

MPERG Report 2010-2

Arsenic, Chromium and Selenium Speciation in Selwyn Basin, Yukon

By

EBA Engineering Consultants Ltd.

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Mailing Address:

Box 2703 (K-102), Whitehorse, Yukon Y1A 2C6

Phone: (867) 667-3201

Fax: (867) 667-3198

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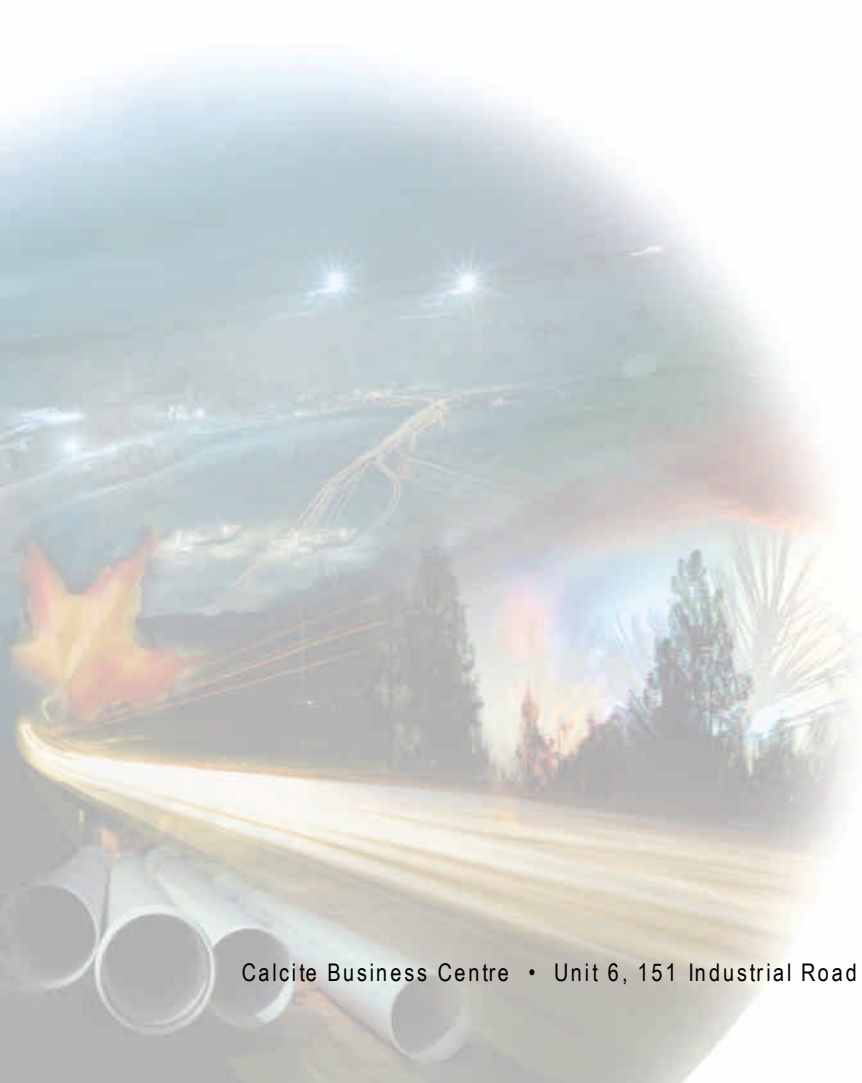
MINING AND PETROLEUM ENVIRONMENTAL RESEARCH GROUP (MPERG)

ISSUED FOR USE

**ARSENIC, CHROMIUM AND SELENIUM
SPECIATION IN
SELWYN BASIN, YUKON**

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EBA Engineering Consultants Ltd.
p. 867.668.3068 • f. 867.668.4349

Calcite Business Centre • Unit 6, 151 Industrial Road • Whitehorse, Yukon Y1A 2V3 • CANADA



EXECUTIVE SUMMARY

At present, little metal speciation information exists for most parts of the Yukon. The current database of knowledge is largely based on research from southern stream environments which tend to be warmer than Yukon streams. This presents a challenge for regulators and practitioners interpreting data from northern systems using guidance that is developed and defined by southern baseline data and effects. This study was designed using a preliminary approach to assist in filling the current information gap.

The Selwyn Basin in the Yukon has natural elevated concentrations of metals including arsenic, mercury and selenium (EDI 2008, Gartner Lee 2007). Water quality studies that have been conducted within the Selwyn Basin have not considered the importance of metal speciation and changes in mobility and exposure to aquatic organisms inhabiting lotic watercourses likely impacted by both naturally elevated and anthropogenic (mining related) metal input sources. The objective of this project was to increase the understanding of metal speciation in relation to surface water and sediment metal concentrations within the Selwyn Basin at six discrete lotic watercourse sites over two seasons.

The intent of this study was to provide further guidance regarding metal trends and speciation to Yukon regulators, who maintain the current metal loading regulations and provide project approval or permitting for projects that could potentially increase environmental metals loadings to lotic aquatic systems.

The study involved discrete sampling conducted in July and September. An evaluation of the analytical results showed that trends in surface water metal elemental concentrations were inconsistent when compared between metals as well as between sites and seasons. Most of the stations showed increased concentrations during the fall sampling event which is deemed to be a result of lower streamflows and less dilution.

The sediment metals concentrations are a function of local metal loadings to the receiving environment. The sediment arsenic concentrations appear to follow the water column concentrations with sites with lowest recorded total arsenic having the lowest sediment arsenic concentrations. The concentration of chromium in sediments did not show the same trend between water column concentrations and those reported for the sediments. Selenium concentrations in sediments at the six sites were all below the method detection limit of 5 µg/g, albeit the detection limit is recognized as being higher than requested. Ideally for selenium the detection limit should be 0.8µg/g. These results suggest that arsenic water column concentrations may be an indicator of elevated sediment concentrations while chromium and selenium water column concentrations do not appear to be related to sediment concentrations.

The speciated As concentrations in surface water in the present study are much lower than any current toxicity reference value TRV. The speciated Cr concentrations of the present study are also much lower than any current TRV. The Se TRVs do not deal with potential effects due to speciation, as currently no risk assessment reference benchmarks exist for speciated selenium. For comparison purposes, if the Se(IV) and Se(VI) concentrations were combined to represent total Se

concentrations then the concentrations in this study would be within close range of causing significant adverse effects in aquatic invertebrates and larval fish species.

Based upon a comparison with sediment benchmarks, As is potentially a significant concern for all study sites, demonstrating the potential for significant adverse effects within the benthic aquatic community exceeding the EC_{20} level. With regards to Cr, one site had sediments exceeding the CCME ISQG, demonstrating minimal potential for adverse effects to the benthic aquatic community exposed to sediments with the current Cr concentrations. Risk assessment reference benchmarks for selenium concentrations in sediments are absent from the literature at present. This highlights the current lack of ground-truthed scientific knowledge surrounding selenium exposure within aquatic sediments and ecosystems.

Ultimately once metals such as arsenic, chromium, and selenium are confirmed chemicals of concern within an aquatic ecosystem, the complexity of biotic and abiotic parameters within that system must be fully understood prior to selecting the most relevant receptors and exposure pathways to represent the overall health and diversity of the ecosystem. Once the most relevant receptors and exposure pathways are identified, metal speciation is likely to provide the most useful information and application.

The study results suggest that metal speciation at present is not necessarily useful as a regulatory consideration in undisturbed stream environments, based on current analytical limitations with instrument detection limit capabilities for Canadian laboratories. Lower detection limits can be achieved but there are, at present, only a few laboratories that are able to conduct this type of analysis, which results in a much higher sample analytical cost.

Sampling for speciation during periods of lower flow may provide the best chance of successfully delineating the different species of these contaminants due to lower dilution factors. Speciation may be of more use in evaluating potential impacts from contaminants of concern in streams that are subject to active mining and have higher metal concentrations.

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1.0 INTRODUCTION

At present, little metal speciation information exists for most parts of the Yukon. The current database of knowledge is largely based on research from southern stream environments which tend to be warmer than Yukon streams. This presents a challenge for regulators and practitioners interpreting data from northern systems using guidance that is developed and defined by southern baseline data and effects. This study was designed using a preliminary scope to assist in filling the current information gap.

The intent of this study was to provide further guidance regarding metal trends and speciation to Yukon regulators, who maintain the current metal loading regulations and provide project approval or permitting for projects that could potentially increase environment metals loadings to lotic aquatic systems.

2.0 BACKGROUND AND PROJECT OBJECTIVES

Chemical elements such as metals are mobilized by physical, chemical and biological vectors. Metals are transported in solution as cations, anions and ionic complexes, or incorporate into solid inorganic phases largely via adsorption (Siegel 2002). Through these transport mechanisms, metals can be mobilized to and within an environment in concentrations significantly higher than natural levels. When this scenario is met, metals can significantly alter the diversity, form or function of an ecosystem foodweb.

Aquatic organisms are known to accumulate and retain certain metals when exposed through water and dietary sources. The magnitude of accumulation can vary widely depending on the metal, its speciation, and the abiotic components within the ecosystem it resides. Metals exist both as free metal ions and in various combined chemical forms. Biological availability of a trace metal as either a required nutrient or a toxicant is dependent on chemical form and speciation (Allen 1980). Metal speciation is the identification and quantification of a metal's chemical forms e.g. arsenite (As(III)) versus arsenate (As(V)), selenite (Se(III)) versus selenate Se(V)), etc. In order to assess the biological availability of a metal to aquatic organisms, the speciation of that metal is required, especially for metals where toxicity varies depending upon the speciation form.

The Selwyn Basin in the Yukon has natural elevated concentrations of metals including arsenic, mercury and selenium (EDI 2008, Gartner Lee 2007). Water quality studies that have been conducted within the Selwyn Basin have not considered the importance of metal speciation and changes in mobility and exposure to aquatic organisms inhabiting lotic watercourses likely impacted by both naturally elevated and anthropogenic (mining related) metal input sources. The objective of this project is to increase the understanding of metal speciation in relation to surface water and sediment metal concentrations within the Selwyn Basin at six discrete lotic watercourse sites over two seasons.

2.1 CONTAMINANTS OF CONCERN - RATIONALE

2.1.1 Arsenic

Arsenic, and/or its metabolites, is a chemical that bioaccumulates in tissues of aquatic organisms but does not biomagnify in the aquatic food chain. Much uncertainty in the mechanisms and bioaccumulation potential of the various forms of arsenic in the environment still exists despite the recent attention focused on arsenic uptake and accumulation in aquatic organisms. Knowledge about the uptake and methylation of arsenic by aquatic biota is important for estimating risk because it is becoming increasingly evident that methylation of arsenic is critical in controlling its biological fate and effects. Inorganic arsenic has previously been implicated as the primary toxic form to both aquatic life and humans (USEPA 1985). More recent research indicates that when compared to arsenite, trivalent methylated arsenic metabolites exert a number of unique biological effects, are more cytotoxic and genotoxic, and are more potent inhibitors of the activities of some enzymes (USEPA 1985). Because such arsenic species exhibit different toxicities, it may be important to take into account the fraction of total arsenic present in the inorganic and organic forms when estimating potential risk to receptors.

The environmental behaviour of arsenic is dependent on the physical and chemical properties, toxicity, mobility, and biotransformation of individual arsenic compounds. Arsenic can occur in the environment in several oxidation states (0,+3, and +5), but in natural waters is mostly found in inorganic form as oxyanions of trivalent arsenic [As(III)] or pentavalent arsenate [As(V)]. Naturally occurring organo-arsenic compounds are described as having either As(III) or As(V) oxidation numbers. The range of arsenic species is more restricted when the pH domain of natural water is considered. Freshwater systems rarely exceed a pH range of 5-9, thus As(V) should dominate over As(III) in oxygenated waters (USEPA 1985). Currently more field studies are needed regarding the biogeochemical cycling of arsenic in aquatic environments and the biological fate and disposition of arsenic in freshwater organisms.

2.1.2 Chromium

In sediment and aquatic environments, chromium exists in two oxidation states, Cr(III) and Cr(VI), each with very different geochemical and toxicological effects. Chromium(VI) is highly oxidized and unstable in reducing and even moderately oxidizing environments (DeLaune et al., 1998; Masscheleyn et al., 1992). Chromium(VI) is also very soluble and highly toxic, whereas Cr(III) has a very low solubility at environmentally relevant pH and is generally thought to have relatively low toxicity (Wang et al., 1997; Thompson et al., 2002). Plants and animals do not bioaccumulate chromium; therefore, the potential impact of high chromium levels in the environment is acute toxicity to plants and animals. In animals and humans this toxicity may be expressed as skin lesions or rashes and kidney and liver damage. Chromium is known to easily speciate, depending on the abiotic conditions present within an ecosystem (Maples and Bain, 2003).

Trivalent chromium is a dietary requirement for a number of organisms, whereas hexavalent chromium is very toxic to flora and fauna. Chromium (III) oxides are only slightly water soluble, therefore concentrations in natural waters are limited. Cr^{3+} ions are rarely present at pH values over 5, because hydrated chromium oxide ($\text{Cr}(\text{OH})_3$) is hardly water soluble. Chromium (VI) compounds are stable under aerobic conditions, but are reduced to chromium (III) compounds under anaerobic conditions. Chromium remains one of the few metals whose mechanism of action is not well understood. Trivalent chromium is an essential trace element that has not been studied as a toxicant because of its lower bioavailability compared to hexavalent chromium. It is thought that trivalent chromium compounds are approximately 1000-times less toxic than hexavalent chromium compounds, primarily because hexavalent chromium can cross biological membranes more readily than trivalent chromium (Maples and Bain 2003).

2.1.3 Selenium

Selenium is an essential element for animal nutrition. A key aspect of the toxicity of Se is the extremely narrow range between dietary essentiality and toxicity. Selenium may occur in a variety of chemical forms, but certain organic Se species are primarily linked with efficient bioaccumulation, food web transfer, and toxicity.

Selenium has a mode of toxicity similar to mercury – acute toxicity in aquatic environments occurs mainly via water column exposure (e.g., via the gills or other respiratory structures), whereas chronic toxicity occurs via dietary uptake (Chapman et al., 2009a). In aquatic environments, excess Se can affect the reproduction of fish, waterbirds, and possibly amphibians that feed in water bodies containing elevated Se concentrations (Chapman 1999; Ohlendorf 2003). Diet is the dominant pathway of Se exposure for both invertebrates and vertebrates.

Selenium moves from water to particulates, being readily available and concentrating in primary producers, detritus, and sediments, which form the base of aquatic food webs. Similar to other toxicants, many factors can modify the toxicological responses of organisms to Se. Among taxa, there is a wide range of sensitivities to Se. In aquatic ecosystems, inorganic Se is rapidly and efficiently assimilated by primary producers (bacteria, fungi, algae, and plants) and transformed into organic Se species. These organic Se species are transferred throughout the food web via the diet to primary and secondary consumers (invertebrates and vertebrates). Algae and plants are believed to be the least sensitive organisms. Very few studies have investigated the sensitivity of bacteria to Se, although they appear to be insensitive. Protozoans have also been understudied, and further investigation of Se toxicity in relation to this taxon is needed.

Oviparous (egg-laying) vertebrates such as fish and waterbirds are the most sensitive organisms to Se of those studied to date. Toxicity can result from maternal transfer of organic Se to eggs in oviparous vertebrates. Eggs are an important depuration pathway for fish but less so for birds. The most sensitive diagnostic indicators of Se toxicity in vertebrates occur when developing embryos metabolize organic Se that is present in egg

albumen or yolk. Toxicity endpoints include embryo mortality (which is the most sensitive endpoint in birds), and a characteristic suite of teratogenic deformities (such as skeletal, craniofacial, and fin deformities, and various forms of edema) that are the most useful indicators of Se toxicity in fish larvae. Importantly, embryo mortality and severe malformations can result in impaired recruitment of individuals into populations, and have caused population reductions of sensitive fish and bird species.

Although it is now recognized that the most important step in Se becoming bioavailable is the initial uptake of waterborne Se into small organisms at the base of the food web, our ability to precisely predict when, where, and how much bioaccumulation will occur is limited.

2.2 PATHWAYS OF CONCERN

The current dataset constitutes a snapshot of limited seasonal and temporal data with which trends can be inferred amongst the six sites of this study. Replicates were not collected within each site, providing a limited statistical significance to the study. When available, arsenic, chromium and selenium screening level risk-based toxicological benchmarks for sediment and surface water were compared to the data obtained in this study. These benchmarks provide a more realistic range of effects observed within aquatic organisms exposed to water- and sediment-borne metals compared with regulatory benchmarks.

2.2.1 Surface Water

As, Cr and Se are present in surface water in both total and dissolved forms. The total form is often associated with suspended sediments while the dissolved form is often related to metal leaching of these contaminants from rock and soils making it independent of sediment loadings. Metals transported via surface water provide for increased chemical mobility, potentially increasing metal exposure to aquatic receptors dwelling, drinking, or feeding within the surface water body.

2.2.2 Sediment

As, Cr and Se can often settle out of the water column or adsorb onto sediment particles. This can result in an increased chemical concentration over time within the sediment. Considering that sediment provides high quality habitat for many species occupying low trophic levels of a food chain, impacts at low trophic levels often cascade and impact higher level species. Sediment with elevated metal concentrations therefore acts as a source of potential exposure to aquatic organisms inhabiting, ingesting, or foraging within this matrix. In addition, sedimentation with the formation of an oxygen-limiting fine-grained sediment layer can result in a switch from oxygenated to reducing conditions which will affect the type of each chemical that is present in the sediments.

2.3 RESEARCH SITES

Six sites were selected for this research following a review of historical water quality data at various sites within the Selwyn basin. Sites where this data indicated high concentrations of As, Cr and/or Se in conjunction with metals analyses in other media (sediment, benthic organisms or fish) were preferred. The selected site's numbers, common names, and sites are included in Table 1.

| EBA Site | Water Body | Map | E | N | Zone |
|-----------------|-----------------------------------|------------|----------|----------|-------------|
| Site 01 | Dromedary Creek | 105 L15 | 531109 | 6966282 | 8 |
| Site 02 | Earn River Outlet | 105 L15 | 528009 | 6960693 | 8 |
| Site 03 | Tom Creek | 105 O01 | 441463 | 7003964 | 9 |
| Site 04 | Sekie Creek | 105 O01 | 441765 | 7003914 | 9 |
| Site 05 | Hess River Tributary, Tributary C | 105 O08 | 437079 | 7017940 | 9 |
| Site 06 | Hess River Tributary, Tributary A | 105 O08 | 433977 | 7020369 | 9 |

A description of the data reviewed by EBA is included in the following sections.

2.3.1 Earn River Research Sites

Sites 01 (Dromedary Creek) and 02 (Earn River Outlet) were studied in an MPERG report prepared by Laberge Environmental in 2005 and entitled "Baseline Studies on Selenium Cycling in the Earn Lake Environment". In that report, Site 01 is referred to as E5 and Site 02 as E4. Data from Laberge on these sites include water quality, sediments, vegetation and invertebrates. Field work was completed in June 2004. Field parameters including temperature, pH, conductivity, salinity, depth, and dissolved oxygen were noted during sampling events. Sediment samples were analyzed for a suite of metals, total organic carbon and sequential metal leach analysis (ICPMS organic Se process) to determine the organic selenium content. Benthic invertebrates were identified and analyzed for metals content.

The June 2004, water quality results from these sites show total Se concentrations of 0.0012 and 0.0056 mg/L, and dissolved Se concentrations of 0.0011 and 0.0054 mg/L for Site 01 and Site 02 respectively. These concentrations exceed the CCME Guideline for the Protection of Aquatic Life (1.0 µg/L, or 0.001 mg/L).

Sediment analytical results indicated that As concentrations exceeded the Interim Freshwater Sediment Quality Guidelines and Probable Effect Level at Site 01 (22.3 µg/g) and not at Site 02 (5.9 µg/g).

2.3.2 Tom Property Research Sites

Sites 03 (Tom Creek) and 04 (Sekie Creek) were studied in a report entitled "Project Proposal for Installation of an Adit plug and Associated Workings at the Tom Valley Property", prepared by Gartner Lee in 2008. Included in the report is a summary of water

quality results since 2000 at W2 and W3 (Sites 03 and 04 respectively). The analysis of sediments was not included in the Gartner Lee study design.

The report indicates that several parameters typically exceed the CCME Guidelines for the Protection of Aquatic Life. The following are medians for some of these parameters at sites 03 and 04, respectively:

- pH – 3.28 and 3.40;
- Total Arsenic – 0.0081 and 0.0011 mg/L;
- Total Chromium – 0.039 and 0.0195 mg/L; and
- Total Selenium – 0.0030 and 0.0026 mg/L.

These stations are likely affected by acid rock drainage and metal leaching. Metals tended to be at their highest during the fall and their lowest during freshet.

2.3.3 Mactung Property Research Sites

Water quality and fish were studied at Sites 05 (Mactung Property Hess River Tributary, Tributary C) and 06 (Mactung Property Hess River Tributary, Tributary A) and data from these were summarized in Environmental Baseline Studies submitted in support of the proposed Mactung Mine (EBA 2007).

The water quality results for these sites showed Cr and Se typically exceed the CCME Guidelines for the Protection of Aquatic Life. The following are medians for some of these parameters at sites 05 and 06 respectively:

- Total Chromium – 0.0004 and 0.0001 mg/L; and
- Total Selenium – 0.0029 and 0.0022 mg/L.

Metals tended to be at their highest in September and their lowest in July.

At Site 05, approximately 210 m of the channel were electrofished for a total of 514 seconds of effort, with no fish being observed or captured. Although habitat features at Site 05 appeared quite suitable, the presence of downstream barriers to fish passage barriers (seasonally, at least) were assumed to limit usage at this site.

The channel at Site 06 appeared to contain considerable iron precipitate. Additionally, a white substance was noted along the stream margins throughout this site. This substance appeared to be an algal growth, although this was not confirmed.

Physical habitat features at Site 06 appeared to be generally suitable to support fish and aquatic life, yet no fish were observed or captured despite 280 m of the channel being electrofished for a total of 787 seconds

3.0 METHODS

Surface water, sediment, and benthic invertebrate samples were collected from six watercourses in the Selwyn Basin. Sampling occurred on two separate occasions, the first being in July and the second being in September of 2009.

3.1.1 Surface Water Sampling

In July and September, at each station, EBA collected one water quality sample (see Figure 1 for sites of surface water samples). Gloves were worn during each sampling event to minimize contamination. Filtering and preservation were done in the field. Sample bottles for all analysis except those that were filtered (dissolved metals) were rinsed with sampling water prior to sampling. Surface water samples were collected by submerging the sampling bottle half way between the water surface and the bottom of the creek bed, with the mouth of the bottle facing upstream. Care was taken to avoid stirring up sediment from the stream bottom by the sampler's feet or the sample bottle.

Field staff collected samples for dissolved metals, total metals, nutrients and routine water chemistry as per Table 2.

| TABLE 2. SAMPLE COLLECTION REQUIREMENTS | | | |
|---|----------------|------------------------------|--------------|
| Analysis | Container | Preservation | Holding time |
| Dissolved metals | 500 ml Plastic | Filter, 5 ml 20% Nitric Acid | 6 Months |
| Total metals | 500 ml Plastic | 5 ml 20% Nitric Acid | 6 Months |
| Nutrients | 250 ml Plastic | 2 ml 25% Sulphuric Acid | 28 Days |
| Routine water chemistry | 500 ml Plastic | - | 28 Days |

Samples were packed in coolers with ice and shipped to the CanTest Laboratory in Burnaby B.C for liquid chromatography analysis to obtain a complete metal speciation analysis. Samples were also sent to the Pacific and Yukon Laboratory for Environmental Testing in North Vancouver, B.C. for total organic carbon in sediments and total and dissolved metals for surface water and sediment samples using Inductivity Coupled Plasma (ICP) and ICP with mass spectrometry (ICP-MS) instruments.

3.1.2 Field Sampling Parameters

In addition to the collection of surface water quality samples, the following field measurements and observations were noted, to further characterize water chemistry:

- a) pH
- b) Conductivity
- c) Water temperature
- d) Dissolved oxygen
- e) Turbidity

3.1.3 Sediment Sampling

For the second sampling (September) event, EBA collected three samples (and three replicates) from three separate depositional areas in and around the sites within the active channel of each watercourse for each site. Samples were taken from an area where the sediment had been deposited and not from bank material. There was insufficient material collected to accommodate grain-size analysis being conducted on the samples.

Each sample was collected using an aluminum trowel, with the sampler wearing latex gloves. Samples were placed into labelled 125 mL glass jars and kept refrigerated, then placed on ice in coolers for transportation under a chain of custody to Maxaam Analytics Ltd. in Burnaby (BC) for metal analysis. Due to low sample volume, the bulk sediment sample was analyzed.

Grain size analysis was not completed for these samples.

3.1.4 Benthic Invertebrate Sampling

Benthic sampling was conducted at all sites using a Hess substrate invertebrate sampler with an area of 0.086 m² and 363 µm mesh size. The sampler was inserted into the substrate to a depth of ~ 10 cm, and the substrate was washed for 5 minutes. Contents were preserved on site in 80% ethanol solution for taxonomic analysis.

Benthic invertebrate metal concentrations were not assessed by the lab. The containers with the samples were inadvertently lost at the lab (mistakenly thrown-out due to perceived low sample volume). Therefore the results of benthic invertebrate composition and diversity will not be presented in this report.

4.0 RESULTS

4.1 PHYSICAL CHARACTERISTICS OF EACH STREAM SYSTEM

Table 3 contains a brief description of the physical characteristics noted and measured during the field investigation. Of importance to the results of this study are the observations that high quality fish habitat was potentially present at Sites 01 and 02 and low quality fish habitat at Sites 03, 04, 05, and 06. Invertebrate diversity appeared to be highest at Site 01 and extremely low or non-existent at the remaining five sites. The low water pH at Sites 03 and 04 combined with substrate composition at Sites 03, 04, 05, and 06 were the main contributors to low overall habitat quality for fish and invertebrate communities.

4.2 CANADIAN REGULATORY BENCHMARKS AND GUIDELINES

The sediment and surface water results of the present study are presented in Tables 4 to 6 and exceedances are identified based upon a comparison to:

- Canadian Council Ministers of the Environment (CCME) Interim Sediment Quality Guideline (ISQG) and Probable Effect Level (PEL) – available for total arsenic and

chromium. An ISQG protects the majority of benthic organisms within a population, concentrations ranging between the ISQG and PEL begin to demonstrate significant adverse effects within the benthic community, and concentrations exceeding the PEL demonstrate significant adverse effects to a large percentage of the benthic population. CCME accepts that the degree of effects within a population is largely variable and extremely chemical specific, and will therefore be discussed for each metal in the relevant sections that follow.

- Canadian Drinking Water Quality Guidelines (CDWQG) and the Protection of Aquatic Life – available for total arsenic, chromium, and selenium.

It is worth noting that current information on toxicological effects and TRV's is based on studies conducted on southern aquatic species in warmer waters than what are encountered in the Yukon. The effect of colder temperatures on the aquatic organisms and how that potentially affects uptake of elements such as arsenic, selenium and chromium is not well understood. Additional research into cold water species would help to better understand temperature effects on reference species.

4.3 ECOLOGICAL RISK ASSESSMENT COMPARATIVE BENCHMARKS

For environmental receptors such as plants and animals, the goal is not to protect each individual from any potentially toxic effect, but rather to protect enough individuals so that a viable population and community of organisms can be maintained (BCMELP 1998). Various online databases and print resources were used to gather the most relevant ecological risk assessment benchmarks, also referred to Toxicity Reference Values (TRVs). The use of these databases is recommended by the BC Tier 1 Ecological Risk Assessment Guidelines (BCMELP 1998).

A TRV represents the amount of a particular chemical of concern that can be present and still allow a viable population or community of organisms to be maintained (provided other habitat factors are suitable) (BCMELP 1998). A TRV is selected from the concentration-response curve that provides reasonable protection for a specified percentage of organisms. The BC Tier 1 Guidance (BCMELP 1998) specifies the use of an Effective Concentration (EC_{50}) for birds and mammals; i.e. the concentration reported in the literature that affects a sub-lethal endpoint (growth, reproduction) by 50%. The BC Tier 1 Guidance suggests the use of an EC_{20} for aquatic organisms. This maintains a healthy ecosystem with diversity and abundance for 80% of the organisms within that aquatic system.

TRVs were selected and compared to surface water and sediment metal concentrations for the three metals of focus (As, Cr, Se) in this report by combining the BC Tier 1 Guidance (BCMELP 1998) with supporting information. Surface water TRVs were selected from Suter and Tsao's (1999) Lowest Chronic Values (LCV). These LCVs are conservative, thus accounting for the uncertainty inherent in a screening level risk assessment. Suter and Tsao's TRVs are more conservative than the EC_{20} recommended by the BC Tier 1 Guidance. The highest levels of arsenic, chromium and selenium were compared to TRVs and CCME federal regulatory guidelines in the sections that follow.

4.4 ARSENIC – SURFACE WATER AND SEDIMENT

Table 4 contains the arsenic concentrations at six sites over two seasons for watercourses in the Selwyn basin. Analytical laboratory certificates for the water quality and sediment are included in Appendix A while the speciation laboratory certificates are included in Appendix B. Arsenic measured by ICP-MS demonstrated an increasing trend at Sites 01, 02, 04, 05, and 06 and a decreasing trend at Site 03. Arsenic measured by ICP indicate an increasing trend at Sites 01, 02, 04, and 05, an unchanging trend at Site 06, and no trend was present at Site 03 as only one season was sampled and analyzed using this instrument. Dissolved arsenic measured by ICP-MS demonstrated an increasing trend at Sites 02, 03, 04, 05, and 06, and an unchanging trend at Site 01. A high detection limit restricted the ability to interpret any trends for dissolved arsenic species, as all sites had concentrations below the instruments detection limit. Trivalent, pentavalent, dimethyl and monomethylated arsenic were also quantified using liquid chromatography coupled with thermo x-series ICP-MS. A high detection limit restricted the ability to interpret any trends between and within arsenic species, as all sites except Site 03 had concentrations below the instruments detection limit

Sediment samples were collected from all six sites during the second (September) sampling event. Arsenic was measured in sediments using either an ICP-MS or ICP instrument. The instrument used for measuring the arsenic concentration in sediments was determined by the laboratory personnel. Arsenic concentrations using ICP-MS and ICP were highest at Site 04 and lowest at Site 02. Arsenic concentrations exceeded the CCME ISQG at all sites, and the PEL at all sites except Site 02.

Of importance is the recognition that these results are statistically insignificant as the number of samples per site constituted an n of 1.

4.4.1 Comparison to Arsenic Toxicity Reference Values (TRV)

In the current study, the highest As(III) concentrations reached 4.2 ug/L, and the highest As(V) concentrations reached 2.6 ug/L. The speciated As concentrations of the present study are much lower than any current TRV. The lowest chronic value (LCV) TRV protective of all aquatic organisms for As(III) is currently 914 ug/L while the EC₂₀ is 55 ug/L for sensitive species and 1,995 ug/ at the population level. For As (V) the LCV TRV protective of all aquatic organisms is currently 48 ug/L (Suter and Tao, 1996) and the EC₂₀ is 185 ug/L.

In addition, juvenile grass shrimp exposed to sodium arsenate at a concentration of 10 ug/L in ambient water over a 28 day period demonstrated no effect on growth rates (Jarvinen and Ankley 1999). This same species was exposed to 10 ug/L in ambient water plus a 17.2 ug/g dietary concentration over a 28 day period also demonstrated no effect on growth rates (Jarvinen and Ankley 1999). Once ambient concentrations reach 120 mg/L, fingerling rainbow trout begin to demonstrate significant reductions in survival, by 50%, when exposed over a 7 day period (Jarvinen and Ankely 1999).

Current TRVs for sediment are largely in line with the Canadian Federal CCME sediment quality guidelines. The CCME ISQG level for As indicates that the incidence of adverse biological effects is 5% within the benthic population for concentrations below the ISQG, reaches 25% when As concentrations are between the ISQG and PEL, and then become varied, averaging around 12%, when As concentrations exceed the PEL. The CCME sediment guidelines are for total As, not speciated As.

In the present study, all sites except one had As concentrations exceeding both the ISQG and the PEL. The remaining site had sediment As exceeding the ISQG but not the PEL. Based upon a comparison with sediment benchmarks, As is potentially a significant concern for all study sites, demonstrating the potential for significant adverse effects within the benthic aquatic community exceeding the EC₂₀ level. It is difficult at present to establish whether this potential is exacerbated based upon the most bioavailable speciated fraction of As.

4.5 CHROMIUM – SURFACE WATER AND SEDIMENT

Table 5 contains the Chromium concentrations at six sites over two seasons in the Selwyn basin. Analytical laboratory certificates for the water quality and sediment are included in Appendix A while the speciation laboratory certificates are included in Appendix B. Chromium was measured by ICP-MS for the July sampling event only, therefore trends cannot be determined through examination of the current dataset. Chromium ICP-MS concentrations were highest at Site 03 and lowest at Site 01. Chromium was measured by ICP for both the July and September sampling events. Sites 01, 02, 05, and 06 had chromium concentrations below the detection limit. Site 03 had the highest concentration and was only measured for the July sampling event. Site 04 increased between the July and September sampling event.

Dissolved chromium was measured by ICP-MS for the July sampling event only, therefore trends cannot be determined considering the current dataset. Dissolved chromium ICP-MS concentrations were highest at Site 03 and lowest at Site 06. Dissolved chromium was measured by ICP for both the July and September sampling events. Results were identical to total chromium ICP results with Sites 01, 02, 05, and 06 having concentrations below the detection limit. Site 03 had the highest concentration and was only measured for the July sampling event. Trivalent and pentavalent chromium were also quantified using liquid chromatography coupled with thermo x-series ICP-MS. A high detection limit restricted the ability to interpret any trends between and within chromium species, as all sites except Site 02 had concentrations below the instruments' detection limit.

Sediment samples were collected from all six sites in the second (September) sampling event. Chromium was measured in sediments using an ICP instrument. Chromium concentrations were highest at Site 04 and lowest at Site 02. Chromium concentrations exceeded the CCME ISQG for only Site 04.

Of importance is the recognition that these results are statistically insignificant, as the number of samples per site constituted an n of 1.

4.5.1 Comparison to Chromium Toxicity Reference Values (TRV)

In the current study, the highest Cr(III) concentrations reached 1.2 ug/L, and the highest Cr(VI) concentrations were <1, due to an inability of the analytical instrument to obtain DL low enough for these samples. The speciated Cr concentrations of the present study are much lower than any current TRV. The lowest LCV TRV protective of all aquatic organisms for Cr (III) is currently 44 ug/L (Suter and Tsao 1996) while the EC₂₀ is 8.44 for sensitive species and 120 at the population level. For Cr (VI) the LCV TRV protective of all aquatic organisms is currently 2 ug/L (Suter and Tsao 1996) while the EC₂₀ is 0.266 ug/L for sensitive species (daphnids) and 316 ug/L at the population level

Current TRVs for sediment are largely in line with the Canadian Federal CCME sediment quality guidelines. The CCME ISQG level for chromium indicates that the incidence of adverse biological effects is 2% within the benthic population for concentrations below the ISQG, reaches 19% when Cr concentrations are between the ISQG and PEL, and are as high as 49% when exceeding the PEL. The CCME sediment guidelines are for total Cr, not speciated Cr.

In the present study one site had sediments exceeding the CCME ISQG, demonstrating minimal potential for adverse effects to the benthic aquatic community exposed to sediments with the current Cr concentrations.

4.6 SELENIUM- SURFACE WATER AND SEDIMENT

Table 6 contains the Selenium concentrations at six sites over two seasons in the Selwyn basin. Analytical laboratory certificates for the water quality and sediment are included in Appendix A while the speciation laboratory certificates are included in Appendix B. Selenium measured by ICP-MS demonstrated an increasing trend (statistically insignificant) at Sites 01, 03, and 05, a decreasing trend (statistically insignificant) at Sites 04 and 06, and an unchanging trend (statistically insignificant) at Site 02. The high detection limit restricted the ability to interpret any trends for selenium measured by ICP, as all sites had concentrations below the instrument detection limit.

Dissolved selenium measured by ICP-MS demonstrated an increasing trend (statistically insignificant) at Sites 01, 02, 03, 05, and 06, and an unchanging trend (statistically insignificant) at Site 04. A high detection limit restricted the ability to interpret any trends for dissolved selenium species, as all sites had concentrations below the instruments detection limit. Presently a detection limit at least ten fold lower is the current practice.

Quadravalent and hexavalent selenium were also quantified using liquid chromatography coupled with thermo x-series ICP-MS. ICP-MS. A high detection limit restricted the ability to interpret any trends between and within arsenic species, as all sites except Site 01 (SeVI-September), 03 (SeVI-September), and 06 (SeIV-September) had concentrations below the instruments detection limit.

Sediment samples were collected from all six sites in the second September sampling event. Selenium was measured in sediments using either an ICP-MS or ICP instrument. Selenium

concentrations using ICP-MS and ICP were highest at Site 04 and lowest at Site 02. Selenium concentrations cannot be compared to CCME ISQG as no current guideline exists at present.

Of importance is the recognition that these results are statistically insignificant as the number of samples per site constituted an n of 1.

4.6.1 Comparison to Selenium Toxicity Reference Values (TRV)

In the current study, the highest Se(IV) concentrations reached 2 ug/L, and the highest Se(VI) concentrations were below 5 ug/L and the detection limits of the analytical instrument. Of particular importance to selenium and speciation is that there is an extremely narrow window between the no effect and the confirmed effect level, with less than a 10 fold difference (Chapman 2009a). Therefore speciation is extremely important with regards to assessing exposure to the most bioavailable fraction. The below risk assessment TRVs do not deal with potential effects due to speciation, currently no risk assessment reference benchmarks exist for speciated selenium.

The LCV TRV protective of all aquatic organisms for total Se is currently 88.32 ug/L (Suter and Tao). This protective level was derived using a chronic early life stage rainbow trout exposure test (Goettl and Davies 1976). The EC₂₀ is 260 ug/L for sensitive species (also derived from a chronic early life stage rainbow trout exposure test), 25 ug/L for daphnids, and 40 ug/L for fish.

In addition, when the aquatic invertebrate cladoceran was exposed to Seleno-DL-methionine at a concentration of 10 ug/L in ambient static water conditions over a 7 day period, reduced growth was confirmed (Jarvinen and Ankley 1999). When bluegill larvae fish species were exposed to selenite + DL-methionine at a concentration of 11 ug/L in ambient non-static water conditions over a 7 day period, reduced survival was confirmed. Lastly when bluegill larvae exposed maternally to sodium selenite at a concentration of 10 ug/L in ambient non-static water conditions over a 7 day period, reduced survival by almost 50% occurred (Jarvinen and Ankley 1999).

For comparison purposes, if the Se(IV) and Se(VI) concentrations were combined to represent total Se concentrations then the concentrations in this study would be within close range of causing significant adverse effects in aquatic invertebrates and larval fish species.

Federal Canadian CCME guidelines for sediment have not been derived for selenium. Risk assessment reference benchmarks for selenium concentrations in sediments are also absent from the literature at present. This highlights the current lack of ground-truthed scientific knowledge surrounding selenium exposure within aquatic sediments and ecosystems.

5.0 DISCUSSION AND UNCERTAINTY

5.1.1 Discussion of Results

The study involved discrete sampling conducted in July and September. An evaluation of the analytical results showed that trends in surface water elemental concentrations were inconsistent when compared between sites and seasons. Most of the stations showed increased concentrations during the fall sampling event which is deemed to be a result of lower streamflows and less dilution.

The sediment metals concentrations are a function of local metal loadings to the receiving environment. In sediments, all three elements of interest had the highest concentrations at Site 04 and the lowest concentrations at Site 02. Arsenic concentrations at all six sites were found to be elevated above the CCME ISQG and five of the six sites had elevated levels above the CCME PEL. The sites in Tom Creek (Sites 03 and 04) had the highest arsenic concentrations in sediment and also had the highest recorded arsenic concentrations in the water column. The sediment arsenic concentrations appear to follow the water column concentrations with sites with lowest recorded total arsenic having the lowest sediment arsenic concentrations. The concentration of chromium in sediments did not show the same trend between water column concentrations and those reported for the sediments. Selenium concentrations in sediments at the six sites were all below the method detection limit of 5 µg/g. These results suggest that arsenic water column concentrations may be an indicator of elevated sediment concentrations while chromium and selenium water column concentrations do not appear to be related to sediment concentrations.

The speciation results from both sampling events were mostly less than the detection limit for all sites. Site 02 was spiked by the laboratory in order to verify the analytical results. The spiking consisted of the addition of a known volume of solution with a known concentration of the specific element being analyzed (refer to analytical certificates Appendix B for solution concentrations). The higher detection limit for the speciation analysis conducted in July is due to the samples having more suspended solids than during the September sampling event.

Site 03 on Tom Creek was the only site where both sampling events recorded arsenic concentrations above the detection limit. The arsenic speciation results for this site showed that the relative abundance of arsenic species was consistent with approximately 63% of arsenic present as As(III) as opposed to As(V). This suggests that there was little change in the source of arsenic loadings at this site between the two sampling events. The higher arsenic concentrations during the September sampling event are deemed to be a result of a lower streamflow in the fall, which corresponds to a lower dilution ratio.

The speciated As concentrations in surface water in the present study are much lower than any current TRV. The speciated Cr concentrations of the present study are also much lower than any current TRV. The Se TRVs do not deal with potential effects due to speciation, as currently no risk assessment reference benchmarks exist for speciated

selenium. For comparison purposes, if the Se(IV) and Se(VI) concentrations were combined to represent total Se concentrations then the concentrations in this study would be within close range of causing significant adverse effects in aquatic invertebrates and larval fish species.

Based upon a comparison with sediment benchmarks, As is potentially a significant concern for all study sites, demonstrating the potential for significant adverse effects within the benthic aquatic community, exceeding the EC₂₀ level. With regards to Cr, one site had sediments exceeding the CCME ISQG, demonstrating minimal potential for adverse effects to the benthic aquatic community exposed to sediments with the current Cr concentrations. Risk assessment reference benchmarks for selenium concentrations in sediments are absent from the literature at present. This highlights the current lack of ground-truthed scientific knowledge surrounding selenium exposure within aquatic sediments and ecosystems.

Ultimately, once metals such as arsenic, chromium, and selenium are confirmed chemicals of concern within an aquatic ecosystem, the complexity of biotic and abiotic parameters within that system must be fully understood prior to selecting the most relevant receptors and exposure pathways to represent the overall health and diversity of the ecosystem. Once the most relevant receptors and exposure pathways are identified, metal speciation is likely to provide the most useful information and application.

The study results suggest that metal speciation, at present, is not necessarily useful as a regulatory consideration in undisturbed stream environments, based on current analytical limitations with instrument detection limit capabilities for Canadian laboratories. Lower detection limits can be achieved but, at present, there are only a few laboratories in Canada that conduct this type of analysis, which results in a much higher sample analytical cost.

Sampling for speciation during periods of lower flow may provide the best chance of successfully delineating the different species of these contaminants due to lower dilution factors. Speciation may be of more use in evaluating potential impacts from contaminants of concern in streams that are subject to active mining and have higher metal concentrations.

5.1.2 Uncertainty and Confidence Surrounding the Results

This study presents a snapshot representation of arsenic, chromium, and selenium concentrations in surface water and sediment data for six watercourses in the Selwyn Basin. The present dataset lacks the necessary robustness to demonstrate temporal and spatial trends with statistical significance. An overall high level of uncertainty and low level of confidence in the results is recognized as a limiting factor in this study, due to the low sample replication.

5.1.3 Suggestions and Future Considerations - Selenium

Characterizing risks from Se in the aquatic environment requires site-specific risk assessments to a much greater extent than many other contaminants. Selenium risk

assessment (Se RA) is particularly challenging because of the complexity of Se chemistry and differences in dosages associated with effects, even among closely related species. Unique problems and considerations that must be included in a Se RA are (Chapman et al. 2009b):

- Se is a natural metalloid and bioaccumulates in freshwater environments;
- The range between nutritional requirements and the onset of adverse effects is comparatively narrow, leaving a small margin of error for risk to key receptors or organisms;
- Biogeochemical cycling and bioaccumulation dynamics can be complex and are highly site specific;
- The forms of Se released to the environment vary widely and the rates of transformation to organo-Se, the form that is most toxic, depend on site-specific factors;
- In contrast to cationic trace metals, the primary route of exposure that leads to adverse effects to aquatic organisms is dietary;
- The critical medium (i.e., the compartment that yields the greatest amount of certainty and insight into potential adverse effects) is biological tissue in the most vulnerable aquatic organisms. There is consensus that fish and bird reproduction and the critical assessment endpoints, and that larval or embryonic survival and Se concentrations in eggs are the appropriate measurement endpoints in terms of assessing or predicting a problem at a given site because measured levels in these tissues are often strongly linked to adverse effects;
- Other indicators of exposure such as Se concentrations in diet, particulate phases, and water or sediment, and their associated benchmarks, can be the starting point for an initial risk assessment. There is little confidence, however, in predicting risk on the basis of information for waterborne Se concentrations alone;
- For fish and birds, the current weight of evidence indicates that reproductive effects occur at lower tissue Se concentrations than those associated with other adverse effects. Thus, benchmarks established for protection from reproductive effects should be the focus during a RA; and
- The vulnerability of a species depends on its propensity to bioaccumulate Se, the transfer rate into eggs, and the species' sensitivity to each unit of concentration in eggs.

Because Se is a naturally occurring substance and is essential for animal nutrition, assessing risks resulting from new or additional Se inputs is highly complex. There is a robust scientific literature about Se behaviour in selected freshwater systems, yet there remain significant uncertainties about its transport and environmental partitioning in different types of ecosystems, specifically northern versus southern systems.

The single largest step in the bioaccumulation of Se occurs at the base of food webs, characterized by an Enrichment Function (EF) (Chapman et al. 2009b). Se bioaccumulation by primary producers and predators varies widely among species, based on both ecology and physiology; uptake by individual species and in steps of the food web can be described by a trophic transfer function. The ratio of Se concentration in particulates to the Se concentration in water is the Enrichment Function (EF), and is the initial concentration function at the base of the food web (Chapman et al. 2009b). Transfer from particulates to primary consumers is less variable; trophic transfer factors (TTF-the ratio of Se concentration in consumers relative to diet) are species specific and generally vary within one order of magnitude in nature, but higher transfer has been measured in the laboratory. The EF can vary by up to four orders of magnitude at different sites.

These observations and calculations, along with knowledge of the food web, are key to determining which biological species or other ecological characteristics will be affected for an ecosystem. Other important parameters include rates of input of Se into the system, hydraulic residence time, and Se speciation in water and particulates. Once selenium is a confirmed chemical of concern within an aquatic ecosystem, the complexity of biotic and abiotic parameters within that system must be fully understood prior to selecting the most relevant receptors and exposure pathways to represent the overall health and diversity of the ecosystem.

6.0 CLOSURE

This report and its contents are intended for the sole use of the Mining Petroleum Environmental Research Group (MPERG) and their agents. EBA does not accept any responsibility for the accuracy of any of the data, the analysis or the recommendations contained or referenced in the report when the report is used or relied upon by any Party other than MPERG, or for any Project other than the proposed development at the subject site. Any such unauthorized use of this report is at the sole risk of the user. Use of this report is subject to the terms and conditions stated in EBA's Services Agreement. EBA's General Conditions are included at the end of this report.

Respectfully submitted,
EBA Engineering Consultants Ltd.

Prepared by:



Scott Davidson, MSc. P.Geo.
Senior Geoscientist

Joline Widmeyer, Ph.D. R.P.Bio.
Ecological Risk Assessor/Toxicologist

Senior Reviewed by:

Richard Sims, Ph.D., R.P.Bio., P.Biol
Senior Environmental Scientist

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TABLES

| TABLE 3: FIELD VARIABLES AND INORGANIC ANALYTES FOR SURFACE WATER AND SEDIMENT FROM THE SELWYN BASIN | | | | | | | | | | | | | |
|--|-----------------|------------------------------------|------------|---------------------------------|------------|--|------------|---------------------|------------|----------------------------------|------------|---------------------|------------|
| EBA Sample ID | Detection Limit | Site 01 | | Site 02 | | Site 03 | | Site 04 | | Site 05 | | Site 06 | |
| Cantest Sample ID | | BJ2501 | BL8301 | BJ2502 | BL8302 | BJ2503 | BL8303 | BJ2504 | BL8304 | BJ2505 | BL8305 | BJ2506 | BL8306 |
| PESC Order No. | | 195068 | 198263 | 195069 | 198264 | 195070 | 198265 | 195071 | 198266 | 195072 | 198267 | 195073 | 198268 |
| Date Sampled | | July 28/09 | Sept 15/09 | July 28/09 | Sept 15/09 | July 28/09 | Sept 15/09 | July 28/09 | Sept 15/09 | July 28/09 | Sept 15/09 | July 28/09 | Sept 15/09 |
| Location (UTM easting) | - | 08V 0531152 | | 08V 0528160 | | 09V 0440258 | | | 09V 044206 | 09V 438500 | | 09V 433810 | |
| Location (UTM northing) | - | 6966090 | | 6960847 | | 7005113 | | | 7003698 | 7017687 | | 7020543 | |
| Hardness (Total) mg/L | 0.4 | - | 306 | - | 413 | - | 1250 | - | 750 | - | 330 | - | 253 |
| pH | 0.01 | 8.26 | 8.27 | 8.35 | 8.31 | 1.52 | 2.86 | 2.85 | 2.91 | 7.95 | 7.89 | 7.16 | 7.06 |
| pH (field) | - | - | 6.1 | - | - | - | 4.39 | - | 4.4 | 7.53 | 8.23 | 6.58 | 8.46 |
| Conductivity (field) µS/cm | - | - | 572 | - | 345 | - | 1116 | - | 11124 | - | 338 | - | 242 |
| Total Organic Carbon | 0.5 | - | 2.1 | - | 7.8 | - | <0.5 | - | <0.5 | - | <0.5 | - | <0.5 |
| Sediment Description | - | SAND - some gravel, some organics. | | SAND AND GRAVEL - Some organics | | ROCK - trace gravel, trace sand, trace organics. | | ROCK - trace gravel | | ROCK - some organics, trace sand | | ROCK | |
| Inorganics (mg/L) | | | | | | | | | | | | | |
| Total Dissolved Solids | 10 | - | INS | - | INS | - | INS | - | INS | - | INS | - | 215 |
| Total Suspended Solids | 5 | <5 | INS | <5 | INS | 182 | 18 | <5 | INS | <5 | <5 | 27 | INS |
| Alkalinity (To pH 4.5) | 0.5 | 167 | 168 | 120 | 124 | <0.5 | <0.5 | <0.5 | <0.5 | 48.2 | 53.5 | 10 | 11.3 |
| Field Turbidity (NTU) | 0.01 | - | 1.43 | 8.88 | - | 16.4 | - | 2.91 | - | 1.26 | - | 1.4 | - |
| Dissolved Fluoride | 0.01 | - | 0.2 | - | 0.16 | - | 0.05 | - | 0.06 | - | 0.25 | - | 0.2 |
| Dissolved Chloride | 0.1 | - | 0.5 | - | 0.6 | - | 1.8 | - | 2.1 | - | 0.3 | - | 0.1 |
| Bromide | 0.05 | - | <0.05 | - | <0.05 | - | <0.05 | - | <0.05 | - | <0.05 | - | <0.05 |
| Nitrate | 0.002 | 0.01 | 0.006 | <0.002 | <0.002 | 0.064 | 0.111 | 0.068 | 0.067 | 0.021 | 0.022 | 0.04 | 0.053 |
| Nitrite | 0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| Dissolved Sulphate | 5 | 106 | 116 | 117 | 118 | 1200 | 1050 | 942 | 920 | 85 | 109 | 111 | 125 |
| Biota Observations | | | | | | | | | | | | | |
| Potential as Fish Habitat | - | High | | High | | Low | | Low | | Low | | Low | |
| Reported Presence of Invertebrates | - | Present, type unknown | | None reported | | Present, nematodes | | Present, nematodes | | None reported | | None reported | |
| Physical Observations | | | | | | | | | | | | | |
| Water Flow | - | few riffles, small waterfall | | no riffles, no ponding | | riffles, no ponding | | riffles and ponding | | riffles and ponding | | riffles, no ponding | |

Notes:

"-" indicates that parameter was not analyzed.

"<" indicates that concentration is less than the laboratory method detection limit indicated.

All concentrations expressed in mg/L.

H= Water hardness in mg/L CaCO₃.

NS = No standard or guideline.

INS = insufficient sample for analysis.

TABLE 4: ARSENIC SURFACE WATER AND SEDIMENT ANALYSES IN THE SELWYN BASIN

| | | Surface Water Chemistry | | | | Speciation | | | | | | Sediments | |
|-----------|----------------------|-------------------------|------------|---------------|----------------|------------|---------|------|-------|--------|--------|------------------|-------------------|
| Site | Date Sampled in 2009 | As Total* | As Total** | As Dissolved* | As Dissolved** | As III | As III* | As V | As V* | As DMA | As MMA | As in Sediments* | As in Sediments** |
| | | mg/L | mg/L | mg/L | mg/L | mg/L | % | mg/L | % | mg/L | mg/L | mg/g | mg/g |
| 01 | Jul-28 | 0.8 | 100 | 0.8 | <50 | <2 | N/C | <1 | N/C | <1 | <1 | - | - |
| 01 | Sep-14 | 1.9 | 110 | 0.8 | <50 | <1 | N/C | <1 | N/C | <1 | <1 | 17.43 | 23.67 |
| 02 | Jul-28 | 0.7 | 80 | 0.7 | <50 | <2 | N/C | <1 | N/C | <1 | <1 | - | - |
| 02 | Sep-14 | 0.9 | 100 | 0.9 | <50 | <1 | N/C | <1 | N/C | <1 | <1 | 5.60 | 7.00 |
| 02 spiked | Jul-28 | - | - | - | - | 74.5 | N/C | 24.4 | N/C | 64.8 | 44.3 | - | - |
| 02 spiked | Sep-14 | - | - | - | - | 58.1 | N/C | 30.5 | N/C | 54.7 | 46.2 | - | - |
| 03 | Jul-28 | 32.4 | 190 | 13.7 | <50 | 2.9 | 8.95 | 1.6 | 4.94 | <1 | <1 | - | - |
| 03 | Sep-14 | 16.4 | - | 17.7 | - | 4.2 | 25.61 | 2.6 | 15.85 | <1 | <1 | 63.00 | 73.67 |
| 04 | Jul-28 | 1.5 | 100 | 1.7 | <50 | <1 | N/C | <1 | N/C | <1 | <1 | - | - |
| 04 | Sep-14 | 2.8 | 130 | 3.1 | - | <2 | N/C | <1 | N/C | <1 | <1 | 173.33 | 234.33 |
| 05 | Jul-28 | 0.8 | 60 | 0.7 | <50 | <1 | N/C | <1 | N/C | <1 | <1 | - | - |
| 05 | Sep-14 | 1.0 | 90 | 1.0 | <50 | <2 | N/C | <1 | N/C | <1 | <1 | 24.10 | 32.00 |
| 06 | Jul-28 | 0.6 | 70 | 0.1 | <50 | <1 | N/C | <1 | N/C | <1 | <1 | - | - |
| 06 | Sep-14 | 0.7 | 70 | 0.3 | <50 | <2 | N/C | <1 | N/C | <1 | <1 | 23.30 | 32.00 |

Notes:

**ICP results reported as ug/L, modified from mg/L in PESC Data Report

N/C indicates value cannot be calculated due to detection limits or lack of data

Cell with " - " indicates data was not collected

BOLD concentration exceeds the CDWQG of 10.0 ug/L and Protection of Freshwater Aquatic Life 5.0 ug/L

BOLD concentration exceeds the CCME Interim Sediment Quality Guideline (ISQG) 5.9 ug/g

BOLD concentration exceeds the CCME ISQG and Probable Effect Level (PEL) in Sediment 17.0 ug/g

TABLE 5: CHROMIUM SURFACE WATER AND SEDIMENT ANALYSES IN THE SELWYN BASIN

| | | Surface Water Chemistry | | | | Speciation | | | | Sediments |
|-----------|----------------------|-------------------------|------------|---------------|----------------|------------|---------|-------|--------|-------------------|
| Site | Date Sampled in 2009 | Cr Total* | Cr Total** | Cr Dissolved* | Cr Dissolved** | Cr III | Cr III* | Cr VI | Cr VI* | Cr in Sediments** |
| | | µg/L | µg/L | µg/L | µg/L | µg/L | % | µg/L | % | µg/g |
| 01 | Jul-28 | 0.8 | < 6.0 | 0.3 | <5.0 | <1 | N/C | <1 | N/C | - |
| 01 | Sep-14 | - | < 6.0 | - | <5.0 | <1 | N/C | <1 | N/C | 9.97 |
| 02 | Jul-28 | 0.9 | < 6.0 | 0.4 | <5.0 | 1.2 | 133.33 | <1 | N/C | - |
| 02 | Sep-14 | - | < 6.0 | - | <5.0 | <1 | N/C | <1 | N/C | 5.07 |
| 02 spiked | Jul-28 | - | - | - | - | 22.3 | N/C | 20.1 | N/C | - |
| 02 spiked | Sep-14 | - | - | - | - | 21.1 | N/C | 23.6 | N/C | - |
| 03 | Jul-28 | 91.3 | 112 | 84.5 | 104 | <1 | N/C | <1 | N/C | - |
| 03 | Sep-14 | - | - | - | - | <1 | N/C | <1 | N/C | 25.57 |
| 04 | Jul-28 | 70.5 | 89 | 67.5 | 88 | <1 | N/C | <1 | N/C | - |
| 04 | Sep-14 | - | 96 | - | - | <1 | N/C | <1 | N/C | 46.77 |
| 05 | Jul-28 | 0.9 | < 6.0 | 0.2 | <5.0 | <1 | N/C | <1 | N/C | - |
| 05 | Sep-14 | - | < 6.0 | - | <5.0 | <1 | N/C | <1 | N/C | 26.17 |
| 06 | Jul-28 | 1.3 | < 6.0 | <0.2 | <5.0 | <1 | N/C | <1 | N/C | - |
| 06 | Sep-14 | - | < 6.0 | - | <5.0 | <1 | N/C | <1 | N/C | 18.03 |

Notes:

*ICMPS results reported as ug/L

**ICP results reported as ug/L, modified from mg/L in PESC Data Report

N/C indicates value cannot be calculated due to detection limits or lack of data

Cell with " - concentration exceeds the CCME Protection of Freshwater Aquatic Life 1.0 ug/L (VI), 8.9 ug/L (III)

Concentration in sediments based on an average of three replicates and considered worst case scenario as concentrations below detection limits calculated at detection limits.

Bold concentration exceeds the CDWQG of 50.0 ug/L and Protection of Freshwater Aquatic Life 1.0/8.9 ug/L**BOLD** concentration exceeds the CDWQG of 50.0 ug/L and Protection of Freshwater Aquatic Life 1.0/8.9 ug/L

TABLE 6: SELENIUM SURFACE WATER AND SEDIMENT ANALYSES IN THE SELWYN BASIN

| Site | Date Sampled in 2009 | Surface Water Chemistry | | | | Speciation | | | | Sediments | |
|-----------|----------------------|-------------------------|------------|---------------|----------------|------------|--------|-------|--------|------------------|-------------------|
| | | Se Total* | Se Total** | Se Dissolved* | Se Dissolved** | Se IV | Se IV* | Se VI | Se VI* | Se in Sediments* | Se in Sediments** |
| | | µg/L | µg/L | µg/L | µg/L | µg/L | % | µg/L | % | µg/g | µg/g |
| 01 | Jul-28 | 4.6 | < 60 | 4.6 | <50 | <2 | N/C | <5 | N/C | - | - |
| 01 | Sep-14 | 4.3 | < 60 | 4.9 | <50 | <1 | N/C | 3 | 69.77 | 2.67 | 5.00 |
| 02 | Jul-28 | 1.1 | < 60 | 1.1 | <50 | <2 | N/C | <5 | N/C | - | - |
| 02 | Sep-14 | 1.1 | < 60 | 1.3 | <50 | <1 | N/C | <2 | N/C | 0.80 | 5.00 |
| 02 spiked | Jul-28 | - | - | - | - | 23 | N/C | 27.6 | N/C | - | - |
| 02 spiked | Sep-14 | - | - | - | - | 19.2 | N/C | 27.4 | N/C | - | - |
| 03 | Jul-28 | 7.6 | < 60 | 8 | <50 | <2 | N/C | <5 | N/C | - | - |
| 03 | Sep-14 | 7.0 | < 60 | 8.6 | - | <1 | N/C | 3.3 | 47.14 | 3.80 | 5.33 |
| 04 | Jul-28 | 3.8 | < 60 | 4.7 | <50 | <2 | N/C | <5 | N/C | - | - |
| 04 | Sep-14 | 4.2 | < 60 | 4.7 | - | <1 | N/C | <2 | N/C | 9.00 | 12.00 |
| 05 | Jul-28 | 24 | < 60 | 2.7 | <50 | <2 | N/C | <5 | N/C | - | - |
| 05 | Sep-14 | 3.2 | < 60 | 4.3 | <50 | <1 | N/C | <2 | N/C | 3.07 | 5.00 |
| 06 | Jul-28 | 2.5 | < 60 | 2.6 | <50 | <2 | N/C | <5 | N/C | - | - |
| 06 | Sep-14 | 2.7 | < 60 | 3.4 | <50 | 2 | 74.07 | <2 | N/C | 3.17 | 5.00 |

Notes:

*ICMPS results reported as ug/L

**ICP results reported as ug/L, modified from mg/L in PESC Data Report

N/C indicates value cannot be calculated due to detection limits or lack of data

Cell with " - " indicates data was not collected

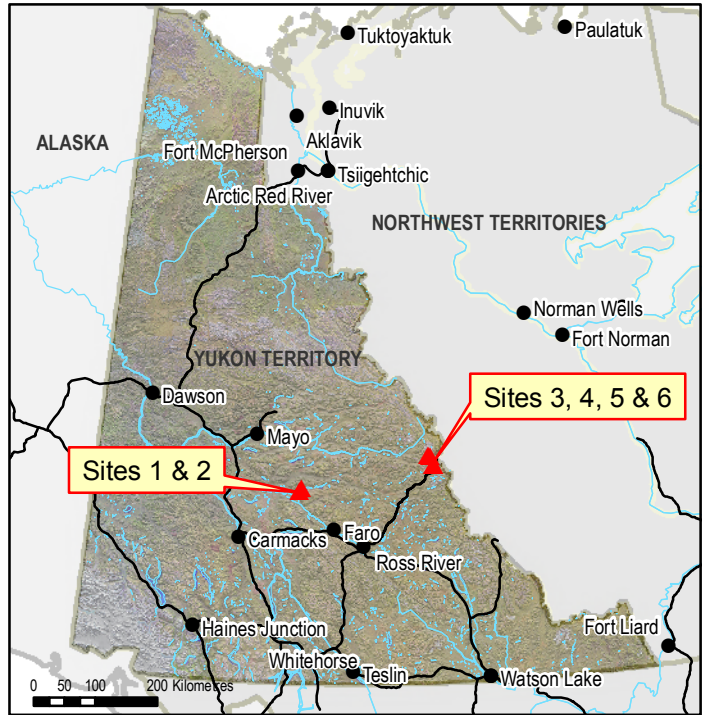
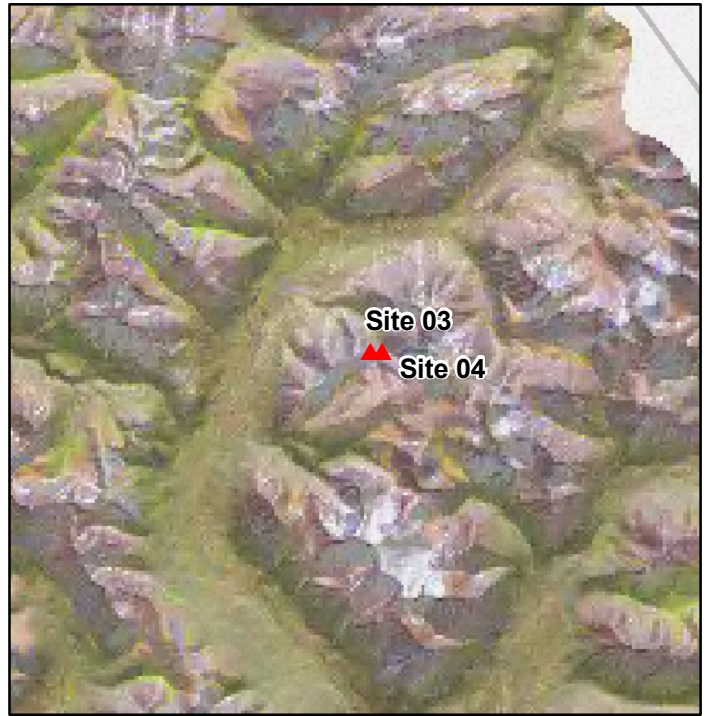
Sediments concentrations based on an average of three replicates and considered worst case scenario as concentrations below detection limits calculated at detection limits.

BOLD concentration exceeds the CCME Protection of Freshwater Aquatic Life 1.0 ug/L

BOLD concentration exceeds the CDWQG of 10.0 ug/L and Protection of Freshwater Aquatic Life 1.0 ug/L

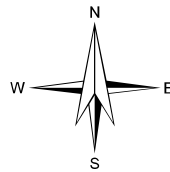


FIGURES



LEGEND

- ▲ Site Locations
- Communities
- Waterbodies
- Roads



NOTES

Base data source: ESRI, Government of Yukon

ARSENIC, CHROMIUM AND SELENIUM SPECIATION IN THE SELWYN BASIN, YUKON

Site Locations

| | | | |
|--|-------------------------|----------------|----------|
| PROJECTION Yukon Albers | | DATUM NAD83 | |
| Scale: 1:200,000 | | | |
| | | | |
| FILE NO. W23101159_008_Figure1_SiteLocation.mxd | | | |
| PROJECT NO. W23101229 | DWN KMW | CKD JW | REV 1 |
| OFFICE EBA-VANC | DATE October 7, 2010 | | |

EBA Engineering Consultants Ltd.

Figure 1

ISSUED FOR USE



PHOTOGRAPHS



Photo 1

Site 01 (Dromedary Creek) adjacent to Eam Lake, northwest of Faro, Yukon (September 16th 2009).



Photo 2

Site 02 (Eam River) adjacent to Eam Lake, northwest of Faro, Yukon (September 16th 2009).



Photo 3

Site 03 (Tom Creek) on Tom Property northeast of Faro, Yukon (September 16th 2009).



Photo 4

Site 04 (Sekie Creek) on Tom Property northeast of Faro, Yukon (September 16th 2009).



Photo 5

Site 05 (Tributary C to the Hess River Tributary) on Mactung Property, northeast of Faro, Yukon (September 15th 2009).



Photo 6

Site 06 (Tributary A to the Hess River Tributary) on Mactung Property, northeast of Faro, Yukon (September 15th 2009).



APPENDIX A

APPENDIX A WATER AND SEDIMENT QUALITY ANALYTICAL CERTIFICATES



2645 Dollarton Highway
 North Vancouver, BC, Canada V7H - 1B1
 Phone (604) 924-2500 Fax (604) 924-2555



Wednesday September 30, 2009 At 11:09AM

Page 1 of 46

Final Analytical Results with QC data

PESC FOLDER # : 200900674

Location: PROJECT: W23101229
 Type of Sample: Fresh Water/General (FWGE)
 Submitted By: Benoit Godin
 Environment Canada
 91782 Alaska Hwy
 Whitehorse, YT
 Canada Y1A 5B7
 Phone: 867-667-4592
 Fax: 867-667-7962
 Logged In: Thursday July 30, 2009
 Completed: Wednesday September 30, 2009 (946 results)
 Client Code: 2561-101
 2561-101 EP YUKON ENV ASSESSMENT

Sample Priority: Normal

Authorized by: _____

Richard Strub
 QA Officer

Notes:

The samples associated with this report will be discarded 30 days after the final report is generated unless other arrangements for storage and / or pick-up have been made with the lab.

Results relate only to the samples tested. Test analysis date provided upon client request. An asterisk (*) indicates that the corresponding method may be accredited by CALA for some or all of the parameters listed. For our current Scope of Accreditation please see www.cala.ca/scopes/1578.pdf.

This test report shall not be reproduced except in full, without written approval of the laboratory.



| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|--------------------------------|---------------|---------------|------------|---------------------------|
| Order No: 195068 - NUTRIENTS#1 | | | | Arrival Temperature: 14°C |

General***Alkalinity,TotpH4.5**

| | | | | |
|----------------------|------|-----|-----|--------------|
| Alkalinity to pH 4.5 | FWGE | 167 | 0.5 | mg CaCO3 / L |
|----------------------|------|-----|-----|--------------|

***ICA (NO2 NO3)**

| | | | | |
|------------------------|------|-------|-------|------|
| Nitrogen, Nitrate as N | FWGE | 0.010 | 0.002 | mg/L |
|------------------------|------|-------|-------|------|

| | | | | |
|------------------------|------|---------|-------|------|
| Nitrogen, Nitrite as N | FWGE | < 0.005 | 0.005 | mg/L |
|------------------------|------|---------|-------|------|

***ICA (Sulphate)**

| | | | | |
|----------------|------|-----|---|------|
| Sulphate (SO4) | FWGE | 106 | 5 | mg/L |
|----------------|------|-----|---|------|

***pH**

| | | | | |
|----|------|------|------|----------|
| pH | FWGE | 8.26 | 0.01 | pH Units |
|----|------|------|------|----------|

***Residue, Nonfilt.**

| | | | | |
|-------------------------------|------|-----|---|------|
| Solids, Total Suspended (NFR) | FWGE | < 5 | 5 | mg/L |
|-------------------------------|------|-----|---|------|

***SpecificConductance**

| | | | | |
|--------------|------|-----|---|-------|
| Conductivity | FWGE | 510 | 2 | uS/cm |
|--------------|------|-----|---|-------|

***Turbidity**

| | | | | |
|-----------|------|------|------|-----|
| Turbidity | FWGE | 0.62 | 0.05 | NTU |
|-----------|------|------|------|-----|

| |
|--------------------------------|
| Order No: 195069 - NUTRIENTS#2 |
|--------------------------------|

General***Alkalinity,TotpH4.5**

| | | | | |
|----------------------|------|-----|-----|--------------|
| Alkalinity to pH 4.5 | FWGE | 120 | 0.5 | mg CaCO3 / L |
|----------------------|------|-----|-----|--------------|

***ICA (NO2 NO3)**

| | | | | |
|------------------------|------|---------|-------|------|
| Nitrogen, Nitrate as N | FWGE | < 0.002 | 0.002 | mg/L |
|------------------------|------|---------|-------|------|

| | | | | |
|------------------------|------|---------|-------|------|
| Nitrogen, Nitrite as N | FWGE | < 0.005 | 0.005 | mg/L |
|------------------------|------|---------|-------|------|

***ICA (Sulphate)**

| | | | | |
|----------------|------|-----|---|------|
| Sulphate (SO4) | FWGE | 117 | 5 | mg/L |
|----------------|------|-----|---|------|

***pH**

| | | | | |
|----|------|------|------|----------|
| pH | FWGE | 8.35 | 0.01 | pH Units |
|----|------|------|------|----------|

***Residue, Nonfilt.**

| | | | | |
|-------------------------------|------|-----|---|------|
| Solids, Total Suspended (NFR) | FWGE | < 5 | 5 | mg/L |
|-------------------------------|------|-----|---|------|

***SpecificConductance**

| | | | | |
|--------------|------|-----|---|-------|
| Conductivity | FWGE | 468 | 2 | uS/cm |
|--------------|------|-----|---|-------|

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---------------------------------------|---------------|---------------|------------|--------------|
| Order No: 195069 - NUTRIENTS#2 | | | | |

***Turbidity**

| | | | | |
|-----------|------|------|------|-----|
| Turbidity | FWGE | 0.49 | 0.05 | NTU |
|-----------|------|------|------|-----|

| | | | | |
|---------------------------------------|--|--|--|--|
| Order No: 195070 - NUTRIENTS#3 | | | | |
|---------------------------------------|--|--|--|--|

General***Alkalinity, TotpH4.5**

| | | | | |
|-------------------|------|-------|-----|--------------|
| Alkalinity, Total | FWGE | < 0.5 | 0.5 | mg CaCO3 / L |
|-------------------|------|-------|-----|--------------|

***ICA (NO2 NO3)**

| | | | | |
|------------------------|------|-------|-------|------|
| Nitrogen, Nitrate as N | FWGE | 0.064 | 0.002 | mg/L |
|------------------------|------|-------|-------|------|

| | | | | |
|------------------------|------|---------|-------|------|
| Nitrogen, Nitrite as N | FWGE | < 0.005 | 0.005 | mg/L |
|------------------------|------|---------|-------|------|

***ICA (Sulphate)**

| | | | | |
|----------------|------|------|----|------|
| Sulphate (SO4) | FWGE | 1200 | 50 | mg/L |
|----------------|------|------|----|------|

***pH**

| | | | | |
|----|------|------|------|----------|
| pH | FWGE | 1.52 | 0.01 | pH Units |
|----|------|------|------|----------|

***Residue, Nonfilt.**

| | | | | |
|-------------------------------|------|-----|---|------|
| Solids, Total Suspended (NFR) | FWGE | 182 | 5 | mg/L |
|-------------------------------|------|-----|---|------|

***Specific Conductance**

| | | | | |
|--------------|------|------|---|-------|
| Conductivity | FWGE | 1780 | 2 | uS/cm |
|--------------|------|------|---|-------|

***Turbidity**

| | | | | |
|-----------|------|-----|------|-----|
| Turbidity | FWGE | 235 | 0.05 | NTU |
|-----------|------|-----|------|-----|

| | | | | |
|---------------------------------------|--|--|--|--|
| Order No: 195071 - NUTRIENTS#4 | | | | |
|---------------------------------------|--|--|--|--|

General***Alkalinity, TotpH4.5**

| | | | | |
|-------------------|------|-------|-----|--------------|
| Alkalinity, Total | FWGE | < 0.5 | 0.5 | mg CaCO3 / L |
|-------------------|------|-------|-----|--------------|

***ICA (NO2 NO3)**

| | | | | |
|------------------------|------|-------|-------|------|
| Nitrogen, Nitrate as N | FWGE | 0.068 | 0.002 | mg/L |
|------------------------|------|-------|-------|------|

| | | | | |
|------------------------|------|---------|-------|------|
| Nitrogen, Nitrite as N | FWGE | < 0.005 | 0.005 | mg/L |
|------------------------|------|---------|-------|------|

***ICA (Sulphate)**

| | | | | |
|----------------|------|-----|----|------|
| Sulphate (SO4) | FWGE | 942 | 30 | mg/L |
|----------------|------|-----|----|------|

***pH**

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---------------------------------------|---------------|---------------|------------|--------------|
| Order No: 195071 - NUTRIENTS#4 | | | | |

| | | | | |
|-------------------------------|------|------|------|----------|
| pH | FWGE | 2.85 | 0.01 | pH Units |
| *Residue, Nonfilt. | | | | |
| Solids, Total Suspended (NFR) | FWGE | < 5 | 5 | mg/L |
| *SpecificConductance | | | | |
| Conductivity | FWGE | 1380 | 2 | uS/cm |
| *Turbidity | | | | |
| Turbidity | FWGE | 13.1 | 0.05 | NTU |

| | | | | |
|---------------------------------------|--|--|--|--|
| Order No: 195072 - NUTRIENTS#5 | | | | |
|---------------------------------------|--|--|--|--|

General

| | | | | |
|-------------------------------|------|---------|-------|--------------|
| *Alkalinity,TotpH4.5 | | | | |
| Alkalinity to pH 4.5 | FWGE | 48.2 | 0.5 | mg CaCO3 / L |
| *ICA (NO2 NO3) | | | | |
| Nitrogen, Nitrate as N | FWGE | 0.021 | 0.002 | mg/L |
| Nitrogen, Nitrite as N | FWGE | < 0.005 | 0.005 | mg/L |
| *ICA (Sulphate) | | | | |
| Sulphate (SO4) | FWGE | 85 | 3 | mg/L |
| *pH | | | | |
| pH | FWGE | 7.95 | 0.01 | pH Units |
| *Residue, Nonfilt. | | | | |
| Solids, Total Suspended (NFR) | FWGE | < 5 | 5 | mg/L |
| *SpecificConductance | | | | |
| Conductivity | FWGE | 290 | 2 | uS/cm |
| *Turbidity | | | | |
| Turbidity | FWGE | 0.30 | 0.05 | NTU |

| | | | | |
|---------------------------------------|--|--|--|--|
| Order No: 195073 - NUTRIENTS#6 | | | | |
|---------------------------------------|--|--|--|--|

General

| | | | | |
|-----------------------------|------|------|-----|--------------|
| *Alkalinity,TotpH4.5 | | | | |
| Alkalinity, Total | FWGE | 10.0 | 0.5 | mg CaCO3 / L |
| *ICA (NO2 NO3) | | | | |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|--|---------------|---------------|------------|--------------|
| Order No: 195073 - NUTRIENTS#6 | | | | |
| Nitrogen, Nitrate as N | FWGE | 0.040 | 0.002 | mg/L |
| Nitrogen, Nitrite as N | FWGE | < 0.005 | 0.005 | mg/L |
| *ICA (Sulphate) | | | | |
| Sulphate (SO4) | FWGE | 111 | 5 | mg/L |
| *pH | | | | |
| pH | FWGE | 7.16 | 0.01 | pH Units |
| *Residue, Nonfilt. | | | | |
| Solids, Total Suspended (NFR) | FWGE | 27 | 5 | mg/L |
| *Specific Conductance | | | | |
| Conductivity | FWGE | 289 | 2 | uS/cm |
| *Turbidity | | | | |
| Turbidity | FWGE | 12.9 | 0.05 | NTU |
| Order No: 195074 - TOTAL METALS#1 | | | | |

Metals***ICP, Total**

| | | | | |
|-----------------|------|---------|-------|------|
| Aluminum (Al) | FWGE | < 0.06 | 0.06 | mg/L |
| Antimony (Sb) | FWGE | < 0.06 | 0.06 | mg/L |
| Arsenic (As) | FWGE | 0.10 | 0.06 | mg/L |
| Barium (Ba) | FWGE | 0.080 | 0.001 | mg/L |
| Beryllium (Be) | FWGE | < 0.001 | 0.001 | mg/L |
| Boron (B) | FWGE | < 0.01 | 0.01 | mg/L |
| Cadmium (Cd) | FWGE | < 0.006 | 0.006 | mg/L |
| Calcium (Ca) | FWGE | 83.0 | 0.1 | mg/L |
| Chromium (Cr) | FWGE | < 0.006 | 0.006 | mg/L |
| Cobalt (Co) | FWGE | < 0.006 | 0.006 | mg/L |
| Copper (Cu) | FWGE | < 0.02 | 0.02 | mg/L |
| Iron (Fe) | FWGE | 0.15 | 0.05 | mg/L |
| Lead (Pb) | FWGE | < 0.06 | 0.06 | mg/L |
| Magnesium (Mg) | FWGE | 17.9 | 0.1 | mg/L |
| Manganese (Mn) | FWGE | 0.040 | 0.001 | mg/L |
| Molybdenum (Mo) | FWGE | < 0.01 | 0.01 | mg/L |
| Nickel (Ni) | FWGE | < 0.02 | 0.02 | mg/L |
| Phosphorus (P) | FWGE | 0.5 | 0.1 | mg/L |
| Potassium (K) | FWGE | 1.2 | 0.1 | mg/L |
| Selenium (Se) | FWGE | < 0.06 | 0.06 | mg/L |
| Silicon (Si) | FWGE | 5.18 | 0.06 | mg/L |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|--|---------------|---------------|------------|--------------|
| Order No: 195074 - TOTAL METALS#1 | | | | |
| Silver (Ag) | FWGE | < 0.01 | 0.01 | mg/L |
| Sodium (Na) | FWGE | 2.6 | 0.1 | mg/L |
| Strontium (Sr) | FWGE | 0.289 | 0.001 | mg/L |
| Sulfur (S) | FWGE | 37.5 | 0.06 | mg/L |
| Tin (Sn) | FWGE | 0.07 | 0.06 | mg/L |
| Titanium (Ti) | FWGE | < 0.002 | 0.002 | mg/L |
| Vanadium (V) | FWGE | < 0.01 | 0.01 | mg/L |
| Zinc (Zn) | FWGE | < 0.05 | 0.05 | mg/L |
| *ICPMS, Total | | | | |
| Aluminum (Al) | FWGE | 19.3 | 0.2 | ug/L |
| Antimony (Sb) | FWGE | 0.359 | 0.005 | ug/L |
| Arsenic (As) | FWGE | 0.8 | 0.1 | ug/L |
| Barium (Ba) | FWGE | 74.1 | 0.02 | ug/L |
| Beryllium (Be) | FWGE | < 0.002 | 0.002 | ug/L |
| Bismuth (Bi) | FWGE | < 0.02 | 0.02 | ug/L |
| Cadmium (Cd) | FWGE | 0.04 | 0.01 | ug/L |
| Chromium (Cr) | FWGE | 0.8 | 0.2 | ug/L |
| Cobalt (Co) | FWGE | 0.185 | 0.005 | ug/L |
| Copper (Cu) | FWGE | 1.26 | 0.05 | ug/L |
| Lead (Pb) | FWGE | < 0.01 | 0.01 | ug/L |
| Lithium (Li) | FWGE | 10.3 | 0.05 | ug/L |
| Manganese (Mn) | FWGE | 37.3 | 0.005 | ug/L |
| Molybdenum (Mo) | FWGE | 1.95 | 0.05 | ug/L |
| Nickel (Ni) | FWGE | 4.64 | 0.05 | ug/L |
| Selenium (Se) | FWGE | 4.6 | 0.2 | ug/L |
| Silver (Ag) | FWGE | < 0.02 | 0.02 | ug/L |
| Strontium (Sr) | FWGE | 293 | 0.005 | ug/L |
| Thallium (Tl) | FWGE | < 0.002 | 0.002 | ug/L |
| Tin (Sn) | FWGE | < 0.01 | 0.01 | ug/L |
| Uranium (U) | FWGE | 1.71 | 0.002 | ug/L |
| Vanadium (V) | FWGE | 0.37 | 0.05 | ug/L |
| Zinc (Zn) | FWGE | 37.2 | 0.2 | ug/L |
| *Mercury, total | | | | |
| Mercury (Hg) | FWGE | < 0.02 | 0.02 | ug/L |

Order No: 195083 - TOTAL METALS#2

Metals

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|--|---------------|---------------|------------|--------------|
| Order No: 195083 - TOTAL METALS#2 | | | | |

***ICP, Total**

| | | | | |
|-----------------|------|---------|-------|------|
| Aluminum (Al) | FWGE | < 0.06 | 0.06 | mg/L |
| Antimony (Sb) | FWGE | < 0.06 | 0.06 | mg/L |
| Arsenic (As) | FWGE | 0.08 | 0.06 | mg/L |
| Barium (Ba) | FWGE | 0.049 | 0.001 | mg/L |
| Beryllium (Be) | FWGE | < 0.001 | 0.001 | mg/L |
| Boron (B) | FWGE | < 0.01 | 0.01 | mg/L |
| Cadmium (Cd) | FWGE | < 0.006 | 0.006 | mg/L |
| Calcium (Ca) | FWGE | 58.1 | 0.1 | mg/L |
| Chromium (Cr) | FWGE | < 0.006 | 0.006 | mg/L |
| Cobalt (Co) | FWGE | < 0.006 | 0.006 | mg/L |
| Copper (Cu) | FWGE | < 0.02 | 0.02 | mg/L |
| Iron (Fe) | FWGE | < 0.05 | 0.05 | mg/L |
| Lead (Pb) | FWGE | < 0.06 | 0.06 | mg/L |
| Magnesium (Mg) | FWGE | 23.9 | 0.1 | mg/L |
| Manganese (Mn) | FWGE | 0.003 | 0.001 | mg/L |
| Molybdenum (Mo) | FWGE | < 0.01 | 0.01 | mg/L |
| Nickel (Ni) | FWGE | < 0.02 | 0.02 | mg/L |
| Phosphorus (P) | FWGE | 0.4 | 0.1 | mg/L |
| Potassium (K) | FWGE | 1.5 | 0.1 | mg/L |
| Selenium (Se) | FWGE | < 0.06 | 0.06 | mg/L |
| Silicon (Si) | FWGE | 3.26 | 0.06 | mg/L |
| Silver (Ag) | FWGE | 0.02 | 0.01 | mg/L |
| Sodium (Na) | FWGE | 3.8 | 0.1 | mg/L |
| Strontium (Sr) | FWGE | 0.267 | 0.001 | mg/L |
| Sulfur (S) | FWGE | 40.5 | 0.06 | mg/L |
| Tin (Sn) | FWGE | 0.07 | 0.06 | mg/L |
| Titanium (Ti) | FWGE | < 0.002 | 0.002 | mg/L |
| Vanadium (V) | FWGE | < 0.01 | 0.01 | mg/L |
| Zinc (Zn) | FWGE | < 0.05 | 0.05 | mg/L |

***ICPMS, Total**

| | | | | |
|----------------|------|--------|-------|------|
| Aluminum (Al) | FWGE | 14.9 | 0.2 | ug/L |
| Antimony (Sb) | FWGE | 0.239 | 0.005 | ug/L |
| Arsenic (As) | FWGE | 0.7 | 0.1 | ug/L |
| Barium (Ba) | FWGE | 47.9 | 0.02 | ug/L |
| Beryllium (Be) | FWGE | 0.006 | 0.002 | ug/L |
| Bismuth (Bi) | FWGE | < 0.02 | 0.02 | ug/L |
| Cadmium (Cd) | FWGE | < 0.01 | 0.01 | ug/L |
| Chromium (Cr) | FWGE | 0.9 | 0.2 | ug/L |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|--|---------------|---------------|------------|--------------|
| Order No: 195083 - TOTAL METALS#2 | | | | |
| Cobalt (Co) | FWGE | 0.118 | 0.005 | ug/L |
| Copper (Cu) | FWGE | 5.26 | 0.05 | ug/L |
| Lead (Pb) | FWGE | < 0.01 | 0.01 | ug/L |
| Lithium (Li) | FWGE | 12.1 | 0.05 | ug/L |
| Manganese (Mn) | FWGE | 3.71 | 0.005 | ug/L |
| Molybdenum (Mo) | FWGE | 1.57 | 0.05 | ug/L |
| Nickel (Ni) | FWGE | 4.77 | 0.05 | ug/L |
| Selenium (Se) | FWGE | 1.1 | 0.2 | ug/L |
| Silver (Ag) | FWGE | < 0.02 | 0.02 | ug/L |
| Strontium (Sr) | FWGE | 277 | 0.005 | ug/L |
| Thallium (Tl) | FWGE | < 0.002 | 0.002 | ug/L |
| Tin (Sn) | FWGE | 0.04 | 0.01 | ug/L |
| Uranium (U) | FWGE | 0.888 | 0.002 | ug/L |
| Vanadium (V) | FWGE | 0.37 | 0.05 | ug/L |
| Zinc (Zn) | FWGE | 2.7 | 0.2 | ug/L |
| *Mercury, total | | | | |
| Mercury (Hg) | FWGE | < 0.02 | 0.02 | ug/L |

| |
|--|
| Order No: 195084 - TOTAL METALS#3 |
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Metals***ICP, Total**

| | | | | |
|----------------|------|--------|-------|------|
| Aluminum (Al) | FWGE | 107 | 0.06 | mg/L |
| Antimony (Sb) | FWGE | < 0.06 | 0.06 | mg/L |
| Arsenic (As) | FWGE | 0.19 | 0.06 | mg/L |
| Barium (Ba) | FWGE | 0.608 | 0.001 | mg/L |
| Barium (Ba) | FWGE | 0.164 | 0.001 | mg/L |
| Beryllium (Be) | FWGE | 0.013 | 0.001 | mg/L |
| Boron (B) | FWGE | 0.02 | 0.01 | mg/L |
| Cadmium (Cd) | FWGE | 0.589 | 0.006 | mg/L |
| Calcium (Ca) | FWGE | 26.4 | 0.1 | mg/L |
| Chromium (Cr) | FWGE | 0.112 | 0.006 | mg/L |
| Cobalt (Co) | FWGE | 0.216 | 0.006 | mg/L |
| Copper (Cu) | FWGE | 0.69 | 0.02 | mg/L |
| Iron (Fe) | FWGE | 208 | 0.5 | mg/L |
| Lead (Pb) | FWGE | 0.52 | 0.06 | mg/L |
| Magnesium (Mg) | FWGE | 20.1 | 0.1 | mg/L |
| Manganese (Mn) | FWGE | 2.42 | 0.001 | mg/L |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|--|---------------|---------------|------------|--------------|
| Order No: 195084 - TOTAL METALS#3 | | | | |
| Molybdenum (Mo) | FWGE | < 0.01 | 0.01 | mg/L |
| Nickel (Ni) | FWGE | 1.99 | 0.02 | mg/L |
| Phosphorus (P) | FWGE | 1.8 | 0.1 | mg/L |
| Potassium (K) | FWGE | 5.2 | 0.1 | mg/L |
| Selenium (Se) | FWGE | < 0.06 | 0.06 | mg/L |
| Silicon (Si) | FWGE | 9.30 | 0.06 | mg/L |
| Silver (Ag) | FWGE | 0.04 | 0.01 | mg/L |
| Sodium (Na) | FWGE | 0.4 | 0.1 | mg/L |
| Strontium (Sr) | FWGE | 0.126 | 0.001 | mg/L |
| Sulfur (S) | FWGE | 348 | 0.06 | mg/L |
| Tin (Sn) | FWGE | 0.06 | 0.06 | mg/L |
| Titanium (Ti) | FWGE | 0.013 | 0.002 | mg/L |
| Vanadium (V) | FWGE | 0.39 | 0.01 | mg/L |
| Zinc (Zn) | FWGE | 16.6 | 0.05 | mg/L |
| *ICPMS, Total | | | | |
| Aluminum (Al) | FWGE | 107000 | 0.2 | ug/L |
| Antimony (Sb) | FWGE | 1.55 | 0.005 | ug/L |
| Arsenic (As) | FWGE | 32.4 | 0.1 | ug/L |
| Barium (Ba) | FWGE | 72 | 0.02 | ug/L |
| Barium (Ba) | FWGE | 477 | 0.02 | ug/L |
| Beryllium (Be) | FWGE | 3.3 | 0.002 | ug/L |
| Bismuth (Bi) | FWGE | < 0.02 | 0.02 | ug/L |
| Cadmium (Cd) | FWGE | 545 | 0.01 | ug/L |
| Chromium (Cr) | FWGE | 91.3 | 0.2 | ug/L |
| Cobalt (Co) | FWGE | 200 | 0.005 | ug/L |
| Copper (Cu) | FWGE | 625 | 0.05 | ug/L |
| Lead (Pb) | FWGE | 139 | 0.01 | ug/L |
| Lithium (Li) | FWGE | 57.4 | 0.05 | ug/L |
| Manganese (Mn) | FWGE | 2236 | 0.005 | ug/L |
| Molybdenum (Mo) | FWGE | 3.03 | 0.05 | ug/L |
| Nickel (Ni) | FWGE | 2020 | 0.05 | ug/L |
| Selenium (Se) | FWGE | 7.6 | 0.2 | ug/L |
| Silver (Ag) | FWGE | 0.27 | 0.02 | ug/L |
| Strontium (Sr) | FWGE | 99 | 0.005 | ug/L |
| Thallium (Tl) | FWGE | 2.37 | 0.002 | ug/L |
| Tin (Sn) | FWGE | 0.04 | 0.01 | ug/L |
| Uranium (U) | FWGE | 19.7 | 0.002 | ug/L |
| Vanadium (V) | FWGE | 346 | 0.05 | ug/L |
| Zinc (Zn) | FWGE | 16739 | 0.2 | ug/L |
| *Mercury, total | | | | |
| Mercury (Hg) | FWGE | 0.03 | 0.02 | ug/L |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|-------------------------|---------------|---------------|------------|--------------|
|-------------------------|---------------|---------------|------------|--------------|

| |
|-----------------------------------|
| Order No: 195085 - TOTAL METALS#4 |
|-----------------------------------|

Metals***ICP, Total**

| | | | | |
|-----------------|------|--------|-------|------|
| Aluminum (Al) | FWGE | 90.2 | 0.06 | mg/L |
| Antimony (Sb) | FWGE | < 0.06 | 0.06 | mg/L |
| Arsenic (As) | FWGE | 0.10 | 0.06 | mg/L |
| Barium (Ba) | FWGE | 0.012 | 0.001 | mg/L |
| Beryllium (Be) | FWGE | 0.007 | 0.001 | mg/L |
| Boron (B) | FWGE | 0.01 | 0.01 | mg/L |
| Cadmium (Cd) | FWGE | 0.347 | 0.006 | mg/L |
| Calcium (Ca) | FWGE | 22.0 | 0.1 | mg/L |
| Chromium (Cr) | FWGE | 0.089 | 0.006 | mg/L |
| Cobalt (Co) | FWGE | 0.154 | 0.006 | mg/L |
| Copper (Cu) | FWGE | 1.16 | 0.02 | mg/L |
| Iron (Fe) | FWGE | 79.5 | 0.5 | mg/L |
| Lead (Pb) | FWGE | 0.32 | 0.06 | mg/L |
| Magnesium (Mg) | FWGE | 10.9 | 0.1 | mg/L |
| Manganese (Mn) | FWGE | 0.913 | 0.001 | mg/L |
| Molybdenum (Mo) | FWGE | < 0.01 | 0.01 | mg/L |
| Nickel (Ni) | FWGE | 1.41 | 0.02 | mg/L |
| Phosphorus (P) | FWGE | 0.4 | 0.1 | mg/L |
| Potassium (K) | FWGE | 3.9 | 0.1 | mg/L |
| Selenium (Se) | FWGE | < 0.06 | 0.06 | mg/L |
| Silicon (Si) | FWGE | 7.64 | 0.06 | mg/L |
| Silver (Ag) | FWGE | < 0.01 | 0.01 | mg/L |
| Sodium (Na) | FWGE | 0.4 | 0.1 | mg/L |
| Strontium (Sr) | FWGE | 0.061 | 0.001 | mg/L |
| Sulfur (S) | FWGE | 259 | 0.06 | mg/L |
| Tin (Sn) | FWGE | < 0.06 | 0.06 | mg/L |
| Titanium (Ti) | FWGE | 0.007 | 0.002 | mg/L |
| Vanadium (V) | FWGE | 0.09 | 0.01 | mg/L |
| Zinc (Zn) | FWGE | 9.54 | 0.05 | mg/L |

***ICPMS, Total**

| | | | | |
|----------------|------|--------|-------|------|
| Aluminum (Al) | FWGE | 102700 | 0.2 | ug/L |
| Antimony (Sb) | FWGE | 0.029 | 0.005 | ug/L |
| Arsenic (As) | FWGE | 1.5 | 0.1 | ug/L |
| Barium (Ba) | FWGE | 10.1 | 0.02 | ug/L |
| Beryllium (Be) | FWGE | 2.86 | 0.002 | ug/L |
| Bismuth (Bi) | FWGE | < 0.02 | 0.02 | ug/L |
| Cadmium (Cd) | FWGE | 316 | 0.01 | ug/L |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|--|---------------|---------------|------------|--------------|
| Order No: 195085 - TOTAL METALS#4 | | | | |
| Chromium (Cr) | FWGE | 70.5 | 0.2 | ug/L |
| Cobalt (Co) | FWGE | 124 | 0.005 | ug/L |
| Copper (Cu) | FWGE | 1219 | 0.05 | ug/L |
| Lead (Pb) | FWGE | 10.7 | 0.01 | ug/L |
| Lithium (Li) | FWGE | 42.2 | 0.05 | ug/L |
| Manganese (Mn) | FWGE | 933 | 0.005 | ug/L |
| Molybdenum (Mo) | FWGE | 0.28 | 0.05 | ug/L |
| Nickel (Ni) | FWGE | 1445 | 0.05 | ug/L |
| Selenium (Se) | FWGE | 3.8 | 0.2 | ug/L |
| Silver (Ag) | FWGE | 0.20 | 0.02 | ug/L |
| Strontium (Sr) | FWGE | 49.8 | 0.005 | ug/L |
| Thallium (Tl) | FWGE | 1.8 | 0.002 | ug/L |
| Tin (Sn) | FWGE | < 0.01 | 0.01 | ug/L |
| Uranium (U) | FWGE | 19.2 | 0.002 | ug/L |
| Vanadium (V) | FWGE | 67.2 | 0.05 | ug/L |
| Zinc (Zn) | FWGE | 9612 | 0.2 | ug/L |
| *Mercury, total | | | | |
| Mercury (Hg) | FWGE | < 0.02 | 0.02 | ug/L |

| |
|--|
| Order No: 195086 - TOTAL METALS#5 |
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Metals***ICP, Total**

| | | | | |
|----------------|------|---------|-------|------|
| Aluminum (Al) | FWGE | 0.16 | 0.06 | mg/L |
| Antimony (Sb) | FWGE | < 0.06 | 0.06 | mg/L |
| Arsenic (As) | FWGE | 0.06 | 0.06 | mg/L |
| Barium (Ba) | FWGE | 0.041 | 0.001 | mg/L |
| Beryllium (Be) | FWGE | < 0.001 | 0.001 | mg/L |
| Boron (B) | FWGE | < 0.01 | 0.01 | mg/L |
| Cadmium (Cd) | FWGE | < 0.006 | 0.006 | mg/L |
| Calcium (Ca) | FWGE | 45.6 | 0.1 | mg/L |
| Chromium (Cr) | FWGE | < 0.006 | 0.006 | mg/L |
| Cobalt (Co) | FWGE | < 0.006 | 0.006 | mg/L |
| Copper (Cu) | FWGE | < 0.02 | 0.02 | mg/L |
| Iron (Fe) | FWGE | < 0.05 | 0.05 | mg/L |
| Lead (Pb) | FWGE | < 0.06 | 0.06 | mg/L |
| Magnesium (Mg) | FWGE | 4.1 | 0.1 | mg/L |
| Manganese (Mn) | FWGE | 0.012 | 0.001 | mg/L |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|--|---------------|---------------|------------|--------------|
| Order No: 195086 - TOTAL METALS#5 | | | | |
| Molybdenum (Mo) | FWGE | 0.01 | 0.01 | mg/L |
| Nickel (Ni) | FWGE | < 0.02 | 0.02 | mg/L |
| Phosphorus (P) | FWGE | 0.3 | 0.1 | mg/L |
| Potassium (K) | FWGE | 1.0 | 0.1 | mg/L |
| Selenium (Se) | FWGE | < 0.06 | 0.06 | mg/L |
| Silicon (Si) | FWGE | 3.16 | 0.06 | mg/L |
| Silver (Ag) | FWGE | < 0.01 | 0.01 | mg/L |
| Sodium (Na) | FWGE | 2.1 | 0.1 | mg/L |
| Strontium (Sr) | FWGE | 0.142 | 0.001 | mg/L |
| Sulfur (S) | FWGE | 28.7 | 0.06 | mg/L |
| Tin (Sn) | FWGE | < 0.06 | 0.06 | mg/L |
| Titanium (Ti) | FWGE | < 0.002 | 0.002 | mg/L |
| Vanadium (V) | FWGE | < 0.01 | 0.01 | mg/L |
| Zinc (Zn) | FWGE | 0.08 | 0.05 | mg/L |
| *ICPMS, Total | | | | |
| Aluminum (Al) | FWGE | 226 | 0.2 | ug/L |
| Antimony (Sb) | FWGE | 0.289 | 0.005 | ug/L |
| Arsenic (As) | FWGE | 0.8 | 0.1 | ug/L |
| Barium (Ba) | FWGE | 42 | 0.02 | ug/L |
| Beryllium (Be) | FWGE | 0.034 | 0.002 | ug/L |
| Bismuth (Bi) | FWGE | < 0.02 | 0.02 | ug/L |
| Cadmium (Cd) | FWGE | 1.13 | 0.01 | ug/L |
| Chromium (Cr) | FWGE | 0.9 | 0.2 | ug/L |
| Cobalt (Co) | FWGE | 0.803 | 0.005 | ug/L |
| Copper (Cu) | FWGE | 2.95 | 0.05 | ug/L |
| Lead (Pb) | FWGE | < 0.01 | 0.01 | ug/L |
| Lithium (Li) | FWGE | 5.84 | 0.05 | ug/L |
| Manganese (Mn) | FWGE | 13.6 | 0.005 | ug/L |
| Molybdenum (Mo) | FWGE | 4.11 | 0.05 | ug/L |
| Nickel (Ni) | FWGE | 20.6 | 0.05 | ug/L |
| Selenium (Se) | FWGE | 2.4 | 0.2 | ug/L |
| Silver (Ag) | FWGE | < 0.02 | 0.02 | ug/L |
| Strontium (Sr) | FWGE | 142 | 0.005 | ug/L |
| Thallium (Tl) | FWGE | < 0.002 | 0.002 | ug/L |
| Tin (Sn) | FWGE | < 0.01 | 0.01 | ug/L |
| Uranium (U) | FWGE | 2.12 | 0.002 | ug/L |
| Vanadium (V) | FWGE | 1.10 | 0.05 | ug/L |
| Zinc (Zn) | FWGE | 61.6 | 0.2 | ug/L |
| *Mercury, total | | | | |
| Mercury (Hg) | FWGE | < 0.02 | 0.02 | ug/L |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|--|---------------|---------------|------------|--------------|
| Order No: 195087 - TOTAL METALS#6 | | | | |

Metals***ICP, Total**

| | | | | |
|-----------------|------|---------|-------|------|
| Aluminum (Al) | FWGE | 4.17 | 0.06 | mg/L |
| Antimony (Sb) | FWGE | < 0.06 | 0.06 | mg/L |
| Arsenic (As) | FWGE | 0.07 | 0.06 | mg/L |
| Barium (Ba) | FWGE | 0.048 | 0.001 | mg/L |
| Beryllium (Be) | FWGE | < 0.001 | 0.001 | mg/L |
| Boron (B) | FWGE | < 0.01 | 0.01 | mg/L |
| Cadmium (Cd) | FWGE | < 0.006 | 0.006 | mg/L |
| Calcium (Ca) | FWGE | 35.7 | 0.1 | mg/L |
| Chromium (Cr) | FWGE | < 0.006 | 0.006 | mg/L |
| Cobalt (Co) | FWGE | 0.012 | 0.006 | mg/L |
| Copper (Cu) | FWGE | 0.04 | 0.02 | mg/L |
| Iron (Fe) | FWGE | 1.33 | 0.05 | mg/L |
| Lead (Pb) | FWGE | < 0.06 | 0.06 | mg/L |
| Magnesium (Mg) | FWGE | 9.4 | 0.1 | mg/L |
| Manganese (Mn) | FWGE | 0.153 | 0.001 | mg/L |
| Molybdenum (Mo) | FWGE | < 0.01 | 0.01 | mg/L |
| Nickel (Ni) | FWGE | 0.12 | 0.02 | mg/L |
| Phosphorus (P) | FWGE | 0.3 | 0.1 | mg/L |
| Potassium (K) | FWGE | 0.7 | 0.1 | mg/L |
| Selenium (Se) | FWGE | < 0.06 | 0.06 | mg/L |
| Silicon (Si) | FWGE | 3.49 | 0.06 | mg/L |
| Silver (Ag) | FWGE | < 0.01 | 0.01 | mg/L |
| Sodium (Na) | FWGE | 1.1 | 0.1 | mg/L |
| Strontium (Sr) | FWGE | 0.146 | 0.001 | mg/L |
| Sulfur (S) | FWGE | 39.5 | 0.06 | mg/L |
| Tin (Sn) | FWGE | < 0.06 | 0.06 | mg/L |
| Titanium (Ti) | FWGE | < 0.002 | 0.002 | mg/L |
| Vanadium (V) | FWGE | < 0.01 | 0.01 | mg/L |
| Zinc (Zn) | FWGE | 0.41 | 0.05 | mg/L |

***ICPMS, Total**

| | | | | |
|----------------|------|-------|-------|------|
| Aluminum (Al) | FWGE | 4221 | 0.2 | ug/L |
| Antimony (Sb) | FWGE | 0.205 | 0.005 | ug/L |
| Arsenic (As) | FWGE | 0.6 | 0.1 | ug/L |
| Barium (Ba) | FWGE | 47.5 | 0.02 | ug/L |
| Beryllium (Be) | FWGE | 0.412 | 0.002 | ug/L |
| Bismuth (Bi) | FWGE | 0.05 | 0.02 | ug/L |
| Cadmium (Cd) | FWGE | 6.10 | 0.01 | ug/L |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|--|---------------|---------------|------------|--------------|
| Order No: 195087 - TOTAL METALS#6 | | | | |
| Chromium (Cr) | FWGE | 1.3 | 0.2 | ug/L |
| Cobalt (Co) | FWGE | 12.2 | 0.005 | ug/L |
| Copper (Cu) | FWGE | 38.7 | 0.05 | ug/L |
| Lead (Pb) | FWGE | 0.02 | 0.01 | ug/L |
| Lithium (Li) | FWGE | 18 | 0.05 | ug/L |
| Manganese (Mn) | FWGE | 164 | 0.005 | ug/L |
| Molybdenum (Mo) | FWGE | 1.66 | 0.05 | ug/L |
| Nickel (Ni) | FWGE | 119 | 0.05 | ug/L |
| Selenium (Se) | FWGE | 2.5 | 0.2 | ug/L |
| Silver (Ag) | FWGE | 0.02 | 0.02 | ug/L |
| Strontium (Sr) | FWGE | 147 | 0.005 | ug/L |
| Thallium (Tl) | FWGE | 0.050 | 0.002 | ug/L |
| Tin (Sn) | FWGE | 0.86 | 0.01 | ug/L |
| Uranium (U) | FWGE | 1.65 | 0.002 | ug/L |
| Vanadium (V) | FWGE | 1.41 | 0.05 | ug/L |
| Zinc (Zn) | FWGE | 423 | 0.2 | ug/L |
| *Mercury, total | | | | |
| Mercury (Hg) | FWGE | < 0.02 | 0.02 | ug/L |

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|--|
| Order No: 195088 - DISSOLVED METALS#1 |
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Metals***ICP, Dissolved**

| | | | | |
|----------------|------|---------|-------|------|
| Aluminum (Al) | FWGE | < 0.05 | 0.05 | mg/L |
| Antimony (Sb) | FWGE | < 0.05 | 0.05 | mg/L |
| Arsenic (As) | FWGE | < 0.05 | 0.05 | mg/L |
| Barium (Ba) | FWGE | 0.079 | 0.001 | mg/L |
| Beryllium (Be) | FWGE | < 0.001 | 0.001 | mg/L |
| Boron (B) | FWGE | < 0.01 | 0.01 | mg/L |
| Cadmium (Cd) | FWGE | < 0.005 | 0.005 | mg/L |
| Calcium (Ca) | FWGE | 82.7 | 0.1 | mg/L |
| Chromium (Cr) | FWGE | < 0.005 | 0.005 | mg/L |
| Cobalt (Co) | FWGE | < 0.005 | 0.005 | mg/L |
| Copper (Cu) | FWGE | < 0.005 | 0.005 | mg/L |
| Iron (Fe) | FWGE | 0.104 | 0.005 | mg/L |
| Lead (Pb) | FWGE | < 0.05 | 0.05 | mg/L |
| Magnesium (Mg) | FWGE | 18.0 | 0.1 | mg/L |
| Manganese (Mn) | FWGE | 0.042 | 0.001 | mg/L |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| Order No: 195088 - DISSOLVED METALS#1 | | | | |
| Molybdenum (Mo) | FWGE | < 0.01 | 0.01 | mg/L |
| Nickel (Ni) | FWGE | < 0.02 | 0.02 | mg/L |
| Phosphorus (P) | FWGE | 0.2 | 0.1 | mg/L |
| Potassium (K) | FWGE | 1.2 | 0.1 | mg/L |
| Selenium (Se) | FWGE | < 0.05 | 0.05 | mg/L |
| Silicon (Si) | FWGE | 5.41 | 0.05 | mg/L |
| Silver (Ag) | FWGE | < 0.01 | 0.01 | mg/L |
| Sodium (Na) | FWGE | 2.7 | 0.1 | mg/L |
| Strontium (Sr) | FWGE | 0.295 | 0.001 | mg/L |
| Sulfur (S) | FWGE | 39.9 | 0.05 | mg/L |
| Tin (Sn) | FWGE | 0.06 | 0.05 | mg/L |
| Titanium (Ti) | FWGE | < 0.002 | 0.002 | mg/L |
| Vanadium (V) | FWGE | < 0.01 | 0.01 | mg/L |
| Zinc (Zn) | FWGE | < 0.05 | 0.05 | mg/L |
| *ICPMS, Dissolved | | | | |
| Aluminum (Al) | FWGE | 39.4 | 0.2 | ug/L |
| Antimony (Sb) | FWGE | 1.02 | 0.005 | ug/L |
| Arsenic (As) | FWGE | 0.8 | 0.1 | ug/L |
| Barium (Ba) | FWGE | 73.4 | 0.02 | ug/L |
| Beryllium (Be) | FWGE | 0.010 | 0.002 | ug/L |
| Bismuth (Bi) | FWGE | < 0.02 | 0.02 | ug/L |
| Cadmium (Cd) | FWGE | 0.34 | 0.01 | ug/L |
| Chromium (Cr) | FWGE | 0.3 | 0.2 | ug/L |
| Cobalt (Co) | FWGE | 0.290 | 0.005 | ug/L |
| Copper (Cu) | FWGE | 1.14 | 0.05 | ug/L |
| Lead (Pb) | FWGE | 0.10 | 0.01 | ug/L |
| Lithium (Li) | FWGE | 9.24 | 0.05 | ug/L |
| Manganese (Mn) | FWGE | 40.4 | 0.005 | ug/L |
| Molybdenum (Mo) | FWGE | 2.13 | 0.05 | ug/L |
| Nickel (Ni) | FWGE | 5.72 | 0.05 | ug/L |
| Selenium (Se) | FWGE | 4.6 | 0.2 | ug/L |
| Silver (Ag) | FWGE | < 0.02 | 0.02 | ug/L |
| Strontium (Sr) | FWGE | 302 | 0.005 | ug/L |
| Thallium (Tl) | FWGE | 0.005 | 0.002 | ug/L |
| Tin (Sn) | FWGE | < 0.01 | 0.01 | ug/L |
| Uranium (U) | FWGE | 2.27 | 0.002 | ug/L |
| Vanadium (V) | FWGE | 0.34 | 0.05 | ug/L |
| Zinc (Zn) | FWGE | 11.9 | 0.2 | ug/L |
| *Mercury, dissolved | | | | |
| Mercury (Hg) | FWGE | < 0.02 | 0.02 | ug/L |
| Hardness, Diss. CaMg | | | | |
| Hardness, Dissolved Calcium+Magnesium - calc. | FWGE | 281 | 0.4 | mg CaCO3 / L |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|-------------------------|---------------|---------------|------------|--------------|
|-------------------------|---------------|---------------|------------|--------------|

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|---------------------------------------|
| Order No: 195089 - DISSOLVED METALS#2 |
|---------------------------------------|

Metals***ICP, Dissolved**

| | | | | |
|-----------------|------|---------|-------|------|
| Aluminum (Al) | FWGE | < 0.05 | 0.05 | mg/L |
| Antimony (Sb) | FWGE | < 0.05 | 0.05 | mg/L |
| Arsenic (As) | FWGE | < 0.05 | 0.05 | mg/L |
| Barium (Ba) | FWGE | 0.048 | 0.001 | mg/L |
| Beryllium (Be) | FWGE | < 0.001 | 0.001 | mg/L |
| Boron (B) | FWGE | < 0.01 | 0.01 | mg/L |
| Cadmium (Cd) | FWGE | < 0.005 | 0.005 | mg/L |
| Calcium (Ca) | FWGE | 56.9 | 0.1 | mg/L |
| Chromium (Cr) | FWGE | < 0.005 | 0.005 | mg/L |
| Cobalt (Co) | FWGE | < 0.005 | 0.005 | mg/L |
| Copper (Cu) | FWGE | < 0.005 | 0.005 | mg/L |
| Iron (Fe) | FWGE | 0.028 | 0.005 | mg/L |
| Lead (Pb) | FWGE | < 0.05 | 0.05 | mg/L |
| Magnesium (Mg) | FWGE | 24.5 | 0.1 | mg/L |
| Manganese (Mn) | FWGE | 0.003 | 0.001 | mg/L |
| Molybdenum (Mo) | FWGE | < 0.01 | 0.01 | mg/L |
| Nickel (Ni) | FWGE | < 0.02 | 0.02 | mg/L |
| Phosphorus (P) | FWGE | 0.2 | 0.1 | mg/L |
| Potassium (K) | FWGE | 1.5 | 0.1 | mg/L |
| Selenium (Se) | FWGE | < 0.05 | 0.05 | mg/L |
| Silicon (Si) | FWGE | 3.27 | 0.05 | mg/L |
| Silver (Ag) | FWGE | < 0.01 | 0.01 | mg/L |
| Sodium (Na) | FWGE | 3.8 | 0.1 | mg/L |
| Strontium (Sr) | FWGE | 0.269 | 0.001 | mg/L |
| Sulfur (S) | FWGE | 42.7 | 0.05 | mg/L |
| Tin (Sn) | FWGE | < 0.05 | 0.05 | mg/L |
| Titanium (Ti) | FWGE | < 0.002 | 0.002 | mg/L |
| Vanadium (V) | FWGE | < 0.01 | 0.01 | mg/L |
| Zinc (Zn) | FWGE | < 0.05 | 0.05 | mg/L |

***ICPMS, Dissolved**

| | | | | |
|----------------|------|--------|-------|------|
| Aluminum (Al) | FWGE | 19.9 | 0.2 | ug/L |
| Antimony (Sb) | FWGE | 1.05 | 0.005 | ug/L |
| Arsenic (As) | FWGE | 0.7 | 0.1 | ug/L |
| Barium (Ba) | FWGE | 44.9 | 0.02 | ug/L |
| Beryllium (Be) | FWGE | 0.008 | 0.002 | ug/L |
| Bismuth (Bi) | FWGE | < 0.02 | 0.02 | ug/L |
| Cadmium (Cd) | FWGE | 0.10 | 0.01 | ug/L |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| Order No: 195089 - DISSOLVED METALS#2 | | | | |
| Chromium (Cr) | FWGE | 0.4 | 0.2 | ug/L |
| Cobalt (Co) | FWGE | 0.172 | 0.005 | ug/L |
| Copper (Cu) | FWGE | 1.67 | 0.05 | ug/L |
| Lead (Pb) | FWGE | 0.05 | 0.01 | ug/L |
| Lithium (Li) | FWGE | 10.1 | 0.05 | ug/L |
| Manganese (Mn) | FWGE | 3.59 | 0.005 | ug/L |
| Molybdenum (Mo) | FWGE | 1.68 | 0.05 | ug/L |
| Nickel (Ni) | FWGE | 4.85 | 0.05 | ug/L |
| Selenium (Se) | FWGE | 1.1 | 0.2 | ug/L |
| Silver (Ag) | FWGE | < 0.02 | 0.02 | ug/L |
| Strontium (Sr) | FWGE | 280 | 0.005 | ug/L |
| Thallium (Tl) | FWGE | < 0.002 | 0.002 | ug/L |
| Tin (Sn) | FWGE | < 0.01 | 0.01 | ug/L |
| Uranium (U) | FWGE | 1.16 | 0.002 | ug/L |
| Vanadium (V) | FWGE | 0.21 | 0.05 | ug/L |
| Zinc (Zn) | FWGE | 4.6 | 0.2 | ug/L |
| *Mercury, dissolved | | | | |
| Mercury (Hg) | FWGE | < 0.02 | 0.02 | ug/L |
| Hardness, Diss. CaMg | | | | |
| Hardness, Dissolved Calcium+Magnesium - calc. | FWGE | 243 | 0.4 | mg CaCO3 / L |

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| Order No: 195090 - DISSOLVED METALS#3 |
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Metals***ICP, Dissolved**

| | | | | |
|----------------|------|------------|-------|------|
| Aluminum (Al) | FWGE | 111 | 0.05 | mg/L |
| Antimony (Sb) | FWGE | 0.07 | 0.05 | mg/L |
| Arsenic (As) | FWGE | < 0.05 | 0.05 | mg/L |
| Barium (Ba) | FWGE | 0.018 | 0.001 | mg/L |
| Beryllium (Be) | FWGE | 0.011 | 0.001 | mg/L |
| Boron (B) | FWGE | 0.02 | 0.01 | mg/L |
| Cadmium (Cd) | FWGE | 0.605 | 0.005 | mg/L |
| Calcium (Ca) | FWGE | 31.4 | 0.1 | mg/L |
| Chromium (Cr) | FWGE | 0.104 | 0.005 | mg/L |
| Chromium (Cr) | FWGE | incomplete | 0.005 | |
| Chromium (Cr) | FWGE | incomplete | 0.005 | |
| Chromium (Cr) | FWGE | incomplete | 0.005 | |
| Chromium (Cr) | FWGE | incomplete | 0.005 | |

| TEST DESCRIPTION | MATRIX | RESULT | MDL | UNITS |
|--|--------|------------|-------|-------|
| Order No: 195090 - DISSOLVED METALS#3 | | | | |
| Chromium (Cr) | FWGE | incomplete | 0.005 | |
| Chromium (Cr) | FWGE | incomplete | 0.005 | |
| Chromium (Cr) | FWGE | incomplete | 0.005 | |
| Chromium (Cr) | FWGE | incomplete | 0.005 | |
| Chromium (Cr) | FWGE | incomplete | 0.005 | |
| Chromium (Cr) | FWGE | incomplete | 0.005 | |
| Chromium (Cr) | FWGE | incomplete | 0.005 | |
| Chromium (Cr) | FWGE | incomplete | 0.005 | |
| Cobalt (Co) | FWGE | 0.213 | 0.005 | mg/L |
| Copper (Cu) | FWGE | incomplete | 0.005 | |
| Copper (Cu) | FWGE | incomplete | 0.005 | |
| Copper (Cu) | FWGE | incomplete | 0.005 | |
| Copper (Cu) | FWGE | incomplete | 0.005 | |
| Copper (Cu) | FWGE | incomplete | 0.005 | |
| Copper (Cu) | FWGE | incomplete | 0.005 | |
| Copper (Cu) | FWGE | incomplete | 0.005 | |
| Copper (Cu) | FWGE | incomplete | 0.005 | |
| Copper (Cu) | FWGE | incomplete | 0.005 | |
| Copper (Cu) | FWGE | incomplete | 0.005 | |
| Copper (Cu) | FWGE | incomplete | 0.005 | |
| Copper (Cu) | FWGE | incomplete | 0.005 | |
| Copper (Cu) | FWGE | incomplete | 0.005 | |
| Copper (Cu) | FWGE | incomplete | 0.005 | |
| Copper (Cu) | FWGE | incomplete | 0.005 | |
| Copper (Cu) | FWGE | incomplete | 0.005 | |
| Copper (Cu) | FWGE | incomplete | 0.005 | |
| Copper (Cu) | FWGE | incomplete | 0.005 | |
| Copper (Cu) | FWGE | incomplete | 0.005 | |
| Copper (Cu) | FWGE | incomplete | 0.005 | |
| Copper (Cu) | FWGE | incomplete | 0.005 | |
| Copper (Cu) | FWGE | incomplete | 0.005 | |
| Copper (Cu) | FWGE | 0.724 | 0.005 | mg/L |
| Iron (Fe) | FWGE | 133 | 0.005 | mg/L |
| Lead (Pb) | FWGE | 0.43 | 0.05 | mg/L |
| Lead (Pb) | FWGE | incomplete | 0.05 | |
| Lead (Pb) | FWGE | incomplete | 0.05 | |
| Lead (Pb) | FWGE | incomplete | 0.05 | |
| Lead (Pb) | FWGE | incomplete | 0.05 | |
| Lead (Pb) | FWGE | incomplete | 0.05 | |
| Lead (Pb) | FWGE | incomplete | 0.05 | |
| Lead (Pb) | FWGE | incomplete | 0.05 | |
| Lead (Pb) | FWGE | incomplete | 0.05 | |
| Lead (Pb) | FWGE | incomplete | 0.05 | |
| Lead (Pb) | FWGE | incomplete | 0.05 | |
| Lead (Pb) | FWGE | incomplete | 0.05 | |
| Lead (Pb) | FWGE | incomplete | 0.05 | |
| Lead (Pb) | FWGE | incomplete | 0.05 | |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|--|---------------|---------------|------------|--------------|
| Order No: 195090 - DISSOLVED METALS#3 | | | | |
| Lead (Pb) | FWGE | incomplete | 0.05 | |
| Lead (Pb) | FWGE | incomplete | 0.05 | |
| Lead (Pb) | FWGE | incomplete | 0.05 | |
| Lead (Pb) | FWGE | incomplete | 0.05 | |
| Lead (Pb) | FWGE | incomplete | 0.05 | |
| Magnesium (Mg) | FWGE | 20.3 | 0.1 | mg/L |
| Manganese (Mn) | FWGE | 2.48 | 0.001 | mg/L |
| Molybdenum (Mo) | FWGE | < 0.01 | 0.01 | mg/L |
| Nickel (Ni) | FWGE | 2.01 | 0.02 | mg/L |
| Phosphorus (P) | FWGE | 1.2 | 0.1 | mg/L |
| Potassium (K) | FWGE | 5.2 | 0.1 | mg/L |
| Selenium (Se) | FWGE | < 0.05 | 0.05 | mg/L |
| Silicon (Si) | FWGE | 9.89 | 0.05 | mg/L |
| Silver (Ag) | FWGE | 0.01 | 0.01 | mg/L |
| Sodium (Na) | FWGE | 0.4 | 0.1 | mg/L |
| Strontium (Sr) | FWGE | 0.126 | 0.001 | mg/L |
| Sulfur (S) | FWGE | 367 | 0.05 | mg/L |
| Tin (Sn) | FWGE | < 0.05 | 0.05 | mg/L |
| Titanium (Ti) | FWGE | 0.008 | 0.002 | mg/L |
| Vanadium (V) | FWGE | 0.24 | 0.01 | mg/L |
| Zinc (Zn) | FWGE | 16.7 | 0.05 | mg/L |
| *ICPMS, Dissolved | | | | |
| Aluminum (Al) | FWGE | 110700 | 0.2 | ug/L |
| Antimony (Sb) | FWGE | 0.741 | 0.005 | ug/L |
| Arsenic (As) | FWGE | 13.7 | 0.1 | ug/L |
| Barium (Ba) | FWGE | 16.9 | 0.02 | ug/L |
| Beryllium (Be) | FWGE | 3.31 | 0.002 | ug/L |
| Bismuth (Bi) | FWGE | < 0.02 | 0.02 | ug/L |
| Cadmium (Cd) | FWGE | 601 | 0.01 | ug/L |
| Chromium (Cr) | FWGE | incomplete | 0.2 | |
| Chromium (Cr) | FWGE | incomplete | 0.2 | |
| Chromium (Cr) | FWGE | incomplete | 0.2 | |
| Chromium (Cr) | FWGE | incomplete | 0.2 | |
| Chromium (Cr) | FWGE | incomplete | 0.2 | |
| Chromium (Cr) | FWGE | incomplete | 0.2 | |
| Chromium (Cr) | FWGE | incomplete | 0.2 | |
| Chromium (Cr) | FWGE | incomplete | 0.2 | |
| Chromium (Cr) | FWGE | incomplete | 0.2 | |
| Chromium (Cr) | FWGE | incomplete | 0.2 | |
| Chromium (Cr) | FWGE | incomplete | 0.2 | |
| Chromium (Cr) | FWGE | incomplete | 0.2 | |
| Chromium (Cr) | FWGE | incomplete | 0.2 | |
| Chromium (Cr) | FWGE | incomplete | 0.2 | |
| Chromium (Cr) | FWGE | incomplete | 0.2 | |
| Chromium (Cr) | FWGE | incomplete | 0.2 | |
| Chromium (Cr) | FWGE | incomplete | 0.2 | |
| Chromium (Cr) | FWGE | incomplete | 0.2 | |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|-------------------------|---------------|---------------|------------|--------------|
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|--|--|--|--|--|
| Order No: 195090 - DISSOLVED METALS#3 | | | | |
|--|--|--|--|--|

| | | | | |
|---------------|------|------------|-------|------|
| Chromium (Cr) | FWGE | incomplete | 0.2 | |
| Chromium (Cr) | FWGE | incomplete | 0.2 | |
| Chromium (Cr) | FWGE | incomplete | 0.2 | |
| Chromium (Cr) | FWGE | incomplete | 0.2 | |
| Chromium (Cr) | FWGE | 84.5 | 0.2 | ug/L |
| Cobalt (Co) | FWGE | 184 | 0.005 | ug/L |
| Copper (Cu) | FWGE | 502 | 0.05 | ug/L |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | incomplete | 0.05 | |
| Copper (Cu) | FWGE | 500 | 0.05 | ug/L |
| Lead (Pb) | FWGE | 54.6 | 0.01 | ug/L |
| Lead (Pb) | FWGE | incomplete | 0.01 | |
| Lead (Pb) | FWGE | incomplete | 0.01 | |
| Lead (Pb) | FWGE | incomplete | 0.01 | |
| Lead (Pb) | FWGE | incomplete | 0.01 | |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| Order No: 195090 - DISSOLVED METALS#3 | | | | |
| Lead (Pb) | FWGE | incomplete | 0.01 | |
| Lead (Pb) | FWGE | incomplete | 0.01 | |
| Lead (Pb) | FWGE | incomplete | 0.01 | |
| Lead (Pb) | FWGE | incomplete | 0.01 | |
| Lead (Pb) | FWGE | incomplete | 0.01 | |
| Lead (Pb) | FWGE | incomplete | 0.01 | |
| Lead (Pb) | FWGE | incomplete | 0.01 | |
| Lead (Pb) | FWGE | incomplete | 0.01 | |
| Lead (Pb) | FWGE | incomplete | 0.01 | |
| Lead (Pb) | FWGE | incomplete | 0.01 | |
| Lead (Pb) | FWGE | incomplete | 0.01 | |
| Lead (Pb) | FWGE | incomplete | 0.01 | |
| Lead (Pb) | FWGE | incomplete | 0.01 | |
| Lead (Pb) | FWGE | incomplete | 0.01 | |
| Lead (Pb) | FWGE | incomplete | 0.01 | |
| Lead (Pb) | FWGE | incomplete | 0.01 | |
| Lead (Pb) | FWGE | incomplete | 0.01 | |
| Lead (Pb) | FWGE | incomplete | 0.01 | |
| Lithium (Li) | FWGE | 49.6 | 0.05 | ug/L |
| Manganese (Mn) | FWGE | 2485 | 0.005 | ug/L |
| Molybdenum (Mo) | FWGE | 0.43 | 0.05 | ug/L |
| Nickel (Ni) | FWGE | 2007 | 0.05 | ug/L |
| Selenium (Se) | FWGE | 8.0 | 0.2 | ug/L |
| Silver (Ag) | FWGE | 0.09 | 0.02 | ug/L |
| Strontium (Sr) | FWGE | 111 | 0.005 | ug/L |
| Thallium (Tl) | FWGE | 2.9 | 0.002 | ug/L |
| Tin (Sn) | FWGE | 0.01 | 0.01 | ug/L |
| Uranium (U) | FWGE | 26.7 | 0.002 | ug/L |
| Vanadium (V) | FWGE | 196 | 0.05 | ug/L |
| Zinc (Zn) | FWGE | 16720 | 0.2 | ug/L |
| *Mercury, dissolved | | | | |
| Mercury (Hg) | FWGE | < 0.02 | 0.02 | ug/L |
| Hardness, Diss. CaMg | | | | |
| Hardness, Dissolved Calcium+Magnesium - calc. | FWGE | 162 | 0.4 | mg CaCO3 / L |

Order No: 195091 - DISSOLVED METALS#4

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|-------------------------|---------------|---------------|------------|--------------|
|-------------------------|---------------|---------------|------------|--------------|

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|---------------------------------------|
| Order No: 195091 - DISSOLVED METALS#4 |
|---------------------------------------|

Metals***ICP, Dissolved**

| | | | | |
|-----------------|------|--------|-------|------|
| Aluminum (Al) | FWGE | 95.3 | 0.05 | mg/L |
| Antimony (Sb) | FWGE | < 0.05 | 0.05 | mg/L |
| Arsenic (As) | FWGE | < 0.05 | 0.05 | mg/L |
| Barium (Ba) | FWGE | 0.011 | 0.001 | mg/L |
| Beryllium (Be) | FWGE | 0.006 | 0.001 | mg/L |
| Boron (B) | FWGE | < 0.01 | 0.01 | mg/L |
| Cadmium (Cd) | FWGE | 0.355 | 0.005 | mg/L |
| Calcium (Ca) | FWGE | 20.1 | 0.1 | mg/L |
| Chromium (Cr) | FWGE | 0.088 | 0.005 | mg/L |
| Cobalt (Co) | FWGE | 0.152 | 0.005 | mg/L |
| Copper (Cu) | FWGE | 1.18 | 0.005 | mg/L |
| Iron (Fe) | FWGE | 64.5 | 0.005 | mg/L |
| Lead (Pb) | FWGE | 0.30 | 0.05 | mg/L |
| Magnesium (Mg) | FWGE | 11.3 | 0.1 | mg/L |
| Manganese (Mn) | FWGE | 0.917 | 0.001 | mg/L |
| Molybdenum (Mo) | FWGE | < 0.01 | 0.01 | mg/L |
| Nickel (Ni) | FWGE | 1.41 | 0.02 | mg/L |
| Phosphorus (P) | FWGE | 0.1 | 0.1 | mg/L |
| Potassium (K) | FWGE | 3.9 | 0.1 | mg/L |
| Selenium (Se) | FWGE | < 0.05 | 0.05 | mg/L |
| Silicon (Si) | FWGE | 8.05 | 0.05 | mg/L |
| Silver (Ag) | FWGE | < 0.01 | 0.01 | mg/L |
| Sodium (Na) | FWGE | 0.4 | 0.1 | mg/L |
| Strontium (Sr) | FWGE | 0.062 | 0.001 | mg/L |
| Sulfur (S) | FWGE | 279 | 0.05 | mg/L |
| Tin (Sn) | FWGE | < 0.05 | 0.05 | mg/L |
| Titanium (Ti) | FWGE | 0.006 | 0.002 | mg/L |
| Vanadium (V) | FWGE | 0.09 | 0.01 | mg/L |
| Zinc (Zn) | FWGE | 9.75 | 0.05 | mg/L |

***ICPMS, Dissolved**

| | | | | |
|----------------|------|--------|-------|------|
| Aluminum (Al) | FWGE | 95320 | 0.2 | ug/L |
| Antimony (Sb) | FWGE | 0.720 | 0.005 | ug/L |
| Arsenic (As) | FWGE | 1.7 | 0.1 | ug/L |
| Barium (Ba) | FWGE | 10 | 0.02 | ug/L |
| Beryllium (Be) | FWGE | 2.98 | 0.002 | ug/L |
| Bismuth (Bi) | FWGE | < 0.02 | 0.02 | ug/L |
| Cadmium (Cd) | FWGE | 357 | 0.01 | ug/L |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| Order No: 195091 - DISSOLVED METALS#4 | | | | |
| Chromium (Cr) | FWGE | 67.5 | 0.2 | ug/L |
| Cobalt (Co) | FWGE | 118 | 0.005 | ug/L |
| Copper (Cu) | FWGE | 1181 | 0.05 | ug/L |
| Lead (Pb) | FWGE | 13.5 | 0.01 | ug/L |
| Lithium (Li) | FWGE | 36.2 | 0.05 | ug/L |
| Manganese (Mn) | FWGE | 917 | 0.005 | ug/L |
| Molybdenum (Mo) | FWGE | 0.26 | 0.05 | ug/L |
| Nickel (Ni) | FWGE | 1408 | 0.05 | ug/L |
| Selenium (Se) | FWGE | 4.7 | 0.2 | ug/L |
| Silver (Ag) | FWGE | 0.22 | 0.02 | ug/L |
| Strontium (Sr) | FWGE | 56.9 | 0.005 | ug/L |
| Thallium (Tl) | FWGE | 2.46 | 0.002 | ug/L |
| Tin (Sn) | FWGE | < 0.01 | 0.01 | ug/L |
| Uranium (U) | FWGE | 27.4 | 0.002 | ug/L |
| Vanadium (V) | FWGE | 65 | 0.05 | ug/L |
| Zinc (Zn) | FWGE | 9753 | 0.2 | ug/L |
| *Mercury, dissolved | | | | |
| Mercury (Hg) | FWGE | < 0.02 | 0.02 | ug/L |
| Hardness, Diss. CaMg | | | | |
| Hardness, Dissolved Calcium+Magnesium - calc. | FWGE | 97.0 | 0.4 | mg CaCO3 / L |

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| Order No: 195092 - DISSOLVED METALS#5 |
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Metals***ICP, Dissolved**

| | | | | |
|----------------|------|---------|-------|------|
| Aluminum (Al) | FWGE | 0.05 | 0.05 | mg/L |
| Antimony (Sb) | FWGE | < 0.05 | 0.05 | mg/L |
| Arsenic (As) | FWGE | < 0.05 | 0.05 | mg/L |
| Barium (Ba) | FWGE | 0.044 | 0.001 | mg/L |
| Beryllium (Be) | FWGE | < 0.001 | 0.001 | mg/L |
| Boron (B) | FWGE | < 0.01 | 0.01 | mg/L |
| Cadmium (Cd) | FWGE | < 0.005 | 0.005 | mg/L |
| Calcium (Ca) | FWGE | 45.2 | 0.1 | mg/L |
| Chromium (Cr) | FWGE | < 0.005 | 0.005 | mg/L |
| Cobalt (Co) | FWGE | < 0.005 | 0.005 | mg/L |
| Copper (Cu) | FWGE | < 0.005 | 0.005 | mg/L |
| Iron (Fe) | FWGE | 0.028 | 0.005 | mg/L |
| Lead (Pb) | FWGE | < 0.05 | 0.05 | mg/L |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|--|---------------|---------------|------------|--------------|
| Order No: 195092 - DISSOLVED METALS#5 | | | | |
| Magnesium (Mg) | FWGE | 4.2 | 0.1 | mg/L |
| Manganese (Mn) | FWGE | 0.013 | 0.001 | mg/L |
| Molybdenum (Mo) | FWGE | < 0.01 | 0.01 | mg/L |
| Nickel (Ni) | FWGE | < 0.02 | 0.02 | mg/L |
| Phosphorus (P) | FWGE | 0.1 | 0.1 | mg/L |
| Potassium (K) | FWGE | 0.9 | 0.1 | mg/L |
| Selenium (Se) | FWGE | < 0.05 | 0.05 | mg/L |
| Silicon (Si) | FWGE | 3.25 | 0.05 | mg/L |
| Silver (Ag) | FWGE | < 0.01 | 0.01 | mg/L |
| Sodium (Na) | FWGE | 2.1 | 0.1 | mg/L |
| Strontium (Sr) | FWGE | 0.142 | 0.001 | mg/L |
| Sulfur (S) | FWGE | 30.7 | 0.05 | mg/L |
| Tin (Sn) | FWGE | < 0.05 | 0.05 | mg/L |
| Titanium (Ti) | FWGE | < 0.002 | 0.002 | mg/L |
| Vanadium (V) | FWGE | < 0.01 | 0.01 | mg/L |
| Zinc (Zn) | FWGE | 0.05 | 0.05 | mg/L |
| *ICPMS, Dissolved | | | | |
| Aluminum (Al) | FWGE | 118 | 0.2 | ug/L |
| Antimony (Sb) | FWGE | 1.06 | 0.005 | ug/L |
| Arsenic (As) | FWGE | 0.7 | 0.1 | ug/L |
| Barium (Ba) | FWGE | 41.7 | 0.02 | ug/L |
| Beryllium (Be) | FWGE | 0.017 | 0.002 | ug/L |
| Bismuth (Bi) | FWGE | < 0.02 | 0.02 | ug/L |
| Cadmium (Cd) | FWGE | 1.27 | 0.01 | ug/L |
| Chromium (Cr) | FWGE | 0.2 | 0.2 | ug/L |
| Cobalt (Co) | FWGE | 0.793 | 0.005 | ug/L |
| Copper (Cu) | FWGE | 1.83 | 0.05 | ug/L |
| Lead (Pb) | FWGE | 0.06 | 0.01 | ug/L |
| Lithium (Li) | FWGE | 4.71 | 0.05 | ug/L |
| Manganese (Mn) | FWGE | 13.0 | 0.005 | ug/L |
| Molybdenum (Mo) | FWGE | 4.29 | 0.05 | ug/L |
| Nickel (Ni) | FWGE | 19.2 | 0.05 | ug/L |
| Selenium (Se) | FWGE | 2.7 | 0.2 | ug/L |
| Silver (Ag) | FWGE | < 0.02 | 0.02 | ug/L |
| Strontium (Sr) | FWGE | 145 | 0.005 | ug/L |
| Thallium (Tl) | FWGE | 0.011 | 0.002 | ug/L |
| Tin (Sn) | FWGE | < 0.01 | 0.01 | ug/L |
| Uranium (U) | FWGE | 2.34 | 0.002 | ug/L |
| Vanadium (V) | FWGE | 0.88 | 0.05 | ug/L |
| Zinc (Zn) | FWGE | 61.4 | 0.2 | ug/L |
| *Mercury, dissolved | | | | |
| Mercury (Hg) | FWGE | < 0.02 | 0.02 | ug/L |
| Hardness, Diss. CaMg | | | | |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| Order No: 195092 - DISSOLVED METALS#5 | | | | |
| Hardness, Dissolved Calcium+Magnesium - calc. | FWGE | 130 | 0.4 | mg CaCO3 / L |
| Order No: 195093 - DISSOLVED METALS#6 | | | | |

Metals***ICP, Dissolved**

| | | | | |
|-----------------|------|---------|-------|------|
| Aluminum (Al) | FWGE | < 0.05 | 0.05 | mg/L |
| Antimony (Sb) | FWGE | < 0.05 | 0.05 | mg/L |
| Arsenic (As) | FWGE | < 0.05 | 0.05 | mg/L |
| Barium (Ba) | FWGE | 0.048 | 0.001 | mg/L |
| Beryllium (Be) | FWGE | < 0.001 | 0.001 | mg/L |
| Boron (B) | FWGE | < 0.01 | 0.01 | mg/L |
| Cadmium (Cd) | FWGE | 0.005 | 0.005 | mg/L |
| Calcium (Ca) | FWGE | 35.4 | 0.1 | mg/L |
| Chromium (Cr) | FWGE | < 0.005 | 0.005 | mg/L |
| Cobalt (Co) | FWGE | 0.012 | 0.005 | mg/L |
| Copper (Cu) | FWGE | 0.007 | 0.005 | mg/L |
| Iron (Fe) | FWGE | 0.147 | 0.005 | mg/L |
| Lead (Pb) | FWGE | < 0.05 | 0.05 | mg/L |
| Magnesium (Mg) | FWGE | 9.4 | 0.1 | mg/L |
| Manganese (Mn) | FWGE | 0.154 | 0.001 | mg/L |
| Molybdenum (Mo) | FWGE | < 0.01 | 0.01 | mg/L |
| Nickel (Ni) | FWGE | 0.12 | 0.02 | mg/L |
| Phosphorus (P) | FWGE | < 0.1 | 0.1 | mg/L |
| Potassium (K) | FWGE | 0.6 | 0.1 | mg/L |
| Selenium (Se) | FWGE | < 0.05 | 0.05 | mg/L |
| Silicon (Si) | FWGE | 3.26 | 0.05 | mg/L |
| Silver (Ag) | FWGE | < 0.01 | 0.01 | mg/L |
| Sodium (Na) | FWGE | 1.2 | 0.1 | mg/L |
| Strontium (Sr) | FWGE | 0.147 | 0.001 | mg/L |
| Sulfur (S) | FWGE | 41.6 | 0.05 | mg/L |
| Tin (Sn) | FWGE | < 0.05 | 0.05 | mg/L |
| Titanium (Ti) | FWGE | < 0.002 | 0.002 | mg/L |
| Vanadium (V) | FWGE | < 0.01 | 0.01 | mg/L |
| Zinc (Zn) | FWGE | 0.36 | 0.05 | mg/L |

***ICPMS, Dissolved**

| | | | | |
|---------------|------|-------|-------|------|
| Aluminum (Al) | FWGE | 24.8 | 0.2 | ug/L |
| Antimony (Sb) | FWGE | 0.668 | 0.005 | ug/L |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| Order No: 195093 - DISSOLVED METALS#6 | | | | |
| Arsenic (As) | FWGE | 0.1 | 0.1 | ug/L |
| Barium (Ba) | FWGE | 43.8 | 0.02 | ug/L |
| Beryllium (Be) | FWGE | 0.047 | 0.002 | ug/L |
| Bismuth (Bi) | FWGE | < 0.02 | 0.02 | ug/L |
| Cadmium (Cd) | FWGE | 6.91 | 0.01 | ug/L |
| Chromium (Cr) | FWGE | < 0.2 | 0.2 | ug/L |
| Cobalt (Co) | FWGE | 12.2 | 0.005 | ug/L |
| Copper (Cu) | FWGE | 6.64 | 0.05 | ug/L |
| Lead (Pb) | FWGE | 0.04 | 0.01 | ug/L |
| Lithium (Li) | FWGE | 14.9 | 0.05 | ug/L |
| Manganese (Mn) | FWGE | 157 | 0.005 | ug/L |
| Molybdenum (Mo) | FWGE | 1.28 | 0.05 | ug/L |
| Nickel (Ni) | FWGE | 120 | 0.05 | ug/L |
| Selenium (Se) | FWGE | 2.6 | 0.2 | ug/L |
| Silver (Ag) | FWGE | < 0.02 | 0.02 | ug/L |
| Strontium (Sr) | FWGE | 149 | 0.005 | ug/L |
| Thallium (Tl) | FWGE | 0.061 | 0.002 | ug/L |
| Tin (Sn) | FWGE | 0.03 | 0.01 | ug/L |
| Uranium (U) | FWGE | 0.056 | 0.002 | ug/L |
| Vanadium (V) | FWGE | < 0.05 | 0.05 | ug/L |
| Zinc (Zn) | FWGE | 356 | 0.2 | ug/L |
| *Mercury, dissolved | | | | |
| Mercury (Hg) | FWGE | < 0.02 | 0.02 | ug/L |
| Hardness, Diss. CaMg | | | | |
| Hardness, Dissolved Calcium+Magnesium - calc. | FWGE | 127 | 0.4 | mg CaCO3 / L |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|--|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| *Alkalinity,TotpH4.5 UNITS: mg CaCO3 / L MATRIX: FWGE | | | | | | | |
| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
| Alkalinity to pH 4.5 | 195268-1 | 73.9 | 73.0 | 98.7 | 1 | 0.5 | REF |
| Alkalinity to pH 4.5 | 195696-1 | 73.9 | 74.4 | 100.6 | 1 | 0.5 | REF |
| Alkalinity to pH 4.5 | 195272-1 | 71.4 | 71.6 | 100.2 | 1 | 0.5 | REP |
| Alkalinity to pH 4.5 | 195275-1 | 58.2 | 57.9 | 99.5 | 1 | 0.5 | REP |
| Alkalinity to pH 4.5 | 195726-1 | 59.4 | 60.3 | 101.5 | 1 | 0.5 | REP |
| Alkalinity to pH 4.5 | 195728-1 | 109 | 110 | 100.7 | 1 | 0.5 | REP |
| Alkalinity to pH 4.5 | 195731-1 | 61.9 | 66.3 | 107.1 | 1 | 0.5 | REP |
| Alkalinity, Total | 195258-1 | < MDL | < 0.5 | | 1 | 0.5 | BLE |
| Alkalinity, Total | 195686-1 | < MDL | < 0.5 | | 1 | 0.5 | BLE |

| *ICA (NO2 NO3) UNITS: mg/L MATRIX: FWGE | | | | | | | |
|--|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
| Nitrogen, Nitrate as N | 195312-1 | < MDL | 0.002 | | 1 | 0.002 | BLE |

| *ICP, Dissolved UNITS: mg/L MATRIX: FWGE | | | | | | | |
|---|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
| Aluminum (Al) | 195993-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Aluminum (Al) | 195996-1 | 2.54 | 2.49 | 98.1 | 1 | 0.05 | REF |
| Antimony (Sb) | 195993-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Antimony (Sb) | 195996-1 | 0.766 | 0.79 | 103.4 | 1 | 0.05 | REF |
| Arsenic (As) | 195993-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Arsenic (As) | 195996-1 | 0.717 | 0.72 | 100.9 | 1 | 0.05 | REF |
| Barium (Ba) | 195993-1 | < MDL | < 0.001 | | 1 | 0.001 | BLE |
| Barium (Ba) | 195996-1 | 0.766 | 0.782 | 102.1 | 1 | 0.001 | REF |
| Beryllium (Be) | 195993-1 | < MDL | < 0.001 | | 1 | 0.001 | BLE |
| Beryllium (Be) | 195996-1 | 0.711 | 0.750 | 105.4 | 1 | 0.001 | REF |
| Boron (B) | 195993-1 | < MDL | < 0.01 | | 1 | 0.01 | BLE |
| Boron (B) | 195996-1 | 1.24 | 1.32 | 106.5 | 1 | 0.01 | REF |
| Cadmium (Cd) | 195993-1 | < MDL | < 0.005 | | 1 | 0.005 | BLE |
| Cadmium (Cd) | 195996-1 | 0.326 | 0.333 | 102.1 | 1 | 0.005 | REF |
| Calcium (Ca) | 195993-1 | < MDL | < 0.1 | | 1 | 0.1 | BLE |
| Calcium (Ca) | 195994-1 | 90.4 | 92.5 | 102.3 | 1 | 0.1 | REF |
| Chromium (Cr) | 195993-1 | < MDL | < 0.005 | | 1 | 0.005 | BLE |
| Chromium (Cr) | 195996-1 | 0.126 | 0.121 | 96.3 | 1 | 0.005 | REF |
| Cobalt (Co) | 195993-1 | < MDL | < 0.005 | | 1 | 0.005 | BLE |
| Cobalt (Co) | 195996-1 | 0.195 | 0.200 | 102.4 | 1 | 0.005 | REF |
| Copper (Cu) | 195993-1 | < MDL | < 0.005 | | 1 | 0.005 | BLE |
| Copper (Cu) | 195996-1 | 0.417 | 0.439 | 105.2 | 1 | 0.005 | REF |
| Iron (Fe) | 195993-1 | < MDL | < 0.005 | | 1 | 0.005 | BLE |
| Iron (Fe) | 195996-1 | 0.256 | 0.280 | 109.2 | 1 | 0.005 | REF |
| Lead (Pb) | 195993-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Lead (Pb) | 195996-1 | 0.237 | 0.25 | 104.5 | 1 | 0.05 | REF |
| Magnesium (Mg) | 195993-1 | < MDL | < 0.1 | | 1 | 0.1 | BLE |
| Magnesium (Mg) | 195994-1 | 26.1 | 26.8 | 102.5 | 1 | 0.1 | REF |
| Manganese (Mn) | 195993-1 | < MDL | < 0.001 | | 1 | 0.001 | BLE |
| Manganese (Mn) | 195996-1 | 0.464 | 0.486 | 104.8 | 1 | 0.001 | REF |
| Molybdenum (Mo) | 195993-1 | < MDL | < 0.01 | | 1 | 0.01 | BLE |
| Molybdenum (Mo) | 195996-1 | 0.474 | 0.48 | 100.9 | 1 | 0.01 | REF |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Nickel (Ni) | 195993-1 | < MDL | < 0.02 | | 1 | 0.02 | BLE |
| Nickel (Ni) | 195996-1 | 0.209 | 0.20 | 97.9 | 1 | 0.02 | REF |
| Phosphorus (P) | 195993-1 | < MDL | < 0.1 | | 1 | 0.1 | BLE |
| Potassium (K) | 195994-1 | 4.01 | 4.1 | 102.2 | 1 | 0.1 | REF |
| Selenium (Se) | 195993-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Selenium (Se) | 195996-1 | 0.127 | 0.13 | 103.1 | 1 | 0.05 | REF |
| Silicon (Si) | 195993-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Silicon (Si) | 195994-1 | 1.19 | 1.24 | 103.9 | 1 | 0.05 | REF |
| Silver (Ag) | 195993-1 | < MDL | < 0.01 | | 1 | 0.01 | BLE |
| Sodium (Na) | 195994-1 | 50.1 | 50.6 | 101.0 | 1 | 0.1 | REF |
| Strontium (Sr) | 195993-1 | < MDL | < 0.001 | | 1 | 0.001 | BLE |
| Strontium (Sr) | 195996-1 | 0.257 | 0.263 | 102.3 | 1 | 0.001 | REF |
| Sulfur (S) | 195993-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Sulfur (S) | 195994-1 | 37.9 | 40.2 | 106.0 | 1 | 0.05 | REF |
| Tin (Sn) | 195993-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Tin (Sn) | 195995-1 | 3.080 | 3.09 | 100.2 | 1 | 0.05 | REF |
| Titanium (Ti) | 195993-1 | < MDL | < 0.002 | | 1 | 0.002 | BLE |
| Titanium (Ti) | 195995-1 | 0.170 | 0.171 | 100.6 | 1 | 0.002 | REF |
| Vanadium (V) | 195993-1 | < MDL | < 0.01 | | 1 | 0.01 | BLE |
| Vanadium (V) | 195996-1 | 0.735 | 0.74 | 100.3 | 1 | 0.01 | REF |
| Zinc (Zn) | 195993-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Zinc (Zn) | 195996-1 | 0.599 | 0.64 | 106.8 | 1 | 0.05 | REF |

*ICP, Total UNITS: mg/L MATRIX: FWGE

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Aluminum (Al) | 195823-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Aluminum (Al) | 198327-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Aluminum (Al) | 195826-1 | 2.54 | 2.51 | 98.7 | 1 | 0.06 | REF |
| Aluminum (Al) | 198330-1 | 2.54 | 2.34 | 92.0 | 1 | 0.06 | REF |
| Aluminum (Al) | 195830-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Aluminum (Al) | 195831-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Aluminum (Al) | 195832-1 | 42.4 | 42.7 | 100.6 | 10 | 0.6 | REP |
| Aluminum (Al) | 198331-1 | 0.13 | 0.12 | 95.7 | 1 | 0.06 | REP |
| Aluminum (Al) | 198332-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Aluminum (Al) | 198333-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Aluminum (Al) | 198334-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Antimony (Sb) | 195823-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Antimony (Sb) | 198327-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Antimony (Sb) | 195826-1 | 0.766 | 0.78 | 101.9 | 1 | 0.06 | REF |
| Antimony (Sb) | 198330-1 | 0.766 | 0.74 | 96.1 | 1 | 0.06 | REF |
| Antimony (Sb) | 195830-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Antimony (Sb) | 195831-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Antimony (Sb) | 195832-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Antimony (Sb) | 198331-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Antimony (Sb) | 198332-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Antimony (Sb) | 198333-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Antimony (Sb) | 198334-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Arsenic (As) | 195823-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Arsenic (As) | 198327-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Arsenic (As) | 195826-1 | 0.717 | 0.72 | 101.0 | 1 | 0.06 | REF |
| Arsenic (As) | 198330-1 | 0.717 | 0.68 | 94.7 | 1 | 0.06 | REF |
| Arsenic (As) | 195830-1 | 0.07 | 0.08 | 111.7 | 1 | 0.06 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Arsenic (As) | 195831-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Arsenic (As) | 195832-1 | 0.15 | 0.14 | 91.1 | 1 | 0.06 | REP |
| Arsenic (As) | 198331-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Arsenic (As) | 198332-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Arsenic (As) | 198333-1 | NA | 0.07 | | 1 | 0.06 | REP |
| Arsenic (As) | 198334-1 | 0.12 | 0.12 | 97.1 | 1 | 0.06 | REP |
| Barium (Ba) | 195823-1 | < MDL | < 0.001 | | 1 | 0.001 | BLL |
| Barium (Ba) | 198327-1 | < MDL | < 0.001 | | 1 | 0.001 | BLL |
| Barium (Ba) | 195826-1 | 0.766 | 0.786 | 102.6 | 1 | 0.001 | REF |
| Barium (Ba) | 198330-1 | 0.766 | 0.722 | 94.3 | 1 | 0.001 | REF |
| Barium (Ba) | 195830-1 | 0.044 | 0.043 | 97.9 | 1 | 0.001 | REP |
| Barium (Ba) | 195831-1 | 0.025 | 0.025 | 100.4 | 1 | 0.001 | REP |
| Barium (Ba) | 195832-1 | 0.870 | 0.858 | 98.6 | 1 | 0.001 | REP |
| Barium (Ba) | 198331-1 | 0.106 | 0.103 | 97.0 | 1 | 0.001 | REP |
| Barium (Ba) | 198332-1 | NA | < 0.001 | | 1 | 0.001 | REP |
| Barium (Ba) | 198333-1 | 0.047 | 0.046 | 97.3 | 1 | 0.001 | REP |
| Barium (Ba) | 198334-1 | 0.025 | 0.024 | 96.3 | 1 | 0.001 | REP |
| Beryllium (Be) | 195823-1 | < MDL | < 0.001 | | 1 | 0.001 | BLL |
| Beryllium (Be) | 198327-1 | < MDL | < 0.001 | | 1 | 0.001 | BLL |
| Beryllium (Be) | 195826-1 | 0.711 | 0.731 | 102.8 | 1 | 0.001 | REF |
| Beryllium (Be) | 198330-1 | 0.711 | 0.684 | 96.1 | 1 | 0.001 | REF |
| Beryllium (Be) | 195830-1 | NA | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 195831-1 | NA | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 195832-1 | 0.004 | 0.004 | 98.7 | 1 | 0.001 | REP |
| Beryllium (Be) | 198331-1 | NA | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 198332-1 | NA | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 198333-1 | NA | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 198334-1 | NA | < 0.001 | | 1 | 0.001 | REP |
| Boron (B) | 195823-1 | < MDL | 0.01 | | 1 | 0.01 | BLL |
| Boron (B) | 198327-1 | < MDL | 0.02 | | 1 | 0.01 | BLL |
| Boron (B) | 195826-1 | 1.24 | 1.31 | 105.2 | 1 | 0.01 | REF |
| Boron (B) | 198330-1 | 1.24 | 1.24 | 100.1 | 1 | 0.01 | REF |
| Boron (B) | 195830-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Boron (B) | 195831-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Boron (B) | 195832-1 | <0.01 | 0.01 | 100.1 | 1 | 0.01 | REP |
| Boron (B) | 198331-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Boron (B) | 198332-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Boron (B) | 198333-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Boron (B) | 198334-1 | 0.02 | 0.02 | 98.3 | 1 | 0.01 | REP |
| Cadmium (Cd) | 195823-1 | < MDL | < 0.006 | | 1 | 0.006 | BLL |
| Cadmium (Cd) | 198327-1 | < MDL | < 0.006 | | 1 | 0.006 | BLL |
| Cadmium (Cd) | 195826-1 | 0.326 | 0.329 | 101.0 | 1 | 0.006 | REF |
| Cadmium (Cd) | 198330-1 | 0.326 | 0.311 | 95.5 | 1 | 0.006 | REF |
| Cadmium (Cd) | 195830-1 | NA | < 0.006 | | 1 | 0.006 | REP |
| Cadmium (Cd) | 195831-1 | NA | < 0.006 | | 1 | 0.006 | REP |
| Cadmium (Cd) | 195832-1 | NA | < 0.006 | | 1 | 0.006 | REP |
| Cadmium (Cd) | 198331-1 | 0.026 | 0.024 | 91.2 | 1 | 0.006 | REP |
| Cadmium (Cd) | 198332-1 | NA | < 0.006 | | 1 | 0.006 | REP |
| Cadmium (Cd) | 198333-1 | NA | < 0.006 | | 1 | 0.006 | REP |
| Cadmium (Cd) | 198334-1 | NA | < 0.006 | | 1 | 0.006 | REP |
| Calcium (Ca) | 195823-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Calcium (Ca) | 198327-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Calcium (Ca) | 195824-1 | 90.2 | 94.4 | 104.6 | 1 | 0.1 | REF |
| Calcium (Ca) | 198328-1 | 90.2 | 88.9 | 98.6 | 1 | 0.1 | REF |
| Calcium (Ca) | 195830-1 | 42.3 | 42.4 | 100.3 | 1 | 0.1 | REP |
| Calcium (Ca) | 195831-1 | 9.2 | 9.3 | 100.9 | 1 | 0.1 | REP |
| Calcium (Ca) | 195832-1 | 45.6 | 45.4 | 99.7 | 1 | 0.1 | REP |
| Calcium (Ca) | 198331-1 | 0.6 | 0.6 | 99.1 | 1 | 0.1 | REP |
| Calcium (Ca) | 198332-1 | NA | < 0.1 | | 1 | 0.1 | REP |
| Calcium (Ca) | 198333-1 | 28.6 | 29.2 | 102.1 | 1 | 0.1 | REP |
| Calcium (Ca) | 198334-1 | 109 | 108 | 99.2 | 1 | 0.1 | REP |
| Chromium (Cr) | 195823-1 | < MDL | < 0.006 | | 1 | 0.006 | BLL |
| Chromium (Cr) | 198327-1 | < MDL | < 0.006 | | 1 | 0.006 | BLL |
| Chromium (Cr) | 195826-1 | 0.126 | 0.129 | 102.5 | 1 | 0.006 | REF |
| Chromium (Cr) | 198330-1 | 0.126 | 0.123 | 97.6 | 1 | 0.006 | REF |
| Chromium (Cr) | 195830-1 | NA | < 0.006 | | 1 | 0.006 | REP |
| Chromium (Cr) | 195831-1 | NA | < 0.006 | | 1 | 0.006 | REP |
| Chromium (Cr) | 195832-1 | 0.078 | 0.079 | 101.3 | 1 | 0.006 | REP |
| Chromium (Cr) | 198331-1 | NA | < 0.006 | | 1 | 0.006 | REP |
| Chromium (Cr) | 198332-1 | NA | < 0.006 | | 1 | 0.006 | REP |
| Chromium (Cr) | 198333-1 | NA | < 0.006 | | 1 | 0.006 | REP |
| Chromium (Cr) | 198334-1 | NA | < 0.006 | | 1 | 0.006 | REP |
| Cobalt (Co) | 195823-1 | < MDL | < 0.006 | | 1 | 0.006 | BLL |
| Cobalt (Co) | 198327-1 | < MDL | < 0.006 | | 1 | 0.006 | BLL |
| Cobalt (Co) | 195826-1 | 0.195 | 0.205 | 105.3 | 1 | 0.006 | REF |
| Cobalt (Co) | 198330-1 | 0.195 | 0.197 | 101.2 | 1 | 0.006 | REF |
| Cobalt (Co) | 195830-1 | NA | < 0.006 | | 1 | 0.006 | REP |
| Cobalt (Co) | 195831-1 | NA | < 0.006 | | 1 | 0.006 | REP |
| Cobalt (Co) | 195832-1 | 0.028 | 0.028 | 101.2 | 1 | 0.006 | REP |
| Cobalt (Co) | 198331-1 | NA | < 0.006 | | 1 | 0.006 | REP |
| Cobalt (Co) | 198332-1 | NA | < 0.006 | | 1 | 0.006 | REP |
| Cobalt (Co) | 198333-1 | NA | < 0.006 | | 1 | 0.006 | REP |
| Cobalt (Co) | 198334-1 | NA | < 0.006 | | 1 | 0.006 | REP |
| Copper (Cu) | 195823-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Copper (Cu) | 198327-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Copper (Cu) | 195826-1 | 0.417 | 0.44 | 106.3 | 1 | 0.02 | REF |
| Copper (Cu) | 198330-1 | 0.417 | 0.43 | 103.9 | 1 | 0.02 | REF |
| Copper (Cu) | 195830-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Copper (Cu) | 195831-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Copper (Cu) | 195832-1 | 0.07 | 0.07 | 101.5 | 1 | 0.02 | REP |
| Copper (Cu) | 198331-1 | 3.16 | 2.78 | 87.9 | 1 | 0.02 | REP |
| Copper (Cu) | 198332-1 | 0.10 | 0.10 | 98.9 | 1 | 0.02 | REP |
| Copper (Cu) | 198333-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Copper (Cu) | 198334-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Iron (Fe) | 195823-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Iron (Fe) | 198327-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Iron (Fe) | 195826-1 | 0.256 | 0.28 | 111.1 | 1 | 0.05 | REF |
| Iron (Fe) | 198330-1 | 0.256 | 0.28 | 108.4 | 1 | 0.05 | REF |
| Iron (Fe) | 195830-1 | NA | < 0.05 | | 1 | 0.05 | REP |
| Iron (Fe) | 195831-1 | 0.12 | 0.13 | 104.6 | 1 | 0.05 | REP |
| Iron (Fe) | 195832-1 | 68.6 | 69.6 | 101.5 | 10 | 0.5 | REP |
| Iron (Fe) | 198331-1 | 2.49 | 2.18 | 87.4 | 1 | 0.006 | REP |
| Iron (Fe) | 198332-1 | NA | < 0.006 | | 1 | 0.006 | REP |
| Iron (Fe) | 198333-1 | NA | < 0.05 | | 1 | 0.05 | REP |

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| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|-----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Iron (Fe) | 198334-1 | 0.13 | 0.13 | 99.7 | 1 | 0.05 | REP |
| Lead (Pb) | 195823-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Lead (Pb) | 198327-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Lead (Pb) | 195826-1 | 0.237 | 0.25 | 106.2 | 1 | 0.06 | REF |
| Lead (Pb) | 198330-1 | 0.237 | 0.24 | 101.6 | 1 | 0.06 | REF |
| Lead (Pb) | 195830-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Lead (Pb) | 195831-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Lead (Pb) | 195832-1 | 0.16 | 0.17 | 103.8 | 1 | 0.06 | REP |
| Lead (Pb) | 198331-1 | 1.24 | 1.19 | 95.8 | 1 | 0.06 | REP |
| Lead (Pb) | 198332-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Lead (Pb) | 198333-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Lead (Pb) | 198334-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Magnesium (Mg) | 195823-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Magnesium (Mg) | 198327-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Magnesium (Mg) | 195824-1 | 25.7 | 26.7 | 103.9 | 1 | 0.1 | REF |
| Magnesium (Mg) | 198328-1 | 25.7 | 25.5 | 99.1 | 1 | 0.1 | REF |
| Magnesium (Mg) | 195830-1 | 16.9 | 16.9 | 100.1 | 1 | 0.1 | REP |
| Magnesium (Mg) | 195831-1 | 2.2 | 2.2 | 100.5 | 1 | 0.1 | REP |
| Magnesium (Mg) | 195832-1 | 25.8 | 25.6 | 99.1 | 1 | 0.1 | REP |
| Magnesium (Mg) | 198331-1 | NA | < 0.1 | | 1 | 0.1 | REP |
| Magnesium (Mg) | 198332-1 | NA | < 0.1 | | 1 | 0.1 | REP |
| Magnesium (Mg) | 198333-1 | 10.2 | 10.4 | 101.8 | 1 | 0.1 | REP |
| Magnesium (Mg) | 198334-1 | 12.2 | 11.9 | 97.9 | 1 | 0.1 | REP |
| Manganese (Mn) | 195823-1 | < MDL | < 0.001 | | 1 | 0.001 | BLL |
| Manganese (Mn) | 198327-1 | < MDL | < 0.001 | | 1 | 0.001 | BLL |
| Manganese (Mn) | 195826-1 | 0.464 | 0.491 | 105.8 | 1 | 0.001 | REF |
| Manganese (Mn) | 198330-1 | 0.464 | 0.467 | 100.6 | 1 | 0.001 | REF |
| Manganese (Mn) | 195830-1 | 0.027 | 0.027 | 100.5 | 1 | 0.001 | REP |
| Manganese (Mn) | 195831-1 | 0.003 | 0.003 | 101.9 | 1 | 0.001 | REP |
| Manganese (Mn) | 195832-1 | 1.09 | 1.09 | 100.1 | 1 | 0.001 | REP |
| Manganese (Mn) | 198331-1 | 0.011 | 0.011 | 99.3 | 1 | 0.001 | REP |
| Manganese (Mn) | 198332-1 | NA | < 0.001 | | 1 | 0.001 | REP |
| Manganese (Mn) | 198333-1 | NA | < 0.001 | | 1 | 0.001 | REP |
| Manganese (Mn) | 198334-1 | 0.041 | 0.041 | 100.0 | 1 | 0.001 | REP |
| Molybdenum (Mo) | 195823-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Molybdenum (Mo) | 198327-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Molybdenum (Mo) | 195826-1 | 0.474 | 0.50 | 104.6 | 1 | 0.01 | REF |
| Molybdenum (Mo) | 198330-1 | 0.474 | 0.47 | 99.2 | 1 | 0.01 | REF |
| Molybdenum (Mo) | 195830-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 195831-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 195832-1 | <0.01 | 0.01 | 103.9 | 1 | 0.01 | REP |
| Molybdenum (Mo) | 198331-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 198332-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 198333-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 198334-1 | <0.01 | 0.01 | 100.5 | 1 | 0.01 | REP |
| Nickel (Ni) | 195823-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Nickel (Ni) | 198327-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Nickel (Ni) | 195826-1 | 0.209 | 0.21 | 102.1 | 1 | 0.02 | REF |
| Nickel (Ni) | 198330-1 | 0.209 | 0.20 | 97.4 | 1 | 0.02 | REF |
| Nickel (Ni) | 195830-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 195831-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 195832-1 | 0.07 | 0.07 | 100.1 | 1 | 0.02 | REP |

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| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Nickel (Ni) | 198331-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 198332-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 198333-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 198334-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Phosphorus (P) | 195823-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Phosphorus (P) | 198327-1 | < MDL | 0.2 | | 1 | 0.1 | BLL |
| Phosphorus (P) | 195830-1 | 0.4 | 0.4 | 106.2 | 1 | 0.1 | REP |
| Phosphorus (P) | 195831-1 | 0.3 | 0.3 | 88.5 | 1 | 0.1 | REP |
| Phosphorus (P) | 195832-1 | 1.2 | 1.1 | 89.6 | 1 | 0.1 | REP |
| Phosphorus (P) | 198331-1 | 0.2 | 0.2 | 114.8 | 1 | 0.1 | REP |
| Phosphorus (P) | 198332-1 | 0.1 | 0.1 | 92.2 | 1 | 0.1 | REP |
| Phosphorus (P) | 198333-1 | 0.3 | 0.3 | 87.2 | 1 | 0.1 | REP |
| Phosphorus (P) | 198334-1 | 0.4 | 0.5 | 119.2 | 1 | 0.1 | REP |
| Potassium (K) | 195823-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Potassium (K) | 198327-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Potassium (K) | 195824-1 | 3.97 | 4.1 | 102.5 | 1 | 0.1 | REF |
| Potassium (K) | 198328-1 | 3.97 | 3.9 | 99.0 | 1 | 0.1 | REF |
| Potassium (K) | 195830-1 | 1.3 | 1.3 | 100.8 | 1 | 0.1 | REP |
| Potassium (K) | 195831-1 | 0.7 | 0.7 | 103.4 | 1 | 0.1 | REP |
| Potassium (K) | 195832-1 | 7.8 | 7.9 | 101.7 | 1 | 0.1 | REP |
| Potassium (K) | 198331-1 | NA | < 0.1 | | 1 | 0.1 | REP |
| Potassium (K) | 198332-1 | NA | < 0.1 | | 1 | 0.1 | REP |
| Potassium (K) | 198333-1 | 0.2 | 0.2 | 91.3 | 1 | 0.1 | REP |
| Potassium (K) | 198334-1 | 9.9 | 9.9 | 100.2 | 1 | 0.1 | REP |
| Selenium (Se) | 195823-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Selenium (Se) | 198327-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Selenium (Se) | 195826-1 | 0.127 | 0.13 | 98.6 | 1 | 0.06 | REF |
| Selenium (Se) | 198330-1 | 0.127 | 0.12 | 96.8 | 1 | 0.06 | REF |
| Selenium (Se) | 195830-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Selenium (Se) | 195831-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Selenium (Se) | 195832-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Selenium (Se) | 198331-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Selenium (Se) | 198332-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Selenium (Se) | 198333-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Selenium (Se) | 198334-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Silicon (Si) | 195823-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Silicon (Si) | 198327-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Silicon (Si) | 195824-1 | 1.19 | 1.24 | 104.5 | 1 | 0.06 | REF |
| Silicon (Si) | 198328-1 | 1.19 | 1.09 | 91.4 | 1 | 0.06 | REF |
| Silicon (Si) | 195830-1 | 4.19 | 4.21 | 100.5 | 1 | 0.06 | REP |
| Silicon (Si) | 195831-1 | 5.00 | 5.03 | 100.6 | 1 | 0.06 | REP |
| Silicon (Si) | 195832-1 | 89.3 | 90.3 | 101.1 | 10 | 0.6 | REP |
| Silicon (Si) | 198331-1 | 0.28 | 0.28 | 99.2 | 1 | 0.06 | REP |
| Silicon (Si) | 198332-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Silicon (Si) | 198333-1 | 0.89 | 0.92 | 103.0 | 1 | 0.06 | REP |
| Silicon (Si) | 198334-1 | 3.35 | 3.30 | 98.4 | 1 | 0.06 | REP |
| Silver (Ag) | 195823-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Silver (Ag) | 198327-1 | < MDL | 0.02 | | 1 | 0.01 | BLL |
| Silver (Ag) | 195830-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 195831-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 195832-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 198331-1 | 0.03 | 0.03 | 103.2 | 1 | 0.01 | REP |

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| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Silver (Ag) | 198332-1 | 0.01 | 0.01 | 98.9 | 1 | 0.01 | REP |
| Silver (Ag) | 198333-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 198334-1 | NA | 0.02 | | 1 | 0.01 | REP |
| Sodium (Na) | 195823-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Sodium (Na) | 198327-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Sodium (Na) | 195824-1 | 49.6 | 50.2 | 101.3 | 1 | 0.1 | REF |
| Sodium (Na) | 198328-1 | 49.6 | 49.7 | 100.3 | 1 | 0.1 | REF |
| Sodium (Na) | 195830-1 | 2.1 | 2.1 | 98.7 | 1 | 0.1 | REP |
| Sodium (Na) | 195831-1 | 1.8 | 1.8 | 101.1 | 1 | 0.1 | REP |
| Sodium (Na) | 195832-1 | 9.6 | 9.3 | 97.2 | 1 | 0.1 | REP |
| Sodium (Na) | 198331-1 | 0.2 | 0.2 | 100.3 | 1 | 0.1 | REP |
| Sodium (Na) | 198332-1 | NA | < 0.1 | | 1 | 0.1 | REP |
| Sodium (Na) | 198333-1 | 1.9 | 1.9 | 102.0 | 1 | 0.1 | REP |
| Sodium (Na) | 198334-1 | 3.6 | 3.4 | 94.4 | 1 | 0.1 | REP |
| Strontium (Sr) | 195823-1 | < MDL | < 0.001 | | 1 | 0.001 | BLL |
| Strontium (Sr) | 198327-1 | < MDL | < 0.001 | | 1 | 0.001 | BLL |
| Strontium (Sr) | 195826-1 | 0.257 | 0.266 | 103.3 | 1 | 0.001 | REF |
| Strontium (Sr) | 198330-1 | 0.257 | 0.249 | 96.8 | 1 | 0.001 | REF |
| Strontium (Sr) | 195830-1 | 0.223 | 0.221 | 98.9 | 1 | 0.001 | REP |
| Strontium (Sr) | 195831-1 | 0.048 | 0.048 | 100.1 | 1 | 0.001 | REP |
| Strontium (Sr) | 195832-1 | 0.432 | 0.429 | 99.3 | 1 | 0.001 | REP |
| Strontium (Sr) | 198331-1 | 0.006 | 0.006 | 96.4 | 1 | 0.001 | REP |
| Strontium (Sr) | 198332-1 | NA | < 0.001 | | 1 | 0.001 | REP |
| Strontium (Sr) | 198333-1 | 0.078 | 0.076 | 97.6 | 1 | 0.001 | REP |
| Strontium (Sr) | 198334-1 | 0.981 | 0.951 | 97.0 | 1 | 0.001 | REP |
| Sulfur (S) | 195823-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Sulfur (S) | 198327-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Sulfur (S) | 195824-1 | 37.6 | 38.9 | 103.4 | 1 | 0.06 | REF |
| Sulfur (S) | 198328-1 | 37.6 | 36.7 | 97.7 | 1 | 0.06 | REF |
| Sulfur (S) | 195830-1 | 24.1 | 24.3 | 100.7 | 1 | 0.06 | REP |
| Sulfur (S) | 195831-1 | 2.17 | 2.16 | 99.6 | 1 | 0.06 | REP |
| Sulfur (S) | 195832-1 | 18.8 | 18.7 | 99.5 | 1 | 0.06 | REP |
| Sulfur (S) | 198331-1 | 4.25 | 3.95 | 93.0 | 1 | 0.06 | REP |
| Sulfur (S) | 198332-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Sulfur (S) | 198333-1 | 10.5 | 10.7 | 102.0 | 1 | 0.06 | REP |
| Sulfur (S) | 198334-1 | 55.5 | 54.6 | 98.3 | 1 | 0.06 | REP |
| Tin (Sn) | 195823-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Tin (Sn) | 198327-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Tin (Sn) | 195825-1 | 3.080 | 3.15 | 102.3 | 1 | 0.06 | REF |
| Tin (Sn) | 198329-1 | 3.080 | 2.98 | 96.7 | 1 | 0.06 | REF |
| Tin (Sn) | 195830-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Tin (Sn) | 195831-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Tin (Sn) | 195832-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Tin (Sn) | 198331-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Tin (Sn) | 198332-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Tin (Sn) | 198333-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Tin (Sn) | 198334-1 | NA | < 0.06 | | 1 | 0.06 | REP |
| Titanium (Ti) | 195823-1 | < MDL | < 0.002 | | 1 | 0.002 | BLL |
| Titanium (Ti) | 198327-1 | < MDL | < 0.002 | | 1 | 0.002 | BLL |
| Titanium (Ti) | 195825-1 | 0.170 | 0.172 | 101.4 | 1 | 0.002 | REF |
| Titanium (Ti) | 198329-1 | 0.170 | 0.164 | 96.2 | 1 | 0.002 | REF |
| Titanium (Ti) | 195830-1 | NA | < 0.002 | | 1 | 0.002 | REP |

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|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Titanium (Ti) | 195831-1 | NA | 0.002 | | 1 | 0.002 | REP |
| Titanium (Ti) | 195832-1 | 1.69 | 1.71 | 101.4 | 1 | 0.002 | REP |
| Titanium (Ti) | 198331-1 | 0.007 | 0.007 | 98.8 | 1 | 0.002 | REP |
| Titanium (Ti) | 198332-1 | NA | < 0.002 | | 1 | 0.002 | REP |
| Titanium (Ti) | 198333-1 | NA | < 0.002 | | 1 | 0.002 | REP |
| Titanium (Ti) | 198334-1 | NA | < 0.002 | | 1 | 0.002 | REP |
| Vanadium (V) | 195823-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Vanadium (V) | 198327-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Vanadium (V) | 195826-1 | 0.735 | 0.76 | 102.7 | 1 | 0.01 | REF |
| Vanadium (V) | 198330-1 | 0.735 | 0.71 | 97.0 | 1 | 0.01 | REF |
| Vanadium (V) | 195830-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 195831-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 195832-1 | 0.14 | 0.14 | 101.5 | 1 | 0.01 | REP |
| Vanadium (V) | 198331-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 198332-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 198333-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 198334-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Zinc (Zn) | 195823-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Zinc (Zn) | 198327-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Zinc (Zn) | 195826-1 | 0.599 | 0.63 | 104.4 | 1 | 0.05 | REF |
| Zinc (Zn) | 198330-1 | 0.599 | 0.61 | 101.7 | 1 | 0.05 | REF |
| Zinc (Zn) | 195830-1 | NA | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 195831-1 | NA | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 195832-1 | 0.16 | 0.16 | 101.0 | 1 | 0.05 | REP |
| Zinc (Zn) | 198331-1 | 4.58 | 4.13 | 90.1 | 1 | 0.05 | REP |
| Zinc (Zn) | 198332-1 | NA | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 198333-1 | NA | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 198334-1 | 0.07 | 0.07 | 96.2 | 1 | 0.05 | REP |

*ICPMS, Dissolved UNITS: ug/L

MATRIX: FWGE

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Aluminum (Al) | 197064-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Aluminum (Al) | 197065-1 | 58.3 | 52.5 | 90.1 | 1 | 0.2 | REF |
| Aluminum (Al) | 197066-1 | 20.7 | 20.8 | 100.7 | 1 | 0.2 | REP |
| Aluminum (Al) | 197067-1 | 18.3 | 18.6 | 101.8 | 1 | 0.2 | REP |
| Antimony (Sb) | 197064-1 | < MDL | 0.022 | | 1 | 0.005 | BLL |
| Antimony (Sb) | 197065-1 | 34.8 | 35.1 | 101.0 | 1 | 0.005 | REF |
| Antimony (Sb) | 195300-1 | 0.017 | 0.012 | 72.7 | 1 | 0.005 | REP |
| Antimony (Sb) | 195780-1 | 19.2 | 19.1 | 99.6 | 1 | 0.005 | REP |
| Antimony (Sb) | 197066-1 | 0.015 | 0.010 | 65.5 | 1 | 0.005 | REP |
| Antimony (Sb) | 197067-1 | 19.1 | 18.9 | 98.8 | 1 | 0.005 | REP |
| Arsenic (As) | 197064-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Arsenic (As) | 197065-1 | 33.4 | 34.5 | 103.3 | 1 | 0.1 | REF |
| Arsenic (As) | 197066-1 | 5.9 | 6.0 | 101.2 | 1 | 0.1 | REP |
| Arsenic (As) | 197067-1 | 2.1 | 2.1 | 101.4 | 1 | 0.1 | REP |
| Barium (Ba) | 197064-1 | < MDL | 0.03 | | 1 | 0.02 | BLL |
| Barium (Ba) | 197065-1 | | 62.2 | | 1 | 0.02 | REF |
| Barium (Ba) | 195300-1 | 12.3 | 12.3 | 100.4 | 1 | 0.02 | REP |
| Barium (Ba) | 195780-1 | 43.5 | 42.8 | 98.5 | 1 | 0.02 | REP |
| Barium (Ba) | 197066-1 | 12.2 | 12.3 | 100.5 | 1 | 0.02 | REP |
| Barium (Ba) | 197067-1 | 43 | 43 | 99.0 | 1 | 0.02 | REP |
| Beryllium (Be) | 197064-1 | < MDL | < 0.002 | | 1 | 0.002 | BLL |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|-----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Beryllium (Be) | 197065-1 | 37.3 | 38 | 101.9 | 1 | 0.002 | REF |
| Beryllium (Be) | 197066-1 | NA | < 0.002 | | 1 | 0.002 | REP |
| Beryllium (Be) | 197067-1 | NA | < 0.002 | | 1 | 0.002 | REP |
| Bismuth (Bi) | 197064-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Bismuth (Bi) | 197066-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Bismuth (Bi) | 197067-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Cadmium (Cd) | 197064-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Cadmium (Cd) | 197065-1 | 60.8 | 61.9 | 101.7 | 1 | 0.01 | REF |
| Cadmium (Cd) | 195300-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Cadmium (Cd) | 195780-1 | 0.21 | 0.20 | 94.0 | 1 | 0.01 | REP |
| Cadmium (Cd) | 197066-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Cadmium (Cd) | 197067-1 | 0.21 | 0.20 | 94.4 | 1 | 0.01 | REP |
| Chromium (Cr) | 197064-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Chromium (Cr) | 197065-1 | 69.1 | 67.7 | 97.9 | 1 | 0.2 | REF |
| Chromium (Cr) | 195300-1 | 2.1 | 2.2 | 102.6 | 1 | 0.2 | REP |
| Chromium (Cr) | 195780-1 | 0.8 | 0.7 | 84.5 | 1 | 0.2 | REP |
| Chromium (Cr) | 197066-1 | 2.3 | 0.3 | 13.1 | 1 | 0.2 | REP |
| Chromium (Cr) | 197067-1 | 0.9 | 0.9 | 98.7 | 1 | 0.2 | REP |
| Cobalt (Co) | 197064-1 | < MDL | < 0.005 | | 1 | 0.005 | BLL |
| Cobalt (Co) | 197065-1 | 62.6 | 62 | 99.1 | 1 | 0.005 | REF |
| Cobalt (Co) | 197066-1 | 0.052 | 0.050 | 96.0 | 1 | 0.005 | REP |
| Cobalt (Co) | 197067-1 | 0.151 | 0.153 | 101.0 | 1 | 0.005 | REP |
| Copper (Cu) | 197064-1 | < MDL | 0.12 | | 1 | 0.05 | BLL |
| Copper (Cu) | 197065-1 | | 67.6 | | 1 | 0.05 | REF |
| Copper (Cu) | 195300-1 | 0.21 | 0.21 | 99.8 | 1 | 0.05 | REP |
| Copper (Cu) | 195780-1 | 1.56 | 1.81 | 116.3 | 1 | 0.05 | REP |
| Copper (Cu) | 197066-1 | 0.22 | 0.59 | 274.0 | 1 | 0.05 | REP |
| Copper (Cu) | 197067-1 | 1.56 | 1.54 | 98.8 | 1 | 0.05 | REP |
| Lead (Pb) | 197064-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Lead (Pb) | 197065-1 | 65.3 | 63.5 | 97.2 | 1 | 0.01 | REF |
| Lead (Pb) | 197066-1 | 0.19 | 0.16 | 85.0 | 1 | 0.01 | REP |
| Lead (Pb) | 197067-1 | 14.4 | 14.2 | 98.3 | 1 | 0.01 | REP |
| Lithium (Li) | 197064-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Lithium (Li) | 197065-1 | 35.4 | 34.4 | 97.2 | 1 | 0.05 | REF |
| Lithium (Li) | 197066-1 | 1.07 | 1.07 | 99.9 | 1 | 0.05 | REP |
| Lithium (Li) | 197067-1 | 3.40 | 3.34 | 98.3 | 1 | 0.05 | REP |
| Manganese (Mn) | 197064-1 | < MDL | 0.010 | | 1 | 0.005 | BLL |
| Manganese (Mn) | 197065-1 | 75.0 | 74.9 | 99.9 | 1 | 0.005 | REF |
| Manganese (Mn) | 197066-1 | 0.148 | 0.144 | 97.0 | 1 | 0.005 | REP |
| Manganese (Mn) | 197067-1 | 36.1 | 35.7 | 99.0 | 1 | 0.005 | REP |
| Molybdenum (Mo) | 197064-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Molybdenum (Mo) | 197065-1 | 75.5 | 74.2 | 98.3 | 1 | 0.05 | REF |
| Molybdenum (Mo) | 197066-1 | 2.06 | 2.10 | 101.8 | 1 | 0.05 | REP |
| Molybdenum (Mo) | 197067-1 | 1.24 | 1.23 | 99.1 | 1 | 0.05 | REP |
| Nickel (Ni) | 197064-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Nickel (Ni) | 197065-1 | 58.8 | 57.2 | 97.3 | 1 | 0.05 | REF |
| Nickel (Ni) | 197066-1 | 1.48 | 1.46 | 98.4 | 1 | 0.05 | REP |
| Nickel (Ni) | 197067-1 | 5.44 | 5.55 | 102.0 | 1 | 0.05 | REP |
| Selenium (Se) | 197064-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Selenium (Se) | 197065-1 | 38.6 | 41.8 | 108.3 | 1 | 0.2 | REF |
| Selenium (Se) | 197066-1 | 1.0 | 1.0 | 104.5 | 1 | 0.2 | REP |
| Selenium (Se) | 197067-1 | 0.8 | 0.9 | 106.5 | 1 | 0.2 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Silver (Ag) | 197064-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Silver (Ag) | 197066-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Silver (Ag) | 197067-1 | 0.13 | 0.13 | 103.9 | 1 | 0.02 | REP |
| Strontium (Sr) | 197064-1 | < MDL | 0.019 | | 1 | 0.005 | BLL |
| Strontium (Sr) | 197065-1 | 67.5 | 65.8 | 97.5 | 1 | 0.005 | REF |
| Strontium (Sr) | 197066-1 | 302 | 305 | 101.0 | 1 | 0.005 | REP |
| Strontium (Sr) | 197067-1 | 232 | 232 | 100.1 | 1 | 0.005 | REP |
| Thallium (Tl) | 197064-1 | < MDL | < 0.002 | | 1 | 0.002 | BLL |
| Thallium (Tl) | 197065-1 | 36.6 | 34.3 | 93.8 | 1 | 0.002 | REF |
| Thallium (Tl) | 197066-1 | 0.070 | 0.055 | 78.7 | 1 | 0.002 | REP |
| Thallium (Tl) | 197067-1 | NA | < 0.002 | | 1 | 0.002 | REP |
| Tin (Sn) | 197064-1 | < MDL | 0.03 | | 1 | 0.01 | BLL |
| Tin (Sn) | 197065-1 | 64.3 | 61.4 | 95.5 | 1 | 0.01 | REF |
| Tin (Sn) | 197066-1 | 0.08 | 0.05 | 65.1 | 1 | 0.01 | REP |
| Tin (Sn) | 197067-1 | 0.02 | 0.02 | 84.9 | 1 | 0.01 | REP |
| Uranium (U) | 197064-1 | < MDL | < 0.002 | | 1 | 0.002 | BLL |
| Uranium (U) | 197065-1 | 35.7 | 34.3 | 96.0 | 1 | 0.002 | REF |
| Uranium (U) | 197066-1 | 0.199 | 0.200 | 100.3 | 1 | 0.002 | REP |
| Uranium (U) | 197067-1 | 1.8 | 1.8 | 97.8 | 1 | 0.002 | REP |
| Vanadium (V) | 197064-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Vanadium (V) | 197065-1 | 73.3 | 71.1 | 97.0 | 1 | 0.05 | REF |
| Vanadium (V) | 197066-1 | 0.51 | 0.50 | 98.7 | 1 | 0.05 | REP |
| Vanadium (V) | 197067-1 | 0.23 | 0.22 | 95.9 | 1 | 0.05 | REP |
| Zinc (Zn) | 197064-1 | < MDL | 0.2 | | 1 | 0.2 | BLL |
| Zinc (Zn) | 195300-1 | 1.6 | 1.4 | 85.3 | 1 | 0.2 | REP |
| Zinc (Zn) | 195780-1 | 38.1 | 38.4 | 100.8 | 1 | 0.2 | REP |
| Zinc (Zn) | 197066-1 | 1.6 | 0.6 | 37.1 | 1 | 0.2 | REP |
| Zinc (Zn) | 197067-1 | 38.2 | 38.1 | 99.8 | 1 | 0.2 | REP |

***ICPMS, Total UNITS: ug/L MATRIX: FWGE**

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Aluminum (Al) | 196147-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Aluminum (Al) | 196901-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Aluminum (Al) | 196148-1 | 58.3 | 63.3 | 108.5 | 1 | 0.2 | REF |
| Aluminum (Al) | 196902-1 | 58.3 | 53.0 | 90.9 | 1 | 0.2 | REF |
| Aluminum (Al) | 197982-1 | 58.3 | 62.0 | 106.3 | 1 | 0.2 | REF |
| Aluminum (Al) | 196903-1 | 2.2 | 2.2 | 100.2 | 1.2 | 0.2 | REP |
| Aluminum (Al) | 196904-1 | 2.2 | 2.2 | 100.0 | 1.2 | 0.2 | REP |
| Aluminum (Al) | 196905-1 | 490 | 492 | 100.4 | 1.2 | 0.2 | REP |
| Aluminum (Al) | 196906-1 | 64.2 | 55.6 | 86.5 | 1.2 | 0.2 | REP |
| Aluminum (Al) | 197983-1 | 86.6 | 86.0 | 99.3 | 1 | 0.2 | REP |
| Aluminum (Al) | 197984-1 | 12.2 | 12.2 | 100.4 | 1 | 0.2 | REP |
| Aluminum (Al) | 197986-1 | 21.7 | 21.0 | 97.0 | 1 | 0.2 | REP |
| Aluminum (Al) | 197987-1 | 114 | 117 | 102.2 | 1 | 0.2 | REP |
| Aluminum (Al) | 197988-1 | 41.5 | 41.4 | 99.9 | 1 | 0.2 | REP |
| Antimony (Sb) | 196147-1 | < MDL | 0.009 | | 1 | 0.005 | BLL |
| Antimony (Sb) | 196901-1 | < MDL | 0.008 | | 1 | 0.005 | BLL |
| Antimony (Sb) | 196148-1 | | 35.5 | | 1 | 0.005 | REF |
| Antimony (Sb) | 196902-1 | | 33.6 | | 1 | 0.005 | REF |
| Antimony (Sb) | 197982-1 | 34.8 | 33.7 | 96.7 | 1 | 0.005 | REF |
| Antimony (Sb) | 194265-1 | 0.012 | 0.012 | 100.7 | 1 | 0.005 | REP |
| Antimony (Sb) | 194275-1 | 0.014 | 0.014 | 102.2 | 1 | 0.005 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Antimony (Sb) | 195355-1 | 0.134 | 0.133 | 99.3 | 1 | 0.005 | REP |
| Antimony (Sb) | 195365-1 | 0.899 | 0.916 | 101.8 | 1 | 0.005 | REP |
| Antimony (Sb) | 195375-1 | 0.021 | 0.020 | 97.1 | 1 | 0.005 | REP |
| Antimony (Sb) | 195385-1 | 0.062 | 0.066 | 106.8 | 1 | 0.005 | REP |
| Antimony (Sb) | 195480-1 | 0.455 | 0.381 | 83.8 | 1 | 0.005 | REP |
| Antimony (Sb) | 195772-1 | 0.037 | 0.033 | 88.3 | 1 | 0.005 | REP |
| Antimony (Sb) | 195782-1 | 20.7 | 20.6 | 99.6 | 1 | 0.005 | REP |
| Antimony (Sb) | 196903-1 | 0.012 | 0.011 | 95.3 | 1 | 0.005 | REP |
| Antimony (Sb) | 196904-1 | 0.014 | 0.014 | 100.4 | 1 | 0.005 | REP |
| Antimony (Sb) | 196905-1 | 0.037 | 0.034 | 92.5 | 1 | 0.005 | REP |
| Antimony (Sb) | 196906-1 | 20.7 | 20.7 | 100.1 | 1 | 0.005 | REP |
| Antimony (Sb) | 197983-1 | 0.133 | 0.131 | 98.2 | 1 | 0.005 | REP |
| Antimony (Sb) | 197984-1 | 0.899 | 0.920 | 102.3 | 1 | 0.005 | REP |
| Antimony (Sb) | 197986-1 | 0.062 | 0.064 | 103.2 | 1 | 0.005 | REP |
| Antimony (Sb) | 197987-1 | 0.455 | 0.376 | 82.6 | 1 | 0.005 | REP |
| Antimony (Sb) | 197988-1 | 0.020 | 0.019 | 93.7 | 1 | 0.005 | REP |
| Arsenic (As) | 196147-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Arsenic (As) | 196901-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Arsenic (As) | 196148-1 | 33.5 | 35.2 | 105.0 | 1 | 0.1 | REF |
| Arsenic (As) | 196902-1 | 33.5 | 34.4 | 102.6 | 1 | 0.1 | REF |
| Arsenic (As) | 197982-1 | 33.5 | 34.6 | 103.4 | 1 | 0.1 | REF |
| Arsenic (As) | 196903-1 | 5.9 | 5.8 | 98.8 | 1 | 0.1 | REP |
| Arsenic (As) | 196904-1 | 5.8 | 5.8 | 100.0 | 1 | 0.1 | REP |
| Arsenic (As) | 196905-1 | 0.2 | 0.2 | 86.5 | 1 | 0.1 | REP |
| Arsenic (As) | 196906-1 | 2.6 | 2.6 | 99.9 | 1 | 0.1 | REP |
| Arsenic (As) | 197983-1 | 0.3 | 0.3 | 99.2 | 1 | 0.1 | REP |
| Arsenic (As) | 197984-1 | 3.5 | 3.5 | 99.7 | 1 | 0.1 | REP |
| Arsenic (As) | 197986-1 | 0.7 | 0.7 | 100.1 | 1 | 0.1 | REP |
| Arsenic (As) | 197987-1 | 0.8 | 0.4 | 51.4 | 1 | 0.1 | REP |
| Arsenic (As) | 197988-1 | 0.1 | 0.1 | 98.8 | 1 | 0.1 | REP |
| Barium (Ba) | 196147-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Barium (Ba) | 196901-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Barium (Ba) | 196148-1 | | 66.8 | | 1 | 0.02 | REF |
| Barium (Ba) | 196902-1 | | 62.8 | | 1 | 0.02 | REF |
| Barium (Ba) | 197982-1 | 63.9 | 65.6 | 102.7 | 1 | 0.02 | REF |
| Barium (Ba) | 194265-1 | 11.9 | 11.9 | 100.0 | 1 | 0.02 | REP |
| Barium (Ba) | 194275-1 | 12.1 | 12.1 | 100.2 | 1 | 0.02 | REP |
| Barium (Ba) | 195355-1 | 59 | 59 | 99.6 | 1 | 0.02 | REP |
| Barium (Ba) | 195365-1 | 40 | 40 | 99.8 | 1 | 0.02 | REP |
| Barium (Ba) | 195375-1 | 21.9 | 22.3 | 101.9 | 1 | 0.02 | REP |
| Barium (Ba) | 195385-1 | 87.4 | 88.2 | 100.9 | 1 | 0.02 | REP |
| Barium (Ba) | 195480-1 | 5.52 | 5.66 | 102.5 | 1 | 0.02 | REP |
| Barium (Ba) | 195772-1 | 42.9 | 41.9 | 97.7 | 1 | 0.02 | REP |
| Barium (Ba) | 195782-1 | 48.4 | 48.2 | 99.6 | 1 | 0.02 | REP |
| Barium (Ba) | 196903-1 | 11.9 | 11.8 | 99.2 | 1 | 0.02 | REP |
| Barium (Ba) | 196904-1 | 12 | 12 | 99.3 | 1 | 0.02 | REP |
| Barium (Ba) | 196905-1 | 43.0 | 41.9 | 97.5 | 1 | 0.02 | REP |
| Barium (Ba) | 196906-1 | 48.4 | 48.1 | 99.4 | 1 | 0.02 | REP |
| Barium (Ba) | 197983-1 | 59.3 | 59.1 | 99.6 | 1 | 0.02 | REP |
| Barium (Ba) | 197984-1 | 40.0 | 39.6 | 99.0 | 1 | 0.02 | REP |
| Barium (Ba) | 197986-1 | 87.4 | 87.6 | 100.2 | 1 | 0.02 | REP |
| Barium (Ba) | 197987-1 | 5.53 | 5.63 | 101.9 | 1 | 0.02 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Barium (Ba) | 197988-1 | 21.8 | 22.1 | 101.3 | 1 | 0.02 | REP |
| Beryllium (Be) | 196147-1 | < MDL | 0.004 | | 1 | 0.002 | BLL |
| Beryllium (Be) | 196901-1 | < MDL | 0.004 | | 1 | 0.002 | BLL |
| Beryllium (Be) | 196148-1 | 38.1 | 41.5 | 108.8 | 1 | 0.002 | REF |
| Beryllium (Be) | 196902-1 | 38.1 | 37.9 | 99.4 | 1 | 0.002 | REF |
| Beryllium (Be) | 197982-1 | 38.1 | 41.6 | 109.2 | 1 | 0.002 | REF |
| Beryllium (Be) | 196903-1 | NA | < 0.002 | | 1 | 0.002 | REP |
| Beryllium (Be) | 196904-1 | NA | < 0.002 | | 1 | 0.002 | REP |
| Beryllium (Be) | 196905-1 | 0.027 | 0.025 | 93.3 | 1 | 0.002 | REP |
| Beryllium (Be) | 196906-1 | 0.005 | 0.004 | 83.8 | 1 | 0.002 | REP |
| Beryllium (Be) | 197983-1 | 0.017 | 0.014 | 84.6 | 1 | 0.002 | REP |
| Beryllium (Be) | 197984-1 | 0.005 | 0.003 | 65.6 | 1 | 0.002 | REP |
| Beryllium (Be) | 197986-1 | 0.003 | 0.003 | 106.4 | 1 | 0.002 | REP |
| Beryllium (Be) | 197987-1 | 0.028 | 0.032 | 114.3 | 1 | 0.002 | REP |
| Beryllium (Be) | 197988-1 | 0.008 | 0.010 | 130.1 | 1 | 0.002 | REP |
| Bismuth (Bi) | 196147-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Bismuth (Bi) | 196901-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Bismuth (Bi) | 196903-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Bismuth (Bi) | 196904-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Bismuth (Bi) | 196905-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Bismuth (Bi) | 196906-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Bismuth (Bi) | 197983-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Bismuth (Bi) | 197984-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Bismuth (Bi) | 197986-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Bismuth (Bi) | 197987-1 | 0.05 | 0.05 | 96.9 | 1 | 0.02 | REP |
| Bismuth (Bi) | 197988-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Cadmium (Cd) | 196148-1 | 60.2 | 63.5 | 105.4 | 1 | 0.01 | REF |
| Cadmium (Cd) | 196902-1 | 60.2 | 61.5 | 102.2 | 1 | 0.01 | REF |
| Cadmium (Cd) | 197982-1 | 60.2 | 62.8 | 104.3 | 1 | 0.01 | REF |
| Cadmium (Cd) | 194265-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Cadmium (Cd) | 194275-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Cadmium (Cd) | 195355-1 | 0.25 | 0.23 | 93.1 | 1 | 0.01 | REP |
| Cadmium (Cd) | 195365-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Cadmium (Cd) | 195375-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Cadmium (Cd) | 195385-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Cadmium (Cd) | 195480-1 | 0.61 | 0.63 | 102.9 | 1 | 0.01 | REP |
| Cadmium (Cd) | 195772-1 | 0.52 | 0.51 | 98.9 | 1 | 0.01 | REP |
| Cadmium (Cd) | 195782-1 | 0.09 | 0.10 | 110.0 | 1 | 0.01 | REP |
| Cadmium (Cd) | 196903-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Cadmium (Cd) | 196904-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Cadmium (Cd) | 196905-1 | 0.51 | 0.55 | 107.1 | 1 | 0.01 | REP |
| Cadmium (Cd) | 196906-1 | 0.09 | 0.10 | 108.4 | 1 | 0.01 | REP |
| Cadmium (Cd) | 197983-1 | 0.25 | 0.26 | 105.5 | 1 | 0.01 | REP |
| Cadmium (Cd) | 197984-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Cadmium (Cd) | 197986-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Cadmium (Cd) | 197987-1 | 0.61 | 0.63 | 102.8 | 1 | 0.01 | REP |
| Cadmium (Cd) | 197988-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Chromium (Cr) | 196147-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Chromium (Cr) | 196901-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Chromium (Cr) | 196148-1 | 69.1 | 72.4 | 104.7 | 1 | 0.2 | REF |
| Chromium (Cr) | 196902-1 | 69.1 | 68.0 | 98.5 | 1 | 0.2 | REF |
| Chromium (Cr) | 197982-1 | 69.1 | 71.8 | 103.9 | 1 | 0.2 | REF |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Chromium (Cr) | 194265-1 | 0.2 | 3.5 | 433.9 | 1 | 0.2 | REP |
| Chromium (Cr) | 194275-1 | 2.9 | 2.9 | 99.1 | 1 | 0.2 | REP |
| Chromium (Cr) | 195355-1 | NA | < 0.2 | | 1 | 0.2 | REP |
| Chromium (Cr) | 195365-1 | NA | < 0.2 | | 1 | 0.2 | REP |
| Chromium (Cr) | 195375-1 | NA | < 0.2 | | 1 | 0.2 | REP |
| Chromium (Cr) | 195385-1 | NA | < 0.2 | | 1 | 0.2 | REP |
| Chromium (Cr) | 195480-1 | 374 | 383 | 102.5 | 1 | 0.2 | REP |
| Chromium (Cr) | 195772-1 | 0.8 | 0.5 | 63.4 | 1 | 0.2 | REP |
| Chromium (Cr) | 195782-1 | 1.0 | 1.0 | 99.2 | 1 | 0.2 | REP |
| Chromium (Cr) | 196903-1 | NA | < 0.2 | | 1 | 0.2 | REP |
| Chromium (Cr) | 196904-1 | NA | < 0.2 | | 1 | 0.2 | REP |
| Chromium (Cr) | 196905-1 | 0.8 | 1.1 | 135.8 | 1 | 0.2 | REP |
| Chromium (Cr) | 196906-1 | 1.1 | 1.8 | 168.4 | 1 | 0.2 | REP |
| Chromium (Cr) | 197983-1 | 1.2 | 1.2 | 100.6 | 1 | 0.2 | REP |
| Chromium (Cr) | 197984-1 | 0.7 | 0.7 | 94.6 | 1 | 0.2 | REP |
| Chromium (Cr) | 197986-1 | 0.7 | 0.7 | 97.7 | 1 | 0.2 | REP |
| Chromium (Cr) | 197987-1 | NA | < 0.2 | | 1 | 0.2 | REP |
| Chromium (Cr) | 197988-1 | 1.0 | 0.9 | 94.3 | 1 | 0.2 | REP |
| Cobalt (Co) | 196147-1 | < MDL | < 0.005 | | 1 | 0.005 | BLL |
| Cobalt (Co) | 196901-1 | < MDL | < 0.005 | | 1 | 0.005 | BLL |
| Cobalt (Co) | 196148-1 | 62.6 | 66.2 | 105.7 | 1 | 0.005 | REF |
| Cobalt (Co) | 196902-1 | 62.6 | 62.6 | 100.1 | 1 | 0.005 | REF |
| Cobalt (Co) | 197982-1 | 62.6 | 66.3 | 105.9 | 1 | 0.005 | REF |
| Cobalt (Co) | 196903-1 | 0.060 | 0.057 | 94.8 | 1 | 0.005 | REP |
| Cobalt (Co) | 196904-1 | 0.052 | 0.056 | 106.9 | 1 | 0.005 | REP |
| Cobalt (Co) | 196905-1 | 3.76 | 3.69 | 98.2 | 1 | 0.005 | REP |
| Cobalt (Co) | 196906-1 | 0.267 | 0.261 | 97.7 | 1 | 0.005 | REP |
| Cobalt (Co) | 197983-1 | 1.27 | 1.29 | 101.6 | 1 | 0.005 | REP |
| Cobalt (Co) | 197984-1 | 0.122 | 0.125 | 102.7 | 1 | 0.005 | REP |
| Cobalt (Co) | 197986-1 | 0.119 | 0.123 | 103.4 | 1 | 0.005 | REP |
| Cobalt (Co) | 197987-1 | 0.124 | 0.118 | 95.5 | 1 | 0.005 | REP |
| Cobalt (Co) | 197988-1 | 0.047 | 0.052 | 110.2 | 1 | 0.005 | REP |
| Copper (Cu) | 196147-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Copper (Cu) | 196901-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Copper (Cu) | 196148-1 | | 71.4 | | 1 | 0.05 | REF |
| Copper (Cu) | 196902-1 | | 68.2 | | 1 | 0.05 | REF |
| Copper (Cu) | 197982-1 | 68.1 | 71.3 | 104.7 | 1 | 0.05 | REF |
| Copper (Cu) | 194265-1 | 2.16 | 1.85 | 85.8 | 1 | 0.05 | REP |
| Copper (Cu) | 194275-1 | 0.66 | 0.64 | 96.6 | 1 | 0.05 | REP |
| Copper (Cu) | 195355-1 | 4.12 | 4.75 | 115.4 | 1 | 0.05 | REP |
| Copper (Cu) | 195365-1 | 0.63 | 0.83 | 131.8 | 1 | 0.05 | REP |
| Copper (Cu) | 195375-1 | 0.66 | 0.58 | 88.5 | 1 | 0.05 | REP |
| Copper (Cu) | 195385-1 | 1.25 | 0.82 | 65.4 | 1 | 0.05 | REP |
| Copper (Cu) | 195480-1 | 188 | 182 | 96.7 | 1 | 0.05 | REP |
| Copper (Cu) | 195772-1 | 4.40 | 4.43 | 100.6 | 1 | 0.05 | REP |
| Copper (Cu) | 195782-1 | 1.36 | 1.51 | 110.9 | 1 | 0.05 | REP |
| Copper (Cu) | 196903-1 | 2.16 | 2.16 | 100.2 | 1 | 0.05 | REP |
| Copper (Cu) | 196904-1 | 0.66 | 0.92 | 139.3 | 1 | 0.05 | REP |
| Copper (Cu) | 196905-1 | 4.40 | 4.22 | 95.8 | 1 | 0.05 | REP |
| Copper (Cu) | 196906-1 | 1.35 | 1.17 | 86.4 | 1 | 0.05 | REP |
| Copper (Cu) | 197983-1 | 4.12 | 4.18 | 101.5 | 1 | 0.05 | REP |
| Copper (Cu) | 197984-1 | 0.63 | 0.61 | 96.6 | 1 | 0.05 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|-----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Copper (Cu) | 197986-1 | 1.25 | 0.69 | 55.1 | 1 | 0.05 | REP |
| Copper (Cu) | 197987-1 | 188 | 183 | 97.3 | 1 | 0.05 | REP |
| Copper (Cu) | 197988-1 | 0.65 | 0.55 | 84.8 | 1 | 0.05 | REP |
| Lead (Pb) | 196147-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Lead (Pb) | 196901-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Lead (Pb) | 196148-1 | 64.9 | 65.5 | 101.0 | 1 | 0.01 | REF |
| Lead (Pb) | 196902-1 | 64.9 | 62.7 | 96.6 | 1 | 0.01 | REF |
| Lead (Pb) | 197982-1 | 64.9 | 68.3 | 105.3 | 1 | 0.01 | REF |
| Lead (Pb) | 196903-1 | 0.08 | 0.08 | 104.8 | 1 | 0.01 | REP |
| Lead (Pb) | 196904-1 | 0.04 | 0.04 | 95.0 | 1 | 0.01 | REP |
| Lead (Pb) | 196905-1 | 0.05 | 0.05 | 109.5 | 1 | 0.01 | REP |
| Lead (Pb) | 196906-1 | 12.3 | 12.4 | 101.1 | 1 | 0.01 | REP |
| Lead (Pb) | 197983-1 | 0.02 | 0.02 | 131.6 | 1 | 0.01 | REP |
| Lead (Pb) | 197984-1 | 0.11 | 0.09 | 82.4 | 1 | 0.01 | REP |
| Lead (Pb) | 197986-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Lead (Pb) | 197987-1 | 69.3 | 70.5 | 101.7 | 1 | 0.01 | REP |
| Lead (Pb) | 197988-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Lithium (Li) | 196147-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Lithium (Li) | 196901-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Lithium (Li) | 196148-1 | 36.2 | 41.3 | 114.0 | 1 | 0.05 | REF |
| Lithium (Li) | 196902-1 | 36.2 | 34.6 | 95.7 | 1 | 0.05 | REF |
| Lithium (Li) | 197982-1 | 36.2 | 39.5 | 109.1 | 1 | 0.05 | REF |
| Lithium (Li) | 196903-1 | 0.99 | 1.00 | 101.0 | 1 | 0.05 | REP |
| Lithium (Li) | 196904-1 | 1.04 | 1.06 | 102.0 | 1 | 0.05 | REP |
| Lithium (Li) | 196905-1 | 3.78 | 3.71 | 98.1 | 1 | 0.05 | REP |
| Lithium (Li) | 196906-1 | 3.18 | 3.11 | 97.8 | 1 | 0.05 | REP |
| Lithium (Li) | 197983-1 | 4.62 | 4.59 | 99.3 | 1 | 0.05 | REP |
| Lithium (Li) | 197984-1 | 9.47 | 9.66 | 102.0 | 1 | 0.05 | REP |
| Lithium (Li) | 197986-1 | 2.93 | 2.80 | 95.7 | 1 | 0.05 | REP |
| Lithium (Li) | 197987-1 | 0.26 | 0.25 | 97.0 | 1 | 0.05 | REP |
| Lithium (Li) | 197988-1 | 1.27 | 1.21 | 95.3 | 1 | 0.05 | REP |
| Manganese (Mn) | 196147-1 | < MDL | < 0.005 | | 1 | 0.005 | BLL |
| Manganese (Mn) | 196901-1 | < MDL | 0.007 | | 1 | 0.005 | BLL |
| Manganese (Mn) | 196148-1 | 74.5 | 79.4 | 106.6 | 1 | 0.005 | REF |
| Manganese (Mn) | 196902-1 | 74.5 | 74.9 | 100.5 | 1 | 0.005 | REF |
| Manganese (Mn) | 197982-1 | 74.5 | 80.3 | 107.7 | 1 | 0.005 | REF |
| Manganese (Mn) | 196903-1 | 0.667 | 0.685 | 102.6 | 1 | 0.005 | REP |
| Manganese (Mn) | 196904-1 | 0.324 | 0.324 | 100.1 | 1 | 0.005 | REP |
| Manganese (Mn) | 196905-1 | 53.8 | 52.4 | 97.5 | 1 | 0.005 | REP |
| Manganese (Mn) | 196906-1 | 93.4 | 94.3 | 101.0 | 1 | 0.005 | REP |
| Manganese (Mn) | 197983-1 | 112 | 113 | 100.7 | 1 | 0.005 | REP |
| Manganese (Mn) | 197984-1 | 27 | 27 | 100.5 | 1 | 0.005 | REP |
| Manganese (Mn) | 197986-1 | 12.3 | 12.2 | 99.3 | 1 | 0.005 | REP |
| Manganese (Mn) | 197987-1 | 5.80 | 5.95 | 102.6 | 1 | 0.005 | REP |
| Manganese (Mn) | 197988-1 | 3.26 | 3.29 | 100.8 | 1 | 0.005 | REP |
| Molybdenum (Mo) | 196147-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Molybdenum (Mo) | 196901-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Molybdenum (Mo) | 196148-1 | 75.5 | 81 | 107.3 | 1 | 0.05 | REF |
| Molybdenum (Mo) | 196902-1 | 75.5 | 74.7 | 98.9 | 1 | 0.05 | REF |
| Molybdenum (Mo) | 197982-1 | 75.5 | 79.1 | 104.7 | 1 | 0.05 | REF |
| Molybdenum (Mo) | 196903-1 | 2.08 | 2.06 | 99.0 | 1 | 0.05 | REP |
| Molybdenum (Mo) | 196904-1 | 2.09 | 2.06 | 98.7 | 1 | 0.05 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|-----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Molybdenum (Mo) | 196905-1 | 0.35 | 0.29 | 83.8 | 1 | 0.05 | REP |
| Molybdenum (Mo) | 196906-1 | 1.67 | 1.65 | 98.8 | 1 | 0.05 | REP |
| Molybdenum (Mo) | 197983-1 | 0.46 | 0.44 | 96.3 | 1 | 0.05 | REP |
| Molybdenum (Mo) | 197984-1 | 0.20 | 0.20 | 102.5 | 1 | 0.05 | REP |
| Molybdenum (Mo) | 197986-1 | 0.25 | 0.25 | 98.4 | 1 | 0.05 | REP |
| Molybdenum (Mo) | 197987-1 | 0.40 | 0.28 | 70.0 | 1 | 0.05 | REP |
| Molybdenum (Mo) | 197988-1 | 0.55 | 0.55 | 99.8 | 1 | 0.05 | REP |
| Nickel (Ni) | 196147-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Nickel (Ni) | 196901-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Nickel (Ni) | 196148-1 | 58.8 | 61.9 | 105.2 | 1 | 0.05 | REF |
| Nickel (Ni) | 196902-1 | 58.8 | 58.7 | 99.8 | 1 | 0.05 | REF |
| Nickel (Ni) | 197982-1 | 58.8 | 61.8 | 105.1 | 1 | 0.05 | REF |
| Nickel (Ni) | 196903-1 | 1.67 | 1.67 | 99.9 | 1 | 0.05 | REP |
| Nickel (Ni) | 196904-1 | 1.55 | 1.58 | 102.1 | 1 | 0.05 | REP |
| Nickel (Ni) | 196905-1 | 43.6 | 42.4 | 97.4 | 1 | 0.05 | REP |
| Nickel (Ni) | 196906-1 | 6.31 | 6.45 | 102.3 | 1 | 0.05 | REP |
| Nickel (Ni) | 197983-1 | 20.4 | 20.6 | 101.2 | 1 | 0.05 | REP |
| Nickel (Ni) | 197984-1 | 2.49 | 2.55 | 102.3 | 1 | 0.05 | REP |
| Nickel (Ni) | 197986-1 | 2.72 | 2.60 | 95.5 | 1 | 0.05 | REP |
| Nickel (Ni) | 197987-1 | 2.39 | 2.32 | 97.2 | 1 | 0.05 | REP |
| Nickel (Ni) | 197988-1 | 0.99 | 0.97 | 97.5 | 1 | 0.05 | REP |
| Selenium (Se) | 196147-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Selenium (Se) | 196901-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Selenium (Se) | 196148-1 | 38.8 | 41.1 | 105.8 | 1 | 0.2 | REF |
| Selenium (Se) | 196902-1 | 38.8 | 41.8 | 107.6 | 1 | 0.2 | REF |
| Selenium (Se) | 197982-1 | 38.8 | 40.1 | 103.3 | 1 | 0.2 | REF |
| Selenium (Se) | 196151-1 | 35.9 | 35.7 | 99.5 | 1 | 0.2 | REP |
| Selenium (Se) | 196903-1 | 0.9 | 0.9 | 101.6 | 1 | 0.2 | REP |
| Selenium (Se) | 196904-1 | 0.9 | 0.9 | 102.0 | 1 | 0.2 | REP |
| Selenium (Se) | 196905-1 | 1.1 | 1.0 | 89.4 | 1 | 0.2 | REP |
| Selenium (Se) | 196906-1 | 0.9 | 1.0 | 105.5 | 1 | 0.2 | REP |
| Selenium (Se) | 197983-1 | 0.8 | 0.8 | 99.3 | 1 | 0.2 | REP |
| Selenium (Se) | 197984-1 | 0.3 | 0.3 | 93.8 | 1 | 0.2 | REP |
| Selenium (Se) | 197986-1 | 0.3 | 0.4 | 115.4 | 1 | 0.2 | REP |
| Selenium (Se) | 197987-1 | 0.4 | 0.3 | 81.3 | 1 | 0.2 | REP |
| Selenium (Se) | 197988-1 | 0.3 | 0.3 | 106.3 | 1 | 0.2 | REP |
| Silver (Ag) | 196147-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Silver (Ag) | 196901-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Silver (Ag) | 196903-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Silver (Ag) | 196904-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Silver (Ag) | 196905-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Silver (Ag) | 196906-1 | 0.09 | 0.09 | 96.4 | 1 | 0.02 | REP |
| Silver (Ag) | 197983-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Silver (Ag) | 197984-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Silver (Ag) | 197986-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Silver (Ag) | 197987-1 | 0.25 | 0.14 | 56.3 | 1 | 0.02 | REP |
| Silver (Ag) | 197988-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Strontium (Sr) | 196147-1 | < MDL | < 0.005 | | 1 | 0.005 | BLL |
| Strontium (Sr) | 196901-1 | < MDL | < 0.005 | | 1 | 0.005 | BLL |
| Strontium (Sr) | 196148-1 | 67.4 | 65.3 | 96.9 | 1 | 0.005 | REF |
| Strontium (Sr) | 196902-1 | 67.4 | 67.9 | 100.7 | 1 | 0.005 | REF |
| Strontium (Sr) | 197982-1 | 67.4 | 72.9 | 108.2 | 1 | 0.005 | REF |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Strontium (Sr) | 196903-1 | 321 | 320 | 99.7 | 1 | 0.005 | REP |
| Strontium (Sr) | 196904-1 | 314 | 314 | 100.0 | 1 | 0.005 | REP |
| Strontium (Sr) | 196905-1 | 112 | 109 | 97.3 | 1 | 0.005 | REP |
| Strontium (Sr) | 196906-1 | 262 | 260 | 99.4 | 1 | 0.005 | REP |
| Strontium (Sr) | 197983-1 | 396 | 402 | 101.5 | 1 | 0.005 | REP |
| Strontium (Sr) | 197984-1 | 238 | 238 | 99.8 | 1 | 0.005 | REP |
| Strontium (Sr) | 197986-1 | 262 | 263 | 100.2 | 1 | 0.005 | REP |
| Strontium (Sr) | 197987-1 | 2 | 2 | 102.5 | 1 | 0.005 | REP |
| Strontium (Sr) | 197988-1 | 51.5 | 51.6 | 100.1 | 1 | 0.005 | REP |
| Thallium (Tl) | 196147-1 | < MDL | < 0.002 | | 1 | 0.002 | BLL |
| Thallium (Tl) | 196901-1 | < MDL | < 0.002 | | 1 | 0.002 | BLL |
| Thallium (Tl) | 196148-1 | 36.2 | 34.6 | 95.6 | 1 | 0.002 | REF |
| Thallium (Tl) | 196902-1 | 36.2 | 35.8 | 98.8 | 1 | 0.002 | REF |
| Thallium (Tl) | 197982-1 | 36.2 | 39.8 | 109.9 | 1 | 0.002 | REF |
| Thallium (Tl) | 196903-1 | 0.009 | 0.011 | 121.0 | 1 | 0.002 | REP |
| Thallium (Tl) | 196904-1 | NA | < 0.002 | | 1 | 0.002 | REP |
| Thallium (Tl) | 196905-1 | NA | < 0.002 | | 1 | 0.002 | REP |
| Thallium (Tl) | 196906-1 | NA | < 0.002 | | 1 | 0.002 | REP |
| Thallium (Tl) | 197983-1 | NA | < 0.002 | | 1 | 0.002 | REP |
| Thallium (Tl) | 197984-1 | NA | < 0.002 | | 1 | 0.002 | REP |
| Thallium (Tl) | 197986-1 | NA | < 0.002 | | 1 | 0.002 | REP |
| Thallium (Tl) | 197987-1 | NA | < 0.002 | | 1 | 0.002 | REP |
| Thallium (Tl) | 197988-1 | NA | < 0.002 | | 1 | 0.002 | REP |
| Tin (Sn) | 196147-1 | < MDL | 0.02 | | 1 | 0.01 | BLL |
| Tin (Sn) | 196901-1 | < MDL | 0.01 | | 1 | 0.01 | BLL |
| Tin (Sn) | 196148-1 | 64.5 | 77.9 | 120.7 | 1 | 0.01 | REF |
| Tin (Sn) | 196902-1 | 64.5 | 60.7 | 94.1 | 1 | 0.01 | REF |
| Tin (Sn) | 197982-1 | 64.5 | 65.2 | 101.0 | 1 | 0.01 | REF |
| Tin (Sn) | 196903-1 | 0.18 | 0.18 | 99.3 | 1 | 0.01 | REP |
| Tin (Sn) | 196904-1 | 1.91 | 1.92 | 100.3 | 1 | 0.01 | REP |
| Tin (Sn) | 196905-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Tin (Sn) | 196906-1 | 0.55 | 0.19 | 34.7 | 1 | 0.01 | REP |
| Tin (Sn) | 197983-1 | 0.07 | 0.04 | 58.8 | 1 | 0.01 | REP |
| Tin (Sn) | 197984-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Tin (Sn) | 197986-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Tin (Sn) | 197987-1 | 0.31 | 0.32 | 104.7 | 1 | 0.01 | REP |
| Tin (Sn) | 197988-1 | NA | < 0.01 | | 1 | 0.01 | REP |
| Uranium (U) | 196147-1 | < MDL | < 0.002 | | 1 | 0.002 | BLL |
| Uranium (U) | 196901-1 | < MDL | < 0.002 | | 1 | 0.002 | BLL |
| Uranium (U) | 196148-1 | 35.7 | 34.1 | 95.6 | 1 | 0.002 | REF |
| Uranium (U) | 196902-1 | 35.7 | 33.8 | 94.7 | 1 | 0.002 | REF |
| Uranium (U) | 197982-1 | 35.7 | 38.7 | 108.5 | 1 | 0.002 | REF |
| Uranium (U) | 196903-1 | 0.215 | 0.209 | 97.1 | 1 | 0.002 | REP |
| Uranium (U) | 196904-1 | 0.197 | 0.197 | 100.2 | 1 | 0.002 | REP |
| Uranium (U) | 196905-1 | 0.265 | 0.259 | 97.8 | 1 | 0.002 | REP |
| Uranium (U) | 196906-1 | 2.26 | 2.22 | 98.1 | 1 | 0.002 | REP |
| Uranium (U) | 197983-1 | 1.93 | 1.92 | 99.6 | 1 | 0.002 | REP |
| Uranium (U) | 197984-1 | 1.34 | 1.35 | 100.9 | 1 | 0.002 | REP |
| Uranium (U) | 197986-1 | 0.896 | 0.913 | 101.9 | 1 | 0.002 | REP |
| Uranium (U) | 197987-1 | 0.011 | 0.009 | 82.4 | 1 | 0.002 | REP |
| Uranium (U) | 197988-1 | 0.670 | 0.674 | 100.5 | 1 | 0.002 | REP |
| Vanadium (V) | 196147-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Vanadium (V) | 196901-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Vanadium (V) | 196148-1 | 72.9 | 75.9 | 104.2 | 1 | 0.05 | REF |
| Vanadium (V) | 196902-1 | 72.9 | 71.3 | 97.9 | 1 | 0.05 | REF |
| Vanadium (V) | 197982-1 | 72.9 | 76.2 | 104.5 | 1 | 0.05 | REF |
| Vanadium (V) | 196903-1 | 0.45 | 0.38 | 84.0 | 1 | 0.05 | REP |
| Vanadium (V) | 196904-1 | 0.39 | 0.41 | 103.9 | 1 | 0.05 | REP |
| Vanadium (V) | 196905-1 | 0.48 | 0.46 | 96.5 | 1 | 0.05 | REP |
| Vanadium (V) | 196906-1 | 0.57 | 0.62 | 108.8 | 1 | 0.05 | REP |
| Vanadium (V) | 197983-1 | 0.50 | 0.50 | 100.9 | 1 | 0.05 | REP |
| Vanadium (V) | 197984-1 | 0.26 | 0.25 | 94.7 | 1 | 0.05 | REP |
| Vanadium (V) | 197986-1 | 0.30 | 0.30 | 98.6 | 1 | 0.05 | REP |
| Vanadium (V) | 197987-1 | 1.20 | 1.14 | 94.8 | 1 | 0.05 | REP |
| Vanadium (V) | 197988-1 | 0.62 | 0.61 | 98.4 | 1 | 0.05 | REP |
| Zinc (Zn) | 196147-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Zinc (Zn) | 196901-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Zinc (Zn) | 194265-1 | 0.8 | 0.7 | 85.0 | 1 | 0.2 | REP |
| Zinc (Zn) | 194275-1 | 0.8 | 1.0 | 121.4 | 1 | 0.2 | REP |
| Zinc (Zn) | 195355-1 | 23.0 | 23.2 | 101.1 | 1 | 0.2 | REP |
| Zinc (Zn) | 195365-1 | 1.7 | 4.7 | 273.7 | 1 | 0.2 | REP |
| Zinc (Zn) | 195375-1 | 3.0 | 2.5 | 82.7 | 1 | 0.2 | REP |
| Zinc (Zn) | 195385-1 | 0.9 | 5.5 | 622.5 | 1 | 0.2 | REP |
| Zinc (Zn) | 195480-1 | 101 | 107 | 105.7 | 1 | 0.2 | REP |
| Zinc (Zn) | 195772-1 | 76.1 | 74.4 | 97.8 | 1 | 0.2 | REP |
| Zinc (Zn) | 195782-1 | 20.8 | 21.5 | 103.6 | 1 | 0.2 | REP |
| Zinc (Zn) | 196903-1 | NA | < 0.2 | | 1 | 0.2 | REP |
| Zinc (Zn) | 196904-1 | 0.9 | 0.3 | 33.3 | 1 | 0.2 | REP |
| Zinc (Zn) | 196905-1 | 76.1 | 74.9 | 98.4 | 1 | 0.2 | REP |
| Zinc (Zn) | 196906-1 | 20.8 | 20.9 | 100.7 | 1 | 0.2 | REP |
| Zinc (Zn) | 197983-1 | 22.9 | 22.2 | 96.8 | 1 | 0.2 | REP |
| Zinc (Zn) | 197984-1 | 1.7 | 3.2 | 186.4 | 1 | 0.2 | REP |
| Zinc (Zn) | 197986-1 | 0.9 | 1.5 | 170.8 | 1 | 0.2 | REP |
| Zinc (Zn) | 197987-1 | 101 | 108 | 106.7 | 1 | 0.2 | REP |
| Zinc (Zn) | 197988-1 | 3.0 | 1.5 | 49.5 | 1 | 0.2 | REP |

***Mercury, dissolved UNITS:** ug/L

MATRIX: FWGE

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Mercury (Hg) | 195466-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Mercury (Hg) | 195468-1 | 1.51 | 1.46 | 96.7 | 1 | 0.02 | REF |
| Mercury (Hg) | 195472-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Mercury (Hg) | 195627-1 | | 0 | | 1 | | REP |

***Mercury, total UNITS:** ug/L

MATRIX: FWGE

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Mercury (Hg) | 196183-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Mercury (Hg) | 196184-1 | 1.50 | 1.52 | 101.4 | 1 | 0.02 | REF |
| Mercury (Hg) | 196185-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Mercury (Hg) | 196186-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Mercury (Hg) | 196187-1 | NA | < 0.02 | | 1 | 0.02 | REP |
| Mercury (Hg) | 196188-1 | 0.04 | 0.04 | 105.3 | 1 | 0.02 | REP |
| Mercury (Hg) | 196264-1 | | 0 | | 1 | | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|---|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| *pH UNITS: pH Units MATRIX: FWGE | | | | | | | |
| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
| pH | 195259-1 | 5.66705585 | 5.62 | | 1 | 0.01 | BLE |
| pH | 195687-1 | 5.66705585 | 5.61 | | 1 | 0.01 | BLE |
| pH | 195250-1 | 7.38 | 7.39 | 100.1 | 1 | 0.01 | REF |
| pH | 195678-1 | 7.38 | 7.40 | 100.3 | 1 | 0.01 | REF |
| pH | 195270-1 | 7.59 | 7.60 | 100.2 | 1 | 0.01 | REP |
| pH | 195273-1 | 7.35 | 7.34 | 99.8 | 1 | 0.01 | REP |
| pH | 195279-1 | 8.62 | 8.62 | 100.0 | 1 | 0.01 | REP |
| pH | 195724-1 | 8.11 | 8.13 | 100.2 | 1 | 0.01 | REP |
| pH | 195727-1 | 8.08 | 8.08 | 100.0 | 1 | 0.01 | REP |
| pH | 195730-1 | 8.31 | 8.32 | 100.1 | 1 | 0.01 | REP |

| *Residue, Nonfilt. UNITS: mg/L MATRIX: FWGE | | | | | | | |
|--|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
| Solids, Total Suspended (NFR) | 195406-1 | < MDL | < 5 | | 1 | 5 | BLE |
| Solids, Total Suspended (NFR) | 195416-1 | 39.4 | 41 | 105.0 | 1 | 5 | REF |

| *SpecificConductance UNITS: uS/cm MATRIX: FWGE | | | | | | | |
|---|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
| Conductivity | 195261-1 | < MDL | < 2 | | 1 | 2 | BLE |
| Conductivity | 195263-1 | 12900 | 12900 | 99.9 | 1 | 2 | REF |
| Conductivity | 195264-1 | 14.8278378 | 15 | 103.9 | 1 | 2 | REF |
| Conductivity | 195265-1 | 716 | 726 | 101.5 | 1 | 2 | REF |
| Conductivity | 195269-1 | 440 | 440 | 100.1 | 1 | 2 | REF |
| Conductivity | 195271-1 | 245 | 244 | 99.6 | 1 | 2 | REP |
| Conductivity | 195274-1 | 192 | 192 | 99.9 | 1 | 2 | REP |
| Conductivity | 195278-1 | 181 | 180 | 99.7 | 1 | 2 | REP |
| Conductivity | 195280-1 | 200 | 201 | 100.5 | 1 | 2 | REP |
| Conductivity | 195282-1 | 206 | 206 | 100.0 | 1 | 2 | REP |

| *Turbidity UNITS: NTU MATRIX: FWGE | | | | | | | |
|---|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
| Turbidity | 195118-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Turbidity | 195119-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Turbidity | 195120-1 | 4.2 | 4.30 | 102.4 | 1 | 0.05 | REF |
| Turbidity | 195121-1 | 4.2 | 4.32 | 102.9 | 1 | 0.05 | REF |
| Turbidity | 195122-1 | 28.4 | 29.8 | 104.9 | 1 | 0.05 | REP |
| Turbidity | 195123-1 | 5.76 | 5.70 | 99.0 | 1 | 0.05 | REP |
| Turbidity | 195124-1 | 0.48 | 0.45 | 93.5 | 1 | 0.05 | REP |

| Hardness, Diss. CaMg UNITS: mg CaCO3 / L MATRIX: FWGE | | | | | | | |
|--|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
| Hardness, Dissolved Calcium+Magnes | 195993-1 | | < 0.4 | | 1 | 0.4 | BLE |
| Hardness, Dissolved Calcium+Magnes | 195997-1 | NA | 45.8 | | 1 | 0.4 | REP |
| Hardness, Dissolved Calcium+Magnes | 195998-1 | NA | 603 | | 1 | 0.4 | REP |
| Hardness, Dissolved Calcium+Magnes | 195999-1 | NA | < 0.4 | | 1 | 0.4 | REP |
| Hardness, Dissolved Calcium+Magnes | 196000-1 | NA | 4.7 | | 1 | 0.4 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|------------------------------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Hardness, Dissolved Calcium+Magnes | 196001-1 | NA | 300 | | 1 | 0.4 | REP |

Note: All QC information is batch associated. Duplicate analysis are not necessarily those of this report. Percent recovery for duplicate analysis represents the percent recovery of REP2 as compared to REP1 of a sample duplicate.

| | | |
|---------------------------------------|------------------------------|--------------------------|
| BLE - Blank, Equipment | BLL - Blank, Method | BLX - Blank, Extraction |
| REA - Replicate Spike, Known Addition | REF - Reference Material | REG - Regular Sample |
| RRF - Replicate Reference Material | REK - Replicate, Spike | REP - Replicate, Regular |
| RTS - Replicate Test Sample | SPA - Spike, Known Addition | SPK - Spike |
| TST - Test Sample 1=Present 2=Absent | MDL - Method Detection Limit | |



Billing Estimate

PESC FOLDER # : 200900674

Invoice: 103730

----- Not an Invoice Do not Pay -----

EP YUKON ENV ASSESSMENT

Location: PROJECT: W23101229

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>QTY</u> | <u>UNITPRICE</u> | <u>PENALTY</u> | <u>SURCHARGE</u> | <u>NETPRICE</u> |
|---|---------------|------------|------------------|----------------|---------------------------|-------------------|
| PESC - Inorganics | | | | | | |
| *Alkalinity, TotpH4.5 | FWGE | 6 | \$12.00 | | | \$72.00 |
| *ICA (NO2 NO3) | FWGE | 6 | \$24.00 | | | \$144.00 |
| *ICA (Sulphate) | FWGE | 6 | \$12.00 | | | \$72.00 |
| *ICP, Dissolved | FWGE | 6 | \$22.50 | | | \$135.00 |
| *ICP, Total | FWGE | 6 | \$30.00 | | | \$180.00 |
| *ICPMS Dissolved. | FWGE | 6 | \$60.00 | | | \$360.00 |
| *ICPMS, Total | FWGE | 6 | \$60.00 | | | \$360.00 |
| *Mercury, dissolved | FWGE | 6 | \$40.50 | | | \$243.00 |
| *Mercury, total | FWGE | 6 | \$40.50 | | | \$243.00 |
| *pH | FWGE | 6 | \$4.50 | | | \$27.00 |
| *Residue, Nonfilt. | FWGE | 6 | \$18.00 | | | \$108.00 |
| *SpecificConductance | FWGE | 6 | \$4.50 | | | \$27.00 |
| *Turbidity | FWGE | 6 | \$9.00 | | | \$54.00 |
| Hardness Total diss. | FWGE | 6 | \$0.00 | | | \$0.00 |
| Hardness, Diss. CaMg | FWGE | 6 | \$0.00 | | | \$0.00 |
| | | | | | PESC - Inorganics Charges | \$2,025.00 |
| Total Charged To: 2561-101 EP YUKON ENV ASSESSMENT | | | | | | \$2,025.00 |

Penalty - A charge that removed from the price due to a test performed after a certian penalty time.

Surcharge - A service charge that is applied when tests are performed by a contract Lab.



Pacific and Yukon Laboratory for Environmental Testing (PYLET)
 2645 Dollarton Highway
 North Vancouver, BC, Canada V7H - 1B1



Tuesday February 2, 2010 At 11:12AM

Page 1 of 90

Final Analytical Results with QC data

FOLDER # : 200900878

Location: W23101229

Type of Sample: Fresh Water/General (FWGE)
 Soil (Bottom Sediment) (SOSE)

Submitted By: Benoit Godin
 Environment Canada
 91782 Alaska Hwy
 Whitehorse, YT
 Canada Y1A 5B7
 Phone: 867-667-4592
 Fax: 867-667-7962

Logged In: Monday September 21, 2009

Completed: Tuesday February 2, 2010 (1727 results)

Client Code: 2561-101
 2561-101 EP YUKON ENV ASSESSMENT

Sample Priority: Normal

Authorized by:

Richard Strub
 QA Officer

Notes:

NOTE: SHOULD THERE IS NOT ENOUGH MATERIAL TO RUN ANALYSIS PLEASE SEND AN EMAIL TO B.GODIN AN EMAIL TO NOTIFY. DO NOT COMBINE SAMPLES. THE SECOND BOTTLE IS PRESERVED.
 SEPTEMBER 30, 2009: UPDATE TO SAMPLE BOTTLES ONLY.
 NOTE: SOME CONTAINERS MAY HAVE LIM

The samples associated with this report will be discarded 30 days after the final report is generated unless other arrangements for storage and / or pick-up have been made with the lab.

Results relate only to the samples tested. Test analysis date provided upon client request.
An asterisk (*) indicates that the corresponding method may be accredited by CALA for some or all of the parameters listed. For our current Scope of Accreditation please see www.cala.ca/scopes/1578.pdf .

This test report shall not be reproduced except in full, without written approval of the laboratory.



| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|---------------------------------|
| PYLET Order No: 198263 - Client Sample ID: SITE-01 | | | | Arrival Temperature: 8°C |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |

General***Acidity, Tot.&pH4.5**

| | | | | |
|----------------|------|-----|---|--------------|
| Acidity, Total | FWGE | < 1 | 1 | mg CaCO3 / L |
|----------------|------|-----|---|--------------|

***Alkalinity, TotpH4.5**

| | | | | |
|----------------------|------|-----|-----|--------------|
| Alkalinity to pH 4.5 | FWGE | 168 | 0.5 | mg CaCO3 / L |
|----------------------|------|-----|-----|--------------|

***Color, True**

| | | | | |
|--------------|------|----|-----|-----------|
| Colour, True | FWGE | 10 | 2.5 | Col. unit |
|--------------|------|----|-----|-----------|

*Analysis performed after recommended hold time.****ICA (Cl F SO4)**

| | | | | |
|---------------|------|-----|-----|------|
| Chloride (Cl) | FWGE | 0.5 | 0.1 | mg/L |
|---------------|------|-----|-----|------|

| | | | | |
|--------------|------|------|------|------|
| Fluoride (F) | FWGE | 0.20 | 0.01 | mg/L |
|--------------|------|------|------|------|

| | | | | |
|----------------|------|-----|---|------|
| Sulphate (SO4) | FWGE | 116 | 5 | mg/L |
|----------------|------|-----|---|------|

***ICA (NO2 NO3 Br)**

| | | | | |
|--------------|------|--------|------|------|
| Bromide (Br) | FWGE | < 0.05 | 0.05 | mg/L |
|--------------|------|--------|------|------|

| | | | | |
|------------------------|------|-------|-------|------|
| Nitrogen, Nitrate as N | FWGE | 0.006 | 0.002 | mg/L |
|------------------------|------|-------|-------|------|

| | | | | |
|------------------------|------|---------|-------|------|
| Nitrogen, Nitrite as N | FWGE | < 0.005 | 0.005 | mg/L |
|------------------------|------|---------|-------|------|

***pH**

| | | | | |
|----|------|------|------|----------|
| pH | FWGE | 8.27 | 0.01 | pH Units |
|----|------|------|------|----------|

*Analysis performed after recommended hold time.****Residue, Filterable**

| | | | | |
|------------------------------|------|-----|----|------|
| Solids, Total Dissolved (FR) | FWGE | INS | 10 | mg/L |
|------------------------------|------|-----|----|------|

*insufficient sample for analysis**Analysis performed after recommended hold time.****Residue, Nonfilt.**

| | | | | |
|-------------------------------|------|-----|---|------|
| Solids, Total Suspended (NFR) | FWGE | INS | 5 | mg/L |
|-------------------------------|------|-----|---|------|

*Insufficient Sample for Analysis**Analysis performed after recommended hold time.****Specific Conductance**

| | | | | |
|--------------------|------|-----|---|-------|
| Conductivity (25C) | FWGE | 521 | 2 | uS/cm |
|--------------------|------|-----|---|-------|

***Turbidity**

| | | | | |
|-----------|------|------|------|-----|
| Turbidity | FWGE | 1.28 | 0.05 | NTU |
|-----------|------|------|------|-----|

Metals***ICP, Dissolved**

| | | | | |
|---------------|------|------|------|------|
| Aluminum (Al) | FWGE | 0.06 | 0.05 | mg/L |
|---------------|------|------|------|------|

| | | | | |
|---------------|------|--------|------|------|
| Antimony (Sb) | FWGE | < 0.05 | 0.05 | mg/L |
|---------------|------|--------|------|------|

| | | | | |
|--------------|------|--------|------|------|
| Arsenic (As) | FWGE | < 0.05 | 0.05 | mg/L |
|--------------|------|--------|------|------|

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|---------------------------------|
| PYLET Order No: 198263 - Client Sample ID: SITE-01 | | | | Arrival Temperature: 8°C |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| Barium (Ba) | FWGE | 0.072 | 0.001 | mg/L |
| Beryllium (Be) | FWGE | < 0.001 | 0.001 | mg/L |
| Boron (B) | FWGE | < 0.01 | 0.01 | mg/L |
| Cadmium (Cd) | FWGE | < 0.005 | 0.005 | mg/L |
| Calcium (Ca) | FWGE | 89.7 | 0.1 | mg/L |
| Chromium (Cr) | FWGE | < 0.005 | 0.005 | mg/L |
| Cobalt (Co) | FWGE | < 0.005 | 0.005 | mg/L |
| Copper (Cu) | FWGE | < 0.005 | 0.005 | mg/L |
| Iron (Fe) | FWGE | 0.162 | 0.005 | mg/L |
| Lead (Pb) | FWGE | < 0.05 | 0.05 | mg/L |
| Magnesium (Mg) | FWGE | 19.6 | 0.1 | mg/L |
| Manganese (Mn) | FWGE | 0.031 | 0.001 | mg/L |
| Molybdenum (Mo) | FWGE | < 0.01 | 0.01 | mg/L |
| Nickel (Ni) | FWGE | < 0.02 | 0.02 | mg/L |
| Phosphorus (P) | FWGE | 0.6 | 0.1 | mg/L |
| Potassium (K) | FWGE | 1.2 | 0.1 | mg/L |
| Selenium (Se) | FWGE | < 0.05 | 0.05 | mg/L |
| Silicon (Si) | FWGE | 5.01 | 0.05 | mg/L |
| Silver (Ag) | FWGE | < 0.01 | 0.01 | mg/L |
| Sodium (Na) | FWGE | 2.8 | 0.1 | mg/L |
| Strontium (Sr) | FWGE | 0.300 | 0.001 | mg/L |
| Sulfur (S) | FWGE | 44.8 | 0.05 | mg/L |
| Tin (Sn) | FWGE | < 0.05 | 0.05 | mg/L |
| Titanium (Ti) | FWGE | < 0.002 | 0.002 | mg/L |
| Vanadium (V) | FWGE | < 0.01 | 0.01 | mg/L |
| Zinc (Zn) | FWGE | < 0.05 | 0.05 | mg/L |
| *ICP, Total | | | | |
| Aluminum (Al) | FWGE | 0.13 | 0.06 | mg/L |
| Antimony (Sb) | FWGE | < 0.06 | 0.06 | mg/L |
| Arsenic (As) | FWGE | 0.11 | 0.06 | mg/L |
| Barium (Ba) | FWGE | 0.083 | 0.001 | mg/L |
| Beryllium (Be) | FWGE | < 0.001 | 0.001 | mg/L |
| Boron (B) | FWGE | < 0.01 | 0.01 | mg/L |
| Cadmium (Cd) | FWGE | < 0.006 | 0.006 | mg/L |
| Calcium (Ca) | FWGE | 79.7 | 0.1 | mg/L |
| Chromium (Cr) | FWGE | < 0.006 | 0.006 | mg/L |
| Cobalt (Co) | FWGE | < 0.006 | 0.006 | mg/L |
| Copper (Cu) | FWGE | < 0.02 | 0.02 | mg/L |
| Iron (Fe) | FWGE | 0.49 | 0.05 | mg/L |
| Lead (Pb) | FWGE | < 0.06 | 0.06 | mg/L |
| Magnesium (Mg) | FWGE | 17.1 | 0.1 | mg/L |
| Manganese (Mn) | FWGE | 0.078 | 0.001 | mg/L |
| Molybdenum (Mo) | FWGE | < 0.01 | 0.01 | mg/L |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|---------------------------------|
| PYLET Order No: 198263 - Client Sample ID: SITE-01 | | | | Arrival Temperature: 8°C |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| Nickel (Ni) | FWGE | < 0.02 | 0.02 | mg/L |
| Phosphorus (P) | FWGE | 0.4 | 0.1 | mg/L |
| Potassium (K) | FWGE | 1.1 | 0.1 | mg/L |
| Selenium (Se) | FWGE | < 0.06 | 0.06 | mg/L |
| Silicon (Si) | FWGE | 4.98 | 0.06 | mg/L |
| Silver (Ag) | FWGE | 0.01 | 0.01 | mg/L |
| Sodium (Na) | FWGE | 2.9 | 0.1 | mg/L |
| Strontium (Sr) | FWGE | 0.291 | 0.001 | mg/L |
| Sulfur (S) | FWGE | 43.9 | 0.06 | mg/L |
| Tin (Sn) | FWGE | < 0.06 | 0.06 | mg/L |
| Titanium (Ti) | FWGE | 0.004 | 0.002 | mg/L |
| Vanadium (V) | FWGE | < 0.01 | 0.01 | mg/L |
| Zinc (Zn) | FWGE | < 0.05 | 0.05 | mg/L |
| *ICPMS, Dissolved | | | | |
| Arsenic (As) | FWGE | 0.8 | 0.1 | ug/L |
| Cadmium (Cd) | FWGE | 0.27 | 0.01 | ug/L |
| Copper (Cu) | FWGE | 1.55 | 0.05 | ug/L |
| Lead (Pb) | FWGE | 0.05 | 0.01 | ug/L |
| Selenium (Se) | FWGE | 4.9 | 0.2 | ug/L |
| Zinc (Zn) | FWGE | 12.5 | 0.2 | ug/L |
| *ICPMS, Total | | | | |
| Arsenic (As) | FWGE | 1.9 | 0.1 | ug/L |
| Cadmium (Cd) | FWGE | 0.18 | 0.01 | ug/L |
| Copper (Cu) | FWGE | 2.52 | 0.05 | ug/L |
| Lead (Pb) | FWGE | 0.56 | 0.01 | ug/L |
| Selenium (Se) | FWGE | 4.3 | 0.2 | ug/L |
| Zinc (Zn) | FWGE | 22.6 | 0.2 | ug/L |
| *Mercury, dissolved | | | | |
| Mercury (Hg) | FWGE | < 0.02 | 0.02 | ug/L |
| *Mercury, total | | | | |
| Mercury (Hg) | FWGE | < 0.02 | 0.02 | ug/L |
| Hardness, Diss. CaMg | | | | |
| Hardness, Dissolved Calcium+Magnesium - calc. | FWGE | 305 | 0.4 | mg CaCO3 / L |
| Hardness, Diss.Total | | | | |
| Hardness, Dissolved Total - calc. | FWGE | 306 | 0.4 | mg CaCO3 / L |
| <u>Non-Halogenated</u> | | | | |
| TOC | | | | |
| Carbon, Total Organic | FWGE | 2.1 | 0.5 | mg/L |
| <u>Nutrients</u> | | | | |
| *Nitrogen, Ammonia | | | | |
| Nitrogen, Ammonia as N | FWGE | 0.004 | 0.002 | mg/L |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|---------------------------------|
| PYLET Order No: 198263 - Client Sample ID: SITE-01 | | | | Arrival Temperature: 8°C |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |

***Phosphorus, Total**

| | | | | |
|------------------------|------|-----|-------|------|
| Phosphorus, Total as P | FWGE | INS | 0.002 | mg/L |
|------------------------|------|-----|-------|------|

*Insufficient Sample for Analysis**Analysis performed after recommended hold time.*

| | | | | |
|---|--|--|--|--|
| PYLET Order No: 198264 - Client Sample ID: SITE-02 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |

General***Acidity, Tot.&pH4.5**

| | | | | |
|----------------|------|-----|---|--------------|
| Acidity, Total | FWGE | < 1 | 1 | mg CaCO3 / L |
|----------------|------|-----|---|--------------|

***Alkalinity, TotpH4.5**

| | | | | |
|----------------------|------|-----|-----|--------------|
| Alkalinity to pH 4.5 | FWGE | 124 | 0.5 | mg CaCO3 / L |
|----------------------|------|-----|-----|--------------|

***Color, True**

| | | | | |
|--------------|------|----|-----|-----------|
| Colour, True | FWGE | 25 | 2.5 | Col. unit |
|--------------|------|----|-----|-----------|

*Analysis performed after recommended hold time.****ICA (CI F SO4)**

| | | | | |
|---------------|------|-----|-----|------|
| Chloride (Cl) | FWGE | 0.6 | 0.1 | mg/L |
|---------------|------|-----|-----|------|

| | | | | |
|--------------|------|------|------|------|
| Fluoride (F) | FWGE | 0.16 | 0.01 | mg/L |
|--------------|------|------|------|------|

| | | | | |
|----------------|------|-----|---|------|
| Sulphate (SO4) | FWGE | 118 | 5 | mg/L |
|----------------|------|-----|---|------|

***ICA (NO2 NO3 Br)**

| | | | | |
|--------------|------|--------|------|------|
| Bromide (Br) | FWGE | < 0.05 | 0.05 | mg/L |
|--------------|------|--------|------|------|

| | | | | |
|------------------------|------|---------|-------|------|
| Nitrogen, Nitrate as N | FWGE | < 0.002 | 0.002 | mg/L |
|------------------------|------|---------|-------|------|

| | | | | |
|------------------------|------|---------|-------|------|
| Nitrogen, Nitrite as N | FWGE | < 0.005 | 0.005 | mg/L |
|------------------------|------|---------|-------|------|

***pH**

| | | | | |
|----|------|------|------|----------|
| pH | FWGE | 8.31 | 0.01 | pH Units |
|----|------|------|------|----------|

*Analysis performed after recommended hold time.****Residue, Filterable**

| | | | | |
|------------------------------|------|-----|----|------|
| Solids, Total Dissolved (FR) | FWGE | INS | 10 | mg/L |
|------------------------------|------|-----|----|------|

*insufficient sample for analysis**Analysis performed after recommended hold time.****Residue, Nonfilt.**

| | | | | |
|-------------------------------|------|-----|---|------|
| Solids, Total Suspended (NFR) | FWGE | INS | 5 | mg/L |
|-------------------------------|------|-----|---|------|

*Insufficient Sample for Analysis**Analysis performed after recommended hold time.****SpecificConductance**

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198264 - Client Sample ID: SITE-02 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| Conductivity (25C) | FWGE | 464 | 2 | uS/cm |
| *Turbidity | | | | |
| Turbidity | FWGE | 2.75 | 0.05 | NTU |
| <u>Metals</u> | | | | |
| *ICP, Dissolved | | | | |
| Aluminum (Al) | FWGE | < 0.05 | 0.05 | mg/L |
| Antimony (Sb) | FWGE | < 0.05 | 0.05 | mg/L |
| Arsenic (As) | FWGE | < 0.05 | 0.05 | mg/L |
| Barium (Ba) | FWGE | 0.052 | 0.001 | mg/L |
| Beryllium (Be) | FWGE | < 0.001 | 0.001 | mg/L |
| Boron (B) | FWGE | < 0.01 | 0.01 | mg/L |
| Cadmium (Cd) | FWGE | < 0.005 | 0.005 | mg/L |
| Calcium (Ca) | FWGE | 59.4 | 0.1 | mg/L |
| Chromium (Cr) | FWGE | < 0.005 | 0.005 | mg/L |
| Cobalt (Co) | FWGE | < 0.005 | 0.005 | mg/L |
| Copper (Cu) | FWGE | < 0.005 | 0.005 | mg/L |
| Iron (Fe) | FWGE | 0.035 | 0.005 | mg/L |
| Lead (Pb) | FWGE | < 0.05 | 0.05 | mg/L |
| Magnesium (Mg) | FWGE | 26.1 | 0.1 | mg/L |
| Manganese (Mn) | FWGE | 0.005 | 0.001 | mg/L |
| Molybdenum (Mo) | FWGE | < 0.01 | 0.01 | mg/L |
| Nickel (Ni) | FWGE | < 0.02 | 0.02 | mg/L |
| Phosphorus (P) | FWGE | 0.5 | 0.1 | mg/L |
| Potassium (K) | FWGE | 1.6 | 0.1 | mg/L |
| Selenium (Se) | FWGE | < 0.05 | 0.05 | mg/L |
| Silicon (Si) | FWGE | 2.92 | 0.05 | mg/L |
| Silver (Ag) | FWGE | < 0.01 | 0.01 | mg/L |
| Sodium (Na) | FWGE | 3.9 | 0.1 | mg/L |
| Strontium (Sr) | FWGE | 0.288 | 0.001 | mg/L |
| Sulfur (S) | FWGE | 46.4 | 0.05 | mg/L |
| Tin (Sn) | FWGE | < 0.05 | 0.05 | mg/L |
| Titanium (Ti) | FWGE | < 0.002 | 0.002 | mg/L |
| Vanadium (V) | FWGE | < 0.01 | 0.01 | mg/L |
| Zinc (Zn) | FWGE | < 0.05 | 0.05 | mg/L |
| *ICP, Total | | | | |
| Aluminum (Al) | FWGE | < 0.06 | 0.06 | mg/L |
| Antimony (Sb) | FWGE | < 0.06 | 0.06 | mg/L |
| Arsenic (As) | FWGE | 0.10 | 0.06 | mg/L |
| Barium (Ba) | FWGE | 0.047 | 0.001 | mg/L |
| Beryllium (Be) | FWGE | < 0.001 | 0.001 | mg/L |
| Boron (B) | FWGE | < 0.01 | 0.01 | mg/L |
| Cadmium (Cd) | FWGE | < 0.006 | 0.006 | mg/L |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198264 - Client Sample ID: SITE-02 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| Calcium (Ca) | FWGE | 60.6 | 0.1 | mg/L |
| Chromium (Cr) | FWGE | < 0.006 | 0.006 | mg/L |
| Cobalt (Co) | FWGE | < 0.006 | 0.006 | mg/L |
| Copper (Cu) | FWGE | < 0.02 | 0.02 | mg/L |
| Iron (Fe) | FWGE | 0.07 | 0.05 | mg/L |
| Lead (Pb) | FWGE | < 0.06 | 0.06 | mg/L |
| Magnesium (Mg) | FWGE | 21.5 | 0.1 | mg/L |
| Manganese (Mn) | FWGE | 0.006 | 0.001 | mg/L |
| Molybdenum (Mo) | FWGE | < 0.01 | 0.01 | mg/L |
| Nickel (Ni) | FWGE | < 0.02 | 0.02 | mg/L |
| Phosphorus (P) | FWGE | 0.3 | 0.1 | mg/L |
| Potassium (K) | FWGE | 1.6 | 0.1 | mg/L |
| Selenium (Se) | FWGE | < 0.06 | 0.06 | mg/L |
| Silicon (Si) | FWGE | 3.05 | 0.06 | mg/L |
| Silver (Ag) | FWGE | 0.02 | 0.01 | mg/L |
| Sodium (Na) | FWGE | 3.9 | 0.1 | mg/L |
| Strontium (Sr) | FWGE | 0.265 | 0.001 | mg/L |
| Sulfur (S) | FWGE | 43.4 | 0.06 | mg/L |
| Tin (Sn) | FWGE | < 0.06 | 0.06 | mg/L |
| Titanium (Ti) | FWGE | < 0.002 | 0.002 | mg/L |
| Vanadium (V) | FWGE | < 0.01 | 0.01 | mg/L |
| Zinc (Zn) | FWGE | < 0.05 | 0.05 | mg/L |
| *ICPMS, Dissolved | | | | |
| Arsenic (As) | FWGE | 0.9 | 0.1 | ug/L |
| Cadmium (Cd) | FWGE | < 0.01 | 0.01 | ug/L |
| Copper (Cu) | FWGE | 1.36 | 0.05 | ug/L |
| Lead (Pb) | FWGE | 0.04 | 0.01 | ug/L |
| Selenium (Se) | FWGE | 1.3 | 0.2 | ug/L |
| Zinc (Zn) | FWGE | 2.9 | 0.2 | ug/L |
| *ICPMS, Total | | | | |
| Arsenic (As) | FWGE | 0.9 | 0.1 | ug/L |
| Cadmium (Cd) | FWGE | < 0.01 | 0.01 | ug/L |
| Copper (Cu) | FWGE | 1.55 | 0.05 | ug/L |
| Lead (Pb) | FWGE | 0.06 | 0.01 | ug/L |
| Selenium (Se) | FWGE | 1.1 | 0.2 | ug/L |
| Zinc (Zn) | FWGE | 4.5 | 0.2 | ug/L |
| *Mercury, dissolved | | | | |
| Mercury (Hg) | FWGE | < 0.02 | 0.02 | ug/L |
| *Mercury, total | | | | |
| Mercury (Hg) | FWGE | < 0.02 | 0.02 | ug/L |
| Hardness, Diss. CaMg | | | | |
| Hardness, Dissolved Calcium+Magnesium - calc. | FWGE | 413 | 0.4 | mg CaCO3 / L |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198264 - Client Sample ID: SITE-02 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |

Hardness, Diss.Total

| | | | | |
|-----------------------------------|------|-----|-----|--------------|
| Hardness, Dissolved Total - calc. | FWGE | 413 | 0.4 | mg CaCO3 / L |
|-----------------------------------|------|-----|-----|--------------|

Non-Halogenated**TOC**

| | | | | |
|-----------------------|------|-----|-----|------|
| Carbon, Total Organic | FWGE | 7.8 | 0.5 | mg/L |
|-----------------------|------|-----|-----|------|

Nutrients***Nitrogen, Ammonia**

| | | | | |
|------------------------|------|---------|-------|------|
| Nitrogen, Ammonia as N | FWGE | < 0.002 | 0.002 | mg/L |
|------------------------|------|---------|-------|------|

***Phosphorus, Total**

| | | | | |
|------------------------|------|-----|-------|------|
| Phosphorus, Total as P | FWGE | INS | 0.002 | mg/L |
|------------------------|------|-----|-------|------|

*Insufficient Sample for Analysis
Analysis performed after recommended hold time.*

| | | | | |
|---|--|--|--|--|
| PYLET Order No: 198265 - Client Sample ID: SITE-03 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |

General***Acidity, Tot.&pH4.5**

| | | | | |
|-------------------|------|-----|---|--------------|
| Acidity to pH 4.5 | FWGE | 474 | 1 | mg CaCO3 / L |
| Acidity, Total | FWGE | 773 | 1 | mg CaCO3 / L |

***Alkalinity, TotpH4.5**

| | | | | |
|-------------------|------|-------|-----|--------------|
| Alkalinity, Total | FWGE | < 0.5 | 0.5 | mg CaCO3 / L |
|-------------------|------|-------|-----|--------------|

***Color, True**

| | | | | |
|--------------|------|-----|-----|-----------|
| Colour, True | FWGE | 500 | 2.5 | Col. unit |
|--------------|------|-----|-----|-----------|

Analysis performed after recommended hold time.

***ICA (Cl F SO4)**

| | | | | |
|----------------|------|------|------|------|
| Chloride (Cl) | FWGE | 1.8 | 0.1 | mg/L |
| Fluoride (F) | FWGE | 0.05 | 0.01 | mg/L |
| Sulphate (SO4) | FWGE | 1050 | 50 | mg/L |

***ICA (NO2 NO3 Br)**

| | | | | |
|------------------------|------|---------|-------|------|
| Bromide (Br) | FWGE | < 0.05 | 0.05 | mg/L |
| Nitrogen, Nitrate as N | FWGE | 0.111 | 0.002 | mg/L |
| Nitrogen, Nitrite as N | FWGE | < 0.005 | 0.005 | mg/L |

***pH**

| | | | | |
|----|------|------|------|----------|
| pH | FWGE | 2.86 | 0.01 | pH Units |
|----|------|------|------|----------|

Analysis performed after recommended hold time.

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198265 - Client Sample ID: SITE-03 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| *Residue, Filterable | | | | |
| Solids, Total Dissolved (FR) | FWGE | INS | 10 | mg/L |
| <i>insufficient sample for analysis</i> | | | | |
| <i>Analysis performed after recommended hold time.</i> | | | | |
| *Residue, Nonfilt. | | | | |
| Solids, Total Suspended (NFR) | FWGE | 18 | 5 | mg/L |
| <i>Analysis performed after recommended hold time. Last volume used for this test</i> | | | | |
| *SpecificConductance | | | | |
| Conductivity (25C) | FWGE | 1500 | 2 | uS/cm |
| *Turbidity | | | | |
| Turbidity | FWGE | 53.6 | 0.05 | NTU |
| <u>Metals</u> | | | | |
| *ICPMS, Dissolved | | | | |
| Arsenic (As) | FWGE | 17.7 | 0.1 | ug/L |
| Cadmium (Cd) | FWGE | 570 | 0.01 | ug/L |
| Copper (Cu) | FWGE | 543 | 0.05 | ug/L |
| Lead (Pb) | FWGE | 30.6 | 0.01 | ug/L |
| Selenium (Se) | FWGE | 8.6 | 0.2 | ug/L |
| Zinc (Zn) | FWGE | 13695 | 0.2 | ug/L |
| *ICPMS, Total | | | | |
| Arsenic (As) | FWGE | 16.4 | 0.1 | ug/L |
| Cadmium (Cd) | FWGE | 518 | 0.01 | ug/L |
| Copper (Cu) | FWGE | 588 | 0.05 | ug/L |
| Lead (Pb) | FWGE | 32.8 | 0.01 | ug/L |
| Selenium (Se) | FWGE | 7.0 | 0.2 | ug/L |
| Zinc (Zn) | FWGE | 14969 | 0.2 | ug/L |
| *Mercury, dissolved | | | | |
| Mercury (Hg) | FWGE | < 0.02 | 0.02 | ug/L |
| *Mercury, total | | | | |
| Mercury (Hg) | FWGE | < 0.02 | 0.02 | ug/L |
| Hardness, Diss. CaMg | | | | |
| Hardness, Dissolved Calcium+Magnesium - calc. | FWGE | 218 | 0.4 | mg CaCO3 / L |
| Hardness, Diss.Total | | | | |
| Hardness, Dissolved Total - calc. | FWGE | 1250 | 0.4 | mg CaCO3 / L |
| <u>Non-Halogenated</u> | | | | |
| TOC | | | | |
| Carbon, Total Organic | FWGE | < 0.5 | 0.5 | mg/L |
| <u>Nutrients</u> | | | | |
| *Nitrogen, Ammonia | | | | |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198265 - Client Sample ID: SITE-03 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |

| | | | | |
|---------------------------|------|------|-------|------|
| Nitrogen, Ammonia as N | FWGE | 1.33 | 0.002 | mg/L |
| *Phosphorus, Total | | | | |
| Phosphorus, Total as P | FWGE | 1.11 | 0.02 | mg/L |

Analysis performed after recommended hold time.

| | | | | |
|---|--|--|--|--|
| PYLET Order No: 198266 - Client Sample ID: SITE-04 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |

General

***Acidity, Tot.&pH4.5**

| | | | | |
|-------------------|------|-----|---|--------------------------|
| Acidity to pH 4.5 | FWGE | 493 | 1 | mg CaCO ₃ / L |
| Acidity, Total | FWGE | 822 | 1 | mg CaCO ₃ / L |

***Alkalinity, TotpH4.5**

| | | | | |
|-------------------|------|-------|-----|--------------------------|
| Alkalinity, Total | FWGE | < 0.5 | 0.5 | mg CaCO ₃ / L |
|-------------------|------|-------|-----|--------------------------|

***Color, True**

| | | | | |
|--------------|------|-----|-----|-----------|
| Colour, True | FWGE | 500 | 2.5 | Col. unit |
|--------------|------|-----|-----|-----------|

Analysis performed after recommended hold time.

***ICA (Cl F SO₄)**

| | | | | |
|-----------------------------|------|------|------|------|
| Chloride (Cl) | FWGE | 2.1 | 0.1 | mg/L |
| Fluoride (F) | FWGE | 0.06 | 0.01 | mg/L |
| Sulphate (SO ₄) | FWGE | 920 | 30 | mg/L |

***ICA (NO₂ NO₃ Br)**

| | | | | |
|------------------------|------|---------|-------|------|
| Bromide (Br) | FWGE | < 0.05 | 0.05 | mg/L |
| Nitrogen, Nitrate as N | FWGE | 0.067 | 0.002 | mg/L |
| Nitrogen, Nitrite as N | FWGE | < 0.005 | 0.005 | mg/L |

***pH**

| | | | | |
|----|------|------|------|----------|
| pH | FWGE | 2.91 | 0.01 | pH Units |
|----|------|------|------|----------|

Analysis performed after recommended hold time.

***Residue, Filterable**

| | | | | |
|------------------------------|------|-----|----|------|
| Solids, Total Dissolved (FR) | FWGE | INS | 10 | mg/L |
|------------------------------|------|-----|----|------|

insufficient sample for analysis

Analysis performed after recommended hold time.

***Residue, Nonfilt.**

| | | | | |
|-------------------------------|------|-----|---|------|
| Solids, Total Suspended (NFR) | FWGE | INS | 5 | mg/L |
|-------------------------------|------|-----|---|------|

Insufficient Sample for Analysis

Analysis performed after recommended hold time.

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198266 - Client Sample ID: SITE-04 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| *Specific Conductance | | | | |
| Conductivity (25C) | FWGE | 1470 | 2 | uS/cm |
| *Turbidity | | | | |
| Turbidity | FWGE | 4.31 | 0.05 | NTU |
| <u>Metals</u> | | | | |
| *ICP, Total | | | | |
| Aluminum (Al) | FWGE | 102 | 0.6 | mg/L |
| Antimony (Sb) | FWGE | < 0.06 | 0.06 | mg/L |
| Arsenic (As) | FWGE | 0.13 | 0.06 | mg/L |
| Barium (Ba) | FWGE | 0.006 | 0.001 | mg/L |
| Beryllium (Be) | FWGE | 0.009 | 0.001 | mg/L |
| Boron (B) | FWGE | < 0.01 | 0.01 | mg/L |
| Cadmium (Cd) | FWGE | 0.360 | 0.006 | mg/L |
| Calcium (Ca) | FWGE | 20.3 | 0.1 | mg/L |
| Chromium (Cr) | FWGE | 0.096 | 0.006 | mg/L |
| Cobalt (Co) | FWGE | 0.165 | 0.006 | mg/L |
| Copper (Cu) | FWGE | 1.62 | 0.02 | mg/L |
| Iron (Fe) | FWGE | 90.0 | 0.5 | mg/L |
| Lead (Pb) | FWGE | 0.34 | 0.06 | mg/L |
| Magnesium (Mg) | FWGE | 11.7 | 0.1 | mg/L |
| Manganese (Mn) | FWGE | 1.06 | 0.001 | mg/L |
| Molybdenum (Mo) | FWGE | < 0.01 | 0.01 | mg/L |
| Nickel (Ni) | FWGE | 1.60 | 0.02 | mg/L |
| Phosphorus (P) | FWGE | 0.3 | 0.1 | mg/L |
| Potassium (K) | FWGE | 4.9 | 0.1 | mg/L |
| Selenium (Se) | FWGE | < 0.06 | 0.06 | mg/L |
| Silicon (Si) | FWGE | 7.98 | 0.06 | mg/L |
| Silver (Ag) | FWGE | 0.03 | 0.01 | mg/L |
| Sodium (Na) | FWGE | 1.1 | 0.1 | mg/L |
| Strontium (Sr) | FWGE | 0.065 | 0.001 | mg/L |
| Sulfur (S) | FWGE | 293 | 0.06 | mg/L |
| Tin (Sn) | FWGE | < 0.06 | 0.06 | mg/L |
| Titanium (Ti) | FWGE | 0.007 | 0.002 | mg/L |
| Vanadium (V) | FWGE | 0.14 | 0.01 | mg/L |
| Zinc (Zn) | FWGE | 11.1 | 0.05 | mg/L |
| *ICPMS, Dissolved | | | | |
| Arsenic (As) | FWGE | 3.1 | 0.1 | ug/L |
| Cadmium (Cd) | FWGE | 403 | 0.01 | ug/L |
| Copper (Cu) | FWGE | 1591 | 0.05 | ug/L |
| Lead (Pb) | FWGE | 13.5 | 0.01 | ug/L |
| Selenium (Se) | FWGE | 4.7 | 0.2 | ug/L |
| Zinc (Zn) | FWGE | 10829 | 0.2 | ug/L |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198266 - Client Sample ID: SITE-04 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| *ICPMS, Total | | | | |
| Arsenic (As) | FWGE | 2.8 | 0.1 | ug/L |
| Cadmium (Cd) | FWGE | 376 | 0.01 | ug/L |
| Copper (Cu) | FWGE | 1640 | 0.05 | ug/L |
| Lead (Pb) | FWGE | 12.7 | 0.01 | ug/L |
| Selenium (Se) | FWGE | 4.2 | 0.2 | ug/L |
| Zinc (Zn) | FWGE | 13368 | 0.2 | ug/L |
| *Mercury, dissolved | | | | |
| Mercury (Hg) | FWGE | < 0.02 | 0.02 | ug/L |
| *Mercury, total | | | | |
| Mercury (Hg) | FWGE | < 0.02 | 0.02 | ug/L |
| Hardness, Diss. CaMg | | | | |
| Hardness, Dissolved Calcium+Magnesium - calc. | FWGE | 126 | 0.4 | mg CaCO3 / L |
| Hardness, Diss.Total | | | | |
| Hardness, Dissolved Total - calc. | FWGE | 750 | 0.4 | mg CaCO3 / L |
| <u>Non-Halogenated</u> | | | | |
| TOC | | | | |
| Carbon, Total Organic | FWGE | < 0.5 | 0.5 | mg/L |
| <u>Nutrients</u> | | | | |
| *Nitrogen, Ammonia | | | | |
| Nitrogen, Ammonia as N | FWGE | 2.14 | 0.004 | mg/L |
| *Phosphorus, Total | | | | |
| Phosphorus, Total as P | FWGE | 0.076 | 0.002 | mg/L |

Analysis performed after recommended hold time.

PYLET Order No: 198267 - Client Sample ID: SITE-05
Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM

General

***Acidity, Tot.&pH4.5**

Acidity, Total FWGE 2 1 mg CaCO3 / L

***Alkalinity, TotpH4.5**

Alkalinity to pH 4.5 FWGE 53.4 0.5 mg CaCO3 / L

***Color, True**

Colour, True FWGE < 2.5 2.5 Col. unit

Analysis performed after recommended hold time.

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198267 - Client Sample ID: SITE-05 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| <i>Analysis performed after recommended hold time.</i> | | | | |
| *ICA (Cl F SO4) | | | | |
| Chloride (Cl) | FWGE | 0.3 | 0.1 | mg/L |
| Fluoride (F) | FWGE | 0.25 | 0.01 | mg/L |
| Sulphate (SO4) | FWGE | 109 | 5 | mg/L |
| *ICA (NO2 NO3 Br) | | | | |
| Bromide (Br) | FWGE | < 0.05 | 0.05 | mg/L |
| Nitrogen, Nitrate as N | FWGE | 0.022 | 0.002 | mg/L |
| Nitrogen, Nitrite as N | FWGE | < 0.005 | 0.005 | mg/L |
| *pH | | | | |
| pH | FWGE | 7.89 | 0.01 | pH Units |
| <i>Analysis performed after recommended hold time.</i> | | | | |
| *Residue, Filterable | | | | |
| Solids, Total Dissolved (FR) | FWGE | INS | 10 | mg/L |
| <i>insufficient sample for analysis</i> | | | | |
| <i>Analysis performed after recommended hold time.</i> | | | | |
| *Residue, Nonfilt. | | | | |
| Solids, Total Suspended (NFR) | FWGE | < 5 | 5 | mg/L |
| <i>Analysis performed after recommended hold time. Last volume used for this test</i> | | | | |
| *Specific Conductance | | | | |
| Conductivity (25C) | FWGE | 340 | 2 | uS/cm |
| *Turbidity | | | | |
| Turbidity | FWGE | 0.53 | 0.05 | NTU |
| <u>Metals</u> | | | | |
| *ICP, Dissolved | | | | |
| Aluminum (Al) | FWGE | < 0.05 | 0.05 | mg/L |
| Antimony (Sb) | FWGE | < 0.05 | 0.05 | mg/L |
| Arsenic (As) | FWGE | < 0.05 | 0.05 | mg/L |
| Barium (Ba) | FWGE | 0.046 | 0.001 | mg/L |
| Beryllium (Be) | FWGE | < 0.001 | 0.001 | mg/L |
| Boron (B) | FWGE | < 0.01 | 0.01 | mg/L |
| Cadmium (Cd) | FWGE | < 0.005 | 0.005 | mg/L |
| Calcium (Ca) | FWGE | 59.5 | 0.1 | mg/L |
| Chromium (Cr) | FWGE | < 0.005 | 0.005 | mg/L |
| Cobalt (Co) | FWGE | < 0.005 | 0.005 | mg/L |
| Copper (Cu) | FWGE | < 0.005 | 0.005 | mg/L |
| Iron (Fe) | FWGE | 0.011 | 0.005 | mg/L |
| Lead (Pb) | FWGE | < 0.05 | 0.05 | mg/L |
| Magnesium (Mg) | FWGE | 5.5 | 0.1 | mg/L |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198267 - Client Sample ID: SITE-05 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| Manganese (Mn) | FWGE | 0.025 | 0.001 | mg/L |
| Molybdenum (Mo) | FWGE | < 0.01 | 0.01 | mg/L |
| Nickel (Ni) | FWGE | 0.02 | 0.02 | mg/L |
| Phosphorus (P) | FWGE | 0.5 | 0.1 | mg/L |
| Potassium (K) | FWGE | 1.3 | 0.1 | mg/L |
| Selenium (Se) | FWGE | < 0.05 | 0.05 | mg/L |
| Silicon (Si) | FWGE | 3.28 | 0.05 | mg/L |
| Silver (Ag) | FWGE | < 0.01 | 0.01 | mg/L |
| Sodium (Na) | FWGE | 2.3 | 0.1 | mg/L |
| Strontium (Sr) | FWGE | 0.187 | 0.001 | mg/L |
| Sulfur (S) | FWGE | 43.3 | 0.05 | mg/L |
| Tin (Sn) | FWGE | < 0.05 | 0.05 | mg/L |
| Titanium (Ti) | FWGE | < 0.002 | 0.002 | mg/L |
| Vanadium (V) | FWGE | < 0.01 | 0.01 | mg/L |
| Zinc (Zn) | FWGE | < 0.05 | 0.05 | mg/L |
| *ICP, Total | | | | |
| Aluminum (Al) | FWGE | 0.19 | 0.06 | mg/L |
| Antimony (Sb) | FWGE | < 0.06 | 0.06 | mg/L |
| Arsenic (As) | FWGE | 0.09 | 0.06 | mg/L |
| Barium (Ba) | FWGE | 0.041 | 0.001 | mg/L |
| Beryllium (Be) | FWGE | < 0.001 | 0.001 | mg/L |
| Boron (B) | FWGE | < 0.01 | 0.01 | mg/L |
| Cadmium (Cd) | FWGE | < 0.006 | 0.006 | mg/L |
| Calcium (Ca) | FWGE | 77.1 | 0.1 | mg/L |
| Chromium (Cr) | FWGE | < 0.006 | 0.006 | mg/L |
| Cobalt (Co) | FWGE | < 0.006 | 0.006 | mg/L |
| Copper (Cu) | FWGE | < 0.02 | 0.02 | mg/L |
| Iron (Fe) | FWGE | < 0.05 | 0.05 | mg/L |
| Lead (Pb) | FWGE | < 0.06 | 0.06 | mg/L |
| Magnesium (Mg) | FWGE | 4.5 | 0.1 | mg/L |
| Manganese (Mn) | FWGE | 0.023 | 0.001 | mg/L |
| Molybdenum (Mo) | FWGE | < 0.01 | 0.01 | mg/L |
| Nickel (Ni) | FWGE | 0.02 | 0.02 | mg/L |
| Phosphorus (P) | FWGE | 0.3 | 0.1 | mg/L |
| Potassium (K) | FWGE | 1.1 | 0.1 | mg/L |
| Selenium (Se) | FWGE | < 0.06 | 0.06 | mg/L |
| Silicon (Si) | FWGE | 3.21 | 0.06 | mg/L |
| Silver (Ag) | FWGE | 0.01 | 0.01 | mg/L |
| Sodium (Na) | FWGE | 2.7 | 0.1 | mg/L |
| Strontium (Sr) | FWGE | 0.164 | 0.001 | mg/L |
| Sulfur (S) | FWGE | 35.2 | 0.06 | mg/L |
| Sulfur (S) | FWGE | 58.5 | 0.06 | mg/L |
| Tin (Sn) | FWGE | < 0.06 | 0.06 | mg/L |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198267 - Client Sample ID: SITE-05 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| Titanium (Ti) | FWGE | < 0.002 | 0.002 | mg/L |
| Vanadium (V) | FWGE | < 0.01 | 0.01 | mg/L |
| Zinc (Zn) | FWGE | 0.10 | 0.05 | mg/L |
| *ICPMS, Dissolved | | | | |
| Arsenic (As) | FWGE | 1.0 | 0.1 | ug/L |
| Cadmium (Cd) | FWGE | 1.65 | 0.01 | ug/L |
| Copper (Cu) | FWGE | 0.96 | 0.05 | ug/L |
| Lead (Pb) | FWGE | 0.08 | 0.01 | ug/L |
| Selenium (Se) | FWGE | 4.3 | 0.2 | ug/L |
| Zinc (Zn) | FWGE | 82.7 | 0.2 | ug/L |
| *ICPMS, Total | | | | |
| Arsenic (As) | FWGE | 1.0 | 0.1 | ug/L |
| Cadmium (Cd) | FWGE | 1.33 | 0.01 | ug/L |
| Copper (Cu) | FWGE | 3.08 | 0.05 | ug/L |
| Lead (Pb) | FWGE | 0.03 | 0.01 | ug/L |
| Selenium (Se) | FWGE | 3.2 | 0.2 | ug/L |
| Zinc (Zn) | FWGE | 96.0 | 0.2 | ug/L |
| *Mercury, dissolved | | | | |
| Mercury (Hg) | FWGE | < 0.02 | 0.02 | ug/L |
| *Mercury, total | | | | |
| Mercury (Hg) | FWGE | < 0.02 | 0.02 | ug/L |
| Hardness, Diss. CaMg | | | | |
| Hardness, Dissolved Calcium+Magnesium - calc. | FWGE | 329 | 0.4 | mg CaCO3 / L |
| Hardness, Diss.Total | | | | |
| Hardness, Dissolved Total - calc. | FWGE | 330 | 0.4 | mg CaCO3 / L |
| <u>Non-Halogenated</u> | | | | |
| TOC | | | | |
| Carbon, Total Organic | FWGE | < 0.5 | 0.5 | mg/L |
| <u>Nutrients</u> | | | | |
| *Nitrogen, Ammonia | | | | |
| Nitrogen, Ammonia as N | FWGE | 0.002 | 0.002 | mg/L |
| *Phosphorus, Total | | | | |
| Phosphorus, Total as P | FWGE | < 0.002 | 0.002 | mg/L |

Analysis performed after recommended hold time.

PYLET Order No: 198268 - Client Sample ID: SITE-06
Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198268 - Client Sample ID: SITE-06 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |

General***Acidity, Tot.&pH4.5**

| | | | | |
|----------------|------|---|---|--------------|
| Acidity, Total | FWGE | 2 | 1 | mg CaCO3 / L |
|----------------|------|---|---|--------------|

***Alkalinity, TotpH4.5**

| | | | | |
|-------------------|------|------|-----|--------------|
| Alkalinity, Total | FWGE | 11.3 | 0.5 | mg CaCO3 / L |
|-------------------|------|------|-----|--------------|

***Color, True**

| | | | | |
|--------------|------|-----|-----|-----------|
| Colour, True | FWGE | 2.5 | 2.5 | Col. unit |
|--------------|------|-----|-----|-----------|

*Analysis performed after recommended hold time.****ICA (Cl F SO4)**

| | | | | |
|---------------|------|-----|-----|------|
| Chloride (Cl) | FWGE | 0.1 | 0.1 | mg/L |
|---------------|------|-----|-----|------|

| | | | | |
|--------------|------|------|------|------|
| Fluoride (F) | FWGE | 0.20 | 0.01 | mg/L |
|--------------|------|------|------|------|

| | | | | |
|----------------|------|-----|---|------|
| Sulphate (SO4) | FWGE | 125 | 5 | mg/L |
|----------------|------|-----|---|------|

***ICA (NO2 NO3 Br)**

| | | | | |
|--------------|------|--------|------|------|
| Bromide (Br) | FWGE | < 0.05 | 0.05 | mg/L |
|--------------|------|--------|------|------|

| | | | | |
|------------------------|------|-------|-------|------|
| Nitrogen, Nitrate as N | FWGE | 0.053 | 0.002 | mg/L |
|------------------------|------|-------|-------|------|

| | | | | |
|------------------------|------|---------|-------|------|
| Nitrogen, Nitrite as N | FWGE | < 0.005 | 0.005 | mg/L |
|------------------------|------|---------|-------|------|

***pH**

| | | | | |
|----|------|------|------|----------|
| pH | FWGE | 7.06 | 0.01 | pH Units |
|----|------|------|------|----------|

*Analysis performed after recommended hold time.****Residue, Filterable**

| | | | | |
|------------------------------|------|-----|----|------|
| Solids, Total Dissolved (FR) | FWGE | 215 | 10 | mg/L |
|------------------------------|------|-----|----|------|

*Analysis performed after recommended hold time.****Residue, Nonfilt.**

| | | | | |
|-------------------------------|------|-----|---|------|
| Solids, Total Suspended (NFR) | FWGE | INS | 5 | mg/L |
|-------------------------------|------|-----|---|------|

*Insufficient Sample for Analysis**Analysis performed after recommended hold time.****SpecificConductance**

| | | | | |
|--------------------|------|-----|---|-------|
| Conductivity (25C) | FWGE | 300 | 2 | uS/cm |
|--------------------|------|-----|---|-------|

***Turbidity**

| | | | | |
|-----------|------|------|------|-----|
| Turbidity | FWGE | 10.8 | 0.05 | NTU |
|-----------|------|------|------|-----|

Metals***ICP, Dissolved**

| | | | | |
|---------------|------|--------|------|------|
| Aluminum (Al) | FWGE | < 0.05 | 0.05 | mg/L |
|---------------|------|--------|------|------|

| | | | | |
|---------------|------|--------|------|------|
| Antimony (Sb) | FWGE | < 0.05 | 0.05 | mg/L |
|---------------|------|--------|------|------|

| | | | | |
|--------------|------|--------|------|------|
| Arsenic (As) | FWGE | < 0.05 | 0.05 | mg/L |
|--------------|------|--------|------|------|

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198268 - Client Sample ID: SITE-06 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| Barium (Ba) | FWGE | 0.052 | 0.001 | mg/L |
| Beryllium (Be) | FWGE | < 0.001 | 0.001 | mg/L |
| Boron (B) | FWGE | < 0.01 | 0.01 | mg/L |
| Cadmium (Cd) | FWGE | 0.006 | 0.005 | mg/L |
| Calcium (Ca) | FWGE | 38.4 | 0.1 | mg/L |
| Chromium (Cr) | FWGE | < 0.005 | 0.005 | mg/L |
| Cobalt (Co) | FWGE | 0.015 | 0.005 | mg/L |
| Copper (Cu) | FWGE | 0.006 | 0.005 | mg/L |
| Iron (Fe) | FWGE | 0.313 | 0.005 | mg/L |
| Lead (Pb) | FWGE | < 0.05 | 0.05 | mg/L |
| Magnesium (Mg) | FWGE | 11.2 | 0.1 | mg/L |
| Manganese (Mn) | FWGE | 0.172 | 0.001 | mg/L |
| Molybdenum (Mo) | FWGE | < 0.01 | 0.01 | mg/L |
| Nickel (Ni) | FWGE | 0.13 | 0.02 | mg/L |
| Phosphorus (P) | FWGE | 0.4 | 0.1 | mg/L |
| Potassium (K) | FWGE | 0.7 | 0.1 | mg/L |
| Selenium (Se) | FWGE | < 0.05 | 0.05 | mg/L |
| Silicon (Si) | FWGE | 3.14 | 0.05 | mg/L |
| Silver (Ag) | FWGE | < 0.01 | 0.01 | mg/L |
| Sodium (Na) | FWGE | 1.2 | 0.1 | mg/L |
| Strontium (Sr) | FWGE | 0.152 | 0.001 | mg/L |
| Sulfur (S) | FWGE | 43.7 | 0.05 | mg/L |
| Tin (Sn) | FWGE | < 0.05 | 0.05 | mg/L |
| Titanium (Ti) | FWGE | < 0.002 | 0.002 | mg/L |
| Vanadium (V) | FWGE | < 0.01 | 0.01 | mg/L |
| Zinc (Zn) | FWGE | 0.39 | 0.05 | mg/L |
| *ICP, Total | | | | |
| Aluminum (Al) | FWGE | 4.32 | 0.06 | mg/L |
| Antimony (Sb) | FWGE | < 0.06 | 0.06 | mg/L |
| Arsenic (As) | FWGE | 0.07 | 0.06 | mg/L |
| Barium (Ba) | FWGE | 0.047 | 0.001 | mg/L |
| Beryllium (Be) | FWGE | < 0.001 | 0.001 | mg/L |
| Boron (B) | FWGE | < 0.01 | 0.01 | mg/L |
| Cadmium (Cd) | FWGE | < 0.006 | 0.006 | mg/L |
| Calcium (Ca) | FWGE | 48.8 | 0.1 | mg/L |
| Chromium (Cr) | FWGE | < 0.006 | 0.006 | mg/L |
| Cobalt (Co) | FWGE | 0.014 | 0.006 | mg/L |
| Copper (Cu) | FWGE | 0.04 | 0.02 | mg/L |
| Iron (Fe) | FWGE | 1.62 | 0.05 | mg/L |
| Lead (Pb) | FWGE | < 0.06 | 0.06 | mg/L |
| Magnesium (Mg) | FWGE | 9.2 | 0.1 | mg/L |
| Manganese (Mn) | FWGE | 0.148 | 0.001 | mg/L |
| Molybdenum (Mo) | FWGE | < 0.01 | 0.01 | mg/L |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198268 - Client Sample ID: SITE-06 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| Nickel (Ni) | FWGE | 0.11 | 0.02 | mg/L |
| Phosphorus (P) | FWGE | 0.3 | 0.1 | mg/L |
| Potassium (K) | FWGE | 0.7 | 0.1 | mg/L |
| Selenium (Se) | FWGE | < 0.06 | 0.06 | mg/L |
| Silicon (Si) | FWGE | 3.28 | 0.06 | mg/L |
| Silver (Ag) | FWGE | < 0.01 | 0.01 | mg/L |
| Sodium (Na) | FWGE | 1.7 | 0.1 | mg/L |
| Strontium (Sr) | FWGE | 0.182 | 0.001 | mg/L |
| Sulfur (S) | FWGE | 39.8 | 0.06 | mg/L |
| Sulfur (S) | FWGE | 61.1 | 0.06 | mg/L |
| Tin (Sn) | FWGE | < 0.06 | 0.06 | mg/L |
| Titanium (Ti) | FWGE | < 0.002 | 0.002 | mg/L |
| Vanadium (V) | FWGE | < 0.01 | 0.01 | mg/L |
| Zinc (Zn) | FWGE | 0.41 | 0.05 | mg/L |
| *ICPMS, Dissolved | | | | |
| Arsenic (As) | FWGE | 0.3 | 0.1 | ug/L |
| Cadmium (Cd) | FWGE | 7.77 | 0.01 | ug/L |
| Copper (Cu) | FWGE | 6.97 | 0.05 | ug/L |
| Lead (Pb) | FWGE | 0.03 | 0.01 | ug/L |
| Selenium (Se) | FWGE | 3.4 | 0.2 | ug/L |
| Zinc (Zn) | FWGE | 406 | 0.2 | ug/L |
| *ICPMS, Total | | | | |
| Arsenic (As) | FWGE | 0.7 | 0.1 | ug/L |
| Cadmium (Cd) | FWGE | 6.26 | 0.01 | ug/L |
| Copper (Cu) | FWGE | 35.7 | 0.05 | ug/L |
| Lead (Pb) | FWGE | 0.05 | 0.01 | ug/L |
| Selenium (Se) | FWGE | 2.7 | 0.2 | ug/L |
| Zinc (Zn) | FWGE | 342 | 0.2 | ug/L |
| *Mercury, dissolved | | | | |
| Mercury (Hg) | FWGE | < 0.02 | 0.02 | ug/L |
| *Mercury, total | | | | |
| Mercury (Hg) | FWGE | < 0.02 | 0.02 | ug/L |
| Hardness, Diss. CaMg | | | | |
| Hardness, Dissolved Calcium+Magnesium - calc. | FWGE | 251 | 0.4 | mg CaCO3 / L |
| Hardness, Diss.Total | | | | |
| Hardness, Dissolved Total - calc. | FWGE | 253 | 0.4 | mg CaCO3 / L |
| <u>Non-Halogenated</u> | | | | |
| TOC | | | | |
| Carbon, Total Organic | FWGE | < 0.5 | 0.5 | mg/L |
| <u>Nutrients</u> | | | | |
| *Nitrogen, Ammonia | | | | |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198268 - Client Sample ID: SITE-06 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| Nitrogen, Ammonia as N | FWGE | 0.004 | 0.002 | mg/L |
| *Phosphorus, Total | | | | |
| Phosphorus, Total as P | FWGE | 0.019 | 0.002 | mg/L |

Analysis performed after recommended hold time.

| | | | | |
|---|--|--|--|--|
| PYLET Order No: 198269 - Client Sample ID: SITE-01-REP1 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |

Cantest - Lab (Sub Contractor)

Carbon Total Organic

| | | | | |
|-----------------------|------|-------|-----|-----------|
| Carbon, Total Organic | SOSE | < 0.5 | 0.5 | % dry wt. |
|-----------------------|------|-------|-----|-----------|

General

Residue, Volatile(sed)

| | | | | |
|---------------|------|--------|-----|-------|
| Solids, Fixed | SOSE | 980000 | 500 | mg/Kg |
|---------------|------|--------|-----|-------|

Analysis performed after recommended hold time.

| | | | | |
|------------------|------|-------|-----|-------|
| Solids, Volatile | SOSE | 20300 | 500 | mg/Kg |
|------------------|------|-------|-----|-------|

Analysis performed after recommended hold time.

Metals

***ICP, Total blockdig**

| | | | | |
|-----------------|------|-------|-----|-----------|
| Aluminum (Al) | SOSE | 4760 | 5 | ug/g(dry) |
| Antimony (Sb) | SOSE | < 5 | 5 | ug/g(dry) |
| Arsenic (As) | SOSE | 24 | 5 | ug/g(dry) |
| Barium (Ba) | SOSE | 1410 | 0.1 | ug/g(dry) |
| Beryllium (Be) | SOSE | 1.2 | 0.1 | ug/g(dry) |
| Boron (B) | SOSE | 7 | 1 | ug/g(dry) |
| Cadmium (Cd) | SOSE | 1.8 | 0.5 | ug/g(dry) |
| Calcium (Ca) | SOSE | 7910 | 10 | ug/g(dry) |
| Chromium (Cr) | SOSE | 10.1 | 0.5 | ug/g(dry) |
| Cobalt (Co) | SOSE | 7.6 | 0.5 | ug/g(dry) |
| Copper (Cu) | SOSE | 33.9 | 0.5 | ug/g(dry) |
| Iron (Fe) | SOSE | 18400 | 0.5 | ug/g(dry) |
| Lead (Pb) | SOSE | 11 | 5 | ug/g(dry) |
| Magnesium (Mg) | SOSE | 4110 | 10 | ug/g(dry) |
| Manganese (Mn) | SOSE | 461 | 0.1 | ug/g(dry) |
| Molybdenum (Mo) | SOSE | 4 | 1 | ug/g(dry) |
| Nickel (Ni) | SOSE | 31 | 2 | ug/g(dry) |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198269 - Client Sample ID: SITE-01-REP1 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| Phosphorus (P) | SOSE | 906 | 10 | ug/g(dry) |
| Potassium (K) | SOSE | 853 | 10 | ug/g(dry) |
| Selenium (Se) | SOSE | < 5 | 5 | ug/g(dry) |
| Silicon (Si) | SOSE | 1640 | 5 | ug/g(dry) |
| Silver (Ag) | SOSE | 2 | 1 | ug/g(dry) |
| Sodium (Na) | SOSE | 65 | 10 | ug/g(dry) |
| Strontium (Sr) | SOSE | 57.2 | 0.1 | ug/g(dry) |
| Sulfur (S) | SOSE | 590 | 5 | ug/g(dry) |
| Tin (Sn) | SOSE | < 5 | 5 | ug/g(dry) |
| Titanium (Ti) | SOSE | 38.5 | 0.2 | ug/g(dry) |
| Vanadium (V) | SOSE | 28 | 1 | ug/g(dry) |
| Zinc (Zn) | SOSE | 157 | 0.2 | ug/g(dry) |
| *ICPMS, Tot.blockdig | | | | |
| Arsenic (As) | SOSE | 18.3 | 0.1 | ug/g (dry) |
| Cadmium (Cd) | SOSE | 1.50 | 0.01 | ug/g (dry) |
| Copper (Cu) | SOSE | 34.1 | 0.06 | ug/g (dry) |
| Lead (Pb) | SOSE | 11.9 | 0.01 | ug/g (dry) |
| Selenium (Se) | SOSE | 2.4 | 0.2 | ug/g (dry) |
| Zinc (Zn) | SOSE | 170 | 0.1 | ug/g (dry) |
| *Mercury, total | | | | |
| Mercury (Hg) | SOSE | 0.051 | 0.002 | ug/g(dry) |

PYLET Order No: 198300 - Client Sample ID: SITE-02-REP1
Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM

Cantest - Lab (Sub Contractor)

Carbon Total Organic

Carbon, Total Organic SOSE < 0.5 0.5 % dry wt.

General

Residue, Volatile(sed)

Solids, Fixed SOSE 985000 500 mg/Kg

Analysis performed after recommended hold time.

Solids, Volatile SOSE 14700 500 mg/Kg

Analysis performed after recommended hold time.

Metals

***ICP, Total blockdig**

Aluminum (Al) SOSE 3550 5 ug/g(dry)

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198300 - Client Sample ID: SITE-02-REP1 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| Antimony (Sb) | SOSE | < 5 | 5 | ug/g(dry) |
| Arsenic (As) | SOSE | 8 | 5 | ug/g(dry) |
| Barium (Ba) | SOSE | 425 | 0.1 | ug/g(dry) |
| Beryllium (Be) | SOSE | 0.6 | 0.1 | ug/g(dry) |
| Boron (B) | SOSE | 4 | 1 | ug/g(dry) |
| Cadmium (Cd) | SOSE | 0.6 | 0.5 | ug/g(dry) |
| Calcium (Ca) | SOSE | 8180 | 10 | ug/g(dry) |
| Chromium (Cr) | SOSE | 6.4 | 0.5 | ug/g(dry) |
| Cobalt (Co) | SOSE | 2.9 | 0.5 | ug/g(dry) |
| Copper (Cu) | SOSE | 10.7 | 0.5 | ug/g(dry) |
| Iron (Fe) | SOSE | 6590 | 0.5 | ug/g(dry) |
| Lead (Pb) | SOSE | < 5 | 5 | ug/g(dry) |
| Magnesium (Mg) | SOSE | 2060 | 10 | ug/g(dry) |
| Manganese (Mn) | SOSE | 74.7 | 0.1 | ug/g(dry) |
| Molybdenum (Mo) | SOSE | < 1 | 1 | ug/g(dry) |
| Nickel (Ni) | SOSE | 12 | 2 | ug/g(dry) |
| Phosphorus (P) | SOSE | 2760 | 10 | ug/g(dry) |
| Potassium (K) | SOSE | 727 | 10 | ug/g(dry) |
| Selenium (Se) | SOSE | < 5 | 5 | ug/g(dry) |
| Silicon (Si) | SOSE | 1510 | 5 | ug/g(dry) |
| Silver (Ag) | SOSE | < 1 | 1 | ug/g(dry) |
| Sodium (Na) | SOSE | 77 | 10 | ug/g(dry) |
| Strontium (Sr) | SOSE | 91.5 | 0.1 | ug/g(dry) |
| Sulfur (S) | SOSE | 715 | 5 | ug/g(dry) |
| Tin (Sn) | SOSE | < 5 | 5 | ug/g(dry) |
| Titanium (Ti) | SOSE | 39.8 | 0.2 | ug/g(dry) |
| Vanadium (V) | SOSE | 25 | 1 | ug/g(dry) |
| Zinc (Zn) | SOSE | 55.3 | 0.2 | ug/g(dry) |
| *ICPMS, Tot.blockdig | | | | |
| Arsenic (As) | SOSE | 5.8 | 0.1 | ug/g (dry) |
| Cadmium (Cd) | SOSE | 0.57 | 0.01 | ug/g (dry) |
| Copper (Cu) | SOSE | 11.5 | 0.06 | ug/g (dry) |
| Lead (Pb) | SOSE | 4.24 | 0.01 | ug/g (dry) |
| Selenium (Se) | SOSE | 0.9 | 0.2 | ug/g (dry) |
| Zinc (Zn) | SOSE | 60.6 | 0.1 | ug/g (dry) |
| *Mercury, total | | | | |
| Mercury (Hg) | SOSE | 0.036 | 0.002 | ug/g(dry) |
| PYLET Order No: 198301 - Client Sample ID: SITE-03-REP1 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|-------------------------|---------------|---------------|------------|--------------|
|-------------------------|---------------|---------------|------------|--------------|

| |
|---|
| PYLET Order No: 198301 - Client Sample ID: SITE-03-REP1 Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM |
|---|

Cantest - Lab (Sub Contractor)**Carbon Total Organic**

| | | | | |
|-----------------------|------|-------|-----|-----------|
| Carbon, Total Organic | SOSE | < 0.5 | 0.5 | % dry wt. |
|-----------------------|------|-------|-----|-----------|

General**Residue, Volatile(sed)**

| | | | | |
|---------------|------|--------|-----|-------|
| Solids, Fixed | SOSE | 935000 | 500 | mg/Kg |
|---------------|------|--------|-----|-------|

Analysis performed after recommended hold time.

| | | | | |
|------------------|------|-------|-----|-------|
| Solids, Volatile | SOSE | 65400 | 500 | mg/Kg |
|------------------|------|-------|-----|-------|

*Analysis performed after recommended hold time.***Metals*****ICP, Total blockdig**

| | | | | |
|-----------------|------|--------|-----|-----------|
| Aluminum (Al) | SOSE | 1630 | 5 | ug/g(dry) |
| Antimony (Sb) | SOSE | 14 | 5 | ug/g(dry) |
| Arsenic (As) | SOSE | 82 | 5 | ug/g(dry) |
| Barium (Ba) | SOSE | 382 | 0.1 | ug/g(dry) |
| Beryllium (Be) | SOSE | < 0.1 | 0.1 | ug/g(dry) |
| Boron (B) | SOSE | 29 | 1 | ug/g(dry) |
| Cadmium (Cd) | SOSE | 6.4 | 0.5 | ug/g(dry) |
| Calcium (Ca) | SOSE | 324 | 10 | ug/g(dry) |
| Chromium (Cr) | SOSE | 28.6 | 0.5 | ug/g(dry) |
| Cobalt (Co) | SOSE | < 0.5 | 0.5 | ug/g(dry) |
| Copper (Cu) | SOSE | 30.5 | 0.5 | ug/g(dry) |
| Iron (Fe) | SOSE | 125300 | 5 | ug/g(dry) |
| Lead (Pb) | SOSE | 1030 | 5 | ug/g(dry) |
| Magnesium (Mg) | SOSE | 101 | 10 | ug/g(dry) |
| Manganese (Mn) | SOSE | 21.2 | 0.1 | ug/g(dry) |
| Molybdenum (Mo) | SOSE | 12 | 1 | ug/g(dry) |
| Nickel (Ni) | SOSE | 8 | 2 | ug/g(dry) |
| Phosphorus (P) | SOSE | 1610 | 10 | ug/g(dry) |
| Potassium (K) | SOSE | 441 | 10 | ug/g(dry) |
| Selenium (Se) | SOSE | < 5 | 5 | ug/g(dry) |
| Silicon (Si) | SOSE | 557 | 5 | ug/g(dry) |
| Silver (Ag) | SOSE | 16 | 1 | ug/g(dry) |
| Sodium (Na) | SOSE | 20 | 10 | ug/g(dry) |
| Strontium (Sr) | SOSE | 20.9 | 0.1 | ug/g(dry) |
| Sulfur (S) | SOSE | 13100 | 5 | ug/g(dry) |
| Tin (Sn) | SOSE | < 5 | 5 | ug/g(dry) |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198301 - Client Sample ID: SITE-03-REP1 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| Titanium (Ti) | SOSE | 25.0 | 0.2 | ug/g(dry) |
| Vanadium (V) | SOSE | 513 | 1 | ug/g(dry) |
| Zinc (Zn) | SOSE | 917 | 0.2 | ug/g(dry) |
| *ICPMS, Tot.blockdig | | | | |
| Arsenic (As) | SOSE | 71 | 0.1 | ug/g (dry) |
| Cadmium (Cd) | SOSE | 4.02 | 0.01 | ug/g (dry) |
| Copper (Cu) | SOSE | 31.3 | 0.06 | ug/g (dry) |
| Lead (Pb) | SOSE | 1216 | 0.01 | ug/g (dry) |
| Selenium (Se) | SOSE | 3.9 | 0.2 | ug/g (dry) |
| Zinc (Zn) | SOSE | 842 | 0.1 | ug/g (dry) |
| *Mercury, total | | | | |
| Mercury (Hg) | SOSE | 0.896 | 0.002 | ug/g(dry) |
| PYLET Order No: 198302 - Client Sample ID: SITE-04-REP1 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| <u>Cantest - Lab (Sub Contractor)</u> | | | | |
| Carbon Total Organic | | | | |
| Carbon, Total Organic | SOSE | 1.71 | 0.5 | % dry wt. |
| <u>General</u> | | | | |
| Residue, Volatile(sed) | | | | |
| Solids, Fixed | SOSE | 931000 | 500 | mg/Kg |
| <i>Analysis performed after recommended hold time.</i> | | | | |
| Solids, Volatile | SOSE | 68900 | 500 | mg/Kg |
| <i>Analysis performed after recommended hold time.</i> | | | | |
| <u>Metals</u> | | | | |
| *ICP, Total blockdig | | | | |
| Aluminum (Al) | SOSE | 1920 | 5 | ug/g(dry) |
| Antimony (Sb) | SOSE | 23 | 5 | ug/g(dry) |
| Arsenic (As) | SOSE | 205 | 5 | ug/g(dry) |
| Barium (Ba) | SOSE | 468 | 0.1 | ug/g(dry) |
| Beryllium (Be) | SOSE | < 0.1 | 0.1 | ug/g(dry) |
| Boron (B) | SOSE | 40 | 1 | ug/g(dry) |
| Cadmium (Cd) | SOSE | 3.6 | 0.5 | ug/g(dry) |
| Calcium (Ca) | SOSE | 56 | 10 | ug/g(dry) |
| Chromium (Cr) | SOSE | 42.6 | 0.5 | ug/g(dry) |
| Cobalt (Co) | SOSE | < 0.5 | 0.5 | ug/g(dry) |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198302 - Client Sample ID: SITE-04-REP1 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| Copper (Cu) | SOSE | 78.3 | 0.5 | ug/g(dry) |
| Iron (Fe) | SOSE | 176000 | 5 | ug/g(dry) |
| Lead (Pb) | SOSE | 26 | 5 | ug/g(dry) |
| Magnesium (Mg) | SOSE | 84 | 10 | ug/g(dry) |
| Manganese (Mn) | SOSE | 5.8 | 0.1 | ug/g(dry) |
| Molybdenum (Mo) | SOSE | 34 | 1 | ug/g(dry) |
| Nickel (Ni) | SOSE | 7 | 2 | ug/g(dry) |
| Phosphorus (P) | SOSE | 2650 | 10 | ug/g(dry) |
| Potassium (K) | SOSE | 412 | 10 | ug/g(dry) |
| Selenium (Se) | SOSE | 11 | 5 | ug/g(dry) |
| Silicon (Si) | SOSE | 633 | 5 | ug/g(dry) |
| Silver (Ag) | SOSE | 24 | 1 | ug/g(dry) |
| Sodium (Na) | SOSE | 27 | 10 | ug/g(dry) |
| Strontium (Sr) | SOSE | 26.2 | 0.1 | ug/g(dry) |
| Sulfur (S) | SOSE | 8820 | 5 | ug/g(dry) |
| Tin (Sn) | SOSE | < 5 | 5 | ug/g(dry) |
| Titanium (Ti) | SOSE | 21.2 | 0.2 | ug/g(dry) |
| Vanadium (V) | SOSE | 852 | 1 | ug/g(dry) |
| Zinc (Zn) | SOSE | 30.5 | 0.2 | ug/g(dry) |
| *ICPMS, Tot.blockdig | | | | |
| Arsenic (As) | SOSE | 161 | 0.1 | ug/g (dry) |
| Cadmium (Cd) | SOSE | 0.51 | 0.01 | ug/g (dry) |
| Copper (Cu) | SOSE | 86.3 | 0.06 | ug/g (dry) |
| Lead (Pb) | SOSE | 204 | 0.01 | ug/g (dry) |
| Selenium (Se) | SOSE | 9.5 | 0.2 | ug/g (dry) |
| Zinc (Zn) | SOSE | 59.4 | 0.1 | ug/g (dry) |
| *Mercury, total | | | | |
| Mercury (Hg) | SOSE | 0.141 | 0.002 | ug/g(dry) |

PYLET Order No: 198303 - Client Sample ID: SITE-05-REP1
Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM

Cantest - Lab (Sub Contractor)

Carbon Total Organic

Carbon, Total Organic SOSE 0.66 0.5 % dry wt.

General

Residue, Volatile(sed)

Solids, Fixed SOSE 981000 500 mg/Kg

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198303 - Client Sample ID: SITE-05-REP1 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |

Analysis performed after recommended hold time.

| | | | | |
|------------------|------|-------|-----|-------|
| Solids, Volatile | SOSE | 18500 | 500 | mg/Kg |
|------------------|------|-------|-----|-------|

Analysis performed after recommended hold time.

Metals

***ICP, Total blockdig**

| | | | | |
|-----------------|------|-------|-----|-----------|
| Aluminum (Al) | SOSE | 13100 | 5 | ug/g(dry) |
| Antimony (Sb) | SOSE | < 5 | 5 | ug/g(dry) |
| Arsenic (As) | SOSE | 30 | 5 | ug/g(dry) |
| Barium (Ba) | SOSE | 623 | 0.1 | ug/g(dry) |
| Beryllium (Be) | SOSE | 2.0 | 0.1 | ug/g(dry) |
| Boron (B) | SOSE | 7 | 1 | ug/g(dry) |
| Cadmium (Cd) | SOSE | 7.2 | 0.5 | ug/g(dry) |
| Calcium (Ca) | SOSE | 9250 | 10 | ug/g(dry) |
| Chromium (Cr) | SOSE | 25.1 | 0.5 | ug/g(dry) |
| Cobalt (Co) | SOSE | 46.8 | 0.5 | ug/g(dry) |
| Copper (Cu) | SOSE | 98.6 | 0.5 | ug/g(dry) |
| Iron (Fe) | SOSE | 22800 | 0.5 | ug/g(dry) |
| Lead (Pb) | SOSE | 15 | 5 | ug/g(dry) |
| Magnesium (Mg) | SOSE | 6160 | 10 | ug/g(dry) |
| Manganese (Mn) | SOSE | 979 | 0.1 | ug/g(dry) |
| Molybdenum (Mo) | SOSE | 12 | 1 | ug/g(dry) |
| Nickel (Ni) | SOSE | 149 | 2 | ug/g(dry) |
| Phosphorus (P) | SOSE | 2940 | 10 | ug/g(dry) |
| Potassium (K) | SOSE | 2960 | 10 | ug/g(dry) |
| Selenium (Se) | SOSE | < 5 | 5 | ug/g(dry) |
| Silicon (Si) | SOSE | 2260 | 5 | ug/g(dry) |
| Silver (Ag) | SOSE | 3 | 1 | ug/g(dry) |
| Sodium (Na) | SOSE | 203 | 10 | ug/g(dry) |
| Strontium (Sr) | SOSE | 44.3 | 0.1 | ug/g(dry) |
| Sulfur (S) | SOSE | 639 | 5 | ug/g(dry) |
| Tin (Sn) | SOSE | < 5 | 5 | ug/g(dry) |
| Titanium (Ti) | SOSE | 293 | 0.2 | ug/g(dry) |
| Vanadium (V) | SOSE | 196 | 1 | ug/g(dry) |
| Zinc (Zn) | SOSE | 756 | 0.2 | ug/g(dry) |

***ICPMS, Tot.blockdig**

| | | | | |
|---------------|------|------|------|------------|
| Arsenic (As) | SOSE | 21.2 | 0.1 | ug/g (dry) |
| Cadmium (Cd) | SOSE | 6.76 | 0.01 | ug/g (dry) |
| Copper (Cu) | SOSE | 93.9 | 0.06 | ug/g (dry) |
| Lead (Pb) | SOSE | 12.8 | 0.01 | ug/g (dry) |
| Selenium (Se) | SOSE | 2.0 | 0.2 | ug/g (dry) |
| Zinc (Zn) | SOSE | 778 | 0.1 | ug/g (dry) |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198303 - Client Sample ID: SITE-05-REP1 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| *Mercury, total | | | | |
| Mercury (Hg) | SOSE | 0.034 | 0.002 | ug/g(dry) |
| PYLET Order No: 198304 - Client Sample ID: SITE-06-REP1 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |

Cantest - Lab (Sub Contractor)**Carbon Total Organic**

| | | | | |
|-----------------------|------|------|-----|-----------|
| Carbon, Total Organic | SOSE | 1.52 | 0.5 | % dry wt. |
|-----------------------|------|------|-----|-----------|

General**Residue, Volatile(sed)**

| | | | | |
|---------------|------|--------|-----|-------|
| Solids, Fixed | SOSE | 974000 | 500 | mg/Kg |
|---------------|------|--------|-----|-------|

Analysis performed after recommended hold time.

| | | | | |
|------------------|------|-------|-----|-------|
| Solids, Volatile | SOSE | 26300 | 500 | mg/Kg |
|------------------|------|-------|-----|-------|

*Analysis performed after recommended hold time.***Metals*****ICP, Total blockdig**

| | | | | |
|-----------------|------|-------|-----|-----------|
| Aluminum (Al) | SOSE | 14200 | 5 | ug/g(dry) |
| Antimony (Sb) | SOSE | < 5 | 5 | ug/g(dry) |
| Arsenic (As) | SOSE | 41 | 5 | ug/g(dry) |
| Barium (Ba) | SOSE | 1120 | 0.1 | ug/g(dry) |
| Beryllium (Be) | SOSE | 2.6 | 0.1 | ug/g(dry) |
| Boron (B) | SOSE | 9 | 1 | ug/g(dry) |
| Cadmium (Cd) | SOSE | 9.6 | 0.5 | ug/g(dry) |
| Calcium (Ca) | SOSE | 5890 | 10 | ug/g(dry) |
| Chromium (Cr) | SOSE | 20.6 | 0.5 | ug/g(dry) |
| Cobalt (Co) | SOSE | 51.0 | 0.5 | ug/g(dry) |
| Copper (Cu) | SOSE | 171 | 0.5 | ug/g(dry) |
| Iron (Fe) | SOSE | 34500 | 0.5 | ug/g(dry) |
| Lead (Pb) | SOSE | 21 | 5 | ug/g(dry) |
| Magnesium (Mg) | SOSE | 3290 | 10 | ug/g(dry) |
| Manganese (Mn) | SOSE | 729 | 0.1 | ug/g(dry) |
| Molybdenum (Mo) | SOSE | 22 | 1 | ug/g(dry) |
| Nickel (Ni) | SOSE | 146 | 2 | ug/g(dry) |
| Phosphorus (P) | SOSE | 2410 | 10 | ug/g(dry) |
| Potassium (K) | SOSE | 1460 | 10 | ug/g(dry) |
| Selenium (Se) | SOSE | < 5 | 5 | ug/g(dry) |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198304 - Client Sample ID: SITE-06-REP1 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| Silicon (Si) | SOSE | 2620 | 5 | ug/g(dry) |
| Silver (Ag) | SOSE | 4 | 1 | ug/g(dry) |
| Sodium (Na) | SOSE | 81 | 10 | ug/g(dry) |
| Strontium (Sr) | SOSE | 54.7 | 0.1 | ug/g(dry) |
| Sulfur (S) | SOSE | 1420 | 5 | ug/g(dry) |
| Tin (Sn) | SOSE | < 5 | 5 | ug/g(dry) |
| Titanium (Ti) | SOSE | 174 | 0.2 | ug/g(dry) |
| Vanadium (V) | SOSE | 164 | 1 | ug/g(dry) |
| Zinc (Zn) | SOSE | 765 | 0.2 | ug/g(dry) |
| *ICPMS, Tot.blockdig | | | | |
| Arsenic (As) | SOSE | 29.4 | 0.1 | ug/g (dry) |
| Cadmium (Cd) | SOSE | 8.95 | 0.01 | ug/g (dry) |
| Copper (Cu) | SOSE | 165 | 0.06 | ug/g (dry) |
| Lead (Pb) | SOSE | 15 | 0.01 | ug/g (dry) |
| Selenium (Se) | SOSE | 4.4 | 0.2 | ug/g (dry) |
| Zinc (Zn) | SOSE | 791 | 0.1 | ug/g (dry) |
| *Mercury, total | | | | |
| Mercury (Hg) | SOSE | 0.161 | 0.002 | ug/g(dry) |
| PYLET Order No: 198305 - Client Sample ID: SITE-01-REP2 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| <u>Cantest - Lab (Sub Contractor)</u> | | | | |
| Carbon Total Organic | | | | |
| Carbon, Total Organic | SOSE | 1.23 | 0.5 | % dry wt. |
| <u>General</u> | | | | |
| Residue, Volatile(sed) | | | | |
| Solids, Fixed | SOSE | 945000 | 500 | mg/Kg |
| <i>Analysis performed after recommended hold time.</i> | | | | |
| Solids, Volatile | SOSE | 54800 | 500 | mg/Kg |
| <i>Analysis performed after recommended hold time.</i> | | | | |
| <u>Metals</u> | | | | |
| *ICP, Total blockdig | | | | |
| Aluminum (Al) | SOSE | 5820 | 5 | ug/g(dry) |
| Antimony (Sb) | SOSE | < 5 | 5 | ug/g(dry) |
| Arsenic (As) | SOSE | 26 | 5 | ug/g(dry) |
| Barium (Ba) | SOSE | 1700 | 1 | ug/g(dry) |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198305 - Client Sample ID: SITE-01-REP2 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| Beryllium (Be) | SOSE | 1.3 | 0.1 | ug/g(dry) |
| Boron (B) | SOSE | 9 | 1 | ug/g(dry) |
| Cadmium (Cd) | SOSE | 2.6 | 0.5 | ug/g(dry) |
| Calcium (Ca) | SOSE | 8560 | 10 | ug/g(dry) |
| Chromium (Cr) | SOSE | 13.3 | 0.5 | ug/g(dry) |
| Cobalt (Co) | SOSE | 9.0 | 0.5 | ug/g(dry) |
| Copper (Cu) | SOSE | 43.5 | 0.5 | ug/g(dry) |
| Iron (Fe) | SOSE | 19700 | 0.5 | ug/g(dry) |
| Lead (Pb) | SOSE | 13 | 5 | ug/g(dry) |
| Magnesium (Mg) | SOSE | 4010 | 10 | ug/g(dry) |
| Manganese (Mn) | SOSE | 529 | 0.1 | ug/g(dry) |
| Molybdenum (Mo) | SOSE | 5 | 1 | ug/g(dry) |
| Nickel (Ni) | SOSE | 40 | 2 | ug/g(dry) |
| Phosphorus (P) | SOSE | 1230 | 10 | ug/g(dry) |
| Potassium (K) | SOSE | 1020 | 10 | ug/g(dry) |
| Selenium (Se) | SOSE | < 5 | 5 | ug/g(dry) |
| Silicon (Si) | SOSE | 2140 | 5 | ug/g(dry) |
| Silver (Ag) | SOSE | 3 | 1 | ug/g(dry) |
| Sodium (Na) | SOSE | 81 | 10 | ug/g(dry) |
| Strontium (Sr) | SOSE | 61.3 | 0.1 | ug/g(dry) |
| Sulfur (S) | SOSE | 752 | 5 | ug/g(dry) |
| Tin (Sn) | SOSE | < 5 | 5 | ug/g(dry) |
| Titanium (Ti) | SOSE | 55.5 | 0.2 | ug/g(dry) |
| Vanadium (V) | SOSE | 33 | 1 | ug/g(dry) |
| Zinc (Zn) | SOSE | 190 | 0.2 | ug/g(dry) |
| *ICPMS, Tot.blockdig | | | | |
| Arsenic (As) | SOSE | 19.2 | 0.1 | ug/g (dry) |
| Cadmium (Cd) | SOSE | 2.29 | 0.01 | ug/g (dry) |
| Copper (Cu) | SOSE | 42.2 | 0.06 | ug/g (dry) |
| Lead (Pb) | SOSE | 9.03 | 0.01 | ug/g (dry) |
| Selenium (Se) | SOSE | 3.3 | 0.2 | ug/g (dry) |
| Zinc (Zn) | SOSE | 188 | 0.1 | ug/g (dry) |
| *Mercury, total | | | | |
| Mercury (Hg) | SOSE | 0.070 | 0.002 | ug/g(dry) |

PYLET Order No: 198306 - Client Sample ID: SITE-02-REP2
Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM

Cantest - Lab (Sub Contractor)

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|-------------------------|---------------|---------------|------------|--------------|
|-------------------------|---------------|---------------|------------|--------------|

| |
|---|
| PYLET Order No: 198306 - Client Sample ID: SITE-02-REP2 Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM |
|---|

Carbon Total Organic

| | | | | |
|-----------------------|------|-------|-----|-----------|
| Carbon, Total Organic | SOSE | < 0.5 | 0.5 | % dry wt. |
|-----------------------|------|-------|-----|-----------|

General**Residue, Volatile(sed)**

| | | | | |
|---------------|------|--------|-----|-------|
| Solids, Fixed | SOSE | 985000 | 500 | mg/Kg |
|---------------|------|--------|-----|-------|

Analysis performed after recommended hold time.

| | | | | |
|------------------|------|-------|-----|-------|
| Solids, Volatile | SOSE | 15200 | 500 | mg/Kg |
|------------------|------|-------|-----|-------|

*Analysis performed after recommended hold time.***Metals*****ICP, Total blockdig**

| | | | | |
|-----------------|------|------|-----|-----------|
| Aluminum (Al) | SOSE | 3230 | 5 | ug/g(dry) |
| Antimony (Sb) | SOSE | < 5 | 5 | ug/g(dry) |
| Arsenic (As) | SOSE | 6 | 5 | ug/g(dry) |
| Barium (Ba) | SOSE | 314 | 0.1 | ug/g(dry) |
| Beryllium (Be) | SOSE | 0.6 | 0.1 | ug/g(dry) |
| Boron (B) | SOSE | 4 | 1 | ug/g(dry) |
| Cadmium (Cd) | SOSE | 0.7 | 0.5 | ug/g(dry) |
| Calcium (Ca) | SOSE | 7050 | 10 | ug/g(dry) |
| Chromium (Cr) | SOSE | 5.7 | 0.5 | ug/g(dry) |
| Cobalt (Co) | SOSE | 2.6 | 0.5 | ug/g(dry) |
| Copper (Cu) | SOSE | 12.3 | 0.5 | ug/g(dry) |
| Iron (Fe) | SOSE | 6690 | 0.5 | ug/g(dry) |
| Lead (Pb) | SOSE | 6 | 5 | ug/g(dry) |
| Magnesium (Mg) | SOSE | 1850 | 10 | ug/g(dry) |
| Manganese (Mn) | SOSE | 63.4 | 0.1 | ug/g(dry) |
| Molybdenum (Mo) | SOSE | < 1 | 1 | ug/g(dry) |
| Nickel (Ni) | SOSE | 12 | 2 | ug/g(dry) |
| Phosphorus (P) | SOSE | 2240 | 10 | ug/g(dry) |
| Potassium (K) | SOSE | 630 | 10 | ug/g(dry) |
| Selenium (Se) | SOSE | < 5 | 5 | ug/g(dry) |
| Silicon (Si) | SOSE | 1500 | 5 | ug/g(dry) |
| Silver (Ag) | SOSE | < 1 | 1 | ug/g(dry) |
| Sodium (Na) | SOSE | 66 | 10 | ug/g(dry) |
| Strontium (Sr) | SOSE | 52.6 | 0.1 | ug/g(dry) |
| Sulfur (S) | SOSE | 686 | 5 | ug/g(dry) |
| Tin (Sn) | SOSE | < 5 | 5 | ug/g(dry) |
| Titanium (Ti) | SOSE | 24.4 | 0.2 | ug/g(dry) |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198306 - Client Sample ID: SITE-02-REP2 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| Vanadium (V) | SOSE | 30 | 1 | ug/g(dry) |
| Zinc (Zn) | SOSE | 57.2 | 0.2 | ug/g(dry) |
| *ICPMS, Tot.blockdig | | | | |
| Arsenic (As) | SOSE | 5.6 | 0.1 | ug/g (dry) |
| Cadmium (Cd) | SOSE | 0.67 | 0.01 | ug/g (dry) |
| Copper (Cu) | SOSE | 12.7 | 0.06 | ug/g (dry) |
| Lead (Pb) | SOSE | 3.92 | 0.01 | ug/g (dry) |
| Selenium (Se) | SOSE | 0.8 | 0.2 | ug/g (dry) |
| Zinc (Zn) | SOSE | 59.3 | 0.1 | ug/g (dry) |
| *Mercury, total | | | | |
| Mercury (Hg) | SOSE | 0.037 | 0.002 | ug/g(dry) |

PYLET Order No: 198307 - Client Sample ID: SITE-03-REP2
Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM

Cantest - Lab (Sub Contractor)

Carbon Total Organic

| | | | | |
|-----------------------|------|-------|-----|-----------|
| Carbon, Total Organic | SOSE | < 0.5 | 0.5 | % dry wt. |
|-----------------------|------|-------|-----|-----------|

General

Residue, Volatile(sed)

| | | | | |
|---------------|------|--------|-----|-------|
| Solids, Fixed | SOSE | 950000 | 500 | mg/Kg |
|---------------|------|--------|-----|-------|

Analysis performed after recommended hold time.

| | | | | |
|------------------|------|-------|-----|-------|
| Solids, Volatile | SOSE | 49600 | 500 | mg/Kg |
|------------------|------|-------|-----|-------|

Analysis performed after recommended hold time.

Metals

***ICP, Total blockdig**

| | | | | |
|----------------|------|-------|-----|-----------|
| Aluminum (Al) | SOSE | 1620 | 5 | ug/g(dry) |
| Antimony (Sb) | SOSE | 9 | 5 | ug/g(dry) |
| Arsenic (As) | SOSE | 54 | 5 | ug/g(dry) |
| Barium (Ba) | SOSE | 390 | 0.1 | ug/g(dry) |
| Beryllium (Be) | SOSE | 0.4 | 0.1 | ug/g(dry) |
| Boron (B) | SOSE | 23 | 1 | ug/g(dry) |
| Cadmium (Cd) | SOSE | 6.1 | 0.5 | ug/g(dry) |
| Calcium (Ca) | SOSE | 194 | 10 | ug/g(dry) |
| Chromium (Cr) | SOSE | 24.1 | 0.5 | ug/g(dry) |
| Cobalt (Co) | SOSE | < 0.5 | 0.5 | ug/g(dry) |
| Copper (Cu) | SOSE | 25.4 | 0.5 | ug/g(dry) |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198307 - Client Sample ID: SITE-03-REP2 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| Iron (Fe) | SOSE | 87500 | 5 | ug/g(dry) |
| Lead (Pb) | SOSE | 1080 | 5 | ug/g(dry) |
| Magnesium (Mg) | SOSE | 91 | 10 | ug/g(dry) |
| Manganese (Mn) | SOSE | 14.3 | 0.1 | ug/g(dry) |
| Molybdenum (Mo) | SOSE | 12 | 1 | ug/g(dry) |
| Nickel (Ni) | SOSE | 7 | 2 | ug/g(dry) |
| Phosphorus (P) | SOSE | 1440 | 10 | ug/g(dry) |
| Potassium (K) | SOSE | 371 | 10 | ug/g(dry) |
| Selenium (Se) | SOSE | < 5 | 5 | ug/g(dry) |
| Silicon (Si) | SOSE | 506 | 5 | ug/g(dry) |
| Silver (Ag) | SOSE | 13 | 1 | ug/g(dry) |
| Sodium (Na) | SOSE | 14 | 10 | ug/g(dry) |
| Strontium (Sr) | SOSE | 20.6 | 0.1 | ug/g(dry) |
| Sulfur (S) | SOSE | 10500 | 5 | ug/g(dry) |
| Tin (Sn) | SOSE | < 5 | 5 | ug/g(dry) |
| Titanium (Ti) | SOSE | 18.6 | 0.2 | ug/g(dry) |
| Vanadium (V) | SOSE | 439 | 1 | ug/g(dry) |
| Zinc (Zn) | SOSE | 943 | 0.2 | ug/g(dry) |
| *ICPMS, Tot.blockdig | | | | |
| Arsenic (As) | SOSE | 51 | 0.1 | ug/g (dry) |
| Cadmium (Cd) | SOSE | 4.24 | 0.01 | ug/g (dry) |
| Copper (Cu) | SOSE | 25.6 | 0.06 | ug/g (dry) |
| Lead (Pb) | SOSE | 1168 | 0.01 | ug/g (dry) |
| Selenium (Se) | SOSE | 4.0 | 0.2 | ug/g (dry) |
| Zinc (Zn) | SOSE | 883 | 0.1 | ug/g (dry) |
| *Mercury, total | | | | |
| Mercury (Hg) | SOSE | 0.854 | 0.002 | ug/g(dry) |

PYLET Order No: 198308 - Client Sample ID: SITE-04-REP2
Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM

Cantest - Lab (Sub Contractor)

Carbon Total Organic

Carbon, Total Organic SOSE < 0.5 0.5 % dry wt.

General

Residue, Volatile(sed)

Solids, Fixed SOSE 929000 500 mg/Kg

Analysis performed after recommended hold time.

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198308 - Client Sample ID: SITE-04-REP2 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |

| | | | | |
|------------------|------|-------|-----|-------|
| Solids, Volatile | SOSE | 70800 | 500 | mg/Kg |
|------------------|------|-------|-----|-------|

Analysis performed after recommended hold time.

Metals

*ICP, Total blockdig

| | | | | |
|-----------------|------|--------|-----|-----------|
| Aluminum (Al) | SOSE | 1940 | 5 | ug/g(dry) |
| Antimony (Sb) | SOSE | 22 | 5 | ug/g(dry) |
| Arsenic (As) | SOSE | 304 | 5 | ug/g(dry) |
| Barium (Ba) | SOSE | 454 | 0.1 | ug/g(dry) |
| Beryllium (Be) | SOSE | < 0.1 | 0.1 | ug/g(dry) |
| Boron (B) | SOSE | 39 | 1 | ug/g(dry) |
| Cadmium (Cd) | SOSE | 4.2 | 0.5 | ug/g(dry) |
| Calcium (Ca) | SOSE | 48 | 10 | ug/g(dry) |
| Chromium (Cr) | SOSE | 51.4 | 0.5 | ug/g(dry) |
| Cobalt (Co) | SOSE | < 0.5 | 0.5 | ug/g(dry) |
| Copper (Cu) | SOSE | 72.2 | 0.5 | ug/g(dry) |
| Iron (Fe) | SOSE | 169000 | 5 | ug/g(dry) |
| Lead (Pb) | SOSE | 52 | 5 | ug/g(dry) |
| Magnesium (Mg) | SOSE | 100 | 10 | ug/g(dry) |
| Manganese (Mn) | SOSE | 9.6 | 0.1 | ug/g(dry) |
| Molybdenum (Mo) | SOSE | 43 | 1 | ug/g(dry) |
| Nickel (Ni) | SOSE | 6 | 2 | ug/g(dry) |
| Phosphorus (P) | SOSE | 3430 | 10 | ug/g(dry) |
| Potassium (K) | SOSE | 411 | 10 | ug/g(dry) |
| Selenium (Se) | SOSE | 10 | 5 | ug/g(dry) |
| Silicon (Si) | SOSE | 633 | 5 | ug/g(dry) |
| Silver (Ag) | SOSE | 21 | 1 | ug/g(dry) |
| Sodium (Na) | SOSE | 31 | 10 | ug/g(dry) |
| Strontium (Sr) | SOSE | 24.2 | 0.1 | ug/g(dry) |
| Sulfur (S) | SOSE | 8940 | 5 | ug/g(dry) |
| Tin (Sn) | SOSE | < 5 | 5 | ug/g(dry) |
| Titanium (Ti) | SOSE | 24.1 | 0.2 | ug/g(dry) |
| Vanadium (V) | SOSE | 1050 | 1 | ug/g(dry) |
| Zinc (Zn) | SOSE | 28.0 | 0.2 | ug/g(dry) |

*ICPMS, Tot.blockdig

| | | | | |
|---------------|------|------|------|------------|
| Arsenic (As) | SOSE | 227 | 0.1 | ug/g (dry) |
| Cadmium (Cd) | SOSE | 0.40 | 0.01 | ug/g (dry) |
| Copper (Cu) | SOSE | 67.9 | 0.06 | ug/g (dry) |
| Lead (Pb) | SOSE | 188 | 0.01 | ug/g (dry) |
| Selenium (Se) | SOSE | 7.2 | 0.2 | ug/g (dry) |
| Zinc (Zn) | SOSE | 50.9 | 0.1 | ug/g (dry) |

*Mercury, total

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198308 - Client Sample ID: SITE-04-REP2 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| Mercury (Hg) | SOSE | 0.143 | 0.002 | ug/g(dry) |

| | | | | |
|---|--|--|--|--|
| PYLET Order No: 198309 - Client Sample ID: SITE-05-REP2 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |

Cantest - Lab (Sub Contractor)**Carbon Total Organic**

| | | | | |
|-----------------------|------|------|-----|-----------|
| Carbon, Total Organic | SOSE | 1.17 | 0.5 | % dry wt. |
|-----------------------|------|------|-----|-----------|

General**Residue, Volatile(sed)**

| | | | | |
|---------------|------|--------|-----|-------|
| Solids, Fixed | SOSE | 983000 | 500 | mg/Kg |
|---------------|------|--------|-----|-------|

Analysis performed after recommended hold time.

| | | | | |
|------------------|------|-------|-----|-------|
| Solids, Volatile | SOSE | 17400 | 500 | mg/Kg |
|------------------|------|-------|-----|-------|

*Analysis performed after recommended hold time.***Metals*****ICP, Total blockdig**

| | | | | |
|-----------------|------|-------|-----|-----------|
| Aluminum (Al) | SOSE | 13500 | 5 | ug/g(dry) |
| Antimony (Sb) | SOSE | < 5 | 5 | ug/g(dry) |
| Arsenic (As) | SOSE | 33 | 5 | ug/g(dry) |
| Barium (Ba) | SOSE | 678 | 0.1 | ug/g(dry) |
| Beryllium (Be) | SOSE | 2.1 | 0.1 | ug/g(dry) |
| Boron (B) | SOSE | 7 | 1 | ug/g(dry) |
| Cadmium (Cd) | SOSE | 7.7 | 0.5 | ug/g(dry) |
| Calcium (Ca) | SOSE | 12000 | 10 | ug/g(dry) |
| Chromium (Cr) | SOSE | 29.2 | 0.5 | ug/g(dry) |
| Cobalt (Co) | SOSE | 47.2 | 0.5 | ug/g(dry) |
| Copper (Cu) | SOSE | 91.1 | 0.5 | ug/g(dry) |
| Iron (Fe) | SOSE | 21700 | 0.5 | ug/g(dry) |
| Lead (Pb) | SOSE | 18 | 5 | ug/g(dry) |
| Magnesium (Mg) | SOSE | 5250 | 10 | ug/g(dry) |
| Manganese (Mn) | SOSE | 1030 | 0.1 | ug/g(dry) |
| Molybdenum (Mo) | SOSE | 13 | 1 | ug/g(dry) |
| Nickel (Ni) | SOSE | 158 | 2 | ug/g(dry) |
| Phosphorus (P) | SOSE | 3380 | 10 | ug/g(dry) |
| Potassium (K) | SOSE | 2960 | 10 | ug/g(dry) |
| Selenium (Se) | SOSE | < 5 | 5 | ug/g(dry) |
| Silicon (Si) | SOSE | 2470 | 5 | ug/g(dry) |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198309 - Client Sample ID: SITE-05-REP2 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| Silver (Ag) | SOSE | 3 | 1 | ug/g(dry) |
| Sodium (Na) | SOSE | 213 | 10 | ug/g(dry) |
| Strontium (Sr) | SOSE | 60.4 | 0.1 | ug/g(dry) |
| Sulfur (S) | SOSE | 1090 | 5 | ug/g(dry) |
| Tin (Sn) | SOSE | < 5 | 5 | ug/g(dry) |
| Titanium (Ti) | SOSE | 296 | 0.2 | ug/g(dry) |
| Vanadium (V) | SOSE | 241 | 1 | ug/g(dry) |
| Zinc (Zn) | SOSE | 769 | 0.2 | ug/g(dry) |
| *ICPMS, Tot.blockdig | | | | |
| Arsenic (As) | SOSE | 25.9 | 0.1 | ug/g (dry) |
| Cadmium (Cd) | SOSE | 7.13 | 0.01 | ug/g (dry) |
| Copper (Cu) | SOSE | 85.3 | 0.06 | ug/g (dry) |
| Lead (Pb) | SOSE | 13.8 | 0.01 | ug/g (dry) |
| Selenium (Se) | SOSE | 2.2 | 0.2 | ug/g (dry) |
| Zinc (Zn) | SOSE | 798 | 0.1 | ug/g (dry) |
| *Mercury, total | | | | |
| Mercury (Hg) | SOSE | 0.031 | 0.002 | ug/g(dry) |
| PYLET Order No: 198310 - Client Sample ID: SITE-06-REP2 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| <u>Cantest - Lab (Sub Contractor)</u> | | | | |
| Carbon Total Organic | | | | |
| Carbon, Total Organic | SOSE | < 0.5 | 0.5 | % dry wt. |
| <u>General</u> | | | | |
| Residue, Volatile(sed) | | | | |
| Solids, Fixed | SOSE | 976000 | 500 | mg/Kg |
| <i>Analysis performed after recommended hold time.</i> | | | | |
| Solids, Volatile | SOSE | 24400 | 500 | mg/Kg |
| <i>Analysis performed after recommended hold time.</i> | | | | |
| <u>Metals</u> | | | | |
| *ICP, Total blockdig | | | | |
| Aluminum (Al) | SOSE | 10700 | 5 | ug/g(dry) |
| Antimony (Sb) | SOSE | < 5 | 5 | ug/g(dry) |
| Arsenic (As) | SOSE | 31 | 5 | ug/g(dry) |
| Barium (Ba) | SOSE | 171 | 0.1 | ug/g(dry) |
| Beryllium (Be) | SOSE | 1.9 | 0.1 | ug/g(dry) |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198310 - Client Sample ID: SITE-06-REP2 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| Boron (B) | SOSE | 9 | 1 | ug/g(dry) |
| Cadmium (Cd) | SOSE | 6.1 | 0.5 | ug/g(dry) |
| Calcium (Ca) | SOSE | 7580 | 10 | ug/g(dry) |
| Chromium (Cr) | SOSE | 20.5 | 0.5 | ug/g(dry) |
| Cobalt (Co) | SOSE | 34.5 | 0.5 | ug/g(dry) |
| Copper (Cu) | SOSE | 105 | 0.5 | ug/g(dry) |
| Iron (Fe) | SOSE | 23400 | 0.5 | ug/g(dry) |
| Lead (Pb) | SOSE | 18 | 5 | ug/g(dry) |
| Magnesium (Mg) | SOSE | 3370 | 10 | ug/g(dry) |
| Manganese (Mn) | SOSE | 503 | 0.1 | ug/g(dry) |
| Molybdenum (Mo) | SOSE | 13 | 1 | ug/g(dry) |
| Nickel (Ni) | SOSE | 101 | 2 | ug/g(dry) |
| Phosphorus (P) | SOSE | 3270 | 10 | ug/g(dry) |
| Potassium (K) | SOSE | 1220 | 10 | ug/g(dry) |
| Selenium (Se) | SOSE | < 5 | 5 | ug/g(dry) |
| Silicon (Si) | SOSE | 1390 | 5 | ug/g(dry) |
| Silver (Ag) | SOSE | 4 | 1 | ug/g(dry) |
| Sodium (Na) | SOSE | 35 | 10 | ug/g(dry) |
| Strontium (Sr) | SOSE | 31.0 | 0.1 | ug/g(dry) |
| Sulfur (S) | SOSE | 1360 | 5 | ug/g(dry) |
| Tin (Sn) | SOSE | < 5 | 5 | ug/g(dry) |
| Titanium (Ti) | SOSE | 80.2 | 0.2 | ug/g(dry) |
| Vanadium (V) | SOSE | 94 | 1 | ug/g(dry) |
| Zinc (Zn) | SOSE | 482 | 0.2 | ug/g(dry) |
| *ICPMS, Tot.blockdig | | | | |
| Arsenic (As) | SOSE | 24.6 | 0.1 | ug/g (dry) |
| Cadmium (Cd) | SOSE | 6.13 | 0.01 | ug/g (dry) |
| Copper (Cu) | SOSE | 111 | 0.06 | ug/g (dry) |
| Lead (Pb) | SOSE | 13.8 | 0.01 | ug/g (dry) |
| Selenium (Se) | SOSE | 2.9 | 0.2 | ug/g (dry) |
| Zinc (Zn) | SOSE | 505 | 0.1 | ug/g (dry) |
| *Mercury, total | | | | |
| Mercury (Hg) | SOSE | 0.117 | 0.002 | ug/g(dry) |

PYLET Order No: 198311 - Client Sample ID: SITE-01-REP3

Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM

Cantest - Lab (Sub Contractor)

Carbon Total Organic

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198311 - Client Sample ID: SITE-01-REP3 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| Carbon, Total Organic | SOSE | < 0.5 | 0.5 | % dry wt. |
| <u>General</u> | | | | |
| Residue, Volatile(sed) | | | | |
| Solids, Fixed | SOSE | 982000 | 500 | mg/Kg |
| <i>Analysis performed after recommended hold time.</i> | | | | |
| Solids, Volatile | SOSE | 17800 | 500 | mg/Kg |
| <i>Analysis performed after recommended hold time.</i> | | | | |
| <u>Metals</u> | | | | |
| *ICP, Total blockdig | | | | |
| Aluminum (Al) | SOSE | 3500 | 5 | ug/g(dry) |
| Antimony (Sb) | SOSE | < 5 | 5 | ug/g(dry) |
| Arsenic (As) | SOSE | 21 | 5 | ug/g(dry) |
| Barium (Ba) | SOSE | 991 | 0.1 | ug/g(dry) |
| Beryllium (Be) | SOSE | 1.0 | 0.1 | ug/g(dry) |
| Boron (B) | SOSE | 7 | 1 | ug/g(dry) |
| Cadmium (Cd) | SOSE | 1.5 | 0.5 | ug/g(dry) |
| Calcium (Ca) | SOSE | 4350 | 10 | ug/g(dry) |
| Chromium (Cr) | SOSE | 6.5 | 0.5 | ug/g(dry) |
| Cobalt (Co) | SOSE | 5.1 | 0.5 | ug/g(dry) |
| Copper (Cu) | SOSE | 41.1 | 0.5 | ug/g(dry) |
| Iron (Fe) | SOSE | 13800 | 0.5 | ug/g(dry) |
| Lead (Pb) | SOSE | 10 | 5 | ug/g(dry) |
| Magnesium (Mg) | SOSE | 2230 | 10 | ug/g(dry) |
| Manganese (Mn) | SOSE | 254 | 0.1 | ug/g(dry) |
| Molybdenum (Mo) | SOSE | 3 | 1 | ug/g(dry) |
| Nickel (Ni) | SOSE | 23 | 2 | ug/g(dry) |
| Phosphorus (P) | SOSE | 561 | 10 | ug/g(dry) |
| Potassium (K) | SOSE | 484 | 10 | ug/g(dry) |
| Selenium (Se) | SOSE | < 5 | 5 | ug/g(dry) |
| Silicon (Si) | SOSE | 799 | 5 | ug/g(dry) |
| Silver (Ag) | SOSE | 2 | 1 | ug/g(dry) |
| Sodium (Na) | SOSE | 45 | 10 | ug/g(dry) |
| Strontium (Sr) | SOSE | 30.3 | 0.1 | ug/g(dry) |
| Sulfur (S) | SOSE | 559 | 5 | ug/g(dry) |
| Tin (Sn) | SOSE | < 5 | 5 | ug/g(dry) |
| Titanium (Ti) | SOSE | 20.3 | 0.2 | ug/g(dry) |
| Vanadium (V) | SOSE | 16 | 1 | ug/g(dry) |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198311 - Client Sample ID: SITE-01-REP3 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| Zinc (Zn) | SOSE | 122 | 0.2 | ug/g(dry) |
| *ICPMS, Tot.blockdig | | | | |
| Arsenic (As) | SOSE | 14.8 | 0.1 | ug/g (dry) |
| Cadmium (Cd) | SOSE | 1.57 | 0.01 | ug/g (dry) |
| Copper (Cu) | SOSE | 41.7 | 0.06 | ug/g (dry) |
| Lead (Pb) | SOSE | 6.36 | 0.01 | ug/g (dry) |
| Selenium (Se) | SOSE | 2.3 | 0.2 | ug/g (dry) |
| Zinc (Zn) | SOSE | 125 | 0.1 | ug/g (dry) |
| *Mercury, total | | | | |
| Mercury (Hg) | SOSE | 0.050 | 0.002 | ug/g(dry) |

PYLET Order No: 198312 - Client Sample ID: SITE-02-REP3
Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM

Cantest - Lab (Sub Contractor)

Carbon Total Organic

| | | | | |
|-----------------------|------|-------|-----|-----------|
| Carbon, Total Organic | SOSE | < 0.5 | 0.5 | % dry wt. |
|-----------------------|------|-------|-----|-----------|

General

Residue, Volatile(sed)

| | | | | |
|---------------|------|--------|-----|-------|
| Solids, Fixed | SOSE | 982000 | 500 | mg/Kg |
|---------------|------|--------|-----|-------|

Analysis performed after recommended hold time.

| | | | | |
|------------------|------|-------|-----|-------|
| Solids, Volatile | SOSE | 18300 | 500 | mg/Kg |
|------------------|------|-------|-----|-------|

Analysis performed after recommended hold time.

Metals

***ICP, Total blockdig**

| | | | | |
|----------------|------|------|-----|-----------|
| Aluminum (Al) | SOSE | 2170 | 5 | ug/g(dry) |
| Antimony (Sb) | SOSE | < 5 | 5 | ug/g(dry) |
| Arsenic (As) | SOSE | 7 | 5 | ug/g(dry) |
| Barium (Ba) | SOSE | 116 | 0.1 | ug/g(dry) |
| Beryllium (Be) | SOSE | 0.5 | 0.1 | ug/g(dry) |
| Boron (B) | SOSE | 4 | 1 | ug/g(dry) |
| Cadmium (Cd) | SOSE | 0.7 | 0.5 | ug/g(dry) |
| Calcium (Ca) | SOSE | 1780 | 10 | ug/g(dry) |
| Chromium (Cr) | SOSE | 3.1 | 0.5 | ug/g(dry) |
| Cobalt (Co) | SOSE | 2.4 | 0.5 | ug/g(dry) |
| Copper (Cu) | SOSE | 10.2 | 0.5 | ug/g(dry) |
| Iron (Fe) | SOSE | 4660 | 0.5 | ug/g(dry) |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198312 - Client Sample ID: SITE-02-REP3 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| Lead (Pb) | SOSE | < 5 | 5 | ug/g(dry) |
| Magnesium (Mg) | SOSE | 970 | 10 | ug/g(dry) |
| Manganese (Mn) | SOSE | 38.3 | 0.1 | ug/g(dry) |
| Molybdenum (Mo) | SOSE | < 1 | 1 | ug/g(dry) |
| Nickel (Ni) | SOSE | 9 | 2 | ug/g(dry) |
| Phosphorus (P) | SOSE | 419 | 10 | ug/g(dry) |
| Potassium (K) | SOSE | 344 | 10 | ug/g(dry) |
| Selenium (Se) | SOSE | < 5 | 5 | ug/g(dry) |
| Silicon (Si) | SOSE | 780 | 5 | ug/g(dry) |
| Silver (Ag) | SOSE | 1 | 1 | ug/g(dry) |
| Sodium (Na) | SOSE | 70 | 10 | ug/g(dry) |
| Strontium (Sr) | SOSE | 18.3 | 0.1 | ug/g(dry) |
| Sulfur (S) | SOSE | 563 | 5 | ug/g(dry) |
| Tin (Sn) | SOSE | < 5 | 5 | ug/g(dry) |
| Titanium (Ti) | SOSE | 20.0 | 0.2 | ug/g(dry) |
| Vanadium (V) | SOSE | 18 | 1 | ug/g(dry) |
| Zinc (Zn) | SOSE | 45.8 | 0.2 | ug/g(dry) |
| *ICPMS, Tot.blockdig | | | | |
| Arsenic (As) | SOSE | 5.4 | 0.1 | ug/g (dry) |
| Cadmium (Cd) | SOSE | 0.79 | 0.01 | ug/g (dry) |
| Copper (Cu) | SOSE | 13 | 0.06 | ug/g (dry) |
| Lead (Pb) | SOSE | 3.31 | 0.01 | ug/g (dry) |
| Selenium (Se) | SOSE | 0.7 | 0.2 | ug/g (dry) |
| Zinc (Zn) | SOSE | 52.1 | 0.1 | ug/g (dry) |
| *Mercury, total | | | | |
| Mercury (Hg) | SOSE | 0.025 | 0.002 | ug/g(dry) |

PYLET Order No: 198313 - Client Sample ID: SITE-03-REP3
Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM

Cantest - Lab (Sub Contractor)

Carbon Total Organic

| | | | | |
|-----------------------|------|-------|-----|-----------|
| Carbon, Total Organic | SOSE | < 0.5 | 0.5 | % dry wt. |
|-----------------------|------|-------|-----|-----------|

General

Residue, Volatile(sed)

| | | | | |
|---------------|------|--------|-----|-------|
| Solids, Fixed | SOSE | 942000 | 500 | mg/Kg |
|---------------|------|--------|-----|-------|

Analysis performed after recommended hold time.

| | | | | |
|------------------|------|-------|-----|-------|
| Solids, Volatile | SOSE | 57900 | 500 | mg/Kg |
|------------------|------|-------|-----|-------|

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198313 - Client Sample ID: SITE-03-REP3 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |

Analysis performed after recommended hold time.

Metals

***ICP, Total blockdig**

| | | | | |
|-----------------|------|--------|-----|-----------|
| Aluminum (Al) | SOSE | 1150 | 5 | ug/g(dry) |
| Antimony (Sb) | SOSE | 14 | 5 | ug/g(dry) |
| Arsenic (As) | SOSE | 85 | 5 | ug/g(dry) |
| Barium (Ba) | SOSE | 226 | 0.1 | ug/g(dry) |
| Beryllium (Be) | SOSE | < 0.1 | 0.1 | ug/g(dry) |
| Boron (B) | SOSE | 34 | 1 | ug/g(dry) |
| Cadmium (Cd) | SOSE | 2.9 | 0.5 | ug/g(dry) |
| Calcium (Ca) | SOSE | 278 | 10 | ug/g(dry) |
| Chromium (Cr) | SOSE | 24.0 | 0.5 | ug/g(dry) |
| Cobalt (Co) | SOSE | < 0.5 | 0.5 | ug/g(dry) |
| Copper (Cu) | SOSE | 18.8 | 0.5 | ug/g(dry) |
| Iron (Fe) | SOSE | 131000 | 5 | ug/g(dry) |
| Lead (Pb) | SOSE | 373 | 5 | ug/g(dry) |
| Magnesium (Mg) | SOSE | 102 | 10 | ug/g(dry) |
| Manganese (Mn) | SOSE | 12.2 | 0.1 | ug/g(dry) |
| Molybdenum (Mo) | SOSE | 10 | 1 | ug/g(dry) |
| Nickel (Ni) | SOSE | 5 | 2 | ug/g(dry) |
| Phosphorus (P) | SOSE | 1320 | 10 | ug/g(dry) |
| Potassium (K) | SOSE | 326 | 10 | ug/g(dry) |
| Selenium (Se) | SOSE | 6 | 5 | ug/g(dry) |
| Silicon (Si) | SOSE | 471 | 5 | ug/g(dry) |
| Silver (Ag) | SOSE | 18 | 1 | ug/g(dry) |
| Sodium (Na) | SOSE | 19 | 10 | ug/g(dry) |
| Strontium (Sr) | SOSE | 20.8 | 0.1 | ug/g(dry) |
| Sulfur (S) | SOSE | 14700 | 5 | ug/g(dry) |
| Tin (Sn) | SOSE | < 5 | 5 | ug/g(dry) |
| Titanium (Ti) | SOSE | 9.6 | 0.2 | ug/g(dry) |
| Vanadium (V) | SOSE | 407 | 1 | ug/g(dry) |
| Zinc (Zn) | SOSE | 88.4 | 0.2 | ug/g(dry) |

***ICPMS, Tot.blockdig**

| | | | | |
|---------------|------|------|------|------------|
| Arsenic (As) | SOSE | 67 | 0.1 | ug/g (dry) |
| Cadmium (Cd) | SOSE | 0.56 | 0.01 | ug/g (dry) |
| Copper (Cu) | SOSE | 21.1 | 0.06 | ug/g (dry) |
| Lead (Pb) | SOSE | 563 | 0.01 | ug/g (dry) |
| Selenium (Se) | SOSE | 3.5 | 0.2 | ug/g (dry) |
| Zinc (Zn) | SOSE | 94.4 | 0.1 | ug/g (dry) |

***Mercury, total**

| | | | | |
|--------------|------|-------|-------|-----------|
| Mercury (Hg) | SOSE | 0.134 | 0.002 | ug/g(dry) |
|--------------|------|-------|-------|-----------|

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|-------------------------|---------------|---------------|------------|--------------|
|-------------------------|---------------|---------------|------------|--------------|

| |
|---|
| PYLET Order No: 198314 - Client Sample ID: SITE-04-REP3 Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM |
|---|

Cantest - Lab (Sub Contractor)**Carbon Total Organic**

| | | | | |
|-----------------------|------|------|-----|-----------|
| Carbon, Total Organic | SOSE | 0.54 | 0.5 | % dry wt. |
|-----------------------|------|------|-----|-----------|

General**Residue, Volatile(sed)**

| | | | | |
|---------------|------|--------|-----|-------|
| Solids, Fixed | SOSE | 915000 | 500 | mg/Kg |
|---------------|------|--------|-----|-------|

Analysis performed after recommended hold time.

| | | | | |
|------------------|------|-------|-----|-------|
| Solids, Volatile | SOSE | 85000 | 500 | mg/Kg |
|------------------|------|-------|-----|-------|

*Analysis performed after recommended hold time.***Metals*****ICP, Total blockdig**

| | | | | |
|-----------------|------|--------|-----|-----------|
| Aluminum (Al) | SOSE | 1930 | 5 | ug/g(dry) |
| Antimony (Sb) | SOSE | 19 | 5 | ug/g(dry) |
| Arsenic (As) | SOSE | 194 | 5 | ug/g(dry) |
| Barium (Ba) | SOSE | 383 | 0.1 | ug/g(dry) |
| Beryllium (Be) | SOSE | < 0.1 | 0.1 | ug/g(dry) |
| Boron (B) | SOSE | 44 | 1 | ug/g(dry) |
| Cadmium (Cd) | SOSE | 4.0 | 0.5 | ug/g(dry) |
| Calcium (Ca) | SOSE | 19 | 10 | ug/g(dry) |
| Chromium (Cr) | SOSE | 46.3 | 0.5 | ug/g(dry) |
| Cobalt (Co) | SOSE | < 0.5 | 0.5 | ug/g(dry) |
| Copper (Cu) | SOSE | 66.6 | 0.5 | ug/g(dry) |
| Iron (Fe) | SOSE | 164000 | 5 | ug/g(dry) |
| Lead (Pb) | SOSE | 59 | 5 | ug/g(dry) |
| Magnesium (Mg) | SOSE | 131 | 10 | ug/g(dry) |
| Manganese (Mn) | SOSE | 8.2 | 0.1 | ug/g(dry) |
| Molybdenum (Mo) | SOSE | 23 | 1 | ug/g(dry) |
| Nickel (Ni) | SOSE | 5 | 2 | ug/g(dry) |
| Phosphorus (P) | SOSE | 2710 | 10 | ug/g(dry) |
| Potassium (K) | SOSE | 505 | 10 | ug/g(dry) |
| Selenium (Se) | SOSE | 15 | 5 | ug/g(dry) |
| Silicon (Si) | SOSE | 668 | 5 | ug/g(dry) |
| Silver (Ag) | SOSE | 24 | 1 | ug/g(dry) |
| Sodium (Na) | SOSE | 32 | 10 | ug/g(dry) |
| Strontium (Sr) | SOSE | 11.3 | 0.1 | ug/g(dry) |
| Sulfur (S) | SOSE | 11400 | 5 | ug/g(dry) |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198314 - Client Sample ID: SITE-04-REP3 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| Tin (Sn) | SOSE | < 5 | 5 | ug/g(dry) |
| Titanium (Ti) | SOSE | 19.5 | 0.2 | ug/g(dry) |
| Vanadium (V) | SOSE | 1020 | 1 | ug/g(dry) |
| Zinc (Zn) | SOSE | 14.7 | 0.2 | ug/g(dry) |
| *ICPMS, Tot.blockdig | | | | |
| Arsenic (As) | SOSE | 132 | 0.1 | ug/g (dry) |
| Cadmium (Cd) | SOSE | 0.34 | 0.01 | ug/g (dry) |
| Copper (Cu) | SOSE | 65.2 | 0.06 | ug/g (dry) |
| Lead (Pb) | SOSE | 180 | 0.01 | ug/g (dry) |
| Selenium (Se) | SOSE | 10.3 | 0.2 | ug/g (dry) |
| Zinc (Zn) | SOSE | 32.0 | 0.1 | ug/g (dry) |
| *Mercury, total | | | | |
| Mercury (Hg) | SOSE | 0.150 | 0.002 | ug/g(dry) |
| PYLET Order No: 198315 - Client Sample ID: SITE-05-REP3 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |

Cantest - Lab (Sub Contractor)**Carbon Total Organic**

| | | | | |
|-----------------------|------|------|-----|-----------|
| Carbon, Total Organic | SOSE | 1.23 | 0.5 | % dry wt. |
|-----------------------|------|------|-----|-----------|

General**Residue, Volatile(sed)**

| | | | | |
|---------------|------|--------|-----|-------|
| Solids, Fixed | SOSE | 984000 | 500 | mg/Kg |
|---------------|------|--------|-----|-------|

Analysis performed after recommended hold time.

| | | | | |
|------------------|------|-------|-----|-------|
| Solids, Volatile | SOSE | 15500 | 500 | mg/Kg |
|------------------|------|-------|-----|-------|

*Analysis performed after recommended hold time.***Metals*****ICP, Total blockdig**

| | | | | |
|----------------|------|-------|-----|-----------|
| Aluminum (Al) | SOSE | 11400 | 5 | ug/g(dry) |
| Antimony (Sb) | SOSE | < 5 | 5 | ug/g(dry) |
| Arsenic (As) | SOSE | 33 | 5 | ug/g(dry) |
| Barium (Ba) | SOSE | 925 | 0.1 | ug/g(dry) |
| Beryllium (Be) | SOSE | 1.8 | 0.1 | ug/g(dry) |
| Boron (B) | SOSE | 8 | 1 | ug/g(dry) |
| Cadmium (Cd) | SOSE | 7.9 | 0.5 | ug/g(dry) |
| Calcium (Ca) | SOSE | 13800 | 10 | ug/g(dry) |
| Chromium (Cr) | SOSE | 24.2 | 0.5 | ug/g(dry) |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198315 - Client Sample ID: SITE-05-REP3 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |
| Cobalt (Co) | SOSE | 43.4 | 0.5 | ug/g(dry) |
| Copper (Cu) | SOSE | 86.7 | 0.5 | ug/g(dry) |
| Iron (Fe) | SOSE | 20500 | 0.5 | ug/g(dry) |
| Lead (Pb) | SOSE | 14 | 5 | ug/g(dry) |
| Magnesium (Mg) | SOSE | 4150 | 10 | ug/g(dry) |
| Manganese (Mn) | SOSE | 900 | 0.1 | ug/g(dry) |
| Molybdenum (Mo) | SOSE | 17 | 1 | ug/g(dry) |
| Nickel (Ni) | SOSE | 151 | 2 | ug/g(dry) |
| Phosphorus (P) | SOSE | 5300 | 10 | ug/g(dry) |
| Potassium (K) | SOSE | 2430 | 10 | ug/g(dry) |
| Selenium (Se) | SOSE | < 5 | 5 | ug/g(dry) |
| Silicon (Si) | SOSE | 1090 | 5 | ug/g(dry) |
| Silver (Ag) | SOSE | 2 | 1 | ug/g(dry) |
| Sodium (Na) | SOSE | 154 | 10 | ug/g(dry) |
| Strontium (Sr) | SOSE | 48.6 | 0.1 | ug/g(dry) |
| Sulfur (S) | SOSE | 535 | 5 | ug/g(dry) |
| Tin (Sn) | SOSE | < 5 | 5 | ug/g(dry) |
| Titanium (Ti) | SOSE | 150 | 0.2 | ug/g(dry) |
| Vanadium (V) | SOSE | 204 | 1 | ug/g(dry) |
| Zinc (Zn) | SOSE | 783 | 0.2 | ug/g(dry) |
| *ICPMS, Tot.blockdig | | | | |
| Arsenic (As) | SOSE | 25.2 | 0.1 | ug/g (dry) |
| Cadmium (Cd) | SOSE | 7.57 | 0.01 | ug/g (dry) |
| Copper (Cu) | SOSE | 85.5 | 0.06 | ug/g (dry) |
| Lead (Pb) | SOSE | 12.2 | 0.01 | ug/g (dry) |
| Selenium (Se) | SOSE | 5.0 | 0.2 | ug/g (dry) |
| Zinc (Zn) | SOSE | 837 | 0.1 | ug/g (dry) |
| *Mercury, total | | | | |
| Mercury (Hg) | SOSE | 0.049 | 0.002 | ug/g(dry) |

PYLET Order No: 198316 - Client Sample ID: SITE-06-REP3
Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM

Cantest - Lab (Sub Contractor)

Carbon Total Organic

Carbon, Total Organic SOSE < 0.5 0.5 % dry wt.

General

Residue, Volatile(sed)

Solids, Fixed SOSE 978000 500 mg/Kg

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|---|---------------|---------------|------------|--------------|
| PYLET Order No: 198316 - Client Sample ID: SITE-06-REP3 | | | | |
| Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM | | | | |

Analysis performed after recommended hold time.

| | | | | |
|------------------|------|-------|-----|-------|
| Solids, Volatile | SOSE | 22500 | 500 | mg/Kg |
|------------------|------|-------|-----|-------|

Analysis performed after recommended hold time.

Metals

***ICP, Total blockdig**

| | | | | |
|-----------------|------|-------|-----|-----------|
| Aluminum (Al) | SOSE | 6720 | 5 | ug/g(dry) |
| Antimony (Sb) | SOSE | < 5 | 5 | ug/g(dry) |
| Arsenic (As) | SOSE | 24 | 5 | ug/g(dry) |
| Barium (Ba) | SOSE | 95.9 | 0.1 | ug/g(dry) |
| Beryllium (Be) | SOSE | 1.7 | 0.1 | ug/g(dry) |
| Boron (B) | SOSE | 9 | 1 | ug/g(dry) |
| Cadmium (Cd) | SOSE | 6.2 | 0.5 | ug/g(dry) |
| Calcium (Ca) | SOSE | 1950 | 10 | ug/g(dry) |
| Chromium (Cr) | SOSE | 13.0 | 0.5 | ug/g(dry) |
| Cobalt (Co) | SOSE | 38.9 | 0.5 | ug/g(dry) |
| Copper (Cu) | SOSE | 96.1 | 0.5 | ug/g(dry) |
| Iron (Fe) | SOSE | 23000 | 0.5 | ug/g(dry) |
| Lead (Pb) | SOSE | 13 | 5 | ug/g(dry) |
| Magnesium (Mg) | SOSE | 2180 | 10 | ug/g(dry) |
| Manganese (Mn) | SOSE | 564 | 0.1 | ug/g(dry) |
| Molybdenum (Mo) | SOSE | 8 | 1 | ug/g(dry) |
| Nickel (Ni) | SOSE | 98 | 2 | ug/g(dry) |
| Phosphorus (P) | SOSE | 732 | 10 | ug/g(dry) |
| Potassium (K) | SOSE | 862 | 10 | ug/g(dry) |
| Selenium (Se) | SOSE | < 5 | 5 | ug/g(dry) |
| Silicon (Si) | SOSE | 821 | 5 | ug/g(dry) |
| Silver (Ag) | SOSE | 3 | 1 | ug/g(dry) |
| Sodium (Na) | SOSE | 50 | 10 | ug/g(dry) |
| Strontium (Sr) | SOSE | 20.3 | 0.1 | ug/g(dry) |
| Sulfur (S) | SOSE | 3630 | 5 | ug/g(dry) |
| Tin (Sn) | SOSE | < 5 | 5 | ug/g(dry) |
| Titanium (Ti) | SOSE | 67.1 | 0.2 | ug/g(dry) |
| Vanadium (V) | SOSE | 72 | 1 | ug/g(dry) |
| Zinc (Zn) | SOSE | 473 | 0.2 | ug/g(dry) |

***ICPMS, Tot.blockdig**

| | | | | |
|---------------|------|------|------|------------|
| Arsenic (As) | SOSE | 15.9 | 0.1 | ug/g (dry) |
| Cadmium (Cd) | SOSE | 5.55 | 0.01 | ug/g (dry) |
| Copper (Cu) | SOSE | 96.2 | 0.06 | ug/g (dry) |
| Lead (Pb) | SOSE | 8.49 | 0.01 | ug/g (dry) |
| Selenium (Se) | SOSE | 2.2 | 0.2 | ug/g (dry) |
| Zinc (Zn) | SOSE | 441 | 0.1 | ug/g (dry) |

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>RESULT</u> | <u>MDL</u> | <u>UNITS</u> |
|-------------------------|---------------|---------------|------------|--------------|
|-------------------------|---------------|---------------|------------|--------------|

| |
|---|
| PYLET Order No: 198316 - Client Sample ID: SITE-06-REP3 Sampling Date: 9/14/2009 Sampling End Date: 9/17/2009 12:00:00AM |
|---|

***Mercury, total**

| | | | | |
|--------------|------|-------|-------|-----------|
| Mercury (Hg) | SOSE | 0.071 | 0.002 | ug/g(dry) |
|--------------|------|-------|-------|-----------|

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|--|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| *Acidity, Tot.&pH4.5 UNITS: mg CaCO3 / L MATRIX: FWGE | | | | | | | |
| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
| Acidity to pH 4.5 | 199093-1 | 475 | 465 | 98.0 | 1 | 1 | REP |
| Acidity, Total | 199090-1 | < MDL | < 1 | | 1 | 1 | BLE |
| Acidity, Total | 199088-1 | 25.0 | 25 | 100.8 | 1 | 1 | REF |
| Acidity, Total | 199089-1 | 50.0 | 51 | 101.6 | 1 | 1 | REF |
| Acidity, Total | 199092-1 | 886.750000 | 886 | 99.1 | 1 | 1 | REF |
| Acidity, Total | 199093-1 | 773 | 798 | 103.2 | 1 | 1 | REP |

| *Alkalinity,TotpH4.5 UNITS: mg CaCO3 / L MATRIX: FWGE | | | | | | | |
|--|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
| Alkalinity to pH 4.5 | 198711-1 | 104.876000 | 104 | 99.3 | 1 | 0.5 | REF |
| Alkalinity to pH 4.5 | 198726-1 | 21.1 | 21.1 | 100.0 | 1 | 0.5 | REP |
| Alkalinity, Total | 198693-1 | < MDL | < 0.5 | | 1 | 0.5 | BLE |
| Alkalinity, Total | 198729-1 | 0.8 | 0.7 | 84.1 | 1 | 0.5 | REP |
| Alkalinity, Total | 198730-1 | 1.0 | 1.2 | 116.1 | 1 | 0.5 | REP |
| Alkalinity, Total | 198731-1 | 1.7 | 1.8 | 104.9 | 1 | 0.5 | REP |

| *Color, True UNITS: Col. unit MATRIX: FWGE | | | | | | | |
|---|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
| Colour, True | 199083-1 | < MDL | < 2.5 | | 1 | 2.5 | BLE |
| Colour, True | 199084-1 | 100 | 100 | 100.0 | 1 | 2.5 | REF |
| Colour, True | 199085-1 | 20 | 19.5 | 97.5 | 1 | 2.5 | REF |
| Colour, True | 199086-1 | 10 | 10 | 100.0 | 1 | 2.5 | REP |
| Colour, True | 199087-1 | | < 2.5 | | 1 | 2.5 | REP |

| *ICA (Cl F SO4) UNITS: mg/L MATRIX: FWGE | | | | | | | |
|---|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
| Chloride (Cl) | 199799-1 | < MDL | < 0.1 | | 1 | 0.1 | BLE |
| Chloride (Cl) | 199862-1 | < MDL | < 0.1 | | 1 | 0.1 | BLE |
| Chloride (Cl) | 200208-1 | < MDL | < 0.1 | | 1 | 0.1 | BLE |
| Chloride (Cl) | 199803-1 | 3.15591132 | 3.3 | 100.9 | 1 | 0.1 | REF |
| Chloride (Cl) | 199866-1 | 3.15591132 | 2.9 | 88.4 | 1 | 0.1 | REF |
| Chloride (Cl) | 200214-1 | 3.15591132 | 3.0 | 92.6 | 1 | 0.1 | REF |
| Chloride (Cl) | 199808-1 | 0.2 | 0.2 | 114.5 | 1 | 0.1 | REP |
| Chloride (Cl) | 199810-1 | 0.2 | 0.2 | 97.7 | 1 | 0.1 | REP |
| Chloride (Cl) | 200216-1 | 0.7 | 0.6 | 86.4 | 1 | 0.1 | REP |
| Chloride (Cl) | 200218-1 | 0.7 | 0.6 | 86.4 | 1 | 0.1 | REP |
| Fluoride (F) | 199799-1 | < MDL | < 0.01 | | 1 | 0.01 | BLE |
| Fluoride (F) | 200208-1 | < MDL | < 0.01 | | 1 | 0.01 | BLE |
| Fluoride (F) | 199802-1 | 0.21963921 | 0.21 | 97.4 | 1 | 0.01 | REF |
| Fluoride (F) | 200213-1 | 0.21963921 | 0.21 | 97.7 | 1 | 0.01 | REF |
| Fluoride (F) | 199808-1 | 0.19 | 0.19 | 98.8 | 1 | 0.01 | REP |
| Fluoride (F) | 199810-1 | 0.13 | 0.13 | 103.8 | 1 | 0.01 | REP |
| Fluoride (F) | 200216-1 | 0.20 | 0.20 | 100.5 | 1 | 0.01 | REP |
| Fluoride (F) | 200218-1 | 0.20 | 0.20 | 100.5 | 1 | 0.01 | REP |
| Sulphate (SO4) | 199799-1 | < MDL | < 0.5 | | 1 | 0.5 | BLE |
| Sulphate (SO4) | 199862-1 | < MDL | < 0.5 | | 1 | 0.5 | BLE |
| Sulphate (SO4) | 200208-1 | < MDL | < 0.5 | | 1 | 0.5 | BLE |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Sulphate (SO4) | 199805-1 | 12.8913750 | 13.7 | 105.0 | 1 | 0.5 | REF |
| Sulphate (SO4) | 199867-1 | 12.8913750 | 13.0 | 99.8 | 1 | 0.5 | REF |
| Sulphate (SO4) | 200215-1 | 12.8913750 | 13.0 | 100.2 | 1 | 0.5 | REF |
| Sulphate (SO4) | 199810-1 | 6.4 | 6.4 | 99.5 | 1 | 0.5 | REP |
| Sulphate (SO4) | 199871-1 | 109 | 125 | 114.8 | 10 | 5 | REP |
| Sulphate (SO4) | 200216-1 | 95 | 91 | 95.6 | 10 | 5 | REP |
| Sulphate (SO4) | 200218-1 | 95 | 91 | 95.6 | 10 | 5 | REP |

***ICA (NO2 NO3 Br) UNITS:** mg/L**MATRIX:** FWGE

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|------------------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Bromide (Br) | 199800-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Bromide (Br) | 199809-1 | | < 0.05 | | 1 | 0.05 | REP |
| Nitrogen, Nitrate as N | 199800-1 | < MDL | < 0.002 | | 1 | 0.002 | BLE |
| Nitrogen, Nitrate as N | 199801-1 | 0.42073653 | 0.424 | 98.4 | 1 | 0.002 | REF |
| Nitrogen, Nitrate as N | 199809-1 | 0.053 | 0.053 | 100.0 | 1 | 0.002 | REP |
| Nitrogen, Nitrite as N | 199800-1 | < MDL | < 0.005 | | 1 | 0.005 | BLE |
| Nitrogen, Nitrite as N | 199807-1 | 0.122 | 0.105 | 86.2 | 1 | 0.005 | REF |
| Nitrogen, Nitrite as N | 199809-1 | | < 0.005 | | 1 | 0.005 | REP |

***ICP, Dissolved UNITS:** mg/L**MATRIX:** FWGE

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Aluminum (Al) | 201836-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Aluminum (Al) | 202302-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Aluminum (Al) | 201839-1 | 2.43011111 | 2.45 | 101.6 | 1 | 0.05 | REF |
| Aluminum (Al) | 202305-1 | 2.43011111 | 2.55 | 105.5 | 1 | 0.05 | REF |
| Aluminum (Al) | 201840-1 | | < 0.05 | | 1 | 0.05 | REP |
| Aluminum (Al) | 201841-1 | | < 0.05 | | 1 | 0.05 | REP |
| Aluminum (Al) | 201842-1 | | < 0.05 | | 1 | 0.05 | REP |
| Aluminum (Al) | 201843-1 | | < 0.05 | | 1 | 0.05 | REP |
| Aluminum (Al) | 201844-1 | | < 0.05 | | 1 | 0.05 | REP |
| Aluminum (Al) | 201845-1 | | < 0.05 | | 1 | 0.05 | REP |
| Aluminum (Al) | 202306-1 | | < 0.05 | | 1 | 0.05 | REP |
| Aluminum (Al) | 202307-1 | 0.72 | 0.72 | 100.4 | 1 | 0.05 | REP |
| Aluminum (Al) | 202308-1 | | < 0.05 | | 1 | 0.05 | REP |
| Aluminum (Al) | 202309-1 | | < 0.05 | | 1 | 0.05 | REP |
| Aluminum (Al) | 202310-1 | | < 0.05 | | 1 | 0.05 | REP |
| Aluminum (Al) | 202311-1 | | < 0.05 | | 1 | 0.05 | REP |
| Antimony (Sb) | 201836-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Antimony (Sb) | 202302-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Antimony (Sb) | 201839-1 | 0.76198000 | 0.75 | 97.9 | 1 | 0.05 | REF |
| Antimony (Sb) | 202305-1 | 0.76198000 | 0.81 | 106.0 | 1 | 0.05 | REF |
| Antimony (Sb) | 201840-1 | | < 0.05 | | 1 | 0.05 | REP |
| Antimony (Sb) | 201841-1 | | < 0.05 | | 1 | 0.05 | REP |
| Antimony (Sb) | 201842-1 | | < 0.05 | | 1 | 0.05 | REP |
| Antimony (Sb) | 201843-1 | | < 0.05 | | 1 | 0.05 | REP |
| Antimony (Sb) | 201844-1 | | < 0.05 | | 1 | 0.05 | REP |
| Antimony (Sb) | 201845-1 | | < 0.05 | | 1 | 0.05 | REP |
| Antimony (Sb) | 202306-1 | | < 0.05 | | 1 | 0.05 | REP |
| Antimony (Sb) | 202307-1 | | < 0.05 | | 1 | 0.05 | REP |
| Antimony (Sb) | 202308-1 | | < 0.05 | | 1 | 0.05 | REP |
| Antimony (Sb) | 202309-1 | | < 0.05 | | 1 | 0.05 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Antimony (Sb) | 202310-1 | | < 0.05 | | 1 | 0.05 | REP |
| Antimony (Sb) | 202311-1 | | < 0.05 | | 1 | 0.05 | REP |
| Arsenic (As) | 201836-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Arsenic (As) | 202302-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Arsenic (As) | 201839-1 | 0.69512500 | 0.67 | 96.2 | 1 | 0.05 | REF |
| Arsenic (As) | 202305-1 | 0.69512500 | 0.73 | 104.5 | 1 | 0.05 | REF |
| Arsenic (As) | 201840-1 | | < 0.05 | | 1 | 0.05 | REP |
| Arsenic (As) | 201841-1 | | < 0.05 | | 1 | 0.05 | REP |
| Arsenic (As) | 201842-1 | | < 0.05 | | 1 | 0.05 | REP |
| Arsenic (As) | 201843-1 | | < 0.05 | | 1 | 0.05 | REP |
| Arsenic (As) | 201844-1 | | < 0.05 | | 1 | 0.05 | REP |
| Arsenic (As) | 201845-1 | | < 0.05 | | 1 | 0.05 | REP |
| Arsenic (As) | 202306-1 | | < 0.05 | | 1 | 0.05 | REP |
| Arsenic (As) | 202307-1 | | < 0.05 | | 1 | 0.05 | REP |
| Arsenic (As) | 202308-1 | | < 0.05 | | 1 | 0.05 | REP |
| Arsenic (As) | 202309-1 | | < 0.05 | | 1 | 0.05 | REP |
| Arsenic (As) | 202310-1 | | < 0.05 | | 1 | 0.05 | REP |
| Arsenic (As) | 202311-1 | | < 0.05 | | 1 | 0.05 | REP |
| Barium (Ba) | 201836-1 | < MDL | < 0.001 | | 1 | 0.001 | BLE |
| Barium (Ba) | 202302-1 | < MDL | < 0.001 | | 1 | 0.001 | BLE |
| Barium (Ba) | 201839-1 | 0.75628000 | 0.746 | 98.7 | 1 | 0.001 | REF |
| Barium (Ba) | 202305-1 | 0.75628000 | 0.794 | 105.0 | 1 | 0.001 | REF |
| Barium (Ba) | 201840-1 | 0.019 | 0.020 | 106.2 | 1 | 0.001 | REP |
| Barium (Ba) | 201841-1 | 0.089 | 0.088 | 99.3 | 1 | 0.001 | REP |
| Barium (Ba) | 201842-1 | | < 0.001 | | 1 | 0.001 | REP |
| Barium (Ba) | 201843-1 | 0.129 | 0.126 | 97.5 | 1 | 0.001 | REP |
| Barium (Ba) | 201844-1 | 0.009 | 0.009 | 102.1 | 1 | 0.001 | REP |
| Barium (Ba) | 201845-1 | 0.017 | 0.017 | 100.5 | 1 | 0.001 | REP |
| Barium (Ba) | 202306-1 | 0.025 | 0.025 | 100.0 | 1 | 0.001 | REP |
| Barium (Ba) | 202307-1 | 0.332 | 0.334 | 100.5 | 1 | 0.001 | REP |
| Barium (Ba) | 202308-1 | 0.018 | 0.018 | 101.3 | 1 | 0.001 | REP |
| Barium (Ba) | 202309-1 | 0.004 | 0.004 | 96.6 | 1 | 0.001 | REP |
| Barium (Ba) | 202310-1 | 0.008 | 0.008 | 102.7 | 1 | 0.001 | REP |
| Barium (Ba) | 202311-1 | 0.019 | 0.019 | 98.9 | 1 | 0.001 | REP |
| Beryllium (Be) | 201836-1 | < MDL | < 0.001 | | 1 | 0.001 | BLE |
| Beryllium (Be) | 202302-1 | < MDL | < 0.001 | | 1 | 0.001 | BLE |
| Beryllium (Be) | 201839-1 | 0.72676666 | 0.707 | 96.8 | 1 | 0.001 | REF |
| Beryllium (Be) | 202305-1 | 0.72676666 | 0.747 | 102.4 | 1 | 0.001 | REF |
| Beryllium (Be) | 201840-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 201841-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 201842-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 201843-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 201844-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 201845-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 202306-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 202307-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 202308-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 202309-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 202310-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 202311-1 | | < 0.001 | | 1 | 0.001 | REP |
| Boron (B) | 201836-1 | < MDL | < 0.01 | | 1 | 0.01 | BLE |
| Boron (B) | 202302-1 | < MDL | < 0.01 | | 1 | 0.01 | BLE |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Boron (B) | 201839-1 | 1.26168888 | 1.24 | 97.5 | 1 | 0.01 | REF |
| Boron (B) | 202305-1 | 1.26168888 | 1.32 | 103.7 | 1 | 0.01 | REF |
| Boron (B) | 201840-1 | 0.12 | 0.12 | 104.1 | 1 | 0.01 | REP |
| Boron (B) | 201841-1 | 0.06 | 0.06 | 98.5 | 1 | 0.01 | REP |
| Boron (B) | 201842-1 | | < 0.01 | | 1 | 0.01 | REP |
| Boron (B) | 201843-1 | 0.09 | 0.09 | 95.9 | 1 | 0.01 | REP |
| Boron (B) | 201844-1 | 0.04 | 0.04 | 101.3 | 1 | 0.01 | REP |
| Boron (B) | 201845-1 | 0.01 | 0.01 | 99.3 | 1 | 0.01 | REP |
| Boron (B) | 202306-1 | 0.02 | 0.02 | 97.4 | 1 | 0.01 | REP |
| Boron (B) | 202307-1 | 0.02 | 0.02 | 100.0 | 1 | 0.01 | REP |
| Boron (B) | 202308-1 | 0.03 | 0.03 | 100.6 | 1 | 0.01 | REP |
| Boron (B) | 202309-1 | 0.11 | 0.11 | 98.1 | 1 | 0.01 | REP |
| Boron (B) | 202310-1 | 0.05 | 0.06 | 109.5 | 1 | 0.01 | REP |
| Boron (B) | 202311-1 | <0.01 | 0.01 | 100.6 | 1 | 0.01 | REP |
| Cadmium (Cd) | 201836-1 | < MDL | < 0.005 | | 1 | 0.005 | BLE |
| Cadmium (Cd) | 202302-1 | < MDL | < 0.005 | | 1 | 0.005 | BLE |
| Cadmium (Cd) | 201839-1 | 0.32587777 | 0.316 | 96.7 | 1 | 0.005 | REF |
| Cadmium (Cd) | 202305-1 | 0.32587777 | 0.335 | 102.5 | 1 | 0.005 | REF |
| Cadmium (Cd) | 201840-1 | | < 0.005 | | 1 | 0.005 | REP |
| Cadmium (Cd) | 201841-1 | | < 0.005 | | 1 | 0.005 | REP |
| Cadmium (Cd) | 201842-1 | | < 0.005 | | 1 | 0.005 | REP |
| Cadmium (Cd) | 201843-1 | | < 0.005 | | 1 | 0.005 | REP |
| Cadmium (Cd) | 201844-1 | | < 0.005 | | 1 | 0.005 | REP |
| Cadmium (Cd) | 201845-1 | | < 0.005 | | 1 | 0.005 | REP |
| Cadmium (Cd) | 202306-1 | | < 0.005 | | 1 | 0.005 | REP |
| Cadmium (Cd) | 202307-1 | 0.020 | 0.020 | 100.1 | 1 | 0.005 | REP |
| Cadmium (Cd) | 202308-1 | | < 0.005 | | 1 | 0.005 | REP |
| Cadmium (Cd) | 202309-1 | | < 0.005 | | 1 | 0.005 | REP |
| Cadmium (Cd) | 202310-1 | | < 0.005 | | 1 | 0.005 | REP |
| Cadmium (Cd) | 202311-1 | | < 0.005 | | 1 | 0.005 | REP |
| Calcium (Ca) | 201836-1 | < MDL | < 0.1 | | 1 | 0.1 | BLE |
| Calcium (Ca) | 202302-1 | < MDL | < 0.1 | | 1 | 0.1 | BLE |
| Calcium (Ca) | 201837-1 | 90.4 | 92.3 | 102.1 | 1 | 0.1 | REF |
| Calcium (Ca) | 202303-1 | 90.4 | 93.1 | 103.0 | 1 | 0.1 | REF |
| Calcium (Ca) | 201840-1 | 31.0 | 32.0 | 103.3 | 1 | 0.1 | REP |
| Calcium (Ca) | 201841-1 | 22.0 | 22.5 | 102.2 | 1 | 0.1 | REP |
| Calcium (Ca) | 201842-1 | | < 0.1 | | 1 | 0.1 | REP |
| Calcium (Ca) | 201843-1 | 33.7 | 32.6 | 96.6 | 1 | 0.1 | REP |
| Calcium (Ca) | 201844-1 | 33.9 | 34.5 | 101.7 | 1 | 0.1 | REP |
| Calcium (Ca) | 201845-1 | 12.8 | 12.9 | 100.5 | 1 | 0.1 | REP |
| Calcium (Ca) | 202306-1 | 0.2 | 0.2 | 97.4 | 1 | 0.1 | REP |
| Calcium (Ca) | 202307-1 | 26.2 | 26.1 | 99.5 | 1 | 0.1 | REP |
| Calcium (Ca) | 202308-1 | 37.2 | 37.1 | 99.6 | 1 | 0.1 | REP |
| Calcium (Ca) | 202309-1 | 23.5 | 23.6 | 100.6 | 1 | 0.1 | REP |
| Calcium (Ca) | 202310-1 | 22.0 | 22.4 | 101.7 | 1 | 0.1 | REP |
| Calcium (Ca) | 202311-1 | 32.3 | 32.0 | 99.1 | 1 | 0.1 | REP |
| Chromium (Cr) | 201836-1 | < MDL | < 0.005 | | 1 | 0.005 | BLE |
| Chromium (Cr) | 202302-1 | < MDL | < 0.005 | | 1 | 0.005 | BLE |
| Chromium (Cr) | 201839-1 | 0.12077055 | 0.119 | 99.3 | 1 | 0.005 | REF |
| Chromium (Cr) | 202305-1 | 0.12077055 | 0.126 | 104.6 | 1 | 0.005 | REF |
| Chromium (Cr) | 201840-1 | | < 0.005 | | 1 | 0.005 | REP |
| Chromium (Cr) | 201841-1 | | < 0.005 | | 1 | 0.005 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Chromium (Cr) | 201842-1 | | < 0.005 | | 1 | 0.005 | REP |
| Chromium (Cr) | 201843-1 | | < 0.005 | | 1 | 0.005 | REP |
| Chromium (Cr) | 201844-1 | | < 0.005 | | 1 | 0.005 | REP |
| Chromium (Cr) | 201845-1 | | < 0.005 | | 1 | 0.005 | REP |
| Chromium (Cr) | 202306-1 | | < 0.005 | | 1 | 0.005 | REP |
| Chromium (Cr) | 202307-1 | | < 0.005 | | 1 | 0.005 | REP |
| Chromium (Cr) | 202308-1 | | < 0.005 | | 1 | 0.005 | REP |
| Chromium (Cr) | 202309-1 | | < 0.005 | | 1 | 0.005 | REP |
| Chromium (Cr) | 202310-1 | | < 0.005 | | 1 | 0.005 | REP |
| Chromium (Cr) | 202311-1 | | < 0.005 | | 1 | 0.005 | REP |
| Cobalt (Co) | 201836-1 | < MDL | < 0.005 | | 1 | 0.005 | BLE |
| Cobalt (Co) | 202302-1 | < MDL | < 0.005 | | 1 | 0.005 | BLE |
| Cobalt (Co) | 201839-1 | 0.19816500 | 0.193 | 97.8 | 1 | 0.005 | REF |
| Cobalt (Co) | 202305-1 | 0.19816500 | 0.207 | 104.8 | 1 | 0.005 | REF |
| Cobalt (Co) | 201840-1 | | < 0.005 | | 1 | 0.005 | REP |
| Cobalt (Co) | 201841-1 | | < 0.005 | | 1 | 0.005 | REP |
| Cobalt (Co) | 201842-1 | | < 0.005 | | 1 | 0.005 | REP |
| Cobalt (Co) | 201843-1 | | < 0.005 | | 1 | 0.005 | REP |
| Cobalt (Co) | 201844-1 | | < 0.005 | | 1 | 0.005 | REP |
| Cobalt (Co) | 201845-1 | | < 0.005 | | 1 | 0.005 | REP |
| Cobalt (Co) | 202306-1 | | < 0.005 | | 1 | 0.005 | REP |
| Cobalt (Co) | 202307-1 | 0.006 | 0.006 | 101.2 | 1 | 0.005 | REP |
| Cobalt (Co) | 202308-1 | | < 0.005 | | 1 | 0.005 | REP |
| Cobalt (Co) | 202309-1 | | < 0.005 | | 1 | 0.005 | REP |
| Cobalt (Co) | 202310-1 | | < 0.005 | | 1 | 0.005 | REP |
| Cobalt (Co) | 202311-1 | | < 0.005 | | 1 | 0.005 | REP |
| Copper (Cu) | 201836-1 | < MDL | < 0.005 | | 1 | 0.005 | BLE |
| Copper (Cu) | 202302-1 | < MDL | < 0.005 | | 1 | 0.005 | BLE |
| Copper (Cu) | 201839-1 | 0.42963277 | 0.421 | 98.2 | 1 | 0.005 | REF |
| Copper (Cu) | 202305-1 | 0.42963277 | 0.446 | 104.1 | 1 | 0.005 | REF |
| Copper (Cu) | 201840-1 | | < 0.005 | | 1 | 0.005 | REP |
| Copper (Cu) | 201841-1 | | < 0.005 | | 1 | 0.005 | REP |
| Copper (Cu) | 201842-1 | | < 0.005 | | 1 | 0.005 | REP |
| Copper (Cu) | 201843-1 | | < 0.005 | | 1 | 0.005 | REP |
| Copper (Cu) | 201844-1 | | < 0.005 | | 1 | 0.005 | REP |
| Copper (Cu) | 201845-1 | | < 0.005 | | 1 | 0.005 | REP |
| Copper (Cu) | 202306-1 | 0.379 | 0.378 | 99.8 | 1 | 0.005 | REP |
| Copper (Cu) | 202307-1 | 0.028 | 0.028 | 98.4 | 1 | 0.005 | REP |
| Copper (Cu) | 202308-1 | | < 0.005 | | 1 | 0.005 | REP |
| Copper (Cu) | 202309-1 | | < 0.005 | | 1 | 0.005 | REP |
| Copper (Cu) | 202310-1 | | < 0.005 | | 1 | 0.005 | REP |
| Copper (Cu) | 202311-1 | | < 0.005 | | 1 | 0.005 | REP |
| Iron (Fe) | 201836-1 | < MDL | < 0.005 | | 1 | 0.005 | BLE |
| Iron (Fe) | 202302-1 | < MDL | < 0.005 | | 1 | 0.005 | BLE |
| Iron (Fe) | 201839-1 | 0.27671388 | 0.271 | 98.3 | 1 | 0.005 | REF |
| Iron (Fe) | 202305-1 | 0.27671388 | 0.292 | 105.9 | 1 | 0.005 | REF |
| Iron (Fe) | 201840-1 | 0.036 | 0.039 | 109.7 | 1 | 0.005 | REP |
| Iron (Fe) | 201841-1 | 0.008 | 0.008 | 101.9 | 1 | 0.005 | REP |
| Iron (Fe) | 201842-1 | | < 0.005 | | 1 | 0.005 | REP |
| Iron (Fe) | 201843-1 | 0.062 | 0.068 | 108.9 | 1 | 0.005 | REP |
| Iron (Fe) | 201844-1 | 0.762 | 0.772 | 101.4 | 1 | 0.005 | REP |
| Iron (Fe) | 201845-1 | 0.021 | 0.020 | 96.4 | 1 | 0.005 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Iron (Fe) | 202306-1 | 0.048 | 0.048 | 99.1 | 1 | 0.005 | REP |
| Iron (Fe) | 202307-1 | 0.540 | 0.540 | 100.0 | 1 | 0.005 | REP |
| Iron (Fe) | 202308-1 | 0.007 | 0.007 | 95.9 | 1 | 0.005 | REP |
| Iron (Fe) | 202309-1 | | < 0.005 | | 1 | 0.005 | REP |
| Iron (Fe) | 202310-1 | | < 0.005 | | 1 | 0.005 | REP |
| Iron (Fe) | 202311-1 | | < 0.005 | | 1 | 0.005 | REP |
| Lead (Pb) | 201836-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Lead (Pb) | 202302-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Lead (Pb) | 201839-1 | 0.23909388 | 0.24 | 97.7 | 1 | 0.05 | REF |
| Lead (Pb) | 202305-1 | 0.23909388 | 0.24 | 101.1 | 1 | 0.05 | REF |
| Lead (Pb) | 201840-1 | | < 0.05 | | 1 | 0.05 | REP |
| Lead (Pb) | 201841-1 | | < 0.05 | | 1 | 0.05 | REP |
| Lead (Pb) | 201842-1 | | < 0.05 | | 1 | 0.05 | REP |
| Lead (Pb) | 201843-1 | | < 0.05 | | 1 | 0.05 | REP |
| Lead (Pb) | 201844-1 | | < 0.05 | | 1 | 0.05 | REP |
| Lead (Pb) | 201845-1 | | < 0.05 | | 1 | 0.05 | REP |
| Lead (Pb) | 202306-1 | 0.11 | 0.11 | 99.1 | 1 | 0.05 | REP |
| Lead (Pb) | 202307-1 | 0.70 | 0.70 | 100.3 | 1 | 0.05 | REP |
| Lead (Pb) | 202308-1 | | < 0.05 | | 1 | 0.05 | REP |
| Lead (Pb) | 202309-1 | | < 0.05 | | 1 | 0.05 | REP |
| Lead (Pb) | 202310-1 | | < 0.05 | | 1 | 0.05 | REP |
| Lead (Pb) | 202311-1 | | < 0.05 | | 1 | 0.05 | REP |
| Magnesium (Mg) | 201836-1 | < MDL | < 0.1 | | 1 | 0.1 | BLE |
| Magnesium (Mg) | 202302-1 | < MDL | < 0.1 | | 1 | 0.1 | BLE |
| Magnesium (Mg) | 201837-1 | 26.1 | 26.4 | 101.1 | 1 | 0.1 | REF |
| Magnesium (Mg) | 202303-1 | 26.1 | 26.5 | 101.5 | 1 | 0.1 | REF |
| Magnesium (Mg) | 201840-1 | 9.0 | 9.3 | 103.7 | 1 | 0.1 | REP |
| Magnesium (Mg) | 201841-1 | 4.8 | 4.9 | 102.0 | 1 | 0.1 | REP |
| Magnesium (Mg) | 201842-1 | | < 0.1 | | 1 | 0.1 | REP |
| Magnesium (Mg) | 201843-1 | 6.4 | 6.2 | 96.7 | 1 | 0.1 | REP |
| Magnesium (Mg) | 201844-1 | 4.6 | 4.7 | 103.0 | 1 | 0.1 | REP |
| Magnesium (Mg) | 201845-1 | 1.3 | 1.3 | 96.3 | 1 | 0.1 | REP |
| Magnesium (Mg) | 202306-1 | | < 0.1 | | 1 | 0.1 | REP |
| Magnesium (Mg) | 202307-1 | 3.9 | 3.9 | 100.5 | 1 | 0.1 | REP |
| Magnesium (Mg) | 202308-1 | 10.4 | 10.3 | 99.1 | 1 | 0.1 | REP |
| Magnesium (Mg) | 202309-1 | 4.7 | 4.6 | 98.7 | 1 | 0.1 | REP |
| Magnesium (Mg) | 202310-1 | 4.6 | 4.6 | 100.3 | 1 | 0.1 | REP |
| Magnesium (Mg) | 202311-1 | 5.9 | 5.9 | 99.3 | 1 | 0.1 | REP |
| Manganese (Mn) | 201836-1 | < MDL | < 0.001 | | 1 | 0.001 | BLE |
| Manganese (Mn) | 202302-1 | < MDL | < 0.001 | | 1 | 0.001 | BLE |
| Manganese (Mn) | 201839-1 | 0.47855222 | 0.467 | 97.6 | 1 | 0.001 | REF |
| Manganese (Mn) | 202305-1 | 0.47855222 | 0.491 | 102.6 | 1 | 0.001 | REF |
| Manganese (Mn) | 201840-1 | | 0.001 | | 1 | 0.001 | REP |
| Manganese (Mn) | 201841-1 | 0.008 | 0.008 | 102.2 | 1 | 0.001 | REP |
| Manganese (Mn) | 201842-1 | | < 0.001 | | 1 | 0.001 | REP |
| Manganese (Mn) | 201843-1 | 0.091 | 0.088 | 97.0 | 1 | 0.001 | REP |
| Manganese (Mn) | 201844-1 | 0.250 | 0.255 | 102.1 | 1 | 0.001 | REP |
| Manganese (Mn) | 201845-1 | 0.236 | 0.227 | 96.2 | 1 | 0.001 | REP |
| Manganese (Mn) | 202306-1 | 0.003 | 0.003 | 100.0 | 1 | 0.001 | REP |
| Manganese (Mn) | 202307-1 | 0.807 | 0.810 | 100.4 | 1 | 0.001 | REP |
| Manganese (Mn) | 202308-1 | | < 0.001 | | 1 | 0.001 | REP |
| Manganese (Mn) | 202309-1 | | < 0.001 | | 1 | 0.001 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|-----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Manganese (Mn) | 202310-1 | <0.001 | 0.001 | 104.3 | 1 | 0.001 | REP |
| Manganese (Mn) | 202311-1 | 0.009 | 0.009 | 98.6 | 1 | 0.001 | REP |
| Molybdenum (Mo) | 201836-1 | < MDL | < 0.01 | | 1 | 0.01 | BLE |
| Molybdenum (Mo) | 202302-1 | < MDL | < 0.01 | | 1 | 0.01 | BLE |
| Molybdenum (Mo) | 201839-1 | 0.47707388 | 0.48 | 102.2 | 1 | 0.01 | REF |
| Molybdenum (Mo) | 202305-1 | 0.47707388 | 0.46 | 96.8 | 1 | 0.01 | REF |
| Molybdenum (Mo) | 201840-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 201841-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 201842-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 201843-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 201844-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 201845-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 202306-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 202307-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 202308-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 202309-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 202310-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 202311-1 | | < 0.01 | | 1 | 0.01 | REP |
| Nickel (Ni) | 201836-1 | < MDL | < 0.02 | | 1 | 0.02 | BLE |
| Nickel (Ni) | 202302-1 | < MDL | < 0.02 | | 1 | 0.02 | BLE |
| Nickel (Ni) | 201839-1 | 0.20226666 | 0.20 | 98.6 | 1 | 0.02 | REF |
| Nickel (Ni) | 202305-1 | 0.20226666 | 0.21 | 103.0 | 1 | 0.02 | REF |
| Nickel (Ni) | 201840-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 201841-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 201842-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 201843-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 201844-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 201845-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 202306-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 202307-1 | <0.02 | 0.02 | 100.3 | 1 | 0.02 | REP |
| Nickel (Ni) | 202308-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 202309-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 202310-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 202311-1 | | < 0.02 | | 1 | 0.02 | REP |
| Phosphorus (P) | 201836-1 | < MDL | < 0.1 | | 1 | 0.1 | BLE |
| Phosphorus (P) | 202302-1 | < MDL | < 0.1 | | 1 | 0.1 | BLE |
| Phosphorus (P) | 201840-1 | 0.4 | 0.4 | 102.0 | 1 | 0.1 | REP |
| Phosphorus (P) | 201841-1 | 0.3 | 0.3 | 105.4 | 1 | 0.1 | REP |
| Phosphorus (P) | 201842-1 | | < 0.1 | | 1 | 0.1 | REP |
| Phosphorus (P) | 201843-1 | 0.4 | 0.4 | 98.3 | 1 | 0.1 | REP |
| Phosphorus (P) | 201844-1 | 0.4 | 0.4 | 100.5 | 1 | 0.1 | REP |
| Phosphorus (P) | 201845-1 | 0.2 | 0.2 | 100.2 | 1 | 0.1 | REP |
| Phosphorus (P) | 202306-1 | | < 0.1 | | 1 | 0.1 | REP |
| Phosphorus (P) | 202307-1 | 1.3 | 1.3 | 99.6 | 1 | 0.1 | REP |
| Phosphorus (P) | 202308-1 | 0.6 | 0.5 | 90.5 | 1 | 0.1 | REP |
| Phosphorus (P) | 202309-1 | 0.3 | 0.3 | 96.0 | 1 | 0.1 | REP |
| Phosphorus (P) | 202310-1 | 0.3 | 0.3 | 107.1 | 1 | 0.1 | REP |
| Phosphorus (P) | 202311-1 | 0.4 | 0.4 | 96.1 | 1 | 0.1 | REP |
| Potassium (K) | 201836-1 | < MDL | < 0.1 | | 1 | 0.1 | BLE |
| Potassium (K) | 202302-1 | < MDL | < 0.1 | | 1 | 0.1 | BLE |
| Potassium (K) | 201837-1 | 4.01 | 4.0 | 100.9 | 1 | 0.1 | REF |
| Potassium (K) | 202303-1 | 4.01 | 4.1 | 101.9 | 1 | 0.1 | REF |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Potassium (K) | 201840-1 | 1.2 | 1.3 | 105.4 | 1 | 0.1 | REP |
| Potassium (K) | 201841-1 | 4.6 | 4.6 | 99.0 | 1 | 0.1 | REP |
| Potassium (K) | 201842-1 | | < 0.1 | | 1 | 0.1 | REP |
| Potassium (K) | 201843-1 | 7.2 | 7.0 | 97.6 | 1 | 0.1 | REP |
| Potassium (K) | 201844-1 | 7.8 | 8.0 | 102.1 | 1 | 0.1 | REP |
| Potassium (K) | 201845-1 | 1.8 | 1.8 | 98.5 | 1 | 0.1 | REP |
| Potassium (K) | 202306-1 | | < 0.1 | | 1 | 0.1 | REP |
| Potassium (K) | 202307-1 | 1.9 | 1.9 | 100.9 | 1 | 0.1 | REP |
| Potassium (K) | 202308-1 | 1.4 | 1.4 | 103.6 | 1 | 0.1 | REP |
| Potassium (K) | 202309-1 | 0.7 | 0.7 | 99.3 | 1 | 0.1 | REP |
| Potassium (K) | 202310-1 | 4.3 | 4.4 | 103.5 | 1 | 0.1 | REP |
| Potassium (K) | 202311-1 | 1.6 | 1.6 | 98.3 | 1 | 0.1 | REP |
| Selenium (Se) | 201836-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Selenium (Se) | 202302-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Selenium (Se) | 201839-1 | 0.12287166 | 0.12 | 91.1 | 1 | 0.05 | REF |
| Selenium (Se) | 202305-1 | 0.12287166 | 0.13 | 104.2 | 1 | 0.05 | REF |
| Selenium (Se) | 201840-1 | | < 0.05 | | 1 | 0.05 | REP |
| Selenium (Se) | 201841-1 | | < 0.05 | | 1 | 0.05 | REP |
| Selenium (Se) | 201842-1 | | < 0.05 | | 1 | 0.05 | REP |
| Selenium (Se) | 201843-1 | | < 0.05 | | 1 | 0.05 | REP |
| Selenium (Se) | 201844-1 | | < 0.05 | | 1 | 0.05 | REP |
| Selenium (Se) | 201845-1 | | < 0.05 | | 1 | 0.05 | REP |
| Selenium (Se) | 202306-1 | | < 0.05 | | 1 | 0.05 | REP |
| Selenium (Se) | 202307-1 | | < 0.05 | | 1 | 0.05 | REP |
| Selenium (Se) | 202308-1 | | < 0.05 | | 1 | 0.05 | REP |
| Selenium (Se) | 202309-1 | | < 0.05 | | 1 | 0.05 | REP |
| Selenium (Se) | 202310-1 | | < 0.05 | | 1 | 0.05 | REP |
| Selenium (Se) | 202311-1 | | < 0.05 | | 1 | 0.05 | REP |
| Silicon (Si) | 201836-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Silicon (Si) | 202302-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Silicon (Si) | 201837-1 | 1.19 | 1.17 | 98.5 | 1 | 0.05 | REF |
| Silicon (Si) | 202303-1 | 1.19 | 1.24 | 104.4 | 1 | 0.05 | REF |
| Silicon (Si) | 201840-1 | 13.8 | 14.4 | 104.0 | 1 | 0.05 | REP |
| Silicon (Si) | 201841-1 | 7.44 | 7.58 | 101.9 | 1 | 0.05 | REP |
| Silicon (Si) | 201842-1 | | < 0.05 | | 1 | 0.05 | REP |
| Silicon (Si) | 201843-1 | 7.48 | 7.30 | 97.6 | 1 | 0.05 | REP |
| Silicon (Si) | 201844-1 | 7.95 | 8.00 | 100.7 | 1 | 0.05 | REP |
| Silicon (Si) | 201845-1 | 5.95 | 5.66 | 95.1 | 1 | 0.05 | REP |
| Silicon (Si) | 202306-1 | | < 0.05 | | 1 | 0.05 | REP |
| Silicon (Si) | 202307-1 | 2.97 | 2.96 | 99.8 | 1 | 0.05 | REP |
| Silicon (Si) | 202308-1 | 10.2 | 10.2 | 99.6 | 1 | 0.05 | REP |
| Silicon (Si) | 202309-1 | 8.08 | 8.07 | 99.8 | 1 | 0.05 | REP |
| Silicon (Si) | 202310-1 | 6.08 | 6.14 | 101.0 | 1 | 0.05 | REP |
| Silicon (Si) | 202311-1 | 8.03 | 8.02 | 99.9 | 1 | 0.05 | REP |
| Silver (Ag) | 201836-1 | < MDL | < 0.01 | | 1 | 0.01 | BLE |
| Silver (Ag) | 202302-1 | < MDL | < 0.01 | | 1 | 0.01 | BLE |
| Silver (Ag) | 201840-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 201841-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 201842-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 201843-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 201844-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 201845-1 | | < 0.01 | | 1 | 0.01 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Silver (Ag) | 202306-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 202307-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 202308-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 202309-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 202310-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 202311-1 | | < 0.01 | | 1 | 0.01 | REP |
| Sodium (Na) | 201836-1 | < MDL | < 0.1 | | 1 | 0.1 | BLE |
| Sodium (Na) | 202302-1 | < MDL | < 0.1 | | 1 | 0.1 | BLE |
| Sodium (Na) | 201837-1 | 50.1 | 49.3 | 98.3 | 1 | 0.1 | REF |
| Sodium (Na) | 202303-1 | 50.1 | 49.5 | 98.8 | 1 | 0.1 | REF |
| Sodium (Na) | 201840-1 | 7.0 | 7.4 | 106.3 | 1 | 0.1 | REP |
| Sodium (Na) | 201841-1 | 23.6 | 23.9 | 101.2 | 1 | 0.1 | REP |
| Sodium (Na) | 201842-1 | | < 0.1 | | 1 | 0.1 | REP |
| Sodium (Na) | 201843-1 | 7.2 | 7.0 | 97.4 | 1 | 0.1 | REP |
| Sodium (Na) | 201844-1 | 30.3 | 31.0 | 102.4 | 1 | 0.1 | REP |
| Sodium (Na) | 201845-1 | 8.3 | 8.0 | 96.5 | 1 | 0.1 | REP |
| Sodium (Na) | 202306-1 | 0.3 | 0.3 | 99.7 | 1 | 0.1 | REP |
| Sodium (Na) | 202307-1 | 0.9 | 0.9 | 99.9 | 1 | 0.1 | REP |
| Sodium (Na) | 202308-1 | 6.3 | 6.2 | 99.2 | 1 | 0.1 | REP |
| Sodium (Na) | 202309-1 | 4.8 | 4.8 | 99.1 | 1 | 0.1 | REP |
| Sodium (Na) | 202310-1 | 8.7 | 8.9 | 102.8 | 1 | 0.1 | REP |
| Sodium (Na) | 202311-1 | 5.2 | 5.2 | 99.6 | 1 | 0.1 | REP |
| Strontium (Sr) | 201836-1 | < MDL | < 0.001 | | 1 | 0.001 | BLE |
| Strontium (Sr) | 202302-1 | < MDL | < 0.001 | | 1 | 0.001 | BLE |
| Strontium (Sr) | 201839-1 | 0.25560555 | 0.253 | 98.9 | 1 | 0.001 | REF |
| Strontium (Sr) | 202305-1 | 0.25560555 | 0.270 | 105.4 | 1 | 0.001 | REF |
| Strontium (Sr) | 201840-1 | 0.165 | 0.173 | 105.2 | 1 | 0.001 | REP |
| Strontium (Sr) | 201841-1 | 0.276 | 0.275 | 99.5 | 1 | 0.001 | REP |
| Strontium (Sr) | 201842-1 | | < 0.001 | | 1 | 0.001 | REP |
| Strontium (Sr) | 201843-1 | 0.217 | 0.211 | 97.2 | 1 | 0.001 | REP |
| Strontium (Sr) | 201844-1 | 0.211 | 0.215 | 102.0 | 1 | 0.001 | REP |
| Strontium (Sr) | 201845-1 | 0.084 | 0.084 | 99.9 | 1 | 0.001 | REP |
| Strontium (Sr) | 202306-1 | 0.002 | 0.002 | 94.3 | 1 | 0.001 | REP |
| Strontium (Sr) | 202307-1 | 0.195 | 0.195 | 99.9 | 1 | 0.001 | REP |
| Strontium (Sr) | 202308-1 | 0.142 | 0.143 | 100.8 | 1 | 0.001 | REP |
| Strontium (Sr) | 202309-1 | 0.140 | 0.138 | 98.9 | 1 | 0.001 | REP |
| Strontium (Sr) | 202310-1 | 0.231 | 0.235 | 101.7 | 1 | 0.001 | REP |
| Strontium (Sr) | 202311-1 | 0.083 | 0.083 | 100.0 | 1 | 0.001 | REP |
| Sulfur (S) | 201836-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Sulfur (S) | 202302-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Sulfur (S) | 201837-1 | 37.9 | 40.8 | 107.6 | 1 | 0.05 | REF |
| Sulfur (S) | 202303-1 | 37.9 | 42.8 | 113.0 | 1 | 0.05 | REF |
| Sulfur (S) | 201840-1 | 18.3 | 18.9 | 103.6 | 1 | 0.05 | REP |
| Sulfur (S) | 201841-1 | 13.0 | 13.3 | 102.2 | 1 | 0.05 | REP |
| Sulfur (S) | 201842-1 | | < 0.05 | | 1 | 0.05 | REP |
| Sulfur (S) | 201843-1 | 30 | 29 | 98.2 | 1 | 0.05 | REP |
| Sulfur (S) | 201844-1 | 18.4 | 18.4 | 100.1 | 1 | 0.05 | REP |
| Sulfur (S) | 201845-1 | 3.75 | 3.63 | 96.8 | 1 | 0.05 | REP |
| Sulfur (S) | 202306-1 | 0.70 | 0.70 | 100.4 | 1 | 0.05 | REP |
| Sulfur (S) | 202307-1 | 0.56 | 0.58 | 103.1 | 1 | 0.05 | REP |
| Sulfur (S) | 202308-1 | 9.20 | 9.21 | 100.1 | 1 | 0.05 | REP |
| Sulfur (S) | 202309-1 | 10.4 | 10.4 | 99.6 | 1 | 0.05 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Sulfur (S) | 202310-1 | 8.63 | 8.67 | 100.5 | 1 | 0.05 | REP |
| Sulfur (S) | 202311-1 | 8.95 | 9.00 | 100.6 | 1 | 0.05 | REP |
| Tin (Sn) | 201836-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Tin (Sn) | 202302-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Tin (Sn) | 201838-1 | 2.99507222 | 2.90 | 94.3 | 1 | 0.05 | REF |
| Tin (Sn) | 202304-1 | 2.99507222 | 3.10 | 100.7 | 1 | 0.05 | REF |
| Tin (Sn) | 201840-1 | | < 0.05 | | 1 | 0.05 | REP |
| Tin (Sn) | 201841-1 | | < 0.05 | | 1 | 0.05 | REP |
| Tin (Sn) | 201842-1 | | < 0.05 | | 1 | 0.05 | REP |
| Tin (Sn) | 201843-1 | | < 0.05 | | 1 | 0.05 | REP |
| Tin (Sn) | 201844-1 | | < 0.05 | | 1 | 0.05 | REP |
| Tin (Sn) | 201845-1 | | < 0.05 | | 1 | 0.05 | REP |
| Tin (Sn) | 202306-1 | | < 0.05 | | 1 | 0.05 | REP |
| Tin (Sn) | 202307-1 | | < 0.05 | | 1 | 0.05 | REP |
| Tin (Sn) | 202308-1 | | < 0.05 | | 1 | 0.05 | REP |
| Tin (Sn) | 202309-1 | | < 0.05 | | 1 | 0.05 | REP |
| Tin (Sn) | 202310-1 | | < 0.05 | | 1 | 0.05 | REP |
| Tin (Sn) | 202311-1 | | < 0.05 | | 1 | 0.05 | REP |
| Titanium (Ti) | 201836-1 | < MDL | < 0.002 | | 1 | 0.002 | BLE |
| Titanium (Ti) | 202302-1 | < MDL | < 0.002 | | 1 | 0.002 | BLE |
| Titanium (Ti) | 201838-1 | 0.16874944 | 0.164 | 96.4 | 1 | 0.002 | REF |
| Titanium (Ti) | 202304-1 | 0.16874944 | 0.173 | 101.9 | 1 | 0.002 | REF |
| Titanium (Ti) | 201840-1 | | < 0.002 | | 1 | 0.002 | REP |
| Titanium (Ti) | 201841-1 | | < 0.002 | | 1 | 0.002 | REP |
| Titanium (Ti) | 201842-1 | | < 0.002 | | 1 | 0.002 | REP |
| Titanium (Ti) | 201843-1 | | < 0.002 | | 1 | 0.002 | REP |
| Titanium (Ti) | 201844-1 | | < 0.002 | | 1 | 0.002 | REP |
| Titanium (Ti) | 201845-1 | | < 0.002 | | 1 | 0.002 | REP |
| Titanium (Ti) | 202306-1 | | < 0.002 | | 1 | 0.002 | REP |
| Titanium (Ti) | 202307-1 | | < 0.002 | | 1 | 0.002 | REP |
| Titanium (Ti) | 202308-1 | | < 0.002 | | 1 | 0.002 | REP |
| Titanium (Ti) | 202309-1 | | < 0.002 | | 1 | 0.002 | REP |
| Titanium (Ti) | 202310-1 | | < 0.002 | | 1 | 0.002 | REP |
| Titanium (Ti) | 202311-1 | | < 0.002 | | 1 | 0.002 | REP |
| Vanadium (V) | 201836-1 | < MDL | < 0.01 | | 1 | 0.01 | BLE |
| Vanadium (V) | 202302-1 | < MDL | < 0.01 | | 1 | 0.01 | BLE |
| Vanadium (V) | 201839-1 | 0.73922222 | 0.73 | 99.9 | 1 | 0.01 | REF |
| Vanadium (V) | 202305-1 | 0.73922222 | 0.72 | 97.9 | 1 | 0.01 | REF |
| Vanadium (V) | 201840-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 201841-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 201842-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 201843-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 201844-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 201845-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 202306-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 202307-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 202308-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 202309-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 202310-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 202311-1 | | < 0.01 | | 1 | 0.01 | REP |
| Zinc (Zn) | 201836-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Zinc (Zn) | 202302-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Zinc (Zn) | 201839-1 | 0.61604277 | 0.60 | 96.9 | 1 | 0.05 | REF |
| Zinc (Zn) | 202305-1 | 0.61604277 | 0.64 | 102.8 | 1 | 0.05 | REF |
| Zinc (Zn) | 201840-1 | | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 201841-1 | | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 201842-1 | | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 201843-1 | | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 201844-1 | | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 201845-1 | | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 202306-1 | 0.08 | 0.08 | 98.0 | 1 | 0.05 | REP |
| Zinc (Zn) | 202307-1 | 3.55 | 3.58 | 100.8 | 1 | 0.05 | REP |
| Zinc (Zn) | 202308-1 | | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 202309-1 | | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 202310-1 | | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 202311-1 | | < 0.05 | | 1 | 0.05 | REP |

*ICP, Total UNITS: mg/L MATRIX: FWGE

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Aluminum (Al) | 201385-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Aluminum (Al) | 201616-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Aluminum (Al) | 202241-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Aluminum (Al) | 201388-1 | 2.42850000 | 2.41 | 100.3 | 1 | 0.06 | REF |
| Aluminum (Al) | 201619-1 | 2.42850000 | 2.46 | 102.2 | 1 | 0.06 | REF |
| Aluminum (Al) | 202244-1 | 2.42850000 | 2.49 | 103.6 | 1 | 0.06 | REF |
| Aluminum (Al) | 201389-1 | 0.34 | 0.32 | 94.6 | 1 | 0.06 | REP |
| Aluminum (Al) | 201390-1 | | < 0.06 | | 1 | 0.06 | REP |
| Aluminum (Al) | 201391-1 | | < 0.06 | | 1 | 0.06 | REP |
| Aluminum (Al) | 201392-1 | | < 0.06 | | 1 | 0.06 | REP |
| Aluminum (Al) | 201393-1 | | < 0.06 | | 1 | 0.06 | REP |
| Aluminum (Al) | 201394-1 | | < 0.06 | | 1 | 0.06 | REP |
| Aluminum (Al) | 201395-1 | 0.14 | 0.14 | 98.3 | 1 | 0.06 | REP |
| Aluminum (Al) | 201620-1 | | < 0.06 | | 1 | 0.06 | REP |
| Aluminum (Al) | 201621-1 | 0.36 | 0.34 | 95.4 | 1 | 0.06 | REP |
| Aluminum (Al) | 201622-1 | 0.38 | 0.39 | 102.0 | 1 | 0.06 | REP |
| Aluminum (Al) | 201623-1 | | < 0.06 | | 1 | 0.06 | REP |
| Aluminum (Al) | 201624-1 | 0.25 | 0.25 | 99.5 | 1 | 0.06 | REP |
| Aluminum (Al) | 201625-1 | | < 0.06 | | 1 | 0.06 | REP |
| Aluminum (Al) | 201626-1 | 0.35 | 0.34 | 97.9 | 1 | 0.06 | REP |
| Aluminum (Al) | 201627-1 | 0.14 | 0.14 | 97.2 | 1 | 0.06 | REP |
| Aluminum (Al) | 201628-1 | 12.4 | 12.1 | 97.7 | 1 | 0.06 | REP |
| Aluminum (Al) | 202245-1 | 0.07 | 0.07 | 94.9 | 1 | 0.06 | REP |
| Aluminum (Al) | 202246-1 | 0.25 | 0.25 | 101.2 | 1 | 0.06 | REP |
| Aluminum (Al) | 202247-1 | | < 0.06 | | 1 | 0.06 | REP |
| Aluminum (Al) | 202248-1 | 0.09 | 0.09 | 100.8 | 1 | 0.06 | REP |
| Antimony (Sb) | 201385-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Antimony (Sb) | 201616-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Antimony (Sb) | 202241-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Antimony (Sb) | 201388-1 | 0.77436666 | 0.79 | 103.0 | 1 | 0.06 | REF |
| Antimony (Sb) | 201619-1 | 0.77436666 | 0.79 | 103.5 | 1 | 0.06 | REF |
| Antimony (Sb) | 202244-1 | 0.77436666 | 0.79 | 102.6 | 1 | 0.06 | REF |
| Antimony (Sb) | 201389-1 | | < 0.06 | | 1 | 0.06 | REP |
| Antimony (Sb) | 201390-1 | | < 0.06 | | 1 | 0.06 | REP |
| Antimony (Sb) | 201391-1 | | < 0.06 | | 1 | 0.06 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Antimony (Sb) | 201392-1 | | < 0.06 | | 1 | 0.06 | REP |
| Antimony (Sb) | 201393-1 | | < 0.06 | | 1 | 0.06 | REP |
| Antimony (Sb) | 201394-1 | | < 0.06 | | 1 | 0.06 | REP |
| Antimony (Sb) | 201395-1 | | < 0.06 | | 1 | 0.06 | REP |
| Antimony (Sb) | 201620-1 | | < 0.06 | | 1 | 0.06 | REP |
| Antimony (Sb) | 201621-1 | | < 0.06 | | 1 | 0.06 | REP |
| Antimony (Sb) | 201622-1 | | < 0.06 | | 1 | 0.06 | REP |
| Antimony (Sb) | 201623-1 | | < 0.06 | | 1 | 0.06 | REP |
| Antimony (Sb) | 201624-1 | | < 0.06 | | 1 | 0.06 | REP |
| Antimony (Sb) | 201625-1 | | < 0.06 | | 1 | 0.06 | REP |
| Antimony (Sb) | 201626-1 | | < 0.06 | | 1 | 0.06 | REP |
| Antimony (Sb) | 201627-1 | | < 0.06 | | 1 | 0.06 | REP |
| Antimony (Sb) | 201628-1 | | < 0.06 | | 1 | 0.06 | REP |
| Antimony (Sb) | 202245-1 | | < 0.06 | | 1 | 0.06 | REP |
| Antimony (Sb) | 202246-1 | | < 0.06 | | 1 | 0.06 | REP |
| Antimony (Sb) | 202247-1 | | < 0.06 | | 1 | 0.06 | REP |
| Antimony (Sb) | 202248-1 | | < 0.06 | | 1 | 0.06 | REP |
| Arsenic (As) | 201385-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Arsenic (As) | 201616-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Arsenic (As) | 202241-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Arsenic (As) | 201388-1 | 0.70962500 | 0.70 | 99.3 | 1 | 0.06 | REF |
| Arsenic (As) | 201619-1 | 0.70962500 | 0.72 | 101.7 | 1 | 0.06 | REF |
| Arsenic (As) | 202244-1 | 0.70962500 | 0.71 | 99.5 | 1 | 0.06 | REF |
| Arsenic (As) | 201389-1 | | < 0.06 | | 1 | 0.06 | REP |
| Arsenic (As) | 201390-1 | | < 0.06 | | 1 | 0.06 | REP |
| Arsenic (As) | 201391-1 | | < 0.06 | | 1 | 0.06 | REP |
| Arsenic (As) | 201392-1 | | < 0.06 | | 1 | 0.06 | REP |
| Arsenic (As) | 201393-1 | | < 0.06 | | 1 | 0.06 | REP |
| Arsenic (As) | 201394-1 | | < 0.06 | | 1 | 0.06 | REP |
| Arsenic (As) | 201395-1 | | < 0.06 | | 1 | 0.06 | REP |
| Arsenic (As) | 201620-1 | | < 0.06 | | 1 | 0.06 | REP |
| Arsenic (As) | 201621-1 | | < 0.06 | | 1 | 0.06 | REP |
| Arsenic (As) | 201622-1 | | < 0.06 | | 1 | 0.06 | REP |
| Arsenic (As) | 201623-1 | | < 0.06 | | 1 | 0.06 | REP |
| Arsenic (As) | 201624-1 | | < 0.06 | | 1 | 0.06 | REP |
| Arsenic (As) | 201625-1 | | < 0.06 | | 1 | 0.06 | REP |
| Arsenic (As) | 201626-1 | | < 0.06 | | 1 | 0.06 | REP |
| Arsenic (As) | 201627-1 | | < 0.06 | | 1 | 0.06 | REP |
| Arsenic (As) | 201628-1 | | 0.07 | | 1 | 0.06 | REP |
| Arsenic (As) | 202245-1 | | < 0.06 | | 1 | 0.06 | REP |
| Arsenic (As) | 202246-1 | | < 0.06 | | 1 | 0.06 | REP |
| Arsenic (As) | 202247-1 | | < 0.06 | | 1 | 0.06 | REP |
| Arsenic (As) | 202248-1 | | < 0.06 | | 1 | 0.06 | REP |
| Barium (Ba) | 201385-1 | < MDL | < 0.001 | | 1 | 0.001 | BLL |
| Barium (Ba) | 201616-1 | < MDL | < 0.001 | | 1 | 0.001 | BLL |
| Barium (Ba) | 202241-1 | < MDL | < 0.001 | | 1 | 0.001 | BLL |
| Barium (Ba) | 201388-1 | 0.76675833 | 0.766 | 99.8 | 1 | 0.001 | REF |
| Barium (Ba) | 201619-1 | 0.76675833 | 0.764 | 99.5 | 1 | 0.001 | REF |
| Barium (Ba) | 202244-1 | 0.76675833 | 0.760 | 99.0 | 1 | 0.001 | REF |
| Barium (Ba) | 201389-1 | 0.171 | 0.171 | 100.1 | 1 | 0.001 | REP |
| Barium (Ba) | 201390-1 | | < 0.001 | | 1 | 0.001 | REP |
| Barium (Ba) | 201391-1 | 0.002 | 0.002 | 117.6 | 1 | 0.001 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Barium (Ba) | 201392-1 | 0.043 | 0.043 | 101.1 | 1 | 0.001 | REP |
| Barium (Ba) | 201393-1 | 0.001 | 0.001 | 95.4 | 1 | 0.001 | REP |
| Barium (Ba) | 201394-1 | | < 0.001 | | 1 | 0.001 | REP |
| Barium (Ba) | 201395-1 | 0.003 | 0.003 | 104.2 | 1 | 0.001 | REP |
| Barium (Ba) | 201620-1 | 0.001 | 0.001 | 98.2 | 1 | 0.001 | REP |
| Barium (Ba) | 201621-1 | 0.002 | 0.002 | 96.4 | 1 | 0.001 | REP |
| Barium (Ba) | 201622-1 | 0.003 | 0.003 | 98.9 | 1 | 0.001 | REP |
| Barium (Ba) | 201623-1 | 0.002 | 0.002 | 95.0 | 1 | 0.001 | REP |
| Barium (Ba) | 201624-1 | 0.002 | 0.002 | 109.2 | 1 | 0.001 | REP |
| Barium (Ba) | 201625-1 | 0.094 | 0.096 | 101.6 | 1 | 0.001 | REP |
| Barium (Ba) | 201626-1 | 0.010 | 0.011 | 111.3 | 1 | 0.001 | REP |
| Barium (Ba) | 201627-1 | 0.028 | 0.029 | 104.0 | 1 | 0.001 | REP |
| Barium (Ba) | 201628-1 | 0.397 | 0.394 | 99.3 | 1 | 0.001 | REP |
| Barium (Ba) | 202245-1 | 0.013 | 0.013 | 100.6 | 1 | 0.001 | REP |
| Barium (Ba) | 202246-1 | 0.030 | 0.030 | 99.0 | 1 | 0.001 | REP |
| Barium (Ba) | 202247-1 | | < 0.001 | | 1 | 0.001 | REP |
| Barium (Ba) | 202248-1 | 0.003 | 0.003 | 101.2 | 1 | 0.001 | REP |
| Beryllium (Be) | 201385-1 | < MDL | < 0.001 | | 1 | 0.001 | BLL |
| Beryllium (Be) | 201616-1 | < MDL | < 0.001 | | 1 | 0.001 | BLL |
| Beryllium (Be) | 202241-1 | < MDL | < 0.001 | | 1 | 0.001 | BLL |
| Beryllium (Be) | 201388-1 | 0.72459166 | 0.726 | 100.4 | 1 | 0.001 | REF |
| Beryllium (Be) | 201619-1 | 0.72459166 | 0.730 | 101.0 | 1 | 0.001 | REF |
| Beryllium (Be) | 202244-1 | 0.72459166 | 0.718 | 99.4 | 1 | 0.001 | REF |
| Beryllium (Be) | 201389-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 201390-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 201391-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 201392-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 201393-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 201394-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 201395-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 201620-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 201621-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 201622-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 201623-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 201624-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 201625-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 201626-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 201627-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 201628-1 | 0.004 | 0.004 | 97.9 | 1 | 0.001 | REP |
| Beryllium (Be) | 202245-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 202246-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 202247-1 | | < 0.001 | | 1 | 0.001 | REP |
| Beryllium (Be) | 202248-1 | | < 0.001 | | 1 | 0.001 | REP |
| Boron (B) | 201385-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Boron (B) | 201616-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Boron (B) | 202241-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Boron (B) | 201388-1 | 1.28958333 | 1.31 | 102.1 | 1 | 0.01 | REF |
| Boron (B) | 201619-1 | 1.28958333 | 1.34 | 104.1 | 1 | 0.01 | REF |
| Boron (B) | 202244-1 | 1.28958333 | 1.23 | 95.6 | 1 | 0.01 | REF |
| Boron (B) | 201389-1 | 0.07 | 0.07 | 102.4 | 1 | 0.01 | REP |
| Boron (B) | 201390-1 | | < 0.01 | | 1 | 0.01 | REP |
| Boron (B) | 201391-1 | | < 0.01 | | 1 | 0.01 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Boron (B) | 201392-1 | | < 0.01 | | 1 | 0.01 | REP |
| Boron (B) | 201393-1 | | < 0.01 | | 1 | 0.01 | REP |
| Boron (B) | 201394-1 | | < 0.01 | | 1 | 0.01 | REP |
| Boron (B) | 201395-1 | | < 0.01 | | 1 | 0.01 | REP |
| Boron (B) | 201620-1 | | < 0.01 | | 1 | 0.01 | REP |
| Boron (B) | 201621-1 | | < 0.01 | | 1 | 0.01 | REP |
| Boron (B) | 201622-1 | | < 0.01 | | 1 | 0.01 | REP |
| Boron (B) | 201623-1 | | < 0.01 | | 1 | 0.01 | REP |
| Boron (B) | 201624-1 | | < 0.01 | | 1 | 0.01 | REP |
| Boron (B) | 201625-1 | | < 0.01 | | 1 | 0.01 | REP |
| Boron (B) | 201626-1 | 0.04 | 0.04 | 98.5 | 1 | 0.01 | REP |
| Boron (B) | 201627-1 | 0.24 | 0.24 | 99.1 | 1 | 0.01 | REP |
| Boron (B) | 201628-1 | 0.59 | 0.59 | 99.8 | 1 | 0.01 | REP |
| Boron (B) | 202245-1 | 0.01 | 0.01 | 99.2 | 1 | 0.01 | REP |
| Boron (B) | 202246-1 | 0.01 | 0.01 | 96.1 | 1 | 0.01 | REP |
| Boron (B) | 202247-1 | | 0.01 | | 1 | 0.01 | REP |
| Boron (B) | 202248-1 | 0.01 | 0.01 | 95.1 | 1 | 0.01 | REP |
| Cadmium (Cd) | 201385-1 | < MDL | < 0.006 | | 1 | 0.006 | BLL |
| Cadmium (Cd) | 201616-1 | < MDL | < 0.006 | | 1 | 0.006 | BLL |
| Cadmium (Cd) | 202241-1 | < MDL | < 0.006 | | 1 | 0.006 | BLL |
| Cadmium (Cd) | 201388-1 | 0.32665833 | 0.327 | 100.3 | 1 | 0.006 | REF |
| Cadmium (Cd) | 201619-1 | 0.32665833 | 0.331 | 101.5 | 1 | 0.006 | REF |
| Cadmium (Cd) | 202244-1 | 0.32665833 | 0.326 | 100.0 | 1 | 0.006 | REF |
| Cadmium (Cd) | 201389-1 | 0.010 | 0.009 | 93.9 | 1 | 0.006 | REP |
| Cadmium (Cd) | 201390-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cadmium (Cd) | 201391-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cadmium (Cd) | 201392-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cadmium (Cd) | 201393-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cadmium (Cd) | 201394-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cadmium (Cd) | 201395-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cadmium (Cd) | 201620-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cadmium (Cd) | 201621-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cadmium (Cd) | 201622-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cadmium (Cd) | 201623-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cadmium (Cd) | 201624-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cadmium (Cd) | 201625-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cadmium (Cd) | 201626-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cadmium (Cd) | 201627-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cadmium (Cd) | 201628-1 | 0.007 | 0.007 | 102.6 | 1 | 0.006 | REP |
| Cadmium (Cd) | 202245-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cadmium (Cd) | 202246-1 | 0.024 | 0.024 | 100.3 | 1 | 0.006 | REP |
| Cadmium (Cd) | 202247-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cadmium (Cd) | 202248-1 | | < 0.006 | | 1 | 0.006 | REP |
| Calcium (Ca) | 201385-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Calcium (Ca) | 201616-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Calcium (Ca) | 202241-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Calcium (Ca) | 201386-1 | 90.2 | 95.2 | 105.6 | 1 | 0.1 | REF |
| Calcium (Ca) | 201617-1 | 90.2 | 92.2 | 102.2 | 1 | 0.1 | REF |
| Calcium (Ca) | 202242-1 | 90.2 | 97.4 | 108.0 | 1 | 0.1 | REF |
| Calcium (Ca) | 201389-1 | 26.5 | 27.0 | 101.8 | 1 | 0.1 | REP |
| Calcium (Ca) | 201390-1 | 0.2 | 0.2 | 99.9 | 1 | 0.1 | REP |
| Calcium (Ca) | 201391-1 | 1.7 | 1.7 | 99.0 | 1 | 0.1 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Calcium (Ca) | 201392-1 | 24.3 | 24.7 | 101.6 | 1 | 0.1 | REP |
| Calcium (Ca) | 201393-1 | 0.2 | 0.2 | 98.4 | 1 | 0.1 | REP |
| Calcium (Ca) | 201394-1 | 0.3 | 0.3 | 99.9 | 1 | 0.1 | REP |
| Calcium (Ca) | 201395-1 | 1.4 | 1.4 | 99.6 | 1 | 0.1 | REP |
| Calcium (Ca) | 201620-1 | 0.4 | 0.4 | 96.1 | 1 | 0.1 | REP |
| Calcium (Ca) | 201621-1 | 0.9 | 0.9 | 98.9 | 1 | 0.1 | REP |
| Calcium (Ca) | 201622-1 | 1.1 | 1.1 | 101.2 | 1 | 0.1 | REP |
| Calcium (Ca) | 201623-1 | 0.5 | 0.5 | 102.7 | 1 | 0.1 | REP |
| Calcium (Ca) | 201624-1 | 0.8 | 0.8 | 100.1 | 1 | 0.1 | REP |
| Calcium (Ca) | 201625-1 | 0.6 | 0.6 | 98.1 | 1 | 0.1 | REP |
| Calcium (Ca) | 201626-1 | 4.6 | 4.6 | 99.7 | 1 | 0.1 | REP |
| Calcium (Ca) | 201627-1 | 37.1 | 36.8 | 99.2 | 1 | 0.1 | REP |
| Calcium (Ca) | 201628-1 | 56.3 | 56.1 | 99.7 | 1 | 0.1 | REP |
| Calcium (Ca) | 202245-1 | 5.9 | 5.8 | 98.2 | 1 | 0.1 | REP |
| Calcium (Ca) | 202246-1 | 0.3 | 0.3 | 99.5 | 1 | 0.1 | REP |
| Calcium (Ca) | 202247-1 | | < 0.1 | | 1 | 0.1 | REP |
| Calcium (Ca) | 202248-1 | 1.8 | 1.8 | 99.7 | 1 | 0.1 | REP |
| Chromium (Cr) | 201385-1 | < MDL | < 0.006 | | 1 | 0.006 | BLL |
| Chromium (Cr) | 201616-1 | < MDL | < 0.006 | | 1 | 0.006 | BLL |
| Chromium (Cr) | 202241-1 | < MDL | < 0.006 | | 1 | 0.006 | BLL |
| Chromium (Cr) | 201388-1 | 0.12680833 | 0.127 | 100.5 | 1 | 0.006 | REF |
| Chromium (Cr) | 201619-1 | 0.12680833 | 0.129 | 101.9 | 1 | 0.006 | REF |
| Chromium (Cr) | 202244-1 | 0.12680833 | 0.127 | 100.3 | 1 | 0.006 | REF |
| Chromium (Cr) | 201389-1 | | < 0.006 | | 1 | 0.006 | REP |
| Chromium (Cr) | 201390-1 | | < 0.006 | | 1 | 0.006 | REP |
| Chromium (Cr) | 201391-1 | | < 0.006 | | 1 | 0.006 | REP |
| Chromium (Cr) | 201392-1 | | < 0.006 | | 1 | 0.006 | REP |
| Chromium (Cr) | 201393-1 | | < 0.006 | | 1 | 0.006 | REP |
| Chromium (Cr) | 201394-1 | | < 0.006 | | 1 | 0.006 | REP |
| Chromium (Cr) | 201395-1 | | < 0.006 | | 1 | 0.006 | REP |
| Chromium (Cr) | 201620-1 | | < 0.006 | | 1 | 0.006 | REP |
| Chromium (Cr) | 201621-1 | | < 0.006 | | 1 | 0.006 | REP |
| Chromium (Cr) | 201622-1 | | < 0.006 | | 1 | 0.006 | REP |
| Chromium (Cr) | 201623-1 | | < 0.006 | | 1 | 0.006 | REP |
| Chromium (Cr) | 201624-1 | | < 0.006 | | 1 | 0.006 | REP |
| Chromium (Cr) | 201625-1 | | < 0.006 | | 1 | 0.006 | REP |
| Chromium (Cr) | 201626-1 | | < 0.006 | | 1 | 0.006 | REP |
| Chromium (Cr) | 201627-1 | | < 0.006 | | 1 | 0.006 | REP |
| Chromium (Cr) | 201628-1 | 0.069 | 0.067 | 97.2 | 1 | 0.006 | REP |
| Chromium (Cr) | 202245-1 | | < 0.006 | | 1 | 0.006 | REP |
| Chromium (Cr) | 202246-1 | | < 0.006 | | 1 | 0.006 | REP |
| Chromium (Cr) | 202247-1 | | < 0.006 | | 1 | 0.006 | REP |
| Chromium (Cr) | 202248-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cobalt (Co) | 201385-1 | < MDL | < 0.006 | | 1 | 0.006 | BLL |
| Cobalt (Co) | 201616-1 | < MDL | < 0.006 | | 1 | 0.006 | BLL |
| Cobalt (Co) | 202241-1 | < MDL | < 0.006 | | 1 | 0.006 | BLL |
| Cobalt (Co) | 201388-1 | 0.20115833 | 0.202 | 100.8 | 1 | 0.006 | REF |
| Cobalt (Co) | 201619-1 | 0.20115833 | 0.205 | 102.3 | 1 | 0.006 | REF |
| Cobalt (Co) | 202244-1 | 0.20115833 | 0.193 | 96.1 | 1 | 0.006 | REF |
| Cobalt (Co) | 201389-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cobalt (Co) | 201390-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cobalt (Co) | 201391-1 | | < 0.006 | | 1 | 0.006 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Cobalt (Co) | 201392-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cobalt (Co) | 201393-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cobalt (Co) | 201394-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cobalt (Co) | 201395-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cobalt (Co) | 201620-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cobalt (Co) | 201621-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cobalt (Co) | 201622-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cobalt (Co) | 201623-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cobalt (Co) | 201624-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cobalt (Co) | 201625-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cobalt (Co) | 201626-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cobalt (Co) | 201627-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cobalt (Co) | 201628-1 | 0.013 | 0.011 | 86.7 | 1 | 0.006 | REP |
| Cobalt (Co) | 202245-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cobalt (Co) | 202246-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cobalt (Co) | 202247-1 | | < 0.006 | | 1 | 0.006 | REP |
| Cobalt (Co) | 202248-1 | | < 0.006 | | 1 | 0.006 | REP |
| Copper (Cu) | 201385-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Copper (Cu) | 201616-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Copper (Cu) | 202241-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Copper (Cu) | 201388-1 | 0.43515000 | 0.45 | 103.4 | 1 | 0.02 | REF |
| Copper (Cu) | 201619-1 | 0.43515000 | 0.45 | 104.0 | 1 | 0.02 | REF |
| Copper (Cu) | 202244-1 | 0.43515000 | 0.42 | 96.2 | 1 | 0.02 | REF |
| Copper (Cu) | 201389-1 | 1.26 | 1.14 | 90.3 | 1 | 0.02 | REP |
| Copper (Cu) | 201390-1 | | < 0.02 | | 1 | 0.02 | REP |
| Copper (Cu) | 201391-1 | | < 0.02 | | 1 | 0.02 | REP |
| Copper (Cu) | 201392-1 | | < 0.02 | | 1 | 0.02 | REP |
| Copper (Cu) | 201393-1 | | < 0.02 | | 1 | 0.02 | REP |
| Copper (Cu) | 201394-1 | | < 0.02 | | 1 | 0.02 | REP |
| Copper (Cu) | 201395-1 | | < 0.02 | | 1 | 0.02 | REP |
| Copper (Cu) | 201620-1 | | < 0.02 | | 1 | 0.02 | REP |
| Copper (Cu) | 201621-1 | | < 0.02 | | 1 | 0.02 | REP |
| Copper (Cu) | 201622-1 | | < 0.02 | | 1 | 0.02 | REP |
| Copper (Cu) | 201623-1 | | < 0.02 | | 1 | 0.02 | REP |
| Copper (Cu) | 201624-1 | | < 0.02 | | 1 | 0.02 | REP |
| Copper (Cu) | 201625-1 | 1.30 | 1.31 | 100.7 | 1 | 0.02 | REP |
| Copper (Cu) | 201626-1 | 0.08 | 0.08 | 102.2 | 1 | 0.02 | REP |
| Copper (Cu) | 201627-1 | | < 0.02 | | 1 | 0.02 | REP |
| Copper (Cu) | 201628-1 | 0.31 | 0.30 | 97.9 | 1 | 0.02 | REP |
| Copper (Cu) | 202245-1 | | < 0.02 | | 1 | 0.02 | REP |
| Copper (Cu) | 202246-1 | 7.49 | 7.53 | 100.5 | 1 | 0.02 | REP |
| Copper (Cu) | 202247-1 | 0.08 | 0.08 | 100.1 | 1 | 0.02 | REP |
| Copper (Cu) | 202248-1 | | < 0.02 | | 1 | 0.02 | REP |
| Iron (Fe) | 201385-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Iron (Fe) | 201616-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Iron (Fe) | 202241-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Iron (Fe) | 201388-1 | 0.28015833 | 0.29 | 102.8 | 1 | 0.05 | REF |
| Iron (Fe) | 201619-1 | 0.28015833 | 0.29 | 102.8 | 1 | 0.05 | REF |
| Iron (Fe) | 202244-1 | 0.28015833 | 0.26 | 92.2 | 1 | 0.05 | REF |
| Iron (Fe) | 201389-1 | 0.77 | 0.72 | 93.0 | 1 | 0.05 | REP |
| Iron (Fe) | 201390-1 | | < 0.05 | | 1 | 0.05 | REP |
| Iron (Fe) | 201391-1 | | < 0.05 | | 1 | 0.05 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Iron (Fe) | 201392-1 | 0.11 | 0.10 | 89.4 | 1 | 0.05 | REP |
| Iron (Fe) | 201393-1 | | < 0.05 | | 1 | 0.05 | REP |
| Iron (Fe) | 201394-1 | | < 0.05 | | 1 | 0.05 | REP |
| Iron (Fe) | 201395-1 | 0.11 | 0.11 | 100.1 | 1 | 0.05 | REP |
| Iron (Fe) | 201620-1 | | < 0.05 | | 1 | 0.05 | REP |
| Iron (Fe) | 201621-1 | 0.48 | 0.48 | 99.9 | 1 | 0.05 | REP |
| Iron (Fe) | 201622-1 | 0.21 | 0.21 | 102.2 | 1 | 0.05 | REP |
| Iron (Fe) | 201623-1 | | < 0.05 | | 1 | 0.05 | REP |
| Iron (Fe) | 201624-1 | 0.30 | 0.30 | 101.2 | 1 | 0.05 | REP |
| Iron (Fe) | 201625-1 | 0.122 | 0.135 | 111.1 | 1 | 0.006 | REP |
| Iron (Fe) | 201626-1 | 0.43 | 0.45 | 104.5 | 1 | 0.05 | REP |
| Iron (Fe) | 201627-1 | 0.73 | 0.73 | 100.4 | 1 | 0.05 | REP |
| Iron (Fe) | 201628-1 | 50.6 | 48.8 | 96.5 | 10 | 0.5 | REP |
| Iron (Fe) | 202245-1 | 0.11 | 0.10 | 94.6 | 1 | 0.05 | REP |
| Iron (Fe) | 202246-1 | 6.95 | 7.03 | 101.1 | 1 | 0.006 | REP |
| Iron (Fe) | 202247-1 | | < 0.006 | | 1 | 0.006 | REP |
| Iron (Fe) | 202248-1 | | < 0.05 | | 1 | 0.05 | REP |
| Lead (Pb) | 201385-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Lead (Pb) | 201616-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Lead (Pb) | 202241-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Lead (Pb) | 201388-1 | 0.24409166 | 0.25 | 99.8 | 1 | 0.06 | REF |
| Lead (Pb) | 201619-1 | 0.24409166 | 0.24 | 98.5 | 1 | 0.06 | REF |
| Lead (Pb) | 202244-1 | 0.24409166 | 0.24 | 98.1 | 1 | 0.06 | REF |
| Lead (Pb) | 201389-1 | | < 0.06 | | 1 | 0.06 | REP |
| Lead (Pb) | 201390-1 | | < 0.06 | | 1 | 0.06 | REP |
| Lead (Pb) | 201391-1 | | < 0.06 | | 1 | 0.06 | REP |
| Lead (Pb) | 201392-1 | | < 0.06 | | 1 | 0.06 | REP |
| Lead (Pb) | 201393-1 | | < 0.06 | | 1 | 0.06 | REP |
| Lead (Pb) | 201394-1 | | < 0.06 | | 1 | 0.06 | REP |
| Lead (Pb) | 201395-1 | | < 0.06 | | 1 | 0.06 | REP |
| Lead (Pb) | 201620-1 | | < 0.06 | | 1 | 0.06 | REP |
| Lead (Pb) | 201621-1 | | < 0.06 | | 1 | 0.06 | REP |
| Lead (Pb) | 201622-1 | | < 0.06 | | 1 | 0.06 | REP |
| Lead (Pb) | 201623-1 | | < 0.06 | | 1 | 0.06 | REP |
| Lead (Pb) | 201624-1 | | < 0.06 | | 1 | 0.06 | REP |
| Lead (Pb) | 201625-1 | 1.44 | 1.46 | 101.3 | 1 | 0.06 | REP |
| Lead (Pb) | 201626-1 | | < 0.06 | | 1 | 0.06 | REP |
| Lead (Pb) | 201627-1 | | < 0.06 | | 1 | 0.06 | REP |
| Lead (Pb) | 201628-1 | 1.05 | 1.05 | 100.2 | 1 | 0.06 | REP |
| Lead (Pb) | 202245-1 | | < 0.06 | | 1 | 0.06 | REP |
| Lead (Pb) | 202246-1 | 0.45 | 0.45 | 100.7 | 1 | 0.06 | REP |
| Lead (Pb) | 202247-1 | | < 0.06 | | 1 | 0.06 | REP |
| Lead (Pb) | 202248-1 | | < 0.06 | | 1 | 0.06 | REP |
| Magnesium (Mg) | 201385-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Magnesium (Mg) | 201616-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Magnesium (Mg) | 202241-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Magnesium (Mg) | 201386-1 | 25.7 | 27.1 | 105.4 | 1 | 0.1 | REF |
| Magnesium (Mg) | 201617-1 | 25.7 | 25.7 | 100.1 | 1 | 0.1 | REF |
| Magnesium (Mg) | 202242-1 | 25.7 | 27.1 | 105.5 | 1 | 0.1 | REF |
| Magnesium (Mg) | 201389-1 | 9.0 | 9.1 | 101.4 | 1 | 0.1 | REP |
| Magnesium (Mg) | 201390-1 | | < 0.1 | | 1 | 0.1 | REP |
| Magnesium (Mg) | 201391-1 | 0.3 | 0.3 | 100.8 | 1 | 0.1 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|-----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Magnesium (Mg) | 201392-1 | 6.8 | 7.0 | 102.7 | 1 | 0.1 | REP |
| Magnesium (Mg) | 201393-1 | | < 0.1 | | 1 | 0.1 | REP |
| Magnesium (Mg) | 201394-1 | | < 0.1 | | 1 | 0.1 | REP |
| Magnesium (Mg) | 201395-1 | 0.3 | 0.3 | 100.7 | 1 | 0.1 | REP |
| Magnesium (Mg) | 201620-1 | | < 0.1 | | 1 | 0.1 | REP |
| Magnesium (Mg) | 201621-1 | 0.4 | 0.4 | 99.6 | 1 | 0.1 | REP |
| Magnesium (Mg) | 201622-1 | 0.4 | 0.4 | 101.8 | 1 | 0.1 | REP |
| Magnesium (Mg) | 201623-1 | | < 0.1 | | 1 | 0.1 | REP |
| Magnesium (Mg) | 201624-1 | 0.2 | 0.2 | 99.5 | 1 | 0.1 | REP |
| Magnesium (Mg) | 201625-1 | | < 0.1 | | 1 | 0.1 | REP |
| Magnesium (Mg) | 201626-1 | 0.4 | 0.4 | 101.4 | 1 | 0.1 | REP |
| Magnesium (Mg) | 201627-1 | 2.6 | 2.4 | 92.4 | 1 | 0.1 | REP |
| Magnesium (Mg) | 201628-1 | 5.1 | 5.0 | 98.8 | 1 | 0.1 | REP |
| Magnesium (Mg) | 202245-1 | 0.7 | 0.7 | 98.4 | 1 | 0.1 | REP |
| Magnesium (Mg) | 202246-1 | <0.1 | 0.1 | 102.5 | 1 | 0.1 | REP |
| Magnesium (Mg) | 202247-1 | | < 0.1 | | 1 | 0.1 | REP |
| Magnesium (Mg) | 202248-1 | 0.2 | 0.2 | 98.6 | 1 | 0.1 | REP |
| Manganese (Mn) | 201385-1 | < MDL | < 0.001 | | 1 | 0.001 | BLL |
| Manganese (Mn) | 201616-1 | < MDL | < 0.001 | | 1 | 0.001 | BLL |
| Manganese (Mn) | 202241-1 | < MDL | < 0.001 | | 1 | 0.001 | BLL |
| Manganese (Mn) | 201388-1 | 0.48649166 | 0.494 | 101.7 | 1 | 0.001 | REF |
| Manganese (Mn) | 201619-1 | 0.48649166 | 0.496 | 102.0 | 1 | 0.001 | REF |
| Manganese (Mn) | 202244-1 | 0.48649166 | 0.464 | 95.5 | 1 | 0.001 | REF |
| Manganese (Mn) | 201389-1 | 0.047 | 0.047 | 100.7 | 1 | 0.001 | REP |
| Manganese (Mn) | 201390-1 | | < 0.001 | | 1 | 0.001 | REP |
| Manganese (Mn) | 201391-1 | | < 0.001 | | 1 | 0.001 | REP |
| Manganese (Mn) | 201392-1 | 0.008 | 0.008 | 99.7 | 1 | 0.001 | REP |
| Manganese (Mn) | 201393-1 | 0.002 | 0.002 | 99.4 | 1 | 0.001 | REP |
| Manganese (Mn) | 201394-1 | 0.001 | 0.001 | 96.8 | 1 | 0.001 | REP |
| Manganese (Mn) | 201395-1 | 0.002 | 0.002 | 99.5 | 1 | 0.001 | REP |
| Manganese (Mn) | 201620-1 | 0.002 | 0.002 | 99.5 | 1 | 0.001 | REP |
| Manganese (Mn) | 201621-1 | 0.007 | 0.007 | 99.4 | 1 | 0.001 | REP |
| Manganese (Mn) | 201622-1 | 0.009 | 0.009 | 100.0 | 1 | 0.001 | REP |
| Manganese (Mn) | 201623-1 | 0.003 | 0.003 | 100.0 | 1 | 0.001 | REP |
| Manganese (Mn) | 201624-1 | 0.007 | 0.007 | 101.4 | 1 | 0.001 | REP |
| Manganese (Mn) | 201625-1 | 0.007 | 0.007 | 101.1 | 1 | 0.001 | REP |
| Manganese (Mn) | 201626-1 | 0.022 | 0.022 | 101.3 | 1 | 0.001 | REP |
| Manganese (Mn) | 201627-1 | 0.089 | 0.089 | 100.3 | 1 | 0.001 | REP |
| Manganese (Mn) | 201628-1 | 0.565 | 0.558 | 98.7 | 1 | 0.001 | REP |
| Manganese (Mn) | 202245-1 | 0.003 | 0.003 | 96.6 | 1 | 0.001 | REP |
| Manganese (Mn) | 202246-1 | 0.009 | 0.010 | 105.9 | 1 | 0.001 | REP |
| Manganese (Mn) | 202247-1 | | < 0.001 | | 1 | 0.001 | REP |
| Manganese (Mn) | 202248-1 | 0.002 | 0.002 | 98.1 | 1 | 0.001 | REP |
| Molybdenum (Mo) | 201385-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Molybdenum (Mo) | 201616-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Molybdenum (Mo) | 202241-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Molybdenum (Mo) | 201388-1 | 0.48599166 | 0.50 | 103.8 | 1 | 0.01 | REF |
| Molybdenum (Mo) | 201619-1 | 0.48599166 | 0.51 | 106.1 | 1 | 0.01 | REF |
| Molybdenum (Mo) | 202244-1 | 0.48599166 | 0.47 | 97.5 | 1 | 0.01 | REF |
| Molybdenum (Mo) | 201389-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 201390-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 201391-1 | | < 0.01 | | 1 | 0.01 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|-----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Molybdenum (Mo) | 201392-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 201393-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 201394-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 201395-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 201620-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 201621-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 201622-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 201623-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 201624-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 201625-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 201626-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 201627-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 201628-1 | 0.07 | 0.07 | 94.8 | 1 | 0.01 | REP |
| Molybdenum (Mo) | 202245-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 202246-1 | 0.01 | 0.01 | 84.6 | 1 | 0.01 | REP |
| Molybdenum (Mo) | 202247-1 | | < 0.01 | | 1 | 0.01 | REP |
| Molybdenum (Mo) | 202248-1 | | < 0.01 | | 1 | 0.01 | REP |
| Nickel (Ni) | 201385-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Nickel (Ni) | 201616-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Nickel (Ni) | 202241-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Nickel (Ni) | 201388-1 | 0.20857500 | 0.21 | 101.5 | 1 | 0.02 | REF |
| Nickel (Ni) | 201619-1 | 0.20857500 | 0.21 | 101.9 | 1 | 0.02 | REF |
| Nickel (Ni) | 202244-1 | 0.20857500 | 0.21 | 103.0 | 1 | 0.02 | REF |
| Nickel (Ni) | 201389-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 201390-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 201391-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 201392-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 201393-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 201394-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 201395-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 201620-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 201621-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 201622-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 201623-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 201624-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 201625-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 201626-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 201627-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 201628-1 | 0.08 | 0.07 | 88.2 | 1 | 0.02 | REP |
| Nickel (Ni) | 202245-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 202246-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 202247-1 | | < 0.02 | | 1 | 0.02 | REP |
| Nickel (Ni) | 202248-1 | | < 0.02 | | 1 | 0.02 | REP |
| Phosphorus (P) | 201385-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Phosphorus (P) | 201616-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Phosphorus (P) | 202241-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Phosphorus (P) | 201389-1 | 1.2 | 1.2 | 100.1 | 1 | 0.1 | REP |
| Phosphorus (P) | 201390-1 | 0.3 | 0.3 | 98.6 | 1 | 0.1 | REP |
| Phosphorus (P) | 201391-1 | 0.3 | 0.3 | 100.0 | 1 | 0.1 | REP |
| Phosphorus (P) | 201392-1 | 0.6 | 0.6 | 98.4 | 1 | 0.1 | REP |
| Phosphorus (P) | 201393-1 | 0.2 | 0.2 | 91.6 | 1 | 0.1 | REP |
| Phosphorus (P) | 201394-1 | 0.3 | 0.3 | 99.5 | 1 | 0.1 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Phosphorus (P) | 201395-1 | 0.3 | 0.3 | 99.8 | 1 | 0.1 | REP |
| Phosphorus (P) | 201620-1 | 0.2 | 0.2 | 96.6 | 1 | 0.1 | REP |
| Phosphorus (P) | 201621-1 | 0.2 | 0.2 | 93.8 | 1 | 0.1 | REP |
| Phosphorus (P) | 201622-1 | 0.2 | 0.2 | 108.2 | 1 | 0.1 | REP |
| Phosphorus (P) | 201623-1 | 0.2 | 0.2 | 88.7 | 1 | 0.1 | REP |
| Phosphorus (P) | 201624-1 | 0.2 | 0.2 | 99.2 | 1 | 0.1 | REP |
| Phosphorus (P) | 201625-1 | 0.2 | 0.2 | 102.8 | 1 | 0.1 | REP |
| Phosphorus (P) | 201626-1 | 0.4 | 0.4 | 96.5 | 1 | 0.1 | REP |
| Phosphorus (P) | 201627-1 | 0.8 | 0.8 | 99.3 | 1 | 0.1 | REP |
| Phosphorus (P) | 201628-1 | 1.7 | 1.7 | 99.0 | 1 | 0.1 | REP |
| Phosphorus (P) | 202245-1 | 0.3 | 0.3 | 107.7 | 1 | 0.1 | REP |
| Phosphorus (P) | 202246-1 | 0.2 | 0.2 | 89.5 | 1 | 0.1 | REP |
| Phosphorus (P) | 202247-1 | 0.2 | 0.2 | 106.6 | 1 | 0.1 | REP |
| Phosphorus (P) | 202248-1 | 0.3 | 0.3 | 102.9 | 1 | 0.1 | REP |
| Potassium (K) | 201385-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Potassium (K) | 201616-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Potassium (K) | 202241-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Potassium (K) | 201386-1 | 3.97 | 4.1 | 103.8 | 1 | 0.1 | REF |
| Potassium (K) | 201617-1 | 3.97 | 3.9 | 99.0 | 1 | 0.1 | REF |
| Potassium (K) | 202242-1 | 3.97 | 4.1 | 103.8 | 1 | 0.1 | REF |
| Potassium (K) | 201389-1 | 4.7 | 4.7 | 100.4 | 1 | 0.1 | REP |
| Potassium (K) | 201390-1 | | < 0.1 | | 1 | 0.1 | REP |
| Potassium (K) | 201391-1 | | < 0.1 | | 1 | 0.1 | REP |
| Potassium (K) | 201392-1 | 0.6 | 0.6 | 101.6 | 1 | 0.1 | REP |
| Potassium (K) | 201393-1 | | 0.1 | | 1 | 0.1 | REP |
| Potassium (K) | 201394-1 | | < 0.1 | | 1 | 0.1 | REP |
| Potassium (K) | 201395-1 | 0.3 | 0.3 | 101.6 | 1 | 0.1 | REP |
| Potassium (K) | 201620-1 | <0.1 | 0.1 | 103.8 | 1 | 0.1 | REP |
| Potassium (K) | 201621-1 | 0.2 | 0.2 | 105.0 | 1 | 0.1 | REP |
| Potassium (K) | 201622-1 | 0.4 | 0.4 | 102.6 | 1 | 0.1 | REP |
| Potassium (K) | 201623-1 | <0.1 | 0.1 | 133.7 | 1 | 0.1 | REP |
| Potassium (K) | 201624-1 | <0.1 | 0.1 | 108.3 | 1 | 0.1 | REP |
| Potassium (K) | 201625-1 | | < 0.1 | | 1 | 0.1 | REP |
| Potassium (K) | 201626-1 | 0.6 | 0.6 | 101.1 | 1 | 0.1 | REP |
| Potassium (K) | 201627-1 | 3.7 | 3.6 | 96.3 | 1 | 0.1 | REP |
| Potassium (K) | 201628-1 | 14.8 | 15.0 | 101.4 | 1 | 0.1 | REP |
| Potassium (K) | 202245-1 | 0.8 | 0.8 | 97.2 | 1 | 0.1 | REP |
| Potassium (K) | 202246-1 | | < 0.1 | | 1 | 0.1 | REP |
| Potassium (K) | 202247-1 | | < 0.1 | | 1 | 0.1 | REP |
| Potassium (K) | 202248-1 | 0.2 | 0.2 | 104.5 | 1 | 0.1 | REP |
| Selenium (Se) | 201385-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Selenium (Se) | 201616-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Selenium (Se) | 202241-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Selenium (Se) | 201388-1 | 0.13160000 | 0.14 | 102.5 | 1 | 0.06 | REF |
| Selenium (Se) | 201619-1 | 0.13160000 | 0.14 | 103.8 | 1 | 0.06 | REF |
| Selenium (Se) | 202244-1 | 0.13160000 | 0.13 | 95.2 | 1 | 0.06 | REF |
| Selenium (Se) | 201389-1 | | < 0.06 | | 1 | 0.06 | REP |
| Selenium (Se) | 201390-1 | | < 0.06 | | 1 | 0.06 | REP |
| Selenium (Se) | 201391-1 | | < 0.06 | | 1 | 0.06 | REP |
| Selenium (Se) | 201392-1 | | < 0.06 | | 1 | 0.06 | REP |
| Selenium (Se) | 201393-1 | | < 0.06 | | 1 | 0.06 | REP |
| Selenium (Se) | 201394-1 | | < 0.06 | | 1 | 0.06 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Selenium (Se) | 201395-1 | | < 0.06 | | 1 | 0.06 | REP |
| Selenium (Se) | 201620-1 | | < 0.06 | | 1 | 0.06 | REP |
| Selenium (Se) | 201621-1 | | < 0.06 | | 1 | 0.06 | REP |
| Selenium (Se) | 201622-1 | | < 0.06 | | 1 | 0.06 | REP |
| Selenium (Se) | 201623-1 | | < 0.06 | | 1 | 0.06 | REP |
| Selenium (Se) | 201624-1 | | < 0.06 | | 1 | 0.06 | REP |
| Selenium (Se) | 201625-1 | | < 0.06 | | 1 | 0.06 | REP |
| Selenium (Se) | 201626-1 | | < 0.06 | | 1 | 0.06 | REP |
| Selenium (Se) | 201627-1 | | < 0.06 | | 1 | 0.06 | REP |
| Selenium (Se) | 201628-1 | | < 0.06 | | 1 | 0.06 | REP |
| Selenium (Se) | 202245-1 | | < 0.06 | | 1 | 0.06 | REP |
| Selenium (Se) | 202246-1 | | < 0.06 | | 1 | 0.06 | REP |
| Selenium (Se) | 202247-1 | | < 0.06 | | 1 | 0.06 | REP |
| Selenium (Se) | 202248-1 | | < 0.06 | | 1 | 0.06 | REP |
| Silicon (Si) | 201385-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Silicon (Si) | 201616-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Silicon (Si) | 202241-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Silicon (Si) | 201386-1 | 1.19 | 1.22 | 102.9 | 1 | 0.06 | REF |
| Silicon (Si) | 201617-1 | 1.19 | 1.17 | 98.7 | 1 | 0.06 | REF |
| Silicon (Si) | 202242-1 | 1.19 | 1.15 | 96.8 | 1 | 0.06 | REF |
| Silicon (Si) | 201389-1 | 3.91 | 3.91 | 99.9 | 1 | 0.06 | REP |
| Silicon (Si) | 201390-1 | 0.37 | 0.38 | 102.0 | 1 | 0.06 | REP |
| Silicon (Si) | 201391-1 | 1.30 | 1.29 | 99.5 | 1 | 0.06 | REP |
| Silicon (Si) | 201392-1 | 5.98 | 6.07 | 101.6 | 1 | 0.06 | REP |
| Silicon (Si) | 201393-1 | 0.39 | 0.39 | 99.8 | 1 | 0.06 | REP |
| Silicon (Si) | 201394-1 | 0.43 | 0.43 | 99.7 | 1 | 0.06 | REP |
| Silicon (Si) | 201395-1 | 1.78 | 1.80 | 101.3 | 1 | 0.06 | REP |
| Silicon (Si) | 201620-1 | 0.50 | 0.50 | 99.8 | 1 | 0.06 | REP |
| Silicon (Si) | 201621-1 | 1.51 | 1.50 | 99.5 | 1 | 0.06 | REP |
| Silicon (Si) | 201622-1 | 1.83 | 1.85 | 101.2 | 1 | 0.06 | REP |
| Silicon (Si) | 201623-1 | 0.35 | 0.36 | 103.6 | 1 | 0.06 | REP |
| Silicon (Si) | 201624-1 | 0.77 | 0.77 | 100.1 | 1 | 0.06 | REP |
| Silicon (Si) | 201625-1 | | < 0.06 | | 1 | 0.06 | REP |
| Silicon (Si) | 201626-1 | 1.66 | 1.69 | 101.7 | 1 | 0.06 | REP |
| Silicon (Si) | 201627-1 | 3.78 | 3.74 | 99.0 | 1 | 0.06 | REP |
| Silicon (Si) | 201628-1 | 27 | 26 | 98.0 | 1 | 0.06 | REP |
| Silicon (Si) | 202245-1 | 1.73 | 1.71 | 99.1 | 1 | 0.06 | REP |
| Silicon (Si) | 202246-1 | 0.49 | 0.48 | 97.4 | 1 | 0.06 | REP |
| Silicon (Si) | 202247-1 | | < 0.06 | | 1 | 0.06 | REP |
| Silicon (Si) | 202248-1 | 2.01 | 2.05 | 102.0 | 1 | 0.06 | REP |
| Silver (Ag) | 201385-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Silver (Ag) | 201616-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Silver (Ag) | 202241-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Silver (Ag) | 201389-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 201390-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 201391-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 201392-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 201393-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 201394-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 201395-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 201620-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 201621-1 | | < 0.01 | | 1 | 0.01 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Silver (Ag) | 201622-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 201623-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 201624-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 201625-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 201626-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 201627-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 201628-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 202245-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 202246-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 202247-1 | | < 0.01 | | 1 | 0.01 | REP |
| Silver (Ag) | 202248-1 | | < 0.01 | | 1 | 0.01 | REP |
| Sodium (Na) | 201385-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Sodium (Na) | 201616-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Sodium (Na) | 202241-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Sodium (Na) | 201386-1 | 49.6 | 50.7 | 102.2 | 1 | 0.1 | REF |
| Sodium (Na) | 201617-1 | 49.6 | 49.5 | 99.8 | 1 | 0.1 | REF |
| Sodium (Na) | 202242-1 | 49.6 | 51.8 | 104.4 | 1 | 0.1 | REF |
| Sodium (Na) | 201389-1 | 69.9 | 71.1 | 101.8 | 1 | 0.1 | REP |
| Sodium (Na) | 201390-1 | 0.1 | 0.1 | 96.6 | 1 | 0.1 | REP |
| Sodium (Na) | 201391-1 | 0.9 | 0.9 | 99.7 | 1 | 0.1 | REP |
| Sodium (Na) | 201392-1 | 5.2 | 5.3 | 102.0 | 1 | 0.1 | REP |
| Sodium (Na) | 201393-1 | 0.1 | 0.1 | 98.7 | 1 | 0.1 | REP |
| Sodium (Na) | 201394-1 | 0.2 | 0.2 | 99.9 | 1 | 0.1 | REP |
| Sodium (Na) | 201395-1 | 1.3 | 1.3 | 101.6 | 1 | 0.1 | REP |
| Sodium (Na) | 201620-1 | 0.2 | 0.2 | 97.7 | 1 | 0.1 | REP |
| Sodium (Na) | 201621-1 | 1.5 | 1.5 | 100.1 | 1 | 0.1 | REP |
| Sodium (Na) | 201622-1 | 1.8 | 1.8 | 99.6 | 1 | 0.1 | REP |
| Sodium (Na) | 201623-1 | <0.1 | 0.1 | 112.7 | 1 | 0.1 | REP |
| Sodium (Na) | 201624-1 | 1.0 | 1.0 | 100.9 | 1 | 0.1 | REP |
| Sodium (Na) | 201625-1 | 0.4 | 0.4 | 102.2 | 1 | 0.1 | REP |
| Sodium (Na) | 201626-1 | 1.6 | 1.4 | 90.1 | 1 | 0.1 | REP |
| Sodium (Na) | 201627-1 | 11.0 | 10.8 | 98.5 | 1 | 0.1 | REP |
| Sodium (Na) | 201628-1 | 68.1 | 68.0 | 99.9 | 1 | 0.1 | REP |
| Sodium (Na) | 202245-1 | 1.0 | 1.0 | 99.7 | 1 | 0.1 | REP |
| Sodium (Na) | 202246-1 | 0.3 | 0.3 | 100.9 | 1 | 0.1 | REP |
| Sodium (Na) | 202247-1 | | < 0.1 | | 1 | 0.1 | REP |
| Sodium (Na) | 202248-1 | 1.0 | 1.0 | 101.0 | 1 | 0.1 | REP |
| Strontium (Sr) | 201385-1 | < MDL | < 0.001 | | 1 | 0.001 | BLL |
| Strontium (Sr) | 201616-1 | < MDL | < 0.001 | | 1 | 0.001 | BLL |
| Strontium (Sr) | 202241-1 | < MDL | < 0.001 | | 1 | 0.001 | BLL |
| Strontium (Sr) | 201388-1 | 0.26098333 | 0.261 | 100.2 | 1 | 0.001 | REF |
| Strontium (Sr) | 201619-1 | 0.26098333 | 0.260 | 99.7 | 1 | 0.001 | REF |
| Strontium (Sr) | 202244-1 | 0.26098333 | 0.257 | 98.4 | 1 | 0.001 | REF |
| Strontium (Sr) | 201389-1 | 0.202 | 0.204 | 100.9 | 1 | 0.001 | REP |
| Strontium (Sr) | 201390-1 | | < 0.001 | | 1 | 0.001 | REP |
| Strontium (Sr) | 201391-1 | 0.006 | 0.006 | 103.1 | 1 | 0.001 | REP |
| Strontium (Sr) | 201392-1 | 0.178 | 0.180 | 101.4 | 1 | 0.001 | REP |
| Strontium (Sr) | 201393-1 | | < 0.001 | | 1 | 0.001 | REP |
| Strontium (Sr) | 201394-1 | | < 0.001 | | 1 | 0.001 | REP |
| Strontium (Sr) | 201395-1 | 0.008 | 0.008 | 98.1 | 1 | 0.001 | REP |
| Strontium (Sr) | 201620-1 | 0.001 | 0.001 | 94.9 | 1 | 0.001 | REP |
| Strontium (Sr) | 201621-1 | 0.006 | 0.006 | 100.4 | 1 | 0.001 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Strontium (Sr) | 201622-1 | 0.008 | 0.008 | 100.1 | 1 | 0.001 | REP |
| Strontium (Sr) | 201623-1 | 0.004 | 0.004 | 104.6 | 1 | 0.001 | REP |
| Strontium (Sr) | 201624-1 | 0.005 | 0.005 | 100.2 | 1 | 0.001 | REP |
| Strontium (Sr) | 201625-1 | 0.005 | 0.005 | 101.1 | 1 | 0.001 | REP |
| Strontium (Sr) | 201626-1 | 0.018 | 0.018 | 100.1 | 1 | 0.001 | REP |
| Strontium (Sr) | 201627-1 | 0.247 | 0.237 | 95.8 | 1 | 0.001 | REP |
| Strontium (Sr) | 201628-1 | 0.236 | 0.235 | 99.5 | 1 | 0.001 | REP |
| Strontium (Sr) | 202245-1 | 0.026 | 0.026 | 100.7 | 1 | 0.001 | REP |
| Strontium (Sr) | 202246-1 | 0.003 | 0.003 | 99.0 | 1 | 0.001 | REP |
| Strontium (Sr) | 202247-1 | | < 0.001 | | 1 | 0.001 | REP |
| Strontium (Sr) | 202248-1 | 0.008 | 0.008 | 99.9 | 1 | 0.001 | REP |
| Sulfur (S) | 201385-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Sulfur (S) | 201616-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Sulfur (S) | 202241-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Sulfur (S) | 201386-1 | 37.6 | 37.7 | 100.2 | 1 | 0.06 | REF |
| Sulfur (S) | 201617-1 | 37.6 | 36.7 | 97.7 | 1 | 0.06 | REF |
| Sulfur (S) | 202242-1 | 37.6 | 40.3 | 107.2 | 1 | 0.06 | REF |
| Sulfur (S) | 201389-1 | 3.94 | 3.89 | 98.8 | 1 | 0.06 | REP |
| Sulfur (S) | 201390-1 | 0.08 | 0.08 | 102.1 | 1 | 0.06 | REP |
| Sulfur (S) | 201391-1 | 0.53 | 0.54 | 102.4 | 1 | 0.06 | REP |
| Sulfur (S) | 201392-1 | 3.26 | 3.30 | 101.2 | 1 | 0.06 | REP |
| Sulfur (S) | 201393-1 | 0.13 | 0.12 | 89.8 | 1 | 0.06 | REP |
| Sulfur (S) | 201394-1 | 0.20 | 0.21 | 103.1 | 1 | 0.06 | REP |
| Sulfur (S) | 201395-1 | 0.33 | 0.33 | 100.3 | 1 | 0.06 | REP |
| Sulfur (S) | 201620-1 | 0.08 | 0.10 | 120.5 | 1 | 0.06 | REP |
| Sulfur (S) | 201621-1 | 0.25 | 0.24 | 94.8 | 1 | 0.06 | REP |
| Sulfur (S) | 201622-1 | 0.31 | 0.32 | 102.2 | 1 | 0.06 | REP |
| Sulfur (S) | 201623-1 | | < 0.06 | | 1 | 0.06 | REP |
| Sulfur (S) | 201624-1 | 0.16 | 0.17 | 103.6 | 1 | 0.06 | REP |
| Sulfur (S) | 201625-1 | 1.74 | 1.78 | 102.2 | 1 | 0.06 | REP |
| Sulfur (S) | 201626-1 | 0.82 | 0.78 | 95.6 | 1 | 0.06 | REP |
| Sulfur (S) | 201627-1 | 14.6 | 15.1 | 103.1 | 1 | 0.06 | REP |
| Sulfur (S) | 201628-1 | 18.0 | 17.5 | 97.3 | 1 | 0.06 | REP |
| Sulfur (S) | 202245-1 | 1.01 | 0.99 | 97.9 | 1 | 0.06 | REP |
| Sulfur (S) | 202246-1 | 5.44 | 5.35 | 98.3 | 1 | 0.06 | REP |
| Sulfur (S) | 202247-1 | | < 0.06 | | 1 | 0.06 | REP |
| Sulfur (S) | 202248-1 | 0.49 | 0.50 | 102.7 | 1 | 0.06 | REP |
| Tin (Sn) | 201385-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Tin (Sn) | 201616-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Tin (Sn) | 202241-1 | < MDL | < 0.06 | | 1 | 0.06 | BLL |
| Tin (Sn) | 201387-1 | 3.09616666 | 3.13 | 101.5 | 1 | 0.06 | REF |
| Tin (Sn) | 201618-1 | 3.09616666 | 3.06 | 99.3 | 1 | 0.06 | REF |
| Tin (Sn) | 202243-1 | 3.09616666 | 3.08 | 99.9 | 1 | 0.06 | REF |
| Tin (Sn) | 201389-1 | | < 0.06 | | 1 | 0.06 | REP |
| Tin (Sn) | 201390-1 | | < 0.06 | | 1 | 0.06 | REP |
| Tin (Sn) | 201391-1 | | < 0.06 | | 1 | 0.06 | REP |
| Tin (Sn) | 201392-1 | | < 0.06 | | 1 | 0.06 | REP |
| Tin (Sn) | 201393-1 | | < 0.06 | | 1 | 0.06 | REP |
| Tin (Sn) | 201394-1 | | < 0.06 | | 1 | 0.06 | REP |
| Tin (Sn) | 201395-1 | | < 0.06 | | 1 | 0.06 | REP |
| Tin (Sn) | 201620-1 | | < 0.06 | | 1 | 0.06 | REP |
| Tin (Sn) | 201621-1 | | < 0.06 | | 1 | 0.06 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Tin (Sn) | 201622-1 | | < 0.06 | | 1 | 0.06 | REP |
| Tin (Sn) | 201623-1 | | < 0.06 | | 1 | 0.06 | REP |
| Tin (Sn) | 201624-1 | | < 0.06 | | 1 | 0.06 | REP |
| Tin (Sn) | 201625-1 | | < 0.06 | | 1 | 0.06 | REP |
| Tin (Sn) | 201626-1 | | < 0.06 | | 1 | 0.06 | REP |
| Tin (Sn) | 201627-1 | | < 0.06 | | 1 | 0.06 | REP |
| Tin (Sn) | 201628-1 | | < 0.06 | | 1 | 0.06 | REP |
| Tin (Sn) | 202245-1 | | < 0.06 | | 1 | 0.06 | REP |
| Tin (Sn) | 202246-1 | | < 0.06 | | 1 | 0.06 | REP |
| Tin (Sn) | 202247-1 | | < 0.06 | | 1 | 0.06 | REP |
| Tin (Sn) | 202248-1 | | < 0.06 | | 1 | 0.06 | REP |
| Titanium (Ti) | 201385-1 | < MDL | < 0.002 | | 1 | 0.002 | BLL |
| Titanium (Ti) | 201616-1 | < MDL | < 0.002 | | 1 | 0.002 | BLL |
| Titanium (Ti) | 202241-1 | < MDL | < 0.002 | | 1 | 0.002 | BLL |
| Titanium (Ti) | 201387-1 | 0.17255000 | 0.178 | 104.4 | 1 | 0.002 | REF |
| Titanium (Ti) | 201618-1 | 0.17255000 | 0.172 | 101.4 | 1 | 0.002 | REF |
| Titanium (Ti) | 202243-1 | 0.17255000 | 0.174 | 102.4 | 1 | 0.002 | REF |
| Titanium (Ti) | 201389-1 | 0.017 | 0.017 | 101.5 | 1 | 0.002 | REP |
| Titanium (Ti) | 201390-1 | | < 0.002 | | 1 | 0.002 | REP |
| Titanium (Ti) | 201391-1 | | < 0.002 | | 1 | 0.002 | REP |
| Titanium (Ti) | 201392-1 | 0.002 | 0.002 | 94.7 | 1 | 0.002 | REP |
| Titanium (Ti) | 201393-1 | 0.004 | 0.004 | 97.4 | 1 | 0.002 | REP |
| Titanium (Ti) | 201394-1 | | < 0.002 | | 1 | 0.002 | REP |
| Titanium (Ti) | 201395-1 | | < 0.002 | | 1 | 0.002 | REP |
| Titanium (Ti) | 201620-1 | | < 0.002 | | 1 | 0.002 | REP |
| Titanium (Ti) | 201621-1 | 0.004 | 0.004 | 110.3 | 1 | 0.002 | REP |
| Titanium (Ti) | 201622-1 | 0.003 | 0.003 | 102.4 | 1 | 0.002 | REP |
| Titanium (Ti) | 201623-1 | | < 0.002 | | 1 | 0.002 | REP |
| Titanium (Ti) | 201624-1 | 0.002 | 0.002 | 96.6 | 1 | 0.002 | REP |
| Titanium (Ti) | 201625-1 | | < 0.002 | | 1 | 0.002 | REP |
| Titanium (Ti) | 201626-1 | 0.018 | 0.017 | 94.9 | 1 | 0.002 | REP |
| Titanium (Ti) | 201627-1 | 0.009 | 0.009 | 97.7 | 1 | 0.002 | REP |
| Titanium (Ti) | 201628-1 | 0.532 | 0.515 | 96.8 | 1 | 0.002 | REP |
| Titanium (Ti) | 202245-1 | 0.007 | 0.007 | 93.8 | 1 | 0.002 | REP |
| Titanium (Ti) | 202246-1 | 0.020 | 0.019 | 97.4 | 1 | 0.002 | REP |
| Titanium (Ti) | 202247-1 | | < 0.002 | | 1 | 0.002 | REP |
| Titanium (Ti) | 202248-1 | | < 0.002 | | 1 | 0.002 | REP |
| Vanadium (V) | 201385-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Vanadium (V) | 201616-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Vanadium (V) | 202241-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Vanadium (V) | 201388-1 | 0.75360833 | 0.77 | 103.5 | 1 | 0.01 | REF |
| Vanadium (V) | 201619-1 | 0.75360833 | 0.79 | 105.1 | 1 | 0.01 | REF |
| Vanadium (V) | 202244-1 | 0.75360833 | 0.73 | 97.3 | 1 | 0.01 | REF |
| Vanadium (V) | 201389-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 201390-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 201391-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 201392-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 201393-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 201394-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 201395-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 201620-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 201621-1 | | < 0.01 | | 1 | 0.01 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Vanadium (V) | 201622-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 201623-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 201624-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 201625-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 201626-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 201627-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 201628-1 | 0.03 | 0.03 | 98.0 | 1 | 0.01 | REP |
| Vanadium (V) | 202245-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 202246-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 202247-1 | | < 0.01 | | 1 | 0.01 | REP |
| Vanadium (V) | 202248-1 | | < 0.01 | | 1 | 0.01 | REP |
| Zinc (Zn) | 201385-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Zinc (Zn) | 201616-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Zinc (Zn) | 202241-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Zinc (Zn) | 201388-1 | 0.61930000 | 0.64 | 104.2 | 1 | 0.05 | REF |
| Zinc (Zn) | 201619-1 | 0.61930000 | 0.63 | 102.9 | 1 | 0.05 | REF |
| Zinc (Zn) | 202244-1 | 0.61930000 | 0.59 | 96.2 | 1 | 0.05 | REF |
| Zinc (Zn) | 201389-1 | 0.65 | 0.64 | 97.8 | 1 | 0.05 | REP |
| Zinc (Zn) | 201390-1 | | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 201391-1 | | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 201392-1 | | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 201393-1 | | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 201394-1 | | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 201395-1 | | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 201620-1 | | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 201621-1 | | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 201622-1 | | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 201623-1 | | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 201624-1 | | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 201625-1 | 0.79 | 0.81 | 102.0 | 1 | 0.05 | REP |
| Zinc (Zn) | 201626-1 | 0.14 | 0.17 | 123.2 | 1 | 0.05 | REP |
| Zinc (Zn) | 201627-1 | | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 201628-1 | 2.57 | 2.59 | 100.9 | 1 | 0.05 | REP |
| Zinc (Zn) | 202245-1 | | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 202246-1 | 4.44 | 4.41 | 99.2 | 1 | 0.05 | REP |
| Zinc (Zn) | 202247-1 | | < 0.05 | | 1 | 0.05 | REP |
| Zinc (Zn) | 202248-1 | | < 0.05 | | 1 | 0.05 | REP |

*ICP, Total blockdig UNITS: ug/g(dry) MATRIX: SOSE

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Aluminum (Al) | 201048-1 | < MDL | < 5 | | 1 | 5 | BLL |
| Aluminum (Al) | 202111-1 | < MDL | < 5 | | 1 | 5 | BLL |
| Aluminum (Al) | 201051-1 | 13650 | 13200 | 96.7 | 1 | 5 | REF |
| Aluminum (Al) | 202114-1 | 13650 | 14400 | 105.5 | 1 | 5 | REF |
| Aluminum (Al) | 201052-1 | 13,800 | 13700 | 99.3 | 1 | 5 | REP |
| Aluminum (Al) | 201053-1 | 5,820 | 5560 | 95.5 | 1 | 5 | REP |
| Aluminum (Al) | 201058-1 | 10,100 | 10700 | 105.9 | 1 | 5 | REP |
| Aluminum (Al) | 202115-1 | 10,600 | 11800 | 111.3 | 1 | 5 | REP |
| Aluminum (Al) | 202116-1 | 14,100 | 15000 | 106.4 | 1 | 5 | REP |
| Aluminum (Al) | 202117-1 | 10,100 | 10200 | 101.0 | 1 | 5 | REP |
| Aluminum (Al) | 202118-1 | 10,000 | 11000 | 110.0 | 1 | 5 | REP |
| Aluminum (Al) | 202119-1 | 16,000 | 15900 | 99.4 | 1 | 5 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Aluminum (Al) | 202120-1 | 11,700 | 11100 | 94.9 | 1 | 5 | REP |
| Antimony (Sb) | 201048-1 | < MDL | < 5 | | 1 | 5 | BLL |
| Antimony (Sb) | 202111-1 | < MDL | < 5 | | 1 | 5 | BLL |
| Antimony (Sb) | 201052-1 | | < 5 | | 1 | 5 | REP |
| Antimony (Sb) | 201053-1 | | < 5 | | 1 | 5 | REP |
| Antimony (Sb) | 201058-1 | | < 5 | | 1 | 5 | REP |
| Antimony (Sb) | 202115-1 | | < 5 | | 1 | 5 | REP |
| Antimony (Sb) | 202116-1 | | < 5 | | 1 | 5 | REP |
| Antimony (Sb) | 202117-1 | | < 5 | | 1 | 5 | REP |
| Antimony (Sb) | 202118-1 | | < 5 | | 1 | 5 | REP |
| Antimony (Sb) | 202119-1 | | < 5 | | 1 | 5 | REP |
| Antimony (Sb) | 202120-1 | | < 5 | | 1 | 5 | REP |
| Arsenic (As) | 201048-1 | < MDL | < 5 | | 1 | 5 | BLL |
| Arsenic (As) | 202111-1 | < MDL | < 5 | | 1 | 5 | BLL |
| Arsenic (As) | 201052-1 | | < 5 | | 1 | 5 | REP |
| Arsenic (As) | 201053-1 | 27 | 27 | 101.4 | 1 | 5 | REP |
| Arsenic (As) | 201058-1 | 7 | 7 | 99.5 | 1 | 5 | REP |
| Arsenic (As) | 202115-1 | 5 | 7 | 129.1 | 1 | 5 | REP |
| Arsenic (As) | 202116-1 | 11 | 11 | 96.6 | 1 | 5 | REP |
| Arsenic (As) | 202117-1 | 7 | 6 | 92.0 | 1 | 5 | REP |
| Arsenic (As) | 202118-1 | 7 | 8 | 109.5 | 1 | 5 | REP |
| Arsenic (As) | 202119-1 | 13 | 13 | 103.3 | 1 | 5 | REP |
| Arsenic (As) | 202120-1 | 10 | 9 | 90.4 | 1 | 5 | REP |
| Barium (Ba) | 201048-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Barium (Ba) | 202111-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Barium (Ba) | 201051-1 | 122.522661 | 122 | 98.6 | 1 | 0.1 | REF |
| Barium (Ba) | 202114-1 | 122.522661 | 134 | 108.5 | 1 | 0.1 | REF |
| Barium (Ba) | 201052-1 | 66.4 | 58.5 | 88.1 | 1 | 0.1 | REP |
| Barium (Ba) | 201053-1 | 1,701 | 1750 | 102.9 | 10 | 1 | REP |
| Barium (Ba) | 201058-1 | 32.9 | 32.9 | 99.9 | 1 | 0.1 | REP |
| Barium (Ba) | 202115-1 | 34.8 | 30.8 | 88.5 | 1 | 0.1 | REP |
| Barium (Ba) | 202116-1 | 82.1 | 86.3 | 105.2 | 1 | 0.1 | REP |
| Barium (Ba) | 202117-1 | 40.3 | 41.1 | 102.1 | 1 | 0.1 | REP |
| Barium (Ba) | 202118-1 | 32.5 | 31.6 | 97.1 | 1 | 0.1 | REP |
| Barium (Ba) | 202119-1 | 44.4 | 42.2 | 95.1 | 1 | 0.1 | REP |
| Barium (Ba) | 202120-1 | 44.9 | 43.6 | 97.1 | 1 | 0.1 | REP |
| Beryllium (Be) | 201048-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Beryllium (Be) | 202111-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Beryllium (Be) | 201052-1 | 0.9 | 0.9 | 102.0 | 1 | 0.1 | REP |
| Beryllium (Be) | 201053-1 | 1.3 | 1.2 | 94.6 | 1 | 0.1 | REP |
| Beryllium (Be) | 201058-1 | 0.9 | 0.9 | 102.4 | 1 | 0.1 | REP |
| Beryllium (Be) | 202115-1 | 0.6 | 0.6 | 108.7 | 1 | 0.1 | REP |
| Beryllium (Be) | 202116-1 | 0.8 | 0.8 | 103.6 | 1 | 0.1 | REP |
| Beryllium (Be) | 202117-1 | 1.0 | 1.0 | 97.9 | 1 | 0.1 | REP |
| Beryllium (Be) | 202118-1 | 0.6 | 0.6 | 105.4 | 1 | 0.1 | REP |
| Beryllium (Be) | 202119-1 | 1.2 | 1.2 | 100.5 | 1 | 0.1 | REP |
| Beryllium (Be) | 202120-1 | 1.2 | 1.1 | 94.3 | 1 | 0.1 | REP |
| Boron (B) | 201048-1 | < MDL | < 1 | | 1 | 1 | BLL |
| Boron (B) | 202111-1 | < MDL | < 1 | | 1 | 1 | BLL |
| Boron (B) | 201052-1 | 5 | 5 | 98.9 | 1 | 1 | REP |
| Boron (B) | 201053-1 | 9 | 8 | 89.9 | 1 | 1 | REP |
| Boron (B) | 201058-1 | 6 | 7 | 109.7 | 1 | 1 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Boron (B) | 202115-1 | 8 | 9 | 119.0 | 1 | 1 | REP |
| Boron (B) | 202116-1 | 11 | 12 | 110.8 | 1 | 1 | REP |
| Boron (B) | 202117-1 | 9 | 9 | 100.2 | 1 | 1 | REP |
| Boron (B) | 202118-1 | 15 | 11 | 74.8 | 1 | 1 | REP |
| Boron (B) | 202119-1 | 10 | 10 | 99.6 | 1 | 1 | REP |
| Boron (B) | 202120-1 | 9 | 8 | 91.5 | 1 | 1 | REP |
| Cadmium (Cd) | 201048-1 | < MDL | < 0.5 | | 1 | 0.5 | BLL |
| Cadmium (Cd) | 202111-1 | < MDL | < 0.5 | | 1 | 0.5 | BLL |
| Cadmium (Cd) | 201052-1 | | < 0.5 | | 1 | 0.5 | REP |
| Cadmium (Cd) | 201053-1 | 2.6 | 2.3 | 88.3 | 1 | 0.5 | REP |
| Cadmium (Cd) | 201058-1 | | < 0.5 | | 1 | 0.5 | REP |
| Cadmium (Cd) | 202115-1 | | < 0.5 | | 1 | 0.5 | REP |
| Cadmium (Cd) | 202116-1 | 0.9 | 0.9 | 105.1 | 1 | 0.5 | REP |
| Cadmium (Cd) | 202117-1 | 5.0 | 5.0 | 100.3 | 1 | 0.5 | REP |
| Cadmium (Cd) | 202118-1 | | < 0.5 | | 1 | 0.5 | REP |
| Cadmium (Cd) | 202119-1 | 2.1 | 2.1 | 100.3 | 1 | 0.5 | REP |
| Cadmium (Cd) | 202120-1 | | < 0.5 | | 1 | 0.5 | REP |
| Calcium (Ca) | 201048-1 | < MDL | < 10 | | 1 | 10 | BLL |
| Calcium (Ca) | 202111-1 | < MDL | < 10 | | 1 | 10 | BLL |
| Calcium (Ca) | 201051-1 | 44303 | 43200 | 97.5 | 1 | 10 | REF |
| Calcium (Ca) | 202114-1 | 44303 | 43000 | 97.1 | 1 | 10 | REF |
| Calcium (Ca) | 201052-1 | 5,156 | 5150 | 99.9 | 1 | 10 | REP |
| Calcium (Ca) | 201053-1 | 8,567 | 8590 | 100.3 | 1 | 10 | REP |
| Calcium (Ca) | 201058-1 | 3,287 | 3470 | 105.6 | 1 | 10 | REP |
| Calcium (Ca) | 202115-1 | 7,419 | 6290 | 84.8 | 1 | 10 | REP |
| Calcium (Ca) | 202116-1 | 4,512 | 5210 | 115.5 | 1 | 10 | REP |
| Calcium (Ca) | 202117-1 | 9,743 | 9680 | 99.4 | 1 | 10 | REP |
| Calcium (Ca) | 202118-1 | 6,094 | 6640 | 109.0 | 1 | 10 | REP |
| Calcium (Ca) | 202119-1 | 3,584 | 3470 | 96.8 | 1 | 10 | REP |
| Calcium (Ca) | 202120-1 | 6,007 | 5830 | 97.1 | 1 | 10 | REP |
| Chromium (Cr) | 201048-1 | < MDL | < 0.5 | | 1 | 0.5 | BLL |
| Chromium (Cr) | 202111-1 | < MDL | < 0.5 | | 1 | 0.5 | BLL |
| Chromium (Cr) | 201049-1 | 48.0600000 | 46.8 | 100.6 | 1 | 0.5 | REF |
| Chromium (Cr) | 201050-1 | 24.2264516 | 24.5 | 103.0 | 1 | 0.5 | REF |
| Chromium (Cr) | 201051-1 | 75.4920000 | 73.4 | 97.2 | 1 | 0.5 | REF |
| Chromium (Cr) | 202112-1 | 48.0600000 | 51.3 | 110.3 | 1 | 0.5 | REF |
| Chromium (Cr) | 202113-1 | 24.2264516 | 26.8 | 112.3 | 1 | 0.5 | REF |
| Chromium (Cr) | 202114-1 | 75.4920000 | 81.3 | 107.7 | 1 | 0.5 | REF |
| Chromium (Cr) | 201052-1 | 13.8 | 12.6 | 91.6 | 1 | 0.5 | REP |
| Chromium (Cr) | 201053-1 | 13.3 | 12.0 | 90.4 | 1 | 0.5 | REP |
| Chromium (Cr) | 201058-1 | 12.4 | 12.5 | 100.7 | 1 | 0.5 | REP |
| Chromium (Cr) | 202115-1 | 7.9 | 10.9 | 138.4 | 1 | 0.5 | REP |
| Chromium (Cr) | 202116-1 | 19.8 | 21.4 | 108.1 | 1 | 0.5 | REP |
| Chromium (Cr) | 202117-1 | 11.2 | 11.3 | 100.6 | 1 | 0.5 | REP |
| Chromium (Cr) | 202118-1 | 13.1 | 13.5 | 102.8 | 1 | 0.5 | REP |
| Chromium (Cr) | 202119-1 | 14.6 | 15.7 | 107.9 | 1 | 0.5 | REP |
| Chromium (Cr) | 202120-1 | 11.4 | 10.7 | 93.8 | 1 | 0.5 | REP |
| Cobalt (Co) | 201048-1 | < MDL | < 0.5 | | 1 | 0.5 | BLL |
| Cobalt (Co) | 202111-1 | < MDL | < 0.5 | | 1 | 0.5 | BLL |
| Cobalt (Co) | 201049-1 | 10.6853333 | 10.4 | 106.7 | 1 | 0.5 | REF |
| Cobalt (Co) | 201050-1 | 11.8590625 | 12.0 | 102.5 | 1 | 0.5 | REF |
| Cobalt (Co) | 201051-1 | 12.7683333 | 12.3 | 101.2 | 1 | 0.5 | REF |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Cobalt (Co) | 202112-1 | 10.6853333 | 11.5 | 118.2 | 1 | 0.5 | REF |
| Cobalt (Co) | 202113-1 | 11.8590625 | 13.3 | 113.0 | 1 | 0.5 | REF |
| Cobalt (Co) | 202114-1 | 12.7683333 | 13.6 | 112.5 | 1 | 0.5 | REF |
| Cobalt (Co) | 201052-1 | 7.9 | 7.7 | 97.8 | 1 | 0.5 | REP |
| Cobalt (Co) | 201053-1 | 9.0 | 8.2 | 91.0 | 1 | 0.5 | REP |
| Cobalt (Co) | 201058-1 | 7.3 | 7.4 | 101.7 | 1 | 0.5 | REP |
| Cobalt (Co) | 202115-1 | 6.7 | 7.5 | 112.2 | 1 | 0.5 | REP |
| Cobalt (Co) | 202116-1 | 12.7 | 13.4 | 105.8 | 1 | 0.5 | REP |
| Cobalt (Co) | 202117-1 | 8.9 | 9.0 | 100.9 | 1 | 0.5 | REP |
| Cobalt (Co) | 202118-1 | 12.2 | 11.7 | 95.7 | 1 | 0.5 | REP |
| Cobalt (Co) | 202119-1 | 9.0 | 9.3 | 103.0 | 1 | 0.5 | REP |
| Cobalt (Co) | 202120-1 | 7.6 | 7.9 | 103.5 | 1 | 0.5 | REP |
| Copper (Cu) | 201048-1 | < MDL | < 0.5 | | 1 | 0.5 | BLL |
| Copper (Cu) | 202111-1 | < MDL | < 0.5 | | 1 | 0.5 | BLL |
| Copper (Cu) | 201049-1 | 309 | 309 | 96.1 | 1 | 0.5 | REF |
| Copper (Cu) | 201050-1 | 32.6805625 | 33.6 | 103.1 | 1 | 0.5 | REF |
| Copper (Cu) | 201051-1 | 81.7173333 | 81.1 | 99.3 | 1 | 0.5 | REF |
| Copper (Cu) | 202112-1 | 309 | 335 | 104.0 | 1 | 0.5 | REF |
| Copper (Cu) | 202113-1 | 32.6805625 | 33.4 | 102.7 | 1 | 0.5 | REF |
| Copper (Cu) | 202114-1 | 81.7173333 | 84.9 | 103.9 | 1 | 0.5 | REF |
| Copper (Cu) | 201052-1 | 490 | 449 | 91.7 | 1 | 0.5 | REP |
| Copper (Cu) | 201053-1 | 43.5 | 40.5 | 93.1 | 1 | 0.5 | REP |
| Copper (Cu) | 201058-1 | 406 | 451 | 111.0 | 1 | 0.5 | REP |
| Copper (Cu) | 202115-1 | 2,161 | 2800 | 129.6 | 1 | 0.5 | REP |
| Copper (Cu) | 202116-1 | 422 | 418 | 99.2 | 1 | 0.5 | REP |
| Copper (Cu) | 202117-1 | 9,741 | 9810 | 100.7 | 1 | 0.5 | REP |
| Copper (Cu) | 202118-1 | 1,522 | 1380 | 90.7 | 1 | 0.5 | REP |
| Copper (Cu) | 202119-1 | 1,888 | 1900 | 100.6 | 1 | 0.5 | REP |
| Copper (Cu) | 202120-1 | 471 | 451 | 95.7 | 1 | 0.5 | REP |
| Iron (Fe) | 201048-1 | < MDL | < 0.5 | | 1 | 0.5 | BLL |
| Iron (Fe) | 202111-1 | < MDL | < 0.5 | | 1 | 0.5 | BLL |
| Iron (Fe) | 201051-1 | 49300 | 45500 | 92.2 | 1 | 0.5 | REF |
| Iron (Fe) | 202114-1 | 49300 | 54600 | 110.8 | 1 | 0.5 | REF |
| Iron (Fe) | 201052-1 | 15,769 | 15100 | 95.8 | 1 | 0.5 | REP |
| Iron (Fe) | 201053-1 | 19,660 | 19200 | 97.7 | 1 | 0.5 | REP |
| Iron (Fe) | 201058-1 | 14,850 | 15000 | 101.0 | 1 | 0.5 | REP |
| Iron (Fe) | 202115-1 | 12,312 | 15300 | 124.3 | 1 | 0.5 | REP |
| Iron (Fe) | 202116-1 | 21,908 | 22600 | 103.2 | 1 | 0.5 | REP |
| Iron (Fe) | 202117-1 | 15,100 | 15300 | 101.3 | 1 | 0.5 | REP |
| Iron (Fe) | 202118-1 | 15,306 | 15000 | 98.0 | 1 | 0.5 | REP |
| Iron (Fe) | 202119-1 | 17,430 | 17600 | 101.0 | 1 | 0.5 | REP |
| Iron (Fe) | 202120-1 | 15,830 | 15100 | 95.4 | 1 | 0.5 | REP |
| Lead (Pb) | 201048-1 | < MDL | < 5 | | 1 | 5 | BLL |
| Lead (Pb) | 202111-1 | < MDL | < 5 | | 1 | 5 | BLL |
| Lead (Pb) | 201049-1 | 187.561538 | 190 | 106.9 | 1 | 5 | REF |
| Lead (Pb) | 201051-1 | 242.647050 | 248 | 102.6 | 1 | 5 | REF |
| Lead (Pb) | 202112-1 | 187.561538 | 203 | 113.8 | 1 | 5 | REF |
| Lead (Pb) | 202114-1 | 242.647050 | 266 | 109.8 | 1 | 5 | REF |
| Lead (Pb) | 201052-1 | 9 | 8 | 87.0 | 1 | 5 | REP |
| Lead (Pb) | 201053-1 | 13 | 13 | 99.5 | 1 | 5 | REP |
| Lead (Pb) | 201058-1 | 11 | 11 | 98.2 | 1 | 5 | REP |
| Lead (Pb) | 202115-1 | 8 | 10 | 121.6 | 1 | 5 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|-----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Lead (Pb) | 202116-1 | 33 | 33 | 99.1 | 1 | 5 | REP |
| Lead (Pb) | 202117-1 | 40 | 40 | 100.7 | 1 | 5 | REP |
| Lead (Pb) | 202118-1 | 9 | 8 | 93.3 | 1 | 5 | REP |
| Lead (Pb) | 202119-1 | 15 | 14 | 96.0 | 1 | 5 | REP |
| Lead (Pb) | 202120-1 | 14 | 12 | 88.0 | 1 | 5 | REP |
| Magnesium (Mg) | 201048-1 | < MDL | < 10 | | 1 | 10 | BLL |
| Magnesium (Mg) | 202111-1 | < MDL | < 10 | | 1 | 10 | BLL |
| Magnesium (Mg) | 201051-1 | 12140.5882 | 11600 | 96.9 | 1 | 10 | REF |
| Magnesium (Mg) | 202114-1 | 12140.5882 | 12300 | 102.7 | 1 | 10 | REF |
| Magnesium (Mg) | 201052-1 | 4,978 | 5250 | 105.5 | 1 | 10 | REP |
| Magnesium (Mg) | 201053-1 | 4,014 | 4120 | 102.6 | 1 | 10 | REP |
| Magnesium (Mg) | 201058-1 | 3,290 | 3410 | 103.6 | 1 | 10 | REP |
| Magnesium (Mg) | 202115-1 | 3,978 | 4150 | 104.3 | 1 | 10 | REP |
| Magnesium (Mg) | 202116-1 | 5,664 | 5880 | 103.8 | 1 | 10 | REP |
| Magnesium (Mg) | 202117-1 | 4,031 | 4100 | 101.7 | 1 | 10 | REP |
| Magnesium (Mg) | 202118-1 | 4,244 | 4880 | 115.0 | 1 | 10 | REP |
| Magnesium (Mg) | 202119-1 | 5,478 | 5640 | 103.0 | 1 | 10 | REP |
| Magnesium (Mg) | 202120-1 | 4,532 | 4670 | 103.0 | 1 | 10 | REP |
| Manganese (Mn) | 201048-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Manganese (Mn) | 202111-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Manganese (Mn) | 201049-1 | 266 | 254 | 95.6 | 1 | 0.1 | REF |
| Manganese (Mn) | 201050-1 | 301.841739 | 296 | 98.1 | 1 | 0.1 | REF |
| Manganese (Mn) | 201051-1 | 1128 | 1080 | 95.8 | 1 | 0.1 | REF |
| Manganese (Mn) | 202112-1 | 266 | 275 | 103.5 | 1 | 0.1 | REF |
| Manganese (Mn) | 202113-1 | 301.841739 | 310 | 102.5 | 1 | 0.1 | REF |
| Manganese (Mn) | 202114-1 | 1128 | 1100 | 97.9 | 1 | 0.1 | REF |
| Manganese (Mn) | 201052-1 | 214 | 237 | 110.9 | 1 | 0.1 | REP |
| Manganese (Mn) | 201053-1 | 529 | 457 | 86.4 | 1 | 0.1 | REP |
| Manganese (Mn) | 201058-1 | 181 | 187 | 103.4 | 1 | 0.1 | REP |
| Manganese (Mn) | 202115-1 | 189 | 184 | 97.5 | 1 | 0.1 | REP |
| Manganese (Mn) | 202116-1 | 254 | 267 | 105.2 | 1 | 0.1 | REP |
| Manganese (Mn) | 202117-1 | 221 | 222 | 100.4 | 1 | 0.1 | REP |
| Manganese (Mn) | 202118-1 | 195 | 210 | 107.8 | 1 | 0.1 | REP |
| Manganese (Mn) | 202119-1 | 206 | 212 | 102.8 | 1 | 0.1 | REP |
| Manganese (Mn) | 202120-1 | 239 | 257 | 107.4 | 1 | 0.1 | REP |
| Molybdenum (Mo) | 201048-1 | < MDL | < 1 | | 1 | 1 | BLL |
| Molybdenum (Mo) | 202111-1 | < MDL | < 1 | | 1 | 1 | BLL |
| Molybdenum (Mo) | 201052-1 | | < 1 | | 1 | 1 | REP |
| Molybdenum (Mo) | 201053-1 | 5 | 4 | 86.0 | 1 | 1 | REP |
| Molybdenum (Mo) | 201058-1 | | < 1 | | 1 | 1 | REP |
| Molybdenum (Mo) | 202115-1 | 2 | 2 | 119.9 | 1 | 1 | REP |
| Molybdenum (Mo) | 202116-1 | 2 | 2 | 84.3 | 1 | 1 | REP |
| Molybdenum (Mo) | 202117-1 | | < 1 | | 1 | 1 | REP |
| Molybdenum (Mo) | 202118-1 | | < 1 | | 1 | 1 | REP |
| Molybdenum (Mo) | 202119-1 | | 1 | | 1 | 1 | REP |
| Molybdenum (Mo) | 202120-1 | | < 1 | | 1 | 1 | REP |
| Nickel (Ni) | 201048-1 | < MDL | < 2 | | 1 | 2 | BLL |
| Nickel (Ni) | 202111-1 | < MDL | < 2 | | 1 | 2 | BLL |
| Nickel (Ni) | 201049-1 | 35.6 | 36 | 100.1 | 1 | 2 | REF |
| Nickel (Ni) | 201050-1 | 43.8056250 | 42 | 102.6 | 1 | 2 | REF |
| Nickel (Ni) | 201051-1 | 57.9233333 | 54 | 93.8 | 1 | 2 | REF |
| Nickel (Ni) | 202112-1 | 35.6 | 39 | 109.9 | 1 | 2 | REF |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Nickel (Ni) | 202113-1 | 43.8056250 | 46 | 110.2 | 1 | 2 | REF |
| Nickel (Ni) | 202114-1 | 57.9233333 | 61 | 106.0 | 1 | 2 | REF |
| Nickel (Ni) | 201052-1 | 9 | 8 | 89.5 | 1 | 2 | REP |
| Nickel (Ni) | 201053-1 | 39 | 37 | 93.8 | 1 | 2 | REP |
| Nickel (Ni) | 201058-1 | 10 | 10 | 96.2 | 1 | 2 | REP |
| Nickel (Ni) | 202115-1 | 16 | 19 | 120.5 | 1 | 2 | REP |
| Nickel (Ni) | 202116-1 | 20 | 21 | 103.7 | 1 | 2 | REP |
| Nickel (Ni) | 202117-1 | 16 | 16 | 100.5 | 1 | 2 | REP |
| Nickel (Ni) | 202118-1 | 69 | 71 | 102.5 | 1 | 2 | REP |
| Nickel (Ni) | 202119-1 | 14 | 14 | 102.9 | 1 | 2 | REP |
| Nickel (Ni) | 202120-1 | 10 | 10 | 98.8 | 1 | 2 | REP |
| Phosphorus (P) | 201048-1 | < MDL | < 10 | | 1 | 10 | BLL |
| Phosphorus (P) | 202111-1 | < MDL | < 10 | | 1 | 10 | BLL |
| Phosphorus (P) | 201051-1 | 1275.62794 | 1300 | 102.3 | 1 | 10 | REF |
| Phosphorus (P) | 202114-1 | 1275.62794 | 1540 | 121.5 | 1 | 10 | REF |
| Phosphorus (P) | 201052-1 | 441 | 527 | 119.4 | 1 | 10 | REP |
| Phosphorus (P) | 201053-1 | 1,229 | 1040 | 84.6 | 1 | 10 | REP |
| Phosphorus (P) | 201058-1 | 460 | 476 | 103.5 | 1 | 10 | REP |
| Phosphorus (P) | 202115-1 | 445 | 498 | 111.8 | 1 | 10 | REP |
| Phosphorus (P) | 202116-1 | 540 | 538 | 99.7 | 1 | 10 | REP |
| Phosphorus (P) | 202117-1 | 523 | 527 | 100.7 | 1 | 10 | REP |
| Phosphorus (P) | 202118-1 | 465 | 515 | 110.9 | 1 | 10 | REP |
| Phosphorus (P) | 202119-1 | 574 | 572 | 99.6 | 1 | 10 | REP |
| Phosphorus (P) | 202120-1 | 511 | 516 | 100.9 | 1 | 10 | REP |
| Potassium (K) | 201048-1 | < MDL | < 10 | | 1 | 10 | BLL |
| Potassium (K) | 202111-1 | < MDL | < 10 | | 1 | 10 | BLL |
| Potassium (K) | 201051-1 | 2036 | 1930 | 95.0 | 1 | 10 | REF |
| Potassium (K) | 202114-1 | 2036 | 1980 | 97.4 | 1 | 10 | REF |
| Potassium (K) | 201052-1 | 1,409 | 1400 | 99.4 | 1 | 10 | REP |
| Potassium (K) | 201053-1 | 1,016 | 916 | 90.1 | 1 | 10 | REP |
| Potassium (K) | 201058-1 | 1,013 | 971 | 95.9 | 1 | 10 | REP |
| Potassium (K) | 202115-1 | 1,147 | 999 | 87.1 | 1 | 10 | REP |
| Potassium (K) | 202116-1 | 1,784 | 1760 | 98.7 | 1 | 10 | REP |
| Potassium (K) | 202117-1 | 1,320 | 1340 | 101.5 | 1 | 10 | REP |
| Potassium (K) | 202118-1 | 1,128 | 1110 | 98.4 | 1 | 10 | REP |
| Potassium (K) | 202119-1 | 1,203 | 1220 | 101.4 | 1 | 10 | REP |
| Potassium (K) | 202120-1 | 1,429 | 1460 | 102.2 | 1 | 10 | REP |
| Selenium (Se) | 201048-1 | < MDL | < 5 | | 1 | 5 | BLL |
| Selenium (Se) | 202111-1 | < MDL | < 5 | | 1 | 5 | BLL |
| Selenium (Se) | 201052-1 | | < 5 | | 1 | 5 | REP |
| Selenium (Se) | 201053-1 | | < 5 | | 1 | 5 | REP |
| Selenium (Se) | 201058-1 | | < 5 | | 1 | 5 | REP |
| Selenium (Se) | 202115-1 | | < 5 | | 1 | 5 | REP |
| Selenium (Se) | 202116-1 | | < 5 | | 1 | 5 | REP |
| Selenium (Se) | 202117-1 | | < 5 | | 1 | 5 | REP |
| Selenium (Se) | 202118-1 | | < 5 | | 1 | 5 | REP |
| Selenium (Se) | 202119-1 | | < 5 | | 1 | 5 | REP |
| Selenium (Se) | 202120-1 | | < 5 | | 1 | 5 | REP |
| Silicon (Si) | 201048-1 | < MDL | < 5 | | 1 | 5 | BLL |
| Silicon (Si) | 202111-1 | < MDL | < 5 | | 1 | 5 | BLL |
| Silicon (Si) | 201052-1 | 2,339 | 2560 | 109.4 | 1 | 5 | REP |
| Silicon (Si) | 201053-1 | 2,140 | 2020 | 94.4 | 1 | 5 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Silicon (Si) | 201058-1 | 2,186 | 2200 | 100.6 | 1 | 5 | REP |
| Silicon (Si) | 202115-1 | 809 | 1020 | 126.1 | 1 | 5 | REP |
| Silicon (Si) | 202116-1 | 1,373 | 1340 | 97.6 | 1 | 5 | REP |
| Silicon (Si) | 202117-1 | 989 | 988 | 99.8 | 1 | 5 | REP |
| Silicon (Si) | 202118-1 | 139 | 120 | 86.5 | 1 | 5 | REP |
| Silicon (Si) | 202119-1 | 566 | 635 | 112.3 | 1 | 5 | REP |
| Silicon (Si) | 202120-1 | 267 | 280 | 104.9 | 1 | 5 | REP |
| Silver (Ag) | 201048-1 | < MDL | < 1 | | 1 | 1 | BLL |
| Silver (Ag) | 202111-1 | < MDL | < 1 | | 1 | 1 | BLL |
| Silver (Ag) | 201052-1 | 7 | 7 | 96.9 | 1 | 1 | REP |
| Silver (Ag) | 201053-1 | 3 | 3 | 112.3 | 1 | 1 | REP |
| Silver (Ag) | 201058-1 | 8 | 8 | 103.7 | 1 | 1 | REP |
| Silver (Ag) | 202115-1 | 3 | 3 | 115.3 | 1 | 1 | REP |
| Silver (Ag) | 202116-1 | 7 | 7 | 103.7 | 1 | 1 | REP |
| Silver (Ag) | 202117-1 | 2 | 2 | 96.0 | 1 | 1 | REP |
| Silver (Ag) | 202118-1 | 3 | 3 | 105.8 | 1 | 1 | REP |
| Silver (Ag) | 202119-1 | 4 | 4 | 99.0 | 1 | 1 | REP |
| Silver (Ag) | 202120-1 | 3 | 3 | 94.0 | 1 | 1 | REP |
| Sodium (Na) | 201048-1 | < MDL | < 10 | | 1 | 10 | BLL |
| Sodium (Na) | 202111-1 | < MDL | < 10 | | 1 | 10 | BLL |
| Sodium (Na) | 201051-1 | 216.829032 | 224 | 103.1 | 1 | 10 | REF |
| Sodium (Na) | 202114-1 | 216.829032 | 218 | 100.6 | 1 | 10 | REF |
| Sodium (Na) | 201052-1 | 666 | 674 | 101.2 | 1 | 10 | REP |
| Sodium (Na) | 201053-1 | 82 | 77 | 94.3 | 1 | 10 | REP |
| Sodium (Na) | 201058-1 | 471 | 444 | 94.4 | 1 | 10 | REP |
| Sodium (Na) | 202115-1 | 619 | 666 | 107.6 | 1 | 10 | REP |
| Sodium (Na) | 202116-1 | 702 | 733 | 104.4 | 1 | 10 | REP |
| Sodium (Na) | 202117-1 | 585 | 588 | 100.4 | 1 | 10 | REP |
| Sodium (Na) | 202118-1 | 610 | 637 | 104.4 | 1 | 10 | REP |
| Sodium (Na) | 202119-1 | 414 | 396 | 95.7 | 1 | 10 | REP |
| Sodium (Na) | 202120-1 | 660 | 592 | 89.7 | 1 | 10 | REP |
| Strontium (Sr) | 201048-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Strontium (Sr) | 202111-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Strontium (Sr) | 201049-1 | 68.4562500 | 68.6 | 104.4 | 1 | 0.1 | REF |
| Strontium (Sr) | 201050-1 | 57.4050000 | 56.9 | 100.1 | 1 | 0.1 | REF |
| Strontium (Sr) | 201051-1 | 68.4 | 65.8 | 96.2 | 1 | 0.1 | REF |
| Strontium (Sr) | 202112-1 | 68.4562500 | 73.1 | 111.3 | 1 | 0.1 | REF |
| Strontium (Sr) | 202113-1 | 57.4050000 | 59.3 | 104.3 | 1 | 0.1 | REF |
| Strontium (Sr) | 202114-1 | 68.4 | 74.4 | 108.8 | 1 | 0.1 | REF |
| Strontium (Sr) | 201052-1 | 35.0 | 36.4 | 103.9 | 1 | 0.1 | REP |
| Strontium (Sr) | 201053-1 | 61.3 | 58.9 | 96.1 | 1 | 0.1 | REP |
| Strontium (Sr) | 201058-1 | 23.9 | 26.7 | 111.5 | 1 | 0.1 | REP |
| Strontium (Sr) | 202115-1 | 47.8 | 47.2 | 98.8 | 1 | 0.1 | REP |
| Strontium (Sr) | 202116-1 | 34.2 | 41.3 | 120.6 | 1 | 0.1 | REP |
| Strontium (Sr) | 202117-1 | 58.2 | 59.5 | 102.2 | 1 | 0.1 | REP |
| Strontium (Sr) | 202118-1 | 46.0 | 48.1 | 104.5 | 1 | 0.1 | REP |
| Strontium (Sr) | 202119-1 | 32.1 | 26.8 | 83.4 | 1 | 0.1 | REP |
| Strontium (Sr) | 202120-1 | 51.7 | 39.4 | 76.2 | 1 | 0.1 | REP |
| Sulfur (S) | 201048-1 | < MDL | < 5 | | 1 | 5 | BLL |
| Sulfur (S) | 202111-1 | < MDL | < 5 | | 1 | 5 | BLL |
| Sulfur (S) | 201052-1 | 239 | 225 | 94.1 | 1 | 5 | REP |
| Sulfur (S) | 201053-1 | 752 | 730 | 97.1 | 1 | 5 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Sulfur (S) | 201058-1 | 184 | 159 | 86.5 | 1 | 5 | REP |
| Sulfur (S) | 202115-1 | 475 | 610 | 128.5 | 1 | 5 | REP |
| Sulfur (S) | 202116-1 | 815 | 782 | 96.0 | 1 | 5 | REP |
| Sulfur (S) | 202117-1 | 397 | 401 | 101.0 | 1 | 5 | REP |
| Sulfur (S) | 202118-1 | 321 | 350 | 108.9 | 1 | 5 | REP |
| Sulfur (S) | 202119-1 | 258 | 261 | 101.0 | 1 | 5 | REP |
| Sulfur (S) | 202120-1 | 106 | 110 | 103.3 | 1 | 5 | REP |
| Tin (Sn) | 201048-1 | < MDL | < 5 | | 1 | 5 | BLL |
| Tin (Sn) | 202111-1 | < MDL | < 5 | | 1 | 5 | BLL |
| Tin (Sn) | 201049-1 | 16.4 | 8 | 50.1 | 1 | 5 | REF |
| Tin (Sn) | 202112-1 | 16.4 | 14 | 84.5 | 1 | 5 | REF |
| Tin (Sn) | 201052-1 | | < 5 | | 1 | 5 | REP |
| Tin (Sn) | 201053-1 | | < 5 | | 1 | 5 | REP |
| Tin (Sn) | 201058-1 | | < 5 | | 1 | 5 | REP |
| Tin (Sn) | 202115-1 | | < 5 | | 1 | 5 | REP |
| Tin (Sn) | 202116-1 | | < 5 | | 1 | 5 | REP |
| Tin (Sn) | 202117-1 | | < 5 | | 1 | 5 | REP |
| Tin (Sn) | 202118-1 | | < 5 | | 1 | 5 | REP |
| Tin (Sn) | 202119-1 | | < 5 | | 1 | 5 | REP |
| Tin (Sn) | 202120-1 | | < 5 | | 1 | 5 | REP |
| Titanium (Ti) | 201048-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Titanium (Ti) | 202111-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Titanium (Ti) | 201051-1 | 91.1510000 | 153 | 167.4 | 1 | 0.2 | REF |
| Titanium (Ti) | 202114-1 | 91.1510000 | 92.2 | 101.2 | 1 | 0.2 | REF |
| Titanium (Ti) | 201052-1 | 810 | 769 | 94.9 | 1 | 0.2 | REP |
| Titanium (Ti) | 201053-1 | 55.5 | 51.3 | 92.4 | 1 | 0.2 | REP |
| Titanium (Ti) | 201058-1 | 773 | 761 | 98.4 | 1 | 0.2 | REP |
| Titanium (Ti) | 202115-1 | 501 | 563 | 112.3 | 1 | 0.2 | REP |
| Titanium (Ti) | 202116-1 | 932 | 986 | 105.8 | 1 | 0.2 | REP |
| Titanium (Ti) | 202117-1 | 658 | 662 | 100.5 | 1 | 0.2 | REP |
| Titanium (Ti) | 202118-1 | 513 | 495 | 96.5 | 1 | 0.2 | REP |
| Titanium (Ti) | 202119-1 | 978 | 929 | 94.9 | 1 | 0.2 | REP |
| Titanium (Ti) | 202120-1 | 729 | 635 | 87.1 | 1 | 0.2 | REP |
| Vanadium (V) | 201048-1 | < MDL | < 1 | | 1 | 1 | BLL |
| Vanadium (V) | 202111-1 | < MDL | < 1 | | 1 | 1 | BLL |
| Vanadium (V) | 201049-1 | 75.9909090 | 76 | 109.8 | 1 | 1 | REF |
| Vanadium (V) | 201050-1 | 56.8953333 | 60 | 108.9 | 1 | 1 | REF |
| Vanadium (V) | 201051-1 | 33.6258333 | 32 | 106.3 | 1 | 1 | REF |
| Vanadium (V) | 202112-1 | 75.9909090 | 80 | 115.3 | 1 | 1 | REF |
| Vanadium (V) | 202113-1 | 56.8953333 | 64 | 115.8 | 1 | 1 | REF |
| Vanadium (V) | 202114-1 | 33.6258333 | 35 | 114.3 | 1 | 1 | REF |
| Vanadium (V) | 201052-1 | 50 | 46 | 91.4 | 1 | 1 | REP |
| Vanadium (V) | 201053-1 | 33 | 30 | 92.1 | 1 | 1 | REP |
| Vanadium (V) | 201058-1 | 52 | 53 | 101.4 | 1 | 1 | REP |
| Vanadium (V) | 202115-1 | 34 | 46 | 135.6 | 1 | 1 | REP |
| Vanadium (V) | 202116-1 | 56 | 57 | 102.6 | 1 | 1 | REP |
| Vanadium (V) | 202117-1 | 52 | 52 | 99.5 | 1 | 1 | REP |
| Vanadium (V) | 202118-1 | 50 | 45 | 89.3 | 1 | 1 | REP |
| Vanadium (V) | 202119-1 | 60 | 60 | 99.4 | 1 | 1 | REP |
| Vanadium (V) | 202120-1 | 47 | 44 | 92.9 | 1 | 1 | REP |
| Zinc (Zn) | 201048-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Zinc (Zn) | 202111-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Zinc (Zn) | 201049-1 | 371 | 360 | 97.0 | 1 | 0.2 | REF |
| Zinc (Zn) | 201050-1 | 141 | 133 | 94.5 | 1 | 0.2 | REF |
| Zinc (Zn) | 201051-1 | 1457.86470 | 1400 | 98.7 | 1 | 0.2 | REF |
| Zinc (Zn) | 202112-1 | 371 | 379 | 102.0 | 1 | 0.2 | REF |
| Zinc (Zn) | 202113-1 | 141 | 143 | 101.6 | 1 | 0.2 | REF |
| Zinc (Zn) | 202114-1 | 1457.86470 | 1540 | 108.8 | 1 | 0.2 | REF |
| Zinc (Zn) | 201052-1 | 50.7 | 51.5 | 101.6 | 1 | 0.2 | REP |
| Zinc (Zn) | 201053-1 | 190 | 177 | 93.1 | 1 | 0.2 | REP |
| Zinc (Zn) | 201058-1 | 38.4 | 41.5 | 108.2 | 1 | 0.2 | REP |
| Zinc (Zn) | 202115-1 | 63.3 | 70.2 | 110.9 | 1 | 0.2 | REP |
| Zinc (Zn) | 202116-1 | 240 | 249 | 103.7 | 1 | 0.2 | REP |
| Zinc (Zn) | 202117-1 | 675 | 687 | 101.8 | 1 | 0.2 | REP |
| Zinc (Zn) | 202118-1 | 77.2 | 81.5 | 105.6 | 1 | 0.2 | REP |
| Zinc (Zn) | 202119-1 | 243 | 237 | 97.5 | 1 | 0.2 | REP |
| Zinc (Zn) | 202120-1 | 83.2 | 79.4 | 95.5 | 1 | 0.2 | REP |

*ICPMS, Dissolved UNITS: ug/L

MATRIX: FWGE

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Aluminum (Al) | 200726-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Aluminum (Al) | 202038-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Aluminum (Al) | 200727-1 | 58.3 | 62.3 | 106.9 | 1 | 0.2 | REF |
| Aluminum (Al) | 202039-1 | 58.3 | 48.0 | 82.3 | 1 | 0.2 | REF |
| Aluminum (Al) | 202040-1 | 10.5 | 10.3 | 97.8 | 1 | 0.2 | REP |
| Aluminum (Al) | 202041-1 | 4.0 | 4.0 | 100.1 | 1 | 0.2 | REP |
| Antimony (Sb) | 200726-1 | < MDL | 0.016 | | 1 | 0.005 | BLL |
| Antimony (Sb) | 202038-1 | < MDL | < 0.005 | | 1 | 0.005 | BLL |
| Antimony (Sb) | 200727-1 | | 37.6 | | 1 | 0.005 | REF |
| Antimony (Sb) | 202039-1 | 34.8 | 36.4 | 104.7 | 1 | 0.005 | REF |
| Antimony (Sb) | 199190-1 | 0.021 | 0.021 | 98.6 | 1 | 0.005 | REP |
| Antimony (Sb) | 199920-1 | 0.129 | 0.129 | 99.9 | 1 | 0.005 | REP |
| Antimony (Sb) | 202040-1 | 0.021 | 0.020 | 93.9 | 1 | 0.005 | REP |
| Antimony (Sb) | 202041-1 | 0.130 | 0.126 | 97.2 | 1 | 0.005 | REP |
| Arsenic (As) | 200726-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Arsenic (As) | 202038-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Arsenic (As) | 200727-1 | 33.4 | 36.8 | 110.1 | 1 | 0.1 | REF |
| Arsenic (As) | 202039-1 | 33.4 | 35.4 | 106.0 | 1 | 0.1 | REF |
| Arsenic (As) | 200728-1 | 17.8 | 17.8 | 100.2 | 1 | 0.1 | REP |
| Arsenic (As) | 202040-1 | | < 0.1 | | 1 | 0.1 | REP |
| Arsenic (As) | 202041-1 | 1.3 | 1.0 | 77.9 | 1 | 0.1 | REP |
| Barium (Ba) | 200726-1 | < MDL | 0.03 | | 1 | 0.02 | BLL |
| Barium (Ba) | 202038-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Barium (Ba) | 200727-1 | | 65.9 | | 1 | 0.02 | REF |
| Barium (Ba) | 202039-1 | 64.0 | 62.3 | 97.3 | 1 | 0.02 | REF |
| Barium (Ba) | 199190-1 | 3.13 | 3.13 | 100.1 | 1 | 0.02 | REP |
| Barium (Ba) | 199920-1 | 8.47 | 8.96 | 105.8 | 1 | 0.02 | REP |
| Barium (Ba) | 202040-1 | 3.13 | 3.06 | 97.7 | 1 | 0.02 | REP |
| Barium (Ba) | 202041-1 | 8.46 | 8.97 | 106.0 | 1 | 0.02 | REP |
| Beryllium (Be) | 200726-1 | < MDL | 0.005 | | 1 | 0.002 | BLL |
| Beryllium (Be) | 202038-1 | < MDL | 0.004 | | 1 | 0.002 | BLL |
| Beryllium (Be) | 200727-1 | 37.3 | 38.4 | 102.9 | 1 | 0.002 | REF |
| Beryllium (Be) | 202039-1 | 37.3 | 38.3 | 102.7 | 1 | 0.002 | REF |
| Beryllium (Be) | 202040-1 | 0.004 | 0.004 | 111.4 | 1 | 0.002 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Beryllium (Be) | 202041-1 | 0.006 | 0.008 | 136.6 | 1 | 0.002 | REP |
| Bismuth (Bi) | 200726-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Bismuth (Bi) | 202038-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Bismuth (Bi) | 202040-1 | | < 0.02 | | 1 | 0.02 | REP |
| Bismuth (Bi) | 202041-1 | | < 0.02 | | 1 | 0.02 | REP |
| Cadmium (Cd) | 200726-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Cadmium (Cd) | 202038-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Cadmium (Cd) | 200727-1 | | 65.4 | | 1 | 0.01 | REF |
| Cadmium (Cd) | 202039-1 | 60.8 | 62.9 | 103.5 | 1 | 0.01 | REF |
| Cadmium (Cd) | 198265-1 | 568 | 570 | 100.4 | 1 | 0.01 | REP |
| Cadmium (Cd) | 199190-1 | 0.04 | 0.04 | 100.0 | 1 | 0.01 | REP |
| Cadmium (Cd) | 199920-1 | 36.4 | 36.9 | 101.4 | 1 | 0.01 | REP |
| Cadmium (Cd) | 200728-1 | 568 | 574 | 101.1 | 1 | 0.01 | REP |
| Cadmium (Cd) | 202040-1 | 0.04 | 0.04 | 98.4 | 1 | 0.01 | REP |
| Cadmium (Cd) | 202041-1 | 36.4 | 36.3 | 99.8 | 1 | 0.01 | REP |
| Chromium (Cr) | 200726-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Chromium (Cr) | 202038-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Chromium (Cr) | 200727-1 | 69.1 | 72.6 | 105.1 | 1 | 0.2 | REF |
| Chromium (Cr) | 202039-1 | 69.1 | 68.5 | 99.1 | 1 | 0.2 | REF |
| Chromium (Cr) | 199190-1 | 0.6 | 0.6 | 106.9 | 1 | 0.2 | REP |
| Chromium (Cr) | 199920-1 | 4.9 | 3.7 | 74.8 | 1 | 0.2 | REP |
| Chromium (Cr) | 202040-1 | 0.5 | 0.5 | 94.2 | 1 | 0.2 | REP |
| Chromium (Cr) | 202041-1 | | < 0.2 | | 1 | 0.2 | REP |
| Cobalt (Co) | 200726-1 | < MDL | < 0.005 | | 1 | 0.005 | BLL |
| Cobalt (Co) | 202038-1 | < MDL | < 0.005 | | 1 | 0.005 | BLL |
| Cobalt (Co) | 200727-1 | 62.6 | 66.9 | 106.9 | 1 | 0.005 | REF |
| Cobalt (Co) | 202039-1 | 62.6 | 57 | 91.1 | 1 | 0.005 | REF |
| Cobalt (Co) | 202040-1 | 0.175 | 0.174 | 99.4 | 1 | 0.005 | REP |
| Cobalt (Co) | 202041-1 | 2.55 | 2.54 | 99.7 | 1 | 0.005 | REP |
| Copper (Cu) | 200726-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Copper (Cu) | 202038-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Copper (Cu) | 200727-1 | 68.6 | 72.4 | 105.5 | 1 | 0.05 | REF |
| Copper (Cu) | 202039-1 | | 67.7 | | 1 | 0.05 | REF |
| Copper (Cu) | 198265-1 | 825 | 841 | 101.9 | 1 | 0.05 | REP |
| Copper (Cu) | 199190-1 | 0.43 | 0.38 | 87.8 | 1 | 0.05 | REP |
| Copper (Cu) | 199920-1 | 963 | 961 | 99.8 | 1 | 0.05 | REP |
| Copper (Cu) | 200728-1 | 825 | 839 | 101.7 | 1 | 0.05 | REP |
| Copper (Cu) | 202040-1 | 0.43 | 0.37 | 86.6 | 1 | 0.05 | REP |
| Copper (Cu) | 202041-1 | 963 | 944 | 98.0 | 1 | 0.05 | REP |
| Lead (Pb) | 200726-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Lead (Pb) | 202038-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Lead (Pb) | 200727-1 | 65.3 | 66.4 | 101.6 | 1 | 0.01 | REF |
| Lead (Pb) | 202039-1 | 65.3 | 66.5 | 101.9 | 1 | 0.01 | REF |
| Lead (Pb) | 200728-1 | 30.6 | 30.3 | 98.9 | 1 | 0.01 | REP |
| Lead (Pb) | 202040-1 | 0.16 | 0.14 | 85.5 | 1 | 0.01 | REP |
| Lead (Pb) | 202041-1 | 0.17 | 0.18 | 105.5 | 1 | 0.01 | REP |
| Lithium (Li) | 200726-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Lithium (Li) | 202038-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Lithium (Li) | 200727-1 | 35.4 | 37.4 | 105.6 | 1 | 0.05 | REF |
| Lithium (Li) | 202039-1 | 35.4 | 31.9 | 90.1 | 1 | 0.05 | REF |
| Lithium (Li) | 202040-1 | 1.06 | 1.05 | 99.1 | 1 | 0.05 | REP |
| Lithium (Li) | 202041-1 | 63.5 | 61.6 | 97.0 | 1 | 0.05 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|-----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Manganese (Mn) | 200726-1 | < MDL | < 0.005 | | 1 | 0.005 | BLL |
| Manganese (Mn) | 202038-1 | < MDL | < 0.005 | | 1 | 0.005 | BLL |
| Manganese (Mn) | 200727-1 | 75.0 | 75.7 | 100.9 | 1 | 0.005 | REF |
| Manganese (Mn) | 202039-1 | 75.0 | 71.3 | 95.1 | 1 | 0.005 | REF |
| Manganese (Mn) | 202040-1 | 248 | 245 | 98.6 | 1 | 0.005 | REP |
| Manganese (Mn) | 202041-1 | 18.9 | 18.6 | 98.4 | 1 | 0.005 | REP |
| Molybdenum (Mo) | 200726-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Molybdenum (Mo) | 202038-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Molybdenum (Mo) | 200727-1 | 75.5 | 83.5 | 110.6 | 1 | 0.05 | REF |
| Molybdenum (Mo) | 202039-1 | 75.5 | 78 | 103.4 | 1 | 0.05 | REF |
| Molybdenum (Mo) | 202040-1 | 0.27 | 0.26 | 96.8 | 1 | 0.05 | REP |
| Molybdenum (Mo) | 202041-1 | 2.25 | 2.22 | 98.8 | 1 | 0.05 | REP |
| Nickel (Ni) | 200726-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Nickel (Ni) | 202038-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Nickel (Ni) | 200727-1 | 58.8 | 62 | 105.4 | 1 | 0.05 | REF |
| Nickel (Ni) | 202039-1 | 58.8 | 58.4 | 99.4 | 1 | 0.05 | REF |
| Nickel (Ni) | 202040-1 | 0.87 | 0.85 | 98.1 | 1 | 0.05 | REP |
| Nickel (Ni) | 202041-1 | 60.9 | 60.4 | 99.1 | 1 | 0.05 | REP |
| Selenium (Se) | 200726-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Selenium (Se) | 202038-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Selenium (Se) | 200727-1 | 38.6 | 44.0 | 114.1 | 1 | 0.2 | REF |
| Selenium (Se) | 202039-1 | 38.6 | 41.9 | 108.6 | 1 | 0.2 | REF |
| Selenium (Se) | 200728-1 | 8.6 | 8.6 | 100.2 | 1 | 0.2 | REP |
| Selenium (Se) | 202040-1 | | < 0.2 | | 1 | 0.2 | REP |
| Selenium (Se) | 202041-1 | 4.5 | 3.6 | 80.5 | 1 | 0.2 | REP |
| Silver (Ag) | 200726-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Silver (Ag) | 202038-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Silver (Ag) | 202040-1 | | < 0.02 | | 1 | 0.02 | REP |
| Silver (Ag) | 202041-1 | | < 0.02 | | 1 | 0.02 | REP |
| Strontium (Sr) | 200726-1 | < MDL | < 0.005 | | 1 | 0.005 | BLL |
| Strontium (Sr) | 202038-1 | < MDL | < 0.005 | | 1 | 0.005 | BLL |
| Strontium (Sr) | 200727-1 | 67.5 | 73.3 | 108.6 | 1 | 0.005 | REF |
| Strontium (Sr) | 202039-1 | 67.5 | 66.8 | 99.0 | 1 | 0.005 | REF |
| Strontium (Sr) | 202040-1 | 138 | 137 | 99.5 | 1 | 0.005 | REP |
| Strontium (Sr) | 202041-1 | 534 | 534 | 100.0 | 1 | 0.005 | REP |
| Thallium (Tl) | 200726-1 | 0.00330269 | < 0.002 | | 1 | 0.002 | BLL |
| Thallium (Tl) | 202038-1 | 0.00330269 | 0.004 | | 1 | 0.002 | BLL |
| Thallium (Tl) | 200727-1 | 36.6 | 35.6 | 97.2 | 1 | 0.002 | REF |
| Thallium (Tl) | 202039-1 | 36.6 | 34.1 | 93.1 | 1 | 0.002 | REF |
| Thallium (Tl) | 202040-1 | 0.026 | 0.024 | 93.9 | 1 | 0.002 | REP |
| Thallium (Tl) | 202041-1 | 0.018 | 0.023 | 124.8 | 1 | 0.002 | REP |
| Tin (Sn) | 200726-1 | < MDL | 0.02 | | 1 | 0.01 | BLL |
| Tin (Sn) | 202038-1 | < MDL | 0.01 | | 1 | 0.01 | BLL |
| Tin (Sn) | 200727-1 | 63.3084911 | 66.9 | 104.0 | 1 | 0.01 | REF |
| Tin (Sn) | 202039-1 | 63.3084911 | 56 | 87.0 | 1 | 0.01 | REF |
| Tin (Sn) | 202040-1 | | < 0.01 | | 1 | 0.01 | REP |
| Tin (Sn) | 202041-1 | 0.01 | 0.01 | 78.7 | 1 | 0.01 | REP |
| Uranium (U) | 200726-1 | < MDL | < 0.002 | | 1 | 0.002 | BLL |
| Uranium (U) | 202038-1 | < MDL | < 0.002 | | 1 | 0.002 | BLL |
| Uranium (U) | 200727-1 | 35.7 | 39 | 109.3 | 1 | 0.002 | REF |
| Uranium (U) | 202039-1 | 35.7 | 36.9 | 103.3 | 1 | 0.002 | REF |
| Uranium (U) | 202040-1 | 0.058 | 0.056 | 97.2 | 1 | 0.002 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Uranium (U) | 202041-1 | 0.453 | 0.494 | 109.1 | 1 | 0.002 | REP |
| Vanadium (V) | 200726-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Vanadium (V) | 202038-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Vanadium (V) | 200727-1 | 73.3 | 76.2 | 103.9 | 1 | 0.05 | REF |
| Vanadium (V) | 202039-1 | 73.3 | 73.1 | 99.7 | 1 | 0.05 | REF |
| Vanadium (V) | 202040-1 | 0.24 | 0.23 | 94.9 | 1 | 0.05 | REP |
| Vanadium (V) | 202041-1 | 0.65 | 0.67 | 102.7 | 1 | 0.05 | REP |
| Zinc (Zn) | 200726-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Zinc (Zn) | 202038-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Zinc (Zn) | 198265-1 | 13,571 | 13700 | 100.9 | 1 | 0.2 | REP |
| Zinc (Zn) | 199190-1 | | < 0.2 | | 1 | 0.2 | REP |
| Zinc (Zn) | 199920-1 | 6,335 | 6350 | 100.2 | 1 | 0.2 | REP |
| Zinc (Zn) | 200728-1 | 13,581 | 13711 | 101.0 | 1 | 0.2 | REP |
| Zinc (Zn) | 202040-1 | | < 0.2 | | 1 | 0.2 | REP |
| Zinc (Zn) | 202041-1 | 6,330 | 6277 | 99.2 | 1 | 0.2 | REP |

***ICPMS, Tot.blockdig UNITS: ug/g (dry) MATRIX: SOSE**

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Arsenic (As) | 201138-1 | 19.2 | 18.8 | 97.9 | 1 | 0.1 | REP |
| Copper (Cu) | 198305-1 | 42.2 | 38.1 | 90.3 | 1.2 | 0.06 | REP |
| Copper (Cu) | 201138-1 | 42.2 | 38.2 | 90.5 | 1.2 | 0.06 | REP |
| Zinc (Zn) | 198305-1 | 188 | 214 | 113.7 | 1 | 0.1 | REP |
| Zinc (Zn) | 201138-1 | 189 | 172 | 91.0 | 1 | 0.1 | REP |

***ICPMS, Total UNITS: ug/L MATRIX: FWGE**

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Aluminum (Al) | 201396-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Aluminum (Al) | 201397-1 | 58.3 | 60.3 | 103.5 | 1 | 0.2 | REF |
| Aluminum (Al) | 201398-1 | 70.8 | 71.0 | 100.3 | 1 | 0.2 | REP |
| Aluminum (Al) | 201399-1 | 20.2 | 22.6 | 112.0 | 1 | 0.2 | REP |
| Aluminum (Al) | 201400-1 | 18.8 | 18.2 | 97.0 | 1 | 0.2 | REP |
| Aluminum (Al) | 201401-1 | 51.6 | 53.3 | 103.2 | 1 | 0.2 | REP |
| Aluminum (Al) | 201493-1 | 29.6 | 26.6 | 89.9 | 1 | 0.2 | REP |
| Aluminum (Al) | 201494-1 | 161 | 162 | 100.9 | 1 | 0.2 | REP |
| Antimony (Sb) | 201396-1 | < MDL | < 0.005 | | 1 | 0.005 | BLL |
| Antimony (Sb) | 201397-1 | 34.8 | 33.3 | 95.6 | 1 | 0.005 | REF |
| Antimony (Sb) | 197100-1 | 0.794 | 0.815 | 102.6 | 1 | 0.005 | REP |
| Antimony (Sb) | 198530-1 | 0.012 | 0.011 | 91.3 | 1 | 0.005 | REP |
| Antimony (Sb) | 198540-1 | 0.014 | 0.013 | 89.7 | 1 | 0.005 | REP |
| Antimony (Sb) | 198550-1 | 0.007 | 0.038 | 547.2 | 1 | 0.005 | REP |
| Antimony (Sb) | 198860-1 | 0.015 | 0.014 | 96.0 | 1 | 0.005 | REP |
| Antimony (Sb) | 198870-1 | 0.019 | 0.021 | 108.0 | 1 | 0.005 | REP |
| Antimony (Sb) | 201398-1 | 0.794 | 0.825 | 103.9 | 1 | 0.005 | REP |
| Antimony (Sb) | 201399-1 | 0.013 | 0.011 | 84.0 | 1 | 0.005 | REP |
| Antimony (Sb) | 201400-1 | 0.014 | 0.013 | 91.2 | 1 | 0.005 | REP |
| Antimony (Sb) | 201401-1 | 0.007 | 0.040 | 582.2 | 1 | 0.005 | REP |
| Antimony (Sb) | 201493-1 | 0.016 | 0.014 | 90.1 | 1 | 0.005 | REP |
| Antimony (Sb) | 201494-1 | 0.019 | 0.020 | 104.8 | 1 | 0.005 | REP |
| Arsenic (As) | 201396-1 | < MDL | < 0.1 | | 1 | 0.1 | BLL |
| Arsenic (As) | 201397-1 | 33.5 | 35.6 | 106.3 | 1 | 0.1 | REF |
| Arsenic (As) | 201398-1 | 1.2 | 1.4 | 115.5 | 1 | 0.1 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Arsenic (As) | 201399-1 | | < 0.1 | | 1 | 0.1 | REP |
| Arsenic (As) | 201400-1 | | < 0.1 | | 1 | 0.1 | REP |
| Arsenic (As) | 201401-1 | | < 0.1 | | 1 | 0.1 | REP |
| Arsenic (As) | 201493-1 | | < 0.1 | | 1 | 0.1 | REP |
| Arsenic (As) | 201494-1 | | < 0.1 | | 1 | 0.1 | REP |
| Barium (Ba) | 201396-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Barium (Ba) | 201397-1 | 63.9 | 62.2 | 97.3 | 1 | 0.02 | REF |
| Barium (Ba) | 197100-1 | 9.64 | 9.59 | 99.5 | 1 | 0.02 | REP |
| Barium (Ba) | 198530-1 | 1.28 | 1.34 | 104.6 | 1 | 0.02 | REP |
| Barium (Ba) | 198540-1 | 1.26 | 1.26 | 99.6 | 1 | 0.02 | REP |
| Barium (Ba) | 198550-1 | 1.46 | 1.55 | 105.9 | 1 | 0.02 | REP |
| Barium (Ba) | 198860-1 | 0.73 | 0.66 | 90.3 | 1 | 0.02 | REP |
| Barium (Ba) | 198870-1 | 1.48 | 1.48 | 100.0 | 1 | 0.02 | REP |
| Barium (Ba) | 201398-1 | 9.63 | 9.58 | 99.5 | 1 | 0.02 | REP |
| Barium (Ba) | 201399-1 | 1.29 | 1.34 | 104.2 | 1 | 0.02 | REP |
| Barium (Ba) | 201400-1 | 1.27 | 1.25 | 98.5 | 1 | 0.02 | REP |
| Barium (Ba) | 201401-1 | 1.47 | 1.56 | 106.4 | 1 | 0.02 | REP |
| Barium (Ba) | 201493-1 | 0.73 | 0.66 | 90.1 | 1 | 0.02 | REP |
| Barium (Ba) | 201494-1 | 1.48 | 1.48 | 100.1 | 1 | 0.02 | REP |
| Beryllium (Be) | 201396-1 | < MDL | < 0.002 | | 1 | 0.002 | BLL |
| Beryllium (Be) | 201397-1 | 38.1 | 38.2 | 100.2 | 1 | 0.002 | REF |
| Beryllium (Be) | 201398-1 | 0.002 | 0.002 | 94.1 | 1 | 0.002 | REP |
| Beryllium (Be) | 201399-1 | | < 0.002 | | 1 | 0.002 | REP |
| Beryllium (Be) | 201400-1 | 0.003 | 0.002 | 68.0 | 1 | 0.002 | REP |
| Beryllium (Be) | 201401-1 | | < 0.002 | | 1 | 0.002 | REP |
| Beryllium (Be) | 201493-1 | | < 0.002 | | 1 | 0.002 | REP |
| Beryllium (Be) | 201494-1 | 0.003 | 0.002 | 72.7 | 1 | 0.002 | REP |
| Bismuth (Bi) | 201396-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Bismuth (Bi) | 201398-1 | 0.06 | 0.04 | 65.7 | 1 | 0.02 | REP |
| Bismuth (Bi) | 201399-1 | | < 0.02 | | 1 | 0.02 | REP |
| Bismuth (Bi) | 201400-1 | | < 0.02 | | 1 | 0.02 | REP |
| Bismuth (Bi) | 201401-1 | | 0.04 | | 1 | 0.02 | REP |
| Bismuth (Bi) | 201493-1 | | < 0.02 | | 1 | 0.02 | REP |
| Bismuth (Bi) | 201494-1 | | < 0.02 | | 1 | 0.02 | REP |
| Cadmium (Cd) | 201397-1 | | 63.1 | | 1 | 0.01 | REF |
| Cadmium (Cd) | 197100-1 | 0.63 | 0.68 | 108.6 | 1 | 0.01 | REP |
| Cadmium (Cd) | 198530-1 | | < 0.01 | | 1 | 0.01 | REP |
| Cadmium (Cd) | 198540-1 | | < 0.01 | | 1 | 0.01 | REP |
| Cadmium (Cd) | 198550-1 | | < 0.01 | | 1 | 0.01 | REP |
| Cadmium (Cd) | 198860-1 | | < 0.01 | | 1 | 0.01 | REP |
| Cadmium (Cd) | 198870-1 | | < 0.01 | | 1 | 0.01 | REP |
| Cadmium (Cd) | 201398-1 | 0.63 | 0.69 | 110.1 | 1 | 0.01 | REP |
| Cadmium (Cd) | 201399-1 | | < 0.01 | | 1 | 0.01 | REP |
| Cadmium (Cd) | 201400-1 | | < 0.01 | | 1 | 0.01 | REP |
| Cadmium (Cd) | 201401-1 | | < 0.01 | | 1 | 0.01 | REP |
| Cadmium (Cd) | 201493-1 | | < 0.01 | | 1 | 0.01 | REP |
| Cadmium (Cd) | 201494-1 | | < 0.01 | | 1 | 0.01 | REP |
| Chromium (Cr) | 201396-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Chromium (Cr) | 201397-1 | | 70.9 | | 1 | 0.2 | REF |
| Chromium (Cr) | 197100-1 | 0.4 | 0.4 | 111.4 | 1 | 0.2 | REP |
| Chromium (Cr) | 198530-1 | | < 0.2 | | 1 | 0.2 | REP |
| Chromium (Cr) | 198540-1 | | < 0.2 | | 1 | 0.2 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Chromium (Cr) | 198550-1 | | < 0.2 | | 1 | 0.2 | REP |
| Chromium (Cr) | 198860-1 | | < 0.2 | | 1 | 0.2 | REP |
| Chromium (Cr) | 198870-1 | | < 0.2 | | 1 | 0.2 | REP |
| Chromium (Cr) | 201398-1 | 0.3 | 1.0 | 298.6 | 1 | 0.2 | REP |
| Chromium (Cr) | 201399-1 | 0.4 | 0.4 | 93.7 | 1 | 0.2 | REP |
| Chromium (Cr) | 201400-1 | 0.4 | 0.5 | 111.9 | 1 | 0.2 | REP |
| Chromium (Cr) | 201401-1 | 0.5 | 0.5 | 92.4 | 1 | 0.2 | REP |
| Chromium (Cr) | 201493-1 | 0.4 | 0.4 | 106.1 | 1 | 0.2 | REP |
| Chromium (Cr) | 201494-1 | 0.5 | 0.5 | 104.6 | 1 | 0.2 | REP |
| Cobalt (Co) | 201396-1 | < MDL | < 0.005 | | 1 | 0.005 | BLL |
| Cobalt (Co) | 201397-1 | 62.6 | 59.7 | 95.4 | 1 | 0.005 | REF |
| Cobalt (Co) | 201398-1 | 0.156 | 0.160 | 102.6 | 1 | 0.005 | REP |
| Cobalt (Co) | 201399-1 | 0.027 | 0.028 | 103.9 | 1 | 0.005 | REP |
| Cobalt (Co) | 201400-1 | 0.012 | 0.010 | 82.0 | 1 | 0.005 | REP |
| Cobalt (Co) | 201401-1 | 0.029 | 0.031 | 106.6 | 1 | 0.005 | REP |
| Cobalt (Co) | 201493-1 | 0.017 | 0.015 | 90.0 | 1 | 0.005 | REP |
| Cobalt (Co) | 201494-1 | 0.025 | 0.024 | 96.4 | 1 | 0.005 | REP |
| Copper (Cu) | 201396-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Copper (Cu) | 201397-1 | 68.1 | 69.8 | 102.5 | 1 | 0.05 | REF |
| Copper (Cu) | 197100-1 | 432 | 441 | 102.1 | 1 | 0.05 | REP |
| Copper (Cu) | 198530-1 | 0.22 | 0.26 | 118.1 | 1 | 0.05 | REP |
| Copper (Cu) | 198540-1 | 0.24 | 0.30 | 123.1 | 1 | 0.05 | REP |
| Copper (Cu) | 198550-1 | 1.27 | 0.07 | 5.5 | 1 | 0.05 | REP |
| Copper (Cu) | 198860-1 | 0.17 | 0.17 | 102.4 | 1 | 0.05 | REP |
| Copper (Cu) | 198870-1 | 0.36 | 0.32 | 90.0 | 1 | 0.05 | REP |
| Copper (Cu) | 201398-1 | 432 | 443 | 102.6 | 1 | 0.05 | REP |
| Copper (Cu) | 201399-1 | 0.22 | 0.26 | 120.0 | 1 | 0.05 | REP |
| Copper (Cu) | 201400-1 | 0.24 | 0.30 | 123.5 | 1 | 0.05 | REP |
| Copper (Cu) | 201401-1 | 1.37 | 0.07 | 5.1 | 1 | 0.05 | REP |
| Copper (Cu) | 201493-1 | 0.17 | 0.17 | 101.2 | 1 | 0.05 | REP |
| Copper (Cu) | 201494-1 | 0.36 | 0.32 | 88.2 | 1 | 0.05 | REP |
| Lead (Pb) | 201396-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Lead (Pb) | 201397-1 | 64.9 | 62.3 | 96.0 | 1 | 0.01 | REF |
| Lead (Pb) | 201398-1 | 122 | 120 | 98.0 | 1 | 0.01 | REP |
| Lead (Pb) | 201399-1 | 0.04 | 0.05 | 133.3 | 1 | 0.01 | REP |
| Lead (Pb) | 201400-1 | 0.04 | 0.02 | 46.2 | 1 | 0.01 | REP |
| Lead (Pb) | 201401-1 | 0.02 | 0.03 | 162.5 | 1 | 0.01 | REP |
| Lead (Pb) | 201493-1 | 0.04 | 0.03 | 70.2 | 1 | 0.01 | REP |
| Lead (Pb) | 201494-1 | 0.14 | 0.14 | 102.5 | 1 | 0.01 | REP |
| Lithium (Li) | 201396-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Lithium (Li) | 201397-1 | 36.2 | 33 | 91.1 | 1 | 0.05 | REF |
| Lithium (Li) | 201398-1 | 0.07 | 0.07 | 98.1 | 1 | 0.05 | REP |
| Lithium (Li) | 201399-1 | | < 0.05 | | 1 | 0.05 | REP |
| Lithium (Li) | 201400-1 | 0.08 | 0.07 | 92.7 | 1 | 0.05 | REP |
| Lithium (Li) | 201401-1 | 0.06 | 0.07 | 122.3 | 1 | 0.05 | REP |
| Lithium (Li) | 201493-1 | 0.11 | 0.11 | 98.0 | 1 | 0.05 | REP |
| Lithium (Li) | 201494-1 | 0.06 | 0.07 | 108.2 | 1 | 0.05 | REP |
| Manganese (Mn) | 201396-1 | < MDL | < 0.005 | | 1 | 0.005 | BLL |
| Manganese (Mn) | 201397-1 | 74.5 | 76.6 | 102.9 | 1 | 0.005 | REF |
| Manganese (Mn) | 201398-1 | 4.28 | 4.26 | 99.5 | 1 | 0.005 | REP |
| Manganese (Mn) | 201399-1 | 1.27 | 1.34 | 105.4 | 1 | 0.005 | REP |
| Manganese (Mn) | 201400-1 | 1.07 | 1.05 | 98.3 | 1 | 0.005 | REP |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|-----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Manganese (Mn) | 201401-1 | 2.07 | 2.14 | 103.6 | 1 | 0.005 | REP |
| Manganese (Mn) | 201493-1 | 1.34 | 1.28 | 95.3 | 1 | 0.005 | REP |
| Manganese (Mn) | 201494-1 | 4.42 | 4.38 | 99.1 | 1 | 0.005 | REP |
| Molybdenum (Mo) | 201396-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Molybdenum (Mo) | 201397-1 | 75.5 | 79.9 | 105.8 | 1 | 0.05 | REF |
| Molybdenum (Mo) | 201398-1 | 0.47 | 0.31 | 66.2 | 1 | 0.05 | REP |
| Molybdenum (Mo) | 201399-1 | 0.17 | 0.19 | 114.4 | 1 | 0.05 | REP |
| Molybdenum (Mo) | 201400-1 | 0.40 | 0.38 | 95.5 | 1 | 0.05 | REP |
| Molybdenum (Mo) | 201401-1 | | 0.36 | | 1 | 0.05 | REP |
| Molybdenum (Mo) | 201493-1 | 0.17 | 0.18 | 103.2 | 1 | 0.05 | REP |
| Molybdenum (Mo) | 201494-1 | | < 0.05 | | 1 | 0.05 | REP |
| Nickel (Ni) | 201396-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Nickel (Ni) | 201397-1 | 58.8 | 60.7 | 103.2 | 1 | 0.05 | REF |
| Nickel (Ni) | 201398-1 | 4.54 | 4.53 | 99.7 | 1 | 0.05 | REP |
| Nickel (Ni) | 201399-1 | | < 0.05 | | 1 | 0.05 | REP |
| Nickel (Ni) | 201400-1 | 0.06 | 0.11 | 196.0 | 1 | 0.05 | REP |
| Nickel (Ni) | 201401-1 | 0.07 | 0.20 | 290.9 | 1 | 0.05 | REP |
| Nickel (Ni) | 201493-1 | 0.10 | 0.06 | 62.7 | 1 | 0.05 | REP |
| Nickel (Ni) | 201494-1 | 0.07 | 0.23 | 335.5 | 1 | 0.05 | REP |
| Selenium (Se) | 201396-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Selenium (Se) | 201397-1 | 38.8 | 41.3 | 106.3 | 1 | 0.2 | REF |
| Selenium (Se) | 201398-1 | | < 0.2 | | 1 | 0.2 | REP |
| Selenium (Se) | 201399-1 | | < 0.2 | | 1 | 0.2 | REP |
| Selenium (Se) | 201400-1 | | < 0.2 | | 1 | 0.2 | REP |
| Selenium (Se) | 201401-1 | | < 0.2 | | 1 | 0.2 | REP |
| Selenium (Se) | 201493-1 | | < 0.2 | | 1 | 0.2 | REP |
| Selenium (Se) | 201494-1 | | < 0.2 | | 1 | 0.2 | REP |
| Silver (Ag) | 201396-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Silver (Ag) | 201398-1 | 0.31 | 0.31 | 101.2 | 1 | 0.02 | REP |
| Silver (Ag) | 201399-1 | | < 0.02 | | 1 | 0.02 | REP |
| Silver (Ag) | 201400-1 | | < 0.02 | | 1 | 0.02 | REP |
| Silver (Ag) | 201401-1 | | < 0.02 | | 1 | 0.02 | REP |
| Silver (Ag) | 201493-1 | <0.02 | 0.02 | 106.0 | 1 | 0.02 | REP |
| Silver (Ag) | 201494-1 | | < 0.02 | | 1 | 0.02 | REP |
| Strontium (Sr) | 201396-1 | < MDL | 0.005 | | 1 | 0.005 | BLL |
| Strontium (Sr) | 201397-1 | 67.4 | 66.8 | 99.2 | 1 | 0.005 | REF |
| Strontium (Sr) | 201398-1 | 1.85 | 1.83 | 99.1 | 1 | 0.005 | REP |
| Strontium (Sr) | 201399-1 | 1.3 | 1.4 | 104.6 | 1 | 0.005 | REP |
| Strontium (Sr) | 201400-1 | 1.56 | 1.55 | 99.4 | 1 | 0.005 | REP |
| Strontium (Sr) | 201401-1 | 2.07 | 2.14 | 103.6 | 1 | 0.005 | REP |
| Strontium (Sr) | 201493-1 | 2.06 | 1.97 | 95.7 | 1 | 0.005 | REP |
| Strontium (Sr) | 201494-1 | 2.24 | 2.23 | 99.7 | 1 | 0.005 | REP |
| Thallium (Tl) | 201396-1 | < MDL | < 0.002 | | 1 | 0.002 | BLL |
| Thallium (Tl) | 201397-1 | 36.2 | 32.6 | 90.0 | 1 | 0.002 | REF |
| Thallium (Tl) | 201398-1 | 0.026 | 0.027 | 102.8 | 1 | 0.002 | REP |
| Thallium (Tl) | 201399-1 | | < 0.002 | | 1 | 0.002 | REP |
| Thallium (Tl) | 201400-1 | | < 0.002 | | 1 | 0.002 | REP |
| Thallium (Tl) | 201401-1 | | < 0.002 | | 1 | 0.002 | REP |
| Thallium (Tl) | 201493-1 | | < 0.002 | | 1 | 0.002 | REP |
| Thallium (Tl) | 201494-1 | | < 0.002 | | 1 | 0.002 | REP |
| Tin (Sn) | 201396-1 | < MDL | < 0.01 | | 1 | 0.01 | BLL |
| Tin (Sn) | 201397-1 | 64.5 | 66.5 | 103.2 | 1 | 0.01 | REF |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Tin (Sn) | 201398-1 | 0.69 | 0.28 | 40.6 | 1 | 0.01 | REP |
| Tin (Sn) | 201399-1 | 0.05 | 0.04 | 86.2 | 1 | 0.01 | REP |
| Tin (Sn) | 201400-1 | 0.15 | 0.10 | 67.7 | 1 | 0.01 | REP |
| Tin (Sn) | 201401-1 | 0.07 | 0.64 | 898.0 | 1 | 0.01 | REP |
| Tin (Sn) | 201493-1 | 0.02 | 0.02 | 93.7 | 1 | 0.01 | REP |
| Tin (Sn) | 201494-1 | 0.03 | 0.03 | 96.7 | 1 | 0.01 | REP |
| Uranium (U) | 201396-1 | < MDL | < 0.002 | | 1 | 0.002 | BLL |
| Uranium (U) | 201397-1 | 35.7 | 35.4 | 99.1 | 1 | 0.002 | REF |
| Uranium (U) | 201398-1 | 0.041 | 0.017 | 41.8 | 1 | 0.002 | REP |
| Uranium (U) | 201399-1 | 0.010 | 0.011 | 106.2 | 1 | 0.002 | REP |
| Uranium (U) | 201400-1 | 0.029 | 0.025 | 87.1 | 1 | 0.002 | REP |
| Uranium (U) | 201401-1 | 0.006 | 0.042 | 650.2 | 1 | 0.002 | REP |
| Uranium (U) | 201493-1 | 0.036 | 0.035 | 95.9 | 1 | 0.002 | REP |
| Uranium (U) | 201494-1 | 0.008 | 0.008 | 104.6 | 1 | 0.002 | REP |
| Vanadium (V) | 201396-1 | < MDL | < 0.05 | | 1 | 0.05 | BLL |
| Vanadium (V) | 201397-1 | 72.9 | 72.9 | 100.0 | 1 | 0.05 | REF |
| Vanadium (V) | 201398-1 | 1.40 | 1.42 | 101.2 | 1 | 0.05 | REP |
| Vanadium (V) | 201399-1 | 0.16 | 0.16 | 97.6 | 1 | 0.05 | REP |
| Vanadium (V) | 201400-1 | 0.23 | 0.25 | 109.0 | 1 | 0.05 | REP |
| Vanadium (V) | 201401-1 | 0.21 | 0.20 | 96.0 | 1 | 0.05 | REP |
| Vanadium (V) | 201493-1 | 0.18 | 0.18 | 100.8 | 1 | 0.05 | REP |
| Vanadium (V) | 201494-1 | 0.23 | 0.24 | 105.1 | 1 | 0.05 | REP |
| Zinc (Zn) | 201396-1 | < MDL | < 0.2 | | 1 | 0.2 | BLL |
| Zinc (Zn) | 197100-1 | 96 | 115 | 119.2 | 1 | 0.2 | REP |
| Zinc (Zn) | 198530-1 | 7.6 | 13.7 | 179.4 | 1 | 0.2 | REP |
| Zinc (Zn) | 198540-1 | 2.3 | 6.9 | 302.5 | 1 | 0.2 | REP |
| Zinc (Zn) | 198550-1 | 22.1 | 7.0 | 31.7 | 1 | 0.2 | REP |
| Zinc (Zn) | 198860-1 | 5.6 | 5.7 | 102.5 | 1 | 0.2 | REP |
| Zinc (Zn) | 198870-1 | 4.1 | 2.2 | 53.3 | 1 | 0.2 | REP |
| Zinc (Zn) | 201398-1 | 97 | 118 | 122.2 | 1 | 0.2 | REP |
| Zinc (Zn) | 201399-1 | 7.7 | 14.0 | 182.8 | 1 | 0.2 | REP |
| Zinc (Zn) | 201400-1 | 2.3 | 7.0 | 306.7 | 1 | 0.2 | REP |
| Zinc (Zn) | 201401-1 | 22.1 | 7.1 | 32.1 | 1 | 0.2 | REP |
| Zinc (Zn) | 201493-1 | 5.5 | 5.7 | 102.8 | 1 | 0.2 | REP |
| Zinc (Zn) | 201494-1 | 4.1 | 2.2 | 53.1 | 1 | 0.2 | REP |

***Mercury, dissolved UNITS:** ug/L

MATRIX: FWGE

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Mercury (Hg) | 200885-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Mercury (Hg) | 200887-1 | 1.51583870 | 1.58 | 104.4 | 1 | 0.02 | REF |
| Mercury (Hg) | 200889-1 | | < 0.02 | | 1 | 0.02 | REP |
| Mercury (Hg) | 200890-1 | | < 0.02 | | 1 | 0.02 | REP |
| Mercury (Hg) | 200891-1 | | < 0.02 | | 1 | 0.02 | REP |
| Mercury (Hg) | 200892-1 | | < 0.02 | | 1 | 0.02 | REP |
| Mercury (Hg) | 200893-1 | | < 0.02 | | 1 | 0.02 | REP |
| Mercury (Hg) | 200894-1 | | < 0.02 | | 1 | 0.02 | REP |
| Mercury (Hg) | 200895-1 | | < 0.02 | | 1 | 0.02 | REP |
| Mercury (Hg) | 200896-1 | | < 0.02 | | 1 | 0.02 | REP |

***Mercury, total UNITS:** ug/L

MATRIX: FWGE

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Mercury (Hg) | 198622-1 | < MDL | < 0.02 | | 1 | 0.02 | BLL |
| Mercury (Hg) | 201119-1 | < MDL | < 0.002 | | 1 | 0.002 | BLL |
| Mercury (Hg) | 198623-1 | 1.50 | 1.51 | 100.4 | 1 | 0.02 | REF |
| Mercury (Hg) | 201120-1 | 2.98705539 | 2.56 | 85.7 | 1 | 0.002 | REF |
| Mercury (Hg) | 201122-1 | 0.080 | 0.080 | 99.5 | 1 | 0.002 | REF |
| Mercury (Hg) | 201123-1 | 2.74 | 2.58 | 94.2 | 1 | 0.002 | REF |
| Mercury (Hg) | 198624-1 | | < 0.02 | | 1 | 0.02 | REP |
| Mercury (Hg) | 201124-1 | 0.009 | 0.008 | 84.9 | 1 | 0.002 | REP |
| Mercury (Hg) | 201125-1 | 0.070 | 0.068 | 96.8 | 1 | 0.002 | REP |
| Mercury (Hg) | 201126-1 | 0.003 | 0.003 | 108.4 | 1 | 0.002 | REP |
| Mercury (Hg) | 201127-1 | 0.006 | 0.006 | 102.8 | 1 | 0.002 | REP |
| Mercury (Hg) | 201129-1 | 0.004 | 0.003 | 73.8 | 1 | 0.002 | REP |
| Mercury (Hg) | 201130-1 | 0.014 | 0.014 | 101.3 | 1 | 0.002 | REP |
| Mercury (Hg) | 201131-1 | <0.002 | 0.002 | 114.3 | 1 | 0.002 | REP |

***Nitrogen, Ammonia UNITS: mg/L MATRIX: FWGE**

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|------------------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Nitrogen, Ammonia as N | 199045-1 | < MDL | < 0.002 | | 1 | 0.002 | BLE |
| Nitrogen, Ammonia as N | 199199-1 | < MDL | < 0.002 | | 1 | 0.002 | BLE |
| Nitrogen, Ammonia as N | 199047-1 | 1.40440412 | 1.4 | 100.0 | 1 | 0.002 | REF |
| Nitrogen, Ammonia as N | 199201-1 | 1.40440412 | 1.42 | 101.6 | 1 | 0.002 | REF |
| Nitrogen, Ammonia as N | 199049-1 | 0.002 | 0.003 | 128.0 | 1 | 0.002 | REP |
| Nitrogen, Ammonia as N | 199050-1 | | < 0.002 | | 1 | 0.002 | REP |
| Nitrogen, Ammonia as N | 199051-1 | 0.004 | 0.004 | 102.4 | 1 | 0.002 | REP |
| Nitrogen, Ammonia as N | 199204-1 | | < 0.002 | | 1 | 0.002 | REP |
| Nitrogen, Ammonia as N | 199206-1 | | < 0.002 | | 1 | 0.002 | REP |

***pH UNITS: pH Units MATRIX: FWGE**

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| pH | 198694-1 | 5.66705585 | 5.86 | | 1 | 0.01 | BLE |
| pH | 198689-1 | 7.38000000 | 7.37 | 99.9 | 1 | 0.01 | REF |
| pH | 198728-1 | 9.31 | 9.31 | 100.0 | 1 | 0.01 | REP |

***Phosphorus, Total UNITS: mg/L MATRIX: FWGE**

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|------------------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Phosphorus, Total as P | 199176-1 | < MDL | < 0.002 | | 1 | 0.002 | BLL |
| Phosphorus, Total as P | 199178-1 | 3.09702000 | 3.10 | 100.1 | 25 | 0.05 | REF |
| Phosphorus, Total as P | 199179-1 | 0.008 | 0.008 | 100.0 | 1 | 0.002 | REP |

***Residue, Filterable UNITS: mg/L MATRIX: FWGE**

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|------------------------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Solids, Total Dissolved (FR) | 200147-1 | < MDL | < 10 | | 1 | 10 | BLE |
| Solids, Total Dissolved (FR) | 200157-1 | 418.458168 | 405 | 87.5 | 1 | 10 | REF |
| Solids, Total Dissolved (FR) | 200391-1 | 4,601 | 4620 | 100.4 | 1 | 10 | REP |
| Solids, Total Dissolved (FR) | 200392-1 | | < 10 | | 1 | 10 | REP |

***Residue, Nonfilt. UNITS: mg/L MATRIX: FWGE**

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|-------------------------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Solids, Total Suspended (NFR) | 200361-1 | < MDL | < 5 | | 1 | 5 | BLE |
| Solids, Total Suspended (NFR) | 200379-1 | 97.1008200 | 100 | 105.2 | 1 | 5 | REF |
| Solids, Total Suspended (NFR) | 200381-1 | | < 5 | | 1 | 5 | REP |
| Solids, Total Suspended (NFR) | 200382-1 | 34 | 39 | 114.7 | 1 | 5 | REP |

***SpecificConductance UNITS: uS/cm MATRIX: FWGE**

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|--------------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Conductivity (25C) | 198696-1 | < MDL | < 2 | | 1 | 2 | BLE |
| Conductivity (25C) | 198698-1 | 12928.3082 | 12900 | 99.9 | 1 | 2 | REF |
| Conductivity (25C) | 198700-1 | 716 | 710 | 99.2 | 1 | 2 | REF |
| Conductivity (25C) | 198712-1 | 445.353684 | 444 | 100.7 | 1 | 2 | REF |
| Conductivity (25C) | 198725-1 | 69 | 69 | 100.0 | 1 | 2 | REP |

***Turbidity UNITS: NTU MATRIX: FWGE**

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|----------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Turbidity | 198413-1 | < MDL | < 0.05 | | 1 | 0.05 | BLE |
| Turbidity | 198414-1 | 4.22480000 | 4.46 | 106.2 | 1 | 0.05 | REF |
| Turbidity | 198415-1 | 0.21 | 0.24 | 112.6 | 1 | 0.05 | REP |
| Turbidity | 198416-1 | 1.35 | 1.42 | 105.2 | 1 | 0.05 | REP |

Hardness, Diss. CaMg UNITS: mg CaCO3 / L MATRIX: FWGE

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|------------------------------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Hardness, Dissolved Calcium+Magnes | 199722-1 | | < 0.4 | | 1 | 0.4 | BLE |
| Hardness, Dissolved Calcium+Magnes | 201836-1 | | < 0.4 | | 1 | 0.4 | BLE |
| Hardness, Dissolved Calcium+Magnes | 202302-1 | | < 0.4 | | 1 | 0.4 | BLE |
| Hardness, Dissolved Calcium+Magnes | 199726-1 | | 46.6 | | 1 | 0.4 | REP |
| Hardness, Dissolved Calcium+Magnes | 199727-1 | | 58.2 | | 1 | 0.4 | REP |
| Hardness, Dissolved Calcium+Magnes | 199728-1 | | 59.4 | | 1 | 0.4 | REP |
| Hardness, Dissolved Calcium+Magnes | 199729-1 | | 152 | | 1 | 0.4 | REP |
| Hardness, Dissolved Calcium+Magnes | 199730-1 | | 116 | | 1 | 0.4 | REP |
| Hardness, Dissolved Calcium+Magnes | 199731-1 | | 634 | | 1 | 0.4 | REP |
| Hardness, Dissolved Calcium+Magnes | 199732-1 | | 142 | | 1 | 0.4 | REP |
| Hardness, Dissolved Calcium+Magnes | 201840-1 | | 118 | | 1 | 0.4 | REP |
| Hardness, Dissolved Calcium+Magnes | 201841-1 | | 76.5 | | 1 | 0.4 | REP |
| Hardness, Dissolved Calcium+Magnes | 201842-1 | | < 0.4 | | 1 | 0.4 | REP |
| Hardness, Dissolved Calcium+Magnes | 201843-1 | | 107 | | 1 | 0.4 | REP |
| Hardness, Dissolved Calcium+Magnes | 201844-1 | | 106 | | 1 | 0.4 | REP |
| Hardness, Dissolved Calcium+Magnes | 201845-1 | | 37.7 | | 1 | 0.4 | REP |
| Hardness, Dissolved Calcium+Magnes | 202306-1 | | 1.3 | | 1 | 0.4 | REP |
| Hardness, Dissolved Calcium+Magnes | 202307-1 | | 81.4 | | 1 | 0.4 | REP |
| Hardness, Dissolved Calcium+Magnes | 202308-1 | | 135 | | 1 | 0.4 | REP |
| Hardness, Dissolved Calcium+Magnes | 202309-1 | | 77.9 | | 1 | 0.4 | REP |
| Hardness, Dissolved Calcium+Magnes | 202310-1 | | 74.7 | | 1 | 0.4 | REP |
| Hardness, Dissolved Calcium+Magnes | 202311-1 | | 104 | | 1 | 0.4 | REP |

Hardness, Diss.Total UNITS: mg CaCO3 / L MATRIX: FWGE

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|-----------------------------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Hardness, Dissolved Total - calc. | 199722-1 | | < 0.4 | | 1 | 0.4 | BLE |
| Hardness, Dissolved Total - calc. | 201836-1 | | < 0.4 | | 1 | 0.4 | BLE |

QC Information:

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|-----------------------------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Hardness, Dissolved Total - calc. | 202302-1 | | < 0.4 | | 1 | 0.4 | BLE |
| Hardness, Dissolved Total - calc. | 199726-1 | | 46.7 | | 1 | 0.4 | REP |
| Hardness, Dissolved Total - calc. | 199727-1 | | 58.3 | | 1 | 0.4 | REP |
| Hardness, Dissolved Total - calc. | 199728-1 | | 59.6 | | 1 | 0.4 | REP |
| Hardness, Dissolved Total - calc. | 199729-1 | | 152 | | 1 | 0.4 | REP |
| Hardness, Dissolved Total - calc. | 199730-1 | | 117 | | 1 | 0.4 | REP |
| Hardness, Dissolved Total - calc. | 199731-1 | | 638 | | 1 | 0.4 | REP |
| Hardness, Dissolved Total - calc. | 199732-1 | | 143 | | 1 | 0.4 | REP |
| Hardness, Dissolved Total - calc. | 201840-1 | | 119 | | 1 | 0.4 | REP |
| Hardness, Dissolved Total - calc. | 201841-1 | | 77.0 | | 1 | 0.4 | REP |
| Hardness, Dissolved Total - calc. | 201842-1 | | < 0.4 | | 1 | 0.4 | REP |
| Hardness, Dissolved Total - calc. | 201843-1 | | 107 | | 1 | 0.4 | REP |
| Hardness, Dissolved Total - calc. | 201844-1 | | 108 | | 1 | 0.4 | REP |
| Hardness, Dissolved Total - calc. | 201845-1 | | 38.3 | | 1 | 0.4 | REP |
| Hardness, Dissolved Total - calc. | 202306-1 | | 3.1 | | 1 | 0.4 | REP |
| Hardness, Dissolved Total - calc. | 202307-1 | | 92.8 | | 1 | 0.4 | REP |
| Hardness, Dissolved Total - calc. | 202308-1 | | 135 | | 1 | 0.4 | REP |
| Hardness, Dissolved Total - calc. | 202309-1 | | 78.0 | | 1 | 0.4 | REP |
| Hardness, Dissolved Total - calc. | 202310-1 | | 75.0 | | 1 | 0.4 | REP |
| Hardness, Dissolved Total - calc. | 202311-1 | | 104 | | 1 | 0.4 | REP |

Residue, Volatile(sed) UNITS: mg/Kg MATRIX: SOSE

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|------------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Solids, Fixed | 202079-1 | < MDL | < 500 | | 1 | 500 | BLE |
| Solids, Fixed | 202080-1 | 934,079 | 936000 | 100.2 | 1 | 500 | REP |
| Solids, Fixed | 202081-1 | 929,724 | 931000 | 100.1 | 1 | 500 | REP |
| Solids, Fixed | 202082-1 | 975,504 | 972000 | 99.6 | 1 | 500 | REP |
| Solids, Volatile | 202079-1 | < MDL | < 500 | | 1 | 500 | BLE |
| Solids, Volatile | 202080-1 | 65,422 | 63500 | 97.1 | 1 | 500 | REP |
| Solids, Volatile | 202081-1 | 70,775 | 69500 | 98.2 | 1 | 500 | REP |
| Solids, Volatile | 202082-1 | 24,390 | 27900 | 114.4 | 1 | 500 | REP |

TOC UNITS: mg/L MATRIX: FWGE

| <u>ANALYTE</u> | <u>ALIQ#</u> | <u>EXPECTED</u> | <u>RESULT</u> | <u>% REC</u> | <u>DIL'N</u> | <u>MDL</u> | <u>QC TYPE</u> |
|-----------------------|--------------|-----------------|---------------|--------------|--------------|------------|----------------|
| Carbon, Total Organic | 198151-1 | < MDL | < 0.5 | | 1 | 0.5 | BLE |
| Carbon, Total Organic | 198156-1 | 9.98992592 | 10.2 | 101.8 | 1 | 0.5 | REF |
| Carbon, Total Organic | 198157-1 | 9.87821212 | 9.7 | 98.6 | 1 | 0.5 | REF |
| Carbon, Total Organic | 198644-1 | 0.9 | 0.9 | 96.6 | 1 | 0.5 | REP |
| Carbon, Total Organic | 198645-1 | | < 0.5 | | 1 | 0.5 | REP |
| Carbon, Total Organic | 198647-1 | 5.0 | 5.4 | 89.8 | 1 | 0.5 | SPK |

Note: All QC information is batch associated. Duplicate analysis are not necessarily those of this report. Percent recovery for duplicate analysis represents the percent recovery of REP2 as compared to REP1 of a sample duplicate.

BLE - Blank, Equipment

REA - Replicate Spike, Known Addition

RRF - Replicate Reference Material

RTS - Replicate Test Sample

TST - Test Sample 1=Present 2=Absent

BLL - Blank, Method

REF - Reference Material

REK - Replicate, Spike

SPA - Spike, Known Addition

MDL - Method Detection Limit

BLX - Blank, Extraction

REG - Regular Sample

REP - Replicate, Regular

SPK - Spike



Environment
Canada

Environnement
Canada

Billing Estimate

PESC FOLDER # : 200900878

Invoice: 106637

----- Not an Invoice Do not Pay -----

EP YUKON ENV ASSESSMENT

Location: W23101229

| <u>TEST DESCRIPTION</u> | <u>MATRIX</u> | <u>QTY</u> | <u>UNITPRICE</u> | <u>PENALTY</u> | <u>SURCHARGE</u> | <u>NETPRICE</u> |
|---|---------------|------------|------------------|----------------|------------------|-------------------|
| PESC - Inorganics | | | | | | |
| *Acidity, Tot.&pH4.5 | FWGE | 6 | \$12.00 | \$0.00 | \$0.00 | \$72.00 |
| *Alkalinity, TotpH4.5 | FWGE | 6 | \$12.00 | \$0.00 | \$0.00 | \$72.00 |
| *Color, True | FWGE | 6 | \$9.00 | \$0.00 | \$0.00 | \$54.00 |
| *ICA (Cl F SO4) | FWGE | 5 | \$15.00 | \$0.00 | \$0.00 | \$75.00 |
| *ICA (NO2 NO3 Br) | FWGE | 6 | \$15.00 | \$0.00 | \$0.00 | \$90.00 |
| *ICP, Total blockdig | SOSE | 16 | \$52.50 | \$0.00 | \$0.00 | \$840.00 |
| *ICPMS, Dissolved | FWGE | 6 | \$60.00 | \$0.00 | \$0.00 | \$360.00 |
| *ICPMS, Tot.blockdig | SOSE | 18 | | \$0.00 | | |
| *ICPMS, Tot.blockdig | SOSE | 90 | \$10.50 | \$0.00 | \$0.00 | \$945.00 |
| *ICPMS, Total | FWGE | 6 | | \$0.00 | | |
| *ICPMS, Total | FWGE | 30 | \$18.00 | \$0.00 | \$0.00 | \$540.00 |
| *Mercury, dissolved | FWGE | 6 | \$40.50 | \$0.00 | \$0.00 | \$243.00 |
| *Mercury, total | FWGE | 6 | \$40.50 | \$0.00 | \$0.00 | \$243.00 |
| *Mercury, total | SOSE | 18 | \$52.50 | \$0.00 | \$0.00 | \$945.00 |
| *Nitrogen, Ammonia | FWGE | 6 | \$13.50 | \$0.00 | \$0.00 | \$81.00 |
| *pH | FWGE | 6 | \$4.50 | \$0.00 | \$0.00 | \$27.00 |
| *Phosphorus, Total | FWGE | 4 | \$16.50 | \$0.00 | \$0.00 | \$66.00 |
| *Residue, Filterable | FWGE | 2 | \$18.00 | \$0.00 | \$0.00 | \$36.00 |
| *Residue, Nonfilt. | FWGE | 2 | \$18.00 | \$0.00 | \$0.00 | \$36.00 |
| *SpecificConductance | FWGE | 6 | \$4.50 | \$0.00 | \$0.00 | \$27.00 |
| *Turbidity | FWGE | 6 | \$9.00 | \$0.00 | \$0.00 | \$54.00 |
| Hardness, Diss. CaMg | FWGE | 6 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Hardness, Diss.Total | FWGE | 6 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Residue, Volatile(sed) | SOSE | 18 | \$9.00 | \$0.00 | \$0.00 | \$162.00 |
| PESC - Inorganics Charges | | | | | | \$4,968.00 |
| PESC - Organics | | | | | | |
| TOC | FWGE | 6 | \$30.00 | \$0.00 | \$0.00 | \$180.00 |
| PESC - Organics Charges | | | | | | \$180.00 |
| Cantest Ltd. | | | | | | |
| Carbon Total Organic | SOSE | 18 | \$25.00 | \$0.00 | \$3.75 | \$517.50 |
| Cantest Ltd. Charges | | | | | | \$517.50 |
| Total Charged To: 2561-101 EP YUKON ENV ASSESSMENT | | | | | | \$5,665.50 |

Penalty - A charge that removed from the price due to a test performed after a certian penalty time.

Surcharge - A service charge that is applied when tests are performed by a contract Lab.

APPENDIX B

APPENDIX B SPECIATION ANALYTICAL CERTIFICATES

Attention: Nicole Jacques
Company: EBA Engineering Consultants Ltd.
Calcite Business Centre
Unit 6
151 Industrial Road
Whitehorse Yukon Territory
Canada Y1A2V3

CANTEST Ref: BJ25
Client Reference: Water
Date: 14-Aug-2009
From: Jonathan Le Huray
Fax: 1 (867) 668-4349

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Dear Nicole Jacques:

Please find the following Liquid Chromatography ICP-MS [LC-ICPMS] data for the Water samples you submitted for analysis. Samples were received on 31-Jul-2009. This report applies only to the sample IDs listed with the attached test results.

A] Sample Preparation:

For arsenic speciation analysis, a 0.5mL aliquot of each sample was transferred to an autosampler vial and 0.2mL of methanol and 0.3mL of distilled deionised water was added.

For chromium and selenium speciation, a 1 ml aliquot of each of sample was heated in a water bath at 60°C for 30 mins in the presence of EDTA to convert Cr³⁺ to an anionic Cr-EDTA complex. After cooling, the sample was transferred to an autosampler vial for analysis.

B] Sample analysis:

All samples were analysed using a Dionex DX500 Chromatography system coupled to a Thermo X-Series ICPMS. The chromatographic mode employed for both analytical methods was anion exchange chromatography, using a carbonate mobile phase for selenium and chromium speciation, and a TMAH/hydroxide/carbonate mobile phase for arsenic speciation.

Following LC separation, the column eluant was nebulized into a fine aerosol and carried by an Argon gas stream into the plasma region of the ICPMS, where it was then ionized prior to mass spectrometer analysis.

If you have any questions or concerns regarding the data included in this report please contact one of the following individuals:

Mercedes Stuart
Lab Support Services Supervisor
MStuart@cantest.com

Tim Carter
Specialty Services Lab Supervisor
TCarter@cantest.com

Wilson Chan
Specialty Services Lab Manager
WChan@cantest.com

Yours sincerely,



Jonathan Le Huray
R&D Supervisor

Arsenic, Chromium, and Selenium Speciation Analysis


 Client: EBA Engineering Consultants Ltd.
 Attention: Nicole Jacques

All concentration units are in ng/mL

| Cantest ID | Sample ID | Arsenic as As3 | Arsenic as As5 | Arsenic as DMA | Arsenic as MMA | Chromium as Cr(III) | Chromium as Cr(VI) | Selenium as Se(IV) | Selenium as Se(VI) |
|------------|------------------|----------------|----------------|----------------|----------------|---------------------|--------------------|--------------------|--------------------|
| BJ2501 | Site 01 | <1 | <1 | <1 | <1 | <1 | <1 | <2 | <5 |
| BJ2502 | Site 02 | <1 | <1 | <1 | <1 | 1.2 | <1 | <2 | <5 |
| BJ2502sp | Site 02 (spiked) | 74.5 | 24.4 | 64.8 | 44.3 | 22.3 | 20.1 | 23.0 | 27.6 |
| BJ2503 | Site 03 | 2.9 | 1.6 | <1 | <1 | <1 | <1 | <2 | <5 |
| BJ2504 | Site 04 | <1 | <1 | <1 | <1 | <1 | <1 | <2 | <5 |
| BJ2505 | Site 05 | <1 | <1 | <1 | <1 | <1 | <1 | <2 | <5 |
| BJ2506 | Site 06 | <1 | <1 | <1 | <1 | <1 | <1 | <2 | <5 |

Notes: Sample "BJ2502sp" was spiked at a nominal concentration of 25 ng/mL for each chromium and selenium species, and at 50 ng/mL for each arsenic species.

The lower limit of quantitation was 1 ng/mL for each Arsenic species, 1 ng/mL for each Chromium species, 2 ng/mL for Se(IV), and 5 ng/mL for Se(VI).

 Signed: 

Date: 14 AUG 2009

APPENDIX C

APPENDIX C EBA GENERAL CONDITIONS



GEO-ENVIRONMENTAL REPORT – GENERAL CONDITIONS

This report incorporates and is subject to these “General Conditions”.

1.0 USE OF REPORT AND OWNERSHIP

This report pertains to a specific site, a specific development, and a specific scope of work. It is not applicable to any other sites, nor should it be relied upon for types of development other than those to which it refers. Any variation from the site or proposed development would necessitate a supplementary investigation and assessment.

This report and the assessments and recommendations contained in it are intended for the sole use of EBA’s client. EBA does not accept any responsibility for the accuracy of any of the data, the analysis or the recommendations contained or referenced in the report when the report is used or relied upon by any party other than EBA’s Client unless otherwise authorized in writing by EBA. Any unauthorized use of the report is at the sole risk of the user.

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Where EBA submits both electronic file and hard copy versions of reports, drawings and other project-related documents and deliverables (collectively termed EBA’s instruments of professional service), only the signed and/or sealed versions shall be considered final and legally binding. The original signed and/or sealed version archived by EBA shall be deemed to be the original for the Project.

Both electronic file and hard copy versions of EBA’s instruments of professional service shall not, under any circumstances, no matter who owns or uses them, be altered by any party except EBA. The Client warrants that EBA’s instruments of professional service will be used only and exactly as submitted by EBA.

Electronic files submitted by EBA have been prepared and submitted using specific software and hardware systems. EBA makes no representation about the compatibility of these files with the Client’s current or future software and hardware systems.

3.0 NOTIFICATION OF AUTHORITIES

In certain instances, the discovery of hazardous substances or conditions and materials may require that regulatory agencies and other persons be informed and the client agrees that notification to such bodies or persons as required may be done by EBA in its reasonably exercised discretion.

4.0 INFORMATION PROVIDED TO EBA BY OTHERS

During the performance of the work and the preparation of the report, EBA may rely on information provided by persons other than the Client. While EBA endeavours to verify the accuracy of such information when instructed to do so by the Client, EBA accepts no responsibility for the accuracy or the reliability of such information which may affect the report.