fe2 Filtration Location	FIELD					09-JUN-16	R3475517
L1778701-3 CH12-014-MW013_GW0616							
Sampled By: CLIENT on 04-JUN-16 @ 12:50							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	1180		1.0	mg/L		15-JUN-16	R3480552
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		15-JUN-16	R3480552
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		15-JUN-16	R3480552

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1778701-3 CH12-014-MW013_GW0616							
Sampled By: CLIENT on 04-JUN-16 @ 12:50							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity, Total (as CaCO3)	1180		1.0	mg/L		15-JUN-16	R3480552
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLDS	10	mg/L		06-JUN-16	R3476325
Fluoride in Water by IC							
Fluoride (F)	<0.40	DLDS	0.40	mg/L		06-JUN-16	R3476325
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.10	DLDS	0.10	mg/L		06-JUN-16	R3476325
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLDS	0.020	mg/L		06-JUN-16	R3476325
Sulfate in Water by IC							
Sulfate (SO4)	3520		6.0	mg/L		06-JUN-16	R3476325
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	0.0000059		0.0000050	mg/L	08-JUN-16	08-JUN-16	R3475133
Dissolved Mercury Filtration Location	FIELD					08-JUN-16	R3474606
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					07-JUN-16	R3474544
Aluminum (Al)-Dissolved	0.0061		0.0050	mg/L	07-JUN-16	15-JUN-16	R3475246
Antimony (Sb)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-JUN-16	15-JUN-16	R3475246
Arsenic (As)-Dissolved	0.00142		0.00050	mg/L	07-JUN-16	15-JUN-16	R3475246
Barium (Ba)-Dissolved	0.0158		0.00025	mg/L	07-JUN-16	15-JUN-16	R3475246
Beryllium (Be)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-JUN-16	15-JUN-16	R3475246
Boron (B)-Dissolved	<0.050	DLA	0.050	mg/L	07-JUN-16	15-JUN-16	R3475246
Cadmium (Cd)-Dissolved	0.00488		0.000025	mg/L	07-JUN-16	15-JUN-16	R3475246
Chromium (Cr)-Dissolved	0.00139		0.00050	mg/L	07-JUN-16	15-JUN-16	R3475246
Cobalt (Co)-Dissolved	0.0583		0.00050	mg/L	07-JUN-16	15-JUN-16	R3475246
Copper (Cu)-Dissolved	0.0042		0.0010	mg/L	07-JUN-16	15-JUN-16	R3475246
Lead (Pb)-Dissolved	0.0171		0.00025	mg/L	07-JUN-16	15-JUN-16	R3475246
Lithium (Li)-Dissolved	0.0340		0.0050	mg/L	07-JUN-16	15-JUN-16	R3475246
Manganese (Mn)-Dissolved	13.9		0.00050	mg/L	07-JUN-16	15-JUN-16	R3475246
Molybdenum (Mo)-Dissolved	0.00177		0.00025	mg/L	07-JUN-16	15-JUN-16	R3475246
Nickel (Ni)-Dissolved	0.122		0.0025	mg/L	07-JUN-16	15-JUN-16	R3475246
Potassium (K)-Dissolved	3.09		0.25	mg/L	07-JUN-16	15-JUN-16	R3475246
Selenium (Se)-Dissolved	<0.00025	DLA	0.00025	mg/L	07-JUN-16	15-JUN-16	R3475246
Silver (Ag)-Dissolved	<0.000050	DLA	0.000050	mg/L	07-JUN-16	15-JUN-16	R3475246
Sodium (Na)-Dissolved	16.1		0.25	mg/L	07-JUN-16	15-JUN-16	R3475246
Strontium (Sr)-Dissolved	2.14		0.0010	mg/L	07-JUN-16	15-JUN-16	R3475246
Thallium (Tl)-Dissolved	0.000182		0.000050	mg/L	07-JUN-16	15-JUN-16	R3475246
Titanium (Ti)-Dissolved	<0.0015	DLA	0.0015	mg/L	07-JUN-16	15-JUN-16	R3475246
Uranium (U)-Dissolved	0.0928		0.000050	mg/L	07-JUN-16	15-JUN-16	R3475246
Vanadium (V)-Dissolved	<0.0025	DLA	0.0025	mg/L	07-JUN-16	15-JUN-16	R3475246
Zinc (Zn)-Dissolved	7.86		0.0050	mg/L	07-JUN-16	15-JUN-16	R3475246
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-JUN-16	R3474544
Calcium (Ca)-Dissolved	686		0.10	mg/L	07-JUN-16	08-JUN-16	R3474977
Iron (Fe)-Dissolved	6.49		0.060	mg/L	07-JUN-16	08-JUN-16	R3474977
Magnesium (Mg)-Dissolved	701		0.20	mg/L	07-JUN-16	08-JUN-16	R3474977
Phosphorus (P)-Dissolved	<0.60	DLHC	0.60	mg/L	07-JUN-16	08-JUN-16	R3474977
Silicon (Si)-Dissolved	11.3		0.10	mg/L	07-JUN-16	08-JUN-16	R3474977
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	24.2		0.21	mg/L		09-JUN-16	

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1778701-3 CH12-014-MW013_GW0616							
Sampled By: CLIENT on 04-JUN-16 @ 12:50							
Matrix: Water							
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-JUN-16	R3474544
Sulfur (S)-Dissolved	1130		1.0	mg/L	07-JUN-16	08-JUN-16	R3474977
Hardness							
Hardness (as CaCO3)	4600		0.86	mg/L		15-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		12-JUN-16	R3479237
Ammonia, Total (as N)	0.0610		0.0050	mg/L		18-JUN-16	R3483165
Dissolved Organic Carbon	12.9		0.50	mg/L		15-JUN-16	R3480789
Total Dissolved Solids	6580		20	mg/L		10-JUN-16	R3479540
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		14-JUN-16	R3479367
Total Suspended Solids	69.2		2.0	mg/L		07-JUN-16	R3475693
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	7.54		0.20	mg/L	09-JUN-16	09-JUN-16	R3475524
Dissolved Fe2 Filtration Location	FIELD					09-JUN-16	R3475517
L1778701-4 CH12-014-MW913_GW0616							
Sampled By: CLIENT on 04-JUN-16 @ 12:50							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	1160		1.0	mg/L		15-JUN-16	R3480552
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		15-JUN-16	R3480552
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		15-JUN-16	R3480552
Alkalinity, Total (as CaCO3)	1160		1.0	mg/L		15-JUN-16	R3480552
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLDS	10	mg/L		06-JUN-16	R3476325
Fluoride in Water by IC							
Fluoride (F)	<0.40	DLDS	0.40	mg/L		06-JUN-16	R3476325
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.10	DLDS	0.10	mg/L		06-JUN-16	R3476325
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLDS	0.020	mg/L		06-JUN-16	R3476325
Sulfate in Water by IC							
Sulfate (SO4)	3450		6.0	mg/L		06-JUN-16	R3476325
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	08-JUN-16	08-JUN-16	R3475133
Dissolved Mercury Filtration Location	FIELD					08-JUN-16	R3474606
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					07-JUN-16	R3474544
Aluminum (Al)-Dissolved	0.0065		0.0050	mg/L	07-JUN-16	15-JUN-16	R3475246
Antimony (Sb)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-JUN-16	15-JUN-16	R3475246
Arsenic (As)-Dissolved	0.00136		0.00050	mg/L	07-JUN-16	15-JUN-16	R3475246
Barium (Ba)-Dissolved	0.0158		0.00025	mg/L	07-JUN-16	15-JUN-16	R3475246
Beryllium (Be)-Dissolved	<0.00050	DLA	0.00050	mg/L	07-JUN-16	15-JUN-16	R3475246
Boron (B)-Dissolved	<0.050	DLA	0.050	mg/L	07-JUN-16	15-JUN-16	R3475246
Cadmium (Cd)-Dissolved	0.00518		0.000025	mg/L	07-JUN-16	15-JUN-16	R3475246
Chromium (Cr)-Dissolved	0.00115		0.00050	mg/L	07-JUN-16	15-JUN-16	R3475246
Cobalt (Co)-Dissolved	0.0583		0.00050	mg/L	07-JUN-16	15-JUN-16	R3475246
Copper (Cu)-Dissolved	0.0041		0.0010	mg/L	07-JUN-16	15-JUN-16	R3475246
Lead (Pb)-Dissolved	0.0173		0.00025	mg/L	07-JUN-16	15-JUN-16	R3475246

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1778701-4 CH12-014-MW913_GW0616							
Sampled By: CLIENT on 04-JUN-16 @ 12:50							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Lithium (Li)-Dissolved	0.0339		0.0050	mg/L	07-JUN-16	15-JUN-16	R3475246
Manganese (Mn)-Dissolved	14.0		0.00050	mg/L	07-JUN-16	15-JUN-16	R3475246
Molybdenum (Mo)-Dissolved	0.00173		0.00025	mg/L	07-JUN-16	15-JUN-16	R3475246
Nickel (Ni)-Dissolved	0.122		0.0025	mg/L	07-JUN-16	15-JUN-16	R3475246
Potassium (K)-Dissolved	3.15		0.25	mg/L	07-JUN-16	15-JUN-16	R3475246
Selenium (Se)-Dissolved	<0.00025	DLA	0.00025	mg/L	07-JUN-16	15-JUN-16	R3475246
Silver (Ag)-Dissolved	<0.000050	DLA	0.000050	mg/L	07-JUN-16	15-JUN-16	R3475246
Sodium (Na)-Dissolved	16.4		0.25	mg/L	07-JUN-16	15-JUN-16	R3475246
Strontium (Sr)-Dissolved	2.11		0.0010	mg/L	07-JUN-16	15-JUN-16	R3475246
Thallium (Tl)-Dissolved	0.000183		0.000050	mg/L	07-JUN-16	15-JUN-16	R3475246
Titanium (Ti)-Dissolved	<0.0015	DLA	0.0015	mg/L	07-JUN-16	15-JUN-16	R3475246
Uranium (U)-Dissolved	0.0935		0.000050	mg/L	07-JUN-16	15-JUN-16	R3475246
Vanadium (V)-Dissolved	<0.0025	DLA	0.0025	mg/L	07-JUN-16	15-JUN-16	R3475246
Zinc (Zn)-Dissolved	7.85		0.0050	mg/L	07-JUN-16	15-JUN-16	R3475246
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-JUN-16	R3474544
Calcium (Ca)-Dissolved	738		0.10	mg/L	07-JUN-16	10-JUN-16	R3474977
Iron (Fe)-Dissolved	6.80		0.060	mg/L	07-JUN-16	10-JUN-16	R3474977
Magnesium (Mg)-Dissolved	719		0.20	mg/L	07-JUN-16	10-JUN-16	R3474977
Phosphorus (P)-Dissolved	<0.60	DLHC	0.60	mg/L	07-JUN-16	10-JUN-16	R3474977
Silicon (Si)-Dissolved	12.3		0.10	mg/L	07-JUN-16	10-JUN-16	R3474977
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	26.2		0.21	mg/L		13-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-JUN-16	R3474544
Sulfur (S)-Dissolved	1210		1.0	mg/L	07-JUN-16	10-JUN-16	R3474977
Hardness							
Hardness (as CaCO3)	4810		0.86	mg/L		15-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		12-JUN-16	R3479237
Ammonia, Total (as N)	0.0637		0.0050	mg/L		18-JUN-16	R3483165
Dissolved Organic Carbon	13.1		0.50	mg/L		15-JUN-16	R3480789
Total Dissolved Solids	6750		20	mg/L		10-JUN-16	R3479540
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		14-JUN-16	R3479367
Total Suspended Solids	57.6		2.0	mg/L		07-JUN-16	R3475693
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	6.05		0.20	mg/L	09-JUN-16	09-JUN-16	R3475524
Dissolved Fe2 Filtration Location	FIELD					09-JUN-16	R3475517
L1778701-5 E_014_16_001							
Sampled By: CLIENT on 05-JUN-16 @ 08:00							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	1.5	RRV	1.0	mg/L		16-JUN-16	R3481977
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		16-JUN-16	R3481977
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		16-JUN-16	R3481977
Alkalinity, Total (as CaCO3)	1.5	RRV	1.0	mg/L		16-JUN-16	R3481977
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<0.50		0.50	mg/L		06-JUN-16	R3476325
Fluoride in Water by IC							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1778701-5 E_014_16_001							
Sampled By: CLIENT on 05-JUN-16 @ 08:00							
Matrix: Water							
Fluoride in Water by IC							
Fluoride (F)	<0.020		0.020	mg/L		06-JUN-16	R3476325
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.0050		0.0050	mg/L		06-JUN-16	R3476325
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0010		0.0010	mg/L		06-JUN-16	R3476325
Sulfate in Water by IC							
Sulfate (SO4)	0.43		0.30	mg/L		06-JUN-16	R3476325
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	08-JUN-16	08-JUN-16	R3475133
Dissolved Mercury Filtration Location	FIELD					08-JUN-16	R3474606
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					07-JUN-16	R3474544
Aluminum (Al)-Dissolved	0.0039		0.0010	mg/L	07-JUN-16	15-JUN-16	R3475246
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	07-JUN-16	14-JUN-16	R3475246
Arsenic (As)-Dissolved	<0.00010		0.00010	mg/L	07-JUN-16	14-JUN-16	R3475246
Barium (Ba)-Dissolved	0.00167		0.000050	mg/L	07-JUN-16	15-JUN-16	R3475246
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	07-JUN-16	15-JUN-16	R3475246
Boron (B)-Dissolved	<0.010		0.010	mg/L	07-JUN-16	14-JUN-16	R3475246
Cadmium (Cd)-Dissolved	0.0000169		0.0000050	mg/L	07-JUN-16	15-JUN-16	R3475246
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	07-JUN-16	14-JUN-16	R3475246
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	07-JUN-16	14-JUN-16	R3475246
Copper (Cu)-Dissolved	<0.00020		0.00020	mg/L	07-JUN-16	14-JUN-16	R3475246
Lead (Pb)-Dissolved	0.000515		0.000050	mg/L	07-JUN-16	15-JUN-16	R3475246
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	07-JUN-16	14-JUN-16	R3475246
Manganese (Mn)-Dissolved	0.00223		0.00010	mg/L	07-JUN-16	15-JUN-16	R3475246
Molybdenum (Mo)-Dissolved	0.000163		0.000050	mg/L	07-JUN-16	15-JUN-16	R3475246
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	07-JUN-16	14-JUN-16	R3475246
Potassium (K)-Dissolved	<0.050		0.050	mg/L	07-JUN-16	14-JUN-16	R3475246
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	07-JUN-16	14-JUN-16	R3475246
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	07-JUN-16	14-JUN-16	R3475246
Sodium (Na)-Dissolved	<0.050		0.050	mg/L	07-JUN-16	15-JUN-16	R3475246
Strontium (Sr)-Dissolved	0.00046		0.00020	mg/L	07-JUN-16	15-JUN-16	R3475246
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	07-JUN-16	14-JUN-16	R3475246
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	07-JUN-16	14-JUN-16	R3475246
Uranium (U)-Dissolved	0.000011		0.000010	mg/L	07-JUN-16	15-JUN-16	R3475246
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	07-JUN-16	14-JUN-16	R3475246
Zinc (Zn)-Dissolved	0.0077		0.0010	mg/L	07-JUN-16	15-JUN-16	R3475246
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-JUN-16	R3474544
Calcium (Ca)-Dissolved	0.184		0.050	mg/L	07-JUN-16	08-JUN-16	R3474977
Iron (Fe)-Dissolved	<0.030	RRV	0.030	mg/L	07-JUN-16	08-JUN-16	R3474977
Magnesium (Mg)-Dissolved	0.12		0.10	mg/L	07-JUN-16	08-JUN-16	R3474977
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	07-JUN-16	08-JUN-16	R3474977
Silicon (Si)-Dissolved	<0.050		0.050	mg/L	07-JUN-16	08-JUN-16	R3474977
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	<0.20		0.20	mg/L		13-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-JUN-16	R3474544
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	07-JUN-16	08-JUN-16	R3474977
Hardness							
Hardness (as CaCO3)	0.95		0.50	mg/L		15-JUN-16	

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1778701-5 E_014_16_001							
Sampled By: CLIENT on 05-JUN-16 @ 08:00							
Matrix: Water							
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		12-JUN-16	R3479237
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		18-JUN-16	R3483165
Dissolved Organic Carbon	<0.50		0.50	mg/L		15-JUN-16	R3480789
Total Dissolved Solids	13		10	mg/L		10-JUN-16	R3479540
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		14-JUN-16	R3479367
Total Suspended Solids	<1.0		1.0	mg/L		07-JUN-16	R3475693
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	0.061	RRV	0.020	mg/L	09-JUN-16	09-JUN-16	R3475524
Dissolved Fe2 Filtration Location	FIELD					09-JUN-16	R3475517
L1778701-6 E_014_16_002							
Sampled By: CLIENT on 05-JUN-16 @ 08:20							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	<1.0		1.0	mg/L		15-JUN-16	R3480552
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		15-JUN-16	R3480552
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		15-JUN-16	R3480552
Alkalinity, Total (as CaCO3)	<1.0		1.0	mg/L		15-JUN-16	R3480552
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<0.50		0.50	mg/L		06-JUN-16	R3476325
Fluoride in Water by IC							
Fluoride (F)	<0.020		0.020	mg/L		06-JUN-16	R3476325
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.0050		0.0050	mg/L		06-JUN-16	R3476325
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0010		0.0010	mg/L		06-JUN-16	R3476325
Sulfate in Water by IC							
Sulfate (SO4)	<0.30		0.30	mg/L		06-JUN-16	R3476325
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	08-JUN-16	08-JUN-16	R3475133
Dissolved Mercury Filtration Location	FIELD					08-JUN-16	R3474606
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					07-JUN-16	R3474544
Aluminum (Al)-Dissolved	0.0014		0.0010	mg/L	07-JUN-16	15-JUN-16	R3475246
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	07-JUN-16	14-JUN-16	R3475246
Arsenic (As)-Dissolved	<0.00010		0.00010	mg/L	07-JUN-16	14-JUN-16	R3475246
Barium (Ba)-Dissolved	0.000496		0.000050	mg/L	07-JUN-16	15-JUN-16	R3475246
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	07-JUN-16	14-JUN-16	R3475246
Boron (B)-Dissolved	<0.010		0.010	mg/L	07-JUN-16	14-JUN-16	R3475246
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	07-JUN-16	14-JUN-16	R3475246
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	07-JUN-16	14-JUN-16	R3475246
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	07-JUN-16	14-JUN-16	R3475246
Copper (Cu)-Dissolved	<0.00020		0.00020	mg/L	07-JUN-16	14-JUN-16	R3475246
Lead (Pb)-Dissolved	0.000218		0.000050	mg/L	07-JUN-16	15-JUN-16	R3475246
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	07-JUN-16	14-JUN-16	R3475246
Manganese (Mn)-Dissolved	0.00039		0.00010	mg/L	07-JUN-16	15-JUN-16	R3475246
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	07-JUN-16	14-JUN-16	R3475246
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	07-JUN-16	14-JUN-16	R3475246
Potassium (K)-Dissolved	<0.050		0.050	mg/L	07-JUN-16	14-JUN-16	R3475246

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1778701-6 E_014_16_002							
Sampled By: CLIENT on 05-JUN-16 @ 08:20							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	07-JUN-16	14-JUN-16	R3475246
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	07-JUN-16	14-JUN-16	R3475246
Sodium (Na)-Dissolved	<0.050		0.050	mg/L	07-JUN-16	15-JUN-16	R3475246
Strontium (Sr)-Dissolved	<0.00020		0.00020	mg/L	07-JUN-16	14-JUN-16	R3475246
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	07-JUN-16	14-JUN-16	R3475246
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	07-JUN-16	14-JUN-16	R3475246
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	07-JUN-16	14-JUN-16	R3475246
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	07-JUN-16	14-JUN-16	R3475246
Zinc (Zn)-Dissolved	0.0023		0.0010	mg/L	07-JUN-16	15-JUN-16	R3475246
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-JUN-16	R3474544
Calcium (Ca)-Dissolved	<0.050		0.050	mg/L	07-JUN-16	08-JUN-16	R3474977
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	07-JUN-16	08-JUN-16	R3474977
Magnesium (Mg)-Dissolved	<0.10		0.10	mg/L	07-JUN-16	08-JUN-16	R3474977
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	07-JUN-16	08-JUN-16	R3474977
Silicon (Si)-Dissolved	<0.050		0.050	mg/L	07-JUN-16	08-JUN-16	R3474977
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	<0.20		0.20	mg/L		13-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					07-JUN-16	R3474544
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	07-JUN-16	08-JUN-16	R3474977
Hardness							
Hardness (as CaCO3)	<0.50		0.50	mg/L		15-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		12-JUN-16	R3479237
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		18-JUN-16	R3483165
Dissolved Organic Carbon	<0.50		0.50	mg/L		15-JUN-16	R3480789
Total Dissolved Solids	<10		10	mg/L		10-JUN-16	R3479540
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		14-JUN-16	R3479367
Total Suspended Solids	<1.0		1.0	mg/L		07-JUN-16	R3475693
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.020		0.020	mg/L	11-JUN-16	11-JUN-16	R3477067
Dissolved Fe2 Filtration Location	FIELD					11-JUN-16	R3477061

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier Key:

Qualifier	Description
B	Method Blank exceeds ALS DQO. All associated sample results are at least 5 times greater than blank levels and are considered reliable.
DLA	Detection Limit adjusted for required dilution
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
M	A peak has been manually integrated.
RRV	Reported Result Verified By Repeat Analysis

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ACY-H2O2-MAN-VA	Water	Acidity by Hot Peroxide Titration	APHA - ACIDITY (2310)
This analysis is carried out using procedures adapted from APHA Method 2310 "Acidity". The procedure involves preliminary sample treatment by the hot peroxide procedure, and Acidity is subsequently determined by potentiometric titration to a specified endpoint (i.e. pH = 8.3).			
ALK-TITR-VA	Water	Alkalinity Species by Titration	APHA 2320 Alkalinity
This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.			
CARBONS-DOC-VA	Water	Dissolved organic carbon by combustion	APHA 5310B TOTAL ORGANIC CARBON (TOC)
This analysis is carried out using procedures adapted from APHA Method 5310 "Total Organic Carbon (TOC)". Dissolved carbon (DOC) fractions are determined by filtering the sample through a 0.45 micron membrane filter prior to analysis.			
CL-IC-N-WR	Water	Chloride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
F-IC-N-WR	Water	Fluoride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
FE2-D-COL-VA	Water	Diss. Ferrous Iron in Water by Colour	APHA 3500-Fe B/James Ball et al (1999)
This analysis is carried out using procedures adapted from APHA 3500-Fe B and "A New Method for the Direct Determination of Dissolved Iron Concentration in Acid Mine Waters" published by James W. Ball et al (1999). The procedure involves preliminary sample filtration, and ferrous iron is determined using the "FerroZine" colourimetric method.			
HARDNESS-CALC-VA	Water	Hardness	APHA 2340B
Hardness (also known as Total Hardness) is calculated from the sum of Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. Dissolved Calcium and Magnesium concentrations are preferentially used for the hardness calculation.			
HG-D-CVAA-VA	Water	Diss. Mercury in Water by CVAAS or CVAFS	APHA 3030B/EPA 1631E (mod)
Water samples are filtered (0.45 um), preserved with hydrochloric acid, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS or CVAFS.			
MET-D-CCMS-VA	Water	Dissolved Metals in Water by CRC ICPMS	APHA 3030B/6020A (mod)
Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.			
Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			
MET-DIS-ICP-VA	Water	Dissolved Metals in Water by ICPOES	EPA SW-846 3005A/6010B
This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedure involves filtration (EPA Method 3005A) and analysis by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B).			
NH3-F-VA	Water	Ammonia in Water by Fluorescence	APHA 4500 NH3-NITROGEN (AMMONIA)
This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.			
NH3-F-VA	Water	Ammonia in Water by Fluorescence	J. ENVIRON. MONIT., 2005, 7, 37-42, RSC
This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.			

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
NO2-L-IC-N-WR	Water	Nitrite in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
NO3-L-IC-N-WR	Water	Nitrate in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
P-T-PRES-COL-VA	Water	Total P in Water by Colour	APHA 4500-P Phosphorus
This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorus is determined colourimetrically after persulphate digestion of the sample.			
S-DIS-ICP-VA	Water	Dissolved Sulfur in Water by ICPOES	EPA SW-846 3005A/6010B
This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedures may involve preliminary sample treatment by acid digestion, using either hotblock or microwave oven, or filtration (EPA Method 3005A). Instrumental analysis is by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B). Method Limitation: This method will not give total sulfur results for all samples. Sulfide or other volatile forms of sulfur that may be present in submitted samples, is often lost during the sampling, preservation and analysis process. The data reported as total and/or dissolved sulfur represents all non-volatile forms of sulfur present in a particular sample.			
SIO2-D-CALC-VA	Water	Dissolved Silicon (reported as Silica)	CALCULATION
Dissolved Silicon (as SiO2) is a calculated parameter. Dissolved Silicon (as SiO2 mg/L) = 2.139 x Dissolved Silicon (mg/L).			
SO4-IC-N-WR	Water	Sulfate in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
TDS-VA	Water	Total Dissolved Solids by Gravimetric	APHA 2540 C - GRAVIMETRIC
This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, TDS is determined by evaporating the filtrate to dryness at 180 degrees celsius.			
TSS-LOW-WR	Water	Total Suspended Solids by Grav. (1 mg/L)	APHA 2540 D
This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Suspended Solids are determined by filtering a sample through a glass fibre filter and drying the filter at 104 degrees celsius.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WR	ALS ENVIRONMENTAL - WHITEHORSE, YUKON, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

ALS06051601

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L1778701 Report Date: 20-JUN-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ACY-H2O2-MAN-VA	**Water**							
Batch **R3479237**								
WG2326067-2 **CRM**		**VA-ACY-M-CONTROL**						
Acidity-Hot Peroxide Treated (as CaCO3)			98.6		%		85-115	12-JUN-16
WG2326067-3 **DUP**		**L1778682-2**						
Acidity-Hot Peroxide Treated (as CaCO3)		<25	<25	RPD-NA	mg/L	N/A	20	12-JUN-16
WG2326067-1 **MB**								
Acidity-Hot Peroxide Treated (as CaCO3)			<25		mg/L		25	12-JUN-16
ALK-TITR-VA	**Water**							
Batch **R3480552**								
WG2327329-3 **CRM**		**VA-ALK-TITR-CONTROL**						
Alkalinity, Total (as CaCO3)			97.7		%		85-115	15-JUN-16
WG2327329-5 **DUP**		**L1778685-1**						
Alkalinity, Total (as CaCO3)		579	573		mg/L	1.0	20	15-JUN-16
WG2327329-1 **MB**								
Alkalinity, Total (as CaCO3)			1.7	B	mg/L		1	15-JUN-16
Batch **R3481977**								
WG2329137-3 **CRM**		**VA-ALK-TITR-CONTROL**						
Alkalinity, Total (as CaCO3)			101.1		%		85-115	16-JUN-16
WG2329137-5 **DUP**		**L1778701-5**						
Alkalinity, Total (as CaCO3)		1.5	1.1	J	mg/L	0.4	2	16-JUN-16
WG2329137-1 **MB**								
Alkalinity, Total (as CaCO3)			<1.0		mg/L		1	16-JUN-16
CARBONS-DOC-VA	**Water**							
Batch **R3480789**								
WG2328094-1 **DUP**		**L1778028-2**						
Dissolved Organic Carbon		5.68	5.59		mg/L	1.5	20	15-JUN-16
WG2328094-4 **LCS**								
Dissolved Organic Carbon			101.5		%		80-120	15-JUN-16
WG2328094-3 **MB**								
Dissolved Organic Carbon			<0.50		mg/L		0.5	15-JUN-16
WG2328094-2 **MS**		**L1778682-1**						
Dissolved Organic Carbon			108.9		%		70-130	15-JUN-16
CL-IC-N-WR	**Water**							
Batch **R3476325**								
WG2322172-3 **DUP**		**L1778682-2**						
Chloride (Cl)		<0.50	<0.50	RPD-NA	mg/L	N/A	20	06-JUN-16
WG2322172-2 **LCS**								
Chloride (Cl)			101.8		%		90-110	06-JUN-16

Quality Control Report

Workorder: L1778701 Report Date: 20-JUN-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CL-IC-N-WR	**Water**							
Batch R3476325								
WG2322172-1 MB								
Chloride (Cl)			<0.50		mg/L		0.5	06-JUN-16
WG2322172-4 MS		**L1778682-1**						
Chloride (Cl)			99.9		%		75-125	06-JUN-16
F-IC-N-WR	**Water**							
Batch R3476325								
WG2322172-3 DUP		**L1778682-2**						
Fluoride (F)		0.091	0.092		mg/L	0.7	20	06-JUN-16
WG2322172-2 LCS								
Fluoride (F)			105.9		%		90-110	06-JUN-16
WG2322172-1 MB								
Fluoride (F)			<0.020		mg/L		0.02	06-JUN-16
WG2322172-4 MS		**L1778682-1**						
Fluoride (F)			105.3		%		75-125	06-JUN-16
FE2-D-COL-VA	**Water**							
Batch R3475524								
WG2324115-3 DUP		**L1778701-5**						
Ferrous Iron, Dissolved		0.061	0.088	J	mg/L	0.027	0.04	09-JUN-16
WG2324115-2 LCS								
Ferrous Iron, Dissolved			106.5		%		80-120	09-JUN-16
WG2324115-1 MB								
Ferrous Iron, Dissolved			<0.020		mg/L		0.02	09-JUN-16
Batch R3477067								
WG2325764-3 DUP		**L1780437-1**						
Ferrous Iron, Dissolved		<0.020	<0.020	RPD-NA	mg/L	N/A	20	11-JUN-16
WG2325764-2 LCS								
Ferrous Iron, Dissolved			105.8		%		80-120	11-JUN-16
WG2325764-1 MB								
Ferrous Iron, Dissolved			<0.020		mg/L		0.02	11-JUN-16
WG2325764-4 MS		**L1780437-2**						
Ferrous Iron, Dissolved			126.1		%		70-130	11-JUN-16
HG-D-CVAA-VA	**Water**							
Batch R3475133								
WG2323133-3 DUP		**L1778701-5**						
Mercury (Hg)-Dissolved		<0.0000050	<0.000005(	RPD-NA	mg/L	N/A	20	08-JUN-16
WG2323133-2 LCS								
Mercury (Hg)-Dissolved			93.7		%		80-120	08-JUN-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HG-D-CVAA-VA	**Water**							
Batch R3475133								
WG2323133-1 MB								
Mercury (Hg)-Dissolved			<0.000005(		mg/L		0.000005	08-JUN-16
WG2323133-4 MS		**L1778682-2**						
Mercury (Hg)-Dissolved			92.6		%		70-130	08-JUN-16
MET-D-CCMS-VA	**Water**							
Batch R3475246								
WG2323053-3 DUP		**L1778701-1**						
Aluminum (Al)-Dissolved		0.0036	0.0030	J	mg/L	0.0007	0.004	15-JUN-16
Antimony (Sb)-Dissolved		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	15-JUN-16
Arsenic (As)-Dissolved		0.00044	0.00047		mg/L	7.2	20	15-JUN-16
Barium (Ba)-Dissolved		0.0210	0.0209		mg/L	0.6	20	15-JUN-16
Beryllium (Be)-Dissolved		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	15-JUN-16
Boron (B)-Dissolved		<0.020	<0.020	RPD-NA	mg/L	N/A	20	15-JUN-16
Cadmium (Cd)-Dissolved		0.000325	0.000321		mg/L	1.2	20	15-JUN-16
Chromium (Cr)-Dissolved		0.00116	0.00107		mg/L	7.6	20	15-JUN-16
Cobalt (Co)-Dissolved		0.00466	0.00456		mg/L	2.1	20	15-JUN-16
Copper (Cu)-Dissolved		0.00105	0.00104		mg/L	0.3	20	15-JUN-16
Lead (Pb)-Dissolved		0.00161	0.00154		mg/L	4.3	20	15-JUN-16
Lithium (Li)-Dissolved		0.0373	0.0351		mg/L	6.1	20	15-JUN-16
Manganese (Mn)-Dissolved		2.44	2.42		mg/L	1.1	20	15-JUN-16
Molybdenum (Mo)-Dissolved		0.00143	0.00137		mg/L	4.6	20	15-JUN-16
Nickel (Ni)-Dissolved		0.0713	0.0704		mg/L	1.2	20	15-JUN-16
Potassium (K)-Dissolved		6.81	6.70		mg/L	1.6	20	15-JUN-16
Selenium (Se)-Dissolved		0.00010	<0.00010	RPD-NA	mg/L	N/A	20	15-JUN-16
Silver (Ag)-Dissolved		<0.000020	<0.000020	RPD-NA	mg/L	N/A	20	15-JUN-16
Sodium (Na)-Dissolved		10.0	9.91		mg/L	1.2	20	15-JUN-16
Strontium (Sr)-Dissolved		1.05	1.02		mg/L	3.1	20	15-JUN-16
Thallium (Tl)-Dissolved		0.000021	<0.000020	RPD-NA	mg/L	N/A	20	15-JUN-16
Titanium (Ti)-Dissolved		<0.00060	<0.00060	RPD-NA	mg/L	N/A	20	15-JUN-16
Uranium (U)-Dissolved		0.0476	0.0456		mg/L	4.4	20	15-JUN-16
Vanadium (V)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	15-JUN-16
Zinc (Zn)-Dissolved		0.684	0.683		mg/L	0.2	20	15-JUN-16
WG2323053-2 LCS								
Aluminum (Al)-Dissolved			104.3		%		80-120	08-JUN-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3475246								
WG2323053-2 LCS								
Antimony (Sb)-Dissolved			95.8		%		80-120	08-JUN-16
Arsenic (As)-Dissolved			99.1		%		80-120	08-JUN-16
Barium (Ba)-Dissolved			99.8		%		80-120	08-JUN-16
Beryllium (Be)-Dissolved			97.2		%		80-120	08-JUN-16
Boron (B)-Dissolved			91.7		%		80-120	08-JUN-16
Cadmium (Cd)-Dissolved			98.4		%		80-120	08-JUN-16
Chromium (Cr)-Dissolved			99.3		%		80-120	08-JUN-16
Cobalt (Co)-Dissolved			99.2		%		80-120	08-JUN-16
Copper (Cu)-Dissolved			96.1		%		80-120	08-JUN-16
Lead (Pb)-Dissolved			98.2		%		80-120	08-JUN-16
Lithium (Li)-Dissolved			98.3		%		80-120	08-JUN-16
Manganese (Mn)-Dissolved			99.9		%		80-120	08-JUN-16
Molybdenum (Mo)-Dissolved			102.7		%		80-120	08-JUN-16
Nickel (Ni)-Dissolved			99.8		%		80-120	08-JUN-16
Potassium (K)-Dissolved			100.6		%		80-120	08-JUN-16
Selenium (Se)-Dissolved			97.0		%		80-120	08-JUN-16
Silver (Ag)-Dissolved			96.9		%		80-120	08-JUN-16
Sodium (Na)-Dissolved			97.9		%		80-120	08-JUN-16
Strontium (Sr)-Dissolved			96.9		%		80-120	08-JUN-16
Thallium (Tl)-Dissolved			98.8		%		80-120	08-JUN-16
Titanium (Ti)-Dissolved			92.8		%		80-120	08-JUN-16
Uranium (U)-Dissolved			97.3		%		80-120	08-JUN-16
Vanadium (V)-Dissolved			101.3		%		80-120	08-JUN-16
Zinc (Zn)-Dissolved			95.9		%		80-120	08-JUN-16
WG2323053-1 MB								
Aluminum (Al)-Dissolved			<0.0010		mg/L		0.001	08-JUN-16
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	08-JUN-16
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	08-JUN-16
Barium (Ba)-Dissolved			<0.000050		mg/L		0.00005	08-JUN-16
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	08-JUN-16
Boron (B)-Dissolved			<0.010		mg/L		0.01	08-JUN-16
Cadmium (Cd)-Dissolved			<0.000005(		mg/L		0.000005	08-JUN-16
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	08-JUN-16
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	08-JUN-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3475246								
WG2323053-1 MB								
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	08-JUN-16
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	08-JUN-16
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	08-JUN-16
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	08-JUN-16
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	08-JUN-16
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	08-JUN-16
Potassium (K)-Dissolved			<0.050		mg/L		0.05	08-JUN-16
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	08-JUN-16
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	08-JUN-16
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	08-JUN-16
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	08-JUN-16
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	08-JUN-16
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	08-JUN-16
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	08-JUN-16
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	08-JUN-16
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	08-JUN-16
WG2323053-4 MS		**L1778701-6**						
Aluminum (Al)-Dissolved			96.0		%		70-130	14-JUN-16
Antimony (Sb)-Dissolved			91.8		%		70-130	14-JUN-16
Arsenic (As)-Dissolved			93.7		%		70-130	14-JUN-16
Barium (Ba)-Dissolved			97.8		%		70-130	14-JUN-16
Beryllium (Be)-Dissolved			96.2		%		70-130	14-JUN-16
Boron (B)-Dissolved			89.5		%		70-130	14-JUN-16
Cadmium (Cd)-Dissolved			101.3		%		70-130	14-JUN-16
Chromium (Cr)-Dissolved			99.0		%		70-130	14-JUN-16
Cobalt (Co)-Dissolved			99.3		%		70-130	14-JUN-16
Copper (Cu)-Dissolved			99.7		%		70-130	14-JUN-16
Lead (Pb)-Dissolved			98.3		%		70-130	14-JUN-16
Lithium (Li)-Dissolved			103.5		%		70-130	14-JUN-16
Manganese (Mn)-Dissolved			98.8		%		70-130	14-JUN-16
Molybdenum (Mo)-Dissolved			94.0		%		70-130	14-JUN-16
Nickel (Ni)-Dissolved			98.7		%		70-130	14-JUN-16
Potassium (K)-Dissolved			95.5		%		70-130	14-JUN-16
Selenium (Se)-Dissolved			85.0		%		70-130	14-JUN-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3475246								
WG2323053-4 MS		**L1778701-6**						
Silver (Ag)-Dissolved			100.4		%		70-130	14-JUN-16
Sodium (Na)-Dissolved			96.4		%		70-130	14-JUN-16
Strontium (Sr)-Dissolved			98.8		%		70-130	14-JUN-16
Thallium (Tl)-Dissolved			95.1		%		70-130	14-JUN-16
Titanium (Ti)-Dissolved			91.5		%		70-130	14-JUN-16
Uranium (U)-Dissolved			95.9		%		70-130	14-JUN-16
Vanadium (V)-Dissolved			96.0		%		70-130	14-JUN-16
Zinc (Zn)-Dissolved			99.7		%		70-130	14-JUN-16
MET-DIS-ICP-VA	**Water**							
Batch R3474977								
WG2323053-3 DUP		**L1778701-1**						
Calcium (Ca)-Dissolved		400	404		mg/L	0.9	20	07-JUN-16
Iron (Fe)-Dissolved		2.94	2.94		mg/L	0.0	20	07-JUN-16
Magnesium (Mg)-Dissolved		337	338		mg/L	0.4	20	07-JUN-16
Phosphorus (P)-Dissolved		<0.30	<0.30	RPD-NA	mg/L	N/A	20	07-JUN-16
Silicon (Si)-Dissolved		4.72	4.74		mg/L	0.5	20	07-JUN-16
WG2323053-2 LCS								
Calcium (Ca)-Dissolved			102.5		%		80-120	07-JUN-16
Iron (Fe)-Dissolved			97.0		%		80-120	07-JUN-16
Magnesium (Mg)-Dissolved			98.2		%		80-120	07-JUN-16
Phosphorus (P)-Dissolved			99.99		%		80-120	07-JUN-16
Silicon (Si)-Dissolved			109.2		%		80-120	07-JUN-16
WG2323053-1 MB								
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	07-JUN-16
Iron (Fe)-Dissolved			<0.030		mg/L		0.03	07-JUN-16
Magnesium (Mg)-Dissolved			<0.10		mg/L		0.1	07-JUN-16
Phosphorus (P)-Dissolved			<0.30		mg/L		0.3	07-JUN-16
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	07-JUN-16
WG2323053-4 MS		**L1778701-6**						
Calcium (Ca)-Dissolved			102.4		%		70-130	08-JUN-16
Iron (Fe)-Dissolved			96.2		%		70-130	08-JUN-16
Magnesium (Mg)-Dissolved			97.8		%		70-130	08-JUN-16
Phosphorus (P)-Dissolved			98.7		%		70-130	08-JUN-16
Silicon (Si)-Dissolved			101.1		%		70-130	08-JUN-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NH3-F-VA	**Water**							
Batch R3483165								
WG2329903-3 DUP		**L1778685-1**						
Ammonia, Total (as N)		0.0266	0.0267		mg/L	0.3	20	18-JUN-16
WG2329903-2 LCS								
Ammonia, Total (as N)			98.1		%		85-115	18-JUN-16
WG2329903-1 MB								
Ammonia, Total (as N)			<0.0050		mg/L		0.005	18-JUN-16
WG2329903-4 MS		**L1778685-1**						
Ammonia, Total (as N)			97.9		%		75-125	18-JUN-16
NO2-L-IC-N-WR	**Water**							
Batch R3476325								
WG2322172-3 DUP		**L1778682-2**						
Nitrite (as N)		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	06-JUN-16
WG2322172-2 LCS								
Nitrite (as N)			101.7		%		90-110	06-JUN-16
WG2322172-1 MB								
Nitrite (as N)			<0.0010		mg/L		0.001	06-JUN-16
WG2322172-4 MS		**L1778682-1**						
Nitrite (as N)			100.2		%		75-125	06-JUN-16
NO3-L-IC-N-WR	**Water**							
Batch R3476325								
WG2322172-3 DUP		**L1778682-2**						
Nitrate (as N)		0.112	0.112		mg/L	0.7	20	06-JUN-16
WG2322172-2 LCS								
Nitrate (as N)			101.7		%		90-110	06-JUN-16
WG2322172-1 MB								
Nitrate (as N)			<0.0050		mg/L		0.005	06-JUN-16
WG2322172-4 MS		**L1778682-1**						
Nitrate (as N)			99.3		%		75-125	06-JUN-16
P-T-PRES-COL-VA	**Water**							
Batch R3479367								
WG2326882-2 CRM		**VA-ERA-PO4**						
Phosphorus (P)-Total			100.5		%		80-120	14-JUN-16
WG2326882-3 DUP		**L1778682-1**						
Phosphorus (P)-Total		0.026	0.026		mg/L	0.7	20	14-JUN-16
WG2326882-1 MB								
Phosphorus (P)-Total			<0.0020		mg/L		0.002	14-JUN-16
WG2326882-4 MS		**L1778682-2**						

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
P-T-PRES-COL-VA	**Water**							
Batch R3479367								
WG2326882-4 MS		**L1778682-2**						
Phosphorus (P)-Total			103.6		%		70-130	14-JUN-16
S-DIS-ICP-VA	**Water**							
Batch R3474977								
WG2323053-3 DUP		**L1778701-1**						
Sulfur (S)-Dissolved		533	539		mg/L	1.1	20	07-JUN-16
WG2323053-2 LCS								
Sulfur (S)-Dissolved			97.0		%		80-120	07-JUN-16
WG2323053-1 MB								
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	07-JUN-16
WG2323053-4 MS		**L1778701-6**						
Sulfur (S)-Dissolved			99.8		%		70-130	08-JUN-16
SO4-IC-N-WR	**Water**							
Batch R3476325								
WG2322172-3 DUP		**L1778682-2**						
Sulfate (SO4)		20.8	21.0		mg/L	1.2	20	06-JUN-16
WG2322172-2 LCS								
Sulfate (SO4)			102.2		%		90-110	06-JUN-16
WG2322172-1 MB								
Sulfate (SO4)			<0.30		mg/L		0.3	06-JUN-16
WG2322172-4 MS		**L1778682-1**						
Sulfate (SO4)			99.6		%		75-125	06-JUN-16
TDS-VA	**Water**							
Batch R3479540								
WG2325588-3 DUP		**L1778701-1**						
Total Dissolved Solids		3530	3560		mg/L	0.9	20	10-JUN-16
WG2325588-2 LCS								
Total Dissolved Solids			99.8		%		85-115	10-JUN-16
WG2325588-1 MB								
Total Dissolved Solids			<10		mg/L		10	10-JUN-16
TSS-LOW-WR	**Water**							
Batch R3475693								
WG2322579-3 DUP		**L1778028-2**						
Total Suspended Solids		182	190		mg/L	4.7	20	07-JUN-16
WG2322579-2 LCS								
Total Suspended Solids			97.8		%		85-115	07-JUN-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TSS-LOW-WR	**Water**							
Batch R3475693								
WG2322579-1 MB								
Total Suspended Solids			<1.0		mg/L		1	07-JUN-16

Quality Control Report

Workorder: L1778701 Report Date: 20-JUN-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
B	Method Blank exceeds ALS DQO. All associated sample results are at least 5 times greater than blank levels and are considered reliable.
DLA	Detection Limit adjusted for required dilution
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
J	Duplicate results and limits are expressed in terms of absolute difference.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

CH2MHILL **CHAIN OF CUSTODY RECORD** *6/3/2016 9:49:00 AM* Page 1 OF 1

Project Name Faro
Location Faro Mine Complex - Faro YK
Project Number 674521.20.01.01.02.03
Project Manager BT Thomas
Sample Manager Jay Bilyk

Task Order TAR 20
Project WRD MONITORING 2016
Turnaround Time 10 Days
Shipping Date: 6/3/2016
COC Number: ALS06051601

	DATE	TIME	Matrix	Container:	40ml vial	125ml Poly	125ml glass	500ml Poly	500ml Poly	500ml Poly	125ml glass	125ml Glass	125ml Poly	500ml Poly	500ml Poly		Number of Containers	COMMENTS
				Preservatives:	HCl, 4°C	HCl, 4°C	H2SO4, pH<2, 4C	4C	4C	4°C	H2SO4, pH<2, 4C	H2SO4, pH<2, 4°C	HNO3, 4°C	4C	4°C			
				Filtered:	Field	Field	NA	NA	NA	NA	NA	Field	Field	NA	NA			
				Holding Time:	28	180	28	14	14	7	28	28	180	14	3			
					(E245.7-Diss) Field Filtered Dissolved Hg	(Ferrozine Method) Field Filtered Ferrous Iron	(JEM/SM4500NH3) Ammonia	(SM2320B) Alkalinity	(SM2540C) TDS	(SM2540D) TSS	(SM4500P) Total Phosphorous	(SM5310) Field Filtered DOC	(SW6010B/SW6020A) Field Filtered Metals Analyte List Table 1	SM2310_HP Acidity - Run Hot H2O2	SM4110B CL F NO2 NO3 and SO4			
CH12-014-MW011_GW0616	6/4/16	1505	Water		x	x	x	x	x	x	x	x	x	x	x		8	
CH12-014-MW012_GW0616	6/3/16	1330	Water		x	x	x	x	x	x	x	x	x	x	x		8	
CH12-014-MW013_GW0616	6/4/16	1250	Water		x	x	x	x	x	x	x	x	x	x	x		8	
CH12-014-MW913_GW0616	6/4/16	1250	Water		x	x	x	x	x	x	x	x	x	x	x		8	
E_014_16_001	6/5/16	0800	Water		x	x	x	x	x	x	x	x	x	x	x		8	
E_014_16_002	6/5/16	0820	Water		x	x	x	x	x	x	x	x	x	x	x		8	
																TOTAL NUMBER OF CONTAINERS	48	

Short Holding Time

- *Rush Processing*

L1778701-COFC

Shelby June 7 2:20 13/12/8

Signatures	Date/Time
Approved by	
Sampled by	June 5/16
Relinquished by	
Received by	6 Jun 16 1.2.15 9:20
Relinquished by	
Received by	

Shipping Details
Method of Shipment: FedEx
On Ice: (yes) no
Airbill No:
Lab Name: ALS Vancouver
Lab Phone: (604) 253-4188

ATTN:
Sample Custody
and
Amber Springer

Special Instructions:

Report Copy to
Mark Cichy
(530) 229-3203

CH2M HILL, INC
ATTN: Mark Cichy
2525 Airpark Drive
Redding CA 96001

Date Received: 08-JUN-16
Report Date: 22-JUN-16 17:53 (MT)
Version: FINAL

Client Phone: 530-229-3203

Certificate of Analysis

Lab Work Order #: L1780437

Project P.O. #: 674521.20.01.01.02.03 PO=10201-7-100939
Job Reference: WRD MONITORING 2016 TAR20
C of C Numbers: ALS06081601
Legal Site Desc:

Amber Springer, B.Sc
Account Manager

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1780437-1 CH14-104-MW008_GW0616							
Sampled By: CLIENT on 06-JUN-16 @ 09:00							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	1560		1.0	mg/L		18-JUN-16	R3483538
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		18-JUN-16	R3483538
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		18-JUN-16	R3483538
Alkalinity, Total (as CaCO3)	1560		1.0	mg/L		18-JUN-16	R3483538
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<10	DLDS	10	mg/L		09-JUN-16	R3476754
Fluoride in Water by IC							
Fluoride (F)	0.60		0.40	mg/L		09-JUN-16	R3476754
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.10	DLDS	0.10	mg/L		09-JUN-16	R3476754
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.020	DLDS	0.020	mg/L		09-JUN-16	R3476754
Sulfate in Water by IC							
Sulfate (SO4)	13500		6.0	mg/L		09-JUN-16	R3476754
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	10-JUN-16	10-JUN-16	R3476698
Dissolved Mercury Filtration Location	FIELD					10-JUN-16	R3476192
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					10-JUN-16	R3476138
Aluminum (Al)-Dissolved	0.025		0.020	mg/L	10-JUN-16	20-JUN-16	R3484154
Antimony (Sb)-Dissolved	<0.0020	DLA	0.0020	mg/L	10-JUN-16	20-JUN-16	R3484154
Arsenic (As)-Dissolved	<0.0020	DLA	0.0020	mg/L	10-JUN-16	20-JUN-16	R3484154
Barium (Ba)-Dissolved	0.0425		0.0010	mg/L	10-JUN-16	20-JUN-16	R3484154
Beryllium (Be)-Dissolved	<0.0020	DLA	0.0020	mg/L	10-JUN-16	20-JUN-16	R3484154
Boron (B)-Dissolved	<0.20	DLA	0.20	mg/L	10-JUN-16	20-JUN-16	R3484154
Cadmium (Cd)-Dissolved	0.00258		0.00010	mg/L	10-JUN-16	20-JUN-16	R3484154
Chromium (Cr)-Dissolved	<0.0020	DLA	0.0020	mg/L	10-JUN-16	20-JUN-16	R3484154
Cobalt (Co)-Dissolved	0.0294		0.0020	mg/L	10-JUN-16	20-JUN-16	R3484154
Copper (Cu)-Dissolved	0.0194		0.0040	mg/L	10-JUN-16	20-JUN-16	R3484154
Lead (Pb)-Dissolved	0.0233		0.0010	mg/L	10-JUN-16	20-JUN-16	R3484154
Lithium (Li)-Dissolved	0.082		0.020	mg/L	10-JUN-16	20-JUN-16	R3484154
Manganese (Mn)-Dissolved	26.7		0.0020	mg/L	10-JUN-16	20-JUN-16	R3484154
Molybdenum (Mo)-Dissolved	0.0022		0.0010	mg/L	10-JUN-16	20-JUN-16	R3484154
Nickel (Ni)-Dissolved	0.354		0.010	mg/L	10-JUN-16	20-JUN-16	R3484154
Potassium (K)-Dissolved	28.6		1.0	mg/L	10-JUN-16	20-JUN-16	R3484154
Selenium (Se)-Dissolved	<0.0010	DLA	0.0010	mg/L	10-JUN-16	20-JUN-16	R3484154
Silver (Ag)-Dissolved	<0.00020	DLA	0.00020	mg/L	10-JUN-16	20-JUN-16	R3484154
Sodium (Na)-Dissolved	57.6		1.0	mg/L	10-JUN-16	20-JUN-16	R3484154
Strontium (Sr)-Dissolved	12.5		0.0040	mg/L	10-JUN-16	20-JUN-16	R3484154
Thallium (Tl)-Dissolved	<0.00020	DLA	0.00020	mg/L	10-JUN-16	20-JUN-16	R3484154
Titanium (Ti)-Dissolved	<0.0060	DLA	0.0060	mg/L	10-JUN-16	20-JUN-16	R3484154
Uranium (U)-Dissolved	0.113		0.00020	mg/L	10-JUN-16	20-JUN-16	R3484154
Vanadium (V)-Dissolved	<0.010	DLA	0.010	mg/L	10-JUN-16	20-JUN-16	R3484154
Zinc (Zn)-Dissolved	3.08		0.020	mg/L	10-JUN-16	20-JUN-16	R3484154
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					10-JUN-16	R3476138
Calcium (Ca)-Dissolved	467		0.25	mg/L	10-JUN-16	13-JUN-16	R3479958
Iron (Fe)-Dissolved	<0.15	DLHC	0.15	mg/L	10-JUN-16	13-JUN-16	R3479958
Magnesium (Mg)-Dissolved	3500		0.50	mg/L	10-JUN-16	13-JUN-16	R3479958

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1780437-1 CH14-104-MW008_GW0616							
Sampled By: CLIENT on 06-JUN-16 @ 09:00							
Matrix: Water							
Dissolved Metals in Water by ICPOES							
Phosphorus (P)-Dissolved	<1.5	DLHC	1.5	mg/L	10-JUN-16	13-JUN-16	R3479958
Silicon (Si)-Dissolved	8.18		0.25	mg/L	10-JUN-16	13-JUN-16	R3479958
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	17.5		0.53	mg/L		15-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					10-JUN-16	R3476138
Sulfur (S)-Dissolved	4740		2.5	mg/L	10-JUN-16	13-JUN-16	R3479958
Hardness							
Hardness (as CaCO3)	15600		2.2	mg/L		20-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		16-JUN-16	R3483420
Total Dissolved Solids	19900		20	mg/L		13-JUN-16	R3479723
Total Suspended Solids	69.2		2.0	mg/L		10-JUN-16	R3478661
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.020		0.020	mg/L	11-JUN-16	11-JUN-16	R3477067
Dissolved Fe2 Filtration Location	FIELD					11-JUN-16	R3477061
L1780437-2 CH15-106-MW008_GW0616							
Sampled By: CLIENT on 07-JUN-16 @ 11:10							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	79.8		1.0	mg/L		18-JUN-16	R3483538
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		18-JUN-16	R3483538
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		18-JUN-16	R3483538
Alkalinity, Total (as CaCO3)	79.8		1.0	mg/L		18-JUN-16	R3483538
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<0.50		0.50	mg/L		09-JUN-16	R3476754
Fluoride in Water by IC							
Fluoride (F)	0.123		0.020	mg/L		09-JUN-16	R3476754
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.113		0.0050	mg/L		09-JUN-16	R3476754
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0010		0.0010	mg/L		09-JUN-16	R3476754
Sulfate in Water by IC							
Sulfate (SO4)	43.4		0.30	mg/L		09-JUN-16	R3476754
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	10-JUN-16	10-JUN-16	R3476698
Dissolved Mercury Filtration Location	FIELD					10-JUN-16	R3476192
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					10-JUN-16	R3476138
Aluminum (Al)-Dissolved	0.0044		0.0010	mg/L	10-JUN-16	17-JUN-16	R3484136
Antimony (Sb)-Dissolved	0.00016		0.00010	mg/L	10-JUN-16	17-JUN-16	R3484136
Arsenic (As)-Dissolved	0.00018		0.00010	mg/L	10-JUN-16	17-JUN-16	R3484136
Barium (Ba)-Dissolved	0.0490		0.000050	mg/L	10-JUN-16	17-JUN-16	R3484136
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	10-JUN-16	17-JUN-16	R3484136
Boron (B)-Dissolved	<0.010		0.010	mg/L	10-JUN-16	17-JUN-16	R3484136
Cadmium (Cd)-Dissolved	0.000214		0.0000050	mg/L	10-JUN-16	17-JUN-16	R3484136
Chromium (Cr)-Dissolved	0.00038		0.00010	mg/L	10-JUN-16	17-JUN-16	R3484136
Cobalt (Co)-Dissolved	0.00016		0.00010	mg/L	10-JUN-16	17-JUN-16	R3484136

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1780437-2 CH15-106-MW008_GW0616							
Sampled By: CLIENT on 07-JUN-16 @ 11:10							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Copper (Cu)-Dissolved	0.00074		0.00020	mg/L	10-JUN-16	17-JUN-16	R3484136
Lead (Pb)-Dissolved	0.000310		0.000050	mg/L	10-JUN-16	17-JUN-16	R3484136
Lithium (Li)-Dissolved	0.0037		0.0010	mg/L	10-JUN-16	20-JUN-16	R3484154
Manganese (Mn)-Dissolved	0.0592		0.00010	mg/L	10-JUN-16	17-JUN-16	R3484136
Molybdenum (Mo)-Dissolved	0.000162		0.000050	mg/L	10-JUN-16	17-JUN-16	R3484136
Nickel (Ni)-Dissolved	0.00637		0.00050	mg/L	10-JUN-16	17-JUN-16	R3484136
Potassium (K)-Dissolved	0.861		0.050	mg/L	10-JUN-16	17-JUN-16	R3484136
Selenium (Se)-Dissolved	0.000052		0.000050	mg/L	10-JUN-16	17-JUN-16	R3484136
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	10-JUN-16	17-JUN-16	R3484136
Sodium (Na)-Dissolved	2.34		0.050	mg/L	10-JUN-16	17-JUN-16	R3484136
Strontium (Sr)-Dissolved	0.113		0.00020	mg/L	10-JUN-16	17-JUN-16	R3484136
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	10-JUN-16	17-JUN-16	R3484136
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	10-JUN-16	17-JUN-16	R3484136
Uranium (U)-Dissolved	0.000047		0.000010	mg/L	10-JUN-16	17-JUN-16	R3484136
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	10-JUN-16	17-JUN-16	R3484136
Zinc (Zn)-Dissolved	0.0817		0.0010	mg/L	10-JUN-16	17-JUN-16	R3484136
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					10-JUN-16	R3476138
Calcium (Ca)-Dissolved	38.5		0.050	mg/L	10-JUN-16	13-JUN-16	R3479958
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	10-JUN-16	13-JUN-16	R3479958
Magnesium (Mg)-Dissolved	4.94		0.10	mg/L	10-JUN-16	13-JUN-16	R3479958
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	10-JUN-16	13-JUN-16	R3479958
Silicon (Si)-Dissolved	8.34		0.050	mg/L	10-JUN-16	13-JUN-16	R3479958
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	17.8		0.20	mg/L		15-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					10-JUN-16	R3476138
Sulfur (S)-Dissolved	15.2		0.50	mg/L	10-JUN-16	13-JUN-16	R3479958
Hardness							
Hardness (as CaCO3)	116		0.50	mg/L		20-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		16-JUN-16	R3483420
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		21-JUN-16	R3486785
Dissolved Organic Carbon	0.87		0.50	mg/L		15-JUN-16	R3480789
Total Dissolved Solids	411		20	mg/L		13-JUN-16	R3479723
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		14-JUN-16	R3479367
Total Suspended Solids	5.0		1.0	mg/L		10-JUN-16	R3478661
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.020		0.020	mg/L	11-JUN-16	11-JUN-16	R3477067
Dissolved Fe2 Filtration Location	FIELD					11-JUN-16	R3477061
L1780437-3 CH15-106-MW908_GW0616							
Sampled By: CLIENT on 07-JUN-16 @ 11:10							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	74.5		1.0	mg/L		18-JUN-16	R3483538
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		18-JUN-16	R3483538
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		18-JUN-16	R3483538
Alkalinity, Total (as CaCO3)	74.5		1.0	mg/L		18-JUN-16	R3483538
Anions by Ion Chromatography							
Chloride in Water by IC							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1780437-3 CH15-106-MW908_GW0616							
Sampled By: CLIENT on 07-JUN-16 @ 11:10							
Matrix: Water							
Chloride in Water by IC							
Chloride (Cl)	<0.50		0.50	mg/L		09-JUN-16	R3476754
Fluoride in Water by IC							
Fluoride (F)	0.125		0.020	mg/L		09-JUN-16	R3476754
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.113		0.0050	mg/L		09-JUN-16	R3476754
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0010		0.0010	mg/L		09-JUN-16	R3476754
Sulfate in Water by IC							
Sulfate (SO4)	43.4		0.30	mg/L		09-JUN-16	R3476754
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	10-JUN-16	10-JUN-16	R3476698
Dissolved Mercury Filtration Location	FIELD					10-JUN-16	R3476192
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					10-JUN-16	R3476138
Aluminum (Al)-Dissolved	0.0037		0.0010	mg/L	10-JUN-16	17-JUN-16	R3484136
Antimony (Sb)-Dissolved	0.00014		0.00010	mg/L	10-JUN-16	17-JUN-16	R3484136
Arsenic (As)-Dissolved	0.00016		0.00010	mg/L	10-JUN-16	17-JUN-16	R3484136
Barium (Ba)-Dissolved	0.0488		0.000050	mg/L	10-JUN-16	17-JUN-16	R3484136
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	10-JUN-16	17-JUN-16	R3484136
Boron (B)-Dissolved	<0.010		0.010	mg/L	10-JUN-16	17-JUN-16	R3484136
Cadmium (Cd)-Dissolved	0.000216		0.0000050	mg/L	10-JUN-16	17-JUN-16	R3484136
Chromium (Cr)-Dissolved	0.00036		0.00010	mg/L	10-JUN-16	17-JUN-16	R3484136
Cobalt (Co)-Dissolved	0.00016		0.00010	mg/L	10-JUN-16	17-JUN-16	R3484136
Copper (Cu)-Dissolved	0.00074		0.00020	mg/L	10-JUN-16	17-JUN-16	R3484136
Lead (Pb)-Dissolved	0.000250		0.000050	mg/L	10-JUN-16	17-JUN-16	R3484136
Lithium (Li)-Dissolved	0.0037		0.0010	mg/L	10-JUN-16	20-JUN-16	R3484154
Manganese (Mn)-Dissolved	0.0567		0.00010	mg/L	10-JUN-16	17-JUN-16	R3484136
Molybdenum (Mo)-Dissolved	0.000139		0.000050	mg/L	10-JUN-16	17-JUN-16	R3484136
Nickel (Ni)-Dissolved	0.00620		0.00050	mg/L	10-JUN-16	17-JUN-16	R3484136
Potassium (K)-Dissolved	0.869		0.050	mg/L	10-JUN-16	17-JUN-16	R3484136
Selenium (Se)-Dissolved	0.000051		0.000050	mg/L	10-JUN-16	17-JUN-16	R3484136
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	10-JUN-16	17-JUN-16	R3484136
Sodium (Na)-Dissolved	2.30		0.050	mg/L	10-JUN-16	17-JUN-16	R3484136
Strontium (Sr)-Dissolved	0.114		0.00020	mg/L	10-JUN-16	17-JUN-16	R3484136
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	10-JUN-16	17-JUN-16	R3484136
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	10-JUN-16	17-JUN-16	R3484136
Uranium (U)-Dissolved	0.000050		0.000010	mg/L	10-JUN-16	17-JUN-16	R3484136
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	10-JUN-16	17-JUN-16	R3484136
Zinc (Zn)-Dissolved	0.0850		0.0010	mg/L	10-JUN-16	17-JUN-16	R3484136
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					10-JUN-16	R3476138
Calcium (Ca)-Dissolved	38.5		0.050	mg/L	10-JUN-16	13-JUN-16	R3479958
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	10-JUN-16	13-JUN-16	R3479958
Magnesium (Mg)-Dissolved	4.92		0.10	mg/L	10-JUN-16	13-JUN-16	R3479958
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	10-JUN-16	13-JUN-16	R3479958
Silicon (Si)-Dissolved	8.29		0.050	mg/L	10-JUN-16	13-JUN-16	R3479958
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	17.7		0.20	mg/L		15-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					10-JUN-16	R3476138
Sulfur (S)-Dissolved	15.2		0.50	mg/L	10-JUN-16	13-JUN-16	R3479958

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1780437-3 CH15-106-MW908_GW0616							
Sampled By: CLIENT on 07-JUN-16 @ 11:10							
Matrix: Water							
Hardness							
Hardness (as CaCO3)	116		0.50	mg/L		20-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		16-JUN-16	R3483420
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		21-JUN-16	R3486785
Dissolved Organic Carbon	1.10		0.50	mg/L		15-JUN-16	R3480789
Total Dissolved Solids	182		20	mg/L		13-JUN-16	R3479723
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		14-JUN-16	R3479367
Total Suspended Solids	9.6		2.0	mg/L		10-JUN-16	R3478661
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	0.023		0.020	mg/L	11-JUN-16	11-JUN-16	R3477067
Dissolved Fe2 Filtration Location	FIELD					11-JUN-16	R3477061
L1780437-4 E_104_16_001							
Sampled By: CLIENT on 07-JUN-16 @ 14:30							
Matrix: Water							
Alkalinity Species by Titration							
Alkalinity Species by Titration							
Alkalinity, Bicarbonate (as CaCO3)	<1.0		1.0	mg/L		18-JUN-16	R3483538
Alkalinity, Carbonate (as CaCO3)	<1.0		1.0	mg/L		18-JUN-16	R3483538
Alkalinity, Hydroxide (as CaCO3)	<1.0		1.0	mg/L		18-JUN-16	R3483538
Alkalinity, Total (as CaCO3)	<1.0		1.0	mg/L		18-JUN-16	R3483538
Anions by Ion Chromatography							
Chloride in Water by IC							
Chloride (Cl)	<0.50		0.50	mg/L		09-JUN-16	R3476754
Fluoride in Water by IC							
Fluoride (F)	<0.020		0.020	mg/L		09-JUN-16	R3476754
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.0050		0.0050	mg/L		09-JUN-16	R3476754
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0010		0.0010	mg/L		09-JUN-16	R3476754
Sulfate in Water by IC							
Sulfate (SO4)	<0.30		0.30	mg/L		09-JUN-16	R3476754
Faro Mine Project Dissolved Metals							
Diss. Mercury in Water by CVAAS or CVAFS							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	10-JUN-16	10-JUN-16	R3476698
Dissolved Mercury Filtration Location	FIELD					10-JUN-16	R3476192
Dissolved Metals in Water by CRC ICPMS							
Dissolved Metals Filtration Location	FIELD					10-JUN-16	R3476138
Aluminum (Al)-Dissolved	0.0042	RRV	0.0010	mg/L	10-JUN-16	20-JUN-16	R3484154
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	10-JUN-16	17-JUN-16	R3484136
Arsenic (As)-Dissolved	<0.00010		0.00010	mg/L	10-JUN-16	17-JUN-16	R3484136
Barium (Ba)-Dissolved	0.000185	RRV	0.000050	mg/L	10-JUN-16	20-JUN-16	R3484154
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	10-JUN-16	17-JUN-16	R3484136
Boron (B)-Dissolved	<0.010		0.010	mg/L	10-JUN-16	17-JUN-16	R3484136
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	10-JUN-16	17-JUN-16	R3484136
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	10-JUN-16	17-JUN-16	R3484136
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	10-JUN-16	17-JUN-16	R3484136
Copper (Cu)-Dissolved	<0.00020		0.00020	mg/L	10-JUN-16	17-JUN-16	R3484136
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	10-JUN-16	20-JUN-16	R3484154
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	10-JUN-16	17-JUN-16	R3484136
Manganese (Mn)-Dissolved	0.00018	RRV	0.00010	mg/L	10-JUN-16	20-JUN-16	R3484154
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	10-JUN-16	17-JUN-16	R3484136

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1780437-4 E_104_16_001							
Sampled By: CLIENT on 07-JUN-16 @ 14:30							
Matrix: Water							
Dissolved Metals in Water by CRC ICPMS							
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	10-JUN-16	17-JUN-16	R3484136
Potassium (K)-Dissolved	<0.050		0.050	mg/L	10-JUN-16	20-JUN-16	R3484154
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	10-JUN-16	17-JUN-16	R3484136
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	10-JUN-16	17-JUN-16	R3484136
Sodium (Na)-Dissolved	<0.050		0.050	mg/L	10-JUN-16	17-JUN-16	R3484136
Strontium (Sr)-Dissolved	<0.00020		0.00020	mg/L	10-JUN-16	17-JUN-16	R3484136
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	10-JUN-16	17-JUN-16	R3484136
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	10-JUN-16	17-JUN-16	R3484136
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	10-JUN-16	17-JUN-16	R3484136
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	10-JUN-16	17-JUN-16	R3484136
Zinc (Zn)-Dissolved	0.0027	RRV	0.0010	mg/L	10-JUN-16	20-JUN-16	R3484154
Dissolved Metals in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					10-JUN-16	R3476138
Calcium (Ca)-Dissolved	<0.050		0.050	mg/L	10-JUN-16	13-JUN-16	R3479958
Iron (Fe)-Dissolved	<0.030		0.030	mg/L	10-JUN-16	13-JUN-16	R3479958
Magnesium (Mg)-Dissolved	<0.10		0.10	mg/L	10-JUN-16	13-JUN-16	R3479958
Phosphorus (P)-Dissolved	<0.30		0.30	mg/L	10-JUN-16	13-JUN-16	R3479958
Silicon (Si)-Dissolved	<0.050		0.050	mg/L	10-JUN-16	13-JUN-16	R3479958
Dissolved Silicon (reported as Silica)							
Silicon (as SiO2)-Dissolved	<0.20		0.20	mg/L		15-JUN-16	
Dissolved Sulfur in Water by ICPOES							
Dissolved Metals Filtration Location	FIELD					10-JUN-16	R3476138
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	10-JUN-16	13-JUN-16	R3479958
Hardness							
Hardness (as CaCO3)	<0.50		0.50	mg/L		20-JUN-16	
Miscellaneous Parameters							
Acidity-Hot Peroxide Treated (as CaCO3)	<25		25	mg/L		16-JUN-16	R3483420
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		21-JUN-16	R3486785
Dissolved Organic Carbon	<0.50		0.50	mg/L		15-JUN-16	R3480789
Total Dissolved Solids	<10		10	mg/L		13-JUN-16	R3479723
Phosphorus (P)-Total	<0.020	DLM	0.020	mg/L		14-JUN-16	R3479367
Total Suspended Solids	<1.0		1.0	mg/L		10-JUN-16	R3478661
Diss. Ferrous Iron in Water by Colour							
Ferrous Iron, Dissolved	<0.020		0.020	mg/L	11-JUN-16	11-JUN-16	R3477067
Dissolved Fe2 Filtration Location	FIELD					11-JUN-16	R3477061

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier Key:

Qualifier	Description
DLA	Detection Limit adjusted for required dilution
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
RRV	Reported Result Verified By Repeat Analysis

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ACY-H2O2-MAN-VA	Water	Acidity by Hot Peroxide Titration	APHA - ACIDITY (2310)

This analysis is carried out using procedures adapted from APHA Method 2310 "Acidity". The procedure involves preliminary sample treatment by the hot peroxide procedure, and Acidity is subsequently determined by potentiometric titration to a specified endpoint (i.e. pH = 8.3).

ALK-TITR-VA	Water	Alkalinity Species by Titration	APHA 2320 Alkalinity

This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.

CARBONS-DOC-VA	Water	Dissolved organic carbon by combustion	APHA 5310B TOTAL ORGANIC CARBON (TOC)

This analysis is carried out using procedures adapted from APHA Method 5310 "Total Organic Carbon (TOC)". Dissolved carbon (DOC) fractions are determined by filtering the sample through a 0.45 micron membrane filter prior to analysis.

CL-IC-N-WR	Water	Chloride in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

F-IC-N-WR	Water	Fluoride in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

FE2-D-COL-VA	Water	Diss. Ferrous Iron in Water by Colour	APHA 3500-Fe B/James Ball et al (1999)

This analysis is carried out using procedures adapted from APHA 3500-Fe B and "A New Method for the Direct Determination of Dissolved Iron Concentration in Acid Mine Waters" published by James W. Ball et al (1999). The procedure involves preliminary sample filtration, and ferrous iron is determined using the "FerroZine" colourimetric method.

HARDNESS-CALC-VA	Water	Hardness	APHA 2340B

Hardness (also known as Total Hardness) is calculated from the sum of Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. Dissolved Calcium and Magnesium concentrations are preferentially used for the hardness calculation.

HG-D-CVAA-VA	Water	Diss. Mercury in Water by CVAAS or CVAFS	APHA 3030B/EPA 1631E (mod)

Water samples are filtered (0.45 um), preserved with hydrochloric acid, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS or CVAFS.

MET-D-CCMS-VA	Water	Dissolved Metals in Water by CRC ICPMS	APHA 3030B/6020A (mod)

Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

MET-DIS-ICP-VA	Water	Dissolved Metals in Water by ICPOES	EPA SW-846 3005A/6010B

This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedure involves filtration (EPA Method 3005A) and analysis by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B).

NH3-F-VA	Water	Ammonia in Water by Fluorescence	APHA 4500 NH3-NITROGEN (AMMONIA)

This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.

NH3-F-VA	Water	Ammonia in Water by Fluorescence	J. ENVIRON. MONIT., 2005, 7, 37-42, RSC

This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.

NO2-L-IC-N-WR	Water	Nitrite in Water by IC (Low Level)	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
NO3-L-IC-N-WR	Water	Nitrate in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
P-T-PRES-COL-VA	Water	Total P in Water by Colour	APHA 4500-P Phosphorus
This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorus is determined colourimetrically after persulphate digestion of the sample.			
S-DIS-ICP-VA	Water	Dissolved Sulfur in Water by ICPOES	EPA SW-846 3005A/6010B
This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedures may involve preliminary sample treatment by acid digestion, using either hotblock or microwave oven, or filtration (EPA Method 3005A). Instrumental analysis is by inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B). Method Limitation: This method will not give total sulfur results for all samples. Sulfide or other volatile forms of sulfur that may be present in submitted samples, is often lost during the sampling, preservation and analysis process. The data reported as total and/or dissolved sulfur represents all non-volatile forms of sulfur present in a particular sample.			
SIO2-D-CALC-VA	Water	Dissolved Silicon (reported as Silica)	CALCULATION
Dissolved Silicon (as SiO2) is a calculated parameter. Dissolved Silicon (as SiO2 mg/L) = 2.139 x Dissolved Silicon (mg/L).			
SO4-IC-N-WR	Water	Sulfate in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
TDS-VA	Water	Total Dissolved Solids by Gravimetric	APHA 2540 C - GRAVIMETRIC
This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, TDS is determined by evaporating the filtrate to dryness at 180 degrees celsius.			
TSS-LOW-WR	Water	Total Suspended Solids by Grav. (1 mg/L)	APHA 2540 D
This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Suspended Solids are determined by filtering a sample through a glass fibre filter and drying the filter at 104 degrees celsius.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WR	ALS ENVIRONMENTAL - WHITEHORSE, YUKON, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

ALS06081601

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L1780437 Report Date: 22-JUN-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ACY-H2O2-MAN-VA	**Water**							
Batch R3483420								
WG2329274-2 CRM		**VA-ACY-M-CONTROL**						
Acidity-Hot Peroxide Treated (as CaCO3)			99.0		%		85-115	16-JUN-16
WG2329274-3 DUP		**L1780437-2**						
Acidity-Hot Peroxide Treated (as CaCO3)		<25	<25	RPD-NA	mg/L	N/A	20	16-JUN-16
WG2329274-1 MB								
Acidity-Hot Peroxide Treated (as CaCO3)			<25		mg/L		25	16-JUN-16
ALK-TITR-VA	**Water**							
Batch R3483538								
WG2329227-3 CRM		**VA-ALK-TITR-CONTROL**						
Alkalinity, Total (as CaCO3)			97.4		%		85-115	18-JUN-16
WG2329227-5 DUP		**L1780437-4**						
Alkalinity, Total (as CaCO3)		<1.0	<1.0	RPD-NA	mg/L	N/A	20	18-JUN-16
WG2329227-1 MB								
Alkalinity, Total (as CaCO3)			<1.0		mg/L		1	18-JUN-16
CARBONS-DOC-VA	**Water**							
Batch R3480789								
WG2328094-1 DUP		**L1778028-2**						
Dissolved Organic Carbon		5.68	5.59		mg/L	1.5	20	15-JUN-16
WG2328094-4 LCS								
Dissolved Organic Carbon			101.5		%		80-120	15-JUN-16
WG2328094-3 MB								
Dissolved Organic Carbon			<0.50		mg/L		0.5	15-JUN-16
WG2328094-2 MS		**L1778682-1**						
Dissolved Organic Carbon			108.9		%		70-130	15-JUN-16
CL-IC-N-WR	**Water**							
Batch R3476754								
WG2324741-3 DUP		**L1780437-4**						
Chloride (Cl)		<0.50	<0.50	RPD-NA	mg/L	N/A	20	09-JUN-16
WG2324741-2 LCS								
Chloride (Cl)			101.6		%		90-110	09-JUN-16
WG2324741-1 MB								
Chloride (Cl)			<0.50		mg/L		0.5	09-JUN-16
WG2324741-4 MS		**L1780437-3**						
Chloride (Cl)			90.6		%		75-125	09-JUN-16
F-IC-N-WR	**Water**							

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F-IC-N-WR	**Water**							
Batch R3476754								
WG2324741-3 DUP		**L1780437-4**						
Fluoride (F)		<0.020	<0.020	RPD-NA	mg/L	N/A	20	09-JUN-16
WG2324741-2 LCS								
Fluoride (F)			107.5		%		90-110	09-JUN-16
WG2324741-1 MB								
Fluoride (F)			<0.020		mg/L		0.02	09-JUN-16
WG2324741-4 MS		**L1780437-3**						
Fluoride (F)			94.7		%		75-125	09-JUN-16
FE2-D-COL-VA	**Water**							
Batch R3477067								
WG2325764-3 DUP		**L1780437-1**						
Ferrous Iron, Dissolved		<0.020	<0.020	RPD-NA	mg/L	N/A	20	11-JUN-16
WG2325764-2 LCS								
Ferrous Iron, Dissolved			105.8		%		80-120	11-JUN-16
WG2325764-1 MB								
Ferrous Iron, Dissolved			<0.020		mg/L		0.02	11-JUN-16
WG2325764-4 MS		**L1780437-2**						
Ferrous Iron, Dissolved			126.1		%		70-130	11-JUN-16
HG-D-CVAA-VA	**Water**							
Batch R3476698								
WG2324956-3 DUP		**L1780437-1**						
Mercury (Hg)-Dissolved		<0.0000050	<0.000005C	RPD-NA	mg/L	N/A	20	10-JUN-16
WG2324956-2 LCS								
Mercury (Hg)-Dissolved			97.3		%		80-120	10-JUN-16
WG2324956-1 MB								
Mercury (Hg)-Dissolved			<0.000005C		mg/L		0.000005	10-JUN-16
WG2324956-4 MS		**L1780437-4**						
Mercury (Hg)-Dissolved			98.7		%		70-130	10-JUN-16
MET-D-CCMS-VA	**Water**							
Batch R3484154								
WG2324867-3 DUP		**L1780437-1**						
Aluminum (Al)-Dissolved		0.025	0.024		mg/L	2.6	20	20-JUN-16
Antimony (Sb)-Dissolved		<0.0020	<0.0020	RPD-NA	mg/L	N/A	20	20-JUN-16
Arsenic (As)-Dissolved		<0.0020	<0.0020	RPD-NA	mg/L	N/A	20	20-JUN-16
Barium (Ba)-Dissolved		0.0425	0.0422		mg/L	0.6	20	20-JUN-16
Beryllium (Be)-Dissolved		<0.0020	<0.0020	RPD-NA	mg/L	N/A	20	20-JUN-16
Boron (B)-Dissolved		<0.20	<0.20	RPD-NA	mg/L	N/A	20	20-JUN-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3484154								
WG2324867-3 DUP		**L1780437-1**						
Cadmium (Cd)-Dissolved		0.00258	0.00233		mg/L	10	20	20-JUN-16
Chromium (Cr)-Dissolved		<0.0020	<0.0020	RPD-NA	mg/L	N/A	20	20-JUN-16
Cobalt (Co)-Dissolved		0.0294	0.0295		mg/L	0.4	20	20-JUN-16
Copper (Cu)-Dissolved		0.0194	0.0187		mg/L	3.3	20	20-JUN-16
Lead (Pb)-Dissolved		0.0233	0.0232		mg/L	0.5	20	20-JUN-16
Lithium (Li)-Dissolved		0.082	0.077		mg/L	5.5	20	20-JUN-16
Manganese (Mn)-Dissolved		26.7	26.0		mg/L	2.5	20	20-JUN-16
Molybdenum (Mo)-Dissolved		0.0022	0.0019		mg/L	18	20	20-JUN-16
Nickel (Ni)-Dissolved		0.354	0.348		mg/L	1.8	20	20-JUN-16
Potassium (K)-Dissolved		28.6	27.9		mg/L	2.6	20	20-JUN-16
Selenium (Se)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	20-JUN-16
Silver (Ag)-Dissolved		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	20-JUN-16
Sodium (Na)-Dissolved		57.6	55.9		mg/L	2.9	20	20-JUN-16
Strontium (Sr)-Dissolved		12.5	12.3		mg/L	0.9	20	20-JUN-16
Thallium (Tl)-Dissolved		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	20-JUN-16
Titanium (Ti)-Dissolved		<0.0060	<0.0060	RPD-NA	mg/L	N/A	20	20-JUN-16
Uranium (U)-Dissolved		0.113	0.111		mg/L	2.3	20	20-JUN-16
Vanadium (V)-Dissolved		<0.010	<0.010	RPD-NA	mg/L	N/A	20	20-JUN-16
Zinc (Zn)-Dissolved		3.08	3.01		mg/L	2.3	20	20-JUN-16
WG2324867-2 LCS								
Aluminum (Al)-Dissolved			110.9		%		80-120	17-JUN-16
Antimony (Sb)-Dissolved			101.0		%		80-120	17-JUN-16
Arsenic (As)-Dissolved			104.5		%		80-120	17-JUN-16
Barium (Ba)-Dissolved			103.5		%		80-120	17-JUN-16
Beryllium (Be)-Dissolved			102.6		%		80-120	17-JUN-16
Boron (B)-Dissolved			95.8		%		80-120	17-JUN-16
Cadmium (Cd)-Dissolved			101.2		%		80-120	17-JUN-16
Chromium (Cr)-Dissolved			99.8		%		80-120	17-JUN-16
Cobalt (Co)-Dissolved			104.3		%		80-120	17-JUN-16
Copper (Cu)-Dissolved			102.0		%		80-120	17-JUN-16
Lead (Pb)-Dissolved			101.2		%		80-120	17-JUN-16
Lithium (Li)-Dissolved			103.0		%		80-120	17-JUN-16
Manganese (Mn)-Dissolved			103.9		%		80-120	17-JUN-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3484154								
WG2324867-2 LCS								
Molybdenum (Mo)-Dissolved			105.1		%		80-120	17-JUN-16
Nickel (Ni)-Dissolved			102.9		%		80-120	17-JUN-16
Potassium (K)-Dissolved			104.4		%		80-120	17-JUN-16
Selenium (Se)-Dissolved			103.6		%		80-120	17-JUN-16
Silver (Ag)-Dissolved			101.4		%		80-120	17-JUN-16
Sodium (Na)-Dissolved			105.3		%		80-120	17-JUN-16
Strontium (Sr)-Dissolved			98.5		%		80-120	17-JUN-16
Thallium (Tl)-Dissolved			100.8		%		80-120	17-JUN-16
Titanium (Ti)-Dissolved			99.0		%		80-120	17-JUN-16
Uranium (U)-Dissolved			103.3		%		80-120	17-JUN-16
Vanadium (V)-Dissolved			104.3		%		80-120	17-JUN-16
Zinc (Zn)-Dissolved			108.9		%		80-120	17-JUN-16
WG2324867-1 MB								
Aluminum (Al)-Dissolved			<0.0010		mg/L		0.001	17-JUN-16
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	17-JUN-16
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	17-JUN-16
Barium (Ba)-Dissolved			<0.000050		mg/L		0.00005	17-JUN-16
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	17-JUN-16
Boron (B)-Dissolved			<0.010		mg/L		0.01	17-JUN-16
Cadmium (Cd)-Dissolved			<0.000005(		mg/L		0.000005	17-JUN-16
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	17-JUN-16
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	17-JUN-16
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	17-JUN-16
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	17-JUN-16
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	17-JUN-16
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	17-JUN-16
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	17-JUN-16
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	17-JUN-16
Potassium (K)-Dissolved			<0.050		mg/L		0.05	17-JUN-16
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	17-JUN-16
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	17-JUN-16
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	17-JUN-16
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	17-JUN-16
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	17-JUN-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-VA	**Water**							
Batch R3484154								
WG2324867-1 MB								
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	17-JUN-16
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	17-JUN-16
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	17-JUN-16
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	17-JUN-16
MET-DIS-ICP-VA	**Water**							
Batch R3479958								
WG2324867-3 DUP		**L1780437-1**						
Calcium (Ca)-Dissolved		467	458		mg/L	2.0	20	13-JUN-16
Iron (Fe)-Dissolved		<0.15	<0.15	RPD-NA	mg/L	N/A	20	13-JUN-16
Magnesium (Mg)-Dissolved		3500	3470		mg/L	1.0	20	13-JUN-16
Phosphorus (P)-Dissolved		<1.5	<1.5	RPD-NA	mg/L	N/A	20	13-JUN-16
Silicon (Si)-Dissolved		8.18	7.95		mg/L	2.8	20	13-JUN-16
WG2324867-2 LCS								
Calcium (Ca)-Dissolved			99.7		%		80-120	13-JUN-16
Iron (Fe)-Dissolved			91.2		%		80-120	13-JUN-16
Magnesium (Mg)-Dissolved			97.1		%		80-120	13-JUN-16
Phosphorus (P)-Dissolved			98.6		%		80-120	13-JUN-16
Silicon (Si)-Dissolved			103.2		%		80-120	13-JUN-16
WG2324867-1 MB								
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	13-JUN-16
Iron (Fe)-Dissolved			<0.030		mg/L		0.03	13-JUN-16
Magnesium (Mg)-Dissolved			<0.10		mg/L		0.1	13-JUN-16
Phosphorus (P)-Dissolved			<0.30		mg/L		0.3	13-JUN-16
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	13-JUN-16
WG2324867-4 MS		**L1780437-4**						
Calcium (Ca)-Dissolved			102.5		%		70-130	13-JUN-16
Iron (Fe)-Dissolved			92.3		%		70-130	13-JUN-16
Magnesium (Mg)-Dissolved			98.8		%		70-130	13-JUN-16
Phosphorus (P)-Dissolved			99.7		%		70-130	13-JUN-16
Silicon (Si)-Dissolved			100.2		%		70-130	13-JUN-16
NH3-F-VA	**Water**							

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NH3-F-VA	**Water**							
Batch R3486785								
WG2331986-3 DUP		**L1780437-4**						
Ammonia, Total (as N)		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	21-JUN-16
WG2331986-2 LCS								
Ammonia, Total (as N)			109.3		%		85-115	21-JUN-16
WG2331986-1 MB								
Ammonia, Total (as N)			<0.0050		mg/L		0.005	21-JUN-16
WG2331986-4 MS		**L1780437-4**						
Ammonia, Total (as N)			101.4		%		75-125	21-JUN-16
NO2-L-IC-N-WR	**Water**							
Batch R3476754								
WG2324741-3 DUP		**L1780437-4**						
Nitrite (as N)		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	09-JUN-16
WG2324741-2 LCS								
Nitrite (as N)			99.7		%		90-110	09-JUN-16
WG2324741-1 MB								
Nitrite (as N)			<0.0010		mg/L		0.001	09-JUN-16
WG2324741-4 MS		**L1780437-3**						
Nitrite (as N)			89.3		%		75-125	09-JUN-16
NO3-L-IC-N-WR	**Water**							
Batch R3476754								
WG2324741-3 DUP		**L1780437-4**						
Nitrate (as N)		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	09-JUN-16
WG2324741-2 LCS								
Nitrate (as N)			101.9		%		90-110	09-JUN-16
WG2324741-1 MB								
Nitrate (as N)			<0.0050		mg/L		0.005	09-JUN-16
WG2324741-4 MS		**L1780437-3**						
Nitrate (as N)			90.6		%		75-125	09-JUN-16
P-T-PRES-COL-VA	**Water**							
Batch R3479367								
WG2326882-2 CRM		**VA-ERA-PO4**						
Phosphorus (P)-Total			100.5		%		80-120	14-JUN-16
WG2326882-3 DUP		**L1778682-1**						
Phosphorus (P)-Total		0.026	0.026		mg/L	0.7	20	14-JUN-16
WG2326882-1 MB								
Phosphorus (P)-Total			<0.0020		mg/L		0.002	14-JUN-16
WG2326882-4 MS		**L1778682-2**						

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
P-T-PRES-COL-VA	**Water**							
Batch R3479367								
WG2326882-4 MS		**L1778682-2**						
Phosphorus (P)-Total			103.6		%		70-130	14-JUN-16
S-DIS-ICP-VA	**Water**							
Batch R3479958								
WG2324867-3 DUP		**L1780437-1**						
Sulfur (S)-Dissolved		4740	4690		mg/L	1.0	20	13-JUN-16
WG2324867-2 LCS								
Sulfur (S)-Dissolved			104.0		%		80-120	13-JUN-16
WG2324867-1 MB								
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	13-JUN-16
WG2324867-4 MS		**L1780437-4**						
Sulfur (S)-Dissolved			102.3		%		70-130	13-JUN-16
SO4-IC-N-WR	**Water**							
Batch R3476754								
WG2324741-3 DUP		**L1780437-4**						
Sulfate (SO4)		<0.30	<0.30	RPD-NA	mg/L	N/A	20	09-JUN-16
WG2324741-2 LCS								
Sulfate (SO4)			102.3		%		90-110	09-JUN-16
WG2324741-1 MB								
Sulfate (SO4)			<0.30		mg/L		0.3	09-JUN-16
WG2324741-4 MS		**L1780437-3**						
Sulfate (SO4)			88.3		%		75-125	09-JUN-16
TDS-VA	**Water**							
Batch R3479723								
WG2326795-3 DUP		**L1780437-1**						
Total Dissolved Solids		19900	20900		mg/L	4.8	20	13-JUN-16
WG2326795-2 LCS								
Total Dissolved Solids			102.1		%		85-115	13-JUN-16
WG2326795-1 MB								
Total Dissolved Solids			<10		mg/L		10	13-JUN-16
TSS-LOW-WR	**Water**							
Batch R3478661								
WG2325258-3 DUP		**L1780437-3**						
Total Suspended Solids		9.6	9.2		mg/L	4.3	20	10-JUN-16
WG2325258-2 LCS								
Total Suspended Solids			89.8		%		85-115	10-JUN-16

Quality Control Report

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TSS-LOW-WR	**Water**							
Batch R3478661								
WG2325258-1 MB								
Total Suspended Solids			<1.0		mg/L		1	10-JUN-16

Quality Control Report

Workorder: L1780437 Report Date: 22-JUN-16

Client: CH2M HILL, INC
2525 Airpark Drive
Redding CA 96001
Contact: Mark Cichy

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
DLA	Detection Limit adjusted for required dilution
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

CH2MHILL

CHAIN OF CUSTODY RECORD

6/7/2016 7:07:19 PM

Project Name Faro
Location Faro Mine Complex - Faro YK
Project Number 674521.20.01.01.02.03
Project Manager BT Thomas
Sample Manager Jay Bilyk

Task Order TAR 20
Project WRD MONITORING 2016
Turnaround Time 10 Days
Shipping Date: 6/7/2016
COC Number: ALS06081601

	DATE	TIME	Matrix	Container:	40ml vial	125ml Poly	125ml glass	500ml Poly	500ml Poly	500ml Poly	125ml glass	125ml Glass	125ml Poly	500ml Poly	500ml Poly		Number of Containers	COMMENTS
				Preservatives:	HCl, 4°C	HCl, 4°C	H2SO4, pH<2, 4C	4C	4C	4°C	H2SO4, pH<2, 4C	H2SO4, pH<2, 4°C	HNO3 4°C	4C	4°C			
				Filtered:	Field	Field	NA	NA	NA	NA	NA	Field	Field	NA	NA			
				Holding Time:	28	180	28	14	14	7	28	28	180	14	3			
					(E245.7-Diss) Field Filtered Dissolved Hg	(Ferrozine Method) Field Filtered Ferrous Iron	(JEM/SM4500NH3) Ammonia	(SM2320B) Alkalinity	(SM2540C) TDS	(SM2540D) TSS	(SM4500P) Total Phosphorous	(SM5310) Field Filtered DOC	(SW6010B/SW6020A) Field Filtered Metals Analyte List Table 1	SM2310_HP Acidity - Run Hot H2O2	SM4110B CL F NO2 NO3 and SO4			
CH14-104-MW008_GW0616	6/6/2016	9:00	Water		X	x		x	x	x			x	x	x		6 5	
CH15-106-MW008_GW0616	6/7/2016	11:10	Water		x	x	x	x	x	x	x	x	x	x	x		8	
CH15-106-MW908_GW0616	6/7/2016	11:10	Water		x	x	x	x	x	x	x	x	x	x	x		8	
E_104_16_001	6/7/2016	14:30	Water		x	x	x	x	x	x	x	x	x	x	x		8	
																TOTAL NUMBER OF CONTAINERS	30	



L1780437-COFC

Shelby June 9 2:10 10/8/15/15

Signatures	Date/Time
Approved by	
Sampled by	June 8/16
Relinquished by	8 June 16 2:55 pm
Received by	0.2°C
Relinquished by	
Received by	

Shipping Details
Method of Shipment: FedEx
On Ice: (yes) / no
Airbill No:
Lab Name: ALS Vancouver
Lab Phone: (604) 253-4188

ATTN:
Sample Custody
and
Amber Springer

Special Instructions:

Report Copy to
Mark Cichy
(530) 229-3203

Attachment 7
Data Quality Evaluation

ATTACHMENT 7

2016 Faro Mine Water Monitoring Investigation, Data Quality Evaluation Report

Water samples were collected and analyzed during the 2016 Site-wide Water Monitoring Investigation in support of the Faro Mine Remediation Project. This included the Waste Rock Dump groundwater monitoring in February and June 2016, Faro Pit Lake profiling March 2016, and the spring 2016 seep monitoring. All analytical data were evaluated as described in the *Quality Assurance Project Plan, Faro Mine Remediation Project* (QAPP) (CH2M HILL, 2015). This data quality evaluation (DQE) report summarizes the results of the quality assurance and quality control activities prescribed in the QAPP and provides a data usability assessment. The QAPP identifies the method-specific QC requirements for each analytical parameter and matrix and defines a plan to test that the correct sampling, analytical, and data reduction procedures are followed by using audits and data validation.

This report is a general data quality assessment designed to summarize data issues.

Analytical Data

Between February 17th and June 7th 2016, 13 groundwater, 60 seep water, 4 pit lake profile samples, 2 groundwater field duplicates (FD), 8 seep water FDs, 1 pit lake profile FD and 6 equipment blanks (EB) were collected. Samples were analyzed by ALS Canada, Ltd. (ALS), in Burnaby, British Columbia. The laboratory placed the samples into ten sample delivery groups (SDG). Summaries of the samples collected are presented in Tables 1 and 2. A total of 17 methods were used to analyze the environmental samples. The samples were collected and couriered to ALS in Whitehorse and shipped by overnight carrier to ALS in Burnaby for analysis. Selected samples were analyzed for one or more of the following analytes/methods:

- Free cyanide by Method ASTM D7237
- Lime demand/solids formed by Method CH1987LIME
- pH by Method CSSS/APHA 4500H
- Mercury, dissolved by Method E1631E
- Mercury, total by Method E245.7
- Ferrous iron by Method Ferrozine
- Ammonia by Method JEM/SM4500N
- Acidity, hot peroxide by Method SM2310_HP
- Alkalinity, bicarbonate, carbonate, hydroxide, and total by Method SM2320B
- Hardness by Method SM2340B_CALC
- Total dissolved solids (TDS) by Method SM2540C
- Total suspended solids by Method SM2540D
- Anions (chloride, fluoride, nitrate, nitrite, sulfate) by SM4110B
- Phosphorus by Method SM4500P
- Dissolved organic carbon (DOC) by Method SM5310
- Metals, total and dissolved by Method SW6010B
- Metals, dissolved by Method SW6020A

The SDGs were evaluated by CH2M HILL chemists for data quality. Analytical performance was initially assessed on an SDG basis or an analytical batch basis. The association of laboratory QC samples and

environmental samples from the same analytical batch is determined by the laboratory lot control number. Data were assessed using Level II validation as indicated below:

- Review data set narrative to identify issues that the laboratory reported in the data deliverable
- Check sample integrity (e.g., sample collection, preservation, and holding times)
- Evaluate basic QC measurements used to assess the accuracy, precision, and representativeness of data, including QC blanks, laboratory control samples, matrix spike samples and field or laboratory duplicate results
- Review sample results, target compound lists, and detection limits to verify that project analytical requirements are met
- Initiate corrective actions, as necessary, based on the data review findings
- Verify that hardcopy results match electronic deliverable results
- Qualify data by using appropriate qualifier flags, as necessary, to indicate data usability limitations

Field samples were also reviewed to ascertain field compliance and data quality issues. This included a review of EBs and FDs.

Data flags were assigned in accordance with the QC acceptance limits defined in the QAPP. The data validation flags for the SDG are summarized in each data quality validation report. The flags, and the reason for each flag, are recorded in the electronic validation database. Multiple flags can be applied to specific sample method/matrix/analyte combinations, but there is only one final flag. The final flag is applied on the basis of the flags entered into the database and is the most conservative of the applied validation flags. The final flag also includes matrix and blank sample impacts.

Data flags can be separated into two categories to be used in estimating both contractor and analytical completeness:

1. Flags applied because of laboratory deviations from requirements in the QAPP
2. Flags applied because of the nature of the sample matrix or method limitations

The database tracks the type of protocol violation and the contractual and analytical completeness during data validation.

The data flags are defined in the QAPP as follows:

J = Analyte was present but the reported value may not be accurate or precise.

UJ = Analyte was not detected above the detection limit objective. However, the reported detection limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R = Result has been rejected for use.

U = Analyte was analyzed for but not detected at the specified detection limit.

None = A database flag with no QC implications. A flag is not applied. This is a placeholder for calculating QC criteria issues that do not require flagging.

Exclude = A database flag with no QC implications. When multiple data points have been reported, such as dilutions or re-extractions, the data that best match QAPP QC requirements are presented to the data users and the remainders are marked with this flag.

= = A database flag with no QC implications. A place holder for the DQE reporting purposes noting that the reported result is a detected concentration greater than the RL.

Findings

The overall summaries of the data validation findings are contained in Tables 1 through 8 and summarized in the method sections that follow:

- **Table 1**: Sample Summary by Chain of Custody – Data Summary. Presents the sample identifiers, sampling dates, and SDG sorted by chain-of-custody (COC) number.
- **Table 2**: Sample Chronology – Data Summary. Presents the sample identifiers, methods, sampling dates, received dates, extraction dates, and analysis dates sorted by SDG number.
- **Table 3**: Overall Flagging Summary. Presents the number of occurrences for each data validation reason by method.
- **Table 4:** Field Duplicate Precision – Qualified Data. Presents the results that are qualified because of FD precision exceedances.
- **Table 5:** Holding Time Exceedances – Qualified Data. Presents the data qualified because of holding time criteria exceedances.
- **Table 6:** Laboratory Duplicate Precision – Qualified Data. Presents the results that are qualified because of laboratory duplicate precision exceedances.
- **Table 7:** Blank Contamination – Qualified Data. Presents the data qualified because of blank contamination.
- **Table 8**: Site Completeness by Analyte – Qualified Data. Presents the percent completeness by method, analyte, and matrix.

Overall Flagging Summary

The frequency of field and laboratory QC samples and the associated control criteria are specified in the QAPP. The control criteria were used to evaluate laboratory data. In the following method-specific discussions, only the criteria exceedances that affect data qualification are discussed.

Method Ferrozine (Ferrous Iron, Dissolved)

Field Duplicate

Table 4 lists the specific field samples and their associated FD criteria exceedances. There were criteria exceedances in two FD pairs. The associated detected concentrations were flagged “J.” The associated non-detected concentration was flagged “UJ.”

Method SM2320B (Alkalinity)

Holding Time

Table 5 lists the specific field sample and its associated holding time criteria exceedances. The 14 day holding time for water samples was exceeded by four days for one sample. The associated non-detected concentrations were flagged “UJ.”

Method SM2340B_CALC (Hardness)

Field Duplicate

Table 4 lists the specific field sample and the associated FD that exceeded criteria. There was a criteria exceedance in one FD pair. The associated detected concentrations were flagged “J.”

Method SM2540C (Total Dissolved Solids)

Field Duplicate

Table 4 lists the specific field sample and the associated FD that exceeded criteria. There was a criteria exceedance in one FD pair. The associated detected concentrations were flagged "J."

Method SM2540D (Total Suspended Solids)

Field Duplicate

Table 4 lists the specific field samples and their associated FD that exceeded criteria. There were criteria exceedances in two FD pairs. The associated detected concentrations were flagged "J."

Laboratory Duplicate

Table 6 lists the specific field sample and its associated laboratory duplicate relative percent difference (RPD) criteria exceedance. There was a criteria exceedance in one sample. The associated detected concentration was flagged "J."

Method SM4110B (Chloride, Nitrate, Nitrite and Sulfate)

Field Duplicate

Table 4 lists the specific field samples and their associated FD that exceeded criteria. There was a criteria exceedance in one FD pair. The associated detected concentrations were flagged "J."

Holding Time

Table 5 lists the specific field samples and their associated holding time criteria exceedances. The 3-day nitrate and nitrite holding time for water samples was exceeded by one or two days for 60 samples. The associated detected concentrations were flagged "J." The associated non-detected concentrations were flagged "UJ".

Method SW6010B (Metals)

Field Duplicate

Table 4 lists the specific field samples and their associated FD that exceeded criteria. There was a criteria exceedance in one FD pair. The associated detected concentrations were flagged "J."

Method SW6020A (Metals)

Field Duplicate

Table 6 lists the specific field samples and their associated FD that exceeded criteria. There was a criteria exceedance in four FD pairs. The associated detected concentrations were flagged "J."

Equipment Blank

Table 7 lists the specific field samples and their associated EB criteria exceedances. Aluminum was detected in two EBs associated with five sample results and lead was detected in one EB associated with two sample results. The associated detected concentrations were flagged "U" as non-detects.

Overall Assessment

Completeness is calculated and reported for each method, matrix, and analyte combination as outlined in the QAPP. The number of valid (i.e., not qualified with an "R" flag) results divided by the number of possible individual analyte results, expressed as a percentage, determines the completeness of the data set. A summary of the completeness percentages is provided in Table 8.

The QAPP completeness goal is 90 percent, and the overall data completeness is 100 percent.

Of 4529 normal and FD data points, 50 detected results and 41 non-detected results (2.0 percent) were qualified as estimated concentrations because of QC exceedances. Blank contamination resulted in seven detected results being flagged as non-detects (0.2 percent). Evaluation of 100 percent of the chemical data was performed by using QAPP guidelines for this DQE.

Data Management

Faro Mine Remediation Project (FMRP) sampling activity logs and laboratory analytical data are maintained in a project database or in project files, where appropriate. Data were collected and stored in a manner consistent with the requirements of the QAPP.

All raw data will be maintained on file in the laboratory and will be available upon request. Complete documentation of sample preparation and analysis and associated QC information will be maintained in a manner that allows easy retrieval if that information is needed. The following minimum documentation was kept for this project:

- Original work order, COC forms, and other pertinent documents received with the samples
- Records of communications between the laboratory, field personnel, and the client
- Corrective action reports
- Laboratory data reports
- Laboratory logbooks and all raw sample preparation and analytical data
- Electronic data and all pertinent standard operating procedures

The minimum field records retained for this project included correspondence, COC forms, field notes, field equipment performance records, maintenance logs, field procedures, corrective action reports, field personnel files, and project-related reports.

The receipt of electronic and portable document format (PDF) laboratory data were logged into the sample tracking program to determine completeness and contractor turnaround time compliance.

CH2M HILL chemists uploaded this data into the validation program. All data validation was performed by a semi-automated data validation program that uses laboratory PDF report and electronic data simultaneously. All validation flags and discoveries were entered into the validation database and linked directly to each individual data point.

All DQE reports were generated from the validation database. Final validation flags and data points were uploaded to the FMRP EQuIS site.

The data management system is designed to maintain the usability and integrity of the data through a series of procedures and QC checks that began at the field site and carried through to the generation of data for the user. These data include chemical data and field operation information. Both the chemical data and the field operations information were handled in accordance with the guidelines established in the QAPP and the *Faro Mine Data Management Plan* (CH2M HILL, 2015).

The laboratory PDF reports are stored in the project files and project local area network hard drive areas in the CH2M HILL office in Redding, California. The original field data forms are stored on the FMRP SharePoint site. Laboratories are required to archive the analytical data as outlined in the QAPP.

Works Cited

CH2M Canada Limited (CH2M). 2015. *Quality Assurance Project Plan.* Final. Prepared for Government of Canada as represented by Aboriginal Affairs and Northern Development Canada and the Government of Yukon. September.

CH2M Canada Limited (CH2M). 2015g. *Faro Mine Complex Data Management Plan.* Final. Prepared for Government of Canada as represented by Aboriginal Affairs and Northern Development Canada and the Government of Yukon. December 1.

Tables

TABLE 1

Sample Summary by COC - Data Summary

CoC Number	Sample Date	Matrix	Sample ID / QAQC Type	SDG	Laboratory
ALS0216					
	20-Feb-16	WATER	CH12-014-MW003_GW0216 / N	L1736652	ALS
			CH12-014-MW003_GW0216MS / MS	L1736652	ALS
	21-Feb-16		CH12-014-MW011_GW0216 / N	L1737307	ALS
			CH12-014-MW011_GW0216MS / MS	L1737307	ALS
	22-Feb-16		CH12-014-MW012_GW0216 / N	L1737307	ALS
			CH12-014-MW013_GW0216 / N	L1737307	ALS
			CH12-014-MW013_GW0216MS / MS	L1737307	ALS
	21-Feb-16		CH12-014-MW911_GW0216 / FD	L1737307	ALS
	20-Feb-16		CH14-015-MW006_GW0216 / N	L1736652	ALS
			CH14-015-MW006_GW0216MS / MS	L1736652	ALS
	23-Feb-16		EB_014_16_002 / EB	L1737307	ALS
ALS02181601					
	17-Feb-16	WATER	CH12-014-MW007_GW0216 / N	L1736221	ALS
			CH12-014-MW007_GW0216MS / MS	L1736221	ALS
			EB_014_16_001 / EB	L1736221	ALS
			EB_014_16_001MS / MS	L1736221	ALS
ALS030316					
	03-Mar-16	WATER	CH13-016-FAROPL_10 / N	L1741165	ALS
			CH13-016-FAROPL_10MS / MS	L1741165	ALS
			CH13-016-FAROPL_50 / N	L1741165	ALS
			CH13-016-FAROPL_50MS / MS	L1741165	ALS
			CH13-016-FAROPL_70 / N	L1741165	ALS
			CH13-016-FAROPL_70MS / MS	L1741165	ALS
			CH13-016-FAROPL_90 / N	L1741165	ALS
			CH13-916-FAROPL_10 / FD	L1741165	ALS
			CH13-916-FAROPL_10MS / MS	L1741165	ALS
			E_016_16_001 / EB	L1741165	ALS
			E_016_16_001MS / MS	L1741165	ALS
ALS05191601					
	18-May-16	WATER	CH-RCTA-03_SESP16 / N	L1771791	ALS
			CH-RCTA-03_SESP16MS / MS	L1771791	ALS
			CH-RCTA-07_SESP16 / N	L1771791	ALS

TABLE 1

Sample Summary by COC - Data Summary

CoC Number	Sample Date	Matrix	Sample ID / QAQC Type	SDG	Laboratory
ALS05191601					
	18-May-16	WATER	CH-RCTA-07_SESP16MS / MS	L1771791	ALS
			CH-RCTA-907_SESP16 / FD	L1771791	ALS
			FCS-3_SESP16 / N	L1771791	ALS
			FCS-5_SESP16 / N	L1771791	ALS
			SRK-FD01_SESP16 / N	L1771791	ALS
			SRK-FD09_SESP16 / N	L1771791	ALS
			SRK-FD19_SESP16 / N	L1771791	ALS
			SRK-FD19_SESP16MS / MS	L1771791	ALS
			SRK-FD30_SESP16 / N	L1771791	ALS
			SRK-FD30_SESP16MS / MS	L1771791	ALS
			SRK-FD31_SESP16 / N	L1771791	ALS
	17-May-16		SRK-FD37_SESP16 / N	L1771791	ALS
			SRK-FD37_SESP16MS / MS	L1771791	ALS
	18-May-16		SRK-FD901_SESP16 / FD	L1771791	ALS
			SRK-FD901_SESP16MS / MS	L1771791	ALS
			SRK-FD919_SESP16 / FD	L1771791	ALS
			X23_SESP16 / N	L1771791	ALS
ALS05221601					
	19-May-16	WATER	A30_SESP16 / N	L1772436	ALS
	20-May-16		CH-FD-56_SESP16 / N	L1772436	ALS
	19-May-16		CH-FD-70_SESP16 / N	L1772436	ALS
			CH-FD-70_SESP16MS / MS	L1772436	ALS
	20-May-16		CH-FD-75_SESP16 / N	L1772436	ALS
	19-May-16		CH-FP-31_SESP16 / N	L1772436	ALS
			CH-FP-31_SESP16MS / MS	L1772436	ALS
			CH-FP-33_SESP16 / N	L1772436	ALS
			CH-FP-33_SESP16MS / MS	L1772436	ALS
			CH-FP-34_SESP16 / N	L1772436	ALS
	20-May-16		CH-FP-35_SESP16 / N	L1772436	ALS
	19-May-16		CH-FP-36_SESP16 / N	L1772436	ALS
			CH-FP-36_SESP16MS / MS	L1772436	ALS
	20-May-16		CH-GP-19_SESP16 / N	L1772436	ALS
	21-May-16		CH-VP-17_SESP16 / N	L1772436	ALS

TABLE 1

Sample Summary by COC - Data Summary

CoC Number	Sample Date	Matrix	Sample ID / QAQC Type	SDG	Laboratory
ALS05221601					
	19-May-16	WATER	FCS-2_SESP16 / N	L1772436	ALS
			FCS-4_SESP16 / N	L1772436	ALS
			FCS-4_SESP16MS / MS	L1772436	ALS
			FCS-902_SESP16 / FD	L1772436	ALS
	22-May-16		GD05 D-S_SESP16 / N	L1772436	ALS
	21-May-16		GP02_SESP16 / N	L1772436	ALS
			GP09_SESP16 / N	L1772436	ALS
			GP12_SESP16 / N	L1772436	ALS
	20-May-16		NE1_SESP16 / N	L1772436	ALS
			NE2_SESP16 / N	L1772436	ALS
			NE2_SESP16MS / MS	L1772436	ALS
			NE902_SESP16 / FD	L1772436	ALS
			NE902_SESP16MS / MS	L1772436	ALS
	22-May-16		SHEEP CREEK_SESP16 / N	L1772436	ALS
			SHEEP CREEK_SESP16MS / MS	L1772436	ALS
	20-May-16		SRK-FD05_SESP16 / N	L1772436	ALS
			SRK-FD06_SESP16 / N	L1772436	ALS
			SRK-FD06_SESP16MS / MS	L1772436	ALS
			SRK-FD08_SESP16 / N	L1772436	ALS
	19-May-16		SRK-FD13_SESP16 / N	L1772436	ALS
			SRK-FD14_SESP16 / N	L1772436	ALS
	20-May-16		SRK-FD18_SESP16 / N	L1772436	ALS
			SRK-FD18_SESP16MS / MS	L1772436	ALS
	19-May-16		SRK-FD23_SESP16 / N	L1772436	ALS
			SRK-FD24_SESP16 / N	L1772436	ALS
			SRK-FD26_SESP16 / N	L1772436	ALS
			SRK-FD26_SESP16MS / MS	L1772436	ALS
	20-May-16		SRK-FD54_SESP16 / N	L1772436	ALS
			SRK-FD55_SESP16 / N	L1772436	ALS
			SRK-FD955_SESP16 / FD	L1772436	ALS
			SRK-GD01_SESP16 / N	L1772436	ALS
			SRK-GD01_SESP16MS / MS	L1772436	ALS
	22-May-16		SRK-GD05_SESP16 / N	L1772436	ALS
	21-May-16		SRK-GD07_SESP16 / N	L1772436	ALS

TABLE 1

Sample Summary by COC - Data Summary

CoC Number	Sample Date	Matrix	Sample ID / QAQC Type	SDG	Laboratory
ALS05221601					
	21-May-16	WATER	SRK-GD11_SESP16 / N	L1772436	ALS
	22-May-16		SRK-GD13_SESP16 / N	L1772436	ALS
			SRK-GD13_SESP16MS / MS	L1772436	ALS
			SRK-GD24_SESP16 / N	L1772436	ALS
	21-May-16		SRK-VD01_SESP16 / N	L1772436	ALS
			SRK-VD02_SESP16 / N	L1772436	ALS
			SRK-VD02_SESP16MS / MS	L1772436	ALS
			SRK-VD03_SESP16 / N	L1772436	ALS
			SRK-VD03_SESP16MS / MS	L1772436	ALS
			SRK-VD04_SESP16 / N	L1772436	ALS
			SRK-VD05_SESP16 / N	L1772436	ALS
			SRK-VD05_SESP16MS / MS	L1772436	ALS
			SRK-VD09_SESP16 / N	L1772436	ALS
			SRK-VD10_SESP16 / N	L1772436	ALS
			SRK-VD10_SESP16MS / MS	L1772436	ALS
			SRK-VD12_SESP16 / N	L1772436	ALS
			SRK-VD902_SESP16 / FD	L1772436	ALS
			SRK-VD905_SESP16 / FD	L1772436	ALS
	22-May-16		SWEET CREEK_SESP16 / N	L1772436	ALS
	21-May-16		VP09_SESP16 / N	L1772436	ALS
			VP09_SESP16MS / MS	L1772436	ALS
	22-May-16		WGD01_SESP16 / N	L1772436	ALS
			WTA02_SESP16 / N	L1772436	ALS
			WTA02_SESP16MS / MS	L1772436	ALS
ALS060216					
	01-Jun-16	WATER	CH12-014-MW007_GW0616 / N	L1778028	ALS
			CH12-014-MW007_GW0616MS / MS	L1778028	ALS
			CH14-015-MW006_GW0616 / N	L1778028	ALS
			CH14-015-MW006_GW0616MS / MS	L1778028	ALS
ALS060316					
	02-Jun-16	WATER	CH12-014-MW003_GW0616 / N	L1778685	ALS
			CH12-014-MW003_GW0616MS / MS	L1778685	ALS

TABLE 1

Sample Summary by COC - Data Summary

CoC Number	Sample Date	Matrix	Sample ID / QAQC Type	SDG	Laboratory
ALS06051601					
	04-Jun-16	WATER	CH12-014-MW011_GW0616 / N	L1778701	ALS
	03-Jun-16		CH12-014-MW012_GW0616 / N	L1778701	ALS
	04-Jun-16		CH12-014-MW013_GW0616 / N	L1778701	ALS
			CH12-014-MW913_GW0616 / FD	L1778701	ALS
	05-Jun-16		E_014_16_001 / EB	L1778701	ALS
			E_014_16_002 / EB	L1778701	ALS
			E_014_16_002MS / MS	L1778701	ALS
ALS06081601					
	06-Jun-16	WATER	CH14-104-MW008_GW0616 / N	L1780437	ALS
	07-Jun-16		E_104_16_001 / EB	L1780437	ALS
			E_104_16_001MS / MS	L1780437	ALS

QAQC Type

N = normal environmental sample
FD = field duplicate
MS = matrix spike
EB = equipment blank

TABLE 2

Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1736221	CH12-014-MW007_GW0216	CSSS/APHA 4500H	2/17/2016	2/19/2016		2/23/2016
		CH12-014-MW007_GW0216	E1631E	2/17/2016	2/19/2016	2/23/2016	2/23/2016
		CH12-014-MW007_GW0216	Ferrozine	2/17/2016	2/19/2016	2/23/2016	2/23/2016
		CH12-014-MW007_GW0216	JEM/SM4500N	2/17/2016	2/19/2016		2/27/2016
		CH12-014-MW007_GW0216	SM2310_HP	2/17/2016	2/19/2016		2/23/2016
		CH12-014-MW007_GW0216	SM2320B	2/17/2016	2/19/2016		2/24/2016
		CH12-014-MW007_GW0216	SM2340B_CALC	2/17/2016	2/19/2016		3/1/2016
		CH12-014-MW007_GW0216	SM2540C	2/17/2016	2/19/2016		2/23/2016
		CH12-014-MW007_GW0216	SM2540D	2/17/2016	2/19/2016		2/19/2016
		CH12-014-MW007_GW0216	SM4110B	2/17/2016	2/19/2016		2/19/2016
		CH12-014-MW007_GW0216	SM4500P	2/17/2016	2/19/2016		2/24/2016
		CH12-014-MW007_GW0216	SM5310	2/17/2016	2/19/2016		2/29/2016
		CH12-014-MW007_GW0216	SW6010B	2/17/2016	2/19/2016		2/29/2016
		CH12-014-MW007_GW0216	SW6010B	2/17/2016	2/19/2016	2/23/2016	2/26/2016
		CH12-014-MW007_GW0216	SW6020A	2/17/2016	2/19/2016	2/23/2016	2/27/2016
		CH12-014-MW007_GW0216	SW6020A	2/17/2016	2/19/2016	2/23/2016	2/29/2016
		CH12-014-MW007_GW0216MS	JEM/SM4500N	2/17/2016	2/27/2016		2/27/2016
		EB_014_16_001	E1631E	2/17/2016	2/19/2016	2/23/2016	2/23/2016
		EB_014_16_001	Ferrozine	2/17/2016	2/19/2016	2/23/2016	2/23/2016
		EB_014_16_001	JEM/SM4500N	2/17/2016	2/19/2016		2/27/2016
		EB_014_16_001	SM2340B_CALC	2/17/2016	2/19/2016		3/1/2016
		EB_014_16_001	SM4110B	2/17/2016	2/19/2016		2/19/2016
		EB_014_16_001	SM4500P	2/17/2016	2/19/2016		2/24/2016
		EB_014_16_001	SM5310	2/17/2016	2/19/2016		2/29/2016
		EB_014_16_001	SW6010B	2/17/2016	2/19/2016		2/29/2016
		EB_014_16_001	SW6010B	2/17/2016	2/19/2016	2/23/2016	2/24/2016
		EB_014_16_001	SW6020A	2/17/2016	2/19/2016	2/23/2016	2/27/2016
		EB_014_16_001	SW6020A	2/17/2016	2/19/2016	2/23/2016	2/29/2016
		EB_014_16_001MS	E1631E	2/17/2016	2/23/2016	2/23/2016	2/23/2016
		EB_014_16_001MS	Ferrozine	2/17/2016	2/23/2016	2/23/2016	2/23/2016
		EB_014_16_001MS	SM4110B	2/17/2016	2/19/2016		2/19/2016
		EB_014_16_001MS	SM4500P	2/17/2016	2/24/2016		2/24/2016
		EB_014_16_001MS	SW6010B	2/17/2016	2/23/2016	2/23/2016	2/24/2016
		EB_014_16_001MS	SW6020A	2/17/2016	2/23/2016	2/23/2016	2/27/2016
	L1736652	CH12-014-MW003_GW0216	CSSS/APHA 4500H	2/20/2016	2/22/2016		2/25/2016

TABLE 2

Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1736652	CH12-014-MW003_GW0216	E1631E	2/20/2016	2/22/2016	2/24/2016	2/25/2016
		CH12-014-MW003_GW0216	Ferrozine	2/20/2016	2/22/2016	2/25/2016	2/25/2016
		CH12-014-MW003_GW0216	JEM/SM4500N	2/20/2016	2/22/2016		3/2/2016
		CH12-014-MW003_GW0216	SM2310_HP	2/20/2016	2/22/2016		2/25/2016
		CH12-014-MW003_GW0216	SM2320B	2/20/2016	2/22/2016		3/3/2016
		CH12-014-MW003_GW0216	SM2340B_CALC	2/20/2016	2/22/2016		2/29/2016
		CH12-014-MW003_GW0216	SM2540C	2/20/2016	2/22/2016		2/25/2016
		CH12-014-MW003_GW0216	SM2540D	2/20/2016	2/22/2016		2/26/2016
		CH12-014-MW003_GW0216	SM4110B	2/20/2016	2/22/2016		2/23/2016
		CH12-014-MW003_GW0216	SM4500P	2/20/2016	2/22/2016		2/26/2016
		CH12-014-MW003_GW0216	SM5310	2/20/2016	2/22/2016		2/29/2016
		CH12-014-MW003_GW0216	SW6010B	2/20/2016	2/22/2016		2/26/2016
		CH12-014-MW003_GW0216	SW6010B	2/20/2016	2/22/2016	2/24/2016	2/25/2016
		CH12-014-MW003_GW0216	SW6020A	2/20/2016	2/22/2016	2/24/2016	2/27/2016
		CH12-014-MW003_GW0216MS	E1631E	2/20/2016	2/24/2016	2/24/2016	2/25/2016
		CH12-014-MW003_GW0216MS	SM4110B	2/20/2016	2/23/2016		2/23/2016
		CH14-015-MW006_GW0216	CSSS/APHA 4500H	2/20/2016	2/22/2016		2/25/2016
		CH14-015-MW006_GW0216	E1631E	2/20/2016	2/22/2016	2/24/2016	2/25/2016
		CH14-015-MW006_GW0216	Ferrozine	2/20/2016	2/22/2016	2/25/2016	2/25/2016
		CH14-015-MW006_GW0216	JEM/SM4500N	2/20/2016	2/22/2016		3/2/2016
		CH14-015-MW006_GW0216	SM2310_HP	2/20/2016	2/22/2016		2/25/2016
		CH14-015-MW006_GW0216	SM2320B	2/20/2016	2/22/2016		3/3/2016
		CH14-015-MW006_GW0216	SM2340B_CALC	2/20/2016	2/22/2016		2/29/2016
		CH14-015-MW006_GW0216	SM2540C	2/20/2016	2/22/2016		2/25/2016
		CH14-015-MW006_GW0216	SM2540D	2/20/2016	2/22/2016		2/26/2016
		CH14-015-MW006_GW0216	SM4110B	2/20/2016	2/22/2016		2/23/2016
		CH14-015-MW006_GW0216	SM4500P	2/20/2016	2/22/2016		2/26/2016
		CH14-015-MW006_GW0216	SM5310	2/20/2016	2/22/2016		2/29/2016
		CH14-015-MW006_GW0216	SW6010B	2/20/2016	2/22/2016		2/29/2016
		CH14-015-MW006_GW0216	SW6010B	2/20/2016	2/22/2016	2/24/2016	2/26/2016
		CH14-015-MW006_GW0216	SW6020A	2/20/2016	2/22/2016	2/24/2016	2/27/2016
		CH14-015-MW006_GW0216MS	SM5310	2/20/2016	2/29/2016		2/29/2016
		CH14-015-MW006_GW0216MS	SW6010B	2/20/2016	2/24/2016	2/24/2016	2/26/2016
		CH14-015-MW006_GW0216MS	SW6020A	2/20/2016	2/24/2016	2/24/2016	2/27/2016
	L1737307	CH12-014-MW011_GW0216	CSSS/APHA 4500H	2/21/2016	2/23/2016		2/25/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1737307	CH12-014-MW011_GW0216	E1631E	2/21/2016	2/23/2016	2/24/2016	2/25/2016
		CH12-014-MW011_GW0216	Ferrozine	2/21/2016	2/23/2016	2/25/2016	2/25/2016
		CH12-014-MW011_GW0216	JEM/SM4500N	2/21/2016	2/23/2016		3/2/2016
		CH12-014-MW011_GW0216	SM2310_HP	2/21/2016	2/23/2016		2/25/2016
		CH12-014-MW011_GW0216	SM2320B	2/21/2016	2/23/2016		3/3/2016
		CH12-014-MW011_GW0216	SM2340B_CALC	2/21/2016	2/23/2016		3/1/2016
		CH12-014-MW011_GW0216	SM2540C	2/21/2016	2/23/2016		2/25/2016
		CH12-014-MW011_GW0216	SM2540D	2/21/2016	2/23/2016		2/26/2016
		CH12-014-MW011_GW0216	SM4110B	2/21/2016	2/23/2016		2/23/2016
		CH12-014-MW011_GW0216	SM4500P	2/21/2016	2/23/2016		2/26/2016
		CH12-014-MW011_GW0216	SM5310	2/21/2016	2/23/2016		2/29/2016
		CH12-014-MW011_GW0216	SW6010B	2/21/2016	2/23/2016		2/26/2016
		CH12-014-MW011_GW0216	SW6010B	2/21/2016	2/23/2016	2/24/2016	2/25/2016
		CH12-014-MW011_GW0216	SW6020A	2/21/2016	2/23/2016	2/24/2016	2/27/2016
		CH12-014-MW011_GW0216	SW6020A	2/21/2016	2/23/2016	2/24/2016	2/29/2016
		CH12-014-MW011_GW0216MS	Ferrozine	2/21/2016	2/25/2016	2/25/2016	2/25/2016
		CH12-014-MW012_GW0216	CSSS/APHA 4500H	2/22/2016	2/23/2016		2/25/2016
		CH12-014-MW012_GW0216	E1631E	2/22/2016	2/23/2016	2/24/2016	2/25/2016
		CH12-014-MW012_GW0216	Ferrozine	2/22/2016	2/23/2016	2/25/2016	2/25/2016
		CH12-014-MW012_GW0216	JEM/SM4500N	2/22/2016	2/23/2016		3/2/2016
		CH12-014-MW012_GW0216	SM2310_HP	2/22/2016	2/23/2016		2/25/2016
		CH12-014-MW012_GW0216	SM2320B	2/22/2016	2/23/2016		3/3/2016
		CH12-014-MW012_GW0216	SM2340B_CALC	2/22/2016	2/23/2016		2/29/2016
		CH12-014-MW012_GW0216	SM2540C	2/22/2016	2/23/2016		2/25/2016
		CH12-014-MW012_GW0216	SM2540D	2/22/2016	2/23/2016		2/26/2016
		CH12-014-MW012_GW0216	SM4110B	2/22/2016	2/23/2016		2/23/2016
		CH12-014-MW012_GW0216	SM4500P	2/22/2016	2/23/2016		2/26/2016
		CH12-014-MW012_GW0216	SM5310	2/22/2016	2/23/2016		2/29/2016
		CH12-014-MW012_GW0216	SW6010B	2/22/2016	2/23/2016		2/26/2016
		CH12-014-MW012_GW0216	SW6010B	2/22/2016	2/23/2016	2/24/2016	2/25/2016
		CH12-014-MW012_GW0216	SW6020A	2/22/2016	2/23/2016	2/24/2016	2/27/2016
		CH12-014-MW013_GW0216	CSSS/APHA 4500H	2/22/2016	2/23/2016		2/25/2016
		CH12-014-MW013_GW0216	E1631E	2/22/2016	2/23/2016	2/24/2016	2/25/2016
		CH12-014-MW013_GW0216	Ferrozine	2/22/2016	2/23/2016	2/25/2016	2/25/2016
		CH12-014-MW013_GW0216	JEM/SM4500N	2/22/2016	2/23/2016		3/2/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1737307	CH12-014-MW013_GW0216	SM2310_HP	2/22/2016	2/23/2016		2/25/2016
		CH12-014-MW013_GW0216	SM2320B	2/22/2016	2/23/2016		3/3/2016
		CH12-014-MW013_GW0216	SM2340B_CALC	2/22/2016	2/23/2016		2/29/2016
		CH12-014-MW013_GW0216	SM2540C	2/22/2016	2/23/2016		2/25/2016
		CH12-014-MW013_GW0216	SM2540D	2/22/2016	2/23/2016		2/26/2016
		CH12-014-MW013_GW0216	SM4110B	2/22/2016	2/23/2016		2/23/2016
		CH12-014-MW013_GW0216	SM4500P	2/22/2016	2/23/2016		2/26/2016
		CH12-014-MW013_GW0216	SM5310	2/22/2016	2/23/2016		2/29/2016
		CH12-014-MW013_GW0216	SW6010B	2/22/2016	2/23/2016		2/26/2016
		CH12-014-MW013_GW0216	SW6010B	2/22/2016	2/23/2016	2/24/2016	2/25/2016
		CH12-014-MW013_GW0216	SW6020A	2/22/2016	2/23/2016	2/24/2016	2/27/2016
		CH12-014-MW013_GW0216MS	JEM/SM4500N	2/22/2016	3/2/2016		3/2/2016
		CH12-014-MW013_GW0216MS	SM4500P	2/22/2016	2/26/2016		2/26/2016
		CH12-014-MW911_GW0216	CSSS/APHA 4500H	2/21/2016	2/23/2016		2/25/2016
		CH12-014-MW911_GW0216	E1631E	2/21/2016	2/23/2016	2/24/2016	2/25/2016
		CH12-014-MW911_GW0216	Ferrozine	2/21/2016	2/23/2016	2/25/2016	2/25/2016
		CH12-014-MW911_GW0216	JEM/SM4500N	2/21/2016	2/23/2016		3/2/2016
		CH12-014-MW911_GW0216	SM2310_HP	2/21/2016	2/23/2016		2/25/2016
		CH12-014-MW911_GW0216	SM2320B	2/21/2016	2/23/2016		3/3/2016
		CH12-014-MW911_GW0216	SM2340B_CALC	2/21/2016	2/23/2016		2/29/2016
		CH12-014-MW911_GW0216	SM2540C	2/21/2016	2/23/2016		2/25/2016
		CH12-014-MW911_GW0216	SM2540D	2/21/2016	2/23/2016		2/26/2016
		CH12-014-MW911_GW0216	SM4110B	2/21/2016	2/23/2016		2/23/2016
		CH12-014-MW911_GW0216	SM4500P	2/21/2016	2/23/2016		2/26/2016
		CH12-014-MW911_GW0216	SM5310	2/21/2016	2/23/2016		2/29/2016
		CH12-014-MW911_GW0216	SW6010B	2/21/2016	2/23/2016		2/26/2016
		CH12-014-MW911_GW0216	SW6010B	2/21/2016	2/23/2016	2/24/2016	2/25/2016
		CH12-014-MW911_GW0216	SW6020A	2/21/2016	2/23/2016	2/24/2016	2/27/2016
		EB_014_16_002	E1631E	2/23/2016	2/23/2016	2/24/2016	2/25/2016
		EB_014_16_002	Ferrozine	2/23/2016	2/23/2016	2/25/2016	2/25/2016
		EB_014_16_002	JEM/SM4500N	2/23/2016	2/23/2016		3/2/2016
		EB_014_16_002	SM2340B_CALC	2/23/2016	2/23/2016		3/1/2016
		EB_014_16_002	SM4110B	2/23/2016	2/23/2016		2/23/2016
		EB_014_16_002	SM4500P	2/23/2016	2/23/2016		2/26/2016
		EB_014_16_002	SM5310	2/23/2016	2/23/2016		2/29/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1737307	EB_014_16_002	SW6010B	2/23/2016	2/23/2016		2/29/2016
		EB_014_16_002	SW6010B	2/23/2016	2/23/2016	2/24/2016	2/26/2016
		EB_014_16_002	SW6020A	2/23/2016	2/23/2016	2/24/2016	2/27/2016
		EB_014_16_002	SW6020A	2/23/2016	2/23/2016	2/24/2016	2/29/2016
	L1741165	CH13-016-FAROPL_10	CH1987LIME	3/3/2016	3/4/2016		3/8/2016
		CH13-016-FAROPL_10	E1631E	3/3/2016	3/4/2016	3/7/2016	3/8/2016
		CH13-016-FAROPL_10	E245.7	3/3/2016	3/4/2016		3/8/2016
		CH13-016-FAROPL_10	Ferrozine	3/3/2016	3/4/2016	3/8/2016	3/8/2016
		CH13-016-FAROPL_10	JEM/SM4500N	3/3/2016	3/4/2016		3/13/2016
		CH13-016-FAROPL_10	SM2310_HP	3/3/2016	3/4/2016		3/11/2016
		CH13-016-FAROPL_10	SM2320B	3/3/2016	3/4/2016		3/7/2016
		CH13-016-FAROPL_10	SM2340B_CALC	3/3/2016	3/4/2016		3/14/2016
		CH13-016-FAROPL_10	SM2540C	3/3/2016	3/4/2016		3/8/2016
		CH13-016-FAROPL_10	SM2540D	3/3/2016	3/4/2016		3/8/2016
		CH13-016-FAROPL_10	SM4110B	3/3/2016	3/4/2016		3/4/2016
		CH13-016-FAROPL_10	SM4500P	3/3/2016	3/4/2016		3/9/2016
		CH13-016-FAROPL_10	SM5310	3/3/2016	3/4/2016		3/8/2016
		CH13-016-FAROPL_10	SW6010B	3/3/2016	3/4/2016		3/11/2016
		CH13-016-FAROPL_10	SW6010B	3/3/2016	3/4/2016		3/13/2016
		CH13-016-FAROPL_10	SW6010B	3/3/2016	3/4/2016		3/14/2016
		CH13-016-FAROPL_10	SW6010B	3/3/2016	3/4/2016	3/7/2016	3/11/2016
		CH13-016-FAROPL_10	SW6020A	3/3/2016	3/4/2016	3/7/2016	3/11/2016
		CH13-016-FAROPL_10MS	JEM/SM4500N	3/3/2016	3/13/2016		3/13/2016
		CH13-016-FAROPL_50	CH1987LIME	3/3/2016	3/4/2016		3/8/2016
		CH13-016-FAROPL_50	E1631E	3/3/2016	3/4/2016	3/7/2016	3/8/2016
		CH13-016-FAROPL_50	E245.7	3/3/2016	3/4/2016		3/8/2016
		CH13-016-FAROPL_50	Ferrozine	3/3/2016	3/4/2016	3/8/2016	3/8/2016
		CH13-016-FAROPL_50	JEM/SM4500N	3/3/2016	3/4/2016		3/13/2016
		CH13-016-FAROPL_50	SM2310_HP	3/3/2016	3/4/2016		3/11/2016
		CH13-016-FAROPL_50	SM2320B	3/3/2016	3/4/2016		3/7/2016
		CH13-016-FAROPL_50	SM2340B_CALC	3/3/2016	3/4/2016		3/14/2016
		CH13-016-FAROPL_50	SM2540C	3/3/2016	3/4/2016		3/8/2016
		CH13-016-FAROPL_50	SM2540D	3/3/2016	3/4/2016		3/8/2016
		CH13-016-FAROPL_50	SM4110B	3/3/2016	3/4/2016		3/4/2016
		CH13-016-FAROPL_50	SM4500P	3/3/2016	3/4/2016		3/9/2016

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Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1741165	CH13-016-FAROPL_50	SM5310	3/3/2016	3/4/2016		3/8/2016
		CH13-016-FAROPL_50	SW6010B	3/3/2016	3/4/2016		3/11/2016
		CH13-016-FAROPL_50	SW6010B	3/3/2016	3/4/2016		3/14/2016
		CH13-016-FAROPL_50	SW6010B	3/3/2016	3/4/2016	3/7/2016	3/11/2016
		CH13-016-FAROPL_50	SW6020A	3/3/2016	3/4/2016	3/7/2016	3/11/2016
		CH13-016-FAROPL_50MS	SM5310	3/3/2016	3/8/2016		3/8/2016
		CH13-016-FAROPL_70	CH1987LIME	3/3/2016	3/4/2016		3/8/2016
		CH13-016-FAROPL_70	E1631E	3/3/2016	3/4/2016	3/7/2016	3/8/2016
		CH13-016-FAROPL_70	E245.7	3/3/2016	3/4/2016		3/8/2016
		CH13-016-FAROPL_70	Ferrozine	3/3/2016	3/4/2016	3/8/2016	3/8/2016
		CH13-016-FAROPL_70	JEM/SM4500N	3/3/2016	3/4/2016		3/13/2016
		CH13-016-FAROPL_70	SM2310_HP	3/3/2016	3/4/2016		3/11/2016
		CH13-016-FAROPL_70	SM2320B	3/3/2016	3/4/2016		3/7/2016
		CH13-016-FAROPL_70	SM2340B_CALC	3/3/2016	3/4/2016		3/16/2016
		CH13-016-FAROPL_70	SM2540C	3/3/2016	3/4/2016		3/8/2016
		CH13-016-FAROPL_70	SM2540D	3/3/2016	3/4/2016		3/8/2016
		CH13-016-FAROPL_70	SM4110B	3/3/2016	3/4/2016		3/4/2016
		CH13-016-FAROPL_70	SM4500P	3/3/2016	3/4/2016		3/9/2016
		CH13-016-FAROPL_70	SM5310	3/3/2016	3/4/2016		3/8/2016
		CH13-016-FAROPL_70	SW6010B	3/3/2016	3/4/2016		3/11/2016
		CH13-016-FAROPL_70	SW6010B	3/3/2016	3/4/2016		3/14/2016
		CH13-016-FAROPL_70	SW6010B	3/3/2016	3/4/2016		3/16/2016
		CH13-016-FAROPL_70	SW6010B	3/3/2016	3/4/2016	3/7/2016	3/15/2016
		CH13-016-FAROPL_70	SW6020A	3/3/2016	3/4/2016	3/7/2016	3/15/2016
		CH13-016-FAROPL_70MS	E245.7	3/3/2016	3/8/2016		3/8/2016
		CH13-016-FAROPL_70MS	SM4500P	3/3/2016	3/9/2016		3/9/2016
		CH13-016-FAROPL_90	CH1987LIME	3/3/2016	3/4/2016		3/8/2016
		CH13-016-FAROPL_90	E1631E	3/3/2016	3/4/2016	3/7/2016	3/8/2016
		CH13-016-FAROPL_90	E245.7	3/3/2016	3/4/2016		3/8/2016
		CH13-016-FAROPL_90	Ferrozine	3/3/2016	3/4/2016	3/8/2016	3/8/2016
		CH13-016-FAROPL_90	JEM/SM4500N	3/3/2016	3/4/2016		3/13/2016
		CH13-016-FAROPL_90	SM2310_HP	3/3/2016	3/4/2016		3/11/2016
		CH13-016-FAROPL_90	SM2320B	3/3/2016	3/4/2016		3/7/2016
		CH13-016-FAROPL_90	SM2340B_CALC	3/3/2016	3/4/2016		3/14/2016
		CH13-016-FAROPL_90	SM2540C	3/3/2016	3/4/2016		3/8/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1741165	CH13-016-FAROPL_90	SM2540D	3/3/2016	3/4/2016		3/8/2016
		CH13-016-FAROPL_90	SM4110B	3/3/2016	3/4/2016		3/4/2016
		CH13-016-FAROPL_90	SM4500P	3/3/2016	3/4/2016		3/9/2016
		CH13-016-FAROPL_90	SM5310	3/3/2016	3/4/2016		3/8/2016
		CH13-016-FAROPL_90	SW6010B	3/3/2016	3/4/2016		3/11/2016
		CH13-016-FAROPL_90	SW6010B	3/3/2016	3/4/2016		3/14/2016
		CH13-016-FAROPL_90	SW6010B	3/3/2016	3/4/2016	3/7/2016	3/11/2016
		CH13-016-FAROPL_90	SW6020A	3/3/2016	3/4/2016	3/7/2016	3/11/2016
		CH13-916-FAROPL_10	CH1987LIME	3/3/2016	3/4/2016		3/8/2016
		CH13-916-FAROPL_10	E1631E	3/3/2016	3/4/2016	3/7/2016	3/8/2016
		CH13-916-FAROPL_10	E245.7	3/3/2016	3/4/2016		3/8/2016
		CH13-916-FAROPL_10	Ferrozine	3/3/2016	3/4/2016	3/8/2016	3/8/2016
		CH13-916-FAROPL_10	JEM/SM4500N	3/3/2016	3/4/2016		3/13/2016
		CH13-916-FAROPL_10	SM2310_HP	3/3/2016	3/4/2016		3/11/2016
		CH13-916-FAROPL_10	SM2320B	3/3/2016	3/4/2016		3/7/2016
		CH13-916-FAROPL_10	SM2340B_CALC	3/3/2016	3/4/2016		3/14/2016
		CH13-916-FAROPL_10	SM2540C	3/3/2016	3/4/2016		3/8/2016
		CH13-916-FAROPL_10	SM2540D	3/3/2016	3/4/2016		3/8/2016
		CH13-916-FAROPL_10	SM4110B	3/3/2016	3/4/2016		3/4/2016
		CH13-916-FAROPL_10	SM4500P	3/3/2016	3/4/2016		3/9/2016
		CH13-916-FAROPL_10	SM5310	3/3/2016	3/4/2016		3/8/2016
		CH13-916-FAROPL_10	SW6010B	3/3/2016	3/4/2016		3/11/2016
		CH13-916-FAROPL_10	SW6010B	3/3/2016	3/4/2016		3/14/2016
		CH13-916-FAROPL_10	SW6010B	3/3/2016	3/4/2016	3/7/2016	3/11/2016
		CH13-916-FAROPL_10	SW6020A	3/3/2016	3/4/2016	3/7/2016	3/11/2016
		CH13-916-FAROPL_10MS	E1631E	3/3/2016	3/7/2016	3/7/2016	3/8/2016
		CH13-916-FAROPL_10MS	SW6010B	3/3/2016	3/11/2016		3/11/2016
		E_016_16_001	E1631E	3/3/2016	3/4/2016	3/7/2016	3/8/2016
		E_016_16_001	E245.7	3/3/2016	3/4/2016		3/8/2016
		E_016_16_001	Ferrozine	3/3/2016	3/4/2016	3/8/2016	3/8/2016
		E_016_16_001	JEM/SM4500N	3/3/2016	3/4/2016		3/13/2016
		E_016_16_001	SM2340B_CALC	3/3/2016	3/4/2016		3/16/2016
		E_016_16_001	SM4110B	3/3/2016	3/4/2016		3/4/2016
		E_016_16_001	SM4500P	3/3/2016	3/4/2016		3/9/2016
		E_016_16_001	SM5310	3/3/2016	3/4/2016		3/8/2016

TABLE 2

Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1741165	E_016_16_001	SW6010B	3/3/2016	3/4/2016		3/11/2016
		E_016_16_001	SW6010B	3/3/2016	3/4/2016		3/12/2016
		E_016_16_001	SW6010B	3/3/2016	3/4/2016		3/14/2016
		E_016_16_001	SW6010B	3/3/2016	3/4/2016		3/16/2016
		E_016_16_001	SW6010B	3/3/2016	3/4/2016	3/7/2016	3/11/2016
		E_016_16_001	SW6020A	3/3/2016	3/4/2016	3/7/2016	3/11/2016
		E_016_16_001	SW6020A	3/3/2016	3/4/2016	3/7/2016	3/13/2016
		E_016_16_001MS	Ferrozine	3/3/2016	3/8/2016	3/8/2016	3/8/2016
		E_016_16_001MS	SM4110B	3/3/2016	3/4/2016		3/4/2016
		E_016_16_001MS	SW6020A	3/3/2016	3/7/2016	3/7/2016	3/11/2016
	L1771791	CH-RCTA-03_SESP16	ASTM D7237	5/18/2016	5/20/2016		6/1/2016
		CH-RCTA-03_SESP16	E1631E	5/18/2016	5/20/2016	5/24/2016	5/24/2016
		CH-RCTA-03_SESP16	Ferrozine	5/18/2016	5/20/2016	5/24/2016	5/24/2016
		CH-RCTA-03_SESP16	JEM/SM4500N	5/18/2016	5/20/2016		6/3/2016
		CH-RCTA-03_SESP16	SM2310_HP	5/18/2016	5/20/2016		5/26/2016
		CH-RCTA-03_SESP16	SM2320B	5/18/2016	5/20/2016		5/29/2016
		CH-RCTA-03_SESP16	SM2340B_CALC	5/18/2016	5/20/2016		6/3/2016
		CH-RCTA-03_SESP16	SM2540C	5/18/2016	5/20/2016		5/24/2016
		CH-RCTA-03_SESP16	SM2540D	5/18/2016	5/20/2016		5/25/2016
		CH-RCTA-03_SESP16	SM4110B	5/18/2016	5/20/2016		5/20/2016
		CH-RCTA-03_SESP16	SM4500P	5/18/2016	5/20/2016		6/2/2016
		CH-RCTA-03_SESP16	SM5310	5/18/2016	5/20/2016		6/3/2016
		CH-RCTA-03_SESP16	SW6010B	5/18/2016	5/20/2016		5/31/2016
		CH-RCTA-03_SESP16	SW6010B	5/18/2016	5/20/2016	5/25/2016	5/30/2016
		CH-RCTA-03_SESP16	SW6020A	5/18/2016	5/20/2016	5/25/2016	6/1/2016
		CH-RCTA-03_SESP16	SW6020A	5/18/2016	5/20/2016	5/25/2016	6/3/2016
		CH-RCTA-03_SESP16MS	ASTM D7237	5/18/2016	6/1/2016		6/1/2016
		CH-RCTA-03_SESP16MS	SM4500P	5/18/2016	6/2/2016		6/2/2016
		CH-RCTA-03_SESP16MS	SM5310	5/18/2016	6/3/2016		6/3/2016
		CH-RCTA-07_SESP16	ASTM D7237	5/18/2016	5/20/2016		6/1/2016
		CH-RCTA-07_SESP16	E1631E	5/18/2016	5/20/2016	5/24/2016	5/24/2016
		CH-RCTA-07_SESP16	Ferrozine	5/18/2016	5/20/2016	5/24/2016	5/24/2016
		CH-RCTA-07_SESP16	JEM/SM4500N	5/18/2016	5/20/2016		6/3/2016
		CH-RCTA-07_SESP16	SM2310_HP	5/18/2016	5/20/2016		5/26/2016
		CH-RCTA-07_SESP16	SM2320B	5/18/2016	5/20/2016		5/29/2016

TABLE 2

Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1771791	CH-RCTA-07_SESP16	SM2340B_CALC	5/18/2016	5/20/2016		6/3/2016
		CH-RCTA-07_SESP16	SM2540C	5/18/2016	5/20/2016		5/24/2016
		CH-RCTA-07_SESP16	SM2540D	5/18/2016	5/20/2016		5/25/2016
		CH-RCTA-07_SESP16	SM4110B	5/18/2016	5/20/2016		5/20/2016
		CH-RCTA-07_SESP16	SM4500P	5/18/2016	5/20/2016		6/1/2016
		CH-RCTA-07_SESP16	SM5310	5/18/2016	5/20/2016		6/3/2016
		CH-RCTA-07_SESP16	SW6010B	5/18/2016	5/20/2016		6/1/2016
		CH-RCTA-07_SESP16	SW6010B	5/18/2016	5/20/2016	5/25/2016	5/31/2016
		CH-RCTA-07_SESP16	SW6020A	5/18/2016	5/20/2016	5/25/2016	6/3/2016
		CH-RCTA-07_SESP16MS	SM4110B	5/18/2016	5/20/2016		5/20/2016
		CH-RCTA-907_SESP16	ASTM D7237	5/18/2016	5/20/2016		6/1/2016
		CH-RCTA-907_SESP16	E1631E	5/18/2016	5/20/2016	5/24/2016	5/24/2016
		CH-RCTA-907_SESP16	Ferrozine	5/18/2016	5/20/2016	5/24/2016	5/24/2016
		CH-RCTA-907_SESP16	JEM/SM4500N	5/18/2016	5/20/2016		6/3/2016
		CH-RCTA-907_SESP16	SM2310_HP	5/18/2016	5/20/2016		5/26/2016
		CH-RCTA-907_SESP16	SM2320B	5/18/2016	5/20/2016		5/29/2016
		CH-RCTA-907_SESP16	SM2340B_CALC	5/18/2016	5/20/2016		6/3/2016
		CH-RCTA-907_SESP16	SM2540C	5/18/2016	5/20/2016		5/24/2016
		CH-RCTA-907_SESP16	SM2540D	5/18/2016	5/20/2016		5/25/2016
		CH-RCTA-907_SESP16	SM4110B	5/18/2016	5/20/2016		5/20/2016
		CH-RCTA-907_SESP16	SM4500P	5/18/2016	5/20/2016		6/1/2016
		CH-RCTA-907_SESP16	SM5310	5/18/2016	5/20/2016		6/3/2016
		CH-RCTA-907_SESP16	SW6010B	5/18/2016	5/20/2016		6/1/2016
		CH-RCTA-907_SESP16	SW6010B	5/18/2016	5/20/2016	5/25/2016	5/31/2016
		CH-RCTA-907_SESP16	SW6020A	5/18/2016	5/20/2016	5/25/2016	6/3/2016
		FCS-3_SESP16	ASTM D7237	5/18/2016	5/20/2016		6/1/2016
		FCS-3_SESP16	E1631E	5/18/2016	5/20/2016	5/24/2016	5/25/2016
		FCS-3_SESP16	Ferrozine	5/18/2016	5/20/2016	5/24/2016	5/24/2016
		FCS-3_SESP16	JEM/SM4500N	5/18/2016	5/20/2016		6/3/2016
		FCS-3_SESP16	SM2310_HP	5/18/2016	5/20/2016		5/30/2016
		FCS-3_SESP16	SM2320B	5/18/2016	5/20/2016		5/29/2016
		FCS-3_SESP16	SM2340B_CALC	5/18/2016	5/20/2016		6/3/2016
		FCS-3_SESP16	SM2540C	5/18/2016	5/20/2016		5/24/2016
		FCS-3_SESP16	SM2540D	5/18/2016	5/20/2016		5/25/2016
		FCS-3_SESP16	SM4110B	5/18/2016	5/20/2016		5/20/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1771791	FCS-3_SESP16	SM4500P	5/18/2016	5/20/2016		6/2/2016
		FCS-3_SESP16	SM5310	5/18/2016	5/20/2016		6/3/2016
		FCS-3_SESP16	SW6010B	5/18/2016	5/20/2016		6/1/2016
		FCS-3_SESP16	SW6010B	5/18/2016	5/20/2016	5/25/2016	5/31/2016
		FCS-3_SESP16	SW6020A	5/18/2016	5/20/2016	5/25/2016	6/3/2016
		FCS-5_SESP16	ASTM D7237	5/18/2016	5/20/2016		6/1/2016
		FCS-5_SESP16	E1631E	5/18/2016	5/20/2016	5/24/2016	5/25/2016
		FCS-5_SESP16	Ferrozine	5/18/2016	5/20/2016	5/24/2016	5/24/2016
		FCS-5_SESP16	JEM/SM4500N	5/18/2016	5/20/2016		6/3/2016
		FCS-5_SESP16	SM2310_HP	5/18/2016	5/20/2016		5/26/2016
		FCS-5_SESP16	SM2320B	5/18/2016	5/20/2016		5/31/2016
		FCS-5_SESP16	SM2340B_CALC	5/18/2016	5/20/2016		6/3/2016
		FCS-5_SESP16	SM2540C	5/18/2016	5/20/2016		5/24/2016
		FCS-5_SESP16	SM2540D	5/18/2016	5/20/2016		5/25/2016
		FCS-5_SESP16	SM4110B	5/18/2016	5/20/2016		5/20/2016
		FCS-5_SESP16	SM4500P	5/18/2016	5/20/2016		6/1/2016
		FCS-5_SESP16	SM5310	5/18/2016	5/20/2016		6/3/2016
		FCS-5_SESP16	SW6010B	5/18/2016	5/20/2016		5/31/2016
		FCS-5_SESP16	SW6010B	5/18/2016	5/20/2016	5/25/2016	5/30/2016
		FCS-5_SESP16	SW6020A	5/18/2016	5/20/2016	5/25/2016	6/3/2016
		SRK-FD01_SESP16	E1631E	5/18/2016	5/20/2016	5/24/2016	5/24/2016
		SRK-FD01_SESP16	Ferrozine	5/18/2016	5/20/2016	5/24/2016	5/24/2016
		SRK-FD01_SESP16	JEM/SM4500N	5/18/2016	5/20/2016		6/3/2016
		SRK-FD01_SESP16	SM2310_HP	5/18/2016	5/20/2016		5/26/2016
		SRK-FD01_SESP16	SM2320B	5/18/2016	5/20/2016		5/29/2016
		SRK-FD01_SESP16	SM2340B_CALC	5/18/2016	5/20/2016		6/4/2016
		SRK-FD01_SESP16	SM2540C	5/18/2016	5/20/2016		5/24/2016
		SRK-FD01_SESP16	SM2540D	5/18/2016	5/20/2016		5/25/2016
		SRK-FD01_SESP16	SM4110B	5/18/2016	5/20/2016		5/20/2016
		SRK-FD01_SESP16	SM4500P	5/18/2016	5/20/2016		6/1/2016
		SRK-FD01_SESP16	SM5310	5/18/2016	5/20/2016		6/3/2016
		SRK-FD01_SESP16	SW6010B	5/18/2016	5/20/2016		5/31/2016
		SRK-FD01_SESP16	SW6010B	5/18/2016	5/20/2016	5/25/2016	5/30/2016
		SRK-FD01_SESP16	SW6020A	5/18/2016	5/20/2016	5/25/2016	6/1/2016
		SRK-FD01_SESP16	SW6020A	5/18/2016	5/20/2016	5/25/2016	6/3/2016

TABLE 2

Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1771791	SRK-FD09_SESP16	E1631E	5/18/2016	5/20/2016	5/24/2016	5/25/2016
		SRK-FD09_SESP16	Ferrozine	5/18/2016	5/20/2016	5/24/2016	5/24/2016
		SRK-FD09_SESP16	JEM/SM4500N	5/18/2016	5/20/2016		6/5/2016
		SRK-FD09_SESP16	SM2310_HP	5/18/2016	5/20/2016		5/30/2016
		SRK-FD09_SESP16	SM2320B	5/18/2016	5/20/2016		5/29/2016
		SRK-FD09_SESP16	SM2340B_CALC	5/18/2016	5/20/2016		6/3/2016
		SRK-FD09_SESP16	SM2540C	5/18/2016	5/20/2016		5/24/2016
		SRK-FD09_SESP16	SM2540D	5/18/2016	5/20/2016		5/25/2016
		SRK-FD09_SESP16	SM4110B	5/18/2016	5/20/2016		5/20/2016
		SRK-FD09_SESP16	SM4500P	5/18/2016	5/20/2016		6/2/2016
		SRK-FD09_SESP16	SM5310	5/18/2016	5/20/2016		6/3/2016
		SRK-FD09_SESP16	SW6010B	5/18/2016	5/20/2016		6/1/2016
		SRK-FD09_SESP16	SW6010B	5/18/2016	5/20/2016	5/25/2016	5/31/2016
		SRK-FD09_SESP16	SW6020A	5/18/2016	5/20/2016	5/25/2016	6/1/2016
		SRK-FD09_SESP16	SW6020A	5/18/2016	5/20/2016	5/25/2016	6/3/2016
		SRK-FD19_SESP16	E1631E	5/18/2016	5/20/2016	5/24/2016	5/24/2016
		SRK-FD19_SESP16	Ferrozine	5/18/2016	5/20/2016	5/24/2016	5/24/2016
		SRK-FD19_SESP16	JEM/SM4500N	5/18/2016	5/20/2016		6/3/2016
		SRK-FD19_SESP16	SM2310_HP	5/18/2016	5/20/2016		5/26/2016
		SRK-FD19_SESP16	SM2320B	5/18/2016	5/20/2016		5/31/2016
		SRK-FD19_SESP16	SM2340B_CALC	5/18/2016	5/20/2016		6/3/2016
		SRK-FD19_SESP16	SM2540C	5/18/2016	5/20/2016		5/24/2016
		SRK-FD19_SESP16	SM2540D	5/18/2016	5/20/2016		5/25/2016
		SRK-FD19_SESP16	SM4110B	5/18/2016	5/20/2016		5/20/2016
		SRK-FD19_SESP16	SM4500P	5/18/2016	5/20/2016		6/2/2016
		SRK-FD19_SESP16	SM5310	5/18/2016	5/20/2016		6/3/2016
		SRK-FD19_SESP16	SW6010B	5/18/2016	5/20/2016		6/1/2016
		SRK-FD19_SESP16	SW6010B	5/18/2016	5/20/2016	5/25/2016	5/31/2016
		SRK-FD19_SESP16	SW6020A	5/18/2016	5/20/2016	5/25/2016	6/1/2016
		SRK-FD19_SESP16	SW6020A	5/18/2016	5/20/2016	5/25/2016	6/3/2016
		SRK-FD19_SESP16MS	JEM/SM4500N	5/18/2016	6/3/2016		6/3/2016
		SRK-FD30_SESP16	E1631E	5/18/2016	5/20/2016	5/24/2016	5/24/2016
		SRK-FD30_SESP16	Ferrozine	5/18/2016	5/20/2016	5/24/2016	5/24/2016
		SRK-FD30_SESP16	JEM/SM4500N	5/18/2016	5/20/2016		6/3/2016
		SRK-FD30_SESP16	SM2310_HP	5/18/2016	5/20/2016		5/26/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1771791	SRK-FD30_SESP16	SM2320B	5/18/2016	5/20/2016		5/31/2016
		SRK-FD30_SESP16	SM2340B_CALC	5/18/2016	5/20/2016		6/3/2016
		SRK-FD30_SESP16	SM2540C	5/18/2016	5/20/2016		5/24/2016
		SRK-FD30_SESP16	SM2540D	5/18/2016	5/20/2016		5/25/2016
		SRK-FD30_SESP16	SM4110B	5/18/2016	5/20/2016		5/20/2016
		SRK-FD30_SESP16	SM4500P	5/18/2016	5/20/2016		6/1/2016
		SRK-FD30_SESP16	SM5310	5/18/2016	5/20/2016		6/3/2016
		SRK-FD30_SESP16	SW6010B	5/18/2016	5/20/2016		5/31/2016
		SRK-FD30_SESP16	SW6010B	5/18/2016	5/20/2016	5/25/2016	5/30/2016
		SRK-FD30_SESP16	SW6020A	5/18/2016	5/20/2016	5/25/2016	6/1/2016
		SRK-FD30_SESP16	SW6020A	5/18/2016	5/20/2016	5/25/2016	6/3/2016
		SRK-FD30_SESP16MS	Ferrozine	5/18/2016	5/24/2016	5/24/2016	5/24/2016
		SRK-FD30_SESP16MS	SM4500P	5/18/2016	6/1/2016		6/1/2016
		SRK-FD31_SESP16	E1631E	5/18/2016	5/20/2016	5/24/2016	5/25/2016
		SRK-FD31_SESP16	Ferrozine	5/18/2016	5/20/2016	5/24/2016	5/24/2016
		SRK-FD31_SESP16	JEM/SM4500N	5/18/2016	5/20/2016		6/3/2016
		SRK-FD31_SESP16	SM2310_HP	5/18/2016	5/20/2016		5/30/2016
		SRK-FD31_SESP16	SM2320B	5/18/2016	5/20/2016		5/31/2016
		SRK-FD31_SESP16	SM2340B_CALC	5/18/2016	5/20/2016		6/6/2016
		SRK-FD31_SESP16	SM2540C	5/18/2016	5/20/2016		5/24/2016
		SRK-FD31_SESP16	SM2540D	5/18/2016	5/20/2016		5/25/2016
		SRK-FD31_SESP16	SM4110B	5/18/2016	5/20/2016		5/20/2016
		SRK-FD31_SESP16	SM4500P	5/18/2016	5/20/2016		6/2/2016
		SRK-FD31_SESP16	SM5310	5/18/2016	5/20/2016		6/3/2016
		SRK-FD31_SESP16	SW6010B	5/18/2016	5/20/2016		6/6/2016
		SRK-FD31_SESP16	SW6010B	5/18/2016	5/20/2016	5/25/2016	6/1/2016
		SRK-FD31_SESP16	SW6020A	5/18/2016	5/20/2016	5/25/2016	6/1/2016
		SRK-FD31_SESP16	SW6020A	5/18/2016	5/20/2016	5/25/2016	6/3/2016
		SRK-FD37_SESP16	E1631E	5/17/2016	5/20/2016	5/24/2016	5/26/2016
		SRK-FD37_SESP16	Ferrozine	5/17/2016	5/20/2016	5/24/2016	5/24/2016
		SRK-FD37_SESP16	JEM/SM4500N	5/17/2016	5/20/2016		6/5/2016
		SRK-FD37_SESP16	SM2310_HP	5/17/2016	5/20/2016		5/30/2016
		SRK-FD37_SESP16	SM2340B_CALC	5/17/2016	5/20/2016		6/6/2016
		SRK-FD37_SESP16	SM2540C	5/17/2016	5/20/2016		5/24/2016
		SRK-FD37_SESP16	SM2540D	5/17/2016	5/20/2016		5/24/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1771791	SRK-FD37_SESP16	SM4110B	5/17/2016	5/20/2016		5/20/2016
		SRK-FD37_SESP16	SM4110B	5/17/2016	5/20/2016		5/24/2016
		SRK-FD37_SESP16	SM4500P	5/17/2016	5/20/2016		6/2/2016
		SRK-FD37_SESP16	SM5310	5/17/2016	5/20/2016		6/6/2016
		SRK-FD37_SESP16	SW6010B	5/17/2016	5/20/2016		6/6/2016
		SRK-FD37_SESP16	SW6010B	5/17/2016	5/20/2016	5/25/2016	6/1/2016
		SRK-FD37_SESP16	SW6020A	5/17/2016	5/20/2016	5/25/2016	6/3/2016
		SRK-FD37_SESP16MS	JEM/SM4500N	5/17/2016	6/5/2016		6/5/2016
		SRK-FD37_SESP16MS	SW6010B	5/17/2016	5/25/2016	5/25/2016	6/1/2016
		SRK-FD37_SESP16MS	SW6020A	5/17/2016	5/25/2016	5/25/2016	6/3/2016
		SRK-FD901_SESP16	E1631E	5/18/2016	5/20/2016	5/24/2016	5/24/2016
		SRK-FD901_SESP16	Ferrozine	5/18/2016	5/20/2016	5/24/2016	5/24/2016
		SRK-FD901_SESP16	JEM/SM4500N	5/18/2016	5/20/2016		6/3/2016
		SRK-FD901_SESP16	SM2310_HP	5/18/2016	5/20/2016		5/26/2016
		SRK-FD901_SESP16	SM2320B	5/18/2016	5/20/2016		5/31/2016
		SRK-FD901_SESP16	SM2340B_CALC	5/18/2016	5/20/2016		6/3/2016
		SRK-FD901_SESP16	SM2540C	5/18/2016	5/20/2016		5/24/2016
		SRK-FD901_SESP16	SM2540D	5/18/2016	5/20/2016		5/25/2016
		SRK-FD901_SESP16	SM4110B	5/18/2016	5/20/2016		5/20/2016
		SRK-FD901_SESP16	SM4500P	5/18/2016	5/20/2016		6/1/2016
		SRK-FD901_SESP16	SM5310	5/18/2016	5/20/2016		6/3/2016
		SRK-FD901_SESP16	SW6010B	5/18/2016	5/20/2016		5/31/2016
		SRK-FD901_SESP16	SW6010B	5/18/2016	5/20/2016	5/25/2016	5/30/2016
		SRK-FD901_SESP16	SW6020A	5/18/2016	5/20/2016	5/25/2016	6/1/2016
		SRK-FD901_SESP16	SW6020A	5/18/2016	5/20/2016	5/25/2016	6/3/2016
		SRK-FD901_SESP16MS	E1631E	5/18/2016	5/24/2016	5/24/2016	5/24/2016
		SRK-FD919_SESP16	E1631E	5/18/2016	5/20/2016	5/24/2016	5/24/2016
		SRK-FD919_SESP16	Ferrozine	5/18/2016	5/20/2016	5/24/2016	5/24/2016
		SRK-FD919_SESP16	JEM/SM4500N	5/18/2016	5/20/2016		6/3/2016
		SRK-FD919_SESP16	SM2310_HP	5/18/2016	5/20/2016		5/26/2016
		SRK-FD919_SESP16	SM2320B	5/18/2016	5/20/2016		5/29/2016
		SRK-FD919_SESP16	SM2340B_CALC	5/18/2016	5/20/2016		6/3/2016
		SRK-FD919_SESP16	SM2540C	5/18/2016	5/20/2016		5/24/2016
		SRK-FD919_SESP16	SM2540D	5/18/2016	5/20/2016		5/25/2016
		SRK-FD919_SESP16	SM4110B	5/18/2016	5/20/2016		5/20/2016

TABLE 2

Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1771791	SRK-FD919_SESP16	SM4500P	5/18/2016	5/20/2016		6/2/2016
		SRK-FD919_SESP16	SM5310	5/18/2016	5/20/2016		6/3/2016
		SRK-FD919_SESP16	SW6010B	5/18/2016	5/20/2016		6/1/2016
		SRK-FD919_SESP16	SW6010B	5/18/2016	5/20/2016	5/25/2016	5/31/2016
		SRK-FD919_SESP16	SW6020A	5/18/2016	5/20/2016	5/25/2016	6/1/2016
		SRK-FD919_SESP16	SW6020A	5/18/2016	5/20/2016	5/25/2016	6/3/2016
		X23_SESP16	E1631E	5/18/2016	5/20/2016	5/24/2016	5/25/2016
		X23_SESP16	Ferrozine	5/18/2016	5/20/2016	5/24/2016	5/24/2016
		X23_SESP16	JEM/SM4500N	5/18/2016	5/20/2016		6/3/2016
		X23_SESP16	SM2310_HP	5/18/2016	5/20/2016		5/30/2016
		X23_SESP16	SM2320B	5/18/2016	5/20/2016		5/31/2016
		X23_SESP16	SM2340B_CALC	5/18/2016	5/20/2016		6/6/2016
		X23_SESP16	SM2540C	5/18/2016	5/20/2016		5/24/2016
		X23_SESP16	SM2540D	5/18/2016	5/20/2016		5/25/2016
		X23_SESP16	SM4110B	5/18/2016	5/20/2016		5/20/2016
		X23_SESP16	SM4500P	5/18/2016	5/20/2016		6/2/2016
		X23_SESP16	SM5310	5/18/2016	5/20/2016		6/3/2016
		X23_SESP16	SW6010B	5/18/2016	5/20/2016		6/6/2016
		X23_SESP16	SW6010B	5/18/2016	5/20/2016	5/25/2016	6/1/2016
		X23_SESP16	SW6020A	5/18/2016	5/20/2016	5/25/2016	6/1/2016
		X23_SESP16	SW6020A	5/18/2016	5/20/2016	5/25/2016	6/3/2016
	L1772436	A30_SESP16	E1631E	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		A30_SESP16	Ferrozine	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		A30_SESP16	JEM/SM4500N	5/19/2016	5/24/2016		6/8/2016
		A30_SESP16	SM2310_HP	5/19/2016	5/24/2016		5/27/2016
		A30_SESP16	SM2340B_CALC	5/19/2016	5/24/2016		6/6/2016
		A30_SESP16	SM2540C	5/19/2016	5/24/2016		5/26/2016
		A30_SESP16	SM2540D	5/19/2016	5/24/2016		5/26/2016
		A30_SESP16	SM4110B	5/19/2016	5/24/2016		5/24/2016
		A30_SESP16	SM4500P	5/19/2016	5/24/2016		6/1/2016
		A30_SESP16	SM5310	5/19/2016	5/24/2016		6/6/2016
		A30_SESP16	SW6010B	5/19/2016	5/24/2016		5/31/2016
		A30_SESP16	SW6010B	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		A30_SESP16	SW6020A	5/19/2016	5/24/2016	5/26/2016	6/3/2016
		CH-FD-56_SESP16	E1631E	5/20/2016	5/24/2016	5/26/2016	5/26/2016

TABLE 2

Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1772436	CH-FD-56_SESP16	Ferrozine	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		CH-FD-56_SESP16	JEM/SM4500N	5/20/2016	5/24/2016		6/7/2016
		CH-FD-56_SESP16	SM2310_HP	5/20/2016	5/24/2016		5/30/2016
		CH-FD-56_SESP16	SM2320B	5/20/2016	5/24/2016		5/31/2016
		CH-FD-56_SESP16	SM2340B_CALC	5/20/2016	5/24/2016		6/3/2016
		CH-FD-56_SESP16	SM2540C	5/20/2016	5/24/2016		5/26/2016
		CH-FD-56_SESP16	SM2540D	5/20/2016	5/24/2016		5/26/2016
		CH-FD-56_SESP16	SM4110B	5/20/2016	5/24/2016		5/24/2016
		CH-FD-56_SESP16	SM4500P	5/20/2016	5/24/2016		6/7/2016
		CH-FD-56_SESP16	SM5310	5/20/2016	5/24/2016		6/6/2016
		CH-FD-56_SESP16	SW6010B	5/20/2016	5/24/2016		5/31/2016
		CH-FD-56_SESP16	SW6010B	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		CH-FD-56_SESP16	SW6020A	5/20/2016	5/24/2016	5/26/2016	6/3/2016
		CH-FD-70_SESP16	E1631E	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		CH-FD-70_SESP16	Ferrozine	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		CH-FD-70_SESP16	JEM/SM4500N	5/19/2016	5/24/2016		6/7/2016
		CH-FD-70_SESP16	SM2310_HP	5/19/2016	5/24/2016		5/27/2016
		CH-FD-70_SESP16	SM2320B	5/19/2016	5/24/2016		5/31/2016
		CH-FD-70_SESP16	SM2340B_CALC	5/19/2016	5/24/2016		6/6/2016
		CH-FD-70_SESP16	SM2540C	5/19/2016	5/24/2016		5/26/2016
		CH-FD-70_SESP16	SM2540D	5/19/2016	5/24/2016		5/26/2016
		CH-FD-70_SESP16	SM4110B	5/19/2016	5/24/2016		5/24/2016
		CH-FD-70_SESP16	SM4500P	5/19/2016	5/24/2016		6/4/2016
		CH-FD-70_SESP16	SM5310	5/19/2016	5/24/2016		6/6/2016
		CH-FD-70_SESP16	SW6010B	5/19/2016	5/24/2016		5/31/2016
		CH-FD-70_SESP16	SW6010B	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		CH-FD-70_SESP16	SW6020A	5/19/2016	5/24/2016	5/26/2016	6/3/2016
		CH-FD-70_SESP16MS	SM5310	5/19/2016	6/6/2016		6/6/2016
		CH-FD-75_SESP16	E1631E	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		CH-FD-75_SESP16	Ferrozine	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		CH-FD-75_SESP16	JEM/SM4500N	5/20/2016	5/24/2016		6/7/2016
		CH-FD-75_SESP16	SM2310_HP	5/20/2016	5/24/2016		5/27/2016
		CH-FD-75_SESP16	SM2320B	5/20/2016	5/24/2016		6/2/2016
		CH-FD-75_SESP16	SM2340B_CALC	5/20/2016	5/24/2016		6/3/2016
		CH-FD-75_SESP16	SM2540C	5/20/2016	5/24/2016		5/26/2016

TABLE 2

Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1772436	CH-FD-75_SESP16	SM2540D	5/20/2016	5/24/2016		5/26/2016
		CH-FD-75_SESP16	SM4110B	5/20/2016	5/24/2016		5/24/2016
		CH-FD-75_SESP16	SM4500P	5/20/2016	5/24/2016		6/4/2016
		CH-FD-75_SESP16	SM5310	5/20/2016	5/24/2016		6/6/2016
		CH-FD-75_SESP16	SW6010B	5/20/2016	5/24/2016		6/2/2016
		CH-FD-75_SESP16	SW6010B	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		CH-FD-75_SESP16	SW6020A	5/20/2016	5/24/2016	5/26/2016	6/3/2016
		CH-FP-31_SESP16	E1631E	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		CH-FP-31_SESP16	Ferrozine	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		CH-FP-31_SESP16	JEM/SM4500N	5/19/2016	5/24/2016		6/7/2016
		CH-FP-31_SESP16	SM2310_HP	5/19/2016	5/24/2016		5/27/2016
		CH-FP-31_SESP16	SM2320B	5/19/2016	5/24/2016		5/31/2016
		CH-FP-31_SESP16	SM2340B_CALC	5/19/2016	5/24/2016		6/6/2016
		CH-FP-31_SESP16	SM2540C	5/19/2016	5/24/2016		5/26/2016
		CH-FP-31_SESP16	SM2540D	5/19/2016	5/24/2016		5/26/2016
		CH-FP-31_SESP16	SM4110B	5/19/2016	5/24/2016		5/24/2016
		CH-FP-31_SESP16	SM4500P	5/19/2016	5/24/2016		6/4/2016
		CH-FP-31_SESP16	SM5310	5/19/2016	5/24/2016		6/6/2016
		CH-FP-31_SESP16	SW6010B	5/19/2016	5/24/2016		5/31/2016
		CH-FP-31_SESP16	SW6010B	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		CH-FP-31_SESP16	SW6020A	5/19/2016	5/24/2016	5/26/2016	6/3/2016
		CH-FP-31_SESP16MS	SM4110B	5/19/2016	5/24/2016		5/24/2016
		CH-FP-31_SESP16MS	SM4500P	5/19/2016	6/4/2016		6/4/2016
		CH-FP-33_SESP16	E1631E	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		CH-FP-33_SESP16	Ferrozine	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		CH-FP-33_SESP16	JEM/SM4500N	5/19/2016	5/24/2016		6/7/2016
		CH-FP-33_SESP16	SM2310_HP	5/19/2016	5/24/2016		5/27/2016
		CH-FP-33_SESP16	SM2320B	5/19/2016	5/24/2016		5/31/2016
		CH-FP-33_SESP16	SM2340B_CALC	5/19/2016	5/24/2016		6/3/2016
		CH-FP-33_SESP16	SM2540C	5/19/2016	5/24/2016		5/26/2016
		CH-FP-33_SESP16	SM2540D	5/19/2016	5/24/2016		5/26/2016
		CH-FP-33_SESP16	SM4110B	5/19/2016	5/24/2016		5/24/2016
		CH-FP-33_SESP16	SM4500P	5/19/2016	5/24/2016		6/4/2016
		CH-FP-33_SESP16	SM5310	5/19/2016	5/24/2016		6/6/2016
		CH-FP-33_SESP16	SW6010B	5/19/2016	5/24/2016		5/31/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1772436	CH-FP-33_SESP16	SW6010B	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		CH-FP-33_SESP16	SW6020A	5/19/2016	5/24/2016	5/26/2016	6/3/2016
		CH-FP-33_SESP16MS	JEM/SM4500N	5/19/2016	6/7/2016		6/7/2016
		CH-FP-34_SESP16	E1631E	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		CH-FP-34_SESP16	Ferrozine	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		CH-FP-34_SESP16	JEM/SM4500N	5/19/2016	5/24/2016		6/7/2016
		CH-FP-34_SESP16	SM2310_HP	5/19/2016	5/24/2016		5/27/2016
		CH-FP-34_SESP16	SM2320B	5/19/2016	5/24/2016		5/31/2016
		CH-FP-34_SESP16	SM2340B_CALC	5/19/2016	5/24/2016		6/3/2016
		CH-FP-34_SESP16	SM2540C	5/19/2016	5/24/2016		5/26/2016
		CH-FP-34_SESP16	SM2540D	5/19/2016	5/24/2016		5/26/2016
		CH-FP-34_SESP16	SM4110B	5/19/2016	5/24/2016		5/24/2016
		CH-FP-34_SESP16	SM4500P	5/19/2016	5/24/2016		6/4/2016
		CH-FP-34_SESP16	SM5310	5/19/2016	5/24/2016		6/6/2016
		CH-FP-34_SESP16	SW6010B	5/19/2016	5/24/2016		5/31/2016
		CH-FP-34_SESP16	SW6010B	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		CH-FP-34_SESP16	SW6020A	5/19/2016	5/24/2016	5/26/2016	6/3/2016
		CH-FP-35_SESP16	E1631E	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		CH-FP-35_SESP16	Ferrozine	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		CH-FP-35_SESP16	JEM/SM4500N	5/20/2016	5/24/2016		6/7/2016
		CH-FP-35_SESP16	SM2310_HP	5/20/2016	5/24/2016		5/27/2016
		CH-FP-35_SESP16	SM2320B	5/20/2016	5/24/2016		6/2/2016
		CH-FP-35_SESP16	SM2340B_CALC	5/20/2016	5/24/2016		6/6/2016
		CH-FP-35_SESP16	SM2540C	5/20/2016	5/24/2016		5/26/2016
		CH-FP-35_SESP16	SM2540D	5/20/2016	5/24/2016		5/26/2016
		CH-FP-35_SESP16	SM4110B	5/20/2016	5/24/2016		5/24/2016
		CH-FP-35_SESP16	SM4500P	5/20/2016	5/24/2016		6/1/2016
		CH-FP-35_SESP16	SM5310	5/20/2016	5/24/2016		6/6/2016
		CH-FP-35_SESP16	SW6010B	5/20/2016	5/24/2016		5/31/2016
		CH-FP-35_SESP16	SW6010B	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		CH-FP-35_SESP16	SW6020A	5/20/2016	5/24/2016	5/26/2016	6/3/2016
		CH-FP-36_SESP16	E1631E	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		CH-FP-36_SESP16	Ferrozine	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		CH-FP-36_SESP16	JEM/SM4500N	5/19/2016	5/24/2016		6/7/2016
		CH-FP-36_SESP16	SM2310_HP	5/19/2016	5/24/2016		5/27/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1772436	CH-FP-36_SESP16	SM2320B	5/19/2016	5/24/2016		5/31/2016
		CH-FP-36_SESP16	SM2340B_CALC	5/19/2016	5/24/2016		6/6/2016
		CH-FP-36_SESP16	SM2540C	5/19/2016	5/24/2016		5/26/2016
		CH-FP-36_SESP16	SM2540D	5/19/2016	5/24/2016		5/26/2016
		CH-FP-36_SESP16	SM4110B	5/19/2016	5/24/2016		5/24/2016
		CH-FP-36_SESP16	SM4500P	5/19/2016	5/24/2016		6/1/2016
		CH-FP-36_SESP16	SM5310	5/19/2016	5/24/2016		6/6/2016
		CH-FP-36_SESP16	SW6010B	5/19/2016	5/24/2016		5/31/2016
		CH-FP-36_SESP16	SW6010B	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		CH-FP-36_SESP16	SW6020A	5/19/2016	5/24/2016	5/26/2016	6/3/2016
		CH-FP-36_SESP16MS	Ferrozine	5/19/2016	5/26/2016	5/26/2016	5/26/2016
		CH-GP-19_SESP16	E1631E	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		CH-GP-19_SESP16	Ferrozine	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		CH-GP-19_SESP16	JEM/SM4500N	5/20/2016	5/24/2016		6/7/2016
		CH-GP-19_SESP16	SM2310_HP	5/20/2016	5/24/2016		5/27/2016
		CH-GP-19_SESP16	SM2320B	5/20/2016	5/24/2016		6/2/2016
		CH-GP-19_SESP16	SM2340B_CALC	5/20/2016	5/24/2016		6/3/2016
		CH-GP-19_SESP16	SM2540C	5/20/2016	5/24/2016		5/26/2016
		CH-GP-19_SESP16	SM2540D	5/20/2016	5/24/2016		5/26/2016
		CH-GP-19_SESP16	SM4110B	5/20/2016	5/24/2016		5/24/2016
		CH-GP-19_SESP16	SM4500P	5/20/2016	5/24/2016		6/4/2016
		CH-GP-19_SESP16	SM5310	5/20/2016	5/24/2016		6/6/2016
		CH-GP-19_SESP16	SW6010B	5/20/2016	5/24/2016		5/31/2016
		CH-GP-19_SESP16	SW6010B	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		CH-GP-19_SESP16	SW6020A	5/20/2016	5/24/2016	5/26/2016	6/3/2016
		CH-VP-17_SESP16	E1631E	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		CH-VP-17_SESP16	Ferrozine	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		CH-VP-17_SESP16	JEM/SM4500N	5/21/2016	5/24/2016		6/7/2016
		CH-VP-17_SESP16	SM2310_HP	5/21/2016	5/24/2016		6/1/2016
		CH-VP-17_SESP16	SM2340B_CALC	5/21/2016	5/24/2016		6/3/2016
		CH-VP-17_SESP16	SM2540C	5/21/2016	5/24/2016		5/26/2016
		CH-VP-17_SESP16	SM2540D	5/21/2016	5/24/2016		5/26/2016
		CH-VP-17_SESP16	SM4110B	5/21/2016	5/24/2016		5/24/2016
		CH-VP-17_SESP16	SM4500P	5/21/2016	5/24/2016		6/7/2016
		CH-VP-17_SESP16	SM5310	5/21/2016	5/24/2016		6/6/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1772436	CH-VP-17_SESP16	SW6010B	5/21/2016	5/24/2016		5/31/2016
		CH-VP-17_SESP16	SW6010B	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		CH-VP-17_SESP16	SW6020A	5/21/2016	5/24/2016	5/26/2016	6/3/2016
		FCS-2_SESP16	ASTM D7237	5/19/2016	5/24/2016		6/1/2016
		FCS-2_SESP16	E1631E	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		FCS-2_SESP16	Ferrozine	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		FCS-2_SESP16	JEM/SM4500N	5/19/2016	5/24/2016		6/7/2016
		FCS-2_SESP16	SM2310_HP	5/19/2016	5/24/2016		5/27/2016
		FCS-2_SESP16	SM2340B_CALC	5/19/2016	5/24/2016		6/3/2016
		FCS-2_SESP16	SM2540C	5/19/2016	5/24/2016		5/26/2016
		FCS-2_SESP16	SM2540D	5/19/2016	5/24/2016		5/26/2016
		FCS-2_SESP16	SM4110B	5/19/2016	5/24/2016		5/24/2016
		FCS-2_SESP16	SM4500P	5/19/2016	5/24/2016		6/7/2016
		FCS-2_SESP16	SM5310	5/19/2016	5/24/2016		6/6/2016
		FCS-2_SESP16	SW6010B	5/19/2016	5/24/2016		5/31/2016
		FCS-2_SESP16	SW6010B	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		FCS-2_SESP16	SW6020A	5/19/2016	5/24/2016	5/26/2016	6/3/2016
		FCS-4_SESP16	ASTM D7237	5/19/2016	5/24/2016		6/1/2016
		FCS-4_SESP16	E1631E	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		FCS-4_SESP16	Ferrozine	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		FCS-4_SESP16	JEM/SM4500N	5/19/2016	5/24/2016		6/7/2016
		FCS-4_SESP16	SM2310_HP	5/19/2016	5/24/2016		5/27/2016
		FCS-4_SESP16	SM2320B	5/19/2016	5/24/2016		5/31/2016
		FCS-4_SESP16	SM2340B_CALC	5/19/2016	5/24/2016		6/6/2016
		FCS-4_SESP16	SM2540C	5/19/2016	5/24/2016		5/26/2016
		FCS-4_SESP16	SM2540D	5/19/2016	5/24/2016		5/26/2016
		FCS-4_SESP16	SM4110B	5/19/2016	5/24/2016		5/24/2016
		FCS-4_SESP16	SM4500P	5/19/2016	5/24/2016		6/7/2016
		FCS-4_SESP16	SM5310	5/19/2016	5/24/2016		6/6/2016
		FCS-4_SESP16	SW6010B	5/19/2016	5/24/2016		5/31/2016
		FCS-4_SESP16	SW6010B	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		FCS-4_SESP16	SW6020A	5/19/2016	5/24/2016	5/26/2016	6/3/2016
		FCS-4_SESP16MS	SM4500P	5/19/2016	6/7/2016		6/7/2016
		FCS-902_SESP16	E1631E	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		FCS-902_SESP16	Ferrozine	5/19/2016	5/24/2016	5/26/2016	5/26/2016

TABLE 2

Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1772436	FCS-902_SESP16	JEM/SM4500N	5/19/2016	5/24/2016		6/7/2016
		FCS-902_SESP16	SM2310_HP	5/19/2016	5/24/2016		5/27/2016
		FCS-902_SESP16	SM2340B_CALC	5/19/2016	5/24/2016		6/6/2016
		FCS-902_SESP16	SM2540C	5/19/2016	5/24/2016		5/26/2016
		FCS-902_SESP16	SM2540D	5/19/2016	5/24/2016		5/26/2016
		FCS-902_SESP16	SM4110B	5/19/2016	5/24/2016		5/24/2016
		FCS-902_SESP16	SM4500P	5/19/2016	5/24/2016		6/7/2016
		FCS-902_SESP16	SM5310	5/19/2016	5/24/2016		6/6/2016
		FCS-902_SESP16	SW6010B	5/19/2016	5/24/2016		5/31/2016
		FCS-902_SESP16	SW6010B	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		FCS-902_SESP16	SW6020A	5/19/2016	5/24/2016	5/26/2016	6/3/2016
		GD05 D-S_SESP16	E1631E	5/22/2016	5/24/2016	5/26/2016	5/26/2016
		GD05 D-S_SESP16	Ferrozine	5/22/2016	5/24/2016	5/26/2016	5/27/2016
		GD05 D-S_SESP16	JEM/SM4500N	5/22/2016	5/24/2016		6/7/2016
		GD05 D-S_SESP16	SM2320B	5/22/2016	5/24/2016		6/3/2016
		GD05 D-S_SESP16	SM2340B_CALC	5/22/2016	5/24/2016		6/6/2016
		GD05 D-S_SESP16	SM2540C	5/22/2016	5/24/2016		5/26/2016
		GD05 D-S_SESP16	SM2540D	5/22/2016	5/24/2016		5/26/2016
		GD05 D-S_SESP16	SM4110B	5/22/2016	5/24/2016		5/24/2016
		GD05 D-S_SESP16	SM4500P	5/22/2016	5/24/2016		6/4/2016
		GD05 D-S_SESP16	SM5310	5/22/2016	5/24/2016		6/6/2016
		GD05 D-S_SESP16	SW6010B	5/22/2016	5/24/2016		5/31/2016
		GD05 D-S_SESP16	SW6010B	5/22/2016	5/24/2016	5/26/2016	5/26/2016
		GD05 D-S_SESP16	SW6020A	5/22/2016	5/24/2016	5/26/2016	6/3/2016
		GD05 D-S_SESP16	SW6020A	5/22/2016	5/24/2016	5/26/2016	6/5/2016
		GP02_SESP16	E1631E	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		GP02_SESP16	Ferrozine	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		GP02_SESP16	JEM/SM4500N	5/21/2016	5/24/2016		6/7/2016
		GP02_SESP16	SM2320B	5/21/2016	5/24/2016		6/3/2016
		GP02_SESP16	SM2340B_CALC	5/21/2016	5/24/2016		6/3/2016
		GP02_SESP16	SM2540C	5/21/2016	5/24/2016		5/26/2016
		GP02_SESP16	SM2540D	5/21/2016	5/24/2016		5/26/2016
		GP02_SESP16	SM4110B	5/21/2016	5/24/2016		5/24/2016
		GP02_SESP16	SM4500P	5/21/2016	5/24/2016		6/4/2016
		GP02_SESP16	SM5310	5/21/2016	5/24/2016		6/6/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1772436	GP02_SESP16	SW6010B	5/21/2016	5/24/2016		5/31/2016
		GP02_SESP16	SW6010B	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		GP02_SESP16	SW6020A	5/21/2016	5/24/2016	5/26/2016	6/3/2016
		GP09_SESP16	E1631E	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		GP09_SESP16	Ferrozine	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		GP09_SESP16	JEM/SM4500N	5/21/2016	5/24/2016		6/7/2016
		GP09_SESP16	SM2310_HP	5/21/2016	5/24/2016		6/1/2016
		GP09_SESP16	SM2320B	5/21/2016	5/24/2016		6/3/2016
		GP09_SESP16	SM2340B_CALC	5/21/2016	5/24/2016		6/3/2016
		GP09_SESP16	SM2540C	5/21/2016	5/24/2016		5/26/2016
		GP09_SESP16	SM2540D	5/21/2016	5/24/2016		5/26/2016
		GP09_SESP16	SM4110B	5/21/2016	5/24/2016		5/24/2016
		GP09_SESP16	SM4500P	5/21/2016	5/24/2016		6/4/2016
		GP09_SESP16	SM5310	5/21/2016	5/24/2016		6/6/2016
		GP09_SESP16	SW6010B	5/21/2016	5/24/2016		5/31/2016
		GP09_SESP16	SW6010B	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		GP09_SESP16	SW6020A	5/21/2016	5/24/2016	5/26/2016	6/3/2016
		GP12_SESP16	E1631E	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		GP12_SESP16	Ferrozine	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		GP12_SESP16	JEM/SM4500N	5/21/2016	5/24/2016		6/7/2016
		GP12_SESP16	SM2310_HP	5/21/2016	5/24/2016		6/1/2016
		GP12_SESP16	SM2320B	5/21/2016	5/24/2016		6/3/2016
		GP12_SESP16	SM2340B_CALC	5/21/2016	5/24/2016		6/3/2016
		GP12_SESP16	SM2540C	5/21/2016	5/24/2016		5/26/2016
		GP12_SESP16	SM2540D	5/21/2016	5/24/2016		5/26/2016
		GP12_SESP16	SM4110B	5/21/2016	5/24/2016		5/24/2016
		GP12_SESP16	SM4500P	5/21/2016	5/24/2016		6/1/2016
		GP12_SESP16	SM5310	5/21/2016	5/24/2016		6/6/2016
		GP12_SESP16	SW6010B	5/21/2016	5/24/2016		5/31/2016
		GP12_SESP16	SW6010B	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		GP12_SESP16	SW6020A	5/21/2016	5/24/2016	5/26/2016	6/3/2016
		NE1_SESP16	E1631E	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		NE1_SESP16	Ferrozine	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		NE1_SESP16	JEM/SM4500N	5/20/2016	5/24/2016		6/7/2016
		NE1_SESP16	SM2310_HP	5/20/2016	5/24/2016		5/27/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1772436	NE1_SESP16	SM2320B	5/20/2016	5/24/2016		6/2/2016
		NE1_SESP16	SM2340B_CALC	5/20/2016	5/24/2016		6/6/2016
		NE1_SESP16	SM2540C	5/20/2016	5/24/2016		5/26/2016
		NE1_SESP16	SM2540D	5/20/2016	5/24/2016		5/26/2016
		NE1_SESP16	SM4110B	5/20/2016	5/24/2016		5/24/2016
		NE1_SESP16	SM4500P	5/20/2016	5/24/2016		6/4/2016
		NE1_SESP16	SM5310	5/20/2016	5/24/2016		6/6/2016
		NE1_SESP16	SW6010B	5/20/2016	5/24/2016		5/31/2016
		NE1_SESP16	SW6010B	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		NE1_SESP16	SW6020A	5/20/2016	5/24/2016	5/26/2016	6/3/2016
		NE1_SESP16	SW6020A	5/20/2016	5/24/2016	5/26/2016	6/5/2016
		NE2_SESP16	E1631E	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		NE2_SESP16	Ferrozine	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		NE2_SESP16	JEM/SM4500N	5/20/2016	5/24/2016		6/7/2016
		NE2_SESP16	SM2310_HP	5/20/2016	5/24/2016		5/27/2016
		NE2_SESP16	SM2320B	5/20/2016	5/24/2016		6/2/2016
		NE2_SESP16	SM2340B_CALC	5/20/2016	5/24/2016		6/3/2016
		NE2_SESP16	SM2540C	5/20/2016	5/24/2016		5/26/2016
		NE2_SESP16	SM2540D	5/20/2016	5/24/2016		5/26/2016
		NE2_SESP16	SM4110B	5/20/2016	5/24/2016		5/24/2016
		NE2_SESP16	SM4500P	5/20/2016	5/24/2016		6/4/2016
		NE2_SESP16	SM5310	5/20/2016	5/24/2016		6/6/2016
		NE2_SESP16	SW6010B	5/20/2016	5/24/2016		5/31/2016
		NE2_SESP16	SW6010B	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		NE2_SESP16	SW6020A	5/20/2016	5/24/2016	5/26/2016	6/3/2016
		NE2_SESP16MS	SM5310	5/20/2016	6/6/2016		6/6/2016
		NE902_SESP16	E1631E	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		NE902_SESP16	Ferrozine	5/20/2016	5/24/2016	6/4/2016	6/4/2016
		NE902_SESP16	JEM/SM4500N	5/20/2016	5/24/2016		6/7/2016
		NE902_SESP16	SM2310_HP	5/20/2016	5/24/2016		6/1/2016
		NE902_SESP16	SM2320B	5/20/2016	5/24/2016		6/2/2016
		NE902_SESP16	SM2340B_CALC	5/20/2016	5/24/2016		6/3/2016
		NE902_SESP16	SM2540C	5/20/2016	5/24/2016		5/26/2016
		NE902_SESP16	SM2540D	5/20/2016	5/24/2016		5/26/2016
		NE902_SESP16	SM4110B	5/20/2016	5/24/2016		5/24/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1772436	NE902_SESP16	SM4500P	5/20/2016	5/24/2016		6/4/2016
		NE902_SESP16	SM5310	5/20/2016	5/24/2016		6/6/2016
		NE902_SESP16	SW6010B	5/20/2016	5/24/2016		6/2/2016
		NE902_SESP16	SW6010B	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		NE902_SESP16	SW6020A	5/20/2016	5/24/2016	5/26/2016	6/3/2016
		NE902_SESP16MS	Ferrozine	5/20/2016	6/4/2016	6/4/2016	6/4/2016
		SHEEP CREEK_SESP16	E1631E	5/22/2016	5/24/2016	5/26/2016	5/26/2016
		SHEEP CREEK_SESP16	Ferrozine	5/22/2016	5/24/2016	5/26/2016	5/27/2016
		SHEEP CREEK_SESP16	JEM/SM4500N	5/22/2016	5/24/2016		6/7/2016
		SHEEP CREEK_SESP16	SM2320B	5/22/2016	5/24/2016		6/3/2016
		SHEEP CREEK_SESP16	SM2340B_CALC	5/22/2016	5/24/2016		6/6/2016
		SHEEP CREEK_SESP16	SM2540C	5/22/2016	5/24/2016		5/26/2016
		SHEEP CREEK_SESP16	SM2540D	5/22/2016	5/24/2016		5/26/2016
		SHEEP CREEK_SESP16	SM4110B	5/22/2016	5/24/2016		5/24/2016
		SHEEP CREEK_SESP16	SM4500P	5/22/2016	5/24/2016		6/1/2016
		SHEEP CREEK_SESP16	SM5310	5/22/2016	5/24/2016		6/7/2016
		SHEEP CREEK_SESP16	SW6010B	5/22/2016	5/24/2016		5/31/2016
		SHEEP CREEK_SESP16	SW6010B	5/22/2016	5/24/2016	5/26/2016	5/26/2016
		SHEEP CREEK_SESP16	SW6020A	5/22/2016	5/24/2016	5/26/2016	6/3/2016
		SHEEP CREEK_SESP16	SW6020A	5/22/2016	5/24/2016	5/26/2016	6/5/2016
		SHEEP CREEK_SESP16MS	SM4110B	5/22/2016	5/24/2016		5/24/2016
		SHEEP CREEK_SESP16MS	SM5310	5/22/2016	6/7/2016		6/7/2016
		SRK-FD05_SESP16	E1631E	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD05_SESP16	Ferrozine	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD05_SESP16	JEM/SM4500N	5/20/2016	5/24/2016		6/7/2016
		SRK-FD05_SESP16	SM2310_HP	5/20/2016	5/24/2016		6/1/2016
		SRK-FD05_SESP16	SM2320B	5/20/2016	5/24/2016		6/2/2016
		SRK-FD05_SESP16	SM2340B_CALC	5/20/2016	5/24/2016		6/3/2016
		SRK-FD05_SESP16	SM2540C	5/20/2016	5/24/2016		5/26/2016
		SRK-FD05_SESP16	SM2540D	5/20/2016	5/24/2016		5/26/2016
		SRK-FD05_SESP16	SM4110B	5/20/2016	5/24/2016		5/24/2016
		SRK-FD05_SESP16	SM4500P	5/20/2016	5/24/2016		6/4/2016
		SRK-FD05_SESP16	SM5310	5/20/2016	5/24/2016		6/6/2016
		SRK-FD05_SESP16	SW6010B	5/20/2016	5/24/2016		5/31/2016
		SRK-FD05_SESP16	SW6010B	5/20/2016	5/24/2016	5/26/2016	5/26/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1772436	SRK-FD05_SESP16	SW6020A	5/20/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-FD06_SESP16	E1631E	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD06_SESP16	Ferrozine	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD06_SESP16	JEM/SM4500N	5/20/2016	5/24/2016		6/7/2016
		SRK-FD06_SESP16	SM2310_HP	5/20/2016	5/24/2016		6/1/2016
		SRK-FD06_SESP16	SM2320B	5/20/2016	5/24/2016		6/2/2016
		SRK-FD06_SESP16	SM2340B_CALC	5/20/2016	5/24/2016		6/3/2016
		SRK-FD06_SESP16	SM2540C	5/20/2016	5/24/2016		5/26/2016
		SRK-FD06_SESP16	SM2540D	5/20/2016	5/24/2016		5/26/2016
		SRK-FD06_SESP16	SM4110B	5/20/2016	5/24/2016		5/24/2016
		SRK-FD06_SESP16	SM4500P	5/20/2016	5/24/2016		6/4/2016
		SRK-FD06_SESP16	SM5310	5/20/2016	5/24/2016		6/6/2016
		SRK-FD06_SESP16	SW6010B	5/20/2016	5/24/2016		5/31/2016
		SRK-FD06_SESP16	SW6010B	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD06_SESP16	SW6020A	5/20/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-FD06_SESP16MS	Ferrozine	5/20/2016	5/26/2016	5/26/2016	5/26/2016
		SRK-FD06_SESP16MS	SM4500P	5/20/2016	6/4/2016		6/4/2016
		SRK-FD08_SESP16	E1631E	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD08_SESP16	Ferrozine	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD08_SESP16	JEM/SM4500N	5/20/2016	5/24/2016		6/7/2016
		SRK-FD08_SESP16	SM2310_HP	5/20/2016	5/24/2016		6/1/2016
		SRK-FD08_SESP16	SM2320B	5/20/2016	5/24/2016		6/7/2016
		SRK-FD08_SESP16	SM2340B_CALC	5/20/2016	5/24/2016		6/6/2016
		SRK-FD08_SESP16	SM2540C	5/20/2016	5/24/2016		5/26/2016
		SRK-FD08_SESP16	SM2540D	5/20/2016	5/24/2016		5/26/2016
		SRK-FD08_SESP16	SM4110B	5/20/2016	5/24/2016		5/24/2016
		SRK-FD08_SESP16	SM4500P	5/20/2016	5/24/2016		6/4/2016
		SRK-FD08_SESP16	SM5310	5/20/2016	5/24/2016		6/6/2016
		SRK-FD08_SESP16	SW6010B	5/20/2016	5/24/2016		5/31/2016
		SRK-FD08_SESP16	SW6010B	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD08_SESP16	SW6020A	5/20/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-FD13_SESP16	E1631E	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD13_SESP16	Ferrozine	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD13_SESP16	JEM/SM4500N	5/19/2016	5/24/2016		6/7/2016
		SRK-FD13_SESP16	SM2310_HP	5/19/2016	5/24/2016		5/30/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1772436	SRK-FD13_SESP16	SM2340B_CALC	5/19/2016	5/24/2016		6/6/2016
		SRK-FD13_SESP16	SM2540C	5/19/2016	5/24/2016		5/26/2016
		SRK-FD13_SESP16	SM2540D	5/19/2016	5/24/2016		5/26/2016
		SRK-FD13_SESP16	SM4110B	5/19/2016	5/24/2016		5/24/2016
		SRK-FD13_SESP16	SM4500P	5/19/2016	5/24/2016		6/4/2016
		SRK-FD13_SESP16	SM5310	5/19/2016	5/24/2016		6/7/2016
		SRK-FD13_SESP16	SW6010B	5/19/2016	5/24/2016		5/31/2016
		SRK-FD13_SESP16	SW6010B	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD13_SESP16	SW6020A	5/19/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-FD14_SESP16	E1631E	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD14_SESP16	Ferrozine	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD14_SESP16	JEM/SM4500N	5/19/2016	5/24/2016		6/7/2016
		SRK-FD14_SESP16	SM2310_HP	5/19/2016	5/24/2016		5/27/2016
		SRK-FD14_SESP16	SM2320B	5/19/2016	5/24/2016		5/31/2016
		SRK-FD14_SESP16	SM2340B_CALC	5/19/2016	5/24/2016		6/6/2016
		SRK-FD14_SESP16	SM2540C	5/19/2016	5/24/2016		5/26/2016
		SRK-FD14_SESP16	SM2540D	5/19/2016	5/24/2016		5/26/2016
		SRK-FD14_SESP16	SM4110B	5/19/2016	5/24/2016		5/24/2016
		SRK-FD14_SESP16	SM4500P	5/19/2016	5/24/2016		6/4/2016
		SRK-FD14_SESP16	SM5310	5/19/2016	5/24/2016		6/6/2016
		SRK-FD14_SESP16	SW6010B	5/19/2016	5/24/2016		5/31/2016
		SRK-FD14_SESP16	SW6010B	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD14_SESP16	SW6020A	5/19/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-FD18_SESP16	E1631E	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD18_SESP16	Ferrozine	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD18_SESP16	JEM/SM4500N	5/20/2016	5/24/2016		6/7/2016
		SRK-FD18_SESP16	SM2310_HP	5/20/2016	5/24/2016		6/1/2016
		SRK-FD18_SESP16	SM2320B	5/20/2016	5/24/2016		6/2/2016
		SRK-FD18_SESP16	SM2340B_CALC	5/20/2016	5/24/2016		6/3/2016
		SRK-FD18_SESP16	SM2540C	5/20/2016	5/24/2016		5/26/2016
		SRK-FD18_SESP16	SM2540D	5/20/2016	5/24/2016		5/26/2016
		SRK-FD18_SESP16	SM4110B	5/20/2016	5/24/2016		5/24/2016
		SRK-FD18_SESP16	SM4500P	5/20/2016	5/24/2016		6/4/2016
		SRK-FD18_SESP16	SM5310	5/20/2016	5/24/2016		6/6/2016
		SRK-FD18_SESP16	SW6010B	5/20/2016	5/24/2016		5/31/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1772436	SRK-FD18_SESP16	SW6010B	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD18_SESP16	SW6020A	5/20/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-FD18_SESP16MS	SM4110B	5/20/2016	5/24/2016		5/24/2016
		SRK-FD23_SESP16	E1631E	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD23_SESP16	Ferrozine	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD23_SESP16	JEM/SM4500N	5/19/2016	5/24/2016		6/7/2016
		SRK-FD23_SESP16	SM2310_HP	5/19/2016	5/24/2016		5/27/2016
		SRK-FD23_SESP16	SM2340B_CALC	5/19/2016	5/24/2016		6/6/2016
		SRK-FD23_SESP16	SM2540C	5/19/2016	5/24/2016		5/26/2016
		SRK-FD23_SESP16	SM2540D	5/19/2016	5/24/2016		5/26/2016
		SRK-FD23_SESP16	SM4110B	5/19/2016	5/24/2016		5/24/2016
		SRK-FD23_SESP16	SM4500P	5/19/2016	5/24/2016		6/7/2016
		SRK-FD23_SESP16	SM5310	5/19/2016	5/24/2016		6/6/2016
		SRK-FD23_SESP16	SW6010B	5/19/2016	5/24/2016		5/31/2016
		SRK-FD23_SESP16	SW6010B	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD23_SESP16	SW6020A	5/19/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-FD24_SESP16	E1631E	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD24_SESP16	Ferrozine	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD24_SESP16	JEM/SM4500N	5/19/2016	5/24/2016		6/7/2016
		SRK-FD24_SESP16	SM2310_HP	5/19/2016	5/24/2016		5/27/2016
		SRK-FD24_SESP16	SM2340B_CALC	5/19/2016	5/24/2016		6/6/2016
		SRK-FD24_SESP16	SM2540C	5/19/2016	5/24/2016		5/26/2016
		SRK-FD24_SESP16	SM2540D	5/19/2016	5/24/2016		5/26/2016
		SRK-FD24_SESP16	SM4110B	5/19/2016	5/24/2016		5/24/2016
		SRK-FD24_SESP16	SM4500P	5/19/2016	5/24/2016		6/4/2016
		SRK-FD24_SESP16	SM5310	5/19/2016	5/24/2016		6/6/2016
		SRK-FD24_SESP16	SW6010B	5/19/2016	5/24/2016		5/31/2016
		SRK-FD24_SESP16	SW6010B	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD24_SESP16	SW6020A	5/19/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-FD26_SESP16	E1631E	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD26_SESP16	Ferrozine	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD26_SESP16	JEM/SM4500N	5/19/2016	5/24/2016		6/7/2016
		SRK-FD26_SESP16	SM2310_HP	5/19/2016	5/24/2016		5/27/2016
		SRK-FD26_SESP16	SM2320B	5/19/2016	5/24/2016		5/31/2016
		SRK-FD26_SESP16	SM2340B_CALC	5/19/2016	5/24/2016		6/3/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1772436	SRK-FD26_SESP16	SM2540C	5/19/2016	5/24/2016		5/26/2016
		SRK-FD26_SESP16	SM2540D	5/19/2016	5/24/2016		5/26/2016
		SRK-FD26_SESP16	SM4110B	5/19/2016	5/24/2016		5/24/2016
		SRK-FD26_SESP16	SM4500P	5/19/2016	5/24/2016		6/4/2016
		SRK-FD26_SESP16	SM5310	5/19/2016	5/24/2016		6/6/2016
		SRK-FD26_SESP16	SW6010B	5/19/2016	5/24/2016		5/31/2016
		SRK-FD26_SESP16	SW6010B	5/19/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD26_SESP16	SW6020A	5/19/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-FD26_SESP16MS	E1631E	5/19/2016	5/26/2016	5/26/2016	5/26/2016
		SRK-FD26_SESP16MS	SW6010B	5/19/2016	5/26/2016	5/26/2016	5/26/2016
		SRK-FD26_SESP16MS	SW6020A	5/19/2016	5/26/2016	5/26/2016	6/3/2016
		SRK-FD54_SESP16	E1631E	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD54_SESP16	Ferrozine	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD54_SESP16	JEM/SM4500N	5/20/2016	5/24/2016		6/7/2016
		SRK-FD54_SESP16	SM2310_HP	5/20/2016	5/24/2016		6/1/2016
		SRK-FD54_SESP16	SM2320B	5/20/2016	5/24/2016		5/31/2016
		SRK-FD54_SESP16	SM2340B_CALC	5/20/2016	5/24/2016		6/6/2016
		SRK-FD54_SESP16	SM2540C	5/20/2016	5/24/2016		5/26/2016
		SRK-FD54_SESP16	SM2540D	5/20/2016	5/24/2016		5/26/2016
		SRK-FD54_SESP16	SM4110B	5/20/2016	5/24/2016		5/24/2016
		SRK-FD54_SESP16	SM4500P	5/20/2016	5/24/2016		6/4/2016
		SRK-FD54_SESP16	SM5310	5/20/2016	5/24/2016		6/6/2016
		SRK-FD54_SESP16	SW6010B	5/20/2016	5/24/2016		5/31/2016
		SRK-FD54_SESP16	SW6010B	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD54_SESP16	SW6020A	5/20/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-FD55_SESP16	E1631E	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD55_SESP16	Ferrozine	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD55_SESP16	JEM/SM4500N	5/20/2016	5/24/2016		6/7/2016
		SRK-FD55_SESP16	SM2310_HP	5/20/2016	5/24/2016		6/1/2016
		SRK-FD55_SESP16	SM2320B	5/20/2016	5/24/2016		6/2/2016
		SRK-FD55_SESP16	SM2340B_CALC	5/20/2016	5/24/2016		6/6/2016
		SRK-FD55_SESP16	SM2540C	5/20/2016	5/24/2016		5/26/2016
		SRK-FD55_SESP16	SM2540D	5/20/2016	5/24/2016		5/26/2016
		SRK-FD55_SESP16	SM4110B	5/20/2016	5/24/2016		5/24/2016
		SRK-FD55_SESP16	SM4500P	5/20/2016	5/24/2016		6/7/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1772436	SRK-FD55_SESP16	SM5310	5/20/2016	5/24/2016		6/6/2016
		SRK-FD55_SESP16	SW6010B	5/20/2016	5/24/2016		6/2/2016
		SRK-FD55_SESP16	SW6010B	5/20/2016	5/24/2016	5/26/2016	6/1/2016
		SRK-FD55_SESP16	SW6020A	5/20/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-FD955_SESP16	E1631E	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD955_SESP16	Ferrozine	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-FD955_SESP16	JEM/SM4500N	5/20/2016	5/24/2016		6/7/2016
		SRK-FD955_SESP16	SM2310_HP	5/20/2016	5/24/2016		6/1/2016
		SRK-FD955_SESP16	SM2320B	5/20/2016	5/24/2016		6/2/2016
		SRK-FD955_SESP16	SM2340B_CALC	5/20/2016	5/24/2016		6/3/2016
		SRK-FD955_SESP16	SM2540C	5/20/2016	5/24/2016		5/26/2016
		SRK-FD955_SESP16	SM2540D	5/20/2016	5/24/2016		5/26/2016
		SRK-FD955_SESP16	SM4110B	5/20/2016	5/24/2016		5/24/2016
		SRK-FD955_SESP16	SM4500P	5/20/2016	5/24/2016		6/4/2016
		SRK-FD955_SESP16	SM5310	5/20/2016	5/24/2016		6/6/2016
		SRK-FD955_SESP16	SW6010B	5/20/2016	5/24/2016		6/1/2016
		SRK-FD955_SESP16	SW6010B	5/20/2016	5/24/2016	5/26/2016	5/31/2016
		SRK-FD955_SESP16	SW6020A	5/20/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-GD01_SESP16	E1631E	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-GD01_SESP16	Ferrozine	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-GD01_SESP16	JEM/SM4500N	5/20/2016	5/24/2016		6/8/2016
		SRK-GD01_SESP16	SM2310_HP	5/20/2016	5/24/2016		6/1/2016
		SRK-GD01_SESP16	SM2320B	5/20/2016	5/24/2016		6/2/2016
		SRK-GD01_SESP16	SM2340B_CALC	5/20/2016	5/24/2016		6/6/2016
		SRK-GD01_SESP16	SM2540C	5/20/2016	5/24/2016		5/26/2016
		SRK-GD01_SESP16	SM2540D	5/20/2016	5/24/2016		5/26/2016
		SRK-GD01_SESP16	SM4110B	5/20/2016	5/24/2016		5/24/2016
		SRK-GD01_SESP16	SM4500P	5/20/2016	5/24/2016		6/4/2016
		SRK-GD01_SESP16	SM5310	5/20/2016	5/24/2016		6/6/2016
		SRK-GD01_SESP16	SW6010B	5/20/2016	5/24/2016		5/31/2016
		SRK-GD01_SESP16	SW6010B	5/20/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-GD01_SESP16	SW6020A	5/20/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-GD01_SESP16MS	JEM/SM4500N	5/20/2016	6/8/2016		6/8/2016
		SRK-GD05_SESP16	E1631E	5/22/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-GD05_SESP16	Ferrozine	5/22/2016	5/24/2016	5/26/2016	5/27/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1772436	SRK-GD05_SESP16	JEM/SM4500N	5/22/2016	5/24/2016		6/7/2016
		SRK-GD05_SESP16	SM2310_HP	5/22/2016	5/24/2016		6/1/2016
		SRK-GD05_SESP16	SM2320B	5/22/2016	5/24/2016		6/3/2016
		SRK-GD05_SESP16	SM2340B_CALC	5/22/2016	5/24/2016		6/3/2016
		SRK-GD05_SESP16	SM2540C	5/22/2016	5/24/2016		5/26/2016
		SRK-GD05_SESP16	SM2540D	5/22/2016	5/24/2016		5/26/2016
		SRK-GD05_SESP16	SM4110B	5/22/2016	5/24/2016		5/24/2016
		SRK-GD05_SESP16	SM4500P	5/22/2016	5/24/2016		6/4/2016
		SRK-GD05_SESP16	SM5310	5/22/2016	5/24/2016		6/6/2016
		SRK-GD05_SESP16	SW6010B	5/22/2016	5/24/2016		5/31/2016
		SRK-GD05_SESP16	SW6010B	5/22/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-GD05_SESP16	SW6020A	5/22/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-GD07_SESP16	E1631E	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-GD07_SESP16	Ferrozine	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-GD07_SESP16	JEM/SM4500N	5/21/2016	5/24/2016		6/7/2016
		SRK-GD07_SESP16	SM2310_HP	5/21/2016	5/24/2016		6/1/2016
		SRK-GD07_SESP16	SM2320B	5/21/2016	5/24/2016		6/3/2016
		SRK-GD07_SESP16	SM2340B_CALC	5/21/2016	5/24/2016		6/3/2016
		SRK-GD07_SESP16	SM2540C	5/21/2016	5/24/2016		5/26/2016
		SRK-GD07_SESP16	SM2540D	5/21/2016	5/24/2016		5/26/2016
		SRK-GD07_SESP16	SM4110B	5/21/2016	5/24/2016		5/24/2016
		SRK-GD07_SESP16	SM4500P	5/21/2016	5/24/2016		6/7/2016
		SRK-GD07_SESP16	SM5310	5/21/2016	5/24/2016		6/6/2016
		SRK-GD07_SESP16	SW6010B	5/21/2016	5/24/2016		5/31/2016
		SRK-GD07_SESP16	SW6010B	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-GD07_SESP16	SW6020A	5/21/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-GD11_SESP16	E1631E	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-GD11_SESP16	Ferrozine	5/21/2016	5/24/2016	5/26/2016	5/27/2016
		SRK-GD11_SESP16	JEM/SM4500N	5/21/2016	5/24/2016		6/7/2016
		SRK-GD11_SESP16	SM2310_HP	5/21/2016	5/24/2016		6/1/2016
		SRK-GD11_SESP16	SM2320B	5/21/2016	5/24/2016		6/3/2016
		SRK-GD11_SESP16	SM2340B_CALC	5/21/2016	5/24/2016		6/6/2016
		SRK-GD11_SESP16	SM2540C	5/21/2016	5/24/2016		5/26/2016
		SRK-GD11_SESP16	SM2540D	5/21/2016	5/24/2016		5/26/2016
		SRK-GD11_SESP16	SM4110B	5/21/2016	5/24/2016		5/24/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1772436	SRK-GD11_SESP16	SM4500P	5/21/2016	5/24/2016		6/4/2016
		SRK-GD11_SESP16	SM5310	5/21/2016	5/24/2016		6/6/2016
		SRK-GD11_SESP16	SW6010B	5/21/2016	5/24/2016		6/1/2016
		SRK-GD11_SESP16	SW6010B	5/21/2016	5/24/2016	5/26/2016	5/31/2016
		SRK-GD11_SESP16	SW6020A	5/21/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-GD13_SESP16	E1631E	5/22/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-GD13_SESP16	Ferrozine	5/22/2016	5/24/2016	5/26/2016	5/27/2016
		SRK-GD13_SESP16	JEM/SM4500N	5/22/2016	5/24/2016		6/7/2016
		SRK-GD13_SESP16	SM2310_HP	5/22/2016	5/24/2016		6/1/2016
		SRK-GD13_SESP16	SM2320B	5/22/2016	5/24/2016		6/3/2016
		SRK-GD13_SESP16	SM2340B_CALC	5/22/2016	5/24/2016		6/3/2016
		SRK-GD13_SESP16	SM2540C	5/22/2016	5/24/2016		5/26/2016
		SRK-GD13_SESP16	SM2540D	5/22/2016	5/24/2016		5/26/2016
		SRK-GD13_SESP16	SM4110B	5/22/2016	5/24/2016		5/24/2016
		SRK-GD13_SESP16	SM4500P	5/22/2016	5/24/2016		6/4/2016
		SRK-GD13_SESP16	SM5310	5/22/2016	5/24/2016		6/6/2016
		SRK-GD13_SESP16	SW6010B	5/22/2016	5/24/2016		5/31/2016
		SRK-GD13_SESP16	SW6010B	5/22/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-GD13_SESP16	SW6020A	5/22/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-GD13_SESP16MS	SW6010B	5/22/2016	5/26/2016	5/26/2016	5/26/2016
		SRK-GD13_SESP16MS	SW6020A	5/22/2016	5/26/2016	5/26/2016	6/3/2016
		SRK-GD24_SESP16	E1631E	5/22/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-GD24_SESP16	Ferrozine	5/22/2016	5/24/2016	5/26/2016	5/27/2016
		SRK-GD24_SESP16	JEM/SM4500N	5/22/2016	5/24/2016		6/7/2016
		SRK-GD24_SESP16	SM2310_HP	5/22/2016	5/24/2016		6/1/2016
		SRK-GD24_SESP16	SM2320B	5/22/2016	5/24/2016		6/3/2016
		SRK-GD24_SESP16	SM2340B_CALC	5/22/2016	5/24/2016		6/3/2016
		SRK-GD24_SESP16	SM2540C	5/22/2016	5/24/2016		5/26/2016
		SRK-GD24_SESP16	SM2540D	5/22/2016	5/24/2016		5/26/2016
		SRK-GD24_SESP16	SM4110B	5/22/2016	5/24/2016		5/24/2016
		SRK-GD24_SESP16	SM4500P	5/22/2016	5/24/2016		6/4/2016
		SRK-GD24_SESP16	SM5310	5/22/2016	5/24/2016		6/6/2016
		SRK-GD24_SESP16	SW6010B	5/22/2016	5/24/2016		5/31/2016
		SRK-GD24_SESP16	SW6010B	5/22/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-GD24_SESP16	SW6020A	5/22/2016	5/24/2016	5/26/2016	6/3/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1772436	SRK-VD01_SESP16	E1631E	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-VD01_SESP16	Ferrozine	5/21/2016	5/24/2016	5/26/2016	5/27/2016
		SRK-VD01_SESP16	JEM/SM4500N	5/21/2016	5/24/2016		6/7/2016
		SRK-VD01_SESP16	SM2310_HP	5/21/2016	5/24/2016		6/1/2016
		SRK-VD01_SESP16	SM2320B	5/21/2016	5/24/2016		6/3/2016
		SRK-VD01_SESP16	SM2340B_CALC	5/21/2016	5/24/2016		6/3/2016
		SRK-VD01_SESP16	SM2540C	5/21/2016	5/24/2016		5/26/2016
		SRK-VD01_SESP16	SM2540D	5/21/2016	5/24/2016		5/26/2016
		SRK-VD01_SESP16	SM4110B	5/21/2016	5/24/2016		5/24/2016
		SRK-VD01_SESP16	SM4500P	5/21/2016	5/24/2016		6/4/2016
		SRK-VD01_SESP16	SM5310	5/21/2016	5/24/2016		6/6/2016
		SRK-VD01_SESP16	SW6010B	5/21/2016	5/24/2016		5/31/2016
		SRK-VD01_SESP16	SW6010B	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-VD01_SESP16	SW6020A	5/21/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-VD02_SESP16	E1631E	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-VD02_SESP16	Ferrozine	5/21/2016	5/24/2016	5/26/2016	5/27/2016
		SRK-VD02_SESP16	JEM/SM4500N	5/21/2016	5/24/2016		6/7/2016
		SRK-VD02_SESP16	SM2310_HP	5/21/2016	5/24/2016		6/1/2016
		SRK-VD02_SESP16	SM2320B	5/21/2016	5/24/2016		6/3/2016
		SRK-VD02_SESP16	SM2340B_CALC	5/21/2016	5/24/2016		6/6/2016
		SRK-VD02_SESP16	SM2540C	5/21/2016	5/24/2016		5/26/2016
		SRK-VD02_SESP16	SM2540D	5/21/2016	5/24/2016		5/26/2016
		SRK-VD02_SESP16	SM4110B	5/21/2016	5/24/2016		5/24/2016
		SRK-VD02_SESP16	SM4500P	5/21/2016	5/24/2016		6/7/2016
		SRK-VD02_SESP16	SM5310	5/21/2016	5/24/2016		6/6/2016
		SRK-VD02_SESP16	SW6010B	5/21/2016	5/24/2016		5/31/2016
		SRK-VD02_SESP16	SW6010B	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-VD02_SESP16	SW6020A	5/21/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-VD02_SESP16	SW6020A	5/21/2016	5/24/2016	5/26/2016	6/5/2016
		SRK-VD02_SESP16MS	SW6010B	5/21/2016	5/26/2016	5/26/2016	5/26/2016
		SRK-VD02_SESP16MS	SW6020A	5/21/2016	5/26/2016	5/26/2016	6/3/2016
		SRK-VD03_SESP16	E1631E	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-VD03_SESP16	Ferrozine	5/21/2016	5/24/2016	5/26/2016	5/27/2016
		SRK-VD03_SESP16	JEM/SM4500N	5/21/2016	5/24/2016		6/7/2016
		SRK-VD03_SESP16	SM2310_HP	5/21/2016	5/24/2016		6/2/2016

TABLE 2

Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1772436	SRK-VD03_SESP16	SM2320B	5/21/2016	5/24/2016		6/3/2016
		SRK-VD03_SESP16	SM2340B_CALC	5/21/2016	5/24/2016		6/3/2016
		SRK-VD03_SESP16	SM2540C	5/21/2016	5/24/2016		5/26/2016
		SRK-VD03_SESP16	SM2540D	5/21/2016	5/24/2016		5/26/2016
		SRK-VD03_SESP16	SM4110B	5/21/2016	5/24/2016		5/24/2016
		SRK-VD03_SESP16	SM4500P	5/21/2016	5/24/2016		6/7/2016
		SRK-VD03_SESP16	SM5310	5/21/2016	5/24/2016		6/6/2016
		SRK-VD03_SESP16	SW6010B	5/21/2016	5/24/2016		5/31/2016
		SRK-VD03_SESP16	SW6010B	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-VD03_SESP16	SW6020A	5/21/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-VD03_SESP16MS	SM5310	5/21/2016	6/6/2016		6/6/2016
		SRK-VD04_SESP16	E1631E	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-VD04_SESP16	Ferrozine	5/21/2016	5/24/2016	5/26/2016	5/27/2016
		SRK-VD04_SESP16	JEM/SM4500N	5/21/2016	5/24/2016		6/7/2016
		SRK-VD04_SESP16	SM2310_HP	5/21/2016	5/24/2016		6/1/2016
		SRK-VD04_SESP16	SM2340B_CALC	5/21/2016	5/24/2016		6/6/2016
		SRK-VD04_SESP16	SM2540C	5/21/2016	5/24/2016		5/26/2016
		SRK-VD04_SESP16	SM2540D	5/21/2016	5/24/2016		5/26/2016
		SRK-VD04_SESP16	SM4110B	5/21/2016	5/24/2016		5/24/2016
		SRK-VD04_SESP16	SM4110B	5/21/2016	5/24/2016		5/28/2016
		SRK-VD04_SESP16	SM4500P	5/21/2016	5/24/2016		6/7/2016
		SRK-VD04_SESP16	SM5310	5/21/2016	5/24/2016		6/7/2016
		SRK-VD04_SESP16	SW6010B	5/21/2016	5/24/2016		5/31/2016
		SRK-VD04_SESP16	SW6010B	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-VD04_SESP16	SW6020A	5/21/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-VD05_SESP16	E1631E	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-VD05_SESP16	Ferrozine	5/21/2016	5/24/2016	5/26/2016	5/27/2016
		SRK-VD05_SESP16	JEM/SM4500N	5/21/2016	5/24/2016		6/7/2016
		SRK-VD05_SESP16	SM2310_HP	5/21/2016	5/24/2016		6/1/2016
		SRK-VD05_SESP16	SM2340B_CALC	5/21/2016	5/24/2016		6/6/2016
		SRK-VD05_SESP16	SM2540C	5/21/2016	5/24/2016		5/26/2016
		SRK-VD05_SESP16	SM2540D	5/21/2016	5/24/2016		5/26/2016
		SRK-VD05_SESP16	SM4110B	5/21/2016	5/24/2016		5/24/2016
		SRK-VD05_SESP16	SM4110B	5/21/2016	5/24/2016		5/28/2016
		SRK-VD05_SESP16	SM4500P	5/21/2016	5/24/2016		6/7/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1772436	SRK-VD05_SESP16	SM5310	5/21/2016	5/24/2016		6/7/2016
		SRK-VD05_SESP16	SW6010B	5/21/2016	5/24/2016		5/31/2016
		SRK-VD05_SESP16	SW6010B	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-VD05_SESP16	SW6020A	5/21/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-VD05_SESP16MS	SM4110B	5/21/2016	5/28/2016		5/28/2016
		SRK-VD09_SESP16	E1631E	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-VD09_SESP16	Ferrozine	5/21/2016	5/24/2016	5/26/2016	5/27/2016
		SRK-VD09_SESP16	JEM/SM4500N	5/21/2016	5/24/2016		6/7/2016
		SRK-VD09_SESP16	SM2310_HP	5/21/2016	5/24/2016		6/1/2016
		SRK-VD09_SESP16	SM2340B_CALC	5/21/2016	5/24/2016		6/6/2016
		SRK-VD09_SESP16	SM2540C	5/21/2016	5/24/2016		5/26/2016
		SRK-VD09_SESP16	SM2540D	5/21/2016	5/24/2016		5/26/2016
		SRK-VD09_SESP16	SM4110B	5/21/2016	5/24/2016		5/24/2016
		SRK-VD09_SESP16	SM4500P	5/21/2016	5/24/2016		6/7/2016
		SRK-VD09_SESP16	SM5310	5/21/2016	5/24/2016		6/6/2016
		SRK-VD09_SESP16	SW6010B	5/21/2016	5/24/2016		5/31/2016
		SRK-VD09_SESP16	SW6010B	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-VD09_SESP16	SW6020A	5/21/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-VD10_SESP16	E1631E	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-VD10_SESP16	Ferrozine	5/21/2016	5/24/2016	5/26/2016	5/27/2016
		SRK-VD10_SESP16	JEM/SM4500N	5/21/2016	5/24/2016		6/7/2016
		SRK-VD10_SESP16	SM2310_HP	5/21/2016	5/24/2016		6/1/2016
		SRK-VD10_SESP16	SM2320B	5/21/2016	5/24/2016		6/3/2016
		SRK-VD10_SESP16	SM2340B_CALC	5/21/2016	5/24/2016		6/6/2016
		SRK-VD10_SESP16	SM2540C	5/21/2016	5/24/2016		5/26/2016
		SRK-VD10_SESP16	SM2540D	5/21/2016	5/24/2016		5/26/2016
		SRK-VD10_SESP16	SM4110B	5/21/2016	5/24/2016		5/24/2016
		SRK-VD10_SESP16	SM4500P	5/21/2016	5/24/2016		6/7/2016
		SRK-VD10_SESP16	SM5310	5/21/2016	5/24/2016		6/6/2016
		SRK-VD10_SESP16	SW6010B	5/21/2016	5/24/2016		5/31/2016
		SRK-VD10_SESP16	SW6010B	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-VD10_SESP16	SW6020A	5/21/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-VD10_SESP16MS	E1631E	5/21/2016	5/26/2016	5/26/2016	5/26/2016
		SRK-VD12_SESP16	E1631E	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-VD12_SESP16	Ferrozine	5/21/2016	5/24/2016	5/26/2016	5/27/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1772436	SRK-VD12_SESP16	JEM/SM4500N	5/21/2016	5/24/2016		6/7/2016
		SRK-VD12_SESP16	SM2310_HP	5/21/2016	5/24/2016		6/1/2016
		SRK-VD12_SESP16	SM2340B_CALC	5/21/2016	5/24/2016		6/6/2016
		SRK-VD12_SESP16	SM2540C	5/21/2016	5/24/2016		5/26/2016
		SRK-VD12_SESP16	SM2540D	5/21/2016	5/24/2016		5/26/2016
		SRK-VD12_SESP16	SM4110B	5/21/2016	5/24/2016		5/24/2016
		SRK-VD12_SESP16	SM4500P	5/21/2016	5/24/2016		6/7/2016
		SRK-VD12_SESP16	SM5310	5/21/2016	5/24/2016		6/6/2016
		SRK-VD12_SESP16	SW6010B	5/21/2016	5/24/2016		5/31/2016
		SRK-VD12_SESP16	SW6010B	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-VD12_SESP16	SW6020A	5/21/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-VD902_SESP16	E1631E	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-VD902_SESP16	Ferrozine	5/21/2016	5/24/2016	5/26/2016	5/27/2016
		SRK-VD902_SESP16	JEM/SM4500N	5/21/2016	5/24/2016		6/7/2016
		SRK-VD902_SESP16	SM2310_HP	5/21/2016	5/24/2016		6/1/2016
		SRK-VD902_SESP16	SM2320B	5/21/2016	5/24/2016		6/3/2016
		SRK-VD902_SESP16	SM2340B_CALC	5/21/2016	5/24/2016		6/3/2016
		SRK-VD902_SESP16	SM2540C	5/21/2016	5/24/2016		5/26/2016
		SRK-VD902_SESP16	SM2540D	5/21/2016	5/24/2016		5/26/2016
		SRK-VD902_SESP16	SM4110B	5/21/2016	5/24/2016		5/24/2016
		SRK-VD902_SESP16	SM4500P	5/21/2016	5/24/2016		6/7/2016
		SRK-VD902_SESP16	SM5310	5/21/2016	5/24/2016		6/6/2016
		SRK-VD902_SESP16	SW6010B	5/21/2016	5/24/2016		6/1/2016
		SRK-VD902_SESP16	SW6010B	5/21/2016	5/24/2016	5/26/2016	5/31/2016
		SRK-VD902_SESP16	SW6020A	5/21/2016	5/24/2016	5/26/2016	6/3/2016
		SRK-VD905_SESP16	E1631E	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-VD905_SESP16	Ferrozine	5/21/2016	5/24/2016	5/26/2016	5/27/2016
		SRK-VD905_SESP16	JEM/SM4500N	5/21/2016	5/24/2016		6/7/2016
		SRK-VD905_SESP16	SM2310_HP	5/21/2016	5/24/2016		6/1/2016
		SRK-VD905_SESP16	SM2340B_CALC	5/21/2016	5/24/2016		6/6/2016
		SRK-VD905_SESP16	SM2540C	5/21/2016	5/24/2016		5/26/2016
		SRK-VD905_SESP16	SM2540D	5/21/2016	5/24/2016		5/26/2016
		SRK-VD905_SESP16	SM4110B	5/21/2016	5/24/2016		5/24/2016
		SRK-VD905_SESP16	SM4110B	5/21/2016	5/24/2016		5/28/2016
		SRK-VD905_SESP16	SM4500P	5/21/2016	5/24/2016		6/4/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1772436	SRK-VD905_SESP16	SM5310	5/21/2016	5/24/2016		6/7/2016
		SRK-VD905_SESP16	SW6010B	5/21/2016	5/24/2016		5/31/2016
		SRK-VD905_SESP16	SW6010B	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		SRK-VD905_SESP16	SW6020A	5/21/2016	5/24/2016	5/26/2016	6/3/2016
		SWEET CREEK_SESP16	E1631E	5/22/2016	5/24/2016	5/26/2016	5/26/2016
		SWEET CREEK_SESP16	Ferrozine	5/22/2016	5/24/2016	5/26/2016	5/27/2016
		SWEET CREEK_SESP16	JEM/SM4500N	5/22/2016	5/24/2016		6/7/2016
		SWEET CREEK_SESP16	SM2320B	5/22/2016	5/24/2016		6/3/2016
		SWEET CREEK_SESP16	SM2340B_CALC	5/22/2016	5/24/2016		6/3/2016
		SWEET CREEK_SESP16	SM2540C	5/22/2016	5/24/2016		5/26/2016
		SWEET CREEK_SESP16	SM2540D	5/22/2016	5/24/2016		5/26/2016
		SWEET CREEK_SESP16	SM4110B	5/22/2016	5/24/2016		5/24/2016
		SWEET CREEK_SESP16	SM4500P	5/22/2016	5/24/2016		6/4/2016
		SWEET CREEK_SESP16	SM5310	5/22/2016	5/24/2016		6/6/2016
		SWEET CREEK_SESP16	SW6010B	5/22/2016	5/24/2016		5/31/2016
		SWEET CREEK_SESP16	SW6010B	5/22/2016	5/24/2016	5/26/2016	5/26/2016
		SWEET CREEK_SESP16	SW6020A	5/22/2016	5/24/2016	5/26/2016	6/3/2016
		VP09_SESP16	E1631E	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		VP09_SESP16	Ferrozine	5/21/2016	5/24/2016	5/26/2016	5/27/2016
		VP09_SESP16	JEM/SM4500N	5/21/2016	5/24/2016		6/7/2016
		VP09_SESP16	SM2310_HP	5/21/2016	5/24/2016		6/1/2016
		VP09_SESP16	SM2320B	5/21/2016	5/24/2016		6/3/2016
		VP09_SESP16	SM2340B_CALC	5/21/2016	5/24/2016		6/3/2016
		VP09_SESP16	SM2540C	5/21/2016	5/24/2016		5/26/2016
		VP09_SESP16	SM2540D	5/21/2016	5/24/2016		5/26/2016
		VP09_SESP16	SM4110B	5/21/2016	5/24/2016		5/24/2016
		VP09_SESP16	SM4500P	5/21/2016	5/24/2016		6/7/2016
		VP09_SESP16	SM5310	5/21/2016	5/24/2016		6/6/2016
		VP09_SESP16	SW6010B	5/21/2016	5/24/2016		5/31/2016
		VP09_SESP16	SW6010B	5/21/2016	5/24/2016	5/26/2016	5/26/2016
		VP09_SESP16	SW6020A	5/21/2016	5/24/2016	5/26/2016	6/3/2016
		VP09_SESP16MS	JEM/SM4500N	5/21/2016	6/7/2016		6/7/2016
		WGD01_SESP16	E1631E	5/22/2016	5/24/2016	5/26/2016	5/26/2016
		WGD01_SESP16	Ferrozine	5/22/2016	5/24/2016	5/26/2016	5/27/2016
		WGD01_SESP16	JEM/SM4500N	5/22/2016	5/24/2016		6/7/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1772436	WGD01_SESP16	SM2310_HP	5/22/2016	5/24/2016		6/1/2016
		WGD01_SESP16	SM2320B	5/22/2016	5/24/2016		6/3/2016
		WGD01_SESP16	SM2340B_CALC	5/22/2016	5/24/2016		6/6/2016
		WGD01_SESP16	SM2540C	5/22/2016	5/24/2016		5/26/2016
		WGD01_SESP16	SM2540D	5/22/2016	5/24/2016		5/26/2016
		WGD01_SESP16	SM4110B	5/22/2016	5/24/2016		5/24/2016
		WGD01_SESP16	SM4500P	5/22/2016	5/24/2016		6/4/2016
		WGD01_SESP16	SM5310	5/22/2016	5/24/2016		6/6/2016
		WGD01_SESP16	SW6010B	5/22/2016	5/24/2016		5/31/2016
		WGD01_SESP16	SW6010B	5/22/2016	5/24/2016	5/26/2016	5/26/2016
		WGD01_SESP16	SW6020A	5/22/2016	5/24/2016	5/26/2016	6/3/2016
		WGD01_SESP16	SW6020A	5/22/2016	5/24/2016	5/26/2016	6/5/2016
		WTA02_SESP16	E1631E	5/22/2016	5/24/2016	5/26/2016	5/26/2016
		WTA02_SESP16	Ferrozine	5/22/2016	5/24/2016	5/26/2016	5/27/2016
		WTA02_SESP16	JEM/SM4500N	5/22/2016	5/24/2016		6/7/2016
		WTA02_SESP16	SM2320B	5/22/2016	5/24/2016		6/3/2016
		WTA02_SESP16	SM2340B_CALC	5/22/2016	5/24/2016		6/3/2016
		WTA02_SESP16	SM2540C	5/22/2016	5/24/2016		5/26/2016
		WTA02_SESP16	SM2540D	5/22/2016	5/24/2016		5/26/2016
		WTA02_SESP16	SM4110B	5/22/2016	5/24/2016		5/24/2016
		WTA02_SESP16	SM4500P	5/22/2016	5/24/2016		6/4/2016
		WTA02_SESP16	SM5310	5/22/2016	5/24/2016		6/6/2016
		WTA02_SESP16	SW6010B	5/22/2016	5/24/2016		5/31/2016
		WTA02_SESP16	SW6010B	5/22/2016	5/24/2016	5/26/2016	5/26/2016
		WTA02_SESP16	SW6020A	5/22/2016	5/24/2016	5/26/2016	6/3/2016
		WTA02_SESP16MS	E1631E	5/22/2016	5/26/2016	5/26/2016	5/26/2016
		WTA02_SESP16MS	Ferrozine	5/22/2016	5/26/2016	5/26/2016	5/27/2016
	L1778028	CH12-014-MW007_GW0616	E1631E	6/1/2016	6/3/2016	6/7/2016	6/7/2016
		CH12-014-MW007_GW0616	Ferrozine	6/1/2016	6/3/2016	6/8/2016	6/8/2016
		CH12-014-MW007_GW0616	JEM/SM4500N	6/1/2016	6/3/2016		6/17/2016
		CH12-014-MW007_GW0616	SM2310_HP	6/1/2016	6/3/2016		6/12/2016
		CH12-014-MW007_GW0616	SM2320B	6/1/2016	6/3/2016		6/14/2016
		CH12-014-MW007_GW0616	SM2340B_CALC	6/1/2016	6/3/2016		6/15/2016
		CH12-014-MW007_GW0616	SM2540C	6/1/2016	6/3/2016		6/8/2016
		CH12-014-MW007_GW0616	SM2540D	6/1/2016	6/3/2016		6/7/2016

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Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1778028	CH12-014-MW007_GW0616	SM4110B	6/1/2016	6/3/2016		6/4/2016
		CH12-014-MW007_GW0616	SM4500P	6/1/2016	6/3/2016		6/10/2016
		CH12-014-MW007_GW0616	SM5310	6/1/2016	6/3/2016		6/15/2016
		CH12-014-MW007_GW0616	SW6010B	6/1/2016	6/3/2016		6/8/2016
		CH12-014-MW007_GW0616	SW6010B	6/1/2016	6/3/2016	6/5/2016	6/6/2016
		CH12-014-MW007_GW0616	SW6020A	6/1/2016	6/3/2016	6/5/2016	6/14/2016
		CH12-014-MW007_GW0616MS	Ferrozine	6/1/2016	6/8/2016	6/8/2016	6/8/2016
		CH12-014-MW007_GW0616MS	JEM/SM4500N	6/1/2016	6/17/2016		6/17/2016
		CH14-015-MW006_GW0616	E1631E	6/1/2016	6/3/2016	6/7/2016	6/7/2016
		CH14-015-MW006_GW0616	Ferrozine	6/1/2016	6/3/2016	6/8/2016	6/8/2016
		CH14-015-MW006_GW0616	JEM/SM4500N	6/1/2016	6/3/2016		6/17/2016
		CH14-015-MW006_GW0616	SM2310_HP	6/1/2016	6/3/2016		6/12/2016
		CH14-015-MW006_GW0616	SM2320B	6/1/2016	6/3/2016		6/14/2016
		CH14-015-MW006_GW0616	SM2340B_CALC	6/1/2016	6/3/2016		6/16/2016
		CH14-015-MW006_GW0616	SM2540C	6/1/2016	6/3/2016		6/8/2016
		CH14-015-MW006_GW0616	SM2540D	6/1/2016	6/3/2016		6/7/2016
		CH14-015-MW006_GW0616	SM4110B	6/1/2016	6/3/2016		6/4/2016
		CH14-015-MW006_GW0616	SM4500P	6/1/2016	6/3/2016		6/10/2016
		CH14-015-MW006_GW0616	SM5310	6/1/2016	6/3/2016		6/15/2016
		CH14-015-MW006_GW0616	SW6010B	6/1/2016	6/3/2016		6/6/2016
		CH14-015-MW006_GW0616	SW6010B	6/1/2016	6/3/2016	6/5/2016	6/6/2016
		CH14-015-MW006_GW0616	SW6020A	6/1/2016	6/3/2016	6/5/2016	6/14/2016
		CH14-015-MW006_GW0616MS	E1631E	6/1/2016	6/7/2016	6/7/2016	6/7/2016
		CH14-015-MW006_GW0616MS	SM4110B	6/1/2016	6/4/2016		6/4/2016
		CH14-015-MW006_GW0616MS	SM4500P	6/1/2016	6/10/2016		6/10/2016
		CH14-015-MW006_GW0616MS	SW6010B	6/1/2016	6/5/2016	6/5/2016	6/6/2016
		CH14-015-MW006_GW0616MS	SW6020A	6/1/2016	6/5/2016	6/5/2016	6/14/2016
	L1778685	CH12-014-MW003_GW0616	E1631E	6/2/2016	6/3/2016	6/8/2016	6/8/2016
		CH12-014-MW003_GW0616	Ferrozine	6/2/2016	6/3/2016	6/9/2016	6/9/2016
		CH12-014-MW003_GW0616	JEM/SM4500N	6/2/2016	6/3/2016		6/18/2016
		CH12-014-MW003_GW0616	SM2310_HP	6/2/2016	6/3/2016		6/12/2016
		CH12-014-MW003_GW0616	SM2320B	6/2/2016	6/3/2016		6/15/2016
		CH12-014-MW003_GW0616	SM2340B_CALC	6/2/2016	6/3/2016		6/15/2016
		CH12-014-MW003_GW0616	SM2540C	6/2/2016	6/3/2016		6/9/2016
		CH12-014-MW003_GW0616	SM2540D	6/2/2016	6/3/2016		6/7/2016

TABLE 2

Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1778685	CH12-014-MW003_GW0616	SM4110B	6/2/2016	6/3/2016		6/6/2016
		CH12-014-MW003_GW0616	SM4500P	6/2/2016	6/3/2016		6/14/2016
		CH12-014-MW003_GW0616	SM5310	6/2/2016	6/3/2016		6/15/2016
		CH12-014-MW003_GW0616	SW6010B	6/2/2016	6/3/2016		6/8/2016
		CH12-014-MW003_GW0616	SW6010B	6/2/2016	6/3/2016	6/7/2016	6/7/2016
		CH12-014-MW003_GW0616	SW6020A	6/2/2016	6/3/2016	6/7/2016	6/15/2016
		CH12-014-MW003_GW0616MS	JEM/SM4500N	6/2/2016	6/18/2016		6/18/2016
	L1778701	CH12-014-MW011_GW0616	E1631E	6/4/2016	6/6/2016	6/8/2016	6/8/2016
		CH12-014-MW011_GW0616	Ferrozine	6/4/2016	6/6/2016	6/9/2016	6/9/2016
		CH12-014-MW011_GW0616	JEM/SM4500N	6/4/2016	6/6/2016		6/18/2016
		CH12-014-MW011_GW0616	SM2310_HP	6/4/2016	6/6/2016		6/12/2016
		CH12-014-MW011_GW0616	SM2320B	6/4/2016	6/6/2016		6/15/2016
		CH12-014-MW011_GW0616	SM2340B_CALC	6/4/2016	6/6/2016		6/15/2016
		CH12-014-MW011_GW0616	SM2540C	6/4/2016	6/6/2016		6/10/2016
		CH12-014-MW011_GW0616	SM2540D	6/4/2016	6/6/2016		6/7/2016
		CH12-014-MW011_GW0616	SM4110B	6/4/2016	6/6/2016		6/6/2016
		CH12-014-MW011_GW0616	SM4500P	6/4/2016	6/6/2016		6/14/2016
		CH12-014-MW011_GW0616	SM5310	6/4/2016	6/6/2016		6/15/2016
		CH12-014-MW011_GW0616	SW6010B	6/4/2016	6/6/2016		6/8/2016
		CH12-014-MW011_GW0616	SW6010B	6/4/2016	6/6/2016	6/7/2016	6/7/2016
		CH12-014-MW011_GW0616	SW6020A	6/4/2016	6/6/2016	6/7/2016	6/15/2016
		CH12-014-MW012_GW0616	E1631E	6/3/2016	6/6/2016	6/8/2016	6/8/2016
		CH12-014-MW012_GW0616	Ferrozine	6/3/2016	6/6/2016	6/9/2016	6/9/2016
		CH12-014-MW012_GW0616	JEM/SM4500N	6/3/2016	6/6/2016		6/18/2016
		CH12-014-MW012_GW0616	SM2310_HP	6/3/2016	6/6/2016		6/12/2016
		CH12-014-MW012_GW0616	SM2320B	6/3/2016	6/6/2016		6/15/2016
		CH12-014-MW012_GW0616	SM2340B_CALC	6/3/2016	6/6/2016		6/15/2016
		CH12-014-MW012_GW0616	SM2540C	6/3/2016	6/6/2016		6/10/2016
		CH12-014-MW012_GW0616	SM2540D	6/3/2016	6/6/2016		6/7/2016
		CH12-014-MW012_GW0616	SM4110B	6/3/2016	6/6/2016		6/6/2016
		CH12-014-MW012_GW0616	SM4500P	6/3/2016	6/6/2016		6/14/2016
		CH12-014-MW012_GW0616	SM5310	6/3/2016	6/6/2016		6/15/2016
		CH12-014-MW012_GW0616	SW6010B	6/3/2016	6/6/2016		6/8/2016
		CH12-014-MW012_GW0616	SW6010B	6/3/2016	6/6/2016	6/7/2016	6/7/2016
		CH12-014-MW012_GW0616	SW6020A	6/3/2016	6/6/2016	6/7/2016	6/15/2016

TABLE 2

Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1778701	CH12-014-MW013_GW0616	E1631E	6/4/2016	6/6/2016	6/8/2016	6/8/2016
		CH12-014-MW013_GW0616	Ferrozine	6/4/2016	6/6/2016	6/9/2016	6/9/2016
		CH12-014-MW013_GW0616	JEM/SM4500N	6/4/2016	6/6/2016		6/18/2016
		CH12-014-MW013_GW0616	SM2310_HP	6/4/2016	6/6/2016		6/12/2016
		CH12-014-MW013_GW0616	SM2320B	6/4/2016	6/6/2016		6/15/2016
		CH12-014-MW013_GW0616	SM2340B_CALC	6/4/2016	6/6/2016		6/15/2016
		CH12-014-MW013_GW0616	SM2540C	6/4/2016	6/6/2016		6/10/2016
		CH12-014-MW013_GW0616	SM2540D	6/4/2016	6/6/2016		6/7/2016
		CH12-014-MW013_GW0616	SM4110B	6/4/2016	6/6/2016		6/6/2016
		CH12-014-MW013_GW0616	SM4500P	6/4/2016	6/6/2016		6/14/2016
		CH12-014-MW013_GW0616	SM5310	6/4/2016	6/6/2016		6/15/2016
		CH12-014-MW013_GW0616	SW6010B	6/4/2016	6/6/2016		6/9/2016
		CH12-014-MW013_GW0616	SW6010B	6/4/2016	6/6/2016	6/7/2016	6/8/2016
		CH12-014-MW013_GW0616	SW6020A	6/4/2016	6/6/2016	6/7/2016	6/15/2016
		CH12-014-MW913_GW0616	E1631E	6/4/2016	6/6/2016	6/8/2016	6/8/2016
		CH12-014-MW913_GW0616	Ferrozine	6/4/2016	6/6/2016	6/9/2016	6/9/2016
		CH12-014-MW913_GW0616	JEM/SM4500N	6/4/2016	6/6/2016		6/18/2016
		CH12-014-MW913_GW0616	SM2310_HP	6/4/2016	6/6/2016		6/12/2016
		CH12-014-MW913_GW0616	SM2320B	6/4/2016	6/6/2016		6/15/2016
		CH12-014-MW913_GW0616	SM2340B_CALC	6/4/2016	6/6/2016		6/15/2016
		CH12-014-MW913_GW0616	SM2540C	6/4/2016	6/6/2016		6/10/2016
		CH12-014-MW913_GW0616	SM2540D	6/4/2016	6/6/2016		6/7/2016
		CH12-014-MW913_GW0616	SM4110B	6/4/2016	6/6/2016		6/6/2016
		CH12-014-MW913_GW0616	SM4500P	6/4/2016	6/6/2016		6/14/2016
		CH12-014-MW913_GW0616	SM5310	6/4/2016	6/6/2016		6/15/2016
		CH12-014-MW913_GW0616	SW6010B	6/4/2016	6/6/2016		6/13/2016
		CH12-014-MW913_GW0616	SW6010B	6/4/2016	6/6/2016	6/7/2016	6/10/2016
		CH12-014-MW913_GW0616	SW6020A	6/4/2016	6/6/2016	6/7/2016	6/15/2016
		E_014_16_001	E1631E	6/5/2016	6/6/2016	6/8/2016	6/8/2016
		E_014_16_001	Ferrozine	6/5/2016	6/6/2016	6/9/2016	6/9/2016
		E_014_16_001	JEM/SM4500N	6/5/2016	6/6/2016		6/18/2016
		E_014_16_001	SM2310_HP	6/5/2016	6/6/2016		6/12/2016
		E_014_16_001	SM2320B	6/5/2016	6/6/2016		6/16/2016
		E_014_16_001	SM2340B_CALC	6/5/2016	6/6/2016		6/15/2016
		E_014_16_001	SM2540C	6/5/2016	6/6/2016		6/10/2016

TABLE 2

Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1778701	E_014_16_001	SM2540D	6/5/2016	6/6/2016		6/7/2016
		E_014_16_001	SM4110B	6/5/2016	6/6/2016		6/6/2016
		E_014_16_001	SM4500P	6/5/2016	6/6/2016		6/14/2016
		E_014_16_001	SM5310	6/5/2016	6/6/2016		6/15/2016
		E_014_16_001	SW6010B	6/5/2016	6/6/2016		6/13/2016
		E_014_16_001	SW6010B	6/5/2016	6/6/2016	6/7/2016	6/8/2016
		E_014_16_001	SW6020A	6/5/2016	6/6/2016	6/7/2016	6/14/2016
		E_014_16_001	SW6020A	6/5/2016	6/6/2016	6/7/2016	6/15/2016
		E_014_16_002	E1631E	6/5/2016	6/6/2016	6/8/2016	6/8/2016
		E_014_16_002	Ferrozine	6/5/2016	6/6/2016	6/11/2016	6/11/2016
		E_014_16_002	JEM/SM4500N	6/5/2016	6/6/2016		6/18/2016
		E_014_16_002	SM2310_HP	6/5/2016	6/6/2016		6/12/2016
		E_014_16_002	SM2320B	6/5/2016	6/6/2016		6/15/2016
		E_014_16_002	SM2340B_CALC	6/5/2016	6/6/2016		6/15/2016
		E_014_16_002	SM2540C	6/5/2016	6/6/2016		6/10/2016
		E_014_16_002	SM2540D	6/5/2016	6/6/2016		6/7/2016
		E_014_16_002	SM4110B	6/5/2016	6/6/2016		6/6/2016
		E_014_16_002	SM4500P	6/5/2016	6/6/2016		6/14/2016
		E_014_16_002	SM5310	6/5/2016	6/6/2016		6/15/2016
		E_014_16_002	SW6010B	6/5/2016	6/6/2016		6/13/2016
		E_014_16_002	SW6010B	6/5/2016	6/6/2016	6/7/2016	6/8/2016
		E_014_16_002	SW6020A	6/5/2016	6/6/2016	6/7/2016	6/14/2016
		E_014_16_002	SW6020A	6/5/2016	6/6/2016	6/7/2016	6/15/2016
		E_014_16_002MS	SW6010B	6/5/2016	6/7/2016	6/7/2016	6/8/2016
		E_014_16_002MS	SW6020A	6/5/2016	6/7/2016	6/7/2016	6/14/2016
	L1780437	CH14-104-MW008_GW0616	E1631E	6/6/2016	6/8/2016	6/10/2016	6/10/2016
		CH14-104-MW008_GW0616	Ferrozine	6/6/2016	6/8/2016	6/11/2016	6/11/2016
		CH14-104-MW008_GW0616	SM2310_HP	6/6/2016	6/8/2016		6/16/2016
		CH14-104-MW008_GW0616	SM2320B	6/6/2016	6/8/2016		6/18/2016
		CH14-104-MW008_GW0616	SM2340B_CALC	6/6/2016	6/8/2016		6/20/2016
		CH14-104-MW008_GW0616	SM2540C	6/6/2016	6/8/2016		6/13/2016
		CH14-104-MW008_GW0616	SM2540D	6/6/2016	6/8/2016		6/10/2016
		CH14-104-MW008_GW0616	SM4110B	6/6/2016	6/8/2016		6/9/2016
		CH14-104-MW008_GW0616	SW6010B	6/6/2016	6/8/2016		6/15/2016
		CH14-104-MW008_GW0616	SW6010B	6/6/2016	6/8/2016	6/10/2016	6/13/2016

TABLE 2

Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALS	L1780437	CH14-104-MW008_GW0616	SW6020A	6/6/2016	6/8/2016	6/10/2016	6/20/2016
		E_104_16_001	E1631E	6/7/2016	6/8/2016	6/10/2016	6/10/2016
		E_104_16_001	Ferrozine	6/7/2016	6/8/2016	6/11/2016	6/11/2016
		E_104_16_001	JEM/SM4500N	6/7/2016	6/8/2016		6/21/2016
		E_104_16_001	SM2310_HP	6/7/2016	6/8/2016		6/16/2016
		E_104_16_001	SM2320B	6/7/2016	6/8/2016		6/18/2016
		E_104_16_001	SM2340B_CALC	6/7/2016	6/8/2016		6/20/2016
		E_104_16_001	SM2540C	6/7/2016	6/8/2016		6/13/2016
		E_104_16_001	SM2540D	6/7/2016	6/8/2016		6/10/2016
		E_104_16_001	SM4110B	6/7/2016	6/8/2016		6/9/2016
		E_104_16_001	SM4500P	6/7/2016	6/8/2016		6/14/2016
		E_104_16_001	SM5310	6/7/2016	6/8/2016		6/15/2016
		E_104_16_001	SW6010B	6/7/2016	6/8/2016		6/15/2016
		E_104_16_001	SW6010B	6/7/2016	6/8/2016	6/10/2016	6/13/2016
		E_104_16_001	SW6020A	6/7/2016	6/8/2016	6/10/2016	6/17/2016
		E_104_16_001	SW6020A	6/7/2016	6/8/2016	6/10/2016	6/20/2016
		E_104_16_001MS	E1631E	6/7/2016	6/10/2016	6/10/2016	6/10/2016
		E_104_16_001MS	JEM/SM4500N	6/7/2016	6/21/2016		6/21/2016
		E_104_16_001MS	SW6010B	6/7/2016	6/10/2016	6/10/2016	6/13/2016

TABLE 3

Overall Flagging Summary

Method	Matrix	Validation Reason	Qualifier*	Qualifier Type	Number of Affected Analytes
Ferrozine	WATER				
Category = FieldDuplicate		Field duplicate exceeds RPD criteria			
			UJ	Other	1
			J	Other	3
SM2320B	WATER				
Category = HoldingTime		Holding time exceeded			
			UJ	Protocol	4
SM2340B_CALC	WATER				
Category = FieldDuplicate		Field duplicate exceeds RPD criteria			
			J	Other	2
SM2540D	WATER				
Category = FieldDuplicate		Field duplicate exceeds RPD criteria			
			J	Other	6
Category = Matrix		Lab duplicate RPD criteria exceeded			
			J	Other	1
SM4110B	WATER				
Category = FieldDuplicate		Field duplicate exceeds RPD criteria			
			J	Other	2
Category = HoldingTime		Holding time exceeded			
			UJ	Protocol	36
			J	Protocol	24
SW6010B	WATER				
Category = FieldDuplicate		Field duplicate exceeds RPD criteria			
			J	Other	4
SW6020A	WATER				
Category = Blank		Equipment blank concentration greater than the RL			
			U	Protocol	7

TABLE 3

Overall Flagging Summary

Method	Matrix	Validation Reason	Qualifier*	Qualifier Type	Number of Affected Analytes
Category =	FieldDuplicate	Field duplicate exceeds RPD criteria			
			J	Other	10

* The most severe flag for each analyte becomes the final validation flag.

Qualifier Description:

J = Analyte was present but the reported value may not be accurate or precise.

U = This analyte was analyzed for but not detected at the specified detection limit.

UJ = The analyte was not detected above the detection limit objective. However, the reported detection limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

Qualifier Type:

Protocol = Flagging due to contractor/laboratory protocol violations.
Other = Flagging due to sample, matrix, or field issues not related to Quality Assurance Project Plan (QAPP) or Sampling and Analysis Plan (SAP) protocol.

TABLE 4

Field Duplicate Precision - Qualified Data

Method	Matrix	Sample ID	Analyte	Result	Field Duplicate Qualifier*	Criteria
Ferrozine	WATER		**Ferrous Iron, Dissolved**			
		CH12-014-MW011_GW021		0.188 mg/L	J	FD>RPD
		CH12-014-MW911_GW021		0.261 mg/L	J	FD>RPD
		NE2_SESP16		0.024 mg/L	J	FD>RPD
		NE902_SESP16		0.1 mg/L	UJ	FD>RPD
SM2340B_CALC	WATER		**Hardness**			
		SRK-FD55_SESP16		3240 mg/L	J	FD>RPD
		SRK-FD955_SESP16		2370 mg/L	J	FD>RPD
SM2540D	WATER		**Total Suspended Solids**			
		NE2_SESP16		17.4 mg/L	J	FD>RPD
		NE902_SESP16		2.6 mg/L	J	FD>RPD
		SRK-FD01_SESP16		9.6 mg/L	J	FD>RPD
		SRK-FD901_SESP16		40 mg/L	J	FD>RPD
SM4110B	WATER		**Sulfate**			
		SRK-VD05_SESP16		77800 mg/L	J	FD>RPD
		SRK-VD905_SESP16		56800 mg/L	J	FD>RPD
SW6010B	WATER		**Magnesium, dissolved**			
		SRK-FD55_SESP16		601 mg/L	J	FD>RPD
		SRK-FD955_SESP16		435 mg/L	J	FD>RPD
SW6010B	WATER		**Sulfur, dissolved**			
		SRK-FD55_SESP16		1070 mg/L	J	FD>RPD
		SRK-FD955_SESP16		773 mg/L	J	FD>RPD
SW6020A	WATER		**Aluminum, dissolved**			
		CH12-014-MW011_GW021		0.008 mg/L	J	FD>RPD
		CH12-014-MW911_GW021		0.0121 mg/L	J	FD>RPD
		SRK-FD55_SESP16		0.009 mg/L	J	FD>RPD
		SRK-FD955_SESP16		0.025 mg/L	J	FD>RPD
		SRK-VD02_SESP16		0.087 mg/L	J	FD>RPD
		SRK-VD902_SESP16		0.213 mg/L	J	FD>RPD
SW6020A	WATER		**Lead, dissolved**			
		NE2_SESP16		0.000476 mg/L	J	FD>RPD

TABLE 4

Field Duplicate Precision - Qualified Data

Method	Matrix	Sample ID	Analyte	Result	Field Duplicate Qualifier*	Criteria
		NE902_SESP16		0.00126 mg/L	J	FD>RPD
SW6020A	WATER		**Manganese, dissolved**			
		NE2_SESP16		0.0038 mg/L	J	FD>RPD
		NE902_SESP16		0.0089 mg/L	J	FD>RPD

* The most severe flag for each analyte becomes the final validation flag.

Qualifier Description:

J = Analyte was present but the reported value may not be accurate or precise.

UJ = The analyte was not detected above the detection limit objective. However, the reported detection limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

Criteria:

FD>RPD = Field duplicate exceeds RPD criteria

TABLE 5
Holding Times - Qualified Data

Method	Matrix	Sample ID	Analyte	Holding Time	Result	Holding Time Qualifier	Final Flag*
SM2320B	WATER	SRK-FD08_SESP16					
			Alkalinity, Bicarbonate	18 Days	1 mg/L	UJ	UJ
			Alkalinity, Carbonate	18 Days	1 mg/L	UJ	UJ
			Alkalinity, Hydroxide	18 Days	1 mg/L	UJ	UJ
			Alkalinity, Total	18 Days	1 mg/L	UJ	UJ
SM4110B	WATER	A30_SESP16					
			Nitrate-N	5 Days	0.207 mg/L	J	J
			Nitrite as N	5 Days	0.005 mg/L	UJ	UJ
SM4110B	WATER	CH12-014-MW003_GW0616					
			Nitrate-N	4 Days	0.239 mg/L	J	J
			Nitrite as N	4 Days	0.01 mg/L	UJ	UJ
SM4110B	WATER	CH-FD-56_SESP16					
			Nitrate-N	4 Days	0.99 mg/L	J	J
			Nitrite as N	4 Days	0.02 mg/L	UJ	UJ
SM4110B	WATER	CH-FD-70_SESP16					
			Nitrate-N	5 Days	4.55 mg/L	J	J
			Nitrite as N	5 Days	0.002 mg/L	UJ	UJ
SM4110B	WATER	CH-FD-75_SESP16					
			Nitrate-N	4 Days	0.0308 mg/L	J	J
			Nitrite as N	4 Days	0.001 mg/L	UJ	UJ
SM4110B	WATER	CH-FP-31_SESP16					
			Nitrate-N	5 Days	0.281 mg/L	J	J
			Nitrite as N	5 Days	0.001 mg/L	UJ	UJ
SM4110B	WATER	CH-FP-33_SESP16					
			Nitrate-N	5 Days	0.0381 mg/L	J	J
			Nitrite as N	5 Days	0.001 mg/L	UJ	UJ
SM4110B	WATER	CH-FP-34_SESP16					

TABLE 5
Holding Times - Qualified Data

Method	Matrix	Sample ID	Analyte	Holding Time	Result	Holding Time Qualifier	Final Flag*
SM4110B	WATER	CH-FP-34_SESP16					
			Nitrate-N	5 Days	0.131 mg/L	J	J
			Nitrite as N	5 Days	0.001 mg/L	UJ	UJ
SM4110B	WATER	CH-FP-35_SESP16					
			Nitrate-N	4 Days	0.193 mg/L	J	J
			Nitrite as N	4 Days	0.001 mg/L	UJ	UJ
SM4110B	WATER	CH-FP-36_SESP16					
			Nitrate-N	5 Days	0.328 mg/L	J	J
			Nitrite as N	5 Days	0.002 mg/L	UJ	UJ
SM4110B	WATER	CH-GP-19_SESP16					
			Nitrate-N	4 Days	0.034 mg/L	J	J
			Nitrite as N	4 Days	0.0041 mg/L	J	J
SM4110B	WATER	FCS-2_SESP16					
			Nitrate-N	5 Days	0.23 mg/L	J	J
			Nitrite as N	5 Days	0.02 mg/L	UJ	UJ
SM4110B	WATER	FCS-4_SESP16					
			Nitrate-N	5 Days	0.18 mg/L	J	J
			Nitrite as N	5 Days	0.02 mg/L	UJ	UJ
SM4110B	WATER	FCS-902_SESP16					
			Nitrate-N	5 Days	0.25 mg/L	J	J
			Nitrite as N	5 Days	0.02 mg/L	UJ	UJ
SM4110B	WATER	NE1_SESP16					
			Nitrate-N	4 Days	0.005 mg/L	UJ	UJ
			Nitrite as N	4 Days	0.001 mg/L	UJ	UJ
SM4110B	WATER	NE2_SESP16					
			Nitrate-N	4 Days	9.54 mg/L	J	J
			Nitrite as N	4 Days	0.005 mg/L	UJ	UJ

TABLE 5
Holding Times - Qualified Data

Method	Matrix	Sample ID	Analyte	Holding Time	Result	Holding Time Qualifier	Final Flag*
SM4110B	WATER	NE902_SESP16					
			Nitrate-N	4 Days	9.37 mg/L	J	J
			Nitrite as N	4 Days	0.0063 mg/L	J	J
SM4110B	WATER	SRK-FD05_SESP16					
			Nitrate-N	4 Days	12.5 mg/L	J	J
			Nitrite as N	4 Days	0.005 mg/L	UJ	UJ
SM4110B	WATER	SRK-FD06_SESP16					
			Nitrate-N	4 Days	10.1 mg/L	J	J
			Nitrite as N	4 Days	0.005 mg/L	UJ	UJ
SM4110B	WATER	SRK-FD08_SESP16					
			Nitrate-N	4 Days	0.01 mg/L	UJ	UJ
			Nitrite as N	4 Days	0.002 mg/L	UJ	UJ
SM4110B	WATER	SRK-FD13_SESP16					
			Nitrate-N	5 Days	0.5 mg/L	UJ	UJ
			Nitrite as N	5 Days	0.1 mg/L	UJ	UJ
SM4110B	WATER	SRK-FD14_SESP16					
			Nitrate-N	5 Days	0.13 mg/L	J	J
			Nitrite as N	5 Days	0.02 mg/L	UJ	UJ
SM4110B	WATER	SRK-FD18_SESP16					
			Nitrate-N	4 Days	0.0815 mg/L	J	J
			Nitrite as N	4 Days	0.001 mg/L	UJ	UJ
SM4110B	WATER	SRK-FD23_SESP16					
			Nitrate-N	5 Days	0.025 mg/L	UJ	UJ
			Nitrite as N	5 Days	0.005 mg/L	UJ	UJ
SM4110B	WATER	SRK-FD24_SESP16					
			Nitrate-N	5 Days	0.025 mg/L	UJ	UJ
			Nitrite as N	5 Days	0.005 mg/L	UJ	UJ

TABLE 5
Holding Times - Qualified Data

Method	Matrix	Sample ID	Analyte	Holding Time	Result	Holding Time Qualifier	Final Flag*
SM4110B	WATER	SRK-FD26_SESP16					
			Nitrate-N	5 Days	5.12 mg/L	J	J
			Nitrite as N	5 Days	0.002 mg/L	UJ	UJ
SM4110B	WATER	SRK-FD54_SESP16					
			Nitrate-N	4 Days	0.25 mg/L	UJ	UJ
			Nitrite as N	4 Days	0.05 mg/L	UJ	UJ
SM4110B	WATER	SRK-FD55_SESP16					
			Nitrate-N	4 Days	0.1 mg/L	UJ	UJ
			Nitrite as N	4 Days	0.02 mg/L	UJ	UJ
SM4110B	WATER	SRK-FD955_SESP16					
			Nitrate-N	4 Days	0.1 mg/L	UJ	UJ
			Nitrite as N	4 Days	0.02 mg/L	UJ	UJ
SM4110B	WATER	SRK-GD01_SESP16					
			Nitrate-N	4 Days	8.6 mg/L	J	J
			Nitrite as N	4 Days	0.02 mg/L	UJ	UJ

* The most severe flag for each analyte becomes the final validation flag.

Qualifier Description:

J = Analyte was present but the reported value may not be accurate or precise.

UJ = The analyte was not detected above the detection limit objective. However, the reported detection limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

Criteria:

HTa>UCL = Holding time exceeded

TABLE 6

Laboratory Duplicate Precision - Qualified Data

Method	Matrix	Sample ID	Analyte	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SM2540D	WATER		**Total Suspended Solids**				
		CH14-104-MW008_GW061		69.2 mg/L	J	Difference > RL X 2: 60 vs 4	LabDupRPD

* The most severe flag for each analyte becomes the final validation flag.

Qualifier Description:

J = Analyte was present but the reported value may not be accurate or precise.

Criteria:

LabDupRPD = Lab duplicate RPD criteria exceeded

TABLE 7

Blank Contamination - Qualified Data

Method	Matrix	Analyte / Sample ID	Result	Blank Contamination Qualifier*	Criteria	Comments
SW6020A	WATER	**Aluminum, dissolved**				
		CH12-014-MW003_GW0616	0.0114 mg/L	U	EB>RL	blank target = 0.0039mg/L
		CH12-014-MW011_GW0616	0.0036 mg/L	U	EB>RL	blank target = 0.0014mg/L
		CH12-014-MW012_GW0616	0.0112 mg/L	U	EB>RL	blank target = 0.0039mg/L
		CH12-014-MW013_GW0616	0.0061 mg/L	U	EB>RL	blank target = 0.0014mg/L
		CH12-014-MW913_GW0616	0.0065 mg/L	U	EB>RL	blank target = 0.0014mg/L
SW6020A	WATER	**Lead, dissolved**				
		CH12-014-MW003_GW0616	0.00042 mg/L	U	EB>RL	blank target = 0.000515mg/L
		CH12-014-MW012_GW0616	0.00023 mg/L	U	EB>RL	blank target = 0.000515mg/L

Blank target = concentration of field or laboratory blank.

* The most severe flag for each analyte becomes the final validation flag.

Qualifier Description:

U = This analyte was analyzed for but not detected at the specified detection limit.

Criteria:

EB>RL = Equipment blank concentration greater than the RL

TABLE 8

Site Completeness by Analyte - Qualified Data

Method	Analyte	Units	Number of Occurrences						Completeness (%)	
			Analyses	Detects	Non-detects	Blank Flags	J-Flags	Contractor Total R-Flags	Contractor	Overall
ASTM D7237	Free Cyanide	MG/L	7		7				100	100
CH1987LIME	Lime Demand	LB/1000USG	5	5					100	100
CH1987LIME	Solids Formed	LB/1000USG	5	5					100	100
CSSS/APHA 4500H	pH	PH	7	7					100	100
E1631E	Mercury, dissolved	MG/L	88	37	51				100	100
E245.7	Mercury	MG/L	5		5				100	100
Ferrozine	Ferrous Iron, Dissolved	MG/L	88	68	20		4		100	100
JEM/SM4500N	Ammonia-N	MG/L	87	60	27				100	100
SM2310_HP	Acidity, hot peroxide	MG/L	83	36	47				100	100
SM2320B	Alkalinity, Bicarbonate	MG/L	75	63	12		1		100	100
SM2320B	Alkalinity, Carbonate	MG/L	75	1	74		1		100	100
SM2320B	Alkalinity, Hydroxide	MG/L	75		75		1		100	100
SM2320B	Alkalinity, Total	MG/L	75	63	12		1		100	100
SM2340B_CALC	Hardness	MG/L	88	88			2		100	100
SM2540C	Total Dissolved Solids	MG/L	88	88					100	100
SM2540D	Total Suspended Solids	MG/L	88	85	3		5		100	100
SM4110B	Chloride	MG/L	88	14	74				100	100
SM4110B	Fluoride	MG/L	88	64	24				100	100
SM4110B	Nitrate-N	MG/L	88	55	33		30		100	100
SM4110B	Nitrite as N	MG/L	88	13	75		30		100	100
SM4110B	Sulfate	MG/L	88	88			2		100	100
SM4500P	Phosphorus	MG/L	87	16	71				100	100
SM5310	Dissolved Organic Carbon	MG/L	87	87					100	100
SW6010B	Aluminum	MG/L	5	3	2				100	100
SW6010B	Antimony	MG/L	5		5				100	100
SW6010B	Arsenic	MG/L	5		5				100	100
SW6010B	Barium	MG/L	5	5					100	100
SW6010B	Beryllium	MG/L	5		5				100	100
SW6010B	Boron	MG/L	5		5				100	100
SW6010B	Cadmium	MG/L	5	5					100	100

TABLE 8

Site Completeness by Analyte - Qualified Data

Method	Analyte	Units	Number of Occurrences							Contractor Completeness (%)	Overall Completeness (%)
			Analyses	Detects	Non-detects	Blank Flags	J-Flags	Contractor R-Flags	Total R-Flags		
SW6010B	Calcium	MG/L	5	5						100	100
SW6010B	Calcium, dissolved	MG/L	88	88						100	100
SW6010B	Chromium	MG/L	5	1	4					100	100
SW6010B	Cobalt	MG/L	5	5						100	100
SW6010B	Copper	MG/L	5		5					100	100
SW6010B	Iron	MG/L	5	5						100	100
SW6010B	Iron, dissolved	MG/L	88	60	28					100	100
SW6010B	Lead	MG/L	5	3	2					100	100
SW6010B	Lithium	MG/L	5	5						100	100
SW6010B	Magnesium	MG/L	5	5						100	100
SW6010B	Magnesium, dissolved	MG/L	88	88			2			100	100
SW6010B	Manganese	MG/L	5	5						100	100
SW6010B	Molybdenum	MG/L	5		5					100	100
SW6010B	Nickel	MG/L	5	5						100	100
SW6010B	Phosphorus	MG/L	5		5					100	100
SW6010B	Phosphorus, dissolved	MG/L	88	2	86					100	100
SW6010B	Potassium	MG/L	5	5						100	100
SW6010B	Selenium	MG/L	5		5					100	100
SW6010B	Silica	MG/L	5	5						100	100
SW6010B	Silica, dissolved	MG/L	88	88						100	100
SW6010B	Silicon	MG/L	5	5						100	100
SW6010B	Silicon, dissolved	MG/L	88	88						100	100
SW6010B	Silver	MG/L	5		5					100	100
SW6010B	Sodium	MG/L	5	5						100	100
SW6010B	Strontium	MG/L	5	5						100	100
SW6010B	Sulfur	MG/L	5	5						100	100
SW6010B	Sulfur, dissolved	MG/L	88	88			2			100	100
SW6010B	Thallium	MG/L	5	5						100	100
SW6010B	Titanium	MG/L	5		5					100	100
SW6010B	Uranium	MG/L	5	5						100	100

TABLE 8

Site Completeness by Analyte - Qualified Data

Method	Analyte	Units	Number of Occurrences						Completeness (%)	
			Analyses	Detects	Non-detects	Blank Flags	J-Flags	Contractor Total R-Flags	Contractor	Overall
SW6010B	Vanadium	MG/L	5		5				100	100
SW6010B	Zinc	MG/L	5	5					100	100
SW6020A	Aluminum, dissolved	MG/L	88	77	11		6		100	100
SW6020A	Antimony, dissolved	MG/L	88	15	73				100	100
SW6020A	Arsenic, dissolved	MG/L	88	57	31				100	100
SW6020A	Barium, dissolved	MG/L	88	83	5				100	100
SW6020A	Beryllium, dissolved	MG/L	88	11	77				100	100
SW6020A	Boron, dissolved	MG/L	88		88				100	100
SW6020A	Cadmium, dissolved	MG/L	88	85	3				100	100
SW6020A	Chromium, dissolved	MG/L	88	22	66				100	100
SW6020A	Cobalt, dissolved	MG/L	88	77	11				100	100
SW6020A	Copper, dissolved	MG/L	88	67	21				100	100
SW6020A	Lead, dissolved	MG/L	88	75	13		2		100	100
SW6020A	Lithium, dissolved	MG/L	88	83	5				100	100
SW6020A	Manganese, dissolved	MG/L	88	88			2		100	100
SW6020A	Molybdenum, dissolved	MG/L	88	40	48				100	100
SW6020A	Nickel, dissolved	MG/L	88	85	3				100	100
SW6020A	Potassium, dissolved	MG/L	88	80	8				100	100
SW6020A	Selenium, dissolved	MG/L	88	36	52				100	100
SW6020A	Silver, dissolved	MG/L	88	4	84				100	100
SW6020A	Sodium, dissolved	MG/L	88	79	9				100	100
SW6020A	Strontium, dissolved	MG/L	88	87	1				100	100
SW6020A	Thallium, dissolved	MG/L	88	57	31				100	100
SW6020A	Titanium, dissolved	MG/L	88	4	84				100	100
SW6020A	Uranium, dissolved	MG/L	88	88					100	100
SW6020A	Vanadium, dissolved	MG/L	88	1	87				100	100
SW6020A	Zinc, dissolved	MG/L	88	85	3				100	100